



1
00:00:03,100 --> 00:00:10,870

[Music]

2
00:00:15,190 --> 00:00:13,030

good morning from the international

3
00:00:17,910 --> 00:00:15,200

space station flight control room at the

4
00:00:20,710 --> 00:00:17,920

johnson space center in houston texas

5
00:00:22,550 --> 00:00:20,720

i'm nasa sandra jones this morning we're

6
00:00:24,710 --> 00:00:22,560

bringing you live coverage of a

7
00:00:27,429 --> 00:00:24,720

spacewalk to install brackets in

8
00:00:31,029 --> 00:00:27,439

preparation for solar array upgrades to

9
00:00:35,510 --> 00:00:33,350

today's spacewalk will be the first ever

10
00:00:37,910 --> 00:00:35,520

involving two international partner crew

11
00:00:39,830 --> 00:00:37,920

members out of the quest airlock

12
00:00:42,150 --> 00:00:39,840

you're currently looking live into the

13
00:00:45,750 --> 00:00:42,160

quest airlock of the international space

14

00:00:49,670 --> 00:00:47,830

happy complete we are going to work step

15

00:00:51,430 --> 00:00:49,680

74 5

16

00:00:55,750 --> 00:00:51,440

and 76 and we'll give you a call back

17

00:00:55,760 --> 00:01:01,029

i'll be standing by waiting for 77.

18

00:01:05,750 --> 00:01:03,110

in the quest airlock at this time is

19

00:01:08,469 --> 00:01:05,760

nasa astronaut megan macarthur and mark

20

00:01:10,789 --> 00:01:08,479

vande high posing for a photo as you see

21

00:01:12,789 --> 00:01:10,799

here they just closed the hatch to the

22

00:01:15,350 --> 00:01:12,799

crew lock where japan aerospace

23

00:01:17,270 --> 00:01:15,360

exploration agency astronaut and current

24

00:01:19,429 --> 00:01:17,280

commander of the space station aki

25

00:01:21,030 --> 00:01:19,439

hoshide is suited up

26
00:01:23,749 --> 00:01:21,040
and in his spacesuit he'll be in the

27
00:01:26,950 --> 00:01:23,759
spacesuit with the red stripes today

28
00:01:29,270 --> 00:01:26,960
also in that airlock with him is issa or

29
00:01:31,190 --> 00:01:29,280
european space agency astronaut tomorrow

30
00:01:36,550 --> 00:01:31,200
pasquee he'll be wearing the spacesuit

31
00:01:41,109 --> 00:01:38,469
this will be aki hoshide's fourth

32
00:01:44,149 --> 00:01:41,119
spacewalk of his career and this will be

33
00:01:46,069 --> 00:01:44,159
pesquay's sixth spacewalk of his career

34
00:01:48,310 --> 00:01:46,079
the duo arrived to the space station

35
00:01:53,670 --> 00:01:48,320
together on the spacex crew dragon

36
00:01:57,990 --> 00:01:55,590
during today's spacewalk kushide and

37
00:02:00,870 --> 00:01:58,000
pasquay will complete tasks to build and

38
00:02:03,030 --> 00:02:00,880

install a mounting bracket on the 4a

39

00:02:05,990 --> 00:02:03,040

power channel in preparation for the

40

00:02:08,150 --> 00:02:06,000

next delivery of iss rollout solar

41

00:02:09,589 --> 00:02:08,160

arrays or irosas

42

00:02:11,110 --> 00:02:09,599

additionally they will remove and

43

00:02:14,150 --> 00:02:11,120

replace the floating potential

44

00:02:15,830 --> 00:02:14,160

measurement unit or fpmu ensuring the

45

00:02:40,869 --> 00:02:15,840

device can provide measurements for

46

00:02:49,810 --> 00:02:43,750

airlock houston on one eb crew you are

47

00:02:49,820 --> 00:02:57,430

[Applause]

48

00:03:04,149 --> 00:02:59,670

earlier this morning the crew

49

00:03:07,830 --> 00:03:05,030

happy thanks

50

00:03:10,070 --> 00:03:07,840

[Applause]

51
00:03:12,390 --> 00:03:10,080
earlier this morning the crew did work

52
00:03:14,470 --> 00:03:12,400
through procedures to break pre-breathe

53
00:03:21,640 --> 00:03:14,480
oxygen to purge nitrogen from their

54
00:03:29,830 --> 00:03:25,240
[Music]

55
00:03:33,970 --> 00:03:31,810
80

56
00:03:42,710 --> 00:03:33,980
[Applause]

57
00:03:48,070 --> 00:03:45,110
additionally megan macarthur and mark

58
00:03:50,949 --> 00:03:48,080
vande high helped to install the safers

59
00:03:53,509 --> 00:03:50,959
onto the space walking duo the safers

60
00:03:54,470 --> 00:03:53,519
are essentially the space jet back jet

61
00:03:56,390 --> 00:03:54,480
pack

62
00:03:58,710 --> 00:03:56,400
that can help aid a crew member should

63
00:04:17,990 --> 00:03:58,720

they become untethered though this is an

64

00:04:18,000 --> 00:04:32,629

ugh

65

00:04:38,550 --> 00:04:35,430

jaxa astronaut aki hoshide and european

66

00:04:40,629 --> 00:04:38,560

space agency astronaut thomas pesquet

67

00:04:43,430 --> 00:04:40,639

are working through procedures with the

68

00:05:09,430 --> 00:04:43,440

ground to begin depressurization here

69

00:05:09,440 --> 00:05:15,110

here we are go for depressed

70

00:05:19,590 --> 00:05:16,790

so tomorrow we're on the crew lock c

71

00:05:21,909 --> 00:05:19,600

press card you can switch depress pump

72

00:05:23,510 --> 00:05:21,919

power to on

73

00:05:25,830 --> 00:05:23,520

copy pulling you're making handle the

74

00:05:29,270 --> 00:05:25,840

true love depressed your card is taking

75

00:05:31,270 --> 00:05:29,280

the depressed pump power through on

76
00:05:37,270 --> 00:05:31,280
okay we'll take 10 seconds for complete

77
00:05:40,629 --> 00:05:38,550
and you're going to take the depressed

78
00:05:43,189 --> 00:05:40,639
pump man iso valve to open you can

79
00:05:45,270 --> 00:05:43,199
expect an alert tone

80
00:05:46,550 --> 00:05:45,280
press

81
00:05:49,110 --> 00:05:46,560
open

82
00:05:50,100 --> 00:05:49,120
a monitor your cp gauge stays less than

83
00:05:51,590 --> 00:05:50,110
5.5

84
00:06:15,029 --> 00:05:51,600
[Applause]

85
00:06:17,430 --> 00:06:15,039
and you just heard the go from teams

86
00:06:18,189 --> 00:06:17,440
here in houston for depressurization to

87
00:06:20,309 --> 00:06:18,199
begin

88
00:06:23,189 --> 00:06:20,319

depressurization will take the crew lock

89

00:06:25,110 --> 00:06:23,199

from its current 14.7 pounds per square

90

00:06:26,309 --> 00:06:25,120

inch of pressure all the way down to

91

00:06:27,909 --> 00:06:26,319

vacuum

92

00:06:29,670 --> 00:06:27,919

before that happens though the teams

93

00:06:31,749 --> 00:06:29,680

will pause at about five pounds per

94

00:06:33,990 --> 00:06:31,759

square inch to complete final suit

95

00:06:35,430 --> 00:06:34,000

checks and contracts and then the crew

96

00:06:37,749 --> 00:06:35,440

will be given the go to place their

97

00:06:39,670 --> 00:06:37,759

suits on internal battery power which

98

00:06:40,870 --> 00:06:39,680

will mark the official start of today's

99

00:06:43,029 --> 00:06:40,880

spacewalk

100

00:06:59,990 --> 00:06:43,039

the crew is currently running about one

101
00:07:00,000 --> 00:07:08,469
uh

102
00:07:08,479 --> 00:07:16,570
interesting film i want to move

103
00:07:31,029 --> 00:07:26,650
[Applause]

104
00:07:36,629 --> 00:07:33,510
pressure inside the crew lock now at

105
00:07:39,029 --> 00:07:36,639
about 11.5 pounds per square inch down

106
00:07:45,310 --> 00:07:39,039
from the 14.6 pounds per square inch

107
00:07:48,970 --> 00:07:47,670
[Music]

108
00:07:57,110 --> 00:07:48,980
[Applause]

109
00:08:01,430 --> 00:07:59,909
following my shoot feeling at 4.9 on

110
00:08:04,869 --> 00:08:01,440
this gp gauge

111
00:08:05,670 --> 00:08:04,879
happy 50 gauge 2p gauge at 4.9

112
00:08:09,270 --> 00:08:05,680
right

113
00:08:26,890 --> 00:08:12,130

i copy 4.9 or ev1

114

00:08:39,430 --> 00:08:26,900

[Applause]

115

00:08:41,430 --> 00:08:39,440

and aki couldn't quite hear what you

116

00:08:42,230 --> 00:08:41,440

said something about your relief valve

117

00:08:44,310 --> 00:08:42,240

yeah

118

00:08:46,630 --> 00:08:44,320

you know we were hearing the move sound

119

00:08:49,269 --> 00:08:46,640

but well i think it's just the release

120

00:08:50,389 --> 00:08:49,279

now opening up a bigger pressure on the

121

00:08:53,720 --> 00:08:50,399

fly

122

00:08:59,829 --> 00:08:53,730

i copy that

123

00:09:02,230 --> 00:08:59,839

[Applause]

124

00:09:04,790 --> 00:09:02,240

now under 10 pounds of pressure per

125

00:09:06,389 --> 00:09:04,800

square inch in the crew lock once five

126

00:09:08,630 --> 00:09:06,399

pounds per square inch is reached

127

00:09:10,790 --> 00:09:08,640

depressurization will be paused so that

128

00:09:12,389 --> 00:09:10,800

a systems check can take place

129

00:09:14,550 --> 00:09:12,399

once that's complete

130

00:09:16,790 --> 00:09:14,560

depressurization will resume in order to

131

00:09:18,710 --> 00:09:16,800

get the airlock down to vacuum before

132

00:09:56,040 --> 00:09:18,720

our spacewalking duo can head out the

133

00:10:52,870 --> 00:10:15,630

[Applause]

134

00:10:57,030 --> 00:10:55,110

just under five minutes until the crew

135

00:11:11,790 --> 00:10:57,040

is at five until the crew lock is at

136

00:11:15,509 --> 00:11:13,030

[Music]

137

00:11:22,410 --> 00:11:15,519

i'll reveal those pieces

138

00:11:22,420 --> 00:11:41,590

[Applause]

139

00:11:49,350 --> 00:11:43,430

and tomorrow you can expect an alert

140

00:11:52,230 --> 00:11:50,550

and tomorrow i'll give you another

141

00:11:54,310 --> 00:11:52,240

reminder but when the crew lock is at

142

00:11:57,269 --> 00:11:54,320

5.0 you're going to take the depressed

143

00:11:59,510 --> 00:11:57,279

pump manito valve to close

144

00:12:01,930 --> 00:11:59,520

5.000

145

00:12:17,509 --> 00:12:01,940

[Music]

146

00:12:19,910 --> 00:12:17,519

[Applause]

147

00:12:21,750 --> 00:12:19,920

nasa astronauts megan macarthur on the

148

00:12:23,870 --> 00:12:21,760

right and mark vande high on the left of

149

00:12:26,389 --> 00:12:23,880

your screen screen continuing to monitor

150

00:12:28,629 --> 00:12:26,399

depressurization of the quest airlock

151
00:12:30,550 --> 00:12:28,639
where hoshide and pesquet are suited up

152
00:12:32,310 --> 00:12:30,560
and undergoing preparations to

153
00:12:39,470 --> 00:12:32,320
eventually venture outside the space

154
00:12:44,550 --> 00:12:41,829
depressurization is currently underway

155
00:12:46,629 --> 00:12:44,560
we're sitting at about 6.84

156
00:12:48,550 --> 00:12:46,639
pounds per square inch of pressure

157
00:12:50,389 --> 00:12:48,560
waiting until we get to 5 pounds per

158
00:12:54,310 --> 00:12:50,399
square inch

159
00:13:02,870 --> 00:12:54,320
where it's leak and calm checks will

160
00:13:07,110 --> 00:13:05,030
following this depressurization will

161
00:13:08,230 --> 00:13:07,120
resume and continue all the way down to

162
00:13:11,990 --> 00:13:08,240
vacuum

163
00:13:13,990 --> 00:13:12,000

spacewalkers will complete some

164

00:13:16,710 --> 00:13:14,000

additional checks before placing their

165

00:13:18,629 --> 00:13:16,720

spacesuit on internal battery power

166

00:13:27,430 --> 00:13:18,639

officially marking the start of today's

167

00:13:31,910 --> 00:13:29,910

a u.s spacewalk start and end time is

168

00:13:34,069 --> 00:13:31,920

measured from the time the crew places

169

00:13:36,430 --> 00:13:34,079

their spacesuit on internal battery

170

00:13:39,110 --> 00:13:36,440

power all the way up until the time

171

00:13:41,030 --> 00:13:39,120

repressurization occurs and the crew is

172

00:13:43,110 --> 00:13:41,040

back inside the crew lock following

173

00:13:43,829 --> 00:13:43,120

completion of their spacewalking tasks

174

00:13:57,170 --> 00:13:43,839

for

175

00:14:02,150 --> 00:13:59,910

[Applause]

176

00:14:03,670 --> 00:14:02,160

got an alert zone and at five tomorrow

177

00:14:05,829 --> 00:14:03,680

you're going to take the depressed pump

178

00:14:08,150 --> 00:14:05,839

man iso valve to close

179

00:14:09,990 --> 00:14:08,160

correctly should i go by my uh dcm or

180

00:14:12,230 --> 00:14:10,000

high keys i think i can use a bit more

181

00:14:16,470 --> 00:14:14,710

minus 0.2 off i think

182

00:14:18,629 --> 00:14:16,480

yes that's correct yours is off and we

183

00:14:21,189 --> 00:14:18,639

can also uh read it to you from here

184

00:14:22,470 --> 00:14:21,199

okay i have all of these five decimal

185

00:14:24,550 --> 00:14:22,480

minor right now

186

00:14:32,069 --> 00:14:24,560

okay

187

00:14:32,079 --> 00:15:11,189

thank you

188

00:15:16,470 --> 00:15:13,350

coming up on five pounds per square inch

189

00:15:18,710 --> 00:15:16,480

of pressure now as a reminder the teams

190

00:15:38,470 --> 00:15:18,720

will pause at five pounds for systems

191

00:15:38,480 --> 00:15:51,430

copy

192

00:15:51,440 --> 00:16:06,790

decimal one

193

00:16:14,870 --> 00:16:09,030

expect an alert tone i'm sure

194

00:16:19,509 --> 00:16:16,790

okay i understand the depressed pump man

195

00:16:21,350 --> 00:16:19,519

is now closed you can switch display to

196

00:16:24,069 --> 00:16:21,360

static until you get leak check

197

00:16:25,670 --> 00:16:24,079

displayed then display to yes hold for

198

00:16:31,749 --> 00:16:25,680

two seconds and then follow the

199

00:16:35,990 --> 00:16:33,990

the crew lock is now at five pounds per

200

00:16:38,310 --> 00:16:36,000

square inch and you do hear nasa

201
00:17:34,310 --> 00:16:38,320
astronaut megan mcarthur walking the

202
00:17:44,950 --> 00:17:37,590
[Music]

203
00:17:50,230 --> 00:17:47,990
o2 actuator is eva come on you as well

204
00:17:55,990 --> 00:17:50,240
we're working on that yeah

205
00:18:04,440 --> 00:17:59,850
copy edu correct

206
00:18:09,430 --> 00:18:07,350
[Music]

207
00:18:11,590 --> 00:18:09,440
actuator is eva so the next step

208
00:18:14,710 --> 00:18:11,600
tomorrow is to take the depress pump man

209
00:18:19,830 --> 00:18:14,720
iso valve to open expect an alert tone

210
00:18:24,390 --> 00:18:22,950
and aki take the ev hat mpev

211
00:18:26,870 --> 00:18:24,400
to open

212
00:18:40,150 --> 00:18:26,880
the hatch of the

213
00:18:40,160 --> 00:18:51,029

is open

214

00:18:56,230 --> 00:18:53,270

and we just heard a confirmation that

215

00:18:58,789 --> 00:18:56,240

depressurization has resumed megan

216

00:19:01,270 --> 00:18:58,799

mcarthur walked our spacewalking duo of

217

00:19:03,029 --> 00:19:01,280

tomah pasquee and aki hoshide through

218

00:19:05,590 --> 00:19:03,039

those procedures in order to perform

219

00:19:08,230 --> 00:19:05,600

those checks all checked out smoothly

220

00:19:11,430 --> 00:19:08,240

and the teams are now working to

221

00:19:13,669 --> 00:19:11,440

get the airlock down to

222

00:19:20,870 --> 00:19:13,679

a pressure of zero which is considered

223

00:19:25,110 --> 00:19:22,950

at this time the suits will be switched

224

00:19:27,270 --> 00:19:25,120

to internal battery power and our

225

00:19:49,510 --> 00:19:27,280

spacewalk will officially begin for the

226
00:19:49,520 --> 00:20:04,470
hmm

227
00:20:04,480 --> 00:20:13,350
wow

228
00:20:45,830 --> 00:20:15,669
now less than four pounds per square

229
00:20:51,830 --> 00:20:48,070
2.0 you're going to take the depressed

230
00:20:53,029 --> 00:20:51,840
pump man iso valve closed copy at 2.0 i

231
00:21:05,190 --> 00:20:53,039
will

232
00:21:05,200 --> 00:21:17,510
ugh

233
00:21:36,549 --> 00:21:20,029
pressure inside the crew lock now at

234
00:21:36,559 --> 00:21:56,950
okay

235
00:22:14,070 --> 00:21:59,590
hey lsps 2.2

236
00:22:14,080 --> 00:22:35,590
let's see 2.1.

237
00:22:41,110 --> 00:22:38,470
lc 2.0 all right the trust pump manual

238
00:22:43,350 --> 00:22:41,120

alteration walk is closed

239

00:22:44,710 --> 00:22:43,360

copy the depressed pump man iso valve is

240

00:22:47,029 --> 00:22:44,720

closed

241

00:22:49,110 --> 00:22:47,039

you can take the depress pump power to

242

00:22:53,990 --> 00:22:49,120

off on the uia

243

00:22:55,750 --> 00:22:54,000

the uag press pump power is off off

244

00:22:57,830 --> 00:22:55,760

copy it's off

245

00:23:00,470 --> 00:22:57,840

and you can report your initial tether

246

00:23:02,390 --> 00:23:00,480

configuration

247

00:23:04,310 --> 00:23:02,400

let's start with your

248

00:23:07,669 --> 00:23:04,320

waste builder copy

249

00:23:08,270 --> 00:23:07,679

my next wave setter is on the airdock

250

00:23:19,430 --> 00:23:08,280

extender

251
00:23:23,430 --> 00:23:21,830
there you go it is locked right on black

252
00:23:26,549 --> 00:23:23,440
goes to my

253
00:23:29,029 --> 00:23:26,559
streaming extender to my left part black

254
00:23:32,070 --> 00:23:29,039
on black

255
00:23:35,590 --> 00:23:32,080
and then on my right

256
00:23:35,600 --> 00:23:45,430
i also have

257
00:23:49,669 --> 00:23:47,350
my red hook

258
00:23:51,510 --> 00:23:49,679
it is closed and locked like

259
00:23:54,789 --> 00:23:51,520
goes to my right reel

260
00:23:58,870 --> 00:23:56,630
my red wheel

261
00:24:00,470 --> 00:23:58,880
i have my green hook

262
00:24:03,110 --> 00:24:00,480
is not locked

263
00:24:06,870 --> 00:24:03,120

and then from my red reel

264

00:24:09,510 --> 00:24:06,880

do my green reel i have my yellow hook

265

00:24:11,990 --> 00:24:09,520

locked black on black and from my red

266

00:24:13,830 --> 00:24:12,000

wheel which is unlocked

267

00:24:17,190 --> 00:24:13,840

i have my anchor hook

268

00:24:20,149 --> 00:24:17,200

locked black on black on ikea's weight

269

00:24:22,070 --> 00:24:20,159

better and i see the gate is also locked

270

00:24:23,909 --> 00:24:22,080

and i don't know so you can pick up from

271

00:24:30,630 --> 00:24:23,919

there okay

272

00:24:30,640 --> 00:24:35,590

my left

273

00:24:39,990 --> 00:24:37,350

these words you're hearing now from

274

00:24:42,390 --> 00:24:40,000

european space agency astronaut thomas

275

00:24:44,630 --> 00:24:42,400

pesquet as he checks his tether

276
00:24:46,470 --> 00:24:44,640
configurations to ensure everything is

277
00:24:49,510 --> 00:24:46,480
good to go before

278
00:25:06,070 --> 00:24:49,520
he and jaxa astronaut aki

279
00:25:10,549 --> 00:25:08,549
and we're currently in a brief expected

280
00:25:19,260 --> 00:25:10,559
handover between satellites but we'll

281
00:25:19,270 --> 00:25:22,430
[Applause]

282
00:25:27,269 --> 00:25:24,630
[Music]

283
00:25:29,750 --> 00:25:27,279
inside the crew lock depressurization

284
00:25:31,990 --> 00:25:29,760
continues now less than two pounds per

285
00:25:33,510 --> 00:25:32,000
square inch of pressure inside the crew

286
00:25:35,310 --> 00:25:33,520
lock

287
00:25:38,230 --> 00:25:35,320
and that one

288
00:25:44,650 --> 00:25:38,240

is blocked

289

00:25:53,990 --> 00:25:51,750

[Music]

290

00:25:56,789 --> 00:25:54,000

today's team in mission control is being

291

00:25:59,029 --> 00:25:56,799

led by flight director addie boulos who

292

00:26:00,870 --> 00:25:59,039

you see here

293

00:26:02,390 --> 00:26:00,880

of course make the final call on that

294

00:26:04,230 --> 00:26:02,400

tether config

295

00:26:05,350 --> 00:26:04,240

as they're going through also on the

296

00:26:07,510 --> 00:26:05,360

capcom

297

00:26:10,789 --> 00:26:07,520

console is anne mclean who's working

298

00:26:13,269 --> 00:26:10,799

hand over in preparation to hand over to

299

00:26:15,510 --> 00:26:13,279

jessica watkins

300

00:26:16,870 --> 00:26:15,520

cdc is around zero you guys can expect

301
00:26:33,190 --> 00:26:16,880
an alert tone

302
00:26:37,190 --> 00:26:34,789
sherlock houston good morning and here

303
00:26:40,070 --> 00:26:37,200
with you for your tether configuration

304
00:26:42,390 --> 00:26:40,080
ev1 need confirmation on your red hook

305
00:26:43,750 --> 00:26:42,400
and on your small hook waist tether

306
00:26:46,070 --> 00:26:43,760
right side

307
00:26:50,580 --> 00:26:46,080
and for ev2 your right waist tether

308
00:26:50,590 --> 00:26:57,830
[Music]

309
00:27:03,029 --> 00:27:01,110
and also my right waisted on the right

310
00:27:07,190 --> 00:27:03,039
steering extender

311
00:27:08,789 --> 00:27:07,200
it's closing this is locked

312
00:27:10,789 --> 00:27:08,799
if you want the right hook is locked in

313
00:27:12,390 --> 00:27:10,799

the right small hook of the weight that

314

00:27:17,350 --> 00:27:12,400

there is lock

315

00:27:22,310 --> 00:27:21,110

cubby good thing thank you

316

00:28:00,390 --> 00:27:22,320

and we just got lost that in the

317

00:28:00,400 --> 00:28:06,149

[Applause]

318

00:28:10,310 --> 00:28:08,470

nasa astronaut mark vande high and megan

319

00:28:13,830 --> 00:28:10,320

mcarthur continuing to monitor

320

00:28:17,029 --> 00:28:13,840

everything as depressurization continues

321

00:28:22,789 --> 00:28:17,039

the crew lock is currently at 1.47

322

00:28:27,510 --> 00:28:25,029

once vacuum is reached the suits will be

323

00:28:29,830 --> 00:28:27,520

turned to internal battery power which

324

00:28:59,830 --> 00:28:29,840

will make which will mark our official

325

00:28:59,840 --> 00:30:22,789

huh

326

00:30:26,310 --> 00:30:24,789

you're looking at a view inside the crew

327

00:30:28,789 --> 00:30:26,320

lock as

328

00:30:31,110 --> 00:30:28,799

issa astronaut thomas pesquet and

329

00:30:41,669 --> 00:30:31,120

jackson astronaut aki hoshide prepare to

330

00:30:41,679 --> 00:30:51,350

inside

331

00:30:56,789 --> 00:30:54,389

closest to your screen is issa astronaut

332

00:30:58,549 --> 00:30:56,799

tomah pesquet and behind him in the

333

00:31:01,669 --> 00:30:58,559

field of view you can see

334

00:31:29,430 --> 00:31:01,679

their foot there is jaxa astronaut aki

335

00:31:33,990 --> 00:31:31,750

and erla kissing just for

336

00:31:35,750 --> 00:31:34,000

for your essay it should take about just

337

00:31:41,870 --> 00:31:35,760

over 30 minutes to get to this point

338

00:31:41,880 --> 00:31:50,789

[Music]

339

00:31:50,799 --> 00:32:13,350

number three

340

00:32:22,070 --> 00:32:15,750

pressure inside the crew lock currently

341

00:32:27,269 --> 00:32:24,389

our space walking duo is working through

342

00:32:29,350 --> 00:32:27,279

some procedures for a modification of

343

00:32:34,630 --> 00:32:29,360

the depressurization procedure for

344

00:32:39,430 --> 00:32:37,269

monitoring inside the equipment lock is

345

00:32:41,909 --> 00:32:39,440

nasa astronaut mark vande high on the

346

00:32:43,430 --> 00:32:41,919

left of your screen and nasa astronaut

347

00:33:25,509 --> 00:32:43,440

megan macarthur on the right of your

348

00:33:30,310 --> 00:33:27,350

once these tests are complete the

349

00:33:33,029 --> 00:33:30,320

pressurization will resume once again

350

00:33:35,509 --> 00:33:33,039

and again once the pressure inside the

351
00:33:38,389 --> 00:33:35,519
crew lock reaches zero pounds per square

352
00:33:40,630 --> 00:33:38,399
inch that will be considered vacuum nrt

353
00:33:42,149 --> 00:33:40,640
and our spacewalkers will be given the

354
00:34:05,750 --> 00:33:42,159
go from the teams here in mission

355
00:34:09,589 --> 00:34:08,629
the primary tasks for our spacewalkers

356
00:34:11,990 --> 00:34:09,599
today

357
00:34:14,950 --> 00:34:12,000
is to install a support bracket called a

358
00:34:17,349 --> 00:34:14,960
modification kit on the inward port side

359
00:34:20,470 --> 00:34:17,359
of the station's backbone truss

360
00:34:22,310 --> 00:34:20,480
structure in a position known as p4

361
00:34:24,230 --> 00:34:22,320
this is closest to the station's

362
00:34:26,149 --> 00:34:24,240
pressurized living space

363
00:34:27,990 --> 00:34:26,159

this kit will prepare the site for

364

00:34:30,629 --> 00:34:28,000

future installation and deployment of

365

00:34:37,750 --> 00:34:30,639

the third of six new international space

366

00:34:41,669 --> 00:34:39,270

the array will upgrade one of the

367

00:34:44,550 --> 00:34:41,679

station's eight power channels known as

368

00:34:48,710 --> 00:34:46,470

this channel provides partial power to

369

00:34:51,030 --> 00:34:48,720

the us lab the harmony module and the

370

00:34:52,950 --> 00:34:51,040

columbus module the astronauts will

371

00:34:54,790 --> 00:34:52,960

install the modification kit to the mass

372

00:34:59,510 --> 00:34:54,800

canister at the base of the original

373

00:35:03,670 --> 00:35:01,829

also on today's spacewalk the crew will

374

00:35:05,589 --> 00:35:03,680

replace a device that measures the

375

00:35:07,990 --> 00:35:05,599

electrical charging potential of the

376

00:35:10,069 --> 00:35:08,000

arrays and associated surfaces in its

377

00:35:12,230 --> 00:35:10,079

vicinity called a floating

378

00:35:49,829 --> 00:35:12,240

point measurement unit on a separate

379

00:36:19,270 --> 00:35:52,510

pressure inside the crew lock now at

380

00:36:22,790 --> 00:36:21,190

the space station is currently flying

381

00:37:15,190 --> 00:36:22,800

263

382

00:37:27,510 --> 00:37:17,109

now less than one pound per square inch

383

00:37:31,430 --> 00:37:30,069

once vacuum is reached the team will

384

00:37:33,109 --> 00:37:31,440

switch their

385

00:37:34,630 --> 00:37:33,119

space suits onto battery power

386

00:38:15,030 --> 00:37:34,640

officially marking the start of today's

387

00:38:15,040 --> 00:38:47,190

uh

388

00:38:52,630 --> 00:38:50,310

today's spacewalk will be the 244th in

389

00:39:04,950 --> 00:38:52,640

support of station assembly maintenance

390

00:39:09,190 --> 00:39:07,109

it will also be the 12th spacewalk out

391

00:39:27,109 --> 00:39:09,200

of the space station this year and the

392

00:39:31,430 --> 00:39:29,349

and this will be aki hoshide's fourth

393

00:39:34,790 --> 00:39:31,440

spacewalk of his career his total

394

00:39:38,470 --> 00:39:34,800

spacewalking time totals 21 hours and 23

395

00:39:43,510 --> 00:39:40,950

and this will be tomorrow pesky's sixth

396

00:39:51,030 --> 00:39:43,520

spacewalk of his career having amassed

397

00:39:55,030 --> 00:39:53,030

and this will be the first spacewalk

398

00:40:23,270 --> 00:39:55,040

conducted by two international crew

399

00:40:28,630 --> 00:40:26,309

airlock and crew on one houston we're

400

00:40:35,230 --> 00:40:28,640

estimating about another 15 minutes plus

401
00:40:35,240 --> 00:41:05,829
0.5 copies

402
00:41:05,839 --> 00:41:29,410
hello

403
00:41:44,150 --> 00:41:31,430
[Music]

404
00:41:48,630 --> 00:41:46,309
spacewalk officer sandy moore did

405
00:41:51,030 --> 00:41:48,640
narrate an overview of the space walk

406
00:41:54,630 --> 00:41:51,040
tasks that we can look forward to today

407
00:42:00,470 --> 00:41:56,870
us eda 77 will begin at the quest

408
00:42:02,150 --> 00:42:00,480
airlock jaxa astronaut aki hoshide ev1

409
00:42:04,230 --> 00:42:02,160
noted by the red stripes will egress

410
00:42:06,470 --> 00:42:04,240
first and receive and hold the eight

411
00:42:08,550 --> 00:42:06,480
foot mod kids strut bag european

412
00:42:10,870 --> 00:42:08,560
astronaut tama pesquet will egress

413
00:42:12,710 --> 00:42:10,880

second with the full white suit

414

00:42:16,470 --> 00:42:12,720

take control of the large bag on his

415

00:42:18,470 --> 00:42:16,480

body restraint tether and head out to p4

416

00:42:20,790 --> 00:42:18,480

he will pause momentarily to drop his

417

00:42:23,430 --> 00:42:20,800

fairly green hook just nader of the flex

418

00:42:26,790 --> 00:42:23,440

hose rotary coupler the fhrc and then

419

00:42:29,829 --> 00:42:26,800

continue translation to p4

420

00:42:32,230 --> 00:42:29,839

back at the airlock ev1 aki hoshide will

421

00:42:35,550 --> 00:42:32,240

retrieve his worksite interface extender

422

00:42:37,910 --> 00:42:35,560

or wifix and follow them all out to p4

423

00:42:39,829 --> 00:42:37,920

[Music]

424

00:42:44,390 --> 00:42:39,839

he will also pause to drop his fairly

425

00:42:49,510 --> 00:42:46,630

while tomorrow is stowing the very large

426
00:42:52,790 --> 00:42:49,520
strip bag at p4 aki will complete his

427
00:42:54,790 --> 00:42:52,800
translation out to the p4 beta gimbal

428
00:42:57,349 --> 00:42:54,800
assembly where he will install and set

429
00:43:01,589 --> 00:42:57,359
up his swiffix

430
00:43:04,150 --> 00:43:01,599
he will then translate over to p5

431
00:43:05,570 --> 00:43:04,160
to retrieve a foot restraint on his body

432
00:43:10,630 --> 00:43:05,580
restraint tether

433
00:43:13,270 --> 00:43:10,640
[Music]

434
00:43:15,670 --> 00:43:13,280
he will return back to p4 to set up his

435
00:43:17,510 --> 00:43:15,680
foot restraint and the wiff extender and

436
00:43:19,990 --> 00:43:17,520
optimize for position

437
00:43:22,309 --> 00:43:20,000
aki will then translate over to tama to

438
00:43:24,950 --> 00:43:22,319

begin assembling the iss rollout solar

439

00:43:26,950 --> 00:43:24,960

array mod kit upper triangle

440

00:43:29,109 --> 00:43:26,960

tama and aki will work as a team to

441

00:43:30,790 --> 00:43:29,119

build the triangular segment loosely and

442

00:43:33,030 --> 00:43:30,800

then we'll tighten the structure by

443

00:43:35,430 --> 00:43:33,040

driving the bolts to torque

444

00:43:37,990 --> 00:43:35,440

aki will then translate over to and

445

00:43:39,510 --> 00:43:38,000

ingress the foot restraint

446

00:43:42,790 --> 00:43:39,520

tomorrow we'll hand off the upper

447

00:43:44,870 --> 00:43:42,800

triangle to aki aki will lean back soft

448

00:43:48,470 --> 00:43:44,880

dock the structure to the beta gimbal

449

00:43:49,910 --> 00:43:48,480

assembly and drive four bolts

450

00:43:52,470 --> 00:43:49,920

once complete with the upper triangle

451
00:43:54,230 --> 00:43:52,480
aki will egress the foot restraint bias

452
00:43:56,069 --> 00:43:54,240
it to the left left-hand side while

453
00:43:59,030 --> 00:43:56,079
tamal prepares to hand off the left

454
00:44:01,510 --> 00:43:59,040
mid-strut for brt stow

455
00:44:04,470 --> 00:44:01,520
aki will ingress the apfr and hold the

456
00:44:07,349 --> 00:44:04,480
lower strut while tamar repositions to

457
00:44:08,390 --> 00:44:07,359
the solar array blanket box for saab

458
00:44:10,630 --> 00:44:08,400
bearing

459
00:44:12,390 --> 00:44:10,640
to install the left lower strut

460
00:44:15,670 --> 00:44:12,400
tamal will begin driving this bolt by

461
00:44:17,510 --> 00:44:15,680
hand four turns while aki aligns his end

462
00:44:19,109 --> 00:44:17,520
and drives his to the mounting bracket

463
00:44:21,109 --> 00:44:19,119

two turns

464

00:44:22,710 --> 00:44:21,119

tamal will finish his bolt by driving it

465

00:44:24,710 --> 00:44:22,720

with a pistol grip tool

466

00:44:26,470 --> 00:44:24,720

followed by high torque with the eva

467

00:44:28,870 --> 00:44:26,480

torque wrench

468

00:44:31,109 --> 00:44:28,880

once the bolt is deemed good ah you will

469

00:44:33,270 --> 00:44:31,119

be given a go to drive his bolted torque

470

00:44:35,030 --> 00:44:33,280

using the crystal grip tool

471

00:44:36,710 --> 00:44:35,040

this will complete our minimum config

472

00:44:38,230 --> 00:44:36,720

for the mod kit

473

00:44:40,790 --> 00:44:38,240

tomorrow we'll translate on the beta

474

00:44:44,870 --> 00:44:40,800

gimbal assembly and aki will hand off

475

00:44:47,430 --> 00:44:44,880

his telescoping mid strut for install

476
00:44:50,069 --> 00:44:47,440
tama will work to soft dock the side pad

477
00:44:51,910 --> 00:44:50,079
to the bga while aki holds his clevis

478
00:44:54,470 --> 00:44:51,920
bolt side in place

479
00:44:58,309 --> 00:44:54,480
tamal will start four bolts by hand

480
00:45:00,790 --> 00:44:58,319
followed by the pistol grip tool

481
00:45:03,030 --> 00:45:00,800
aki will then drive his bolt to torque

482
00:45:05,589 --> 00:45:03,040
on the mounting bracket

483
00:45:07,589 --> 00:45:05,599
small then gather tools and reset for

484
00:45:10,390 --> 00:45:07,599
the right hand side by bringing tools

485
00:45:12,470 --> 00:45:10,400
back to the bag while occu egresses and

486
00:45:17,750 --> 00:45:12,480
repositions the foot restraint to bias

487
00:45:22,309 --> 00:45:19,750
aki will ingress the foot restraints and

488
00:45:24,950 --> 00:45:22,319

the crew will repeat the handoff first

489

00:45:28,150 --> 00:45:24,960

the mid strut for vrt stow and then the

490

00:45:29,829 --> 00:45:28,160

long lower right strut

491

00:45:32,710 --> 00:45:29,839

so maul will then reposition to the

492

00:45:34,710 --> 00:45:32,720

right hand side for the four alpha

493

00:45:37,349 --> 00:45:34,720

gimbal assembly and the analogous

494

00:45:39,109 --> 00:45:37,359

install strategy will unfold to model

495

00:45:41,750 --> 00:45:39,119

position at the right side bearing for

496

00:45:44,870 --> 00:45:41,760

lower strut install and then over onto

497

00:45:46,150 --> 00:45:44,880

the bga for the mid strut install

498

00:45:48,230 --> 00:45:46,160

tomorrow we'll translate on the

499

00:45:50,309 --> 00:45:48,240

mid-strut and drive two collar bolts to

500

00:45:52,950 --> 00:45:50,319

torque rigidizing the telescoping

501
00:45:54,790 --> 00:45:52,960
mechanism on the right hand side once

502
00:45:57,190 --> 00:45:54,800
complete the crew will install the

503
00:45:59,349 --> 00:45:57,200
multi-layer insulation and then jamal

504
00:46:06,290 --> 00:45:59,359
will position to the left-hand side to

505
00:46:06,300 --> 00:46:10,950
[Music]

506
00:46:15,349 --> 00:46:12,950
aki will egress the footwear strength

507
00:46:17,910 --> 00:46:15,359
and begin cleanup he will retrieve and

508
00:46:19,990 --> 00:46:17,920
stow all the tools fold the bag in

509
00:46:21,510 --> 00:46:20,000
thirds and stow on his body restraint

510
00:46:23,670 --> 00:46:21,520
tether

511
00:46:25,910 --> 00:46:23,680
the crew will meet up and hand off tools

512
00:46:28,790 --> 00:46:25,920
for the next task the floating potential

513
00:46:30,230 --> 00:46:28,800

measurement unit remove and replace

514

00:46:31,750 --> 00:46:30,240

and then prep for that task tomorrow

515

00:46:33,910 --> 00:46:31,760

will translate and retrieve the foot

516

00:46:36,870 --> 00:46:33,920

restraint with x combo on his body

517

00:46:41,270 --> 00:46:39,349

aki will be the first to head inboard he

518

00:46:43,430 --> 00:46:41,280

will follow his tether back to the

519

00:46:45,589 --> 00:46:43,440

airlock

520

00:46:48,230 --> 00:46:45,599

underneath the mt

521

00:46:49,750 --> 00:46:48,240

and down the cetus fur

522

00:46:51,030 --> 00:46:49,760

at the airlock the crew will open the

523

00:46:53,990 --> 00:46:51,040

thermal cover

524

00:46:57,670 --> 00:46:54,000

stow the strut bag and exchange it

525

00:47:00,069 --> 00:46:57,680

for the spare fpmu

526
00:47:02,150 --> 00:47:00,079
meanwhile tamal will head inboard with

527
00:47:06,150 --> 00:47:02,160
his foot restraints

528
00:47:07,829 --> 00:47:06,160
pause momentarily at the fhrc

529
00:47:13,109 --> 00:47:07,839
and then go zenith across the zenith

530
00:47:17,829 --> 00:47:15,430
tamal will pause momentarily to put in

531
00:47:19,910 --> 00:47:17,839
an eva electrical inhibit by pulling a

532
00:47:21,990 --> 00:47:19,920
nasa zero g lever electrical connector

533
00:47:25,190 --> 00:47:22,000
aft and then install the foot restraint

534
00:47:26,630 --> 00:47:25,200
at the work site

535
00:47:29,510 --> 00:47:26,640
he will work to position it to the

536
00:47:35,829 --> 00:47:29,520
desired position and then introgress for

537
00:47:41,750 --> 00:47:39,750
aki will translate back to phase one

538
00:47:43,750 --> 00:47:41,760

going up the c to spur

539

00:47:47,349 --> 00:47:43,760

under the mt

540

00:47:49,190 --> 00:47:47,359

and then venus at the fhrc

541

00:47:51,670 --> 00:47:49,200

and meet tama

542

00:47:53,670 --> 00:47:51,680

at the fpmu at p1

543

00:47:57,270 --> 00:47:53,680

he will stow the spare in a location

544

00:48:03,270 --> 00:47:59,750

during this time tamal will tether to

545

00:48:05,670 --> 00:48:03,280

the fpmu and begin driving bolts

546

00:48:07,270 --> 00:48:05,680

two outer and then one centered with the

547

00:48:09,030 --> 00:48:07,280

pistol grip tool

548

00:48:11,270 --> 00:48:09,040

he'll stow that and then install a

549

00:48:13,270 --> 00:48:11,280

handling aid called a scoop for ease and

550

00:48:15,610 --> 00:48:13,280

removal of this unique orbital

551
00:48:16,950 --> 00:48:15,620
replacement unit or oru

552
00:48:19,349 --> 00:48:16,960
[Music]

553
00:48:21,510 --> 00:48:19,359
tomorrow we'll position the fpmu to

554
00:48:23,510 --> 00:48:21,520
allow aki to stow the probes

555
00:48:25,829 --> 00:48:23,520
aki will slide a collar out of the way

556
00:48:28,230 --> 00:48:25,839
depress the lever and lower the probes

557
00:48:30,390 --> 00:48:28,240
into place you'll use a taped wire tie

558
00:48:32,549 --> 00:48:30,400
to keep them in the stowed location

559
00:48:34,950 --> 00:48:32,559
for ease the failed fpmu will be stowed

560
00:48:36,549 --> 00:48:34,960
on tamal's body restraint tether

561
00:48:37,670 --> 00:48:36,559
aki will then retrieve the spare from

562
00:48:39,510 --> 00:48:37,680
the bag

563
00:48:41,910 --> 00:48:39,520

tether and remove the wire tie and

564

00:48:43,270 --> 00:48:41,920

deploy the probes they will hand off and

565

00:48:44,950 --> 00:48:43,280

reinstall the

566

00:48:47,349 --> 00:48:44,960

spare into

567

00:48:51,430 --> 00:48:47,359

the stanchion driving the center bolt

568

00:48:56,230 --> 00:48:53,589

once complete the team will work to stow

569

00:49:01,270 --> 00:48:56,240

the failed unit into the oru thermal bag

570

00:49:04,630 --> 00:49:03,349

aki will then follow his tether back to

571

00:49:10,390 --> 00:49:04,640

the airlock

572

00:49:12,950 --> 00:49:10,400

jamal will work to clean up the work

573

00:49:14,950 --> 00:49:12,960

site by egressing the foot restraint and

574

00:49:18,470 --> 00:49:14,960

plugging in the eva electrical inhibit

575

00:49:20,470 --> 00:49:18,480

by moving the lever fully forward

576
00:49:22,470 --> 00:49:20,480
he will retrieve his foot restraint on

577
00:49:24,150 --> 00:49:22,480
his body restraint tether

578
00:49:25,670 --> 00:49:24,160
he will follow his tether back to the

579
00:49:28,150 --> 00:49:25,680
airlock

580
00:49:29,510 --> 00:49:28,160
under the mt he will pause momentarily

581
00:49:32,790 --> 00:49:29,520
to steer the foot restraint and the

582
00:49:35,190 --> 00:49:32,800
starboard cedar cart for an upcoming eva

583
00:49:37,109 --> 00:49:35,200
and then translate down the ceta spur

584
00:49:42,330 --> 00:49:37,119
to the airlock for a successful

585
00:49:42,340 --> 00:49:52,230
[Music]

586
00:49:56,870 --> 00:49:54,150
and those are the tasks you can look

587
00:49:59,109 --> 00:49:56,880
forward to during today's spacewalk

588
00:50:04,150 --> 00:49:59,119

pressure inside the crew lock now less

589

00:50:08,790 --> 00:50:06,309

in the crew lock esa astronaut toma

590

00:50:11,109 --> 00:50:08,800

pesquet and jaxa astronaut and current

591

00:50:13,510 --> 00:50:11,119

space station commander aki hoshide

592

00:50:15,910 --> 00:50:13,520

continuing to work through a test for

593

00:50:21,109 --> 00:50:15,920

updated depressurization procedures for

594

00:50:25,829 --> 00:50:23,190

following this and once pressure inside

595

00:50:28,230 --> 00:50:25,839

the crew lock has reached zero pesquet

596

00:50:30,549 --> 00:50:28,240

and hoshide will switch their suits to

597

00:50:35,670 --> 00:50:30,559

battery power officially marking the

598

00:50:39,430 --> 00:50:37,349

once this is complete they'll be given

599

00:50:41,510 --> 00:50:39,440

the go from teams on the ground to open

600

00:50:53,109 --> 00:50:41,520

the hatch and step out into the vacuum

601
00:50:57,589 --> 00:50:55,750
again the primary tasks as illustrated

602
00:51:00,309 --> 00:50:57,599
in the animation you just watched

603
00:51:03,190 --> 00:51:00,319
include building the 4a bracket and

604
00:51:05,270 --> 00:51:03,200
installing it to the 4a struts

605
00:51:07,589 --> 00:51:05,280
because of their size the struts are

606
00:51:09,990 --> 00:51:07,599
sent to space in pieces and require

607
00:51:12,710 --> 00:51:10,000
being assembled in orbit much like how

608
00:51:14,549 --> 00:51:12,720
we build furniture here on earth

609
00:51:16,630 --> 00:51:14,559
following the build installation of the

610
00:51:19,589 --> 00:51:16,640
4a bracket the crew will work to swap

611
00:51:21,589 --> 00:51:19,599
out the probe base and cable cable on

612
00:51:23,829 --> 00:51:21,599
the floating potential measurement unit

613
00:51:25,990 --> 00:51:23,839

or fpmu

614

00:52:29,349 --> 00:51:26,000

this tool measures potential across the

615

00:53:51,190 --> 00:52:31,630

all continues to go smoothly for

616

00:53:55,990 --> 00:53:52,870

pressure inside the crew lock now

617

00:54:00,390 --> 00:53:56,000

sitting at 0.65 pounds per square inch

618

00:54:03,430 --> 00:54:01,910

okay copy that

619

00:54:05,510 --> 00:54:03,440

copy

620

00:54:17,530 --> 00:54:05,520

it all

621

00:54:17,540 --> 00:54:21,270

[Music]

622

00:54:21,280 --> 00:54:38,230

and staring at the needle not moving

623

00:54:42,150 --> 00:54:40,390

too much

624

00:54:47,190 --> 00:54:42,160

good place you'll see a needle

625

00:54:47,200 --> 00:54:59,750

i'm learning to shoot my heart

626

00:55:04,670 --> 00:55:02,309

nasa astronauts mark vande high and

627

00:55:07,510 --> 00:55:04,680

megan mcarthur continuing to monitor

628

00:55:12,950 --> 00:55:07,520

depressurization from the equipment

629

00:55:20,549 --> 00:55:14,710

hey on the plus side guys your met rates

630

00:55:20,559 --> 00:56:15,430

okay

631

00:56:19,990 --> 00:56:17,270

the international space station is

632

00:56:22,390 --> 00:56:20,000

currently flying 273

633

00:56:28,470 --> 00:56:22,400

statute miles over the south atlantic

634

00:57:01,190 --> 00:56:30,549

the space station is zipping along at

635

00:57:06,870 --> 00:57:03,990

due to this speed the space station

636

00:57:09,270 --> 00:57:06,880

orbits the earth every 90 minutes

637

00:57:12,549 --> 00:57:09,280

meaning our crew members see a sunset

638

00:57:14,470 --> 00:57:12,559

and a sunrise every 45 minutes during

639

00:58:06,789 --> 00:57:14,480

today's spacewalk you'll see several

640

00:58:06,799 --> 00:58:39,670

uh

641

00:58:57,430 --> 00:58:42,630

now less than .6 pounds per square inch

642

00:58:57,440 --> 00:59:31,109

thank you

643

00:59:35,349 --> 00:59:32,950

come on from houston just for a data

644

00:59:36,870 --> 00:59:35,359

point uh we're curious if the superhigh

645

00:59:38,710 --> 00:59:36,880

message came on one time or if you're

646

00:59:45,190 --> 00:59:38,720

getting it uh repeatedly and sorry

647

00:59:45,200 --> 00:59:58,829

okay good deal thank

648

00:59:58,839 --> 01:00:53,030

you um

649

01:00:56,870 --> 01:00:55,030

nasa astronaut mark vandehei and megan

650

01:00:58,630 --> 01:00:56,880

mcarthur continuing to monitor

651

01:01:00,390 --> 01:00:58,640

depressurization

652

01:01:05,829 --> 01:01:00,400

pressure inside the crew lock now less

653

01:01:11,030 --> 01:01:08,549

once vacuum is reached our spacewalking

654

01:01:20,549 --> 01:01:11,040

dual will switch their suits to internal

655

01:01:30,150 --> 01:01:22,470

can we see just a few more millimeters

656

01:01:34,309 --> 01:01:32,470

and once those space suits are switched

657

01:02:00,069 --> 01:01:34,319

to internal battery power that will mark

658

01:02:04,870 --> 01:02:02,309

during today's spacewalk european space

659

01:02:07,750 --> 01:02:04,880

agency astronaut tomorrow pesquet

660

01:02:10,309 --> 01:02:07,760

and jaxa or japan aerospace exploration

661

01:02:11,990 --> 01:02:10,319

agency astronaut aki hoshide will

662

01:02:15,190 --> 01:02:12,000

install a support bracket called a

663

01:02:19,349 --> 01:02:17,190

this kit prepares the site for future

664

01:02:21,750 --> 01:02:19,359

installation and deployment of the third

665

01:02:27,750 --> 01:02:21,760

of six new international space station

666

01:02:30,789 --> 01:02:29,190

these arrays

667

01:02:32,630 --> 01:02:30,799

this installation will upgrade one of

668

01:02:35,829 --> 01:02:32,640

the station's eight power channels known

669

01:02:40,230 --> 01:02:38,470

4a provides partial power to the us lab

670

01:02:44,390 --> 01:02:40,240

the harmony module and the columbus

671

01:02:48,630 --> 01:02:46,789

also on today's spacewalk the crew will

672

01:02:50,630 --> 01:02:48,640

replace a device that measures the

673

01:02:53,510 --> 01:02:50,640

electrical charging potential of the

674

01:02:55,270 --> 01:02:53,520

arrays and associated surfaces in the

675

01:04:03,109 --> 01:02:55,280

area called a floating potential

676

01:04:08,710 --> 01:04:06,710

inching closer to vacuum now 0.55 pounds

677

01:04:28,470 --> 01:04:08,720

per square inch of pressure inside the

678

01:04:37,270 --> 01:04:30,549

the crew lock began at a pressure of

679

01:04:42,390 --> 01:04:39,750

the suit is pressurized to approximately

680

01:04:43,829 --> 01:04:42,400

4.3 pounds per square inch

681

01:04:46,309 --> 01:04:43,839

which is similar to what you would

682

01:04:54,870 --> 01:04:46,319

experience at an elevation of a roughly

683

01:04:58,470 --> 01:04:56,789

because of this earlier this morning the

684

01:05:00,710 --> 01:04:58,480

crew worked through their pre-breathe

685

01:05:05,349 --> 01:05:00,720

procedures in order to purge excess

686

01:05:10,069 --> 01:05:07,349

this is very similar to

687

01:05:34,470 --> 01:05:10,079

what divers do here on earth to prevent

688

01:05:38,710 --> 01:05:36,549

the crew also worked through procedures

689

01:05:41,430 --> 01:05:38,720

earlier this morning to get the safers

690

01:05:44,470 --> 01:05:41,440

installed on our spacewalking duo the

691

01:05:47,349 --> 01:05:44,480

safers or simplified aid for eva rescue

692

01:05:51,750 --> 01:05:47,359

is essentially a space jetpack that the

693

01:05:55,750 --> 01:05:53,990

safer is worn as a precautionary measure

694

01:05:57,750 --> 01:05:55,760

in the very unlikely event that an

695

01:05:59,510 --> 01:05:57,760

astronaut were to become untethered from

696

01:06:01,589 --> 01:05:59,520

the space station

697

01:06:03,430 --> 01:06:01,599

the safer would allow the crew member to

698

01:07:06,630 --> 01:06:03,440

safely propel them back to the space

699

01:07:12,309 --> 01:07:09,109

an ev crew from houston uh we showed

700

01:07:14,230 --> 01:07:12,319

about 0.54 on the pressure and

701

01:07:16,309 --> 01:07:14,240

this time estimate is going to sound

702

01:07:28,950 --> 01:07:16,319

familiar but it's about five to ten more

703

01:07:32,309 --> 01:07:30,710

tamar we're curious if you are watching

704

01:07:42,230 --> 01:07:32,319

the

705

01:07:47,990 --> 01:07:44,549

oh

706

01:07:48,000 --> 01:07:53,510

fairly

707

01:07:57,860 --> 01:07:55,750

powerful michael power

708

01:08:13,670 --> 01:07:57,870

yeah there you go

709

01:08:18,950 --> 01:08:16,390

and those words from issa astronaut to

710

01:08:20,709 --> 01:08:18,960

ma pesquet to the ground he's eager to

711

01:08:23,269 --> 01:08:20,719

head out the hatch this morning we're

712

01:08:25,669 --> 01:08:23,279

inching closer to the vacuum now sitting

713

01:09:39,430 --> 01:08:25,679

at .53 pounds per square inch of

714

01:09:39,440 --> 01:09:45,829

this view inside the crew lock

715

01:09:50,070 --> 01:09:48,229

closest to your screen you can see the

716

01:09:53,269 --> 01:09:50,080

safer that we discussed earlier

717

01:09:55,669 --> 01:09:53,279

essentially that space jet pack

718

01:10:02,149 --> 01:09:55,679

installed on issa astronaut

719

01:10:06,310 --> 01:10:04,149

also in the screen you can only see his

720

01:11:07,430 --> 01:10:06,320

foot right now but that is jaxa

721

01:11:22,470 --> 01:11:10,470

and you're seeing megan mcarthur get a

722

01:12:12,470 --> 01:11:24,630

megan mcarthur and mark vande high

723

01:12:17,510 --> 01:12:15,110

and aki we show the crew lock pressure

724

01:12:20,709 --> 01:12:17,520

below 26 millimeters of mercury at this

725

01:12:23,270 --> 01:12:20,719

time so you can take the ev hatch open

726

01:12:25,110 --> 01:12:23,280

and stow and remind her to pause one

727

01:12:29,350 --> 01:12:25,120

second between unlatching and opening

728

01:12:39,360 --> 01:12:29,360

the ev hatch okay copy that and i see

729

01:12:39,370 --> 01:12:43,910

[Music]

730

01:12:47,430 --> 01:12:45,669

and just a reminder that we do expect

731

01:13:01,350 --> 01:12:47,440

those suits to get the high message

732

01:13:01,360 --> 01:13:05,800

the handle

733

01:13:26,229 --> 01:13:13,030

[Music]

734

01:13:31,990 --> 01:13:29,030

pressure inside the crew lock now at .16

735

01:13:38,229 --> 01:13:32,000

pounds per square inch of pressure

736

01:13:42,550 --> 01:13:40,390

jaxa astronaut aki hoshide is now

737

01:13:59,430 --> 01:13:42,560

working to get the hatch

738

01:14:04,470 --> 01:14:02,550

the hatch is open and shortly hoshide

739

01:14:05,350 --> 01:14:04,480

and pasque will work to open the thermal

740

01:14:07,030 --> 01:14:05,360

cover

741

01:14:33,500 --> 01:14:07,040

and make their way outside the space

742

01:14:49,750 --> 01:14:36,310

[Music]

743

01:14:52,950 --> 01:14:51,270

it was a privilege being your pit crew

744

01:14:54,390 --> 01:14:52,960

this morning go do awesome work remember

745

01:14:57,030 --> 01:14:54,400

we have ice cream for you when you get

746

01:14:58,630 --> 01:14:57,040

back and i'll hand you over to houston

747

01:15:02,390 --> 01:14:58,640

again

748

01:15:02,400 --> 01:15:06,470

we'll see you

749

01:15:10,390 --> 01:15:08,550

good morning akientoma a lot of here

750

01:15:12,470 --> 01:15:10,400

with you and excited to get you guys out

751

01:15:13,830 --> 01:15:12,480

the door today as we'll continue with

752

01:15:14,870 --> 01:15:13,840

post repress

753

01:15:19,270 --> 01:15:14,880

on

754

01:15:21,110 --> 01:15:19,280

switch power to bat

755

01:15:26,149 --> 01:15:21,120

stagger your switch throws and expect a

756

01:15:26,159 --> 01:15:37,030

hey good morning buddies

757

01:15:42,630 --> 01:15:39,669

and you just heard words from our ground

758

01:15:44,390 --> 01:15:42,640

iv jessica watkins to the crew this

759

01:15:46,149 --> 01:15:44,400

morning she'll be

760

01:15:48,790 --> 01:15:46,159

walking them through procedures as they

761

01:15:59,030 --> 01:15:48,800

complete today's spacewalk to verify

762

01:16:11,430 --> 01:16:03,590

happy on the uia switch power ev1 and 2

763

01:16:15,910 --> 01:16:13,430

off

764

01:16:23,660 --> 01:16:15,920

c0 volts

765

01:16:23,670 --> 01:16:29,750

[Music]

766

01:16:34,950 --> 01:16:32,630

and with the space suits now on internal

767

01:16:36,630 --> 01:16:34,960

battery power today's spacewalk has

768

01:16:41,030 --> 01:16:36,640

officially begun

769

01:16:43,270 --> 01:16:41,040

at 7 15 central time the 244th spacewalk

770

01:16:46,070 --> 01:16:43,280

in support of station assembly

771

01:16:48,709 --> 01:16:46,080

maintenance and upgrades is underway

772

01:17:06,870 --> 01:16:48,719

install the dcm cover and stow the scu

773

01:17:10,709 --> 01:17:08,950

hoshide and pesquet will now work to

774

01:17:12,709 --> 01:17:10,719

open the thermal cover and make their

775

01:17:25,430 --> 01:17:12,719

way outside the space station hatch to

776

01:17:25,440 --> 01:17:36,950

looks at your knee lucky

777

01:17:36,960 --> 01:17:42,660

foreign

778

01:18:04,229 --> 01:17:44,730

[Applause]

779

01:18:04,239 --> 01:18:15,990

worth it

780

01:18:21,750 --> 01:18:18,630

once the thermal hatch cover is open

781

01:18:24,550 --> 01:18:21,760

first out of the hatch will be ev1 which

782

01:18:28,229 --> 01:18:24,560

is aki hoshide he'll be wearing the suit

783

01:18:32,790 --> 01:18:29,669

thank you

784

01:18:34,470 --> 01:18:32,800

following him will be eb2 toma pasque

785

01:18:37,830 --> 01:18:34,480

and he's wearing the suit with no

786

01:18:41,030 --> 01:18:39,270

another way to keep track of the crew

787

01:18:43,510 --> 01:18:41,040

members today will be by their helmet

788

01:18:45,990 --> 01:18:43,520

cameras hoshide will be wearing helmet

789

01:18:49,030 --> 01:18:46,000

camera number two and pesky will be

790

01:18:51,750 --> 01:18:49,040

wearing helmet cam number 20.

791

01:18:55,220 --> 01:18:51,760

we'll see views from those helmet cams

792

01:18:59,510 --> 01:18:57,510

[Music]

793

01:19:04,630 --> 01:18:59,520

one correction hoshide will be wearing

794

01:19:08,229 --> 01:19:05,990

hey cubby

795

01:19:15,990 --> 01:19:08,239

so i can check the depressed pump man

796

01:19:19,510 --> 01:19:18,470

on your dcm take your temp control valve

797

01:19:24,950 --> 01:19:19,520

to max

798

01:19:29,750 --> 01:19:25,830

okay

799

01:19:29,760 --> 01:19:43,590

[Music]

800

01:19:43,600 --> 01:20:03,189

switch water on o n

801
01:20:07,110 --> 01:20:04,950
on

802
01:20:12,910 --> 01:20:07,120
guppy check the dcm is blank and the

803
01:20:12,920 --> 01:20:21,189
off for easy one bb2 g7

804
01:20:41,590 --> 01:20:24,149
temp control valve as desired and report

805
01:20:41,600 --> 01:20:52,950
is

806
01:20:58,629 --> 01:20:55,990
continue to step through procedures

807
01:21:01,510 --> 01:20:58,639
ahead of opening the thermal hatch cover

808
01:21:12,830 --> 01:21:01,520
and we will verify your

809
01:21:19,669 --> 01:21:15,110
parameters right now the sun is still

810
01:21:24,629 --> 01:21:21,510
what are you going to check those

811
01:21:28,709 --> 01:21:26,470
we are going to go ahead and

812
01:21:31,189 --> 01:21:28,719
find out we will go ahead with your suit

813
01:21:35,830 --> 01:21:31,199

parameters and you have a go to open the

814

01:21:35,840 --> 01:21:41,669

okay copy

815

01:21:46,470 --> 01:21:43,750

and i'll see just a reminder to release

816

01:21:48,709 --> 01:21:46,480

the hook from the magnetic plate d-ring

817

01:21:54,830 --> 01:21:48,719

attach it to the stowage tether point on

818

01:21:54,840 --> 01:22:01,030

snug do that

819

01:22:01,040 --> 01:22:15,510

hook is released

820

01:22:23,830 --> 01:22:18,270

i'm so excited

821

01:22:50,130 --> 01:22:26,550

as you can see here work is underway to

822

01:22:50,140 --> 01:23:04,070

[Music]

823

01:23:09,669 --> 01:23:06,950

now egressing the airlock is japan

824

01:23:12,470 --> 01:23:09,679

aerospace exploration agency astronaut

825

01:23:15,350 --> 01:23:12,480

aki hoshide

826

01:23:18,550 --> 01:23:16,629

you'll be able to tell it's him

827

01:23:22,070 --> 01:23:18,560

throughout today's spacewalk by those

828

01:23:25,110 --> 01:23:22,080

red stripes on his spacesuit

829

01:23:30,629 --> 01:23:27,590

papi dadaki you can attach your anchor

830

01:23:35,669 --> 01:23:30,639

hook to the aft d-ring and tomas to the

831

01:23:35,679 --> 01:23:40,480

okay

832

01:23:40,490 --> 01:23:44,229

[Music]

833

01:23:44,239 --> 01:23:48,390

and going forward

834

01:23:48,400 --> 01:24:16,790

copy eb1 anchor

835

01:24:22,149 --> 01:24:18,870

all right

836

01:24:23,510 --> 01:24:22,159

the two that the hook is on the forward

837

01:24:27,270 --> 01:24:23,520

the ring

838

01:24:30,550 --> 01:24:29,510

copy ev2 that's a good config for both

839

01:24:33,189 --> 01:24:30,560

of you

840

01:24:42,709 --> 01:24:33,199

you can turn on your heka and tomah you

841

01:24:42,719 --> 01:24:48,070

get in positioned

842

01:24:53,110 --> 01:24:50,390

floating in the airlock you can see the

843

01:24:56,709 --> 01:24:53,120

strut bag that is a specially designed

844

01:24:58,470 --> 01:24:56,719

bag that will that is carrying the

845

01:25:03,350 --> 01:24:58,480

pieces for the modification kit that

846

01:25:08,470 --> 01:25:04,709

okay tomorrow

847

01:25:10,470 --> 01:25:08,480

i am in position so we uh

848

01:25:28,790 --> 01:25:10,480

the

849

01:25:31,770 --> 01:25:30,629

like you're very important

850

01:25:33,189 --> 01:25:31,780

hard times okay

851

01:25:47,830 --> 01:25:33,199

[Music]

852

01:25:47,840 --> 01:26:02,870

so much

853

01:26:07,990 --> 01:26:05,270

european space agency astronaut tillman

854

01:26:10,629 --> 01:26:08,000

pesquet working to hand the shrek bag

855

01:26:14,149 --> 01:26:10,639

over to jaxa or japan aerospace

856

01:26:16,149 --> 01:26:14,159

exploration agency astronaut aki hoshide

857

01:26:17,990 --> 01:26:16,159

that strut bag carries the parts that

858

01:26:32,790 --> 01:26:18,000

will be used to assemble the

859

01:26:36,310 --> 01:26:34,550

if you have a hand on it you can tell me

860

01:26:38,470 --> 01:26:36,320

when uh

861

01:26:39,990 --> 01:26:38,480

name controller now let's go okay i have

862

01:26:41,300 --> 01:26:40,000

control okay

863

01:26:44,790 --> 01:26:41,310

go back now

864

01:26:44,800 --> 01:26:51,350

i'm gonna stay on the outside okay

865

01:26:55,110 --> 01:26:52,950

what do you regret that i think i can

866

01:26:57,590 --> 01:26:55,120

disconnect my waste data from the dial

867

01:26:59,990 --> 01:26:57,600

up during extender if you concur yeah

868

01:27:02,870 --> 01:27:00,000

you have a go for that

869

01:27:10,070 --> 01:27:02,880

and we concur as well

870

01:27:14,310 --> 01:27:12,149

and aki while you're uh waiting for

871

01:27:16,310 --> 01:27:14,320

tomato egress we noticed it looks like

872

01:27:17,669 --> 01:27:16,320

there's something potentially floating

873

01:27:18,790 --> 01:27:17,679

out of the

874

01:27:20,870 --> 01:27:18,800

strut bag

875

01:27:22,790 --> 01:27:20,880

towards the center of the bag opening

876

01:27:26,229 --> 01:27:22,800

just for your awareness

877

01:27:26,239 --> 01:27:31,030

okay thank

878

01:27:31,040 --> 01:27:34,709

there you have it

879

01:27:40,390 --> 01:27:37,669

actually i'm coming out

880

01:27:44,830 --> 01:27:40,400

i see the crowd right underneath that

881

01:27:51,669 --> 01:27:44,840

okay bit of no way and i'll do the

882

01:27:55,430 --> 01:27:53,430

you're now seeing issa astronaut

883

01:28:04,510 --> 01:27:55,440

tomorrow pesquet float outside of the

884

01:28:04,520 --> 01:28:08,149

[Music]

885

01:28:13,910 --> 01:28:10,790

he's designated ev2 and will be wearing

886

01:28:16,149 --> 01:28:13,920

the spacesuit with no stripes today

887

01:28:18,310 --> 01:28:16,159

before you take this strut bag back from

888

01:28:20,310 --> 01:28:18,320

aki you can turn on your heka

889

01:28:27,640 --> 01:28:20,320

and then receive the strut bag and stow

890

01:28:27,650 --> 01:28:37,590

[Music]

891

01:28:41,350 --> 01:28:39,990

and you just heard words from the ground

892

01:28:44,310 --> 01:28:41,360

talking about

893

01:28:46,310 --> 01:28:44,320

storing the strut bag on the brt that's

894

01:28:52,390 --> 01:28:46,320

the body restraint tether and you'll

895

01:28:52,400 --> 01:28:56,210

good work

896

01:28:56,220 --> 01:29:09,350

[Applause]

897

01:29:28,950 --> 01:29:13,030

the camera is coming in and out of that

898

01:29:28,960 --> 01:29:40,440

okay

899

01:29:57,510 --> 01:29:50,750

[Music]

900

01:30:01,350 --> 01:29:59,350

we're in a brief expected handover

901
01:30:03,910 --> 01:30:01,360
between satellites but will regain

902
01:30:05,910 --> 01:30:03,920
communication and visuals shortly the

903
01:30:08,550 --> 01:30:05,920
crew is currently working on closing up

904
01:30:09,990 --> 01:30:08,560
the hatch thermal cover

905
01:30:11,910 --> 01:30:10,000
once that cover is closed they'll

906
01:30:14,070 --> 01:30:11,920
perform some buddy checks to ensure

907
01:30:16,229 --> 01:30:14,080
everything is looking good before they

908
01:30:27,189 --> 01:30:16,239
make their way to their respective work

909
01:30:27,199 --> 01:30:35,710
you know that probably looks okay

910
01:30:35,720 --> 01:30:41,420
[Applause]

911
01:30:46,470 --> 01:30:44,229
[Music]

912
01:30:48,470 --> 01:30:46,480
and i came to my back with you from the

913
01:30:54,550 --> 01:30:48,480

handover were you able to get the strut

914

01:30:59,270 --> 01:30:57,669

the hammers inside there's a opening of

915

01:31:00,629 --> 01:30:59,280

the mounting bracket

916

01:31:02,790 --> 01:31:00,639

right as

917

01:31:03,990 --> 01:31:02,800

the hammers so it's probably coming in

918

01:31:05,430 --> 01:31:04,000

and out of that

919

01:31:07,910 --> 01:31:05,440

opening

920

01:31:09,830 --> 01:31:07,920

okay and the dive is uh

921

01:31:11,110 --> 01:31:09,840

they might be already as rigid as i

922

01:31:13,990 --> 01:31:11,120

could

923

01:31:14,000 --> 01:31:17,750

where's the camera

924

01:31:21,990 --> 01:31:19,910

and the thermal cover is not

925

01:31:23,110 --> 01:31:22,000

that sickening yet the king between the

926

01:31:25,750 --> 01:31:23,120

pictures

927

01:31:33,030 --> 01:31:25,760

yeah the white house life hierarchy

928

01:31:37,590 --> 01:31:35,669

hey we copy all and just uh note as

929

01:31:39,110 --> 01:31:37,600

you're translating that the hammer

930

01:31:40,390 --> 01:31:39,120

coming in and out

931

01:31:47,350 --> 01:31:40,400

could

932

01:31:52,629 --> 01:31:50,229

and um and before we depart i think

933

01:31:54,550 --> 01:31:52,639

we'll get one more try so that i can

934

01:31:56,830 --> 01:31:54,560

finally it in and yeah and then

935

01:31:59,669 --> 01:31:56,840

we'll see yeah all

936

01:32:01,740 --> 01:31:59,679

right for first yet

937

01:32:03,110 --> 01:32:01,750

so do you want me to do anything

938

01:32:05,750 --> 01:32:03,120

[Applause]

939

01:32:08,629 --> 01:32:05,760

copy and yes you can go ahead and close

940

01:32:12,149 --> 01:32:08,639

the thermal cover and use the long wire

941

01:32:14,470 --> 01:32:12,159

tie on handrail zero five five four

942

01:32:16,149 --> 01:32:14,480

using the free end of the wire tie

943

01:32:18,629 --> 01:32:16,159

around the thermal cover soft goods

944

01:32:21,669 --> 01:32:19,510

okay

945

01:32:24,070 --> 01:32:21,679

i don't think you want to trust it right

946

01:32:35,430 --> 01:32:24,080

your phone has

947

01:32:39,510 --> 01:32:37,430

following thermal hatch cover the duo

948

01:32:42,070 --> 01:32:39,520

will head to the work site for the day

949

01:32:47,830 --> 01:32:42,080

and perform some worksite prep before

950

01:32:52,390 --> 01:32:49,750

as we mentioned earlier the bracket is

951
01:32:53,750 --> 01:32:52,400
sent up in pieces and then built

952
01:32:55,510 --> 01:32:53,760
in space

953
01:32:57,430 --> 01:32:55,520
following the build they'll attach the

954
01:32:59,430 --> 01:32:57,440
bracket to the center pad to the mass

955
01:33:20,629 --> 01:32:59,440
canister and then install the newly

956
01:33:25,830 --> 01:33:23,430
and no twist required on the wire tie

957
01:33:29,270 --> 01:33:25,840
just a secondary closure um addition to

958
01:33:44,240 --> 01:33:32,149
so we do still have about

959
01:33:57,750 --> 01:33:50,730
[Music]

960
01:33:57,760 --> 01:34:02,470
can you repeat again the size of the gap

961
01:34:08,709 --> 01:34:05,510
well i would say three to four inches

962
01:34:13,990 --> 01:34:10,950
and aki anything less than five inches

963
01:34:14,000 --> 01:34:18,360

okay

964

01:34:18,370 --> 01:34:23,110

[Music]

965

01:34:30,149 --> 01:34:24,950

okay we copy

966

01:34:34,149 --> 01:34:31,750

we're ready for buddy checks when you

967

01:34:36,790 --> 01:34:34,159

are all right

968

01:34:38,950 --> 01:34:36,800

okay so let's see tomorrow i have two

969

01:34:40,070 --> 01:34:38,960

green lights on this helmet

970

01:34:41,830 --> 01:34:40,080

and

971

01:34:44,629 --> 01:34:41,840

one

972

01:34:51,430 --> 01:34:44,639

two three thumbs up

973

01:34:55,030 --> 01:34:52,709

um

974

01:34:57,669 --> 01:34:55,040

otherwise

975

01:35:02,130 --> 01:34:57,679

the uh enter

976

01:35:30,790 --> 01:35:16,700

[Music]

977

01:35:35,189 --> 01:35:33,030

now performing buddy checks to make sure

978

01:35:37,750 --> 01:35:35,199

everything looks good on their suit

979

01:35:39,990 --> 01:35:37,760

equipment safer and all of their tethers

980

01:35:47,669 --> 01:35:40,000

are in a good configuration before they

981

01:35:51,990 --> 01:35:50,229

you're going to extend a small footprint

982

01:36:02,790 --> 01:35:52,000

away from

983

01:36:08,790 --> 01:36:06,390

true green led the hacker and the tv

984

01:36:11,430 --> 01:36:08,800

don't have your spotlights on only the

985

01:36:12,629 --> 01:36:11,440

regular lights that's how you want them

986

01:36:13,510 --> 01:36:12,639

yeah for now

987

01:36:17,350 --> 01:36:13,520

okay

988

01:36:19,830 --> 01:36:17,360

um and then i see you get three tabs up

989

01:36:22,310 --> 01:36:19,840

you get one handle down on your right

990

01:36:24,550 --> 01:36:22,320

one handle down on your left

991

01:36:27,030 --> 01:36:24,560

uh you're not saying anything for now

992

01:36:29,430 --> 01:36:27,040

your anchor goes to the aft

993

01:36:32,070 --> 01:36:29,440

uh gearing on the unlock is closed and

994

01:36:34,709 --> 01:36:32,080

locked the rest hasn't changed i'll give

995

01:36:36,070 --> 01:36:34,719

it for completeness if your green wheel

996

01:36:37,830 --> 01:36:36,080

is unlocked

997

01:36:39,990 --> 01:36:37,840

it has a yellow hook that is locked

998

01:36:42,229 --> 01:36:40,000

black home black that goes to your left

999

01:36:43,590 --> 01:36:42,239

wheel red wheel

1000

01:36:44,790 --> 01:36:43,600

is

1001
01:36:46,709 --> 01:36:44,800
unlocked

1002
01:36:48,470 --> 01:36:46,719
the green small hook from that your

1003
01:36:51,590 --> 01:36:48,480
green reel goes

1004
01:36:52,629 --> 01:36:51,600
through your red wheel it is unlocked

1005
01:36:54,310 --> 01:36:52,639
and then

1006
01:36:56,950 --> 01:36:54,320
your red hook

1007
01:37:02,629 --> 01:36:56,960
goes to your right steering extender and

1008
01:37:02,639 --> 01:37:06,010
very setter

1009
01:37:15,189 --> 01:37:13,350
[Music]

1010
01:37:16,870 --> 01:37:15,199
we copy all those are good buddy checks

1011
01:37:22,980 --> 01:37:16,880
for both of you and we'll just take a

1012
01:37:22,990 --> 01:37:31,830
[Music]

1013
01:37:37,030 --> 01:37:33,510

you can head out first you're

1014

01:37:43,830 --> 01:37:37,040

translating port to day 12 headed nader

1015

01:37:48,870 --> 01:37:45,830

buddy okay

1016

01:37:50,790 --> 01:37:48,880

good words aki you can translate to the

1017

01:37:53,030 --> 01:37:50,800

airlock with 11 where you'll be

1018

01:38:00,950 --> 01:37:53,040

retrieving the wifix and sewing it on

1019

01:38:05,830 --> 01:38:03,350

and with good putty buddy checks

1020

01:38:08,390 --> 01:38:05,840

complete the crew will now head to their

1021

01:38:12,149 --> 01:38:08,400

respective work site

1022

01:38:16,629 --> 01:38:14,229

pesky is going to head to the work site

1023

01:38:19,350 --> 01:38:16,639

first and aki is going to meet him there

1024

01:38:21,910 --> 01:38:19,360

shortly after picking up some equipment

1025

01:38:26,470 --> 01:38:21,920

translate slowly with the strut bag

1026

01:38:30,070 --> 01:38:26,480

and avoid contact with the tough cable

1027

01:38:30,080 --> 01:38:39,990

and copy

1028

01:38:40,000 --> 01:38:44,149

all right

1029

01:38:48,310 --> 01:38:46,310

the last caution for the two of you is

1030

01:38:57,669 --> 01:38:48,320

to avoid contact with the radiators and

1031

01:39:02,870 --> 01:39:00,149

throughout our spacewalk coverage today

1032

01:39:04,629 --> 01:39:02,880

we'll be answering your questions live

1033

01:39:06,310 --> 01:39:04,639

if you have a question for us you can

1034

01:39:45,590 --> 01:39:06,320

submit it using the

1035

01:39:50,550 --> 01:39:48,149

everybody um the restless tender is

1036

01:40:06,950 --> 01:39:50,560

almost the earthd work of reds

1037

01:40:11,910 --> 01:40:09,189

to the work site you can see that strut

1038

01:40:15,750 --> 01:40:11,920

bag attached to his body restraint

1039

01:40:22,870 --> 01:40:17,750

i'm gonna make my way forward copy

1040

01:40:22,880 --> 01:40:44,629

uh

1041

01:40:44,639 --> 01:41:15,570

yes

1042

01:41:19,990 --> 01:41:17,030

[Music]

1043

01:41:22,149 --> 01:41:20,000

right now but so let me go down yeah so

1044

01:41:25,350 --> 01:41:22,159

i think it's called on the wii suspender

1045

01:41:25,360 --> 01:41:29,669

thanks

1046

01:41:29,679 --> 01:41:38,229

i'll just stay here for the moment

1047

01:41:42,229 --> 01:41:40,070

uh yeah i think you're free you're free

1048

01:41:44,629 --> 01:41:42,239

now great okay yeah

1049

01:41:49,590 --> 01:41:44,639

wait until you go a little further

1050

01:41:49,600 --> 01:41:55,990

you should keep your hand on it

1051

01:41:56,000 --> 01:42:01,510

yeah ikea take each other now

1052

01:42:08,709 --> 01:42:04,070

this view from tomorrow pesky's helmet

1053

01:42:08,719 --> 01:42:22,709

and we copy great teamwork

1054

01:42:27,430 --> 01:42:25,430

you can see tomorrow using his hands

1055

01:42:29,590 --> 01:42:27,440

quite frequently that's because during a

1056

01:42:31,510 --> 01:42:29,600

space walk while it's called a space

1057

01:42:33,830 --> 01:42:31,520

walk the crew members really don't walk

1058

01:42:40,550 --> 01:42:33,840

they utilize their hands to move and

1059

01:42:47,590 --> 01:42:43,260

happy

1060

01:43:30,550 --> 01:42:47,600

[Applause]

1061

01:43:33,030 --> 01:43:30,560

nice view on the venus dragon

1062

01:43:43,109 --> 01:43:35,990

right there pretty short looking

1063

01:43:48,870 --> 01:43:43,580

okay

1064

01:43:52,709 --> 01:43:50,550

the crew commenting that they have a

1065

01:43:55,430 --> 01:43:52,719

nice view of the dragon vehicle which

1066

01:43:57,189 --> 01:43:55,440

they both arrived at the crew dragon

1067

01:43:58,149 --> 01:43:57,199

endeavour they both arrived on that

1068

01:44:33,750 --> 01:43:58,159

vehicle

1069

01:44:37,830 --> 01:44:35,830

european space agency astronaut tomorrow

1070

01:44:40,550 --> 01:44:37,840

pesky continuing to make his way to the

1071

01:44:43,910 --> 01:44:40,560

work site meanwhile japan aerospace

1072

01:44:45,910 --> 01:44:43,920

exploration agency astronaut aki hoshide

1073

01:44:54,070 --> 01:44:45,920

is picking up some equipment and will

1074

01:44:58,870 --> 01:44:55,669

one of the pieces of equipment that

1075

01:45:00,709 --> 01:44:58,880

hoshide will be picking up is the apfr

1076

01:45:02,390 --> 01:45:00,719

which stands for the articulating

1077

01:45:04,709 --> 01:45:02,400

portable foot restraint

1078

01:45:06,950 --> 01:45:04,719

he'll utilize that today in order to

1079

01:45:09,669 --> 01:45:06,960

restrain their feet at the respective

1080

01:45:38,709 --> 01:45:09,679

work site to get in a good position to

1081

01:45:47,189 --> 01:45:40,310

uh heads up that the arm will be in

1082

01:45:55,830 --> 01:45:50,229

you're looking for handrail 3652

1083

01:45:55,840 --> 01:46:10,950

so you're not quite there yet

1084

01:46:10,960 --> 01:46:15,830

absolutely

1085

01:46:20,310 --> 01:46:17,990

now just a little over 30 minutes into

1086

01:46:24,149 --> 01:46:20,320

today's space walk recapping some of the

1087

01:46:26,229 --> 01:46:24,159

milestones so far at 7 15 a.m central

1088

01:46:28,629 --> 01:46:26,239

time hoshide and pesquet

1089

01:46:30,229 --> 01:46:28,639

turn their suits on to battery power

1090

01:46:33,510 --> 01:46:30,239

marking the official start of today's

1091

01:46:37,510 --> 01:46:35,510

since then they've egressed the airlock

1092

01:46:41,669 --> 01:46:37,520

and are now making their way to the work

1093

01:46:41,679 --> 01:47:01,430

good words

1094

01:47:01,440 --> 01:47:06,709

[Music]

1095

01:47:10,149 --> 01:47:08,070

happy

1096

01:47:12,550 --> 01:47:10,159

you can continue translating out to the

1097

01:47:28,340 --> 01:47:12,560

four alpha iea and stay on the

1098

01:47:46,629 --> 01:47:36,260

[Music]

1099

01:47:51,270 --> 01:47:49,350

and aki you are looking for handrail

1100

01:47:53,910 --> 01:47:51,280

3651

1101

01:48:01,350 --> 01:47:53,920

which will just be just nader of tomas

1102

01:48:05,590 --> 01:48:04,070

pesquet continuing to translate to 4a

1103

01:48:08,229 --> 01:48:05,600

which will be the work site for the

1104

01:48:10,709 --> 01:48:08,239

first task this morning once there he's

1105

01:48:13,910 --> 01:48:10,719

going to stow the strap bag which he

1106

01:48:21,030 --> 01:48:13,920

currently has stored on his brt or body

1107

01:48:26,310 --> 01:48:23,910

this will ensure that both pesquet and

1108

01:48:51,910 --> 01:48:26,320

hoshide will have access to the contents

1109

01:48:51,920 --> 01:48:59,830

[Music]

1110

01:49:04,070 --> 01:49:01,750

you can follow tama out to the four

1111

01:49:42,709 --> 01:49:04,080

alpha iea and then you'll be translating

1112

01:49:46,470 --> 01:49:44,550

reminder to both of you to verify that

1113

01:49:51,460 --> 01:49:46,480

your gauntlets are in place prior to

1114

01:49:57,270 --> 01:49:53,669

[Music]

1115

01:49:57,280 --> 01:50:33,669

cafe

1116

01:50:33,679 --> 01:50:51,030

crossing

1117

01:50:51,040 --> 01:51:02,310

good tomorrow

1118

01:51:02,320 --> 01:51:18,390

okay

1119

01:51:18,400 --> 01:51:23,830

the other side you're going forward

1120

01:51:23,840 --> 01:51:47,910

happy

1121

01:51:52,310 --> 01:51:50,310

and tamar you're looking for handrails

1122

01:51:58,550 --> 01:51:52,320

5106

1123

01:51:58,560 --> 01:52:02,470

okay i'm at 51.067

1124

01:52:07,830 --> 01:52:05,189

and i'll be working on the short bag

1125

01:52:09,830 --> 01:52:07,840

copy you can use the intel tethers to

1126

01:52:12,149 --> 01:52:09,840

stow it and just a reminder that you

1127

01:52:13,270 --> 01:52:12,159

want the bag handrail toward the

1128

01:52:15,189 --> 01:52:13,280

radiator

1129

01:52:16,550 --> 01:52:15,199

the tape on the handrail towards the

1130

01:52:18,629 --> 01:52:16,560

mast canister

1131

01:52:27,830 --> 01:52:18,639

and to bias the whole bag toward the

1132

01:52:34,790 --> 01:52:31,589

body i'm on p4

1133

01:52:37,830 --> 01:52:34,800

copy it you're headed to with 26

1134

01:52:51,270 --> 01:52:37,840

and you'll be installing the effects and

1135

01:52:51,280 --> 01:52:56,629

okay

1136

01:52:56,639 --> 01:52:59,510

we need

1137

01:52:59,520 --> 01:53:04,070

or rather the back from my vrt

1138

01:53:09,910 --> 01:53:06,870

and working on the 10 still

1139

01:53:12,390 --> 01:53:09,920

i see you like you on the other side yep

1140

01:53:14,550 --> 01:53:12,400

good

1141

01:53:17,589 --> 01:53:14,560

this view from issa astronaut toma

1142

01:53:19,669 --> 01:53:17,599

pesquez helmet cam as he works to stow

1143

01:53:24,470 --> 01:53:19,679

the strut bag that was previously on his

1144

01:53:24,480 --> 01:53:52,870

all right did i see with 26.

1145

01:53:52,880 --> 01:54:03,520

that's your bag

1146

01:54:03,530 --> 01:54:07,910

[Applause]

1147

01:54:13,589 --> 01:54:11,270

the strut bag was specifically created

1148

01:54:15,350 --> 01:54:13,599

that to allow the crew to work on each

1149

01:54:35,430 --> 01:54:15,360

piece individually while keeping the

1150

01:54:39,990 --> 01:54:37,910

as a reminder the primary tasks for

1151
01:54:42,790 --> 01:54:40,000
today's spacewalk include building the

1152
01:54:43,990 --> 01:54:42,800
4a bracket and installing it to the 4a

1153
01:54:48,149 --> 01:54:44,000
struts

1154
01:54:50,709 --> 01:54:48,159
sent to space in pieces and require

1155
01:54:53,030 --> 01:54:50,719
being assembled in orbit very similar to

1156
01:54:53,990 --> 01:54:53,040
how we build furniture here on earth on

1157
01:55:06,870 --> 01:54:54,000
the

1158
01:55:11,189 --> 01:55:08,550
copy that to moss and you can go ahead

1159
01:55:14,790 --> 01:55:11,199
and open the four lid straps and should

1160
01:55:14,800 --> 01:55:30,790
negative i just got four

1161
01:55:30,800 --> 01:55:34,629
on the wifix

1162
01:56:02,310 --> 01:55:37,109
goal five

1163
01:56:07,589 --> 01:56:05,270

the space station currently flying 264

1164

01:56:18,550 --> 01:56:07,599

statute miles over the north pacific

1165

01:56:18,560 --> 01:56:23,990

okay second he's on five one zero five

1166

01:56:27,990 --> 01:56:26,310

copy five one zero five

1167

01:56:45,510 --> 01:56:28,000

you can go ahead and open the four lid

1168

01:56:45,520 --> 01:56:50,149

the hammer is actually it's through the

1169

01:56:54,790 --> 01:56:52,310

mounting brackets in that hole yeah

1170

01:56:59,669 --> 01:56:54,800

that's why it comes out

1171

01:56:59,679 --> 01:57:07,109

bring the bag yeah we copy y'all

1172

01:57:13,270 --> 01:57:10,149

that's why the uh rifle is installed on

1173

01:57:14,950 --> 01:57:13,280

lift 26 with a quarter of it

1174

01:57:16,149 --> 01:57:14,960

and uh gold

1175

01:57:22,149 --> 01:57:16,159

uh

1176

01:57:26,470 --> 01:57:25,270

kapiolaki that's a good install on the

1177

01:57:30,390 --> 01:57:26,480

wfx

1178

01:57:31,669 --> 01:57:30,400

you can head out to p5 with 13 let me

1179

01:57:42,070 --> 01:57:31,679

know if you need words on the

1180

01:57:44,629 --> 01:57:43,109

go back

1181

01:57:57,109 --> 01:57:44,639

can you verify the extension on the

1182

01:58:00,950 --> 01:57:59,589

jaxa astronaut aki hoshide

1183

01:58:04,310 --> 01:58:00,960

now heading to

1184

01:58:06,470 --> 01:58:04,320

grab the apfr or articulating portable

1185

01:58:09,750 --> 01:58:06,480

foot restraint he'll use that to

1186

01:58:15,990 --> 01:58:09,760

restrain his feet in order to get a good

1187

01:58:21,350 --> 01:58:19,270

a warning for you aki the two alpha bga

1188

01:58:27,589 --> 01:58:21,360

is rotating keep two feet away from the

1189

01:58:31,430 --> 01:58:28,950

watch out

1190

01:58:35,270 --> 01:58:31,440

all right the bag is open

1191

01:58:38,149 --> 01:58:35,280

on your left side now okay

1192

01:58:40,149 --> 01:58:38,159

i'll take my position on five one zero

1193

01:58:42,390 --> 01:58:40,159

seven it's probably

1194

01:58:44,629 --> 01:58:42,400

andrea for me to be at

1195

01:58:47,030 --> 01:58:44,639

you can be on 5.06 when you come back

1196

01:58:49,189 --> 01:58:47,040

copy that

1197

01:58:53,030 --> 01:58:49,199

we copy tomorrow i'll take a glove half

1198

01:58:58,390 --> 01:58:56,149

right contacts are in place flap is dry

1199

01:59:00,310 --> 01:58:58,400

and gloves are good and like smudge on

1200

01:59:01,669 --> 01:59:00,320

the pinky

1201

01:59:03,109 --> 01:59:01,679

but it's not in batteries with the

1202

01:59:05,270 --> 01:59:03,119

translation

1203

01:59:09,189 --> 01:59:05,280

uh other than that there is more space

1204

01:59:13,510 --> 01:59:11,510

copy all thoma

1205

01:59:15,750 --> 01:59:13,520

with that you can go ahead and start on

1206

01:59:19,189 --> 01:59:15,760

the upper triangle build so have you

1207

01:59:21,189 --> 01:59:19,199

retrieve the mounting bracket and the

1208

01:59:27,910 --> 01:59:21,199

right upper strut from the strut bag

1209

01:59:32,629 --> 01:59:30,870

while hoshide is grabbing the apfr

1210

01:59:34,310 --> 01:59:32,639

pasquet is now getting a head start

1211

01:59:44,470 --> 01:59:34,320

getting into the strut bag and beginning

1212

01:59:48,950 --> 01:59:45,910

copy aki

1213

01:59:51,189 --> 01:59:48,960

once you've got that on your brt you can

1214

02:00:04,629 --> 01:59:51,199

retrace your translation path back to

1215

02:00:04,639 --> 02:00:09,669

and hoshide does now have the apfr

1216

02:00:09,679 --> 02:00:13,990

that's my right upper struts

1217

02:00:16,629 --> 02:00:15,189

cappy

1218

02:00:19,669 --> 02:00:16,639

right upper strap

1219

02:00:22,470 --> 02:00:19,679

body is stressful and chewing blue and

1220

02:00:25,990 --> 02:00:22,480

it comes with the center panel correct

1221

02:00:47,030 --> 02:00:27,430

all right we're cheering that from the

1222

02:00:47,040 --> 02:01:08,870

wow

1223

02:01:14,709 --> 02:01:11,510

the right upper strut

1224

02:01:16,470 --> 02:01:14,719

and the middle bracket so we can start

1225

02:01:17,750 --> 02:01:16,480

construction work

1226

02:01:19,589 --> 02:01:17,760

copy

1227

02:01:21,669 --> 02:01:19,599

all right you can install the right

1228

02:01:24,550 --> 02:01:21,679

upper strut to the mounting bracket on

1229

02:01:31,830 --> 02:01:24,560

the right side by sliding the strut tab

1230

02:01:34,950 --> 02:01:33,189

[Music]

1231

02:01:41,189 --> 02:01:34,960

a firm I7

1232

02:01:46,149 --> 02:01:43,589

european space agency astronaut tomorrow

1233

02:01:48,310 --> 02:01:46,159

pesquet now working to build the

1234

02:01:52,550 --> 02:01:48,320

triangle um the first part of that will

1235

02:01:56,790 --> 02:01:54,790

in order to do so he will assemble the

1236

02:02:02,229 --> 02:01:56,800

right upper stretch to the mounting

1237

02:02:02,239 --> 02:02:07,750

through all six

1238

02:02:13,830 --> 02:02:10,709

copy and i have ppt settings for you

1239

02:02:20,550 --> 02:02:15,830

i'm not ready yet

1240

02:02:25,350 --> 02:02:23,350

hey everybody i got this jfr on my vrt

1241

02:02:28,629 --> 02:02:25,360

with the red

1242

02:02:32,310 --> 02:02:28,639

english 95th

1243

02:02:42,470 --> 02:02:34,390

copy all and you'll be installing that

1244

02:02:47,030 --> 02:02:45,030

if you haven't right here i'm trying to

1245

02:02:48,310 --> 02:02:47,040

some slide through yeah can i yeah yeah

1246

02:02:49,669 --> 02:02:48,320

that's fine

1247

02:02:52,470 --> 02:02:49,679

all right thank you

1248

02:02:57,830 --> 02:02:52,480

no space javascript

1249

02:02:57,840 --> 02:03:04,470

thanks so much

1250

02:03:08,870 --> 02:03:06,550

watch the mass chemistry happy about

1251
02:03:16,950 --> 02:03:08,880
music ps4

1252
02:03:16,960 --> 02:03:28,870
uh

1253
02:03:28,880 --> 02:03:34,390
okay

1254
02:03:39,510 --> 02:03:36,870
the right straps

1255
02:03:42,229 --> 02:03:39,520
through the right side of

1256
02:03:44,149 --> 02:03:42,239
these mounting brackets and i'm going to

1257
02:03:47,270 --> 02:03:44,159
go ahead and stop those posts by hand if

1258
02:04:07,430 --> 02:03:50,069
sure thing we're looking for four turns

1259
02:04:32,149 --> 02:04:10,709
is fun

1260
02:04:32,159 --> 02:04:44,730
i'm sorry

1261
02:04:44,740 --> 02:04:50,709
[Music]

1262
02:05:04,229 --> 02:04:54,550
m13

1263
02:05:09,830 --> 02:05:07,109

isa astronaut thomas pesquet has hand

1264

02:05:12,550 --> 02:05:09,840

started a couple of bolts next up he'll

1265

02:05:14,790 --> 02:05:12,560

use the pgt or pistol grip tool that

1266

02:05:17,430 --> 02:05:14,800

will be the main tool used today

1267

02:05:31,430 --> 02:05:17,440

to install the bracket on the 4a mouse

1268

02:05:35,990 --> 02:05:33,510

before we move on to the next part of

1269

02:05:45,270 --> 02:05:36,000

the triangle we'll have you check that

1270

02:05:50,870 --> 02:05:47,030

it isn't no i don't see the green light

1271

02:05:53,510 --> 02:05:50,880

i'll go ahead and oh my god figure

1272

02:05:53,520 --> 02:06:14,790

hey we copy the power cycle

1273

02:06:19,910 --> 02:06:17,910

you can go ahead and retrieve your the

1274

02:06:34,149 --> 02:06:19,920

left upper strut from the strut bag

1275

02:06:37,990 --> 02:06:36,149

making good progress constructing the

1276
02:06:39,510 --> 02:06:38,000
triangle that will make up the top

1277
02:06:41,750 --> 02:06:39,520
portion

1278
02:06:44,870 --> 02:06:41,760
all the other pieces are safely secured

1279
02:07:08,629 --> 02:06:44,880
in the spec specially designed bag the

1280
02:07:08,639 --> 02:07:15,830
foreign

1281
02:07:19,510 --> 02:07:18,629
copy that's a good install on the apfr

1282
02:07:35,870 --> 02:07:19,520
the

1283
02:07:35,880 --> 02:07:51,430
[Music]

1284
02:07:51,440 --> 02:07:58,069
tango tango fox 12.

1285
02:08:17,830 --> 02:07:59,910
thank you almost

1286
02:08:46,950 --> 02:08:19,830
you'll be installing the left upper

1287
02:09:02,270 --> 02:08:50,149
and to my have pgt settings for you when

1288
02:09:07,669 --> 02:09:05,910

ready that's funny with you

1289

02:09:10,149 --> 02:09:07,679

oh no you mean for the

1290

02:09:12,709 --> 02:09:10,159

center part of your lpg

1291

02:09:17,109 --> 02:09:12,719

hey firm we're going to be driving m17

1292

02:09:17,119 --> 02:09:21,350

standby just make a voice

1293

02:09:21,360 --> 02:09:24,950

more in just one second but

1294

02:09:24,960 --> 02:09:27,910

information

1295

02:09:31,830 --> 02:09:30,790

my body for the fifth setting i can push

1296

02:09:33,510 --> 02:09:31,840

on that

1297

02:09:35,109 --> 02:09:33,520

lock button

1298

02:09:37,589 --> 02:09:35,119

lock dial

1299

02:09:41,510 --> 02:09:37,599

doesn't mean

1300

02:09:45,109 --> 02:09:41,520

that you have to push on both sides

1301

02:09:47,189 --> 02:09:45,119

the reflex now well it's there yeah it's

1302

02:09:48,629 --> 02:09:47,199

the key you have to push and push and

1303

02:09:52,229 --> 02:09:48,639

turn right yeah

1304

02:09:52,239 --> 02:09:55,270

to say

1305

02:10:01,030 --> 02:09:56,229

yeah

1306

02:10:04,709 --> 02:10:02,790

we're currently in a brief expected

1307

02:10:07,830 --> 02:10:04,719

handover between satellites but we'll

1308

02:10:10,069 --> 02:10:07,840

regain communication and visuals shortly

1309

02:10:11,990 --> 02:10:10,079

as a reminder we are taking your

1310

02:10:14,629 --> 02:10:12,000

questions on social media and we'll be

1311

02:10:17,750 --> 02:10:14,639

answering them live on air you can use

1312

02:10:18,550 --> 02:10:17,760

the hashtag ask nasa to send those our

1313

02:10:20,069 --> 02:10:18,560

way

1314

02:10:22,550 --> 02:10:20,079

we have gotten a great question from

1315

02:10:24,790 --> 02:10:22,560

jessica on twitter who asks does the

1316

02:10:27,510 --> 02:10:24,800

space station orbit the earth at a fast

1317

02:10:29,910 --> 02:10:27,520

pace or at a slow pace and can the

1318

02:10:32,229 --> 02:10:29,920

astronauts feel the space station moving

1319

02:10:35,270 --> 02:10:32,239

the astronaut orbits the earth every 90

1320

02:10:38,870 --> 02:10:35,280

minutes it's traveling at a rate of 17

1321

02:10:41,430 --> 02:10:38,880

500 miles per hour or about five miles

1322

02:10:44,470 --> 02:10:41,440

every second because it orbits the earth

1323

02:10:47,830 --> 02:10:44,480

every 90 minutes the astronauts on board

1324

02:10:49,030 --> 02:10:47,840

see a sunrise and sun set about every 45

1325

02:10:51,030 --> 02:10:49,040

minutes

1326

02:10:53,270 --> 02:10:51,040

as far as if the crew members can feel

1327

02:10:55,189 --> 02:10:53,280

the space station moving i don't believe

1328

02:10:57,189 --> 02:10:55,199

that they can but i can't speak from

1329

02:11:01,669 --> 02:10:57,199

experience i've never been to space

1330

02:11:07,189 --> 02:11:04,470

no not yet so i did manage to unlock it

1331

02:11:09,189 --> 02:11:07,199

it was stiff like from outside it just

1332

02:11:11,990 --> 02:11:09,199

needed another oops

1333

02:11:13,669 --> 02:11:12,000

i did get it to tangle tangle but it's

1334

02:11:16,229 --> 02:11:13,679

not fully locked

1335

02:11:21,669 --> 02:11:16,239

in the lock orientation but not

1336

02:11:29,109 --> 02:11:25,109

like 10 degrees it's just uh

1337

02:11:34,110 --> 02:11:29,119

three i don't know a lot of regression

1338

02:11:34,120 --> 02:11:48,870

[Applause]

1339

02:11:52,470 --> 02:11:50,390

otherwise it doesn't stay in places it

1340

02:11:54,950 --> 02:11:52,480

makes it difficult for me to control the

1341

02:11:57,510 --> 02:11:54,960

whole thing and my pgp at the same time

1342

02:11:58,790 --> 02:11:57,520

so now this is staying with 5 turns

1343

02:12:01,030 --> 02:11:58,800

and i'm going to go ahead and pull my

1344

02:12:03,750 --> 02:12:01,040

pgt for your settings

1345

02:12:06,790 --> 02:12:03,760

it's letting you know

1346

02:12:08,870 --> 02:12:06,800

okay we copy four turns tomah

1347

02:12:11,669 --> 02:12:08,880

and your pgt settings for the rest of

1348

02:12:14,390 --> 02:12:11,679

the turns will be bravo one clockwise

1349

02:12:18,870 --> 02:12:15,430

okay

1350

02:12:20,950 --> 02:12:18,880

one clockwise two

1351

02:12:22,870 --> 02:12:20,960

good words and we'll be looking for a

1352

02:12:29,510 --> 02:12:22,880

minimum of two and a half additional

1353

02:12:29,520 --> 02:12:41,510

okay

1354

02:12:47,910 --> 02:12:44,470

continuing to use the pgt or pistol grip

1355

02:12:55,430 --> 02:12:47,920

tool to secure bolts as he assembles the

1356

02:12:55,440 --> 02:12:58,390

and work on that

1357

02:13:03,030 --> 02:13:00,310

copy aki

1358

02:13:05,910 --> 02:13:03,040

can if you can give it a good uh wiggle

1359

02:13:09,830 --> 02:13:05,920

test and if you feel comfortable

1360

02:13:13,750 --> 02:13:11,430

okay uh

1361

02:13:17,990 --> 02:13:13,760

yeah i did manage to unlock it or sorry

1362

02:13:19,589 --> 02:13:18,000

lock it the dial is out helped out

1363

02:13:22,069 --> 02:13:19,599

excellent news great work hockey why do

1364

02:13:28,229 --> 02:13:22,079

you have two points

1365

02:13:45,830 --> 02:13:37,910

copy

1366

02:13:48,229 --> 02:13:45,840

torque and black line flush and green

1367

02:13:51,109 --> 02:13:49,270

yes

1368

02:14:11,440 --> 02:13:51,119

what i'm saying there's still a few ways

1369

02:14:11,450 --> 02:14:22,310

[Music]

1370

02:14:22,320 --> 02:14:39,030

go ahead

1371

02:14:43,669 --> 02:14:40,550

want to marker don't you want me to

1372

02:14:43,679 --> 02:14:48,390

we'd like for you to drive to torque

1373

02:14:48,400 --> 02:14:58,950

okay

1374

02:15:02,310 --> 02:14:59,990

you can

1375

02:15:03,669 --> 02:15:02,320

we'd like for you to check both of your

1376

02:15:11,050 --> 02:15:03,679

green lights

1377

02:15:11,060 --> 02:15:16,229

[Music]

1378

02:15:28,550 --> 02:15:18,709

i have a green light and i have 5

1379

02:15:43,470 --> 02:15:29,709

copy

1380

02:15:43,480 --> 02:15:48,390

[Music]

1381

02:15:48,400 --> 02:16:02,149

cycle it uh copy that aki stand by one

1382

02:16:17,510 --> 02:16:04,149

aki a firm please power cycle your

1383

02:16:23,669 --> 02:16:19,350

and tomorrow standby are just checking

1384

02:16:23,679 --> 02:16:26,550

okay

1385

02:16:26,560 --> 02:16:42,389

power cycle full of cameras

1386

02:16:42,399 --> 02:16:49,660

thanks aki

1387

02:16:49,670 --> 02:16:56,790

[Music]

1388

02:17:02,709 --> 02:16:59,509

great uh tomah that is a good bolt on

1389

02:17:08,469 --> 02:17:02,719

m17 so you have a go to release the

1390

02:17:11,750 --> 02:17:09,589

okay

1391

02:17:12,770 --> 02:17:11,760

the red from the right upper strut which

1392

02:17:16,230 --> 02:17:12,780

is

1393

02:17:22,549 --> 02:17:18,469

the right of the next upper stroke

1394

02:17:27,030 --> 02:17:24,549

right opposite the one main fault first

1395

02:17:28,070 --> 02:17:27,040

the one that only has four turns on each

1396

02:17:30,150 --> 02:17:28,080

ball

1397

02:17:31,349 --> 02:17:30,160

correct a firm

1398

02:17:35,270 --> 02:17:31,359

all right

1399

02:17:36,549 --> 02:17:35,280

yes i'm releasing the right on the right

1400

02:17:41,110 --> 02:17:36,559

of the stroke

1401

02:17:46,150 --> 02:17:42,629

aki

1402

02:17:48,389 --> 02:17:46,160

you can inspect the right and left saab

1403

02:17:51,429 --> 02:17:48,399

spherical bearings on the mass canister

1404

02:17:54,549 --> 02:17:51,439

platform and report any abdominal damage

1405

02:17:58,629 --> 02:17:56,709

okay sorry i forgot about that but uh

1406

02:18:01,030 --> 02:17:58,639

already halfway

1407

02:18:04,469 --> 02:18:01,040

tomorrow you know

1408

02:18:05,990 --> 02:18:04,479

tomorrow do you want me to go back

1409

02:18:12,440 --> 02:18:06,000

i'll believe that you when i get there

1410

02:18:12,450 --> 02:18:19,349

[Music]

1411

02:18:23,429 --> 02:18:21,429

bracket

1412

02:18:25,509 --> 02:18:23,439

that's correct before we start

1413

02:18:29,349 --> 02:18:25,519

installing that we will have you install

1414

02:18:31,669 --> 02:18:29,359

the center pad mli and the pit pin

1415

02:18:33,429 --> 02:18:31,679

we're a little over an hour into today's

1416

02:18:35,830 --> 02:18:33,439

spacewalk recapping some of the

1417

02:18:39,509 --> 02:18:35,840

milestones that have happened so far

1418

02:18:40,950 --> 02:18:39,519

the spacewalk today began at 7 15 a.m

1419

02:18:46,150 --> 02:18:40,960

central time when the suits were

1420

02:18:50,870 --> 02:18:48,150

pesque and hoshide have made their way

1421

02:18:56,230 --> 02:18:50,880

to the work site and are working on

1422

02:19:05,190 --> 02:18:58,629

once that portion is built they'll begin

1423

02:19:05,200 --> 02:19:09,030

the canister

1424

02:19:09,040 --> 02:19:16,629

myself

1425

02:19:23,509 --> 02:19:19,349

kathy and aki when you arrive we'll take

1426

02:19:28,629 --> 02:19:25,990

i have this dry

1427

02:19:31,349 --> 02:19:28,639

gauntlet is down

1428

02:19:34,870 --> 02:19:31,359

on my left glove uh middle finger

1429

02:19:37,910 --> 02:19:34,880

there's a little bit of a black smudge

1430

02:19:38,950 --> 02:19:37,920

on my right

1431

02:19:40,950 --> 02:19:38,960

my uh

1432

02:19:42,309 --> 02:19:40,960

palm

1433

02:19:43,830 --> 02:19:42,319

index

1434

02:19:45,830 --> 02:19:43,840

thumb and

1435

02:19:51,349 --> 02:19:45,840

ring finger there's a little bit of flex

1436

02:19:51,359 --> 02:19:55,190

happy all lucky

1437

02:19:59,830 --> 02:19:57,349

and you just heard jaxa astronaut aki

1438

02:20:01,030 --> 02:19:59,840

hoshide complete a glove half and

1439

02:20:02,950 --> 02:20:01,040

gauntlet check

1440

02:20:05,510 --> 02:20:02,960

throughout the course of spacewalks the

1441

02:20:08,070 --> 02:20:05,520

gloves are checked out to see if there

1442

02:20:10,230 --> 02:20:08,080

has been any damage to them

1443

02:20:12,710 --> 02:20:10,240

the hap is also checked which is the

1444

02:20:15,750 --> 02:20:12,720

helmet absorption pad this is worn

1445

02:20:19,270 --> 02:20:15,760

inside the helmet to absorb any liquid

1446

02:20:41,590 --> 02:20:21,270

doesn't matter

1447

02:20:45,670 --> 02:20:43,429

i think if you can grab that mounting

1448

02:20:46,870 --> 02:20:45,680

bracket and uh make it better a little

1449

02:20:48,630 --> 02:20:46,880

bit okay

1450

02:20:49,830 --> 02:20:48,640

because the red is pulling it to my left

1451
02:20:52,230 --> 02:20:49,840
which is

1452
02:21:13,510 --> 02:20:52,240
that's what i like the most

1453
02:21:27,990 --> 02:21:14,710
okay

1454
02:21:32,870 --> 02:21:30,389
everything's still proceeding smoothly

1455
02:21:34,870 --> 02:21:32,880
today the crew is on the timeline for

1456
02:21:41,349 --> 02:21:34,880
today's spacewalk and is working to

1457
02:21:46,230 --> 02:21:42,870
copy

1458
02:21:48,070 --> 02:21:46,240
and aki i have pgt settings for you if

1459
02:21:51,110 --> 02:21:48,080
you would like to help with driving

1460
02:21:51,120 --> 02:21:58,469
okay let's look for the next one

1461
02:22:02,550 --> 02:22:00,790
upper strut to the mounting bracket left

1462
02:22:03,510 --> 02:22:02,560
side

1463
02:22:15,750 --> 02:22:03,520

okay

1464

02:22:20,230 --> 02:22:17,990

up to you on how you two want to work

1465

02:22:22,230 --> 02:22:20,240

together to get the left upper strut

1466

02:22:27,510 --> 02:22:22,240

installed in the mounting bracket left

1467

02:22:32,550 --> 02:22:30,309

turn starting yeah

1468

02:22:33,270 --> 02:22:32,560

you already told it that if you can hold

1469

02:22:34,230 --> 02:22:33,280

it

1470

02:22:39,000 --> 02:22:34,240

right

1471

02:22:39,010 --> 02:22:43,429

[Music]

1472

02:22:43,439 --> 02:22:48,830

all

1473

02:22:48,840 --> 02:23:11,750

right okay

1474

02:23:16,830 --> 02:23:14,309

i hope the mountain back is steady yeah

1475

02:23:18,630 --> 02:23:16,840

that helps

1476

02:23:20,389 --> 02:23:18,640

yeah

1477

02:23:22,309 --> 02:23:20,399

the only thing that i can't get though

1478

02:23:33,270 --> 02:23:22,319

yeah so that's fine if you hold a

1479

02:23:37,670 --> 02:23:35,750

all right that's two turns on

1480

02:23:41,110 --> 02:23:37,680

m15

1481

02:23:41,120 --> 02:23:47,429

good work

1482

02:23:51,349 --> 02:23:50,550

all right that's four times on m15 qr

1483

02:23:54,550 --> 02:23:51,359

key

1484

02:23:54,560 --> 02:23:57,830

underneath yeah

1485

02:24:05,750 --> 02:24:01,110

hey we copy four turns on m15

1486

02:24:07,990 --> 02:24:05,760

next we'll be driving m16 to torque

1487

02:24:42,309 --> 02:24:08,000

the settings will be bravo three

1488

02:24:47,110 --> 02:24:44,550

european space agency astronaut thomas

1489

02:24:49,910 --> 02:24:47,120

pesquet continuing to use the pistol

1490

02:24:52,469 --> 02:24:49,920

grip tool to secure bolts

1491

02:25:27,110 --> 02:24:52,479

on the left upper strut to secure it to

1492

02:25:27,120 --> 02:25:38,389

team

1493

02:25:43,990 --> 02:25:41,429

all right 19 times on top

1494

02:25:44,870 --> 02:25:44,000

of those three that i gave by hand i

1495

02:25:46,389 --> 02:25:44,880

have

1496

02:25:48,790 --> 02:25:46,399

18

1497

02:25:49,990 --> 02:25:48,800

decimal 8 actual torque

1498

02:25:52,790 --> 02:25:50,000

green light

1499

02:25:58,389 --> 02:25:52,800

and 19 decimals

1500

02:26:04,309 --> 02:26:01,830

we copy an additional 19.7

1501
02:26:08,389 --> 02:26:04,319
turns 18.8 on the torque and can you

1502
02:26:08,399 --> 02:26:21,429
the black line is flush

1503
02:26:32,950 --> 02:26:23,590
and aki just stand by one double

1504
02:26:37,830 --> 02:26:35,349
the only thing left is the right to the

1505
02:26:39,429 --> 02:26:37,840
mid strut torquing this down i think i

1506
02:26:41,590 --> 02:26:39,439
have to put this hold for the

1507
02:26:43,030 --> 02:26:41,600
phosphorous yeah and then what he said

1508
02:26:44,950 --> 02:26:43,040
okay

1509
02:26:48,950 --> 02:26:44,960
yeah good words and there's a good bolt

1510
02:26:51,670 --> 02:26:48,960
on m16 so we can move on to m15 driving

1511
02:26:56,389 --> 02:26:51,680
that to torque expecting 20 additional

1512
02:27:03,429 --> 02:27:00,550
so i have a level 3 clockwise to 18.4

1513
02:27:04,309 --> 02:27:03,439

program i'm going for 20 turns and then

1514

02:27:06,309 --> 02:27:04,319

you

1515

02:27:08,070 --> 02:27:06,319

guys a little bit of weight not already

1516

02:27:42,950 --> 02:27:08,080

operation yeah there you go perfect

1517

02:27:46,550 --> 02:27:45,670

pesquet now working to secure the second

1518

02:27:50,870 --> 02:27:46,560

bolt

1519

02:27:50,880 --> 02:27:53,750

all right

1520

02:27:59,429 --> 02:27:55,870

i have a good green light

1521

02:28:01,830 --> 02:27:59,439

18.4 actual

1522

02:28:04,710 --> 02:28:01,840

sorry 18.5

1523

02:28:09,429 --> 02:28:04,720

turns and green light black line flush

1524

02:28:09,439 --> 02:28:18,550

copy 18.5 additional turns 18.4 torque

1525

02:28:18,560 --> 02:28:21,030

correct

1526
02:28:24,710 --> 02:28:22,870
if you have the feed you can just sweep

1527
02:28:36,550 --> 02:28:24,720
it out yeah

1528
02:28:42,790 --> 02:28:40,070
and that's a good bolt for m15 uh before

1529
02:28:49,349 --> 02:28:42,800
we move on tomah can you please uh check

1530
02:28:54,150 --> 02:28:51,670
correct is on

1531
02:29:02,070 --> 02:28:54,160
copy then can we get two button presses

1532
02:29:11,950 --> 02:29:04,950
adjust the wcf two two button presses

1533
02:29:22,630 --> 02:29:19,520
[Music]

1534
02:29:24,550 --> 02:29:22,640
can't be thanks

1535
02:29:27,750 --> 02:29:24,560
and you can go ahead and release the red

1536
02:29:34,230 --> 02:29:27,760
from the left upper strut now

1537
02:30:03,030 --> 02:29:36,580
copy

1538
02:30:03,040 --> 02:30:08,230

that click that capture

1539

02:30:08,240 --> 02:30:20,630

it's over the bolts

1540

02:30:20,640 --> 02:30:29,080

well it just goes over

1541

02:30:29,090 --> 02:30:35,429

[Music]

1542

02:30:40,630 --> 02:30:38,550

next up isa or european space agency

1543

02:30:45,750 --> 02:30:40,640

astronaut thomas pesquet will work on

1544

02:30:49,429 --> 02:30:47,590

once that is secured to the mounting

1545

02:30:57,190 --> 02:30:49,439

bracket the upper triangle will be

1546

02:31:04,150 --> 02:31:00,309

he'll then hand it to jaxa astronaut aki

1547

02:31:06,870 --> 02:31:04,160

hoshide who will be in the apfr and then

1548

02:31:12,540 --> 02:31:06,880

the next portion of the build will begin

1549

02:31:12,550 --> 02:31:17,830

[Music]

1550

02:31:23,429 --> 02:31:20,790

you can translate back to the apfr

1551

02:31:27,349 --> 02:31:23,439

and uh don't forget to place your

1552

02:31:28,870 --> 02:31:27,359

adjustable fairlead on 5151

1553

02:31:29,370 --> 02:31:28,880

and then go ahead and ingress do you

1554

02:31:31,110 --> 02:31:29,380

want the

1555

02:31:33,270 --> 02:31:31,120

[Music]

1556

02:31:35,750 --> 02:31:33,280

do you want the right uh

1557

02:31:37,910 --> 02:31:35,760

stroke down to the mountain budget hey

1558

02:31:39,349 --> 02:31:37,920

firm we'll have to finish up with that

1559

02:31:43,349 --> 02:31:39,359

twerking down unless you'd like to

1560

02:31:48,070 --> 02:31:46,469

i think that's fine okay you guys yeah

1561

02:31:49,830 --> 02:31:48,080

yeah yeah because the most difficult

1562

02:31:51,270 --> 02:31:49,840

parts to give them to start yeah then

1563

02:32:04,790 --> 02:31:51,280

once they're started it's not going

1564

02:32:11,349 --> 02:32:08,150

all right so my your pgt settings will

1565

02:32:12,790 --> 02:32:11,359

be bravo three clockwise two

1566

02:32:17,670 --> 02:32:12,800

and we'll be torquing the right upper

1567

02:32:23,950 --> 02:32:19,910

three clockwise two

1568

02:32:32,400 --> 02:32:23,960

and i'm going for twenty

1569

02:32:32,410 --> 02:32:36,550

[Music]

1570

02:32:36,560 --> 02:33:06,870

happy

1571

02:33:12,389 --> 02:33:10,389

aki a caution for you to avoid the

1572

02:33:15,349 --> 02:33:12,399

battery and adapter plate cables on the

1573

02:33:21,510 --> 02:33:17,750

yeah

1574

02:33:24,190 --> 02:33:21,520

what is for you i got uh backlight

1575

02:33:28,150 --> 02:33:24,200

flash crypto green light

1576

02:33:32,550 --> 02:33:28,160

18.5 actual torque and 18

1577

02:33:40,150 --> 02:33:32,560

33 33 turns

1578

02:33:45,830 --> 02:33:43,349

copy 18.3 turns and 18.5 torque that's a

1579

02:33:50,309 --> 02:33:45,840

good bolt on m13 you can move on to m

1580

02:33:52,389 --> 02:33:50,319

i'm sorry m14 you can move on to m13

1581

02:33:54,950 --> 02:33:52,399

and on the left of your screen you can

1582

02:33:57,830 --> 02:33:54,960

see jaxa astronaut aki hoshide making

1583

02:34:00,469 --> 02:33:57,840

his way to the apfr

1584

02:34:05,190 --> 02:34:00,479

prior to ingressing the apfr we'll have

1585

02:34:09,750 --> 02:34:07,030

okay

1586

02:34:11,830 --> 02:34:09,760

i'll see that let me uh fill that

1587

02:34:13,750 --> 02:34:11,840

adjustable

1588

02:34:16,970 --> 02:34:13,760

fair bleed

1589

02:34:22,140 --> 02:34:16,980

and i'll work on that today's

1590

02:34:39,110 --> 02:34:24,630

[Music]

1591

02:34:42,950 --> 02:34:41,110

we're in a brief expected handover

1592

02:34:46,710 --> 02:34:42,960

between satellites but will regain

1593

02:34:51,670 --> 02:34:49,830

pesquet is continuing to assemble the

1594

02:34:53,750 --> 02:34:51,680

upper triangle once he's finished

1595

02:34:55,750 --> 02:34:53,760

assembling that portion

1596

02:34:57,910 --> 02:34:55,760

the upper triangle which is the

1597

02:35:00,550 --> 02:34:57,920

upper part of the mod kit he'll hand it

1598

02:35:02,230 --> 02:35:00,560

over to hoshide who will be inside the

1599

02:35:04,309 --> 02:35:02,240

portable foot restraint

1600

02:35:07,990 --> 02:35:04,319

he's currently making his way to the

1601
02:35:16,710 --> 02:35:08,000
apfr as we speak

1602
02:35:16,720 --> 02:35:24,830
[Music]

1603
02:35:37,830 --> 02:35:28,830
18.2 structural torque and

1604
02:35:44,550 --> 02:35:41,590
and we copy 18.7 turns 18.2 torque

1605
02:35:46,950 --> 02:35:44,560
that's a good bolt on m13

1606
02:35:58,050 --> 02:35:46,960
you can go ahead and verify that the

1607
02:35:58,060 --> 02:36:01,349
[Music]

1608
02:36:06,309 --> 02:36:02,950
that's a good build of the upper

1609
02:36:07,750 --> 02:36:06,319
triangle you can move the long pgt from

1610
02:36:10,309 --> 02:36:07,760
the strut bag

1611
02:36:12,230 --> 02:36:10,319
to the right upper strut

1612
02:36:22,490 --> 02:36:12,240
on the handrail stanchion nearest the

1613
02:36:22,500 --> 02:36:29,750

[Music]

1614

02:36:34,550 --> 02:36:31,510

no problem you're going to move the long

1615

02:36:37,030 --> 02:36:34,560

pgt from the strut bag

1616

02:36:38,070 --> 02:36:37,040

to the right upper strut

1617

02:36:40,309 --> 02:36:38,080

handrail

1618

02:36:46,309 --> 02:36:40,319

and onto the stanchion nearest the

1619

02:36:50,630 --> 02:36:47,990

right upper strut

1620

02:36:53,830 --> 02:36:50,640

mentioned near the center path

1621

02:37:07,870 --> 02:36:53,840

good words and you can use the bag

1622

02:37:12,150 --> 02:37:10,070

[Music]

1623

02:37:15,270 --> 02:37:12,160

with an adjustable

1624

02:37:16,830 --> 02:37:15,280

and looking at the bearings both the

1625

02:37:19,830 --> 02:37:16,840

right and the

1626

02:37:20,630 --> 02:37:19,840

left nominal it's the line

1627

02:37:23,190 --> 02:37:20,640

uh

1628

02:37:26,230 --> 02:37:23,200

the size i can tell via threads that's

1629

02:37:31,830 --> 02:37:29,030

all right do you copy the fairlead and

1630

02:37:37,110 --> 02:37:31,840

nominal sub bearings you have a go to

1631

02:37:37,120 --> 02:37:49,670

okay

1632

02:37:55,110 --> 02:37:51,270

that triangle has a lot of it's all

1633

02:37:55,120 --> 02:37:59,990

you have the tone to behave

1634

02:38:00,000 --> 02:38:04,070

some triangle education right here

1635

02:38:04,080 --> 02:38:08,550

sorry

1636

02:38:13,910 --> 02:38:11,429

this view of isa astronaut telma pesquet

1637

02:38:17,670 --> 02:38:13,920

as he works to hand off the triangle he

1638

02:38:20,550 --> 02:38:17,680

just built to jaxa astronaut aki hoshide

1639

02:38:22,950 --> 02:38:20,560

i have a few cautions for you

1640

02:38:24,389 --> 02:38:22,960

no sudden movements on mass canister or

1641

02:38:27,990 --> 02:38:24,399

mod kit

1642

02:38:30,550 --> 02:38:28,000

max lateral load on the bga is 40 pounds

1643

02:38:32,550 --> 02:38:30,560

avoid cyclic loading and do not impart

1644

02:38:38,150 --> 02:38:32,560

forces into mod kit struts when not

1645

02:38:38,160 --> 02:38:41,429

yo

1646

02:38:44,790 --> 02:38:42,870

coffee

1647

02:38:47,670 --> 02:38:44,800

anyway i'm gonna ask you one more time

1648

02:38:50,150 --> 02:38:47,680

that goes to the right upper shot

1649

02:38:52,630 --> 02:38:50,160

and the extension closest to the

1650

02:38:54,710 --> 02:38:52,640

mounting bracket

1651
02:39:00,710 --> 02:38:54,720
it will be the extension near the center

1652
02:39:08,230 --> 02:39:02,630
here's the center pad

1653
02:39:08,240 --> 02:39:27,110
hey firm

1654
02:39:31,510 --> 02:39:29,590
extension and i'm going to reuse the red

1655
02:39:35,750 --> 02:39:31,520
thunderbag and it's going to go to the

1656
02:39:35,760 --> 02:39:47,349
copy that juma

1657
02:39:52,950 --> 02:39:50,070
once hoshide receives the upper triangle

1658
02:39:54,870 --> 02:39:52,960
he'll work alongside pesquet to install

1659
02:39:57,590 --> 02:39:54,880
it to the mast canister in this graphic

1660
02:39:59,990 --> 02:39:57,600
here you can see the triangle portion

1661
02:40:01,750 --> 02:40:00,000
that part with the purple parts on it

1662
02:40:04,469 --> 02:40:01,760
was the part that was just built by

1663
02:40:19,110 --> 02:40:04,479

pesquet next up they'll work to install

1664

02:40:23,269 --> 02:40:20,790

and tomat you're going to be

1665

02:40:26,150 --> 02:40:23,279

transferring the upper triangle

1666

02:40:28,870 --> 02:40:26,160

to aki once he gets ingress but in the

1667

02:40:30,870 --> 02:40:28,880

meantime you can verify that all mli and

1668

02:40:36,710 --> 02:40:30,880

grounding pit pins on the upper triangle

1669

02:40:41,269 --> 02:40:38,950

a good view here of tomah pesquet's

1670

02:40:48,389 --> 02:40:41,279

helmet camera you can really see that

1671

02:40:52,230 --> 02:40:50,469

now this one reinstalled okay

1672

02:40:54,790 --> 02:40:52,240

um

1673

02:40:57,269 --> 02:40:54,800

mli from

1674

02:40:59,349 --> 02:40:57,279

left upper strut to the center pad is

1675

02:41:00,790 --> 02:40:59,359

installed with a tipped in

1676
02:41:03,429 --> 02:41:00,800
then

1677
02:41:05,750 --> 02:41:03,439
mli from the right of the struts

1678
02:41:07,990 --> 02:41:05,760
the center five is installed

1679
02:41:10,710 --> 02:41:08,000
as well as the fit pin

1680
02:41:19,670 --> 02:41:10,720
and i see an alive from the right upper

1681
02:41:19,680 --> 02:41:38,870
copy all it's a good config

1682
02:42:28,230 --> 02:42:20,950
is

1683
02:42:31,830 --> 02:42:28,240
suit to take some photos of the work

1684
02:42:43,990 --> 02:42:33,750
i think the triangle wants to get to you

1685
02:42:49,910 --> 02:42:46,550
you can see the remaining pieces inside

1686
02:42:53,110 --> 02:42:49,920
the strip strut bag those will be used

1687
02:42:55,030 --> 02:42:53,120
shortly to secure the upper triangle to

1688
02:42:57,590 --> 02:42:55,040

the mass canister

1689

02:42:59,110 --> 02:42:57,600

excellent great work aki

1690

02:43:01,670 --> 02:42:59,120

and when you're ready to ma you can

1691

02:43:04,870 --> 02:43:01,680

transfer the upper triangle

1692

02:43:17,330 --> 02:43:04,880

with the pgt to aki and you can leave it

1693

02:43:17,340 --> 02:43:20,630

[Applause]

1694

02:43:24,950 --> 02:43:23,670

you have control i have control

1695

02:43:28,070 --> 02:43:24,960

and watch out because the right is

1696

02:43:30,389 --> 02:43:28,080

cooling alright though right

1697

02:43:32,150 --> 02:43:30,399

oh that looks right

1698

02:43:33,670 --> 02:43:32,160

okay

1699

02:43:36,309 --> 02:43:33,680

that's a triangle

1700

02:43:38,550 --> 02:43:36,319

copy aki you'll be installing the center

1701
02:44:10,309 --> 02:43:38,560
pad to the mass canister with the arrow

1702
02:44:14,950 --> 02:44:13,190
all right left him first right and then

1703
02:44:17,510 --> 02:44:14,960
okay right

1704
02:44:22,550 --> 02:44:17,520
hey firm left side first then pivot

1705
02:44:27,110 --> 02:44:24,469
and in this view you can see jaxa

1706
02:44:29,269 --> 02:44:27,120
astronaut aki hoshide who now has the

1707
02:44:32,630 --> 02:44:29,279
upper triangle that was built earlier

1708
02:44:35,349 --> 02:44:32,640
today by issa astronaut mom pesky

1709
02:44:36,830 --> 02:44:35,359
short pgt from your swing arm

1710
02:44:47,349 --> 02:44:36,840
on handrail

1711
02:45:17,590 --> 02:44:49,510
153

1712
02:45:24,309 --> 02:45:20,870
all right body software is complete

1713
02:45:26,150 --> 02:45:24,319

copy looks great have you start bolts m5

1714

02:45:29,429 --> 02:45:26,160

through m8

1715

02:45:35,269 --> 02:45:29,439

just two turns either by hand or i have

1716

02:45:35,279 --> 02:45:39,830

uh i have the pgp

1717

02:45:54,660 --> 02:45:42,550

copy yeah on the long pgt it will be

1718

02:45:59,309 --> 02:45:56,950

[Music]

1719

02:46:04,070 --> 02:45:59,319

battery is

1720

02:46:04,080 --> 02:46:12,870

copy good count

1721

02:46:20,309 --> 02:46:15,590

good words and two turns and it bolts in

1722

02:46:30,230 --> 02:46:22,070

i'll do that

1723

02:46:43,670 --> 02:46:32,710

comes together with the pg key i'm

1724

02:46:43,680 --> 02:46:50,309

adjustable with the pgt

1725

02:46:54,950 --> 02:46:52,389

okay so the adjustable

1726

02:46:56,790 --> 02:46:54,960

on the pg you know i'll move my

1727

02:46:59,030 --> 02:46:56,800

legs from the swing on to the handle

1728

02:47:00,070 --> 02:46:59,040

from one side three

1729

02:47:04,230 --> 02:47:00,080

where the

1730

02:47:10,790 --> 02:47:07,830

good words oshiday now using the pistol

1731

02:47:11,990 --> 02:47:10,800

grip tool or pgt to install the upper

1732

02:47:15,750 --> 02:47:12,000

triangle

1733

02:47:26,710 --> 02:47:15,760

to the center pad of the mask canister

1734

02:47:32,070 --> 02:47:29,110

[Music]

1735

02:47:34,469 --> 02:47:32,080

copy two turns m5 through m8 with the

1736

02:47:37,110 --> 02:47:34,479

same settings will drive all four of

1737

02:48:08,260 --> 02:47:37,120

those bolts to torque within a minimum

1738

02:48:08,270 --> 02:48:13,750

[Music]

1739

02:48:13,760 --> 02:48:21,510

a great night

1740

02:48:21,520 --> 02:48:34,250

copy google on m5

1741

02:49:03,510 --> 02:48:35,670

[Music]

1742

02:49:03,520 --> 02:49:21,429

m8

1743

02:49:21,439 --> 02:49:24,630

m7

1744

02:49:24,640 --> 02:49:27,830

3.8

1745

02:49:30,790 --> 02:49:29,750

by 3.0

1746

02:49:46,950 --> 02:49:30,800

and

1747

02:49:52,389 --> 02:49:50,070

copy aki we copied a torque of three

1748

02:49:58,469 --> 02:49:52,399

decimal zeros a little low without free

1749

02:50:02,550 --> 02:50:00,230

okay i'll see that

1750

02:50:05,110 --> 02:50:02,560

i did uh m6

1751

02:50:06,550 --> 02:50:05,120
of 3.9 there

1752

02:50:21,030 --> 02:50:06,560
five

1753

02:50:21,040 --> 02:50:26,309
that was different maybe uh points

1754

02:50:30,309 --> 02:50:28,389
here with the sun in my

1755

02:50:33,030 --> 02:50:30,319
um

1756

02:50:37,510 --> 02:50:33,040
almost zero charge focus three point

1757

02:50:43,110 --> 02:50:41,190
it copy 3.8 that's a good bolt for m7

1758

02:50:44,870 --> 02:50:43,120
so you can go ahead and release the

1759

02:50:47,990 --> 02:50:44,880
mounting bracket red

1760

02:51:01,030 --> 02:50:48,000
and then transfer the long pgt with the

1761

02:51:01,040 --> 02:51:06,950
outside of the melting bracket i guess

1762

02:51:06,960 --> 02:51:16,389
[Applause]

1763

02:51:27,710 --> 02:51:18,130

what

1764

02:51:50,950 --> 02:51:33,910

[Music]

1765

02:51:54,870 --> 02:51:53,110

great aki you can verify that the

1766

02:51:57,910 --> 02:51:54,880

grounding pit pin is installed in the

1767

02:52:10,190 --> 02:51:57,920

grounding block and the mli for the

1768

02:52:26,950 --> 02:52:12,870

[Music]

1769

02:52:26,960 --> 02:52:55,030

foreign

1770

02:53:04,790 --> 02:52:57,030

got it yeah got it

1771

02:53:08,309 --> 02:53:06,790

the body flows

1772

02:53:09,030 --> 02:53:08,319

i mean while you're

1773

02:53:16,070 --> 02:53:09,040

two

1774

02:53:16,080 --> 02:53:18,550

copy

1775

02:53:22,210 --> 02:53:20,150

and if

1776
02:53:23,349 --> 02:53:22,220
have you verified this

1777
02:53:25,429 --> 02:53:23,359
[Music]

1778
02:53:31,830 --> 02:53:25,439
copy all lucky have you verified that

1779
02:53:36,550 --> 02:53:34,389
i just rotate it down

1780
02:53:37,670 --> 02:53:36,560
copy and i'll take glove and gauntlet

1781
02:53:43,269 --> 02:53:37,680
checks from both of you when you're

1782
02:53:43,279 --> 02:53:47,190
one half is dry

1783
02:53:50,950 --> 02:53:48,950
down

1784
02:53:56,950 --> 02:53:50,960
and

1785
02:54:01,990 --> 02:53:59,110
that'll change

1786
02:54:12,550 --> 02:54:02,000
all right you two have to dry

1787
02:54:16,230 --> 02:54:14,630
and copy all right i think this middle

1788
02:54:19,429 --> 02:54:16,240

structure is nice for you

1789

02:54:22,070 --> 02:54:19,439

yeah a firm uh so copy all on the glove

1790

02:54:31,750 --> 02:54:22,080

and have checks and just as a heads up

1791

02:54:36,790 --> 02:54:34,550

all right i need to readjust my spfr

1792

02:54:39,510 --> 02:54:36,800

settings so i'm going to get out

1793

02:54:41,110 --> 02:54:39,520

hey firm and before you egress aki can

1794

02:54:43,030 --> 02:54:41,120

you confirm that the

1795

02:54:51,100 --> 02:54:43,040

mounting bracket rhett was released back

1796

02:54:51,110 --> 02:55:10,730

[Applause]

1797

02:55:21,429 --> 02:55:18,870

[Music]

1798

02:55:24,070 --> 02:55:21,439

so you're looking for the left mid strut

1799

02:55:27,750 --> 02:55:24,080

under straps 12 and 13

1800

02:55:27,760 --> 02:55:42,710

yes

1801
02:55:46,870 --> 02:55:44,389
we're going to adjust the wiff x

1802
02:55:48,950 --> 02:55:46,880
extension to 1

1803
02:56:27,030 --> 02:55:48,960
and then we'll adjust the pitch and roll

1804
02:56:27,040 --> 02:56:47,830
okay

1805
02:57:04,230 --> 02:56:49,190
hey

1806
02:57:08,790 --> 02:57:06,870
this view from pesquez helmet cam as he

1807
02:57:09,910 --> 02:57:08,800
works to grab pieces out of the strut

1808
02:57:11,269 --> 02:57:09,920
bag

1809
02:57:13,349 --> 02:57:11,279
next up the

1810
02:57:15,030 --> 02:57:13,359
space walkers will work together to

1811
02:57:17,429 --> 02:57:15,040
install the

1812
02:57:19,750 --> 02:57:17,439
left struts

1813
02:57:22,070 --> 02:57:19,760

next after that they'll work together to

1814

02:57:24,469 --> 02:57:22,080

install the right struts both struts are

1815

02:58:05,269 --> 02:57:24,479

configured in two portions the lower

1816

02:58:09,590 --> 02:58:07,110

if you're just tuning in with us this

1817

02:58:12,550 --> 02:58:09,600

morning two space walkers are currently

1818

02:58:15,750 --> 02:58:12,560

outside the international space station

1819

02:58:18,309 --> 02:58:15,760

so far our space walkers which are jaxa

1820

02:58:21,110 --> 02:58:18,319

or japan aerospace exploration agency

1821

02:58:23,349 --> 02:58:21,120

astronaut aki hoshide and issa or

1822

02:58:26,389 --> 02:58:23,359

european space agency astronaut tomah

1823

02:58:28,550 --> 02:58:26,399

pesquet have egressed the

1824

02:58:30,150 --> 02:58:28,560

space station's airlock

1825

02:58:32,309 --> 02:58:30,160

the space state the

1826
02:58:37,429 --> 02:58:32,319
space walk this morning did begin at 7

1827
02:58:42,230 --> 02:58:39,510
hoshide and pesquet have worked together

1828
02:58:44,389 --> 02:58:42,240
to build the upper triangle and install

1829
02:58:47,349 --> 02:58:44,399
it to the mass canister they're now

1830
02:58:48,550 --> 02:58:47,359
working to install the left struts

1831
02:58:50,150 --> 02:58:48,560
following that they'll move on to

1832
02:58:53,030 --> 02:58:50,160
install the right struts further

1833
02:58:57,910 --> 02:58:53,040
securing the mod kit to the mast

1834
02:58:57,920 --> 02:59:18,150
hey copy hotel

1835
02:59:18,160 --> 02:59:26,630
we are ready for ingress

1836
02:59:31,990 --> 02:59:29,269
hoshide is now going to ingress back

1837
02:59:34,309 --> 02:59:32,000
into the apfr or articulating portable

1838
02:59:37,349 --> 02:59:34,319

foot restraint in order to receive the

1839

02:59:39,269 --> 02:59:37,359

left lower strut which pesky

1840

02:59:48,230 --> 02:59:39,279

removed from the strut bag and is going

1841

03:00:02,150 --> 02:59:50,550

you can see hoshide getting into the

1842

03:00:02,160 --> 03:00:16,950

on the left

1843

03:00:47,190 --> 03:00:19,590

more inside import

1844

03:00:47,200 --> 03:00:50,950

[Music]

1845

03:00:54,469 --> 03:00:53,269

great job

1846

03:00:57,190 --> 03:00:54,479

you can

1847

03:00:59,590 --> 03:00:57,200

verify that your ingress aid is tucked

1848

03:01:10,469 --> 03:00:59,600

and then also verify that your brt is in

1849

03:01:16,389 --> 03:01:13,269

also to my if we could have you check

1850

03:01:16,399 --> 03:01:27,350

wvs light one more time

1851
03:01:27,360 --> 03:01:31,510

[Music]

1852
03:01:39,190 --> 03:01:32,710

no problem tomorrow and that will be

1853
03:01:57,750 --> 03:01:48,790

okay

1854
03:01:57,760 --> 03:02:05,269

come on

1855
03:02:10,950 --> 03:02:08,630

the space station now flying 261 statute

1856
03:02:30,530 --> 03:02:10,960

miles over the east coast of india

1857
03:02:30,540 --> 03:02:38,469

[Music]

1858
03:02:38,479 --> 03:02:56,710

um

1859
03:03:14,389 --> 03:02:57,570

you'll be

1860
03:03:16,870 --> 03:03:14,399

left lower strut

1861
03:03:37,990 --> 03:03:16,880

under straps five and six and handing

1862
03:03:38,000 --> 03:04:04,469

good config

1863
03:04:09,510 --> 03:04:07,030

pesky now working to retrieve the left

1864

03:04:11,990 --> 03:04:09,520

lower strut from the strut bag once he

1865

03:04:14,870 --> 03:04:12,000

has that he'll pass it along to hoshide

1866

03:04:29,750 --> 03:04:14,880

who is in the apfr or articulating

1867

03:04:35,030 --> 03:04:32,550

once hoshide has the lower strut he will

1868

03:04:37,750 --> 03:04:35,040

install it to the mounting bracket using

1869

03:04:39,670 --> 03:04:37,760

the pgt or the pistol grip tool which

1870

03:04:48,950 --> 03:04:39,680

has been used quite a bit so far this

1871

03:04:52,309 --> 03:04:50,389

and tomorrow you'll be

1872

03:04:59,349 --> 03:04:52,319

handing the

1873

03:05:13,110 --> 03:05:02,469

every side towards aki

1874

03:05:13,120 --> 03:05:28,630

thank you

1875

03:05:28,640 --> 03:05:33,510

nearest to you

1876
03:05:38,150 --> 03:05:36,469
okay that's complete i have a red on it

1877
03:05:40,389 --> 03:05:38,160
i have control that's how you can

1878
03:05:54,860 --> 03:05:40,399
release your wrap

1879
03:06:15,670 --> 03:06:01,450
[Music]

1880
03:06:20,230 --> 03:06:17,590
so before we have you translate to the

1881
03:06:28,389 --> 03:06:20,240
next site have you do a

1882
03:06:33,429 --> 03:06:30,710
all right is off

1883
03:06:33,439 --> 03:06:39,070
copy you'd like me to turn it on

1884
03:06:43,349 --> 03:06:40,830
[Applause]

1885
03:06:45,990 --> 03:06:43,359
right copy that tomorrow so you'll be

1886
03:06:48,710 --> 03:06:46,000
translating down to the saab launch

1887
03:07:01,990 --> 03:06:48,720
bracket at the base of the mass canister

1888
03:07:05,910 --> 03:07:03,349

all right um

1889

03:07:07,670 --> 03:07:05,920

like i said i'll keep the lower strut

1890

03:07:11,670 --> 03:07:07,680

away from you

1891

03:07:16,790 --> 03:07:13,510

all right

1892

03:07:27,429 --> 03:07:16,800

and aki you can release the l5 grounding

1893

03:07:32,230 --> 03:07:29,429

okay and then i think we owe you an

1894

03:07:33,830 --> 03:07:32,240

inspection of the setbacks as well

1895

03:07:36,810 --> 03:07:33,840

um

1896

03:07:38,070 --> 03:07:36,820

yourself bearings hey frames

1897

03:07:41,269 --> 03:07:38,080

[Music]

1898

03:07:43,429 --> 03:07:41,279

good they look pretty parallel to the

1899

03:07:44,309 --> 03:07:43,439

the boss into the flange i don't see any

1900

03:07:45,750 --> 03:07:44,319

angle

1901
03:07:49,269 --> 03:07:45,760
in there for now

1902
03:08:18,309 --> 03:07:50,790
we copy parallel we'll catch you on the

1903
03:08:18,319 --> 03:08:25,590
bye

1904
03:08:29,349 --> 03:08:27,830
we're in an expected handover between

1905
03:08:32,389 --> 03:08:29,359
satellites and we'll regain

1906
03:08:34,389 --> 03:08:32,399
communication and visuals shortly

1907
03:08:36,469 --> 03:08:34,399
we're back with you and tomorrow we

1908
03:08:38,950 --> 03:08:36,479
don't need any pictures that the sounds

1909
03:08:40,630 --> 03:08:38,960
like a good config just one warning for

1910
03:08:49,210 --> 03:08:40,640
you to keep clear of the pinch point

1911
03:08:49,220 --> 03:09:01,349
[Music]

1912
03:09:04,630 --> 03:09:03,030
right

1913
03:09:06,070 --> 03:09:04,640

now

1914

03:09:07,429 --> 03:09:06,080

that's correct

1915

03:09:08,550 --> 03:09:07,439

that is complete

1916

03:09:10,790 --> 03:09:08,560

copy

1917

03:09:12,870 --> 03:09:10,800

that's complete

1918

03:09:15,349 --> 03:09:12,880

tomorrow you can install the left lower

1919

03:09:19,429 --> 03:09:15,359

strut to the sub launch bracket

1920

03:09:21,590 --> 03:09:19,439

will be hand starting m21 for turns

1921

03:09:25,349 --> 03:09:21,600

and i have pgt settings for you if you'd

1922

03:09:29,990 --> 03:09:27,110

uh for now

1923

03:09:31,910 --> 03:09:30,000

i'll stop by him and i keep watching on

1924

03:09:35,190 --> 03:09:31,920

the fifth pin and then he will transfer

1925

03:09:36,870 --> 03:09:35,200

the acceptable end to me

1926

03:09:39,349 --> 03:09:36,880

is removed so

1927

03:09:47,510 --> 03:09:39,359

my if you're ready i've not transferred

1928

03:09:51,590 --> 03:09:48,950

now you go down a little bit towards

1929

03:09:53,510 --> 03:09:51,600

your feet and then charge your left

1930

03:09:55,910 --> 03:09:53,520

hello okay

1931

03:09:58,870 --> 03:09:55,920

i got a hand on it okay

1932

03:10:01,030 --> 03:09:58,880

i'm gonna try to orient you the way i

1933

03:10:02,389 --> 03:10:01,040

want it but you have control i'll

1934

03:10:04,070 --> 03:10:02,399

support uh

1935

03:10:06,150 --> 03:10:04,080

kind of

1936

03:10:11,269 --> 03:10:06,160

if you can keep your hand on it for me

1937

03:10:22,469 --> 03:10:13,670

pesquet and hoshide now working together

1938

03:10:22,479 --> 03:10:34,950

and start

1939

03:10:41,030 --> 03:10:37,830

okay i have three

1940

03:10:43,750 --> 03:10:41,040

and now four turns and no bolts

1941

03:10:46,389 --> 03:10:43,760

copy four turns on

1942

03:10:47,429 --> 03:10:46,399

m21 good good work

1943

03:10:50,229 --> 03:10:47,439

aki

1944

03:10:52,550 --> 03:10:50,239

you can now start the left lower strut

1945

03:11:04,400 --> 03:10:52,560

to the mounting bracket at l5 we're

1946

03:11:08,950 --> 03:11:04,590

[Music]

1947

03:11:08,960 --> 03:11:13,269

and i have pgt settings for you

1948

03:11:24,150 --> 03:11:16,550

okay this is m22 at l5 it doesn't have a

1949

03:11:24,160 --> 03:11:29,110

i start with my hand

1950

03:11:29,120 --> 03:11:42,550

copy it's up to you

1951

03:11:47,590 --> 03:11:45,590

and for uh in my experience thank you if

1952

03:11:50,070 --> 03:11:47,600

it helps you have to

1953

03:11:51,590 --> 03:11:50,080

keep the pressing down for at least a

1954

03:11:53,750 --> 03:11:51,600

turn and a half otherwise it doesn't

1955

03:11:55,349 --> 03:11:53,760

really engage so okay kind of a lot of

1956

03:11:57,670 --> 03:11:55,359

angle you have to prepare your hand for

1957

03:12:00,229 --> 03:11:57,680

that all right thank you

1958

03:12:29,269 --> 03:12:00,239

i did one and then it popped up yeah

1959

03:12:29,279 --> 03:12:34,389

things will be bravo one clockwise two

1960

03:12:40,870 --> 03:12:37,190

pesque and hoshide are continuing to

1961

03:12:43,670 --> 03:12:40,880

install the left lower strut

1962

03:12:45,910 --> 03:12:43,680

as you can see here there are two lower

1963

03:12:48,389 --> 03:12:45,920

struts a left and a right those will be

1964

03:12:50,710 --> 03:12:48,399

attached to a portion of the upper

1965

03:12:54,150 --> 03:12:50,720

triangle that was built and successfully

1966

03:12:56,070 --> 03:12:54,160

installed earlier right now hoshide and

1967

03:12:58,150 --> 03:12:56,080

pascae are working on the left lower

1968

03:13:00,870 --> 03:12:58,160

strut they'll then move on to the right

1969

03:13:01,670 --> 03:13:00,880

lower strut and they will also install

1970

03:13:07,269 --> 03:13:01,680

the

1971

03:13:09,510 --> 03:13:08,070

yes

1972

03:13:12,950 --> 03:13:09,520

thank you

1973

03:13:17,030 --> 03:13:15,030

once those portions are successfully

1974

03:13:27,670 --> 03:13:17,040

installed the irosa mounting bracket

1975

03:13:32,870 --> 03:13:29,830

and the mounting bracket will be ready

1976

03:13:35,429 --> 03:13:32,880

for the installation of the new iss

1977

03:13:45,110 --> 03:13:35,439

rollout solar rays or irosas during a

1978

03:13:45,120 --> 03:14:06,229

hey thank you so much

1979

03:14:06,239 --> 03:14:23,030

i'm waiting for lcm 22 to uh

1980

03:14:29,030 --> 03:14:25,830

thirds that's complete

1981

03:14:31,990 --> 03:14:29,040

copy two turns on m22

1982

03:14:35,030 --> 03:14:32,000

toma we're gonna be driving m21 to

1983

03:14:50,790 --> 03:14:35,040

torque your pgt settings will be bravo

1984

03:15:13,910 --> 03:14:52,950

good words we're looking for a minimum

1985

03:15:13,920 --> 03:15:20,309

cow

1986

03:15:20,319 --> 03:15:40,550

uh

1987

03:15:57,030 --> 03:15:43,910

an additional 10 and a half turn minimum

1988

03:16:16,469 --> 03:16:00,070

you should be using the short pgt tomah

1989

03:16:22,550 --> 03:16:19,590

pesquet and hoshide are both using pgt's

1990

03:16:44,550 --> 03:16:22,560

or pistol grip tools to drive bolts to

1991

03:16:44,560 --> 03:17:01,180

yes

1992

03:17:12,550 --> 03:17:05,429

[Music]

1993

03:17:12,560 --> 03:17:26,070

yes

1994

03:17:26,080 --> 03:17:28,790

i have uh

1995

03:17:33,590 --> 03:17:31,269

25.3 turn with a good green light

1996

03:17:35,830 --> 03:17:33,600

without only six turns and the black

1997

03:17:52,830 --> 03:17:35,840

line did not

1998

03:17:58,790 --> 03:17:57,510

oh crosstalk again at 6030

1999

03:17:59,750 --> 03:17:58,800

what time

2000

03:18:02,389 --> 03:17:59,760

again

2001

03:18:05,110 --> 03:18:02,399

i thought that's

2002

03:18:16,630 --> 03:18:05,120

26 now actual

2003

03:18:16,640 --> 03:18:23,910

foreign

2004

03:18:29,670 --> 03:18:26,550

now a little over two hours into today's

2005

03:18:31,750 --> 03:18:29,680

space walk which began at 7 15 a.m

2006

03:18:34,389 --> 03:18:31,760

eastern time in that time our

2007

03:18:35,510 --> 03:18:34,399

spacewalkers aki hoshide and tomorrow

2008

03:18:38,070 --> 03:18:35,520

pesquet

2009

03:18:39,110 --> 03:18:38,080

have built and installed the upper

2010

03:18:41,349 --> 03:18:39,120

upper

2011

03:18:43,750 --> 03:18:41,359

triangle portion of the mounting bracket

2012

03:18:51,510 --> 03:18:43,760

and are now working to install the left

2013

03:18:56,790 --> 03:18:54,070

following this they'll install the left

2014

03:18:58,710 --> 03:18:56,800

mid strut and then repeat the process on

2015

03:19:19,349 --> 03:18:58,720

the right side installing the lower

2016

03:19:23,349 --> 03:19:20,950

so ma with

2017

03:19:24,790 --> 03:19:23,359

those uh numbers that are a little bit

2018

03:19:27,110 --> 03:19:24,800

low we're going to

2019

03:19:30,229 --> 03:19:27,120

jump right into the torque wrench so

2020

03:19:49,990 --> 03:19:30,239

have you socket swap from the short pgt

2021

03:19:55,830 --> 03:19:53,110

pesquet now using a torque wrench rather

2022

03:19:57,950 --> 03:19:55,840

than the pistol grip tool to install the

2023

03:20:02,950 --> 03:19:57,960

lower strut

2024

03:20:07,400 --> 03:20:02,960

[Music]

2025

03:20:07,410 --> 03:20:21,670

[Applause]

2026

03:20:51,670 --> 03:20:24,870

i'm releasing the wire tie

2027

03:21:02,469 --> 03:20:53,910

okay it's

2028

03:21:02,479 --> 03:21:05,110

good

2029

03:21:05,120 --> 03:21:08,469

let's see my feathers

2030

03:21:08,479 --> 03:21:22,440

get some pictures

2031

03:21:22,450 --> 03:21:31,349

[Applause]

2032

03:21:36,389 --> 03:21:33,190

if you're just tuning in with us you're

2033

03:21:38,309 --> 03:21:36,399

watching live views of the 244th space

2034

03:21:42,630 --> 03:21:38,319

walk in support of space station

2035

03:21:48,630 --> 03:21:45,590

today's spacewalk's main task is to

2036

03:21:52,309 --> 03:21:48,640

install a modification kit for future

2037

03:21:54,389 --> 03:21:52,319

solar array upgrades

2038

03:21:56,790 --> 03:21:54,399

the current solar arrays on station are

2039

03:21:59,750 --> 03:21:56,800

functioning well but have begun to show

2040

03:22:01,670 --> 03:21:59,760

signs of degradation as expected

2041

03:22:02,950 --> 03:22:01,680

as they were expected for a 15-year

2042

03:22:04,469 --> 03:22:02,960

service life

2043

03:22:06,469 --> 03:22:04,479

the first pair of the space station

2044

03:22:08,870 --> 03:22:06,479

solar rays were deployed in december of

2045

03:22:11,110 --> 03:22:08,880

2000 and have been powering the station

2046

03:22:13,190 --> 03:22:11,120

for more than 20 years

2047

03:22:19,269 --> 03:22:13,200

and we'll be looking for four and a half

2048

03:22:23,590 --> 03:22:21,190

the new solar rays are being positioned

2049

03:22:25,590 --> 03:22:23,600

in front of six of the current arrays

2050

03:22:29,030 --> 03:22:25,600

which will increase the station's total

2051
03:22:32,389 --> 03:22:29,040
available power from 160 kilowatts to a

2052
03:22:34,630 --> 03:22:32,399
maximum of 215 kilowatts

2053
03:22:37,110 --> 03:22:34,640
the same solar array design will also be

2054
03:22:39,030 --> 03:22:37,120
used to power elements of the gateway

2055
03:23:13,110 --> 03:22:39,040
which will be our orbiting outpost

2056
03:23:18,710 --> 03:23:15,349
another task that will take place during

2057
03:23:21,030 --> 03:23:18,720
today's spacewalk will be to replace the

2058
03:23:24,389 --> 03:23:21,040
floating potential measurement unit on a

2059
03:23:28,630 --> 03:23:26,150
this device measures the electrical

2060
03:24:21,429 --> 03:23:28,640
charging potential of the solar rays and

2061
03:24:21,439 --> 03:24:39,349
hello

2062
03:24:43,030 --> 03:24:41,590
continuing to work to install the left

2063
03:24:45,349 --> 03:24:43,040

lower strut

2064

03:25:01,269 --> 03:24:45,359

once this is complete they'll move on to

2065

03:25:01,279 --> 03:25:09,429

um

2066

03:25:14,070 --> 03:25:11,670

a lot of turns

2067

03:25:18,630 --> 03:25:14,080

well actually i'm going

2068

03:25:20,630 --> 03:25:18,640

two degrees every every time so yeah

2069

03:25:34,550 --> 03:25:20,640

tomorrow

2070

03:25:34,560 --> 03:25:41,269

oh

2071

03:25:41,279 --> 03:26:00,150

foreign

2072

03:26:00,160 --> 03:26:09,830

but

2073

03:26:15,110 --> 03:26:12,950

a whole lot of uh handrails around y'all

2074

03:26:16,389 --> 03:26:15,120

i was just excited

2075

03:26:27,830 --> 03:26:16,399

of

2076
03:26:33,750 --> 03:26:30,469
that's definitely a tough work site and

2077
03:26:36,630 --> 03:26:33,760
just fyi will be relying on the checks

2078
03:26:58,630 --> 03:26:36,640
more than the the turns

2079
03:26:58,640 --> 03:27:07,640
happy excellent

2080
03:27:07,650 --> 03:27:12,309
[Music]

2081
03:27:12,319 --> 03:27:20,150
looking over

2082
03:27:26,070 --> 03:27:22,309
good job excellent news great job

2083
03:27:27,990 --> 03:27:26,080
tomorrow we'll have a few checks for you

2084
03:27:32,070 --> 03:27:28,000
check that the black line is parallel to

2085
03:27:32,080 --> 03:27:38,309
correct

2086
03:27:38,319 --> 03:27:42,430
all righty

2087
03:27:42,440 --> 03:27:47,110
[Music]

2088
03:27:52,070 --> 03:27:49,750

now performing some checks on the lower

2089

03:27:56,070 --> 03:27:52,080

strut to ensure that it is successfully

2090

03:28:05,110 --> 03:27:57,750

check that there's no gap between the

2091

03:28:09,349 --> 03:28:07,590

copy and perform a wiggle test

2092

03:28:13,750 --> 03:28:09,359

verifying that the strut doesn't wiggle

2093

03:28:23,970 --> 03:28:16,469

it's not going anywhere

2094

03:28:23,980 --> 03:28:36,630

[Applause]

2095

03:28:42,150 --> 03:28:39,349

a firm so you can do that first and then

2096

03:28:48,229 --> 03:28:42,160

you'll verify that the lower strut mli

2097

03:28:51,750 --> 03:28:49,510

aki

2098

03:28:53,670 --> 03:28:51,760

i've got pgt settings for you to drive

2099

03:28:55,429 --> 03:28:53,680

m22 to torque

2100

03:29:00,150 --> 03:28:55,439

it should be the same settings you have

2101

03:29:00,160 --> 03:29:07,590

copy volvo one clockwise two is

2102

03:29:13,429 --> 03:29:09,590

a firm a minimum of five additional

2103

03:29:13,439 --> 03:29:40,309

25 additional

2104

03:29:40,319 --> 03:29:44,550

with a green light

2105

03:29:54,309 --> 03:29:46,229

kathy and can you verify that black line

2106

03:30:14,870 --> 03:29:57,429

a good install on m22 you can stow your

2107

03:30:19,269 --> 03:30:16,790

can install the grounding pit pin to the

2108

03:30:43,110 --> 03:30:19,279

grounding block on the mounting bracket

2109

03:30:48,710 --> 03:30:45,750

big picture for you akientoma

2110

03:30:51,670 --> 03:30:48,720

with those uh installs on those bolts we

2111

03:30:54,229 --> 03:30:51,680

are at the minimum config for the mod

2112

03:30:57,269 --> 03:30:54,239

kit today which is great news

2113

03:31:00,229 --> 03:30:57,279

we are looking at a 630

2114

03:31:01,349 --> 03:31:00,239

2 due to evi 1 medox is a limiting

2115

03:31:03,510 --> 03:31:01,359

consumable

2116

03:31:06,830 --> 03:31:03,520

but we are on time and on track to

2117

03:31:15,310 --> 03:31:06,840

complete all tasks great

2118

03:31:15,320 --> 03:31:23,910

[Music]

2119

03:31:23,920 --> 03:31:35,030

pet

2120

03:31:40,550 --> 03:31:38,070

and those words from ground iv jessica

2121

03:31:42,630 --> 03:31:40,560

watkins up to the crew sharing that the

2122

03:31:44,950 --> 03:31:42,640

mod kit is now in the minimum

2123

03:31:46,790 --> 03:31:44,960

configuration good news for our

2124

03:31:49,269 --> 03:31:46,800

spacewalkers today but they're not

2125

03:31:51,349 --> 03:31:49,279

finished up with their tasks just yet

2126
03:31:58,550 --> 03:31:51,359
they're going to move to installation of

2127
03:32:05,990 --> 03:32:01,750
all right socket swap to the green pgt

2128
03:32:10,790 --> 03:32:08,790
copy good socket swap and can verify the

2129
03:32:28,300 --> 03:32:10,800
lower strut mli is covering the strut

2130
03:32:28,310 --> 03:32:31,590
[Music]

2131
03:32:31,600 --> 03:32:37,990
five

2132
03:32:42,469 --> 03:32:39,990
copy mli aki

2133
03:32:44,710 --> 03:32:42,479
and you can release the red i have a

2134
03:32:48,389 --> 03:32:44,720
question oh sorry go ahead

2135
03:32:50,790 --> 03:32:48,399
uh that is released

2136
03:32:53,590 --> 03:32:50,800
question here um so

2137
03:32:56,550 --> 03:32:53,600
i understand there's a hole in the mli

2138
03:32:58,229 --> 03:32:56,560

that did go over the bolt

2139

03:33:01,110 --> 03:32:58,239
m22

2140

03:33:03,030 --> 03:33:01,120
um it does not reach

2141

03:33:05,429 --> 03:33:03,040
that far

2142

03:33:07,030 --> 03:33:05,439
and you know there's a cutout for the

2143

03:33:09,349 --> 03:33:07,040
handrail

2144

03:33:11,670 --> 03:33:09,359
um that

2145

03:33:29,030 --> 03:33:11,680
is too short so it's not going to go

2146

03:33:32,469 --> 03:33:31,190
like for you to pop the collar on the

2147

03:33:38,710 --> 03:33:32,479
torque wrench

2148

03:33:43,269 --> 03:33:40,309
are we not going to use it on the other

2149

03:33:53,510 --> 03:33:44,630
uh

2150

03:34:02,389 --> 03:33:55,190
hey from that little locking collar

2151
03:34:02,399 --> 03:34:07,670
uh i wish i knew how to make that cap

2152
03:34:12,469 --> 03:34:10,150
there you go

2153
03:34:14,550 --> 03:34:12,479
excellent that's perfect

2154
03:34:16,550 --> 03:34:14,560
and uh tomorrow you can

2155
03:34:21,269 --> 03:34:16,560
egress the truss and check that your

2156
03:34:24,550 --> 03:34:22,389
okay

2157
03:34:25,510 --> 03:34:24,560
where am i going after that

2158
03:34:28,550 --> 03:34:25,520
yeah

2159
03:34:31,110 --> 03:34:28,560
one side

2160
03:34:33,910 --> 03:34:31,120
and how about the green pgp that you

2161
03:34:36,469 --> 03:34:33,920
guys take that briefly

2162
03:34:39,030 --> 03:34:36,479
and tomos standby one for now we're

2163
03:34:54,870 --> 03:34:39,040

we're going to double check the mli may

2164

03:35:00,550 --> 03:34:57,030

okay and i think your next location is

2165

03:35:04,630 --> 03:35:02,790

yeah it's just that pgt elf you know

2166

03:35:07,510 --> 03:35:04,640

from leading here or taking it i think

2167

03:35:21,110 --> 03:35:07,520

you're leaving it there because the

2168

03:35:21,120 --> 03:35:28,550

bill

2169

03:35:32,229 --> 03:35:31,269

everybody i'm standing by uh for the pgt

2170

03:35:33,510 --> 03:35:32,239

because

2171

03:35:35,349 --> 03:35:33,520

i'm leaving it here i'm not gonna

2172

03:35:36,870 --> 03:35:35,359

translate the way so waiting on your

2173

03:35:39,190 --> 03:35:36,880

words for that

2174

03:35:42,469 --> 03:35:39,200

yeah cubby thanks for standing by tomah

2175

03:35:45,750 --> 03:35:42,479

uh aki for you if in order to straighten

2176
03:35:48,309 --> 03:35:45,760
out the mli all the way you may have to

2177
03:35:49,190 --> 03:35:48,319
undo the velcro so that it is able to

2178
03:35:51,269 --> 03:35:49,200
get

2179
03:35:56,710 --> 03:35:51,279
uh kind of un

2180
03:36:00,469 --> 03:35:58,950
buddy first of all uh could you tell

2181
03:36:02,950 --> 03:36:00,479
somebody

2182
03:36:15,429 --> 03:36:02,960
which pgp he's taken

2183
03:36:23,349 --> 03:36:18,870
you need the long pgt on your swing arm

2184
03:36:28,229 --> 03:36:25,429
watch the handrail challenge one five

2185
03:36:37,160 --> 03:36:28,239
three correct okay from good words

2186
03:36:37,170 --> 03:36:41,429
[Music]

2187
03:36:45,990 --> 03:36:44,469
um the first cutout is the for the

2188
03:36:46,870 --> 03:36:46,000

handrail

2189

03:36:50,550 --> 03:36:46,880

so

2190

03:36:53,750 --> 03:36:50,560

um that cannot slide further

2191

03:36:56,150 --> 03:36:53,760

even if i undo the velcro

2192

03:36:58,550 --> 03:36:56,160

it's not going to reach

2193

03:37:01,510 --> 03:36:58,560

over that uh

2194

03:37:04,070 --> 03:37:01,520

i think what it is is

2195

03:37:04,950 --> 03:37:04,080

um once it's installed it's probably the

2196

03:37:07,750 --> 03:37:04,960

right

2197

03:37:09,990 --> 03:37:07,760

uh location for the hole

2198

03:37:13,110 --> 03:37:10,000

but since you have to go over it it

2199

03:37:14,389 --> 03:37:13,120

doesn't have that uh the flag to go over

2200

03:37:16,790 --> 03:37:14,399

the phone

2201

03:37:26,229 --> 03:37:16,800

that makes sense

2202

03:37:26,239 --> 03:37:32,790

we copy hockey checking

2203

03:37:38,229 --> 03:37:35,269

if you're okay without going over the

2204

03:37:46,630 --> 03:37:38,239

folds i can easily figure the uh

2205

03:37:52,550 --> 03:37:50,150

and aki we copy and

2206

03:37:54,630 --> 03:37:52,560

we can get best effort from you for now

2207

03:37:58,550 --> 03:37:54,640

and we can continue and come back to

2208

03:38:01,510 --> 03:37:58,560

this at the end of the day if required

2209

03:38:06,630 --> 03:38:03,190

for now i'm not gonna

2210

03:38:07,670 --> 03:38:06,640

go over the folds but i will secure the

2211

03:38:10,309 --> 03:38:07,680

mli

2212

03:38:15,830 --> 03:38:10,319

best effort

2213

03:38:31,990 --> 03:38:17,590

and i'll give you could verify that the

2214

03:38:37,910 --> 03:38:34,150

so ma you can go ahead and translate up

2215

03:38:48,870 --> 03:38:37,920

to the mass canister left pad install

2216

03:38:48,880 --> 03:39:07,269

no problem

2217

03:39:11,910 --> 03:39:09,590

as a reminder we're taking your social

2218

03:39:14,150 --> 03:39:11,920

media questions today and answering them

2219

03:39:16,870 --> 03:39:14,160

live on air you can submit a question to

2220

03:39:19,269 --> 03:39:16,880

us using the hashtag ask nasa we

2221

03:39:21,349 --> 03:39:19,279

received a question from geronimo on

2222

03:39:24,550 --> 03:39:21,359

twitter who wants to know when the next

2223

03:39:26,550 --> 03:39:24,560

irosas will be installed great question

2224

03:39:28,550 --> 03:39:26,560

geronimo those will be installed during

2225

03:39:32,070 --> 03:39:28,560

a future spacewalk

2226

03:39:33,990 --> 03:39:32,080

each iss solar array requires a mounting

2227

03:39:53,320 --> 03:39:34,000

bracket to be installed ahead of its

2228

03:39:53,330 --> 03:40:03,030

[Music]

2229

03:40:08,790 --> 03:40:05,830

problem copy two handles down you can

2230

03:40:31,189 --> 03:40:08,800

translate now up to the mass canister

2231

03:40:34,630 --> 03:40:32,870

another social media question we've

2232

03:40:36,950 --> 03:40:34,640

received is from fred who wants to know

2233

03:40:38,550 --> 03:40:36,960

how long the spacesuits last for an eva

2234

03:40:40,070 --> 03:40:38,560

and what is their limit

2235

03:40:42,710 --> 03:40:40,080

spacewalks

2236

03:40:44,950 --> 03:40:42,720

can vary in time depending on the tasks

2237

03:40:47,030 --> 03:40:44,960

that are required but there is a limit

2238

03:40:49,269 --> 03:40:47,040

to how long a spacewalk can last based

2239

03:40:52,030 --> 03:40:49,279

on the consumables that are used the

2240

03:40:56,070 --> 03:40:52,040

longest spacewalk took place on march 10

2241

03:40:58,870 --> 03:40:56,080

2001 during expedition 2 when astronauts

2242

03:41:02,229 --> 03:40:58,880

james voss and susan helms conducted a

2243

03:41:19,030 --> 03:41:02,239

spacewalk during sts-102 that lasted 8

2244

03:41:32,400 --> 03:41:21,269

all right come at your

2245

03:41:51,830 --> 03:41:33,750

[Music]

2246

03:41:57,349 --> 03:41:54,790

okay ready for me

2247

03:41:59,590 --> 03:41:57,359

if i can uh

2248

03:42:03,349 --> 03:41:59,600

start

2249

03:42:08,469 --> 03:42:05,429

a firm can retrieve the mid strut from

2250

03:42:21,429 --> 03:42:08,479

your brt and release the middle

2251
03:42:27,750 --> 03:42:24,550
the next task for our spacewalkers today

2252
03:42:39,110 --> 03:42:27,760
is to install the left

2253
03:42:43,750 --> 03:42:41,269
following this the crew will repeat the

2254
03:42:46,229 --> 03:42:43,760
procedures they just did in order to

2255
03:43:14,110 --> 03:42:46,239
install the right lower strut and then

2256
03:43:14,120 --> 03:43:19,030
[Music]

2257
03:43:22,870 --> 03:43:20,950
so you can extend the mid strut and then

2258
03:43:24,630 --> 03:43:22,880
you'll need to install the middle

2259
03:43:25,750 --> 03:43:24,640
grounding pit pin into the final

2260
03:43:28,229 --> 03:43:25,760
location

2261
03:43:30,229 --> 03:43:28,239
on the mid strut once it's deployed

2262
03:43:46,520 --> 03:43:30,239
and then you can extend the side pad out

2263
03:43:46,530 --> 03:43:56,870

[Music]

2264

03:43:56,880 --> 03:44:00,710

you've got it right there

2265

03:44:14,389 --> 03:44:02,300

great

2266

03:44:14,399 --> 03:44:19,750

yep

2267

03:44:24,469 --> 03:44:22,070

you'll be installing it arrow pointing

2268

03:44:26,550 --> 03:44:24,479

up you'll engage the right side first

2269

03:44:38,550 --> 03:44:26,560

and then pivot to the left side to

2270

03:44:42,830 --> 03:44:39,990

can you bring it around a little bit

2271

03:44:44,710 --> 03:44:42,840

higher actually higher

2272

03:44:46,389 --> 03:44:44,720

perfect

2273

03:44:48,150 --> 03:44:46,399

okay engaged

2274

03:44:49,269 --> 03:44:48,160

very good

2275

03:44:52,150 --> 03:44:49,279

copy

2276

03:44:54,469 --> 03:44:52,160

tomorrow you can hand start the both m1

2277

03:45:03,900 --> 03:44:54,479

through m4 two turns

2278

03:45:03,910 --> 03:45:08,070

[Music]

2279

03:45:13,990 --> 03:45:12,550

concur so we have pgt settings for you

2280

03:45:17,590 --> 03:45:14,000

all right

2281

03:45:19,830 --> 03:45:18,490

hello

2282

03:45:22,389 --> 03:45:19,840

[Music]

2283

03:45:38,950 --> 03:45:22,399

hey firm long pgt will be

2284

03:45:38,960 --> 03:45:45,429

looking for two turns

2285

03:45:45,439 --> 03:46:04,630

a firm any order

2286

03:46:09,349 --> 03:46:07,110

now working to install a series of four

2287

03:46:11,189 --> 03:46:09,359

bolts he'll first start them off by hand

2288

03:46:13,429 --> 03:46:11,199

turning them and then we'll use the

2289

03:46:14,229 --> 03:46:13,439

pistol grip tool to finish up tightening

2290

03:46:21,530 --> 03:46:14,239

them

2291

03:46:21,540 --> 03:46:26,229

[Music]

2292

03:46:26,239 --> 03:46:37,170

m1

2293

03:46:37,180 --> 03:46:41,510

[Music]

2294

03:46:41,520 --> 03:46:59,670

m2

2295

03:47:06,150 --> 03:47:02,790

copy two turns on m1 through m4

2296

03:47:08,710 --> 03:47:06,160

with the same settings you can drive all

2297

03:47:17,189 --> 03:47:08,720

four bolts to torque with a minimum of

2298

03:47:23,189 --> 03:47:20,309

good words aki for you

2299

03:47:31,590 --> 03:47:23,199

your pgt settings will be bravo one

2300

03:47:31,600 --> 03:47:33,429

the okay

2301
03:47:46,150 --> 03:47:38,309
green light 3.8 actual turns 506

2302
03:47:46,160 --> 03:47:59,810
coffee good m1 bolt

2303
03:48:03,189 --> 03:48:01,510
[Music]

2304
03:48:05,830 --> 03:48:03,199
green light

2305
03:48:09,189 --> 03:48:05,840
actual torque 3.7

2306
03:48:11,830 --> 03:48:09,199
and 485 turrets even it's a really

2307
03:48:14,550 --> 03:48:11,840
important tutorial

2308
03:48:17,349 --> 03:48:14,560
a good view from tomah pasquez helmet

2309
03:48:19,349 --> 03:48:17,359
cam as he uses the pistol grip tool to

2310
03:48:25,510 --> 03:48:19,359
secure those bolts

2311
03:48:31,189 --> 03:48:27,750
that's a good bolt and aki we're looking

2312
03:48:35,830 --> 03:48:31,199
for six and a half to nine turns on m28

2313
03:48:40,550 --> 03:48:38,790

meanwhile jaxa astronaut aki hoshide is

2314

03:48:42,870 --> 03:48:40,560

completing a similar task using the

2315

03:48:44,469 --> 03:48:42,880

pistol grip tool to install bolts as

2316

03:48:46,150 --> 03:48:44,479

well

2317

03:48:48,390 --> 03:48:46,160

green light

2318

03:48:49,990 --> 03:48:48,400

actual total 3.7.6

2319

03:48:59,910 --> 03:48:50,000

[Music]

2320

03:48:59,920 --> 03:49:08,150

copy m2 can you repeat the turns for m2

2321

03:49:08,160 --> 03:49:13,429

copy that's a good bull on m2

2322

03:49:18,550 --> 03:49:16,710

all right moving on to m4

2323

03:49:21,349 --> 03:49:18,560

m28

2324

03:49:22,550 --> 03:49:21,359

11 decimal niner on the torque

2325

03:49:26,630 --> 03:49:22,560

7

2326

03:49:32,550 --> 03:49:26,640

5 of the church and the green light

2327

03:49:43,110 --> 03:49:34,870

copy that's a good bullet on m28 you can

2328

03:49:48,389 --> 03:49:44,469

green light

2329

03:49:50,229 --> 03:49:48,399

3.6 actual torque and the size is for 61

2330

03:49:52,630 --> 03:49:50,239

rev

2331

03:50:13,670 --> 03:49:52,640

cappy good gold on m4 see on the other

2332

03:50:17,670 --> 03:50:15,510

we're in a brief expected handover

2333

03:50:25,990 --> 03:50:17,680

between satellites but we'll regain

2334

03:50:31,910 --> 03:50:28,070

and back with you after the handover

2335

03:50:33,030 --> 03:50:31,920

we've got good bolts on m28 and m1

2336

03:50:43,670 --> 03:50:33,040

through four

2337

03:50:51,590 --> 03:50:46,150

you can release aki's rhett from the

2338

03:50:55,030 --> 03:50:53,110

ready

2339

03:50:57,189 --> 03:50:55,040

and we just heard that call that both of

2340

03:50:59,910 --> 03:50:57,199

our spacewalkers have successfully

2341

03:51:02,469 --> 03:50:59,920

installed their bolts next up on the

2342

03:51:05,269 --> 03:51:02,479

agenda for them is to repeat the process

2343

03:51:07,830 --> 03:51:05,279

that was just done on the left side to

2344

03:51:10,229 --> 03:51:07,840

the right lower first up will be the

2345

03:51:11,670 --> 03:51:10,239

right lower strut and then the right mid

2346

03:51:21,510 --> 03:51:11,680

strut

2347

03:51:26,790 --> 03:51:24,309

copy then you can retrieve the

2348

03:51:35,830 --> 03:51:26,800

short pgt with the red and adjustable

2349

03:51:44,070 --> 03:51:37,990

aki you can install the grounding pit

2350

03:51:49,269 --> 03:51:45,590

i'll take a glove happen gauntlet check

2351
03:52:00,280 --> 03:51:51,990
now it's dry

2352
03:52:00,290 --> 03:52:08,469
[Music]

2353
03:52:17,349 --> 03:52:12,790
you can egress the apfr and we will be

2354
03:52:17,359 --> 03:52:21,990
charlie

2355
03:52:27,429 --> 03:52:23,990
if you're just tuning in with us today

2356
03:52:30,309 --> 03:52:27,439
we're two hours and 37 minutes into the

2357
03:52:32,070 --> 03:52:30,319
244th spacewalk in support of space

2358
03:52:35,429 --> 03:52:32,080
station maintenance assembly and

2359
03:52:38,469 --> 03:52:35,439
upgrades our spacewalkers aki hoshide of

2360
03:52:39,750 --> 03:52:38,479
the japan aerospace exploration agency

2361
03:52:42,469 --> 03:52:39,760
and thomas

2362
03:52:45,990 --> 03:52:42,479
of the european space agency began their

2363
03:52:49,030 --> 03:52:46,000

spacewalk at 7 15 a.m central time

2364

03:52:51,110 --> 03:52:49,040

since then the duo has worked to build

2365

03:52:52,309 --> 03:52:51,120

the upper triangle portion of the

2366

03:52:55,189 --> 03:52:52,319

bracket

2367

03:52:57,110 --> 03:52:55,199

of the modification kit for future irosa

2368

03:52:59,349 --> 03:52:57,120

solar ray upgrades

2369

03:53:02,309 --> 03:52:59,359

following that they secured the upper

2370

03:53:05,030 --> 03:53:02,319

triangle to the mass canister and just

2371

03:53:07,590 --> 03:53:05,040

finished installing the 4a left struts

2372

03:53:09,189 --> 03:53:07,600

which included a left lower strut and a

2373

03:53:11,269 --> 03:53:09,199

left mid strut

2374

03:53:13,349 --> 03:53:11,279

next up the duo will work together to

2375

03:53:15,110 --> 03:53:13,359

install the right lower strut and the

2376

03:53:21,189 --> 03:53:15,120

right mid strut before moving on to

2377

03:53:21,199 --> 03:53:25,750

no problem

2378

03:53:49,750 --> 03:53:26,870

is good

2379

03:53:49,760 --> 03:54:16,389

um

2380

03:54:16,399 --> 03:54:25,670

thank you okay

2381

03:54:33,830 --> 03:54:29,269

okay so the pgp the tokens

2382

03:54:37,830 --> 03:54:35,429

copy then

2383

03:54:40,469 --> 03:54:37,840

those two together can

2384

03:54:45,110 --> 03:54:40,479

get stowed on the right lower strut

2385

03:54:45,120 --> 03:54:59,189

right blower bag drill in the bag

2386

03:55:05,269 --> 03:55:01,910

all right everybody this role is

2387

03:55:05,279 --> 03:55:12,870

will this be a pro copy

2388

03:55:18,790 --> 03:55:14,950

and aki you can go ahead and re-ingress

2389

03:55:23,750 --> 03:55:21,349

and on the upper left hand of your

2390

03:55:26,229 --> 03:55:23,760

screen we may get a view of it again

2391

03:55:28,710 --> 03:55:26,239

here in a second when tomo pesquet looks

2392

03:55:31,110 --> 03:55:28,720

that way you'll see aki hoshide

2393

03:55:35,830 --> 03:55:31,120

ingressing we're getting into the apfr

2394

03:55:42,150 --> 03:55:39,030

he did the same when he received the

2395

03:56:05,700 --> 03:55:42,160

left mid strut from tomah he's now going

2396

03:56:09,110 --> 03:56:07,980

[Music]

2397

03:56:11,189 --> 03:56:09,120

[Applause]

2398

03:56:13,510 --> 03:56:11,199

back to the strut bag where he will grab

2399

03:56:21,189 --> 03:56:13,520

the right lower strut in preparation to

2400

03:56:25,110 --> 03:56:23,110

and tama should be the

2401
03:56:27,110 --> 03:56:25,120
right lower strut

2402
03:56:30,389 --> 03:56:27,120
and the hand rail closest to the saab

2403
03:56:32,550 --> 03:56:31,349
all right

2404
03:56:34,630 --> 03:56:32,560
shoot another one

2405
03:56:38,469 --> 03:56:34,640
thank you

2406
03:57:29,830 --> 03:56:40,880
two words

2407
03:57:29,840 --> 03:57:34,790
hey

2408
03:57:39,030 --> 03:57:37,990
gtm talk wrench are on the

2409
03:57:41,030 --> 03:57:39,040
right

2410
03:57:44,870 --> 03:57:41,040
four struts on the handrail close

2411
03:57:48,389 --> 03:57:46,950
excellent that's a good config

2412
03:57:58,630 --> 03:57:48,399
and we'll take that glove happen

2413
03:57:58,640 --> 03:58:10,870

why not

2414

03:58:10,880 --> 03:58:15,030

okay

2415

03:58:20,150 --> 03:58:16,710

gloves are

2416

03:58:20,160 --> 03:58:25,510

i have this dry

2417

03:58:36,070 --> 03:58:27,590

copy gloves and half and

2418

03:58:40,870 --> 03:58:38,790

you now be retrieving the right mid

2419

03:58:45,990 --> 03:58:40,880

strut from the bag so

2420

03:58:46,000 --> 03:58:51,590

mixture 910

2421

03:58:51,600 --> 03:59:16,150

good work

2422

03:59:21,110 --> 03:59:18,309

we're taking your questions this morning

2423

03:59:23,429 --> 03:59:21,120

using the hashtag ask nasa we've

2424

03:59:26,790 --> 03:59:23,439

received some great questions so far

2425

03:59:28,150 --> 03:59:26,800

one from rabrita on twitter who asks how

2426
03:59:30,870 --> 03:59:28,160
is the astronaut tethered to the

2427
03:59:32,389 --> 03:59:30,880
orbiting station during the spacewalk

2428
03:59:35,429 --> 03:59:32,399
as you've seen throughout the spacewalk

2429
03:59:37,510 --> 03:59:35,439
today the astronauts utilize series of

2430
03:59:39,510 --> 03:59:37,520
tethers in order to secure them safely

2431
03:59:41,510 --> 03:59:39,520
to the space station

2432
03:59:43,510 --> 03:59:41,520
they also utilize tethers to secure

2433
03:59:45,030 --> 03:59:43,520
their tools to the space station or to

2434
03:59:51,990 --> 03:59:45,040
themselves such as with the body

2435
03:59:56,389 --> 03:59:54,389
in the extremely unlikely event that a

2436
03:59:59,349 --> 03:59:56,399
crew member were to become untethered

2437
04:00:00,710 --> 03:59:59,359
from the space station they have a

2438
04:00:03,030 --> 04:00:00,720

essentially a

2439

04:00:05,429 --> 04:00:03,040

space jet pack called the safer the

2440

04:00:07,030 --> 04:00:05,439

simplified aid for eva rescue that they

2441

04:00:08,710 --> 04:00:07,040

could utilize to

2442

04:00:18,950 --> 04:00:08,720

get them back safely to the

2443

04:00:18,960 --> 04:00:29,590

i'll leave my bag though

2444

04:00:29,600 --> 04:00:44,630

[Music]

2445

04:00:44,640 --> 04:00:58,460

hello

2446

04:00:58,470 --> 04:01:15,990

[Applause]

2447

04:01:16,000 --> 04:01:41,189

inside

2448

04:01:41,199 --> 04:01:59,830

lock this up

2449

04:01:59,840 --> 04:02:33,820

so

2450

04:02:33,830 --> 04:02:39,349

[Applause]

2451
04:02:39,359 --> 04:02:44,570
it was close

2452
04:02:44,580 --> 04:02:52,389
[Applause]

2453
04:02:57,429 --> 04:02:54,830
now two hours and 48 minutes into the

2454
04:02:59,030 --> 04:02:57,439
244th spacewalk in support of space

2455
04:03:01,030 --> 04:02:59,040
station maintenance assembly and

2456
04:03:02,790 --> 04:03:01,040
upgrades this is the first ever

2457
04:03:04,309 --> 04:03:02,800
spacewalk involving two international

2458
04:03:07,189 --> 04:03:04,319
partner crew members out of the quest

2459
04:03:11,990 --> 04:03:09,590
our spacewalkers today esa astronaut

2460
04:03:14,550 --> 04:03:12,000
toma pesquet and jaxa astronaut aki

2461
04:03:17,269 --> 04:03:14,560
hoshide are well underway in today's

2462
04:03:19,429 --> 04:03:17,279
spacewalk having built and assembled the

2463
04:03:22,070 --> 04:03:19,439

upper bracket and installing it to the

2464

04:03:24,870 --> 04:03:22,080

mast canister installing the lower left

2465

04:03:28,550 --> 04:03:24,880

strut and the left mid strut and are now

2466

04:03:35,429 --> 04:03:28,560

working on the right lower strut

2467

04:03:41,750 --> 04:03:38,630

just work happy excellent

2468

04:03:47,990 --> 04:03:41,760

you verify that the ingress aids

2469

04:03:48,000 --> 04:03:54,389

index

2470

04:03:59,670 --> 04:03:56,469

when you're ready to ma you can transfer

2471

04:04:04,870 --> 04:03:59,680

the right mid strut over to aki with the

2472

04:04:09,189 --> 04:04:07,670

uh okay let's do that

2473

04:04:09,910 --> 04:04:09,199

okay

2474

04:04:11,590 --> 04:04:09,920

and

2475

04:04:17,349 --> 04:04:11,600

aki you'll be putting your rhett on the

2476
04:04:17,359 --> 04:04:25,590
it's pretty easy for you to

2477
04:04:25,600 --> 04:04:40,309
[Music]

2478
04:04:46,229 --> 04:04:41,990
um

2479
04:04:52,469 --> 04:04:49,110
okay

2480
04:04:53,130 --> 04:04:52,479
lean back once you can

2481
04:04:54,790 --> 04:04:53,140
it's uh

2482
04:05:27,110 --> 04:04:54,800
[Music]

2483
04:05:30,790 --> 04:05:28,950
as a reminder we are taking your

2484
04:05:33,110 --> 04:05:30,800
questions on social media and answering

2485
04:05:35,670 --> 04:05:33,120
them live on air use the hashtag ask

2486
04:05:38,309 --> 04:05:35,680
nasa to send yours over

2487
04:05:41,030 --> 04:05:38,319
we have a question from a user who asks

2488
04:05:42,710 --> 04:05:41,040

hello my dad ruby wanted to ask nasa how

2489

04:05:45,429 --> 04:05:42,720

many astronauts are currently on the

2490

04:05:47,750 --> 04:05:45,439

space station currently on board

2491

04:05:50,150 --> 04:05:47,760

the space station minus our two space

2492

04:05:51,910 --> 04:05:50,160

walking astronauts are the folks listed

2493

04:05:54,950 --> 04:05:51,920

here from left to right they are

2494

04:05:56,710 --> 04:05:54,960

roscosmos cosmonaut piotr dubrov nasa

2495

04:05:59,349 --> 04:05:56,720

astronaut shane kimbrough and megan

2496

04:06:01,670 --> 04:05:59,359

macarthur esa astronaut or european

2497

04:06:03,269 --> 04:06:01,680

space agency astronaut thomas pesquet

2498

04:06:05,670 --> 04:06:03,279

who's currently outside the space

2499

04:06:07,269 --> 04:06:05,680

station on this spacewalk as well as

2500

04:06:09,269 --> 04:06:07,279

jaxa astronaut

2501
04:06:12,070 --> 04:06:09,279
aki hoshide who is also outside

2502
04:06:14,630 --> 04:06:12,080
completing the spacewalk

2503
04:06:19,349 --> 04:06:14,640
rose cosmos cosmonaut oleg novitskiy and

2504
04:06:24,070 --> 04:06:23,030
hey you got your map yeah here it comes

2505
04:06:26,630 --> 04:06:24,080
back up

2506
04:06:29,830 --> 04:06:26,640
watch your back on the mounting bracket

2507
04:06:29,840 --> 04:06:34,150
okay

2508
04:06:38,309 --> 04:06:35,990
so

2509
04:06:39,429 --> 04:06:38,319
i'll prepare the lower right structure

2510
04:06:41,349 --> 04:06:39,439
you're

2511
04:06:43,590 --> 04:06:41,359
good words tomah should be under strap

2512
04:06:55,670 --> 04:06:43,600
seven and eight and you'll be handing

2513
04:06:55,680 --> 04:07:09,990

there's this one ready

2514

04:07:19,910 --> 04:07:12,630

hey what do you broke out

2515

04:08:10,630 --> 04:07:20,830

you're

2516

04:08:23,750 --> 04:08:12,389

back with you after the handover sorry

2517

04:08:27,349 --> 04:08:25,590

yeah a firm but looks like you were on

2518

04:08:29,910 --> 04:08:27,359

the right track we're just transferring

2519

04:08:44,469 --> 04:08:29,920

that right lower strut to aki with the

2520

04:08:49,349 --> 04:08:46,630

the same price

2521

04:08:51,590 --> 04:08:49,359

whoa that's a deal i know but i got a

2522

04:08:53,750 --> 04:08:51,600

vet on it

2523

04:08:55,590 --> 04:08:53,760

and i'll keep that

2524

04:08:57,269 --> 04:08:55,600

um

2525

04:08:59,349 --> 04:08:57,279

that red should be on the hammer

2526

04:09:01,429 --> 04:08:59,359

extension nearest to you

2527

04:09:02,950 --> 04:09:01,439

this view inside this strut bag and now

2528

04:09:05,269 --> 04:09:02,960

looking a little bit more empty than

2529

04:09:07,670 --> 04:09:05,279

when we first began the space walk today

2530

04:09:09,750 --> 04:09:07,680

the crew is continuing work to install

2531

04:09:14,149 --> 04:09:09,760

the right lower strut and then we'll

2532

04:09:19,269 --> 04:09:16,870

i can't really give it to you afterwards

2533

04:09:21,030 --> 04:09:19,279

let's find my hand on the red

2534

04:09:23,590 --> 04:09:21,040

just one second

2535

04:09:25,269 --> 04:09:23,600

before i reach

2536

04:09:28,070 --> 04:09:25,279

okay so this is the right that that

2537

04:09:29,590 --> 04:09:28,080

radiation goes from suspension to the

2538

04:09:31,670 --> 04:09:29,600

bag

2539

04:09:34,389 --> 04:09:31,680

you have a right on the right

2540

04:09:37,590 --> 04:09:34,399

construct paper

2541

04:09:39,750 --> 04:09:37,600

okay let me release it

2542

04:09:47,429 --> 04:09:39,760

all right i have control all right just

2543

04:09:47,439 --> 04:09:52,149

i'm going to keep it close to me

2544

04:10:01,510 --> 04:09:54,389

copy and evie crew the arm will be in

2545

04:10:04,710 --> 04:10:03,030

i think i'm translating for the other

2546

04:10:08,149 --> 04:10:04,720

side correct hey firm you're headed to

2547

04:10:09,670 --> 04:10:08,159

the right side sub launch bracket

2548

04:10:16,389 --> 04:10:09,680

and we'll have you report the spherical

2549

04:10:16,399 --> 04:10:19,910

right to the right side uh

2550

04:10:24,469 --> 04:10:22,389

not much to cross yeah

2551

04:10:27,429 --> 04:10:24,479

oh you have to go and board that if i

2552

04:10:29,990 --> 04:10:27,439

couldn't board you tellers hi guys

2553

04:10:32,550 --> 04:10:30,000

down so you can go over it i always

2554

04:10:35,349 --> 04:10:32,560

fight at the other end of the iea but

2555

04:10:38,469 --> 04:10:35,359

it's okay that's okay i'll i'll write it

2556

04:10:57,830 --> 04:10:38,479

back you can put it lower thought that

2557

04:10:57,840 --> 04:11:03,110

all right

2558

04:11:08,710 --> 04:11:05,830

yours is low

2559

04:11:14,229 --> 04:11:11,349

and this view from issa astronaut to mom

2560

04:11:16,229 --> 04:11:14,239

pasquet's helmet cam as he makes his way

2561

04:11:18,630 --> 04:11:16,239

over to a good position to help install

2562

04:11:25,670 --> 04:11:18,640

the right lower strut alongside jaxa

2563

04:11:36,309 --> 04:11:27,590

and we follow your tether config it

2564

04:11:36,319 --> 04:11:41,750

aki you can release the l6 grounding

2565

04:11:48,070 --> 04:11:43,269

the grounding pit pin from the strut

2566

04:11:53,030 --> 04:11:50,630

okay that's complete direction

2567

04:11:56,070 --> 04:11:53,040

yeah since i'm roll to my right i'm

2568

04:11:58,229 --> 04:11:56,080

right over the handrail so

2569

04:11:59,910 --> 04:11:58,239

let you hide this

2570

04:12:02,790 --> 04:11:59,920

and i see you

2571

04:12:08,160 --> 04:12:02,800

all right you're clear

2572

04:12:08,170 --> 04:12:36,309

[Music]

2573

04:12:36,319 --> 04:12:38,630

okay

2574

04:12:55,510 --> 04:12:40,870

here

2575

04:13:00,550 --> 04:12:56,389

all right

2576
04:13:04,790 --> 04:13:02,469
another social media question that we

2577
04:13:07,349 --> 04:13:04,800
received was from a twitter user who

2578
04:13:09,189 --> 04:13:07,359
asks what's on the left wrist

2579
04:13:11,990 --> 04:13:09,199
you have a good view of it here we have

2580
04:13:13,910 --> 04:13:12,000
a checklist that the astronauts keep on

2581
04:13:16,070 --> 04:13:13,920
their wrist in order to

2582
04:13:18,790 --> 04:13:16,080
follow along with the procedures the

2583
04:13:20,630 --> 04:13:18,800
ground iv jessica watkins also helps

2584
04:13:23,030 --> 04:13:20,640
step the crew through those procedures

2585
04:13:25,269 --> 04:13:23,040
but they have it on their wrist as well

2586
04:13:28,149 --> 04:13:25,279
there's also a mirror on the wrist which

2587
04:13:30,309 --> 04:13:28,159
is used to read the dials on the space

2588
04:13:32,630 --> 04:13:30,319

suit as those are

2589

04:13:34,070 --> 04:13:32,640

excellent and just a reminder to keep

2590

04:13:35,910 --> 04:13:34,080

clear of the pinch point when driving

2591

04:13:38,870 --> 04:13:35,920

this bolt

2592

04:13:47,410 --> 04:13:38,880

and we'll have you hand start m19 four

2593

04:13:47,420 --> 04:13:56,309

[Music]

2594

04:13:56,319 --> 04:14:14,389

observed

2595

04:14:17,189 --> 04:14:15,429

um

2596

04:14:18,550 --> 04:14:17,199

i want you to talk a little bit towards

2597

04:14:38,630 --> 04:14:18,560

the

2598

04:14:38,640 --> 04:15:00,860

i got two cars

2599

04:15:06,630 --> 04:15:02,830

[Music]

2600

04:15:09,349 --> 04:15:06,640

m19 aki you can start

2601
04:15:12,790 --> 04:15:09,359
the right lower strut to the mounting

2602
04:15:18,229 --> 04:15:12,800
bracket at l6 should be m20

2603
04:15:18,239 --> 04:15:50,149
help you

2604
04:15:55,110 --> 04:15:53,510
now three hours into the 244th spacewalk

2605
04:16:00,790 --> 04:15:55,120
in support of station maintenance

2606
04:16:10,550 --> 04:16:03,269
work continues to install the

2607
04:16:16,630 --> 04:16:14,550
so far our spacewalkers aki hoshide

2608
04:16:17,670 --> 04:16:16,640
have built and installed the upper

2609
04:16:19,030 --> 04:16:17,680
bracket

2610
04:16:40,229 --> 04:16:19,040
and

2611
04:17:06,630 --> 04:16:45,030
one clockwise who is stripped

2612
04:17:06,640 --> 04:17:38,710
i'm holding it

2613
04:17:58,630 --> 04:17:40,750

get your thumbs

2614

04:17:58,640 --> 04:18:17,189

let me try them

2615

04:18:24,229 --> 04:18:20,229

take your time stop complete

2616

04:18:42,309 --> 04:18:27,110

to my your pgt settings will be bravo

2617

04:18:42,319 --> 04:18:48,309

asleep

2618

04:18:53,189 --> 04:18:50,309

both hoshide and pasquet using their

2619

04:19:05,110 --> 04:18:53,199

pistol grip tool to secure bolts to the

2620

04:19:05,120 --> 04:19:10,469

ten and a half additional turns

2621

04:19:10,479 --> 04:19:38,309

and a half

2622

04:19:38,319 --> 04:19:46,389

can you repeat torque and turns on m19

2623

04:19:53,910 --> 04:19:50,950

okay so it's starting out at 5 61.

2624

04:20:07,750 --> 04:19:53,920

green light 25.5

2625

04:20:24,630 --> 04:20:09,990

copy tomorrow one

2626

04:20:27,429 --> 04:20:26,630

and tomorrow we'll have you

2627

04:20:29,510 --> 04:20:27,439

uh

2628

04:20:31,429 --> 04:20:29,520

try again with the pgt and then if that

2629

04:20:33,590 --> 04:20:31,439

doesn't work we'll do similar to what we

2630

04:20:41,990 --> 04:20:33,600

did on the other side and move right

2631

04:20:50,710 --> 04:20:44,950

let me focus out again with the pgt

2632

04:20:53,670 --> 04:20:52,469

copy to mod a firm let's move to the

2633

04:21:03,349 --> 04:20:53,680

torque wrench we'll have your socket

2634

04:21:07,030 --> 04:21:05,189

now switching out the pistol grip tool

2635

04:21:08,389 --> 04:21:07,040

for the torque wrench to finish up

2636

04:21:09,910 --> 04:21:08,399

tightening bolts

2637

04:21:11,590 --> 04:21:09,920

big picture for the two of you while

2638

04:21:15,910 --> 04:21:11,600

tama is doing that

2639

04:21:18,389 --> 04:21:15,920

we are at a three hour evap et

2640

04:21:19,830 --> 04:21:18,399

and just about on the timeline

2641

04:21:45,189 --> 04:21:19,840

still on track to get all of our tasks

2642

04:21:45,199 --> 04:22:11,510

the clocks work

2643

04:22:11,520 --> 04:22:20,710

on the top wrench

2644

04:23:00,550 --> 04:22:22,309

cappy and can you verify a good pull

2645

04:23:10,469 --> 04:23:02,790

and tomorrow bef did you verify a good

2646

04:23:13,269 --> 04:23:11,910

one

2647

04:23:15,590 --> 04:23:13,279

sorry i missed that

2648

04:23:23,030 --> 04:23:15,600

and same thing we're looking for

2649

04:23:32,550 --> 04:23:25,189

and looking for the visual indication

2650

04:23:36,389 --> 04:23:34,389

these small turns

2651
04:24:47,120 --> 04:23:36,399
and folk

2652
04:24:50,830 --> 04:24:49,830
[Music]

2653
04:26:08,229 --> 04:24:50,840
thank

2654
04:26:12,550 --> 04:26:10,389
you can see toma pesque using that

2655
04:26:20,710 --> 04:26:12,560
torque wrench to ensure the boat the

2656
04:26:24,790 --> 04:26:22,389
once this task is wrapped up they'll

2657
04:26:30,389 --> 04:26:24,800
move to installation of the right mid

2658
04:26:30,399 --> 04:27:04,229
good job

2659
04:27:08,309 --> 04:27:06,550
you want to release that uh adjustable

2660
04:27:10,630 --> 04:27:08,319
exactly

2661
04:27:13,030 --> 04:27:10,640
now i was thinking about it but

2662
04:27:15,510 --> 04:27:13,040
i mean now we're almost over

2663
04:27:18,469 --> 04:27:15,520

with my hand like this it's not going to

2664

04:27:18,479 --> 04:27:25,030

i should have done that

2665

04:27:25,040 --> 04:27:27,670

life

2666

04:27:47,670 --> 04:27:29,590

i always see that tomorrow you're doing

2667

04:27:47,680 --> 04:27:52,950

drop over once

2668

04:27:57,189 --> 04:27:55,429

good twice excellent

2669

04:27:59,830 --> 04:27:57,199

great job

2670

04:28:01,990 --> 04:27:59,840

we'll now do the three checks

2671

04:28:08,760 --> 04:28:02,000

so check that the black line is parallel

2672

04:28:08,770 --> 04:28:31,189

[Music]

2673

04:28:39,269 --> 04:28:33,110

check that there's no gap between this

2674

04:28:43,349 --> 04:28:41,670

i see no gap between the strut boss and

2675

04:28:46,309 --> 04:28:43,359

the draining surface

2676

04:29:13,100 --> 04:28:46,319

all nice and parallel

2677

04:29:22,309 --> 04:29:14,630

[Music]

2678

04:29:26,070 --> 04:29:23,990

copy that tomorrow and can we just have

2679

04:29:27,670 --> 04:29:26,080

you double check the

2680

04:29:45,030 --> 04:29:27,680

setting on the torque wrench is set to

2681

04:29:50,790 --> 04:29:48,229

a good m19 bolt great job

2682

04:29:52,309 --> 04:29:50,800

you can leave the short pgt and the

2683

04:30:01,189 --> 04:29:52,319

torque wrench

2684

04:30:05,269 --> 04:30:02,229

baki

2685

04:30:08,070 --> 04:30:05,279

your pgt settings will be the same bravo

2686

04:30:11,189 --> 04:30:08,080

one clockwise two and you'll be driving

2687

04:30:20,790 --> 04:30:11,199

m20 to torque looking for minimum of

2688

04:30:20,800 --> 04:30:45,150

good words

2689

04:30:45,160 --> 04:30:54,550

[Music]

2690

04:30:58,870 --> 04:30:56,950

green light

2691

04:31:04,820 --> 04:30:58,880

kathy and can you verify that black line

2692

04:31:14,630 --> 04:31:10,590

[Music]

2693

04:31:17,189 --> 04:31:14,640

that's a good m20 bolt

2694

04:31:45,750 --> 04:31:17,199

you can stow your pgt and release the

2695

04:31:52,790 --> 04:31:49,349

i'm going to recite that yep

2696

04:31:59,670 --> 04:31:57,590

that is released from the lower left

2697

04:32:01,269 --> 04:31:59,680

copy and then i can install the

2698

04:32:11,990 --> 04:32:01,279

grounding pit pin into the grounding

2699

04:32:12,000 --> 04:32:33,590

and to my copy you translating it

2700

04:32:43,670 --> 04:32:37,590

all right buddy the system isn't sold

2701
04:32:43,680 --> 04:32:46,550
we change

2702
04:32:52,389 --> 04:32:48,870
almost here

2703
04:32:53,670 --> 04:32:52,399
hey copy same issue with the mli

2704
04:33:06,470 --> 04:32:53,680
same plan

2705
04:33:29,109 --> 04:33:08,470
tomorrow once you get set we'll take a

2706
04:33:32,949 --> 04:33:31,670
the copy gauntlets are covering the

2707
04:33:35,029 --> 04:33:32,959
wrist rings

2708
04:33:37,590 --> 04:33:35,039
and my gloves

2709
04:33:40,390 --> 04:33:37,600
are still good no change

2710
04:33:41,750 --> 04:33:40,400
only a few black smudges from before i

2711
04:33:47,670 --> 04:33:41,760
think it's mostly sharpie actually

2712
04:33:47,680 --> 04:34:15,440
happy good checks and sharpie smudges

2713
04:34:15,450 --> 04:34:24,830

[Music]

2714

04:34:31,189 --> 04:34:28,869

uh integral wireframe

2715

04:34:37,429 --> 04:34:31,199

copy all hockey and we'll take a glove

2716

04:34:37,439 --> 04:34:40,909

uh

2717

04:34:40,919 --> 04:34:49,109

[Music]

2718

04:34:55,750 --> 04:34:51,510

a little finger

2719

04:35:02,629 --> 04:34:58,230

other than that no change and downloads

2720

04:35:06,310 --> 04:35:05,029

copy all lucky and no concerns on those

2721

04:35:08,470 --> 04:35:06,320

gloves

2722

04:35:10,470 --> 04:35:08,480

so you can retrieve the right mid strut

2723

04:35:12,470 --> 04:35:10,480

from your brt

2724

04:35:41,590 --> 04:35:12,480

and release the pit pin from the lock

2725

04:35:45,429 --> 04:35:43,269

and with the right lower strut

2726
04:35:47,590 --> 04:35:45,439
successfully installed

2727
04:35:59,189 --> 04:35:47,600
hoshide and pasquet will move on to

2728
04:35:59,199 --> 04:36:38,249
slowly

2729
04:36:38,259 --> 04:36:45,029
[Music]

2730
04:36:48,519 --> 04:36:47,510
copy you can if you're ready i'll

2731
04:36:55,910 --> 04:36:48,529
present you the

2732
04:36:59,349 --> 04:36:57,910
every couple you can extend the side pad

2733
04:37:01,670 --> 04:36:59,359
towards tomah

2734
04:37:07,189 --> 04:37:01,680
and tamai can install it with the arrow

2735
04:37:11,189 --> 04:37:09,590
arrow pointing out

2736
04:37:13,510 --> 04:37:11,199
which guy goes first

2737
04:37:18,070 --> 04:37:13,520
left side first and then pivot to the

2738
04:37:21,349 --> 04:37:19,750

okay left side and the field to the

2739

04:37:22,390 --> 04:37:21,359

right side i think you bring up your

2740

04:37:23,429 --> 04:37:22,400

round

2741

04:37:37,460 --> 04:37:23,439

that out

2742

04:37:37,470 --> 04:37:40,830

[Music]

2743

04:37:44,789 --> 04:37:42,390

happy

2744

04:37:48,230 --> 04:37:44,799

tomorrow you can start bolts m9 through

2745

04:37:50,390 --> 04:37:48,240

m12 looking for two turns

2746

04:38:00,210 --> 04:37:50,400

and the pgt settings for that will be

2747

04:38:00,220 --> 04:38:05,429

[Music]

2748

04:38:05,439 --> 04:38:19,029

good work

2749

04:38:19,039 --> 04:38:35,910

see

2750

04:38:52,150 --> 04:38:38,869

decimal page program

2751
04:39:00,709 --> 04:38:54,709
aki you can install the right mid strut

2752
04:39:00,719 --> 04:39:05,349
okay

2753
04:39:11,990 --> 04:39:09,269
before i before i finish my two times

2754
04:39:13,349 --> 04:39:12,000
yeah so aki you can line them up but we

2755
04:39:33,109 --> 04:39:13,359
won't drive the bolts until you're

2756
04:39:33,119 --> 04:39:45,190
12 returns

2757
04:39:51,750 --> 04:39:47,430
and tutorials

2758
04:39:53,590 --> 04:39:51,760
copy two turns on m9 through m12

2759
04:39:57,190 --> 04:39:53,600
to my you will continue at those same

2760
04:39:58,868 --> 04:39:57,200
settings driving m9 to m12 to torque

2761
04:40:05,750 --> 04:39:58,878
we're looking for a minimum of three

2762
04:40:08,230 --> 04:40:07,270
okay

2763
04:40:09,830 --> 04:40:08,240

uh

2764

04:40:10,948 --> 04:40:09,840

and that's after actually complete this

2765

04:40:13,510 --> 04:40:10,958

bullet sorry

2766

04:40:21,280 --> 04:40:13,520

can do this right now

2767

04:40:21,290 --> 04:40:28,788

[Music]

2768

04:40:28,798 --> 04:40:33,590

um

2769

04:40:46,390 --> 04:40:36,628

we can drive these bolts m9 through m12

2770

04:40:55,910 --> 04:40:49,030

[Music]

2771

04:40:55,920 --> 04:41:02,470

i haven't changed it since uh first time

2772

04:41:08,870 --> 04:41:05,510

depends the m12 uh good green light

2773

04:41:17,350 --> 04:41:08,880

3.8 actual torque and 463

2774

04:41:17,360 --> 04:41:24,628

copy m12 good bolt

2775

04:41:32,470 --> 04:41:26,868

and aki we're looking for six and a half

2776

04:41:35,670 --> 04:41:33,750

okay

2777

04:41:40,230 --> 04:41:35,680

after that

2778

04:41:43,190 --> 04:41:40,240

m11 ready of the green light 3.6 actual

2779

04:41:45,830 --> 04:41:43,200

485 red

2780

04:41:49,350 --> 04:41:45,840

hoshide and pasquet are again using the

2781

04:41:56,550 --> 04:41:49,360

pgt or pistol grip tool to drive bolts

2782

04:42:01,030 --> 04:41:58,230

this is the last strut that will be

2783

04:42:03,270 --> 04:42:01,040

installed on today's spacewalk

2784

04:42:05,110 --> 04:42:03,280

11.9

2785

04:42:06,390 --> 04:42:05,120

8.9

2786

04:42:12,150 --> 04:42:06,400

turns

2787

04:42:16,948 --> 04:42:14,628

copy that's a good build on m24 you can

2788

04:42:26,628 --> 04:42:16,958

stow your pgt and install the pit pin

2789

04:42:34,390 --> 04:42:29,830

green light 3.7 actual 5

2790

04:42:34,400 --> 04:42:57,350

copy that's a good boat on m10

2791

04:42:57,360 --> 04:43:05,910

the m9 iron light 3.7 actual 652rf

2792

04:43:12,708 --> 04:43:10,230

copy that's a good bolt m9 through m12

2793

04:43:26,310 --> 04:43:12,718

you can release the

2794

04:43:40,070 --> 04:43:28,470

all right

2795

04:43:40,080 --> 04:44:07,190

yes

2796

04:44:07,200 --> 04:44:14,310

right now

2797

04:44:14,320 --> 04:44:21,190

he copied hockey checking

2798

04:44:25,030 --> 04:44:23,830

maybe he was tomorrow does his fault

2799

04:44:27,270 --> 04:44:25,040

that's the

2800

04:44:27,830 --> 04:44:27,280

vote that

2801
04:44:30,948 --> 04:44:27,840
but the you

2802
04:44:30,958 --> 04:44:37,640
yeah he can pressure it towards me

2803
04:44:43,190 --> 04:44:41,030
[Music]

2804
04:44:45,110 --> 04:44:43,200
yeah there's um grounding wire on this

2805
04:44:48,230 --> 04:44:45,120
side yeah

2806
04:44:50,230 --> 04:44:48,240
it's floating that way okay and i can't

2807
04:45:01,910 --> 04:44:50,240
reach it it's on the other side so okay

2808
04:45:10,550 --> 04:45:04,470
maybe actually everything is secure

2809
04:45:16,070 --> 04:45:12,788
now three hours and 30 minutes into the

2810
04:45:17,990 --> 04:45:16,080
244th spacewalk in support of space

2811
04:45:22,070 --> 04:45:18,000
station maintenance assembly and

2812
04:45:26,868 --> 04:45:24,150
jaxa astronaut and current space station

2813
04:45:29,350 --> 04:45:26,878

commander aki hoshide and european space

2814

04:45:32,150 --> 04:45:29,360

agency astronaut thomas pesquet

2815

04:45:34,788 --> 04:45:32,160

have completed a series of tasks and

2816

04:45:37,430 --> 04:45:34,798

have completed the upper bracket build

2817

04:45:39,430 --> 04:45:37,440

and installation to the mass canister in

2818

04:45:42,150 --> 04:45:39,440

support of the mod modification kit

2819

04:45:44,708 --> 04:45:42,160

installation they've also installed the

2820

04:45:47,350 --> 04:45:44,718

left lower and left mid strut as well as

2821

04:45:48,788 --> 04:45:47,360

the right lower and right mid strut

2822

04:45:52,150 --> 04:45:48,798

putting the mod kit in a good

2823

04:45:56,788 --> 04:45:53,750

next up on the agenda for our

2824

04:45:59,830 --> 04:45:56,798

spacewalkers are to clean up the

2825

04:46:02,868 --> 04:45:59,840

worksite area and then begin work on the

2826
04:46:05,350 --> 04:46:02,878
fpmu or floating potential measurement

2827
04:46:15,910 --> 04:46:07,830
they'll swap out the current fpmu and

2828
04:46:26,260 --> 04:46:19,190
it's a very thing

2829
04:46:31,430 --> 04:46:27,990
[Music]

2830
04:46:35,830 --> 04:46:31,440
back with you after a quick handover

2831
04:46:39,670 --> 04:46:37,190
um

2832
04:46:41,350 --> 04:46:39,680
you missed my probably bad idea through

2833
04:46:43,510 --> 04:46:41,360
you killed those um

2834
04:46:45,910 --> 04:46:43,520
ola power cables the ones we

2835
04:46:49,110 --> 04:46:45,920
disconnected reconnected for the iros

2836
04:46:51,270 --> 04:46:49,120
that deploy they come to a bracket

2837
04:46:53,990 --> 04:46:51,280
bracket i was wondering if i could put a

2838
04:46:57,030 --> 04:46:54,000

feather in here it's not it's not per se

2839

04:46:58,470 --> 04:46:57,040

or android obviously but

2840

04:47:28,868 --> 04:46:58,480

it's wondering what you guys think of

2841

04:47:28,878 --> 04:47:43,430

it

2842

04:47:48,070 --> 04:47:45,110

on that handrail

2843

04:47:50,390 --> 04:47:48,080

but you can brt to the

2844

04:47:52,708 --> 04:47:50,400

mid-strut hand drill as long as you

2845

04:47:56,390 --> 04:47:52,718

minimize normal and torsional loads into

2846

04:48:14,868 --> 04:47:57,450

okay

2847

04:48:16,550 --> 04:48:14,878

key

2848

04:48:18,550 --> 04:48:16,560

structs

2849

04:48:22,948 --> 04:48:18,560

yeah it's a negative on that

2850

04:48:22,958 --> 04:48:47,110

okay there's no android

2851
04:48:47,120 --> 04:48:55,430
foreign

2852
04:48:58,868 --> 04:48:57,750
okay

2853
04:49:01,510 --> 04:48:58,878
so group

2854
04:49:10,230 --> 04:49:01,520
all right tomorrow your pgt settings

2855
04:49:16,230 --> 04:49:12,310
good words and we're looking to drive

2856
04:49:33,990 --> 04:49:16,240
m25 and m26 to torque with four to six

2857
04:49:34,000 --> 04:49:50,708
m26 first copy

2858
04:49:50,718 --> 04:49:56,708
evie crew arm will be in motion shortly

2859
04:49:58,868 --> 04:49:57,990
happy

2860
04:50:00,030 --> 04:49:58,878
good

2861
04:50:02,948 --> 04:50:00,040
green knight

2862
04:50:05,750 --> 04:50:02,958
25.4 actual

2863
04:50:05,760 --> 04:50:09,910

m26

2864

04:50:09,920 --> 04:50:26,070

copy 25.4 torque and 5.73 turn

2865

04:50:40,948 --> 04:50:27,350

m26

2866

04:50:45,990 --> 04:50:43,350

european space agency astronaut tomorrow

2867

04:50:48,868 --> 04:50:46,000

pasque using the pistol grip tool yet

2868

04:50:49,830 --> 04:50:48,878

again on the right mid strut adjustment

2869

04:50:53,110 --> 04:50:49,840

collar

2870

04:50:55,110 --> 04:50:53,120

to ensure that the mid strap is secure

2871

04:50:57,190 --> 04:50:55,120

and installed successfully following

2872

04:51:04,150 --> 04:50:57,200

this he'll do the exact same task on the

2873

04:51:09,590 --> 04:51:05,670

got it

2874

04:51:14,948 --> 04:51:09,600

all right good green light 25.3

2875

04:51:20,788 --> 04:51:18,230

copy that's good pgt on m25 as well so

2876
04:51:27,430 --> 04:51:20,798
you can now take the pgt to manual

2877
04:51:39,750 --> 04:51:30,550
okay watch it clockwise

2878
04:51:42,948 --> 04:51:41,590
rental first

2879
04:51:49,510 --> 04:51:42,958
okay

2880
04:51:54,788 --> 04:51:52,310
mtl is 30.5 and i'm going ratchet

2881
04:51:56,788 --> 04:51:54,798
clockwise that's all i'm doing copy good

2882
04:52:43,670 --> 04:51:56,798
settings and we're looking for two good

2883
04:52:43,680 --> 04:52:57,590
i don't think i'm getting them

2884
04:53:11,030 --> 04:53:05,110
oh

2885
04:53:11,040 --> 04:53:13,830
12.

2886
04:53:24,948 --> 04:53:15,670
at two on each

2887
04:53:35,190 --> 04:53:27,910
copy two good pops on m26

2888
04:53:43,030 --> 04:53:37,350

this is manual match and that encounter

2889

04:53:43,040 --> 04:53:46,390

happy three

2890

04:53:46,400 --> 04:53:53,910

i'll tell you where

2891

04:53:53,920 --> 04:53:58,628

and best effort on the ratchet mode

2892

04:54:03,110 --> 04:54:01,910

yeah because i'm wrapping like 15 or 10

2893

04:54:05,830 --> 04:54:03,120

degrees

2894

04:54:08,070 --> 04:54:05,840

you know for a stroke so

2895

04:54:18,788 --> 04:54:08,080

i i don't know how percent i can

2896

04:54:23,830 --> 04:54:20,230

there's one

2897

04:54:25,990 --> 04:54:23,840

of this on the m25

2898

04:54:28,390 --> 04:54:26,000

it felt like it didn't even do half a

2899

04:54:37,590 --> 04:54:28,400

turn before it popped out

2900

04:54:50,868 --> 04:54:40,788

two bulbs that's just one on the second

2901
04:54:55,750 --> 04:54:51,990
thank you

2902
04:55:05,990 --> 04:54:58,708
coffee two pops on m25 great work you

2903
04:55:06,000 --> 04:55:09,320
3.5

2904
04:55:09,330 --> 04:55:14,550
[Music]

2905
04:55:18,310 --> 04:55:15,510
aki

2906
04:55:22,708 --> 04:55:18,320
you can close the right mid strut and

2907
04:55:22,718 --> 04:55:31,110
i'm going to pass it right here

2908
04:55:33,670 --> 04:55:32,390
hey firm so

2909
04:55:36,948 --> 04:55:33,680
there should be

2910
04:55:42,130 --> 04:55:36,958
the middle pit pin in the final location

2911
04:55:47,030 --> 04:55:44,230
[Music]

2912
04:55:49,190 --> 04:55:47,040
yeah right now we have it up off the mli

2913
04:55:51,190 --> 04:55:49,200

and unless there's a cut out

2914

04:55:55,430 --> 04:55:51,200

there you can save the cutout yeah so i

2915

04:55:55,440 --> 04:56:04,030

[Applause]

2916

04:56:23,590 --> 04:56:06,948

[Music]

2917

04:56:28,550 --> 04:56:26,470

this this goes through here nope that

2918

04:56:30,628 --> 04:56:28,560

comes all the way here and then that

2919

04:56:31,590 --> 04:56:30,638

should be another cutout no

2920

04:56:32,788 --> 04:56:31,600

right

2921

04:56:43,670 --> 04:56:32,798

that's

2922

04:56:48,500 --> 04:56:44,788

okay

2923

04:57:01,750 --> 04:56:48,510

i don't see another kid out there oh

2924

04:57:04,788 --> 04:57:03,190

there's not a separate cutout for it

2925

04:57:10,150 --> 04:57:04,798

you'll just have to slip it in through

2926

04:57:30,868 --> 04:57:11,190

okay

2927

04:57:30,878 --> 04:57:38,708

then

2928

04:57:41,430 --> 04:57:40,230

so i'll have to remove all this and do a

2929

04:57:43,270 --> 04:57:41,440

mini

2930

04:57:44,470 --> 04:57:43,280

that's right yeah

2931

04:57:51,910 --> 04:57:44,480

and it's gonna be the same on the other

2932

04:57:56,310 --> 04:57:54,150

yeah aki you may need to try the other

2933

04:57:58,948 --> 04:57:56,320

side

2934

04:58:02,310 --> 04:57:58,958

in order to get the pipe into reach it

2935

04:58:06,788 --> 04:58:04,788

yeah there's no other side i just

2936

04:58:08,628 --> 04:58:06,798

knocked it out from the top

2937

04:58:09,430 --> 04:58:08,638

the only one

2938

04:58:12,150 --> 04:58:09,440

so

2939

04:58:15,590 --> 04:58:12,160

smart try to work this through the

2940

04:58:17,590 --> 04:58:15,600

closest cut out

2941

04:58:21,030 --> 04:58:17,600

and it's not leaking if you try that i

2942

04:58:23,830 --> 04:58:21,040

can i can come through here maybe

2943

04:58:25,670 --> 04:58:23,840

but that means i'm not sure

2944

04:58:26,628 --> 04:58:25,680

then the mla gets blocked and you don't

2945

04:58:28,948 --> 04:58:26,638

have

2946

04:58:31,110 --> 04:58:28,958

yeah smack to go all the way

2947

04:58:33,670 --> 04:58:31,120

uh it's not so

2948

04:58:34,390 --> 04:58:33,680

it's like a niche yeah

2949

04:58:36,310 --> 04:58:34,400

but

2950

04:58:37,160 --> 04:58:36,320

it's gonna be a nightmare to you if you

2951
04:58:38,310 --> 04:58:37,170
go on there

2952
04:58:41,430 --> 04:58:38,320
[Music]

2953
04:58:48,150 --> 04:58:41,440
so why don't we try this first

2954
04:58:59,040 --> 04:58:50,788
you want to make sure you do the pit pin

2955
04:59:05,670 --> 04:59:02,070
[Music]

2956
04:59:08,390 --> 04:59:06,868
yeah but i'm not sure it's going to

2957
04:59:10,868 --> 04:59:08,400
crash

2958
04:59:12,310 --> 04:59:10,878
mli may not reach that's the other

2959
04:59:18,628 --> 04:59:12,320
concern

2960
04:59:18,638 --> 04:59:31,030
let's suppose

2961
04:59:47,850 --> 04:59:33,750
mri so it's not going to draw over any

2962
04:59:53,830 --> 04:59:51,430
[Music]

2963
05:00:00,310 --> 04:59:53,840

and then go under

2964

05:00:04,070 --> 05:00:01,910

so that is

2965

05:00:05,270 --> 05:00:04,080

good word so we'll need to put the pixen

2966

05:00:08,948 --> 05:00:05,280

in first

2967

05:00:09,910 --> 05:00:08,958

and then pull the mli up over the bolt

2968

05:00:13,670 --> 05:00:09,920

and then

2969

05:00:19,990 --> 05:00:15,830

that's not i mean the problem we have

2970

05:00:20,000 --> 05:00:22,788

firm

2971

05:00:27,990 --> 05:00:25,350

okay so you see the pistons going above

2972

05:00:29,750 --> 05:00:28,000

the eye right here um if i if we go

2973

05:00:31,510 --> 05:00:29,760

about the mli like like this is

2974

05:00:32,868 --> 05:00:31,520

happening here and actually doesn't have

2975

05:00:34,550 --> 05:00:32,878

enough slack because it's it's

2976
05:00:36,230 --> 05:00:34,560
effectively blocking the allies here and

2977
05:00:38,708 --> 05:00:36,240
we're losing some length

2978
05:00:40,708 --> 05:00:38,718
right so the other option is i go under

2979
05:00:43,350 --> 05:00:40,718
the mri but it means that you undo all

2980
05:00:48,230 --> 05:00:43,360
this nri until here and then arouse to

2981
05:00:52,628 --> 05:00:50,788
it looks like our only chance to get the

2982
05:00:54,230 --> 05:00:52,638
other end of the noi engaged over the

2983
05:00:57,110 --> 05:00:54,240
bulb yeah

2984
05:01:02,390 --> 05:00:57,120
by the way i don't have enough stack

2985
05:01:02,400 --> 05:01:13,110
we copy we're checking tomorrow

2986
05:01:26,708 --> 05:01:14,390
i don't know what it looks like down

2987
05:01:32,390 --> 05:01:30,150
so mom we're thinking you may need to

2988
05:01:36,390 --> 05:01:32,400

peel the mli all the way back and route

2989

05:01:41,030 --> 05:01:39,030

that's what i was trying to tell you um

2990

05:01:42,830 --> 05:01:41,040

are you happy with me doing that and

2991

05:01:50,470 --> 05:01:42,840

it's going to take some

2992

05:02:12,310 --> 05:01:53,030

we are good with that plan tomorrow we

2993

05:02:12,320 --> 05:02:25,110

[Music]

2994

05:02:51,910 --> 05:02:27,510

how yeah but i need this lecture i can't

2995

05:02:55,590 --> 05:02:53,830

and aki unfortunately not sure there's

2996

05:03:26,650 --> 05:02:55,600

much you can do to help

2997

05:03:26,660 --> 05:03:31,990

[Music]

2998

05:03:32,000 --> 05:03:35,670

great

2999

05:03:35,680 --> 05:03:39,500

all work

3000

05:03:39,510 --> 05:03:50,150

[Music]

3001
05:04:03,240 --> 05:03:52,550
a little more slack though oh that's all

3002
05:04:03,250 --> 05:04:15,270
[Music]

3003
05:04:20,470 --> 05:04:18,150
and we recommend that we start at aki's

3004
05:04:26,310 --> 05:04:20,480
end and put the mli over the bolt and

3005
05:04:57,910 --> 05:04:28,708
constraints

3006
05:05:02,070 --> 05:05:00,628
can you hold just a little bit left

3007
05:05:04,788 --> 05:05:02,080
right

3008
05:05:10,150 --> 05:05:06,788
moving towards you

3009
05:05:10,920 --> 05:05:10,160
from my okay it says uh let's pull down

3010
05:05:20,320 --> 05:05:10,930
i gotta make it

3011
05:05:28,628 --> 05:05:21,430
[Music]

3012
05:05:28,638 --> 05:06:03,270
oh

3013
05:06:03,280 --> 05:06:14,628

okay

3014

05:06:20,150 --> 05:06:16,390

all right

3015

05:06:24,150 --> 05:06:21,910

i gotta keep the hearts out here

3016

05:06:26,550 --> 05:06:24,160

can you reach the velcro

3017

05:06:30,628 --> 05:06:26,560

the other side

3018

05:06:35,030 --> 05:06:32,628

so

3019

05:06:40,980 --> 05:06:35,040

it's velcro that's holding the mli

3020

05:06:50,830 --> 05:06:48,130

[Music]

3021

05:06:52,948 --> 05:06:50,840

very

3022

05:06:55,110 --> 05:06:52,958

good one

3023

05:06:57,590 --> 05:06:55,120

this view from thomas pesquet's helmet

3024

05:07:00,310 --> 05:06:57,600

cam as he continues to get everything

3025

05:07:01,830 --> 05:07:00,320

secured ahead of the cleanup of the

3026

05:07:06,550 --> 05:07:01,840

workstation

3027

05:07:10,868 --> 05:07:09,030

all right good job

3028

05:07:12,390 --> 05:07:10,878

uh so we probably have to do the same on

3029

05:07:18,830 --> 05:07:12,400

the other side

3030

05:07:22,868 --> 05:07:20,788

work to

3031

05:07:27,270 --> 05:07:22,878

ensure that before you get out of the

3032

05:07:29,510 --> 05:07:27,280

apfr aki uh we'll have you guys install

3033

05:07:31,910 --> 05:07:29,520

a short wire tie

3034

05:07:35,910 --> 05:07:31,920

around the telescoping portion

3035

05:07:40,390 --> 05:07:38,310

yeah i think i was doing actually yeah i

3036

05:07:43,270 --> 05:07:40,400

think i'm going to bear permission yeah

3037

05:07:45,990 --> 05:07:43,280

and i don't have the week to get to the

3038

05:07:50,070 --> 05:07:47,510

so i'm here

3039

05:07:52,868 --> 05:07:50,080

yeah and one here yeah

3040

05:07:55,350 --> 05:07:52,878

if you just hold here okay all right

3041

05:08:00,868 --> 05:07:55,360

working on it

3042

05:08:00,878 --> 05:08:06,150

and we copy that sounds good to us

3043

05:08:11,510 --> 05:08:08,150

all right

3044

05:08:15,350 --> 05:08:11,520

first of all and the words

3045

05:08:17,030 --> 05:08:15,360

since like what they have for me

3046

05:08:20,230 --> 05:08:17,040

all right aki you can go ahead and

3047

05:08:23,910 --> 05:08:20,240

egress the apfr and retrieve your fair

3048

05:08:23,920 --> 05:08:26,948

okay

3049

05:08:30,628 --> 05:08:28,868

those wires you want them one on each

3050

05:08:32,708 --> 05:08:30,638

side of

3051

05:08:38,230 --> 05:08:32,718

those adjustable those bolts that i just

3052

05:08:53,510 --> 05:08:39,990

a firm so the wire tie needs to be on

3053

05:08:57,430 --> 05:08:56,070

the two wire ties are both in between

3054

05:08:59,830 --> 05:08:57,440

the adjust

3055

05:09:12,788 --> 05:08:59,840

adjustment collar and bocky side of the

3056

05:09:12,798 --> 05:09:35,990

okay

3057

05:09:36,000 --> 05:09:40,390

all right here's one

3058

05:09:40,400 --> 05:10:00,948

puppy

3059

05:10:04,150 --> 05:10:03,030

hey bobby i got the uh

3060

05:10:06,070 --> 05:10:04,160

richmond

3061

05:10:09,030 --> 05:10:06,080

address

3062

05:10:14,230 --> 05:10:09,040

from my mini workstation

3063

05:10:18,550 --> 05:10:16,070

in this view from

3064

05:10:19,670 --> 05:10:18,560

issa astronaut toma pesquez helmet cam

3065

05:10:21,750 --> 05:10:19,680

you can

3066

05:10:23,830 --> 05:10:21,760

kind of see the earth in the background

3067

05:10:27,670 --> 05:10:23,840

behind him the space station is

3068

05:10:34,310 --> 05:10:27,680

currently flying 262 statute miles above

3069

05:10:51,750 --> 05:10:36,310

the space station is flying just off the

3070

05:10:58,070 --> 05:10:55,030

pesquet is continuing to use the wire

3071

05:11:09,750 --> 05:10:58,080

ties to secure

3072

05:11:23,270 --> 05:11:12,948

and tomorrow we see that second wire tie

3073

05:11:27,030 --> 05:11:25,270

and with that the wire ties were

3074

05:11:35,510 --> 05:11:27,040

successfully wrapped around the

3075

05:11:35,520 --> 05:12:12,310

i'll be on my way

3076

05:12:25,750 --> 05:12:13,910

all right what should i keep my six

3077

05:12:31,350 --> 05:12:28,948

i'm gonna translate around uh

3078

05:12:35,830 --> 05:12:31,360

but just uh for youtube you know a

3079

05:12:38,310 --> 05:12:36,550

more

3080

05:12:48,310 --> 05:12:38,320

than the mouse

3081

05:12:52,708 --> 05:12:50,150

all right let me clear you so that you

3082

05:13:00,310 --> 05:12:52,718

can go back okay

3083

05:13:00,320 --> 05:13:05,510

all right

3084

05:13:07,910 --> 05:13:06,868

going around

3085

05:13:22,868 --> 05:13:07,920

oops

3086

05:13:22,878 --> 05:13:48,070

foreign

3087

05:13:53,350 --> 05:13:50,390

now approaching the four hour mark in

3088

05:13:57,430 --> 05:13:53,360

today's spacewalk which began at 7 15

3089

05:14:03,430 --> 05:14:00,390

so far our spacewalkers which are issa

3090

05:14:06,230 --> 05:14:03,440

astronaut toma pesquet and jaxa

3091

05:14:08,628 --> 05:14:06,240

astronaut aki hoshide have completed all

3092

05:14:11,990 --> 05:14:08,638

of their tasks which included building

3093

05:14:13,670 --> 05:14:12,000

the upper triangle and installing it

3094

05:14:15,990 --> 05:14:13,680

to the mass canister as well as

3095

05:14:18,310 --> 05:14:16,000

installing the left lower strut the left

3096

05:14:22,470 --> 05:14:18,320

mid strut the right lower strut and the

3097

05:14:26,550 --> 05:14:24,310

next up they'll clean up their work site

3098

05:14:28,948 --> 05:14:26,560

and move on to the next major task of

3099

05:14:34,390 --> 05:14:28,958

the day which involves the floating

3100

05:14:39,750 --> 05:14:37,270

this is a device that measures movement

3101

05:14:43,910 --> 05:14:39,760

across the solar arrays

3102

05:14:46,550 --> 05:14:43,920

and will be swapped out for a new fpmu

3103

05:15:16,310 --> 05:14:46,560

and you'll be headed back to the bag to

3104

05:15:53,440 --> 05:15:18,730

uh

3105

05:16:00,230 --> 05:15:54,788

[Music]

3106

05:16:04,470 --> 05:16:01,270

copy

3107

05:16:06,310 --> 05:16:04,480

your pgt settings will be bravo 7

3108

05:16:10,708 --> 05:16:06,320

clockwise 2

3109

05:16:21,910 --> 05:16:12,320

level

3110

05:16:28,868 --> 05:16:25,990

vertical one there is a good one

3111

05:16:52,470 --> 05:16:28,878

that's uh the straight law i'm talking

3112

05:16:58,708 --> 05:16:54,550

did you copy

3113

05:16:58,718 --> 05:17:18,390

okay

3114

05:17:26,868 --> 05:17:22,070

i'm worried that uh

3115

05:17:29,670 --> 05:17:26,878

adjustable and torque wrench is threaded

3116

05:17:33,270 --> 05:17:29,680

to the bag

3117

05:17:35,510 --> 05:17:33,280

tapiaki you can retrieve the round scoop

3118

05:17:36,948 --> 05:17:35,520

and the large small red

3119

05:17:51,190 --> 05:17:36,958

and then you'll be temps doing that on

3120

05:17:55,990 --> 05:17:53,430

jaxa astronaut and current space station

3121

05:17:58,390 --> 05:17:56,000

commander aki hoshide is working on

3122

05:18:02,788 --> 05:17:58,400

cleaning up his work area

3123

05:18:06,310 --> 05:18:04,708

good words tomorrow we're looking for

3124

05:18:08,230 --> 05:18:06,320

following this he'll do an inventory of

3125

05:18:10,310 --> 05:18:08,240

the strip bag to make sure he has all of

3126

05:18:27,990 --> 05:18:10,320

his tools such as the torque wrench and

3127

05:18:32,788 --> 05:18:30,550

meanwhile esa astronaut thomas pesquet

3128

05:18:37,030 --> 05:18:32,798

is working on securing the last bolts

3129

05:18:41,510 --> 05:18:39,510

green light

3130

05:18:42,990 --> 05:18:41,520

25.5

3131

05:18:45,270 --> 05:18:43,000

actual

3132

05:18:49,270 --> 05:18:45,280

m554 revs

3133

05:18:55,750 --> 05:18:52,390

copy m29 is good with the pgt can move

3134

05:18:55,760 --> 05:19:07,190

sorry

3135

05:19:14,070 --> 05:19:08,150

if

3136

05:19:17,270 --> 05:19:15,190

copy

3137

05:19:23,110 --> 05:19:17,280

and we'll take an inventory of the strut

3138

05:19:29,270 --> 05:19:26,470

green light 25.4

3139

05:19:31,030 --> 05:19:29,280

actual torque um

3140

05:19:33,030 --> 05:19:31,040

i didn't reset my current count in

3141

05:19:34,390 --> 05:19:33,040

between the two bolts so this one has

3142

05:19:37,590 --> 05:19:34,400

seven

3143

05:19:39,670 --> 05:19:37,600

in total it's a little bit less

3144

05:19:41,670 --> 05:19:39,680

you know than what you were expecting

3145

05:19:49,910 --> 05:19:41,680

but i gotta

3146

05:19:58,310 --> 05:19:52,868

copy 25.4 torque and

3147

05:20:06,150 --> 05:20:01,670

negative 7 turns 15 total between m30

3148

05:20:06,160 --> 05:20:13,590

copy 7 turns total between m29 and m30

3149

05:20:13,600 --> 05:20:19,750

is very good for you 10 by 1.

3150

05:20:24,708 --> 05:20:20,948

we'll have you hit it one more time

3151
05:20:24,718 --> 05:21:00,628
that's it

3152
05:21:00,638 --> 05:21:04,150
83 revs

3153
05:21:04,160 --> 05:21:08,628
i'm 30.

3154
05:21:08,638 --> 05:21:13,190
copy checking

3155
05:21:16,788 --> 05:21:15,190
hey tomorrow we are ready to take the

3156
05:21:18,310 --> 05:21:16,798
pgt to

3157
05:21:22,708 --> 05:21:18,320
manual ratchet mode

3158
05:21:25,350 --> 05:21:24,070
okay

3159
05:21:29,270 --> 05:21:25,360
clockwise

3160
05:21:55,910 --> 05:21:32,628
good words looking for turns as best

3161
05:22:12,788 --> 05:21:57,270
actually you can go with your bag while

3162
05:22:15,950 --> 05:22:15,200
with a hammer

3163
05:22:29,670 --> 05:22:15,960

[Music]

3164

05:22:34,310 --> 05:22:31,430

one red

3165

05:22:37,190 --> 05:22:34,320

is a

3166

05:22:39,830 --> 05:22:37,200

this is connected to the adjustable and

3167

05:22:43,190 --> 05:22:39,840

i just will have the

3168

05:22:45,670 --> 05:22:43,200

pdp with another red

3169

05:22:46,628 --> 05:22:45,680

and

3170

05:22:50,470 --> 05:22:46,638

uh

3171

05:23:06,948 --> 05:22:52,788

then

3172

05:23:06,958 --> 05:23:14,788

inside the bag

3173

05:23:19,670 --> 05:23:17,350

copy aki that's a good strut bag

3174

05:23:21,670 --> 05:23:19,680

inventory you have a go to fold and

3175

05:23:28,900 --> 05:23:21,680

cinch it up and we expect it to be just

3176

05:23:40,070 --> 05:23:35,670

[Music]

3177

05:23:41,750 --> 05:23:40,080

second time i gave it like a turn and a

3178

05:23:44,150 --> 05:23:41,760

half maybe didn't pop

3179

05:23:46,788 --> 05:23:44,160

um then i looked at my socket

3180

05:23:48,708 --> 05:23:46,798

and uh if you can see my video it's kind

3181

05:23:49,830 --> 05:23:48,718

of bent

3182

05:23:54,070 --> 05:23:49,840

it's not

3183

05:23:56,470 --> 05:23:54,080

uh

3184

05:23:59,590 --> 05:23:56,480

it's sheared or

3185

05:24:01,750 --> 05:23:59,600

respecting way or another

3186

05:24:03,110 --> 05:24:01,760

i don't think it prevents any rats being

3187

05:24:03,480 --> 05:24:03,120

extreme but

3188

05:24:04,548 --> 05:24:03,490

it's

3189

05:24:05,990 --> 05:24:04,558

[Music]

3190

05:24:21,350 --> 05:24:06,000

something wrong with that socket for

3191

05:24:24,310 --> 05:24:22,948

it doesn't go straight

3192

05:24:26,868 --> 05:24:24,320

yes

3193

05:24:28,390 --> 05:24:26,878

yeah but it's it's uh it's bound like

3194

05:24:39,510 --> 05:24:28,400

it's really

3195

05:24:43,990 --> 05:24:41,510

and you did hear a few moments ago that

3196

05:24:45,830 --> 05:24:44,000

jack's astronaut aki hoshide had a

3197

05:24:47,510 --> 05:24:45,840

successful inventory of the strut bag

3198

05:24:49,030 --> 05:24:47,520

meaning that all of the pieces were in

3199

05:24:50,628 --> 05:24:49,040

there that should be the pistol grip

3200

05:24:53,030 --> 05:24:50,638

tool the torque wrench and the other

3201
05:24:56,470 --> 05:24:53,040
tools that were used to help build and

3202
05:24:58,788 --> 05:24:56,480
install the bracket today

3203
05:25:00,948 --> 05:24:58,798
hoshide will now work on folding up the

3204
05:25:02,788 --> 05:25:00,958
strut bag and attaching it to his body

3205
05:25:05,270 --> 05:25:02,798
restraint tether

3206
05:25:08,150 --> 05:25:05,280
this will help him as he translates back

3207
05:25:10,310 --> 05:25:08,160
to the airlock shortly he'll drop off

3208
05:25:12,948 --> 05:25:10,320
the strut bag and then he will grab the

3209
05:25:14,708 --> 05:25:12,958
replacement fpmu or the floating

3210
05:25:16,070 --> 05:25:14,718
potential measurement unit which will be

3211
05:25:21,410 --> 05:25:16,080
installed by

3212
05:25:21,420 --> 05:26:10,708
[Music]

3213
05:26:14,708 --> 05:26:12,548

we're in a brief expected handover

3214

05:26:17,030 --> 05:26:14,718

between satellites and we'll regain

3215

05:26:18,788 --> 05:26:17,040

communication and imagery here shortly

3216

05:26:21,510 --> 05:26:18,798

if you're just tuning in with us we're a

3217

05:26:23,590 --> 05:26:21,520

little over four hours into the 244th

3218

05:26:26,070 --> 05:26:23,600

spacewalk in support of space station

3219

05:26:28,150 --> 05:26:26,080

maintenance assembly and upgrades

3220

05:26:31,590 --> 05:26:28,160

so far today our space walkers aki

3221

05:26:34,310 --> 05:26:31,600

hoshide of jaxa and toma pesque of isa

3222

05:26:36,708 --> 05:26:34,320

have successfully built and installed

3223

05:26:39,910 --> 05:26:36,718

the modification kit in preparation for

3224

05:26:41,670 --> 05:26:39,920

future solar array installation

3225

05:26:43,590 --> 05:26:41,680

they're working on cleaning up the work

3226
05:26:46,948 --> 05:26:43,600
site here shortly and then we'll move on

3227
05:26:48,470 --> 05:26:46,958
to the next task which is to remove and

3228
05:26:54,310 --> 05:26:48,480
install the floating potential

3229
05:27:00,070 --> 05:26:57,030
so far everything moving smoothly in

3230
05:27:20,230 --> 05:27:00,080
today's spacewalk and all tasks have

3231
05:27:24,150 --> 05:27:22,050
yep

3232
05:27:42,470 --> 05:27:24,160
[Music]

3233
05:27:42,480 --> 05:28:02,788
good job

3234
05:28:02,798 --> 05:28:32,868
oh

3235
05:28:56,930 --> 05:28:35,670
okay thank you thank you

3236
05:29:03,670 --> 05:28:59,830
[Music]

3237
05:29:36,150 --> 05:29:05,910
copy tba bag inventory

3238
05:29:36,160 --> 05:29:39,590

and i'm going back

3239

05:29:39,600 --> 05:29:49,420

happy tomorrow

3240

05:29:49,430 --> 05:29:57,190

[Music]

3241

05:29:57,200 --> 05:30:03,830

but you can take the akfar

3242

05:30:03,840 --> 05:30:19,840

anyway everybody

3243

05:30:51,030 --> 05:30:40,750

[Music]

3244

05:30:55,270 --> 05:30:53,110

as a reminder we are taking your social

3245

05:30:56,708 --> 05:30:55,280

media questions today and answering them

3246

05:30:58,788 --> 05:30:56,718

live on air

3247

05:31:00,628 --> 05:30:58,798

you can use the hashtag ask nasa to

3248

05:31:02,310 --> 05:31:00,638

submit your question

3249

05:31:04,948 --> 05:31:02,320

we've received a question from a twitter

3250

05:31:06,628 --> 05:31:04,958

user who asks do the astronauts notice

3251
05:31:09,350 --> 05:31:06,638
any temperature difference inside their

3252
05:31:11,430 --> 05:31:09,360
spacesuits when going from day to night

3253
05:31:12,310 --> 05:31:11,440
as we mentioned earlier in our coverage

3254
05:31:13,350 --> 05:31:12,320
the

3255
05:31:15,910 --> 05:31:13,360
space

3256
05:31:17,670 --> 05:31:15,920
station orbits the earth every 90

3257
05:31:19,990 --> 05:31:17,680
minutes experiencing a sunrise and a

3258
05:31:21,750 --> 05:31:20,000
sunset every 45 minutes

3259
05:31:24,548 --> 05:31:21,760
along with that there is a temperature

3260
05:31:26,948 --> 05:31:24,558
variance between negative 250 degrees

3261
05:31:29,270 --> 05:31:26,958
during a sunset and

3262
05:31:31,750 --> 05:31:29,280
plus 250 degrees fahrenheit during a

3263
05:31:33,990 --> 05:31:31,760

sunrise so there's quite a temperature

3264

05:31:36,310 --> 05:31:34,000

difference however this spacesuit is

3265

05:31:38,470 --> 05:31:36,320

equipped with cooling garments and

3266

05:31:40,868 --> 05:31:38,480

layers of protection to help keep the

3267

05:31:47,030 --> 05:31:40,878

astronauts cool and comfortable during

3268

05:31:50,390 --> 05:31:49,350

kevin

3269

05:31:58,548 --> 05:31:50,400

i

3270

05:32:01,190 --> 05:32:00,150

yep correct

3271

05:32:03,670 --> 05:32:01,200

copy

3272

05:32:07,030 --> 05:32:03,680

we're going to have you

3273

05:32:11,110 --> 05:32:07,040

redo m29 and we'll look for two

3274

05:32:11,120 --> 05:32:21,750

all dollar stock is

3275

05:32:25,270 --> 05:32:23,350

and tomorrow we copy that you did have

3276

05:32:27,510 --> 05:32:25,280

one good pop before but we just want to

3277

05:32:42,868 --> 05:32:27,520

have two clean ones with the new socket

3278

05:32:42,878 --> 05:32:46,548

say again tomorrow

3279

05:32:51,430 --> 05:32:48,070

okay so you were breaking up my

3280

05:32:54,230 --> 05:32:51,440

suggestion if i go first to m30

3281

05:32:56,470 --> 05:32:54,240

and then i go back to m29 are you on

3282

05:32:58,788 --> 05:32:56,480

board with that

3283

05:33:01,110 --> 05:32:58,798

hey from world war ii you can see jaxa

3284

05:33:03,750 --> 05:33:01,120

astronaut aki hoshide here in the space

3285

05:33:06,070 --> 05:33:03,760

suit on the top portion of your screen

3286

05:33:07,830 --> 05:33:06,080

he's wearing this the red stripes he's

3287

05:33:10,070 --> 05:33:07,840

working to

3288

05:33:12,230 --> 05:33:10,080

fold up the strut bag which he's going

3289

05:33:13,910 --> 05:33:12,240

to attach to his body restraint tether

3290

05:33:16,310 --> 05:33:13,920

and then head back to the airlock with

3291

05:33:18,230 --> 05:33:16,320

it to drop it off and grab the floating

3292

05:33:31,750 --> 05:33:18,240

potential measurement unit for the next

3293

05:33:43,270 --> 05:33:34,230

meanwhile issa astronaut toma pesquet

3294

05:33:43,280 --> 05:33:50,868

continues to there

3295

05:33:55,910 --> 05:33:53,910

tomo pesquet continues tasks to

3296

05:34:26,390 --> 05:33:55,920

install bolts around the collar bolts on

3297

05:34:32,390 --> 05:34:29,030

aki once you're finished folding up the

3298

05:34:34,070 --> 05:34:32,400

strut bag you can stow it on your brt

3299

05:34:36,150 --> 05:34:34,080

we'll take a glove happen gala check

3300

05:34:40,390 --> 05:34:36,160

from you and then you have a go to head

3301

05:34:47,190 --> 05:34:43,590

i'll see that i'm not picking up the uh

3302

05:34:50,868 --> 05:34:47,200

the bfr probably trip back and grab the

3303

05:34:56,230 --> 05:34:53,590

good words aki we'll have you leave the

3304

05:34:57,750 --> 05:34:56,240

apfr for tomah and we will tag up with

3305

05:35:46,150 --> 05:34:57,760

you with the ford plan once you get to

3306

05:36:20,628 --> 05:35:47,750

like a lot of talk

3307

05:36:20,638 --> 05:36:36,470

okay

3308

05:36:36,480 --> 05:37:12,070

the best position to react to torch

3309

05:37:12,080 --> 05:37:37,270

um

3310

05:37:37,280 --> 05:37:48,230

m30

3311

05:37:48,240 --> 05:38:06,230

thank you for doing much

3312

05:38:06,240 --> 05:38:35,830

okay

3313

05:38:35,840 --> 05:38:53,190

m30 great work

3314

05:38:59,030 --> 05:38:55,830

and looking for two good pucks on m29 as

3315

05:39:03,990 --> 05:39:01,510

tomorrow pesky now working on securing

3316

05:39:07,210 --> 05:39:04,000

the very last bolt for the mod kit

3317

05:39:09,750 --> 05:39:08,470

[Music]

3318

05:39:13,430 --> 05:39:09,760

excellent

3319

05:39:15,430 --> 05:39:13,440

it's a good m29 and m30

3320

05:39:17,990 --> 05:39:15,440

and with that the mod kit is fully

3321

05:39:19,430 --> 05:39:18,000

installed you're in a good config and

3322

05:39:22,788 --> 05:39:19,440

you have a go for a single crew

3323

05:39:22,798 --> 05:39:27,030

good job

3324

05:39:34,548 --> 05:39:29,190

come on now you can translate

3325

05:39:34,558 --> 05:39:38,150

all right

3326

05:39:46,150 --> 05:39:40,230

okay

3327

05:39:49,110 --> 05:39:47,910

i haven't done that i've put it on my

3328

05:39:51,430 --> 05:39:49,120

swing on

3329

05:39:54,628 --> 05:39:51,440

um so you can please remind me next time

3330

05:39:56,230 --> 05:39:54,638

let's check it out copy you uh have you

3331

05:39:59,990 --> 05:39:56,240

verified that the middle pit pin is in

3332

05:40:00,000 --> 05:40:07,110

uh it is but i'll have to remove it

3333

05:40:18,548 --> 05:40:08,948

copy the same same thing as the other

3334

05:40:23,910 --> 05:40:21,430

and in this view you can see it

3335

05:40:25,990 --> 05:40:23,920

aki hoshide with the

3336

05:40:27,190 --> 05:40:26,000

strut bag attaches body restraint tether

3337

05:40:33,350 --> 05:40:27,200

he's going to make his way to the

3338

05:40:45,390 --> 05:40:36,070

so uh you okay if i head back to the

3339

05:40:45,400 --> 05:41:02,708

[Music]

3340

05:41:13,210 --> 05:41:04,150

and gauntlet check from you before you

3341

05:41:13,220 --> 05:41:22,150

[Music]

3342

05:41:27,670 --> 05:41:26,420

the same as before with blood smudges

3343

05:41:29,430 --> 05:41:27,680

[Applause]

3344

05:41:48,230 --> 05:41:29,440

copy

3345

05:41:52,788 --> 05:41:49,990

now going to make his way back to the

3346

05:41:54,708 --> 05:41:52,798

airlock he'll drop off the strut bag and

3347

05:42:09,910 --> 05:41:54,718

grab the floating potential measurement

3348

05:42:15,590 --> 05:42:12,948

meanwhile pasquee is wrapping up at 4a

3349

05:42:18,150 --> 05:42:15,600

he'll complete some cleanup tasks

3350

05:42:20,708 --> 05:42:18,160

shortly and then he'll make his way to

3351

05:42:22,788 --> 05:42:20,718

the fpmu location

3352

05:42:25,910 --> 05:42:22,798

where he'll remove the fpmu in

3353

05:42:27,830 --> 05:42:25,920

anticipation of hoshide bringing the new

3354

05:42:32,628 --> 05:42:27,840

fpmu where they'll work together to

3355

05:42:39,030 --> 05:42:35,830

big picture update for the two of you

3356

05:42:41,110 --> 05:42:39,040

we are on timeline

3357

05:42:43,990 --> 05:42:41,120

and on track to complete all of our

3358

05:42:45,590 --> 05:42:44,000

tasks we are at four and a half hours

3359

05:42:48,310 --> 05:42:45,600

eva pet

3360

05:43:05,510 --> 05:42:48,320

and thinking about potential get-aheads

3361

05:43:05,520 --> 05:43:21,030

huh

3362

05:43:24,868 --> 05:43:23,110

and as you heard those words from ground

3363

05:43:28,070 --> 05:43:24,878

iv jessica watkins up to our

3364

05:43:34,310 --> 05:43:28,080

spacewalkers all continues to track on

3365

05:43:39,510 --> 05:43:37,190

so far spacewalkers

3366

05:43:42,070 --> 05:43:39,520

did build and install a mounting bracket

3367

05:43:44,708 --> 05:43:42,080

on the 4a power channel in preparation

3368

05:43:52,948 --> 05:43:44,718

for the next delivery of the iss rollout

3369

05:43:57,350 --> 05:43:55,350

next big task for our space walkers are

3370

05:44:02,390 --> 05:43:57,360

to remove and replace the floating

3371

05:44:02,400 --> 05:44:05,590

from sports side

3372

05:44:05,600 --> 05:44:09,190

kappa hockey

3373

05:44:09,200 --> 05:44:24,948

all right

3374

05:44:30,070 --> 05:44:27,430

installing its final location

3375

05:44:59,750 --> 05:44:30,080

i'll show you bye

3376

05:44:59,760 --> 05:45:24,788

happy

3377

05:45:28,788 --> 05:45:26,708

everybody i'm

3378

05:45:30,310 --> 05:45:28,798

starting from the

3379

05:45:31,910 --> 05:45:30,320

28th family

3380

05:45:38,868 --> 05:45:31,920

on the other side

3381

05:45:38,878 --> 05:45:51,030

and 28 is in place

3382

05:45:51,040 --> 05:46:14,948

all right

3383

05:46:14,958 --> 05:46:23,350

bye

3384

05:46:23,360 --> 05:46:45,270

uh

3385

05:46:57,190 --> 05:46:47,430

got caught on something so i'm going to

3386

05:46:57,200 --> 05:47:27,030

kapiaki

3387

05:47:33,430 --> 05:47:29,510

all right in the rising place

3388

05:47:36,548 --> 05:47:34,788

capitoma

3389

05:47:38,788 --> 05:47:36,558

we'll have you install those two wire

3390

05:47:43,990 --> 05:47:38,798

ties around the telescoping portion of

3391

05:47:47,110 --> 05:47:45,750

okay so that's closer to the mounting

3392

05:47:50,150 --> 05:47:47,120

brackets

3393

05:47:50,160 --> 05:48:06,788

all right

3394

05:48:11,990 --> 05:48:08,628

makes his way back to the airlock to

3395

05:48:15,350 --> 05:48:12,000

drop off the strut bag and grab the fpmu

3396

05:48:17,270 --> 05:48:15,360

pasquet continues to install wire ties

3397

05:48:32,470 --> 05:48:17,280

around the telescoping portion of the

3398

05:48:36,868 --> 05:48:34,788

following this and some final checks

3399

05:49:18,830 --> 05:48:36,878

with teams on the ground he'll make his

3400

05:49:18,840 --> 05:49:33,350

yeah we're just close to it i should see

3401

05:49:33,360 --> 05:49:39,030

okay here's one wire car

3402

05:49:39,040 --> 05:49:51,590

copy wire side come on

3403

05:49:51,600 --> 05:50:07,590

a second

3404

05:50:13,590 --> 05:50:11,110

you have a go to open the thermal cover

3405

05:50:16,310 --> 05:50:13,600

and you'll be ingressing the uh the

3406

05:50:19,190 --> 05:50:16,320

airlock stowing the strut bag and then a

3407

05:50:20,868 --> 05:50:19,200

forward plan for you you're a bit ahead

3408

05:50:21,590 --> 05:50:20,878

so we're going to have you proceed with

3409

05:50:24,310 --> 05:50:21,600

the

3410

05:50:28,708 --> 05:50:24,320

airlock hatch pit pin r r get ahead

3411

05:50:43,590 --> 05:50:32,708

so people heading out for the spmu

3412

05:50:43,600 --> 05:50:47,910

all right firmware cover is open

3413

05:50:52,788 --> 05:50:50,390

copy you'll be dropping off the strut

3414

05:50:55,340 --> 05:50:52,798

bag and retrieving the get aheads crew

3415

05:50:58,708 --> 05:50:55,350

lock bag

3416

05:51:01,350 --> 05:51:00,310

i don't need to retrieve it right i can

3417

05:51:04,548 --> 05:51:01,360

just work

3418

05:51:04,558 --> 05:51:28,470

hey for a monkey

3419

05:51:39,030 --> 05:51:31,670

while pesquet wraps up at his work site

3420

05:51:44,230 --> 05:51:42,310

two he's going to drop off the strut bag

3421

05:51:45,990 --> 05:51:44,240

and before grabbing the fpmu the

3422

05:51:48,470 --> 05:51:46,000

floating potential measurement unit he's

3423

05:51:51,270 --> 05:51:48,480

going to work on a get ahead which is

3424

05:51:53,510 --> 05:51:51,280

the airlock hatch pip pin r r

3425

05:51:55,510 --> 05:51:53,520

essentially he's going to remove the old

3426

05:51:57,670 --> 05:51:55,520

pip pin from the hatch of the airlock

3427

05:51:59,510 --> 05:51:57,680

and swap it out for a new one a few

3428

05:52:03,510 --> 05:51:59,520

photographs of the modkit showing the

3429

05:52:03,520 --> 05:52:11,590

uh

3430

05:52:18,948 --> 05:52:13,830

what kind of photography

3431

05:52:22,470 --> 05:52:20,500

i'll go backwards

3432

05:52:31,910 --> 05:52:22,480

[Applause]

3433

05:52:45,750 --> 05:52:33,990

tomorrow we're just looking for overall

3434

05:53:11,270 --> 05:52:48,390

and this view from hoshide's helmet cam

3435

05:53:16,310 --> 05:53:13,590

and aki will be retrieving the

3436

05:53:18,310 --> 05:53:16,320

purlock fit pin tool bundle from the get

3437

05:53:21,110 --> 05:53:18,320

ahead screw lock bag and then temp

3438

05:53:23,510 --> 05:53:21,120

stowing that as desired

3439

05:53:27,270 --> 05:53:23,520

the mini workstation has

3440

05:53:27,280 --> 05:53:45,110

okay

3441

05:53:48,948 --> 05:53:47,190

kavyaki

3442

05:53:50,708 --> 05:53:48,958

and the tool bundle can either go on

3443

05:54:23,790 --> 05:53:50,718

your mini workstation or you can leave

3444

05:54:23,800 --> 05:54:30,628

[Applause]

3445

05:54:36,788 --> 05:54:33,910

and aki on your helmet camera we can see

3446

05:54:39,590 --> 05:54:36,798

that the scu's appear to be out of their

3447

05:54:44,548 --> 05:54:39,600

pouches if you're able to resto those

3448

05:54:44,558 --> 05:54:48,990

i'll think about that after

3449

05:54:49,000 --> 05:55:22,708

that now

3450

05:55:22,718 --> 05:55:25,270

you getting

3451
05:55:25,280 --> 05:55:48,708
taking pictures with your vine

3452
05:55:51,590 --> 05:55:49,370
do you want me to

3453
05:55:52,948 --> 05:55:51,600
[Music]

3454
05:55:54,628 --> 05:55:52,958
two times you could take pictures from

3455
05:56:01,110 --> 05:55:54,638
the other side

3456
05:56:01,120 --> 05:56:18,948
checking

3457
05:56:22,470 --> 05:56:20,230
that's exactly what we're thinking

3458
05:56:24,628 --> 05:56:22,480
tomorrow as you go over uh translate

3459
05:56:28,788 --> 05:56:24,638
over to pick up the apfr best effort on

3460
05:56:28,798 --> 05:56:56,150
sounds good

3461
05:57:00,868 --> 05:56:58,390
pesky now translating to pick up the

3462
05:57:03,830 --> 05:57:00,878
apfr or articulating portable foot

3463
05:57:28,390 --> 05:57:03,840

restraint this will be needed when the

3464

05:57:28,400 --> 05:57:36,050

yes

3465

05:57:36,060 --> 05:57:41,830

[Music]

3466

05:57:41,840 --> 05:58:20,948

good work with those uh unwieldy pouches

3467

05:58:20,958 --> 05:59:04,788

um

3468

05:59:09,590 --> 05:59:07,030

you just saw pesquet grab a couple of

3469

05:59:19,830 --> 05:59:09,600

photos of the work site for the teams on

3470

05:59:23,350 --> 05:59:21,830

he looks like he's like tomorrow's

3471

05:59:24,788 --> 05:59:23,360

almost done

3472

05:59:27,990 --> 05:59:24,798

so i'll need you to

3473

05:59:28,000 --> 05:59:33,270

thing

3474

05:59:36,708 --> 05:59:34,948

hey firm aki we're still going to

3475

05:59:46,230 --> 05:59:36,718

proceed with the airlock pit pin so you

3476

05:59:52,070 --> 05:59:49,750

meanwhile inside the airlock aki

3477

05:59:54,948 --> 05:59:52,080

is beginning work on the pip pin

3478

05:59:56,788 --> 05:59:54,958

restoration in installation he's going

3479

05:59:59,990 --> 05:59:56,798

to remove the old pip pin from the

3480

06:00:14,720 --> 06:00:00,000

airlock hatch and swap it out for a new

3481

06:00:26,948 --> 06:00:15,990

[Music]

3482

06:00:26,958 --> 06:00:37,270

checking

3483

06:00:40,628 --> 06:00:39,670

no settings required we can you can

3484

06:00:42,868 --> 06:00:40,638

either

3485

06:00:44,150 --> 06:00:42,878

put it low profile or we can give you

3486

06:00:52,390 --> 06:00:44,160

the settings that you'll need once you

3487

06:00:58,470 --> 06:00:54,150

the profile is probably a pitch of

3488

06:00:58,480 --> 06:01:11,990

so

3489

06:01:15,990 --> 06:01:14,948

on the forward side

3490

06:01:18,070 --> 06:01:16,000

a firm

3491

06:01:20,070 --> 06:01:18,080

so they'll be pulling the pip in and out

3492

06:01:25,590 --> 06:01:20,080

towards the aft side towards your right

3493

06:01:29,990 --> 06:01:27,750

copy then you can retrieve the new pit

3494

06:01:49,030 --> 06:01:30,000

pin from the bundle

3495

06:01:54,070 --> 06:01:51,510

hoshide has successfully removed the old

3496

06:01:56,150 --> 06:01:54,080

pit pin from the hatch hinge

3497

06:02:01,430 --> 06:01:56,160

and he's now going to retrieve the new

3498

06:02:07,590 --> 06:02:04,470

next you can attach the equipment hook

3499

06:02:10,628 --> 06:02:07,600

that's on a lanyard on the new pit pin

3500

06:02:11,830 --> 06:02:10,638

to the airlock structure as far nader as

3501
06:02:15,110 --> 06:02:11,840
possible

3502
06:02:16,868 --> 06:02:15,120
there are some holes nader of the hinge

3503
06:02:45,670 --> 06:02:16,878
and into the furthest nader one that it

3504
06:02:48,948 --> 06:02:47,590
okay i have my right from the dfgfr

3505
06:02:51,830 --> 06:02:48,958
footplate

3506
06:02:53,030 --> 06:02:51,840
you can foxtrot first right on the pitch

3507
06:02:54,868 --> 06:02:53,040
and i'm going to

3508
06:02:58,310 --> 06:02:54,878
go ahead and retrieve the beef extender

3509
06:03:18,830 --> 06:02:58,320
from this 26 wrk

3510
06:03:25,910 --> 06:03:23,830
uh is too small compared to the uh

3511
06:03:41,110 --> 06:03:25,920
packet between the holes

3512
06:03:46,470 --> 06:03:43,990
copy aki i may need to come from the

3513
06:03:48,868 --> 06:03:46,480

port starboard side of the hole whereas

3514

06:03:54,470 --> 06:03:48,878

it is a little bit thinner to be able to

3515

06:04:00,490 --> 06:03:56,948

i think they put these same diagonals

3516

06:04:00,500 --> 06:04:08,628

[Music]

3517

06:04:08,638 --> 06:04:17,430

hey from good words

3518

06:04:21,990 --> 06:04:19,430

that works thank you

3519

06:04:30,390 --> 06:04:25,030

next you can

3520

06:04:33,270 --> 06:04:30,400

ret that's attached to the adjustable

3521

06:04:38,230 --> 06:04:33,280

from the new pit pin

3522

06:04:49,030 --> 06:04:40,230

that's complete and it's

3523

06:04:54,230 --> 06:04:51,030

kapiaki

3524

06:04:56,708 --> 06:04:54,240

a warning that a once cut the pitfin

3525

06:05:13,110 --> 06:04:56,718

lanyard presents a sharp hat

3526

06:05:36,150 --> 06:05:15,510

next aki will be retrieving the eva

3527

06:05:41,510 --> 06:05:38,548

now approaching the five hour mark in

3528

06:05:43,990 --> 06:05:41,520

today's spacewalk currently aki hoshide

3529

06:05:46,788 --> 06:05:44,000

is back inside of the airlock working on

3530

06:05:48,230 --> 06:05:46,798

a get ahead task in which he's swapping

3531

06:05:49,350 --> 06:05:48,240

out a old

3532

06:05:51,670 --> 06:05:49,360

hip pin

3533

06:05:54,150 --> 06:05:51,680

in the airlock hatch he has removed the

3534

06:05:56,548 --> 06:05:54,160

old pip pin and replaced it with the new

3535

06:05:58,548 --> 06:05:56,558

one and is wrapping up that task

3536

06:06:00,310 --> 06:05:58,558

hit pin lanyard loop

3537

06:06:03,030 --> 06:06:00,320

on the lanyard tab

3538

06:06:04,868 --> 06:06:03,040

at the bolt to structure

3539

06:06:07,270 --> 06:06:04,878

and you may have to

3540

06:06:10,628 --> 06:06:07,280

put meanwhile tomorrow pesky is making

3541

06:06:14,230 --> 06:06:10,638

his way to the fpmu location where he

3542

06:06:16,470 --> 06:06:14,240

will be preparing to remove the fpmu and

3543

06:06:18,948 --> 06:06:16,480

have it swapped out with the new fpmu

3544

06:06:52,708 --> 06:06:18,958

which hoshide is going to bring with him

3545

06:06:56,708 --> 06:06:54,548

during today's spacewalk hoshide and

3546

06:06:58,868 --> 06:06:56,718

pesky successfully completed tasks to

3547

06:07:01,430 --> 06:06:58,878

build and install a mounting bracket on

3548

06:07:04,070 --> 06:07:01,440

the 4a power channel in preparation for

3549

06:07:20,548 --> 06:07:04,080

the next delivery of iss rollout solar

3550

06:07:24,868 --> 06:07:23,110

all is still continuing smoothly in the

3551

06:07:26,548 --> 06:07:24,878

first spacewalk involving two

3552

06:07:42,390 --> 06:07:26,558

international partner crew members out

3553

06:07:42,400 --> 06:07:48,948

happy tomorrow

3554

06:07:48,958 --> 06:08:28,470

thank you

3555

06:08:28,480 --> 06:08:38,470

i just cut wire with scissors

3556

06:08:38,480 --> 06:08:47,030

it had fun from what you had

3557

06:08:47,040 --> 06:09:27,670

i break down there buddy

3558

06:09:33,030 --> 06:09:30,070

hoshide continues to work in the airlock

3559

06:09:50,070 --> 06:09:33,040

he's using the eva scissors to cut the

3560

06:09:54,390 --> 06:09:51,030

okay

3561

06:09:56,948 --> 06:09:54,400

at my marker nine five one zero

3562

06:09:58,788 --> 06:09:56,958

we're going inboard

3563

06:10:00,150 --> 06:09:58,798

and i'm gonna get to the fhrc at some

3564

06:10:02,150 --> 06:10:00,160

point

3565

06:10:04,470 --> 06:10:02,160

copy good words and you'll have zenith

3566

06:10:09,990 --> 06:10:04,480

at the port fhrc and you'll leave your

3567

06:10:17,110 --> 06:10:13,190

i am at the fhrc

3568

06:10:21,590 --> 06:10:19,750

pesky has now arrived at the fpmu

3569

06:10:24,070 --> 06:10:21,600

location

3570

06:10:28,070 --> 06:10:24,080

you'll be putting a fairlead on

3571

06:10:32,868 --> 06:10:28,080

handrail 3654. it's a small angled

3572

06:10:36,788 --> 06:10:35,190

and he's going to work on getting some

3573

06:10:40,868 --> 06:10:36,798

things ready while

3574

06:10:43,350 --> 06:10:40,878

hoshide wraps up the pip pin

3575

06:10:45,670 --> 06:10:43,360

installation in the airlock

3576

06:10:47,430 --> 06:10:45,680

following that he will bring the fpmu

3577

06:10:48,548 --> 06:10:47,440

the floating potential measurement unit

3578

06:10:50,390 --> 06:10:48,558

with him

3579

06:10:56,230 --> 06:10:50,400

where they will swap out the old unit

3580

06:10:56,240 --> 06:11:02,310

uh it's not gonna okay

3581

06:11:02,320 --> 06:11:05,430

i'm gonna do

3582

06:11:12,390 --> 06:11:06,390

the

3583

06:11:18,708 --> 06:11:15,990

not really three six five four

3584

06:11:22,960 --> 06:11:18,718

intent i see the uhf antenna

3585

06:11:25,110 --> 06:11:22,970

i'm getting the hsn reflex away from it

3586

06:11:30,628 --> 06:11:25,120

[Applause]

3587

06:11:47,590 --> 06:11:32,948

and yes you can either go to the width

3588

06:11:52,548 --> 06:11:50,708

quite a bit now but uh it looks like

3589

06:11:55,430 --> 06:11:52,558

the uh cover

3590

06:11:57,590 --> 06:11:55,440

on the uh wire tag is coming off but i

3591

06:11:59,430 --> 06:11:57,600

can't really see that it's cutting the

3592

06:12:01,510 --> 06:11:59,440

wire itself

3593

06:12:05,270 --> 06:12:01,520

um and one question

3594

06:12:08,470 --> 06:12:05,280

is this new one youtube is already

3595

06:12:23,590 --> 06:12:08,480

connected with the um

3596

06:12:40,548 --> 06:12:25,910

you can take off the tip and while while

3597

06:12:40,558 --> 06:12:45,030

for the two views

3598

06:12:47,270 --> 06:12:46,150

and for the two of you while you're

3599

06:12:50,070 --> 06:12:47,280

translating

3600

06:12:52,390 --> 06:12:50,080

several uh warnings and cautions for you

3601
06:12:55,670 --> 06:12:52,400
avoid contact with the gold coating on

3602
06:12:57,190 --> 06:12:55,680
the fpmu probes the fpmu probe hinges

3603
06:12:59,510 --> 06:12:57,200
our pinch points

3604
06:13:01,270 --> 06:12:59,520
minimize contact with painted surfaces

3605
06:13:03,270 --> 06:13:01,280
of spmu probes

3606
06:13:10,150 --> 06:13:03,280
avoid kicking the radiator beam and

3607
06:13:10,160 --> 06:13:30,948
okay

3608
06:13:30,958 --> 06:13:41,830
passing the um

3609
06:13:49,270 --> 06:13:46,868
copy at you are at panel alpha 115

3610
06:13:56,070 --> 06:13:49,280
and we're going to look to unplug the

3611
06:14:00,548 --> 06:13:58,788
okay i'm at alpha 115

3612
06:14:02,230 --> 06:14:00,558
i have

3613
06:14:03,990 --> 06:14:02,240

k2

3614

06:14:05,110 --> 06:14:04,000
on the panel and p2

3615

06:14:07,590 --> 06:14:05,120
[Music]

3616

06:14:12,788 --> 06:14:07,600
on the nz down i'm gonna go ahead and

3617

06:14:17,030 --> 06:14:14,628
good words and you can

3618

06:14:24,070 --> 06:14:17,040
move the lever fully aft and leave it in

3619

06:14:29,590 --> 06:14:26,470
pesky stepping through procedures in

3620

06:14:33,350 --> 06:14:29,600
anticipation of removal of the fpmu the

3621

06:14:36,070 --> 06:14:33,360
floating potential measurement unit

3622

06:14:37,830 --> 06:14:36,080
copy complete

3623

06:14:39,510 --> 06:14:37,840
hoshide continuing to work in the

3624

06:14:42,788 --> 06:14:39,520
airlock on the

3625

06:14:58,070 --> 06:14:42,798
airlock hatch pip pin r r which is a get

3626
06:15:00,470 --> 06:14:58,830
right

3627
06:15:21,790 --> 06:15:00,480
here

3628
06:15:21,800 --> 06:15:26,390
[Applause]

3629
06:15:26,400 --> 06:15:31,910
with four

3630
06:15:31,920 --> 06:15:49,350
four

3631
06:15:53,030 --> 06:15:51,350
if

3632
06:15:58,310 --> 06:15:53,040
or

3633
06:15:58,320 --> 06:16:05,270
[Music]

3634
06:16:05,280 --> 06:16:12,868
here

3635
06:16:24,070 --> 06:16:14,150
and

3636
06:16:31,990 --> 06:16:26,150
copy again the clocking for wifix will

3637
06:16:32,000 --> 06:16:43,530
six

3638
06:16:43,540 --> 06:16:49,350

[Music]

3639

06:16:49,360 --> 06:16:59,590

um

3640

06:17:03,030 --> 06:17:00,708

stick with it

3641

06:17:04,708 --> 06:17:03,040

you can stow the old pit pin and the

3642

06:17:09,510 --> 06:17:04,718

lanyard in

3643

06:17:15,430 --> 06:17:12,310

and with that hoshide has successfully

3644

06:17:18,628 --> 06:17:15,440

installed the new pip pin in the airlock

3645

06:17:26,788 --> 06:17:20,070

we can go ahead and skip the pictures

3646

06:17:42,628 --> 06:17:31,910

for pictures

3647

06:17:47,830 --> 06:17:45,830

next up hoshidu will grab the fpmu which

3648

06:17:50,628 --> 06:17:47,840

is in the airlock currently and then

3649

06:17:53,110 --> 06:17:50,638

he'll make his way to meet pesquet

3650

06:17:56,070 --> 06:17:53,120

so that they can remove and replace the

3651
06:17:56,948 --> 06:17:56,080
fpmu with the new unit

3652
06:18:00,708 --> 06:17:56,958
should

3653
06:18:00,718 --> 06:18:11,960
towards the starboard side

3654
06:18:11,970 --> 06:18:28,830
[Music]

3655
06:19:00,708 --> 06:18:30,470
uh

3656
06:19:03,590 --> 06:19:02,440
the final pitch on the

3657
06:19:09,510 --> 06:19:03,600
[Music]

3658
06:19:09,520 --> 06:19:16,468
the pitch on the apfr will be papa papa

3659
06:19:37,270 --> 06:19:18,628
but i also have the rest of the settings

3660
06:19:56,628 --> 06:19:38,868
the space station is currently flying

3661
06:19:56,638 --> 06:20:14,548
in here

3662
06:20:19,510 --> 06:20:17,270
coming up in just 22 days is the

3663
06:20:22,468 --> 06:20:19,520

scheduled soyuz

3664

06:20:28,070 --> 06:20:22,478

65s launch

3665

06:20:33,830 --> 06:20:31,430

a handrail almost a refuse extremist

3666

06:20:36,708 --> 06:20:33,840

pointing keyboard

3667

06:20:40,230 --> 06:20:36,718

now we have a good tool and talk test

3668

06:20:43,110 --> 06:20:40,240

and it is marked back on back

3669

06:20:45,190 --> 06:20:43,120

copy that's a good insult on the with x

3670

06:20:57,910 --> 06:20:45,200

the rest of the settings will be juliet

3671

06:20:57,920 --> 06:21:04,788

oh

3672

06:21:04,798 --> 06:21:28,390

come on come on

3673

06:21:33,470 --> 06:21:30,708

[Applause]

3674

06:21:39,560 --> 06:21:33,480

hey

3675

06:21:43,750 --> 06:21:42,628

[Music]

3676

06:21:47,670 --> 06:21:43,760

items

3677

06:21:49,270 --> 06:21:47,680

are filled in the correctly

3678

06:21:51,350 --> 06:21:49,280

and on your way out we'll have you

3679

06:22:02,090 --> 06:21:51,360

inspect the hatch healing

3680

06:22:02,100 --> 06:22:06,788

[Music]

3681

06:22:21,750 --> 06:22:09,270

hey firm so the role should be charlie

3682

06:22:21,760 --> 06:22:40,310

hey firm

3683

06:22:43,750 --> 06:22:42,390

let me do that and then i'll redo all

3684

06:22:45,830 --> 06:22:43,760

the settings and we make sure we're on

3685

06:23:00,548 --> 06:22:45,840

the same page

3686

06:23:04,708 --> 06:23:02,628

copy no debris

3687

06:23:11,270 --> 06:23:04,718

i'll have you verify your safer handles

3688

06:23:15,830 --> 06:23:12,948

okay let me uh

3689

06:23:18,310 --> 06:23:15,840

secure the microphone first

3690

06:23:22,708 --> 06:23:20,150

why are you ready for um

3691

06:23:27,910 --> 06:23:22,718

this extender plus apf settings

3692

06:23:31,120 --> 06:23:30,628

we started the clocking of six

3693

06:23:32,468 --> 06:23:31,130

um

3694

06:23:34,390 --> 06:23:32,478

[Music]

3695

06:23:37,110 --> 06:23:34,400

good install black home bracket full

3696

06:23:39,830 --> 06:23:37,120

test like we said before have a pitch of

3697

06:23:41,030 --> 06:23:39,840

juliet on a riff extender

3698

06:23:44,310 --> 06:23:41,040

i have

3699

06:23:46,150 --> 06:23:44,320

an extension of five i see the white

3700

06:23:47,750 --> 06:23:46,160

line with five

3701

06:23:49,750 --> 06:23:47,760

uh and then the

3702

06:23:53,830 --> 06:23:49,760

clocking of the airplane adding an

3703

06:23:56,548 --> 06:23:53,840

exchange and it's 12 i think

3704

06:24:00,070 --> 06:23:56,558

uh actually i see that it's 12. i have a

3705

06:24:02,070 --> 06:24:00,080

good like on black pull test switch kill

3706

06:24:03,510 --> 06:24:02,080

full size test on the

3707

06:24:05,750 --> 06:24:03,520

aps bar

3708

06:24:07,510 --> 06:24:05,760

with this extensor i have a pitch of

3709

06:24:08,628 --> 06:24:07,520

proper pepper

3710

06:24:10,230 --> 06:24:08,638

i have

3711

06:24:14,150 --> 06:24:10,240

a row of

3712

06:24:17,670 --> 06:24:14,160

charlie and a yaw of four and i'm

3713

06:24:21,750 --> 06:24:20,390

kapiatoma that is a

3714

06:24:24,548 --> 06:24:21,760

good config

3715

06:24:26,070 --> 06:24:24,558

on the with x and the apfr and can you

3716

06:24:32,468 --> 06:24:26,080

just verify that the pitch knob is

3717

06:24:37,990 --> 06:24:34,160

the pitch

3718

06:24:46,548 --> 06:24:40,310

we'll take a glove hat and

3719

06:24:46,558 --> 06:24:52,390

dry up for me and uh glove space flight

3720

06:24:55,910 --> 06:24:53,830

copy y'all

3721

06:24:59,030 --> 06:24:55,920

you can retrieve the large small red and

3722

06:25:00,868 --> 06:24:59,040

the scoop from the apfr and stow it on

3723

06:25:02,788 --> 06:25:00,878

your sew them on your mini workstation

3724

06:25:04,788 --> 06:25:02,798

and be sure to separate the ret and the

3725

06:25:07,030 --> 06:25:04,798

scoop

3726

06:25:13,190 --> 06:25:07,040

pesky continuing to step through

3727

06:25:20,900 --> 06:25:15,750

hoshide will be joining him shortly with

3728

06:25:42,070 --> 06:25:26,680

[Music]

3729

06:25:42,080 --> 06:25:45,110

um

3730

06:25:49,590 --> 06:25:47,190

different handles down thermal colors

3731

06:25:51,510 --> 06:25:49,600

closed heading out

3732

06:25:53,110 --> 06:25:51,520

copy aki and were you able to reinstall

3733

06:26:03,750 --> 06:25:53,120

the wire tie on the thermal cover as

3734

06:26:07,670 --> 06:26:06,230

you see it and you'll be headed

3735

06:26:08,390 --> 06:26:07,680

headed out to the

3736

06:26:11,750 --> 06:26:08,400

uh

3737

06:26:17,580 --> 06:26:11,760

fhrc where you'll head zenith and then

3738

06:26:22,230 --> 06:26:20,468

[Applause]

3739

06:26:24,150 --> 06:26:22,240

we will have you separate the right and

3740

06:26:38,788 --> 06:26:24,160

the scoop uh you will need them

3741

06:26:43,830 --> 06:26:41,910

we talked about nike yeah i think

3742

06:26:47,190 --> 06:26:43,840

at the end you have to do it but i don't

3743

06:26:49,350 --> 06:26:47,200

think you need it right off the bat yeah

3744

06:26:57,350 --> 06:26:49,360

one last thing to manage for me okay we

3745

06:26:57,360 --> 06:27:05,750

without you have a go to ingress the apr

3746

06:27:05,760 --> 06:27:20,868

all right

3747

06:27:23,830 --> 06:27:22,250

okay i've retrieved it

3748

06:27:25,510 --> 06:27:23,840

[Music]

3749

06:27:28,070 --> 06:27:25,520

oops

3750

06:27:30,788 --> 06:27:28,080

there was a lot more red for now

3751
06:27:34,868 --> 06:27:30,798
and i'm going to go ahead and

3752
06:27:40,070 --> 06:27:37,430
happy

3753
06:27:42,708 --> 06:27:40,080
pesque now making his way into the apfr

3754
06:27:44,868 --> 06:27:42,718
the articulating portable foot restraint

3755
06:27:48,230 --> 06:27:44,878
the apfr was used earlier in today's

3756
06:27:50,708 --> 06:27:48,240
spacewalk by hoshide to help install

3757
06:27:52,150 --> 06:27:50,718
and build the mounting bracket on the 4a

3758
06:27:54,548 --> 06:27:52,160
power channel

3759
06:27:57,190 --> 06:27:54,558
it will be used again

3760
06:28:17,110 --> 06:27:57,200
to remove and replace the fpmu the

3761
06:28:17,120 --> 06:28:18,868
working on oh

3762
06:28:24,180 --> 06:28:21,670
u.s extending usa

3763
06:28:29,990 --> 06:28:24,190

in my feathers

3764

06:28:30,000 --> 06:28:43,030

all right let's go

3765

06:28:51,190 --> 06:28:44,120

okay

3766

06:28:56,548 --> 06:28:54,150

once situated in the apfr pesquet will

3767

06:28:59,110 --> 06:28:56,558

use the pistol grip tool to remove a

3768

06:29:04,150 --> 06:28:59,120

series of three bolts to release the

3769

06:29:14,150 --> 06:29:07,270

all right buddy sorry i got out

3770

06:29:14,160 --> 06:29:27,110

kapiaki you've got plenty of

3771

06:29:34,628 --> 06:29:28,548

i'm in time

3772

06:29:38,230 --> 06:29:36,468

it seems like a good ingress and i'll be

3773

06:29:47,990 --> 06:29:38,240

uh

3774

06:29:53,030 --> 06:29:51,750

this view of pesquet in the apfr

3775

06:29:55,510 --> 06:29:53,040

pmu

3776

06:30:11,590 --> 06:29:55,520

so you can tether to the tether point

3777

06:30:17,190 --> 06:30:13,830

meanwhile hoshide continues to make his

3778

06:30:33,830 --> 06:30:17,200

way toward pesquet with the fpmu safely

3779

06:30:39,350 --> 06:30:36,150

everybody have those priors

3780

06:30:49,620 --> 06:30:39,360

heading back

3781

06:30:55,270 --> 06:30:52,628

[Applause]

3782

06:30:57,270 --> 06:30:55,280

okay i have a

3783

06:30:58,788 --> 06:30:57,280

large small sorry the large hook because

3784

06:30:59,670 --> 06:30:58,798

they launched more

3785

06:31:02,230 --> 06:30:59,680

on

3786

06:31:13,350 --> 06:31:02,240

espnu and now i need

3787

06:31:18,070 --> 06:31:15,590

copy that's a good config

3788

06:31:26,150 --> 06:31:18,080

you can configure your pgt

3789

06:31:31,590 --> 06:31:28,628

level one 10 o'clock west rocky i see

3790

06:31:34,788 --> 06:31:31,600

you underneath oh

3791

06:31:43,190 --> 06:31:34,798

i see like your shadow

3792

06:31:47,030 --> 06:31:45,430

okay

3793

06:31:49,430 --> 06:31:47,040

and in the center of your screen there

3794

06:31:51,750 --> 06:31:49,440

you can see aki hoshide with the new

3795

06:32:08,868 --> 06:31:51,760

fpmu floating alongside him it is

3796

06:32:17,910 --> 06:32:10,150

good words

3797

06:32:24,390 --> 06:32:21,670

you'll be releasing the outer bolts

3798

06:32:27,030 --> 06:32:24,400

either order just let us know which one

3799

06:32:32,548 --> 06:32:27,040

and we're expecting 10 turns and for the

3800

06:32:36,468 --> 06:32:33,350

okay

3801
06:32:40,788 --> 06:32:36,478
i'm going for the left most

3802
06:32:40,798 --> 06:32:51,670
happy

3803
06:33:01,910 --> 06:32:53,910
then you'll be fair leading on handrail

3804
06:33:08,150 --> 06:33:04,628
pesquet is using the pistol grip tool or

3805
06:33:10,230 --> 06:33:08,160
the pgt to release a series of bolts

3806
06:33:23,430 --> 06:33:10,240
first he'll release two outer bolts and

3807
06:33:23,440 --> 06:33:39,030
just checking with her

3808
06:33:44,390 --> 06:33:40,868
walking back to you but it didn't always

3809
06:33:47,110 --> 06:33:45,990
i'm back with you on the other side of

3810
06:33:52,150 --> 06:33:47,120
the handover

3811
06:33:57,430 --> 06:33:55,030
aki you'll be fairly eating your safety

3812
06:33:59,430 --> 06:33:57,440
tether on 36.55

3813
06:34:01,670 --> 06:33:59,440

which is a long vertical handrail on the

3814

06:34:20,868 --> 06:34:01,680

scene it's a copy and you can head

3815

06:34:25,830 --> 06:34:23,350

maybe two main terms but uh

3816

06:34:27,270 --> 06:34:25,840

14 80

3817

06:34:31,270 --> 06:34:27,280

82

3818

06:34:35,350 --> 06:34:32,230

and

3819

06:34:40,788 --> 06:34:35,360

we copied that the f bolt popped out you

3820

06:34:47,750 --> 06:34:42,548

you're working on the floor welcome my

3821

06:34:50,628 --> 06:34:48,948

how you doing

3822

06:34:52,150 --> 06:34:50,638

i'm good all right

3823

06:34:55,030 --> 06:34:52,160

aka

3824

06:34:56,708 --> 06:34:55,040

very wobbly but i'm not gonna

3825

06:34:59,510 --> 06:34:56,718

do anything because i've been there for

3826
06:35:03,190 --> 06:35:02,468
and aki you'll be attempting the bag

3827
06:35:21,030 --> 06:35:03,200
on

3828
06:35:21,040 --> 06:35:32,310
oh

3829
06:35:37,590 --> 06:35:35,270
uh the forward nose bolt

3830
06:35:41,110 --> 06:35:37,600
is also tucked

3831
06:35:47,030 --> 06:35:44,468
five to ten ish turns

3832
06:35:49,110 --> 06:35:47,040
copy the forward bolt popped out you can

3833
06:35:55,110 --> 06:35:49,120
move now to the center bolt we're

3834
06:35:55,120 --> 06:36:01,030
[Music]

3835
06:36:04,868 --> 06:36:02,468
and with that we just received

3836
06:36:07,270 --> 06:36:04,878
confirmation that pesquet successfully

3837
06:36:09,190 --> 06:36:07,280
removed the two outer bolts from the

3838
06:36:23,110 --> 06:36:09,200

fpmu and is now going to work on

3839

06:36:49,750 --> 06:36:26,468

on any turns ready on the central

3840

06:36:52,788 --> 06:36:51,670

the visual indicator you're looking for

3841

06:36:53,830 --> 06:36:52,798

is that the

3842

06:36:55,750 --> 06:36:53,840

uh

3843

06:37:17,350 --> 06:36:55,760

it will move on the rails once it's

3844

06:37:17,360 --> 06:37:35,670

new promise

3845

06:37:35,680 --> 06:37:43,190

uh

3846

06:37:49,510 --> 06:37:47,030

28 turns on the center bolt

3847

06:37:51,670 --> 06:37:49,520

next you can install the round scoop

3848

06:37:57,030 --> 06:37:51,680

and leave your mini workstation right on

3849

06:38:06,150 --> 06:37:59,430

and the center bolt on the failed fp new

3850

06:38:10,788 --> 06:38:09,270

tomorrow can you verify that the uh fmu

3851

06:38:15,430 --> 06:38:10,798

moved on the rails

3852

06:38:33,030 --> 06:38:18,468

it moves but it comes to

3853

06:38:41,750 --> 06:38:35,030

tomorrow looks like we still need just a

3854

06:38:45,910 --> 06:38:43,990

see how you doing good i'm gonna

3855

06:38:53,350 --> 06:38:45,920

jump fill this but i'm gonna take this

3856

06:38:57,030 --> 06:38:55,270

[Music]

3857

06:39:03,110 --> 06:38:57,040

to unwrap the

3858

06:39:08,468 --> 06:39:05,590

i'm going to take a take off the wire to

3859

06:39:10,788 --> 06:39:08,478

uh install the uh old

3860

06:39:14,830 --> 06:39:10,798

house

3861

06:39:15,110 --> 06:39:14,840

i keep my uh my feather used to on your

3862

06:39:17,270 --> 06:39:15,120

shoulder now

3863

06:39:21,190 --> 06:39:18,628

all right

3864

06:39:24,708 --> 06:39:21,200

about towards you right so now you if

3865

06:39:28,948 --> 06:39:24,718

you screw back towards your feet uh

3866

06:39:35,110 --> 06:39:32,390

it's nice right behind how to go later

3867

06:39:37,670 --> 06:39:35,120

right right behind your place where the

3868

06:39:39,350 --> 06:39:37,680

snag is get as you follow the face and

3869

06:39:52,868 --> 06:39:39,360

go nature forward

3870

06:40:08,540 --> 06:39:54,628

but now you're gonna go back into it

3871

06:40:12,788 --> 06:40:10,830

[Music]

3872

06:40:18,310 --> 06:40:12,798

okay

3873

06:40:20,390 --> 06:40:18,320

a few more turns on the

3874

06:40:30,230 --> 06:40:20,400

on the center board how many i will be

3875

06:40:34,390 --> 06:40:31,910

tomorrow we'll have you continue with

3876

06:40:51,030 --> 06:40:34,400

turns until it's fully loose and

3877

06:40:55,670 --> 06:40:51,910

okay

3878

06:40:58,868 --> 06:40:55,680

i think it's truly loose and released

3879

06:41:02,230 --> 06:40:58,878

it's missing maybe one turn

3880

06:41:06,150 --> 06:41:03,830

copy tomah

3881

06:41:30,468 --> 06:41:06,160

you can go ahead and stow your pgt and

3882

06:41:34,150 --> 06:41:32,708

pesquet is now going to work to remove

3883

06:41:35,670 --> 06:41:34,160

the failed floating potential

3884

06:41:38,868 --> 06:41:35,680

measurement unit

3885

06:41:40,708 --> 06:41:38,878

he'll pass it off to hoshide

3886

06:41:42,150 --> 06:41:40,718

you said you like my seat

3887

06:41:44,628 --> 06:41:42,160

hoshide will then

3888

06:41:50,230 --> 06:41:44,638

pass the spare to pesquet

3889

06:41:54,150 --> 06:41:52,708

uh yeah in front of you on your left

3890

06:42:00,548 --> 06:41:54,160

side

3891

06:42:00,558 --> 06:42:03,670

that's right oh

3892

06:42:08,390 --> 06:42:04,468

don't first

3893

06:42:08,400 --> 06:42:13,190

to be sure yeah thank you

3894

06:42:17,190 --> 06:42:14,310

all right

3895

06:42:19,910 --> 06:42:17,200

in this group becomes at the 10 o'clock

3896

06:42:42,708 --> 06:42:19,920

position i started pointing you towards

3897

06:42:48,070 --> 06:42:46,948

the scoop is installed on fgmu

3898

06:42:50,150 --> 06:42:48,080

cappy

3899

06:42:51,910 --> 06:42:50,160

you can remove the large small rep from

3900

06:43:04,450 --> 06:42:51,920

the tether point and stow that on your

3901

06:43:04,460 --> 06:43:09,590

[Music]

3902

06:43:13,670 --> 06:43:12,390

you can remove the fpmu from the

3903

06:43:14,390 --> 06:43:13,680

stanchion

3904

06:43:19,990 --> 06:43:14,400

and

3905

06:43:22,708 --> 06:43:21,510

i think that you're still working on the

3906

06:43:26,948 --> 06:43:22,718

bag

3907

06:43:26,958 --> 06:43:32,070

copy

3908

06:43:36,390 --> 06:43:34,070

if you're just tuning in with us today

3909

06:43:39,270 --> 06:43:36,400

we're approaching the 5 hour and 30

3910

06:43:41,430 --> 06:43:39,280

minute mark of the 244th spacewalk in

3911

06:43:43,750 --> 06:43:41,440

support of station maintenance assembly

3912

06:43:46,070 --> 06:43:43,760

and upgrades this is the first spacewalk

3913

06:43:48,548 --> 06:43:46,080

involving two international partner crew

3914

06:43:50,230 --> 06:43:48,558

members aki hoshide current space

3915

06:43:52,548 --> 06:43:50,240

station commander

3916

06:43:55,910 --> 06:43:52,558

and tomah pesquet

3917

06:43:58,070 --> 06:43:55,920

so far the duo has successfully built

3918

06:44:00,788 --> 06:43:58,080

and installed a mounting bracket on the

3919

06:44:06,948 --> 06:44:00,798

4a power channel in preparation for the

3920

06:44:12,230 --> 06:44:09,190

additionally hoshide worked on a get

3921

06:44:14,788 --> 06:44:12,240

ahead task to remove and replace a pip

3922

06:44:17,590 --> 06:44:14,798

pin in the airlock and now the duo is

3923

06:44:19,590 --> 06:44:17,600

working together to swap out a failed

3924

06:44:33,350 --> 06:44:19,600

floating potential measurement unit and

3925

06:44:33,360 --> 06:44:38,868

you have the fdmu for you all right

3926

06:44:38,878 --> 06:44:46,468

closer than i thought

3927

06:44:50,150 --> 06:44:48,468

all right so you're it's on that side

3928

06:44:53,190 --> 06:44:50,160

okay

3929

06:45:07,110 --> 06:44:53,200

you can't bring it on your left side uh

3930

06:45:07,120 --> 06:45:10,150

um

3931

06:45:10,160 --> 06:45:17,350

yeah it's still close yeah

3932

06:45:35,510 --> 06:45:21,350

after uh i can you move away like you're

3933

06:45:44,468 --> 06:45:38,150

i can pass it to you anywhere but issue

3934

06:45:59,030 --> 06:45:46,310

the internal behind your playset keyword

3935

06:45:59,040 --> 06:46:07,190

all right hey buddy

3936

06:46:10,628 --> 06:46:08,788

but there's nothing that holds them and

3937

06:46:12,548 --> 06:46:10,638

they have some kind of a stringing force

3938

06:46:14,390 --> 06:46:12,558

bringing them back up

3939

06:46:16,628 --> 06:46:14,400

or probably we need their wire tie but

3940

06:46:19,750 --> 06:46:16,638

that's not the butterfly nice

3941

06:46:20,948 --> 06:46:19,760

um but so there's no watches you know

3942

06:46:23,670 --> 06:46:20,958

you don't know what

3943

06:46:30,548 --> 06:46:23,680

glasses no they don't latch down

3944

06:46:35,830 --> 06:46:33,190

it's yeah there's a tough spot

3945

06:46:37,830 --> 06:46:35,840

you can see our kitchen hammer all right

3946

06:46:43,930 --> 06:46:37,840

12 feet left

3947

06:46:43,940 --> 06:46:50,708

[Applause]

3948

06:47:11,190 --> 06:46:53,590

all right you ready for it

3949

06:47:11,200 --> 06:47:16,310

great

3950

06:47:22,310 --> 06:47:18,868

this is not a bad view at all

3951
06:47:59,830 --> 06:47:23,990
you don't have a big five controller

3952
06:48:19,030 --> 06:48:02,070
tv crew the arm will be in motion motion

3953
06:48:25,030 --> 06:48:21,750
a couple of waves from tomah

3954
06:48:25,990 --> 06:48:25,040
as he works to hand off the failed fpmu

3955
06:48:27,830 --> 06:48:26,000
to

3956
06:48:29,350 --> 06:48:27,840
aki hoshide

3957
06:48:34,260 --> 06:48:29,360
as a reminder he's wearing the suit with

3958
06:49:01,510 --> 06:48:42,720
[Music]

3959
06:49:01,520 --> 06:49:17,270
press the latch

3960
06:49:31,030 --> 06:49:19,750
i'm holding it right here

3961
06:49:31,040 --> 06:50:08,230
hold this side

3962
06:50:08,240 --> 06:50:27,110
all right two tests

3963
06:50:31,270 --> 06:50:29,670

gabby looks like a good config to us and

3964

06:50:37,030 --> 06:50:31,280

a firm to mike instead of that on your

3965

06:50:41,750 --> 06:50:40,150

aki can get ready to pass the spare fpmu

3966

06:50:43,750 --> 06:50:41,760

over to tomah

3967

06:50:45,190 --> 06:50:43,760

you can leave it readed

3968

06:50:50,230 --> 06:50:45,200

threaded to

3969

06:50:54,868 --> 06:50:52,390

and the failed fpmu has been

3970

06:50:59,910 --> 06:50:54,878

successfully transferred from tomah to

3971

06:51:02,390 --> 06:50:59,920

aki now aki will hand over the new spare

3972

06:51:09,110 --> 06:51:02,400

fpmu to tomah so that he can work on

3973

06:51:12,150 --> 06:51:10,708

okay right shortly

3974

06:51:14,070 --> 06:51:12,160

yes

3975

06:51:31,350 --> 06:51:14,080

the other one is my right side that's

3976
06:51:31,360 --> 06:51:38,150
all right

3977
06:51:40,150 --> 06:51:38,360
to

3978
06:52:03,670 --> 06:51:40,160
[Music]

3979
06:52:03,680 --> 06:52:25,190
let me know when you're ready

3980
06:52:29,910 --> 06:52:27,430
tomorrow when you receive the spare have

3981
06:52:33,030 --> 06:52:29,920
you inspect the blind mate connectors on

3982
06:52:43,110 --> 06:52:33,040
both the stanchion and the spare pmu for

3983
06:52:46,868 --> 06:52:44,150
puppy

3984
06:52:49,190 --> 06:52:46,878
the stealth blood made connector looks

3985
06:52:59,030 --> 06:52:49,200
good

3986
06:53:04,390 --> 06:53:00,948
and

3987
06:53:07,270 --> 06:53:05,510
i

3988
06:53:10,548 --> 06:53:07,280

don't see

3989

06:53:10,558 --> 06:53:15,480

dude

3990

06:53:15,490 --> 06:53:25,990

[Music]

3991

06:53:39,190 --> 06:53:28,390

you can now present this bear for probe

3992

06:53:43,930 --> 06:53:42,230

is this can i give it to you from your

3993

06:54:01,270 --> 06:53:43,940

left side

3994

06:54:12,310 --> 06:54:02,390

yeah

3995

06:54:12,320 --> 06:54:35,610

right

3996

06:54:52,788 --> 06:54:38,628

[Music]

3997

06:54:52,798 --> 06:54:58,628

then put the uh

3998

06:55:19,190 --> 06:55:01,110

yeah drove out

3999

06:55:19,200 --> 06:55:31,830

uh

4000

06:55:31,840 --> 06:55:50,948

food

4001

06:55:50,958 --> 06:56:05,830

the website is removed

4002

06:56:10,628 --> 06:56:08,868

the wire tie can go either in the trash

4003

06:56:22,310 --> 06:56:10,638

bag or back on the oru bag whichever is

4004

06:56:42,180 --> 06:56:23,470

uh

4005

06:56:46,948 --> 06:56:44,628

[Music]

4006

06:56:49,270 --> 06:56:46,958

oh cool nice

4007

06:56:50,150 --> 06:56:49,280

deploy hey

4008

06:56:51,670 --> 06:56:50,160

uh

4009

06:56:56,070 --> 06:56:51,680

are you keeping up on the scoop i'm

4010

06:57:00,150 --> 06:56:57,830

copy looks good

4011

06:57:02,310 --> 06:57:00,160

you can go ahead and install the fpmu

4012

06:57:04,070 --> 06:57:02,320

into the vssa along the

4013

06:57:10,628 --> 06:57:04,080

guide rails and there will be a soft

4014

06:57:15,590 --> 06:57:13,110

pasque has successfully received the

4015

06:57:20,788 --> 06:57:15,600

spare fpmu and is now going to work on

4016

06:57:25,830 --> 06:57:23,030

but there's no real

4017

06:57:36,070 --> 06:57:28,708

similar to removal this will require a

4018

06:57:39,670 --> 06:57:37,910

i'm saying it slides in but there's no

4019

06:57:41,990 --> 06:57:39,680

real soft dodge

4020

06:57:44,548 --> 06:57:42,000

yeah a firm to mod there's no real soft

4021

06:57:47,990 --> 06:57:44,558

dock it just will kind of

4022

06:57:50,708 --> 06:57:49,110

that's not why i'm saying everything

4023

06:57:53,030 --> 06:57:50,718

it's not it doesn't feel like it's

4024

06:58:08,788 --> 06:57:53,040

properly engaged so let me take you out

4025

06:58:13,750 --> 06:58:09,510

the

4026
06:58:14,788 --> 06:58:13,760
it's not true that

4027
06:58:19,270 --> 06:58:14,798
the knife

4028
06:58:23,750 --> 06:58:22,230
now you can attach your large small ret

4029
06:58:33,110 --> 06:58:23,760
from your mini workstation to the tether

4030
06:58:39,270 --> 06:58:35,030
and you can remove this scoop and tend

4031
06:58:41,510 --> 06:58:39,280
it back to the oru bag

4032
06:58:45,350 --> 06:58:41,520
okay i keep coop is gonna come back to

4033
06:58:48,948 --> 06:58:46,948
and aki when you

4034
06:58:54,310 --> 06:58:48,958
receive this scoop it will be going back

4035
06:59:18,230 --> 06:58:56,390
am i either inside oh because there are

4036
06:59:22,390 --> 06:59:19,110
your

4037
06:59:27,030 --> 06:59:22,400
pgt settings for the bolts will be bravo

4038
06:59:27,040 --> 06:59:32,868

bravo one clockwise

4039

06:59:37,510 --> 06:59:35,670

good words and we'll start with the

4040

06:59:45,440 --> 06:59:37,520

center bolt

4041

06:59:49,430 --> 06:59:48,070

[Music]

4042

06:59:51,910 --> 06:59:49,440

return

4043

06:59:53,590 --> 06:59:51,920

on the central bolt

4044

06:59:59,270 --> 06:59:53,600

good words and then we'll be taking the

4045

06:59:59,280 --> 07:00:04,708

you want those 23 tourers without pause

4046

07:00:04,718 --> 07:00:18,310

hey firm tomorrow

4047

07:00:23,270 --> 07:00:20,868

tomah going to use the pistol grip tool

4048

07:00:26,310 --> 07:00:23,280

yet again this time to install the

4049

07:00:44,070 --> 07:00:26,320

center bolt of the new fpmu after that

4050

07:00:50,150 --> 07:00:47,830

okay i got 23 turns on the center board

4051
07:00:51,670 --> 07:00:50,160
my running torch is one

4052
07:01:01,430 --> 07:00:51,680
decimal six

4053
07:01:03,990 --> 07:01:01,440
23 turns

4054
07:01:05,270 --> 07:01:04,000
your new pgt settings will be

4055
07:01:07,030 --> 07:01:05,280
alpha one

4056
07:01:09,750 --> 07:01:07,040
clockwise two

4057
07:01:18,390 --> 07:01:09,760
and you'll be taking stable to torque

4058
07:01:24,868 --> 07:01:22,310
clockwise 2 that's a torque of 2.5

4059
07:01:24,878 --> 07:01:39,030
good word

4060
07:01:43,430 --> 07:01:41,590
torque we have a uh light on the torque

4061
07:01:46,548 --> 07:01:43,440
2.2

4062
07:01:49,110 --> 07:01:46,558
and uh four turns

4063
07:01:52,548 --> 07:01:49,120

point two is a little bit under 2.5 but

4064

07:01:58,548 --> 07:01:54,948

guppy that is a good bolt on the center

4065

07:02:03,110 --> 07:01:58,558

bolt we'll move on to the

4066

07:02:08,548 --> 07:02:05,830

the settings will be bravo one clockwise

4067

07:02:12,150 --> 07:02:08,558

two and we'll drive that bolt five turns

4068

07:02:18,948 --> 07:02:13,670

level one

4069

07:02:23,990 --> 07:02:21,830

one and five turns on the off spots the

4070

07:02:28,708 --> 07:02:24,000

one towards me

4071

07:02:33,270 --> 07:02:31,110

the center bolt on the fpmu has

4072

07:02:35,590 --> 07:02:33,280

successfully been installed pesquet is

4073

07:02:47,750 --> 07:02:35,600

now going to work on driving the first

4074

07:02:52,948 --> 07:02:49,030

copy

4075

07:03:19,030 --> 07:02:52,958

zero on the torque after five turns

4076
07:03:25,990 --> 07:03:21,910
so with that reading we're going to

4077
07:03:28,468 --> 07:03:26,000
use the settings bravo one clockwise two

4078
07:03:30,548 --> 07:03:28,478
on the second outer bolt so on the

4079
07:03:34,310 --> 07:03:30,558
forward bolt

4080
07:03:38,788 --> 07:03:37,110
copy another one clockwise two

4081
07:03:42,070 --> 07:03:38,798
12.0

4082
07:03:43,990 --> 07:03:42,080
uh after program torque and five turns

4083
07:04:13,110 --> 07:03:44,000
on the forward volts

4084
07:04:15,990 --> 07:04:14,390
okay we copy

4085
07:04:18,708 --> 07:04:16,000
zero torque

4086
07:04:21,270 --> 07:04:18,718
for five turns on the

4087
07:04:24,310 --> 07:04:21,280
forward bolt

4088
07:04:27,910 --> 07:04:24,320

so with that we're going to put the pgt

4089

07:04:35,830 --> 07:04:27,920

into manual ratchet mode and set the mtl

4090

07:04:40,070 --> 07:04:37,430

copy

4091

07:04:41,830 --> 07:04:40,080

if it seems there's a lot of ways to go

4092

07:04:43,910 --> 07:04:41,840

with a lot of way to go on those bolts

4093

07:04:45,030 --> 07:04:43,920

as well they're nowhere close

4094

07:04:47,110 --> 07:04:45,040

or to

4095

07:04:48,708 --> 07:04:47,120

like the bolts touching box there's

4096

07:04:53,110 --> 07:04:48,718

still a lot of

4097

07:05:05,830 --> 07:04:54,390

so that we could

4098

07:05:05,840 --> 07:05:17,850

yes

4099

07:05:17,860 --> 07:05:23,030

[Music]

4100

07:05:23,040 --> 07:05:27,910

not 10 more

4101
07:05:30,948 --> 07:05:29,590
you can do that in manual ratchet but

4102
07:05:33,030 --> 07:05:30,958
that's great

4103
07:05:36,070 --> 07:05:33,040
yeah long time

4104
07:05:38,230 --> 07:05:36,080
new vacuum enough today

4105
07:05:40,468 --> 07:05:38,240
obviously this one is a

4106
07:05:40,478 --> 07:06:00,830
like the ratchet master the magic

4107
07:06:00,840 --> 07:06:07,030
[Applause]

4108
07:06:10,948 --> 07:06:07,910
so ma

4109
07:06:13,590 --> 07:06:10,958
you can go ahead and start the bolt by

4110
07:06:34,628 --> 07:06:13,600
hand as far as you can get before we

4111
07:06:38,788 --> 07:06:37,190
now approaching the six hour mark into

4112
07:06:40,948 --> 07:06:38,798
today's spacewalk

4113
07:06:43,830 --> 07:06:40,958

tomo pasque is currently working to

4114

07:06:45,430 --> 07:06:43,840
drive the first outer bolt into the

4115

07:06:50,390 --> 07:06:45,440
newly replaced

4116

07:06:54,948 --> 07:06:52,150
during today's spacewalk hoshide and

4117

07:06:57,110 --> 07:06:54,958
pesquet have successfully installed and

4118

07:07:02,070 --> 07:06:57,120
built the mount mounting bracket on the

4119

07:07:12,070 --> 07:07:04,230
is in preparation for the next delivery

4120

07:07:12,080 --> 07:07:17,030
clockwise

4121

07:07:23,430 --> 07:07:19,350
good words and we copied two turns by

4122

07:07:31,030 --> 07:07:25,510
all right yeah it was more like

4123

07:07:31,040 --> 07:07:36,390
copy three and a half turns by hand

4124

07:07:36,400 --> 07:07:40,150
and all the ratchets

4125

07:08:03,270 --> 07:07:44,230
roger clockwise mgl 30.5

4126
07:08:03,280 --> 07:08:09,270

[Music]

4127
07:08:09,280 --> 07:08:13,030
tap the f bolt

4128
07:08:13,040 --> 07:08:17,670
okay popped out once

4129
07:08:24,070 --> 07:08:19,270
twice

4130
07:08:33,190 --> 07:08:27,670
copy two pops that's a good install on

4131
07:08:33,200 --> 07:08:37,510
top down one you want it twice

4132
07:08:42,948 --> 07:08:41,510
hey firm two pops please

4133
07:08:45,590 --> 07:08:42,958
okay

4134
07:08:49,110 --> 07:08:45,600
there's something gonna come back try

4135
07:08:55,030 --> 07:08:51,990
okay two pops

4136
07:08:55,830 --> 07:08:55,040
happy two pop that is now a good bolt on

4137
07:09:05,110 --> 07:08:55,840
the

4138
07:09:05,120 --> 07:09:25,590

okay

4139

07:09:30,788 --> 07:09:28,070

and with that pesquet has successfully

4140

07:09:33,190 --> 07:09:30,798

driven the first outer bolt installing

4141

07:09:35,750 --> 07:09:33,200

the fpmu next up he'll work on

4142

07:09:59,770 --> 07:09:35,760

installing it driving the second outer

4143

07:10:04,070 --> 07:10:01,590

[Music]

4144

07:10:06,310 --> 07:10:04,080

on the other side of the handover can

4145

07:10:11,350 --> 07:10:06,320

you verify the your current config on

4146

07:10:14,868 --> 07:10:11,870

as in

4147

07:10:16,628 --> 07:10:14,878

[Music]

4148

07:10:19,270 --> 07:10:16,638

it pops twice on the forward and that's

4149

07:10:21,430 --> 07:10:19,280

probably runway you're asking wedding

4150

07:10:23,510 --> 07:10:21,440

a firm so he did get two pops on both

4151
07:10:25,990 --> 07:10:23,520
the forward and half bolts and can we

4152
07:10:29,750 --> 07:10:26,000
get a final turn count on the

4153
07:10:29,760 --> 07:10:34,468
he has four turns on the forward force

4154
07:10:39,830 --> 07:10:35,910
copy four turns

4155
07:10:41,510 --> 07:10:39,840
both of those are good bolts

4156
07:10:42,310 --> 07:10:41,520
right

4157
07:10:50,468 --> 07:10:42,320
now

4158
07:10:57,590 --> 07:10:52,070
understood absolutely

4159
07:11:03,190 --> 07:11:00,070
hey

4160
07:11:03,200 --> 07:11:08,310
you can retrieve the large small red

4161
07:11:17,590 --> 07:11:10,948
and with that the second outer bolt was

4162
07:11:49,270 --> 07:11:19,670
large small red yes

4163
07:11:53,830 --> 07:11:50,070

so

4164

07:11:57,670 --> 07:11:53,840

that's complete one copy it you can

4165

07:12:08,830 --> 07:12:01,350

transfer the failed fpmu from your brt

4166

07:12:08,840 --> 07:12:14,708

aki all right working on that

4167

07:12:35,830 --> 07:12:17,350

and aki you do red swap using the large

4168

07:12:35,840 --> 07:12:44,708

all right

4169

07:12:44,718 --> 07:12:49,510

thank you

4170

07:12:49,520 --> 07:12:54,548

here comes the failed fpmu

4171

07:12:58,948 --> 07:12:57,110

i felt the brt on it i should have

4172

07:13:00,310 --> 07:12:58,958

moved through the jaws keeping just with

4173

07:13:10,548 --> 07:13:00,320

sick

4174

07:13:13,270 --> 07:13:12,150

there you go so there's a rock to the

4175

07:13:15,910 --> 07:13:13,280

scooch

4176
07:13:26,310 --> 07:13:15,920
on my brt and

4177
07:13:26,320 --> 07:13:45,030
hold on somewhere okay

4178
07:13:52,150 --> 07:13:47,830
hockey can stow the fp the failed fpmu

4179
07:13:58,468 --> 07:13:53,670
and then you'll be sewing the bag on

4180
07:13:58,478 --> 07:14:04,540
all right

4181
07:14:04,550 --> 07:14:12,230
[Music]

4182
07:14:17,750 --> 07:14:14,788
is now working to stow the old failed

4183
07:14:19,750 --> 07:14:17,760
fpmu on his body restraint tether

4184
07:14:21,880 --> 07:14:19,760
following this he's going to head back

4185
07:14:23,590 --> 07:14:21,890
to the airlock

4186
07:14:25,670 --> 07:14:23,600
[Music]

4187
07:14:28,830 --> 07:14:25,680
all right i'm going to remove your rut

4188
07:14:31,750 --> 07:14:28,840

okay you have control i have

4189

07:14:34,070 --> 07:14:31,760

control meanwhile esa astronaut thomas

4190

07:14:40,628 --> 07:14:34,080

pesquet is wrapping up installation of

4191

07:14:45,750 --> 07:14:42,788

now approaching the six hour mark in

4192

07:14:47,990 --> 07:14:45,760

today's spacewalk so far all tasks have

4193

07:14:50,150 --> 07:14:48,000

been completed as well as one get-ahead

4194

07:14:52,628 --> 07:14:50,160

task to swap out

4195

07:15:03,350 --> 07:14:52,638

a pip pin in the airlock and replace it

4196

07:15:07,430 --> 07:15:05,270

tomorrow you can verify that all of your

4197

07:15:14,708 --> 07:15:07,440

tools and tethers are clear and then

4198

07:15:17,430 --> 07:15:15,750

all right

4199

07:15:19,510 --> 07:15:17,440

those feathers

4200

07:15:24,310 --> 07:15:19,520

are clear

4201
07:15:28,708 --> 07:15:26,468
all right come on we may need your help

4202
07:15:30,628 --> 07:15:28,718
on this okay

4203
07:15:32,708 --> 07:15:30,638
uh do you know maybe

4204
07:15:33,670 --> 07:15:32,718
can you need to stay in your j45 yeah

4205
07:15:35,190 --> 07:15:33,680
okay

4206
07:15:36,628 --> 07:15:35,200
probably better

4207
07:15:38,468 --> 07:15:36,638
more stable

4208
07:15:47,770 --> 07:15:38,478
you can hold that

4209
07:15:47,780 --> 07:15:54,290
[Applause]

4210
07:15:54,300 --> 07:15:59,990
[Music]

4211
07:16:03,110 --> 07:16:01,350
and this is like the conversation we

4212
07:16:04,310 --> 07:16:03,120
have you actually it was not convenient

4213
07:16:07,190 --> 07:16:04,320

to go

4214

07:16:09,270 --> 07:16:07,200

ask of the sassa antenna yeah there's

4215

07:16:10,468 --> 07:16:09,280

just no handle on the rgdm is right

4216

07:16:13,350 --> 07:16:10,478

there yeah

4217

07:16:15,110 --> 07:16:13,360

so let's show you the new side is that

4218

07:16:18,230 --> 07:16:15,120

nicely better in your way the whole time

4219

07:16:23,350 --> 07:16:21,510

it wasn't in my way but you know

4220

07:16:29,350 --> 07:16:23,360

they want to trap you

4221

07:16:29,360 --> 07:16:35,040

let's see how to do this

4222

07:16:35,050 --> 07:16:38,788

[Music]

4223

07:16:42,548 --> 07:16:39,990

all right

4224

07:16:43,670 --> 07:16:42,558

try this again okay

4225

07:16:45,590 --> 07:16:43,680

all right

4226
07:16:59,750 --> 07:16:45,600
you have control

4227
07:16:59,760 --> 07:17:10,628
is

4228
07:17:58,310 --> 07:17:38,388
on

4229
07:18:11,670 --> 07:17:58,320
your power cycle

4230
07:18:11,680 --> 07:18:17,830
thank you tomorrow

4231
07:18:21,510 --> 07:18:19,670
and tomorrow you can either

4232
07:18:24,070 --> 07:18:21,520
translate back over to the connector

4233
07:18:28,548 --> 07:18:24,080
panel or retrieve the apfr and put it on

4234
07:18:32,388 --> 07:18:30,628
uh i think i'll

4235
07:18:34,708 --> 07:18:32,398
make your panels right here i can get to

4236
07:18:35,750 --> 07:18:34,718
the connector panel from that side i

4237
07:18:44,708 --> 07:18:35,760
guess

4238
07:18:55,190 --> 07:18:47,990

copy and you can also help akiso the

4239

07:20:05,110 --> 07:18:57,990

in my life i'll okay to

4240

07:20:10,708 --> 07:20:07,590

what you need to do i just put it on the

4241

07:20:12,948 --> 07:20:10,718

uh the other side of the bag oh it's all

4242

07:20:15,270 --> 07:20:12,958

right for me i can't start but if it's

4243

07:20:16,468 --> 07:20:15,280

right under you yeah there

4244

07:20:30,310 --> 07:20:16,478

um

4245

07:20:30,320 --> 07:20:36,070

settled

4246

07:20:36,080 --> 07:21:00,868

wow

4247

07:21:06,230 --> 07:21:03,190

okay

4248

07:21:08,548 --> 07:21:06,240

hoshide continuing to work to stow the

4249

07:21:09,990 --> 07:21:08,558

failed fpmu the floating potential

4250

07:21:11,910 --> 07:21:10,000

measurement unit

4251
07:21:25,030 --> 07:21:11,920
in the bag they'll bring it back to the

4252
07:21:29,590 --> 07:21:27,430
pesquet successfully installed the new

4253
07:21:32,150 --> 07:21:29,600
fpmu the floating potential measurement

4254
07:21:35,270 --> 07:21:32,160
unit and it drove three bolts to secure

4255
07:21:41,830 --> 07:21:37,030
grab the back of the fiber rotates away

4256
07:21:44,868 --> 07:21:43,430
if you can pass me the bag i can hold

4257
07:21:47,910 --> 07:21:44,878
the towel i guess okay

4258
07:21:50,628 --> 07:21:47,920
and i can put this there this is and you

4259
07:21:52,788 --> 07:21:50,638
can drop the other side of the bag

4260
07:21:54,948 --> 07:21:52,798
and uh

4261
07:21:56,468 --> 07:21:54,958
listen to me

4262
07:22:07,270 --> 07:21:56,478
this is the

4263
07:22:11,910 --> 07:22:09,590

just a couple more steps remain in this

4264

07:22:14,310 --> 07:22:11,920

procedure including plugging in a couple

4265

07:22:15,990 --> 07:22:14,320

of connectors and powering on the new

4266

07:22:18,388 --> 07:22:16,000

fpmu

4267

07:22:20,788 --> 07:22:18,398

additionally pesquet will bring the

4268

07:22:23,190 --> 07:22:20,798

articulating portable foot restraint and

4269

07:22:24,628 --> 07:22:23,200

some other tools with him and

4270

07:22:26,948 --> 07:22:24,638

place them

4271

07:22:28,310 --> 07:22:26,958

for stow in another location on the

4272

07:22:33,110 --> 07:22:28,320

space station so that they can be

4273

07:22:36,628 --> 07:22:34,708

needs to be in

4274

07:22:38,830 --> 07:22:36,638

but

4275

07:22:41,910 --> 07:22:38,840

i got today

4276
07:23:06,070 --> 07:22:41,920
uh and this should speak up right yeah

4277
07:23:10,868 --> 07:23:08,230
just a reminder that only the probes

4278
07:23:17,510 --> 07:23:10,878
need to be in the bag and it doesn't

4279
07:23:23,990 --> 07:23:18,628
take it

4280
07:23:24,000 --> 07:24:14,788
there you go

4281
07:24:22,230 --> 07:24:19,430
reconnected mated over center

4282
07:24:24,548 --> 07:24:22,240
copy it's a good install on p2

4283
07:24:34,410 --> 07:24:24,558
you can go ahead and retrieve the apfr

4284
07:24:34,420 --> 07:24:53,430
[Applause]

4285
07:25:04,360 --> 07:24:54,548
excuse me

4286
07:25:04,370 --> 07:25:09,430
[Music]

4287
07:25:15,670 --> 07:25:10,948
looks great to us

4288
07:26:22,788 --> 07:25:15,680

you can go ahead and sew it on your brt

4289

07:26:22,798 --> 07:27:18,830

uh

4290

07:27:18,840 --> 07:27:28,948

hey i got the reflex behind me

4291

07:27:28,958 --> 07:27:40,788

the bag that's a badge

4292

07:27:46,310 --> 07:27:43,270

aki will have you lead but first we'll

4293

07:27:49,670 --> 07:27:46,320

take a glove hap and a heck of light

4294

07:27:50,468 --> 07:27:49,680

check from you

4295

07:27:52,780 --> 07:27:50,478

i

4296

07:28:00,830 --> 07:27:52,790

love the same

4297

07:28:00,840 --> 07:28:27,670

traffic oh

4298

07:28:31,510 --> 07:28:30,150

you have a go to start translating back

4299

07:28:33,830 --> 07:28:31,520

to the airlock

4300

07:28:35,990 --> 07:28:33,840

and then tomorrow you can follow behind

4301
07:28:44,150 --> 07:28:36,000
you're headed to the starboard cedar

4302
07:28:47,110 --> 07:28:45,350
big picture

4303
07:28:50,468 --> 07:28:47,120
for the two of you

4304
07:28:53,270 --> 07:28:50,478
we are going to head back to the ap to

4305
07:28:55,350 --> 07:28:53,280
the airlock uh tomorrow you'll stow the

4306
07:28:57,350 --> 07:28:55,360
apfr and the wiffex on the starboard

4307
07:29:00,150 --> 07:28:57,360
cedar card on your way and then we're

4308
07:29:02,468 --> 07:29:00,160
going to come back inside and repress

4309
07:29:04,070 --> 07:29:02,478
with all of our uh primary objectives

4310
07:29:07,990 --> 07:29:04,080
for the day complete

4311
07:29:24,070 --> 07:29:09,190
thank you

4312
07:29:30,150 --> 07:29:26,310
and with those words from ground iv

4313
07:29:31,750 --> 07:29:30,160

jessica watkins up to our spacewalkers

4314

07:29:33,670 --> 07:29:31,760

they will

4315

07:29:36,150 --> 07:29:33,680

head back to the airlock with all

4316

07:29:43,030 --> 07:29:36,160

primary tasks completed for the day as

4317

07:29:45,910 --> 07:29:44,868

during today's spacewalk hoshide and

4318

07:29:48,070 --> 07:29:45,920

pesquet

4319

07:29:53,030 --> 07:29:48,080

successfully built and installed a

4320

07:30:01,270 --> 07:29:55,190

additionally they removed and replaced

4321

07:30:06,868 --> 07:30:03,350

and they also completed the get ahead

4322

07:30:34,830 --> 07:30:06,878

task of replacing and swapping out a pip

4323

07:30:34,840 --> 07:30:50,100

hey let me get out of your way tomorrow

4324

07:31:12,708 --> 07:30:59,670

[Music]

4325

07:31:12,718 --> 07:31:30,040

copy

4326

07:31:34,070 --> 07:31:31,590

[Music]

4327

07:31:37,030 --> 07:31:34,080

uh locked why not the yellow hook still

4328

07:31:39,270 --> 07:31:37,040

locks both wheels are unlocked

4329

07:31:41,830 --> 07:31:39,280

copy that's a good config to my and a

4330

07:31:43,670 --> 07:31:41,840

reminder to depress the port cedar

4331

07:32:14,070 --> 07:31:43,680

brakes as you go by

4332

07:32:18,070 --> 07:32:16,150

this view from thomas pesquet's helmet

4333

07:32:22,868 --> 07:32:18,080

cam as he makes his way back to the

4334

07:32:31,270 --> 07:32:25,270

hey friend you're looking for with one

4335

07:32:36,708 --> 07:32:33,510

before stopping at the airlock though he

4336

07:32:40,708 --> 07:32:36,718

will drop off the apfr the articulating

4337

07:32:40,718 --> 07:32:49,270

this will be used in a future spacewalk

4338

07:32:54,948 --> 07:32:50,628

all right

4339

07:32:54,958 --> 07:33:01,190

coffee port cedar breaks

4340

07:33:01,200 --> 07:33:08,830

i'm at the top of the feeder first

4341

07:33:13,030 --> 07:33:11,670

papaya i never thought i said i'd say

4342

07:33:15,350 --> 07:33:13,040

that but uh

4343

07:33:18,468 --> 07:33:15,360

persuading with a wrist extender and an

4344

07:33:22,230 --> 07:33:18,478

atfr in like a light config

4345

07:33:29,190 --> 07:33:24,708

you were dealing with a monster your

4346

07:33:31,670 --> 07:33:30,150

yeah

4347

07:33:33,590 --> 07:33:31,680

definitely

4348

07:33:34,628 --> 07:33:33,600

he's been

4349

07:33:44,230 --> 07:33:34,638

doing it

4350

07:33:48,948 --> 07:33:47,510

which one should be the coordinator with

4351
07:33:51,270 --> 07:33:48,958
and you're looking for

4352
07:33:55,670 --> 07:33:51,280
a clocking of 11 on the

4353
07:34:12,070 --> 07:33:58,310
major wish clocking of 11 on the reflex

4354
07:34:12,080 --> 07:34:18,388
all right

4355
07:34:18,398 --> 07:34:35,590
aki hoshide now approaching the airlock

4356
07:34:40,150 --> 07:34:37,670
once he arrives at the airlock the first

4357
07:34:48,868 --> 07:34:40,160
task will be to open up the hatch

4358
07:34:48,878 --> 07:35:12,788
it's

4359
07:35:12,798 --> 07:35:17,270
okay

4360
07:35:17,280 --> 07:35:19,750
um

4361
07:35:25,590 --> 07:35:22,150
one on a single line that gives me

4362
07:35:33,790 --> 07:35:25,600
what's on a double line already

4363
07:35:33,800 --> 07:35:49,350

[Music]

4364

07:35:49,360 --> 07:35:53,510

to open the thermal cover

4365

07:35:53,520 --> 07:36:01,510

good work

4366

07:36:05,990 --> 07:36:03,190

uh

4367

07:36:07,430 --> 07:36:06,000

if you have any way to look at the

4368

07:36:08,468 --> 07:36:07,440

that constructions you like what it

4369

07:36:10,070 --> 07:36:08,478

looks like could that change the

4370

07:36:12,310 --> 07:36:10,080

settings to access

4371

07:36:14,388 --> 07:36:12,320

once you get access to the bag from the

4372

07:36:16,388 --> 07:36:14,398

outside of your trust

4373

07:36:19,510 --> 07:36:16,398

so it's completely different settings

4374

07:36:21,670 --> 07:36:19,520

from uh what we had at the fpmu so i can

4375

07:36:24,468 --> 07:36:21,680

make it

4376

07:36:27,190 --> 07:36:24,478

a firm so we have settings for you to

4377

07:36:30,708 --> 07:36:27,200

make it low profile against the body of

4378

07:36:31,670 --> 07:36:30,718

the cedar cart so the width x will be

4379

07:36:38,310 --> 07:36:31,680

11

4380

07:36:42,948 --> 07:36:40,868

okay i uh you got broken up but i think

4381

07:36:45,750 --> 07:36:42,958

you want me to put it as much against

4382

07:36:48,468 --> 07:36:45,760

the body as you see the card as possible

4383

07:36:51,590 --> 07:36:48,478

gonna be a work on the pitch

4384

07:36:54,868 --> 07:36:51,600

and then can you work right now

4385

07:37:00,548 --> 07:36:54,878

good words tomorrow and 11 alpha one on

4386

07:37:03,590 --> 07:37:02,070

okay i'm gonna have to take it out of

4387

07:37:06,468 --> 07:37:03,600

the way because it's

4388

07:37:21,190 --> 07:37:06,478

that pitch motion is interfering with

4389

07:37:21,200 --> 07:37:29,270

first

4390

07:37:29,280 --> 07:37:36,548

copy thomas

4391

07:37:36,558 --> 07:37:41,990

actually the mark on the eye technique

4392

07:37:46,150 --> 07:37:44,468

but the remarkable high technique is for

4393

07:37:48,230 --> 07:37:46,160

apfrs

4394

07:37:52,010 --> 07:37:48,240

is to

4395

07:38:02,788 --> 07:37:57,750

[Music]

4396

07:38:09,670 --> 07:38:06,468

fyi for you you may get the reserve

4397

07:38:11,670 --> 07:38:09,680

water on message on your suit no action

4398

07:38:14,628 --> 07:38:11,680

and no concern

4399

07:38:21,320 --> 07:38:14,638

just a heads up

4400

07:38:21,330 --> 07:38:28,070

[Music]

4401
07:38:28,080 --> 07:38:33,930
together

4402
07:38:33,940 --> 07:38:39,270
[Music]

4403
07:38:43,990 --> 07:38:41,510
single line five double line on wave

4404
07:38:45,670 --> 07:38:44,000
zero one the pitch is uh

4405
07:38:46,708 --> 07:38:45,680
i can't read the number but it's all the

4406
07:38:49,430 --> 07:38:46,718
way

4407
07:38:52,868 --> 07:38:49,440
um as close to the

4408
07:38:54,468 --> 07:38:52,878
card as possible and the extension is

4409
07:38:58,948 --> 07:38:54,478
as short as possible on the grease

4410
07:39:03,670 --> 07:39:01,910
that's a good config for us toma and can

4411
07:39:07,990 --> 07:39:03,680
we get the

4412
07:39:12,788 --> 07:39:08,000
apfr settings as well we have 12 foxtrot

4413
07:39:17,270 --> 07:39:14,868

oh i think i think i have to change that

4414

07:39:19,670 --> 07:39:17,280

too to take it out of the way so 12 is

4415

07:39:21,590 --> 07:39:19,680

still there because uh it stayed in the

4416

07:39:25,920 --> 07:39:21,600

at least extended the whole time

4417

07:39:33,590 --> 07:39:25,930

papa papa is there and now i have

4418

07:39:39,270 --> 07:39:35,750

alpha 6 on the

4419

07:39:39,280 --> 07:39:47,910

is that what you wanted

4420

07:39:47,920 --> 07:39:54,110

[Applause]

4421

07:39:57,110 --> 07:39:55,430

[Music]

4422

07:39:59,270 --> 07:39:57,120

reaching my left and making my way back

4423

07:40:01,350 --> 07:39:59,280

to jail

4424

07:40:03,030 --> 07:40:01,360

a firm you can retrieve your ret

4425

07:40:05,910 --> 07:40:03,040

unfortunately we'd like for you to go

4426
07:40:07,510 --> 07:40:05,920
back to the port cedar cart and depress

4427
07:40:10,388 --> 07:40:07,520
the brakes again

4428
07:40:12,230 --> 07:40:10,398
there are some concerns that it

4429
07:40:15,990 --> 07:40:12,240
got lifted after you depressed him the

4430
07:40:20,868 --> 07:40:19,270
uh okay i depressed him twice

4431
07:40:29,200 --> 07:40:20,878
on my way back but you're saying

4432
07:40:29,210 --> 07:40:32,788
[Music]

4433
07:40:50,948 --> 07:40:35,430
oh yeah i touch the handle

4434
07:40:56,868 --> 07:40:53,910
this way first to the camera

4435
07:41:01,990 --> 07:40:59,750
and aki with the camera at the airlock

4436
07:41:02,788 --> 07:41:02,000
we'll have you take pictures of the pit

4437
07:41:06,868 --> 07:41:02,798
pin

4438
07:41:06,878 --> 07:41:10,948

okay

4439

07:41:15,670 --> 07:41:13,590

jaxa astronaut aki hoshide has arrived

4440

07:41:17,990 --> 07:41:15,680

back at the airlock he's going to work

4441

07:41:20,868 --> 07:41:18,000

on taking some photos of the get ahead

4442

07:41:23,990 --> 07:41:20,878

task that he completed earlier to remove

4443

07:41:26,388 --> 07:41:24,000

and install a new pip pin

4444

07:41:29,200 --> 07:41:26,398

issa astronaut thomas pesquet will join

4445

07:41:30,468 --> 07:41:29,210

him shortly at the airlock

4446

07:41:33,030 --> 07:41:30,478

[Music]

4447

07:41:35,350 --> 07:41:33,040

we're approaching the six hour 30 minute

4448

07:41:38,230 --> 07:41:35,360

mark of today's spacewalk all planned

4449

07:42:08,750 --> 07:41:38,240

tasks and one get a get-ahead task were

4450

07:42:14,468 --> 07:42:12,868

a little bit depressed twice and it was

4451
07:42:17,990 --> 07:42:14,478
more carefully somebody didn't touch the

4452
07:42:21,590 --> 07:42:18,000
brake handle copy brakes depressed twice

4453
07:42:24,468 --> 07:42:22,948
it's

4454
07:42:42,070 --> 07:42:24,478
only normal

4455
07:42:49,190 --> 07:42:45,030
working to get the failed fpmu into the

4456
07:42:53,190 --> 07:42:51,670
those handles are actually tucked away

4457
07:42:56,548 --> 07:42:53,200
nicer

4458
07:42:59,510 --> 07:42:56,558
copy and good news the spmu has powered

4459
07:43:00,628 --> 07:42:59,520
on nominally

4460
07:43:02,468 --> 07:43:00,638
yeah hi

4461
07:43:12,070 --> 07:43:02,478
good job

4462
07:43:16,628 --> 07:43:14,388
good words from the ground we just heard

4463
07:43:18,310 --> 07:43:16,638

that the fpmu the floating potential

4464

07:43:27,590 --> 07:43:18,320

measurement unit was powered on

4465

07:43:32,070 --> 07:43:29,350

in addition to the successful

4466

07:43:33,270 --> 07:43:32,080

replacement and installation of the new

4467

07:43:35,670 --> 07:43:33,280

fpmu

4468

07:43:37,830 --> 07:43:35,680

hoshide and pesquet completed tasks to

4469

07:43:40,230 --> 07:43:37,840

build and install a mounting bracket on

4470

07:43:42,948 --> 07:43:40,240

the 4a power channel in preparation for

4471

07:43:48,310 --> 07:43:42,958

the next delivery of iss rollout solar

4472

07:43:53,590 --> 07:43:50,468

additionally hoshide completed a get

4473

07:44:08,708 --> 07:43:53,600

ahead task to remove and replace a pip

4474

07:44:12,788 --> 07:44:10,708

by all accounts today has been a very

4475

07:44:14,548 --> 07:44:12,798

successful spacewalk

4476
07:44:16,230 --> 07:44:14,558
it's the first spacewalk involving two

4477
07:44:19,270 --> 07:44:16,240
international partner crew members out

4478
07:44:21,590 --> 07:44:19,280
of the quest airlock and the 244th in

4479
07:44:23,590 --> 07:44:21,600
support of station assembly maintenance

4480
07:44:30,388 --> 07:44:23,600
and upgrades

4481
07:44:37,510 --> 07:44:33,270
all right and what that message that you

4482
07:44:44,310 --> 07:44:37,520
warned me about just came on

4483
07:44:57,350 --> 07:44:46,150
actually here

4484
07:45:00,310 --> 07:44:59,270
yeah

4485
07:45:05,210 --> 07:45:00,320
okay

4486
07:45:21,350 --> 07:45:11,480
[Music]

4487
07:45:30,230 --> 07:45:25,670
i think you have to come back out yep

4488
07:45:30,240 --> 07:45:45,030

this

4489

07:45:45,040 --> 07:45:47,750

yes

4490

07:45:51,030 --> 07:45:48,948

now

4491

07:45:53,990 --> 07:45:51,040

let me see

4492

07:45:57,430 --> 07:45:55,750

that's the next one

4493

07:46:08,868 --> 07:45:57,440

um

4494

07:46:23,590 --> 07:46:10,310

okay

4495

07:46:23,600 --> 07:46:29,670

my head

4496

07:46:29,680 --> 07:46:43,990

okay i think you're free maybe

4497

07:46:47,830 --> 07:46:45,910

we're in a brief expected handover

4498

07:46:50,230 --> 07:46:47,840

between satellites and we'll regain

4499

07:47:05,510 --> 07:46:50,240

communication and visuals with the

4500

07:47:19,290 --> 07:47:07,910

all right this is good i'm quite

4501
07:47:23,910 --> 07:47:21,670

[Music]

4502
07:47:25,030 --> 07:47:23,920
great teamwork go take a picture over

4503
07:47:27,590 --> 07:47:25,040
here

4504
07:47:29,270 --> 07:47:27,600
and aki we'll have you stand down on the

4505
07:47:31,350 --> 07:47:29,280
pictures for now

4506
07:47:34,150 --> 07:47:31,360
and we'll go ahead and get you ingress

4507
07:47:38,150 --> 07:47:34,160
with that reserve water message

4508
07:47:40,468 --> 07:47:38,160
so both of you can turn off your heka

4509
07:47:42,388 --> 07:47:40,478
okay

4510
07:47:49,270 --> 07:47:42,398
and tomorrow you can attach your waste

4511
07:47:49,280 --> 07:48:04,628
work

4512
07:48:04,638 --> 07:48:09,270
okay

4513
07:48:09,280 --> 07:48:15,190

all right

4514

07:48:20,468 --> 07:48:18,628

goodbye to our viewers today

4515

07:48:22,468 --> 07:48:20,478

thank you for watching thanks for

4516

07:48:27,750 --> 07:48:22,478

watching

4517

07:48:27,760 --> 07:48:30,948

and

4518

07:48:34,468 --> 07:48:33,350

you know i wish i were true the hearing

4519

07:48:35,750 --> 07:48:34,478

extender

4520

07:48:38,708 --> 07:48:35,760

and locked

4521

07:48:42,548 --> 07:48:39,990

ingress

4522

07:48:47,030 --> 07:48:44,628

tomorrow it's a good config

4523

07:48:48,548 --> 07:48:47,040

and aki you can release

4524

07:48:49,990 --> 07:48:48,558

tomah's anchor hook from the forward

4525

07:49:00,250 --> 07:48:50,000

d-ring and install it on your waste

4526
07:49:14,070 --> 07:49:02,388

[Music]

4527
07:49:15,190 --> 07:49:14,080
making his way back in soon to follow

4528
07:49:21,750 --> 07:49:15,200
will be

4529
07:49:21,760 --> 07:49:34,510
okay

4530
07:49:56,628 --> 07:49:50,650
[Music]

4531
07:49:56,638 --> 07:50:00,708
happy

4532
07:50:04,628 --> 07:50:02,788
and as the astronauts enter the crew

4533
07:50:07,110 --> 07:50:04,638
lock portion of the quest airlock

4534
07:50:09,670 --> 07:50:07,120
ingress begins the end of the spacewalk

4535
07:50:11,388 --> 07:50:09,680
for the day however the spacewalk timer

4536
07:50:14,150 --> 07:50:11,398
will continue to run until

4537
07:50:15,830 --> 07:50:14,160
repressurization begins at which point

4538
07:50:17,830 --> 07:50:15,840

the clock will stop

4539

07:50:19,830 --> 07:50:17,840

once the crew lock is completely

4540

07:50:21,910 --> 07:50:19,840

repressurized the astronauts on the

4541

07:50:23,750 --> 07:50:21,920

other side of the quest airlock will

4542

07:50:25,670 --> 07:50:23,760

bring our space walkers from the crew

4543

07:50:27,750 --> 07:50:25,680

lock portion of the airlock to the

4544

07:50:29,590 --> 07:50:27,760

equipment lock and will help them doff

4545

07:50:52,070 --> 07:50:29,600

their suits and their safers will be

4546

07:50:52,080 --> 07:51:06,868

i will

4547

07:51:21,670 --> 07:51:08,700

are

4548

07:51:25,750 --> 07:51:23,750

all right

4549

07:51:49,590 --> 07:51:25,760

any copy you go to ingress you're in a

4550

07:52:15,030 --> 07:51:51,910

jaxa astronaut aki hoshide now making

4551
07:52:15,040 --> 07:52:59,750

yep

4552
07:53:04,388 --> 07:53:02,230

once hoshide is successfully inside the

4553
07:53:06,070 --> 07:53:04,398

airlock he'll work to close the hatch

4554
07:53:10,548 --> 07:53:06,080

thermal cover

4555
07:53:10,558 --> 07:53:16,510

hello hello

4556
07:53:16,520 --> 07:53:22,070

[Music]

4557
07:53:26,868 --> 07:53:24,628

closing the thermal cover

4558
07:53:28,388 --> 07:53:26,878

then reminder to release the hook from

4559
07:53:30,868 --> 07:53:28,398

the stowage tether point

4560
07:53:35,290 --> 07:53:30,878

attach it to the magnetic d-ring and

4561
07:53:47,990 --> 07:53:41,340

[Applause]

4562
07:53:48,000 --> 07:54:31,430

oh

4563
07:54:36,310 --> 07:54:33,670

this view from aki hoshide's helmet

4564

07:55:04,830 --> 07:54:36,320

camera as he works to close up the

4565

07:55:08,708 --> 07:55:06,468

okay

4566

07:55:30,468 --> 07:55:08,718

away good

4567

07:55:34,530 --> 07:55:31,430

this

4568

07:55:34,540 --> 07:55:37,750

[Music]

4569

07:55:41,830 --> 07:55:39,910

and aki that hook

4570

07:55:44,708 --> 07:55:41,840

needs to go to the

4571

07:55:46,548 --> 07:55:44,718

d-ring on the hard magnetic plate

4572

07:55:48,388 --> 07:55:46,558

instead of the

4573

07:56:41,190 --> 07:55:48,398

soft goods loop a firm

4574

07:56:41,200 --> 07:56:45,110

okay

4575

07:56:51,270 --> 07:56:46,948

all right that's the

4576
07:56:54,788 --> 07:56:52,708

copy

4577
07:57:04,708 --> 07:56:54,798

and can you verify that the magnet is

4578
07:57:10,708 --> 07:57:08,070

both of you can remove the scu from the

4579
07:57:35,590 --> 07:57:10,718

stowage pouch that i

4580
07:57:41,350 --> 07:57:37,590

and with the thermal hatch cover now

4581
07:57:44,230 --> 07:57:41,360

successfully closed pesquet and hoshide

4582
07:57:46,070 --> 07:57:44,240

will step through a couple of more

4583
07:57:48,948 --> 07:57:46,080

procedures before they get the go for

4584
07:57:52,310 --> 07:57:48,958

repressurization to begin your dcm

4585
07:57:59,720 --> 07:57:52,320

covers and velcro to your dcm

4586
07:57:59,730 --> 07:58:08,708

[Music]

4587
07:58:08,718 --> 07:58:22,490

uh

4588
07:58:22,500 --> 07:58:34,948

[Music]

4589

07:58:41,030 --> 07:58:37,750

looks like the yeah there we go and can

4590

07:58:50,388 --> 07:58:41,040

you verify how many lines are visible

4591

07:58:50,398 --> 07:58:54,310

four five

4592

07:58:59,830 --> 07:58:57,110

it's visible it's on the seventh line

4593

07:59:09,430 --> 07:58:59,840

it switched all the way down pretty much

4594

07:59:16,708 --> 07:59:11,430

that looks good aki verified that your

4595

07:59:16,718 --> 07:59:21,350

yes

4596

07:59:27,190 --> 07:59:23,510

you can take your water switch to off

4597

07:59:33,240 --> 07:59:27,200

off forward and expect the water is off

4598

07:59:33,250 --> 07:59:38,868

[Music]

4599

07:59:52,868 --> 07:59:40,708

verify the outer hatch is clear of

4600

07:59:52,878 --> 07:59:58,830

verify handle position per the hatch

4601
08:00:12,310 --> 08:00:02,868
decals and close and latch the hatch

4602
08:00:16,708 --> 08:00:14,548
one go back before closing and washing

4603
08:00:19,430 --> 08:00:16,718
the hatch closing and locking the hatch

4604
08:00:24,070 --> 08:00:19,440
we will wait two minutes

4605
08:00:27,430 --> 08:00:25,750
that's you

4606
08:00:29,430 --> 08:00:27,440
take two minutes

4607
08:00:31,430 --> 08:00:29,440
you're sorry

4608
08:00:34,388 --> 08:00:31,440
is that you right here or where is that

4609
08:00:36,948 --> 08:00:34,398
thanks me okay

4610
08:01:25,670 --> 08:00:36,958
you kick it

4611
08:01:30,468 --> 08:01:27,750
back inside the space station nasa

4612
08:01:32,868 --> 08:01:30,478
astronaut mark vande high on your left

4613
08:01:35,750 --> 08:01:32,878

and megan mcarthur on the right hand

4614

08:01:37,270 --> 08:01:35,760

side of your screen are standing by to

4615

08:01:43,910 --> 08:01:37,280

step through procedures for

4616

08:01:48,150 --> 08:01:46,070

and it looks like nasa astronaut shane

4617

08:01:49,350 --> 08:01:48,160

kimbrough just floated into the frame as

4618

08:01:51,750 --> 08:01:49,360

well

4619

08:01:57,990 --> 08:01:51,760

with two minutes having passed

4620

08:01:58,000 --> 08:02:02,948

okay copy

4621

08:02:08,628 --> 08:02:03,910

here

4622

08:02:08,638 --> 08:02:11,990

my head is touching the hatch

4623

08:02:18,948 --> 08:02:13,910

i cannot give you any room

4624

08:02:18,958 --> 08:02:24,628

bend my legs

4625

08:02:27,510 --> 08:02:26,230

if i shoot this bag i can't even know

4626
08:02:29,030 --> 08:02:27,520
it's not me

4627
08:02:32,230 --> 08:02:29,040
you know

4628
08:02:34,788 --> 08:02:32,240
sitting behind me

4629
08:02:40,070 --> 08:02:34,798
so i'm sorry something behind me yeah

4630
08:02:43,350 --> 08:02:41,590
oh yeah

4631
08:02:45,430 --> 08:02:43,360
oh no so you have to

4632
08:02:46,310 --> 08:02:45,440
like bend your left leg

4633
08:02:48,948 --> 08:02:46,320
up

4634
08:02:50,628 --> 08:02:48,958
and then okay know you can go back

4635
08:03:03,110 --> 08:02:50,638
walk

4636
08:03:03,120 --> 08:03:18,628
oh

4637
08:03:20,788 --> 08:03:19,910
my body

4638
08:03:22,788 --> 08:03:20,798

is

4639

08:03:23,670 --> 08:03:22,798

latched

4640

08:03:27,590 --> 08:03:23,680

and

4641

08:03:33,350 --> 08:03:30,230

copy the hatch is locked so we're going

4642

08:03:35,830 --> 08:03:33,360

to go to the uh go to pre-repress on the

4643

08:03:39,590 --> 08:03:35,840

depress repressed key card

4644

08:03:45,520 --> 08:03:39,600

on your dcms verify that the seu

4645

08:03:45,530 --> 08:03:49,670

[Music]

4646

08:03:56,868 --> 08:03:51,430

check that the water switch has been off

4647

08:04:03,830 --> 08:03:57,300

and

4648

08:04:03,840 --> 08:04:19,350

check that the ev hatch is closed

4649

08:04:30,388 --> 08:04:23,270

check that the on the uia oxygen emu 1

4650

08:04:30,398 --> 08:04:33,350

both open

4651
08:04:42,548 --> 08:04:37,270
switch power ev1 and 2 to switches to on

4652
08:04:49,430 --> 08:04:47,430
this is our arm led cmu is on 18.6 volts

4653
08:04:52,788 --> 08:04:49,440
on both sides

4654
08:04:55,990 --> 08:04:52,798
copy leds on and 18.6 on both

4655
08:05:02,468 --> 08:04:56,000
on your dcms switch power to scu and

4656
08:05:02,478 --> 08:05:18,868
power

4657
08:05:24,548 --> 08:05:21,350
see you

4658
08:05:26,468 --> 08:05:24,558
copy ev1 and 2 on scu

4659
08:05:29,270 --> 08:05:26,478
with that i'm going to hand you back

4660
08:05:30,708 --> 08:05:29,280
over to megan for the crewlock repress

4661
08:05:42,630 --> 08:05:30,718
but it's been a pleasure working with

4662
08:05:49,590 --> 08:05:45,350
[Applause]

4663
08:05:52,468 --> 08:05:49,600

yourself uh thanks a lot and also for

4664

08:05:54,628 --> 08:05:52,478

exactly and all the flight controllers

4665

08:05:56,150 --> 08:05:54,638

engineers and safety folks in our

4666

08:05:59,590 --> 08:05:56,160

mission control

4667

08:06:00,868 --> 08:05:59,600

as well as the csa and russia i think it

4668

08:06:03,430 --> 08:06:00,878

proves that

4669

08:06:06,788 --> 08:06:03,440

a big great partnership can do a big

4670

08:06:08,708 --> 08:06:06,798

thing and uh thanks a lot for my partner

4671

08:06:11,670 --> 08:06:08,718

tamar

4672

08:06:30,150 --> 08:06:11,680

meghan mark and shane inside

4673

08:06:30,160 --> 08:06:38,868

some thoughtful words from

4674

08:06:43,580 --> 08:06:39,590

the

4675

08:06:43,590 --> 08:06:50,388

[Music]

4676
08:06:54,468 --> 08:06:52,150
some thoughtful words from jaxa

4677
08:06:56,388 --> 08:06:54,478
astronaut aki hoshide reflecting on the

4678
08:06:58,230 --> 08:06:56,398
hard work of the ground and those who

4679
08:07:06,948 --> 08:06:58,240
help support and make this spacewalk

4680
08:07:10,230 --> 08:07:08,788
yeah absolutely

4681
08:07:12,150 --> 08:07:10,240
it's great to hear you guys you guys

4682
08:07:20,788 --> 08:07:12,160
have so much fun out there and you did a

4683
08:07:20,798 --> 08:07:34,468
yes

4684
08:07:44,020 --> 08:07:36,548
all right give your notes to actually

4685
08:07:44,030 --> 08:07:52,230
[Music]

4686
08:07:56,788 --> 08:07:53,990
you're both impressed aki please check

4687
08:07:59,990 --> 08:07:56,798
evie hatch mfeb is closed

4688
08:08:23,190 --> 08:08:00,000

closed don't know if it becomes

4689

08:08:26,868 --> 08:08:25,350

and aki you said the ev hatch mpeg is

4690

08:08:29,270 --> 08:08:26,878

closed so i'm going to throttle the

4691

08:08:32,230 --> 08:08:29,280

hatch equalization valve let me know if

4692

08:08:36,628 --> 08:08:32,240

uh you need me to stop or slow down okay

4693

08:08:51,030 --> 08:08:38,468

okay i will watch for the hand signal

4694

08:08:59,110 --> 08:08:53,750

now standing by for repressurization to

4695

08:09:04,948 --> 08:09:01,830

somebody you're the record holder now

4696

08:09:06,070 --> 08:09:04,958

uh because you were short like a couple

4697

08:09:12,788 --> 08:09:06,080

actually of minutes

4698

08:10:03,990 --> 08:09:13,590

well

4699

08:10:08,388 --> 08:10:06,468

and with repressurization having begun

4700

08:10:10,388 --> 08:10:08,398

our spacewalk clock for the day has

4701
08:10:16,548 --> 08:10:10,398
ended

4702
08:11:02,388 --> 08:10:16,558
central time the elapsed time for this

4703
08:11:12,150 --> 08:11:04,628
again tomorrow you can expect an alert

4704
08:11:16,788 --> 08:11:14,548
now over three pounds per square inch of

4705
08:11:18,628 --> 08:11:16,798
pressure inside of the crew lock

4706
08:11:20,468 --> 08:11:18,638
just like earlier this morning during

4707
08:11:22,788 --> 08:11:20,478
depress there will be a pause at five

4708
08:11:24,788 --> 08:11:22,798
pounds per square inch so the astronauts

4709
08:11:49,270 --> 08:11:24,798
can conduct another leak check on their

4710
08:11:53,350 --> 08:11:51,270
and in the equipment lock portion of the

4711
08:11:55,990 --> 08:11:53,360
airlock you see nasa astronauts mark

4712
08:11:58,468 --> 08:11:56,000
vanda high and megan macarthur who will

4713
08:12:00,788 --> 08:11:58,478

help our spacewalkers doff or take off

4714

08:12:02,708 --> 08:12:00,798

their spacesuits once they bring them in

4715

08:12:03,750 --> 08:12:02,718

from the other side of the hatch after

4716

08:12:14,310 --> 08:12:03,760

repress

4717

08:12:17,990 --> 08:12:16,310

hey guys we're at 5.0 i've taken the

4718

08:12:20,230 --> 08:12:18,000

hatch equalization valve off we're going

4719

08:12:26,240 --> 08:12:20,240

to stabilize here for two minutes and do

4720

08:12:45,270 --> 08:12:37,440

[Music]

4721

08:13:03,590 --> 08:12:47,910

but i wanted to secure it

4722

08:13:09,190 --> 08:13:05,510

you know

4723

08:13:09,200 --> 08:13:12,868

i think i got a few good ones for

4724

08:13:19,030 --> 08:13:16,070

so high victory yeah

4725

08:13:20,468 --> 08:13:19,040

i'm an issue

4726

08:13:22,628 --> 08:13:20,478

i don't want to

4727

08:13:24,868 --> 08:13:22,638

do my picture guy but like the lights

4728

08:13:26,230 --> 08:13:24,878

actually have the light comes

4729

08:13:28,628 --> 08:13:26,240

on the side

4730

08:13:30,388 --> 08:13:28,638

to see your face yeah

4731

08:13:31,590 --> 08:13:30,398

and then if it's too if it's coming from

4732

08:13:32,708 --> 08:13:31,600

behind you then you're going to be

4733

08:13:36,070 --> 08:13:32,718

completely

4734

08:13:39,190 --> 08:13:36,080

underexposed yeah it's really luck yeah

4735

08:13:40,868 --> 08:13:39,200

get a good shot that every

4736

08:13:42,788 --> 08:13:40,878

i mean like

4737

08:13:46,388 --> 08:13:42,798

you can't you know you can't see that

4738

08:13:48,948 --> 08:13:46,398

through that eye piece really well so

4739

08:14:26,310 --> 08:13:48,958

like take a couple pictures and go for

4740

08:14:30,388 --> 08:14:28,468

now five pounds of

4741

08:14:35,830 --> 08:14:30,398

pressure per square inch inside the crew

4742

08:15:15,510 --> 08:14:38,708

re press pausing for a couple of leak

4743

08:15:19,830 --> 08:15:17,670

and with the successful completion of

4744

08:15:23,190 --> 08:15:19,840

today's spacewalk let's go over some

4745

08:15:28,548 --> 08:15:26,308

this was the 244th spacewalk in support

4746

08:15:30,070 --> 08:15:28,558

of space station assembly maintenance

4747

08:15:32,070 --> 08:15:30,080

and upgrades

4748

08:15:34,230 --> 08:15:32,080

the 12th spacewalk out of the space

4749

08:15:38,070 --> 08:15:34,240

station this year and the 7th during

4750

08:15:42,308 --> 08:15:40,308

was the fourth spacewalk of hoshide's

4751
08:15:45,910 --> 08:15:42,318
career bringing his total spacewalking

4752
08:15:48,628 --> 08:15:45,920
time to 28 hours and 17 minutes

4753
08:15:51,670 --> 08:15:48,638
and this was the sixth spacewalk for

4754
08:15:55,430 --> 08:15:51,680
pesquet bringing his total time to 39

4755
08:15:55,440 --> 08:16:04,830
today's spacewalk lasted 6 hours and 54

4756
08:16:21,590 --> 08:16:08,788
minutes special for youtube

4757
08:16:27,388 --> 08:16:23,910
the total amount of space walking time

4758
08:16:31,830 --> 08:16:27,398
has taken place on the space station is

4759
08:16:35,670 --> 08:16:31,840
1541 hours which is the equivalent of 64

4760
08:16:39,030 --> 08:16:35,680
days 5 hours and 54 minutes

4761
08:16:41,030 --> 08:16:39,040
the ed1 and ev2 o2 actuator is iv i'm

4762
08:16:43,430 --> 08:16:41,040
going to take the hatch equalization

4763
08:16:45,590 --> 08:16:43,440

valve back to throttle between off and

4764

08:17:03,990 --> 08:16:45,600

norm and we'll get you back in all right

4765

08:17:10,150 --> 08:17:07,350

today's six hour and 54 minute spacewalk

4766

08:17:13,750 --> 08:17:10,160

was a smashing success in which

4767

08:17:15,990 --> 08:17:13,760

astronauts hoshide jax astronaut hoshide

4768

08:17:17,830 --> 08:17:16,000

and issa astronaut thomas pesquet

4769

08:17:20,788 --> 08:17:17,840

successfully built and installed a

4770

08:17:22,468 --> 08:17:20,798

mounting bracket on the 4a power channel

4771

08:17:25,030 --> 08:17:22,478

this is in preparation for the next

4772

08:17:26,468 --> 08:17:25,040

delivery of iss rollout solar arrays or

4773

08:17:28,468 --> 08:17:26,478

iroses

4774

08:17:30,308 --> 08:17:28,478

additionally the crew successfully

4775

08:17:33,190 --> 08:17:30,318

removed and replaced the floating

4776
08:17:34,708 --> 08:17:33,200
potential measurement unit or fpmu

4777
08:17:37,190 --> 08:17:34,718
ensuring the device can provide

4778
08:17:39,910 --> 08:17:37,200
measurements for years to come

4779
08:17:42,150 --> 08:17:39,920
jaxa astronaut aki hoshide also was able

4780
08:17:45,830 --> 08:17:42,160
to complete one get ahead task in which

4781
08:18:05,868 --> 08:17:45,840
he removed and replaced a pip pin and on

4782
08:18:10,948 --> 08:18:08,628
repressurization continuing nominally

4783
08:18:28,948 --> 08:18:10,958
now at about seven pounds per square

4784
08:18:33,670 --> 08:18:31,030
once the pressure reaches about fourteen

4785
08:18:35,510 --> 08:18:33,680
point six pounds per square inch nasa

4786
08:18:37,350 --> 08:18:35,520
astronauts megan macarthur and mark

4787
08:18:39,750 --> 08:18:37,360
vande high who you see on your screen

4788
08:18:42,150 --> 08:18:39,760

here will work to open the hatch of the

4789

08:18:44,308 --> 08:18:42,160

quest airlock and bring the space

4790

08:18:51,030 --> 08:18:44,318

walkers from the crew lock to the

4791

08:19:07,990 --> 08:18:52,708

following this they'll help them take

4792

08:19:19,670 --> 08:19:10,308

the safers are the simplified aid for

4793

08:19:24,308 --> 08:19:22,548

once the safers are removed hoshide and

4794

08:19:25,990 --> 08:19:24,318

pesquet will be given the go to remove

4795

08:19:42,070 --> 08:19:26,000

their helmets and that will wrap up our

4796

08:19:42,080 --> 08:19:58,308

uh

4797

08:20:04,230 --> 08:20:01,510

again a very successful space walk today

4798

08:20:08,230 --> 08:20:04,240

all tasks were completed as planned and

4799

08:20:10,230 --> 08:20:08,240

one get-ahead task was also completed

4800

08:20:12,070 --> 08:20:10,240

this was the first spacewalk involving

4801
08:20:15,190 --> 08:20:12,080
two international partner crew members

4802
08:20:17,030 --> 08:20:15,200
out of the quest airlock and the 244th

4803
08:20:38,388 --> 08:20:17,040
in support of space station assembly

4804
08:20:38,398 --> 08:22:02,868
uh

4805
08:22:29,910 --> 08:22:05,910
now approaching 13.5 pounds per square

4806
08:22:33,430 --> 08:22:31,590
tomorrow we're getting pretty close to

4807
08:22:57,190 --> 08:22:33,440
equalize you can expect another alert

4808
08:22:57,200 --> 08:23:33,510
uh

4809
08:23:33,520 --> 08:23:58,628
wow

4810
08:24:56,308 --> 08:24:00,548
pressure almost equalized between the

4811
08:24:56,318 --> 08:25:09,910
okay guys here comes the hatch

4812
08:25:09,920 --> 08:25:13,990
pictures

4813
08:25:18,150 --> 08:25:15,750

pressure now equalized between the

4814

08:25:20,070 --> 08:25:18,160

equipment lock and the crew airlock nasa

4815

08:25:38,540 --> 08:25:20,080

astronaut megan macarthur will work to

4816

08:25:41,990 --> 08:25:39,750

[Applause]

4817

08:25:44,548 --> 08:25:42,000

once the hatch is open she'll help bring

4818

08:25:47,430 --> 08:25:44,558

in european space agency astronaut toma

4819

08:25:49,350 --> 08:25:47,440

pesquet and japan aerospace exploration

4820

08:25:56,150 --> 08:25:49,360

agency astronaut and current space

4821

08:26:00,628 --> 08:25:58,468

macarthur hoshide and pesquet all

4822

08:26:03,350 --> 08:26:00,638

arrived together to the space station in

4823

08:26:30,548 --> 08:26:03,360

april on board the spacex crew dragon

4824

08:26:35,190 --> 08:26:33,110

macarthur bringing in the failed fpmu or

4825

08:26:38,308 --> 08:26:35,200

floating potential measurement unit that

4826
08:26:41,030 --> 08:26:38,318
was successfully removed and swapped out

4827
08:27:10,948 --> 08:26:41,040
for the new fpmu during today's 6-hour

4828
08:27:42,628 --> 08:27:13,350
and floating in first is european space

4829
08:27:48,548 --> 08:27:45,030
big smiles from tomah after a very

4830
08:27:50,548 --> 08:27:48,558
successful spacewalk today

4831
08:27:52,548 --> 08:27:50,558
airlock houston step four com

4832
08:27:55,110 --> 08:27:52,558
reconfiguration is complete the ev crew

4833
08:27:59,350 --> 08:27:55,120
is no longer hike and the steps six and

4834
08:27:59,360 --> 08:28:29,750
we no longer hot mike thank you

4835
08:28:36,468 --> 08:28:31,590
and houston airlock can you confirm you

4836
08:28:36,478 --> 08:29:35,190
good read back megan not required

4837
08:30:19,430 --> 08:29:37,910
and tomah pasquez safer has been

4838
08:30:23,750 --> 08:30:21,270

next up to come in from the quest

4839

08:31:09,750 --> 08:30:23,760

airlock will be jaxa astronaut aki

4840

08:31:15,270 --> 08:31:13,030

being assisted into the airlock

4841

08:31:19,910 --> 08:31:15,280

by his crewmates nasa astronaut mark

4842

08:31:31,590 --> 08:31:21,510

they're going to help him remove his

4843

08:31:36,468 --> 08:31:34,070

during today's very successful 6-hour

4844

08:31:39,030 --> 08:31:36,478

and 54-minute spacewalk

4845

08:31:40,868 --> 08:31:39,040

hoshide and pesquet successfully built

4846

08:31:43,510 --> 08:31:40,878

and installed a mounting bracket on the

4847

08:31:46,150 --> 08:31:43,520

4a power channel in preparation for the

4848

08:31:48,308 --> 08:31:46,160

next delivery of iss roll out solar

4849

08:31:50,308 --> 08:31:48,318

arrays for iroses

4850

08:31:51,910 --> 08:31:50,318

additionally they also removed and

4851
08:31:55,190 --> 08:31:51,920
replaced the floating potential

4852
08:31:58,150 --> 08:31:55,200
measurement unit or fpmu and performed a

4853
08:33:32,308 --> 08:31:58,160
get ahead task to remove and replace a

4854
08:33:37,110 --> 08:33:35,350
today's spacewalk was the 244th in

4855
08:33:39,830 --> 08:33:37,120
support of space station assembly

4856
08:33:42,388 --> 08:33:39,840
maintenance and upgrades

4857
08:33:43,830 --> 08:33:42,398
it was the seventh spacewalk out of the

4858
08:33:47,990 --> 08:33:43,840
iss

4859
08:33:51,270 --> 08:33:48,000
this year and the seventh spacewalk for

4860
08:33:53,990 --> 08:33:51,280
expedition 65.

4861
08:33:54,868 --> 08:33:54,000
this was the fourth spacewalk of

4862
08:33:56,708 --> 08:33:54,878
aki

4863
08:33:59,430 --> 08:33:56,718

hoshide's career and his total

4864

08:34:01,430 --> 08:33:59,440

spacewalking time now totals 28 hours

4865

08:34:03,430 --> 08:34:01,440

and 17 minutes

4866

08:34:05,990 --> 08:34:03,440

it was the sixth spacewalk of tomorrow

4867

08:34:09,830 --> 08:34:06,000

pesquet's career he now has a total of

4868

08:34:12,708 --> 08:34:09,840

39 hours 54 minutes of spacewalking time

4869

08:34:15,670 --> 08:34:12,718

and today's spacewalk lasted six hours

4870

08:34:19,270 --> 08:34:15,680

54 minutes in which all scheduled tasks

4871

08:34:22,150 --> 08:34:19,280

and one get-ahead task work completed

4872

08:34:23,110 --> 08:34:22,160

the total time of spacewalking time on

4873

08:34:43,030 --> 08:34:23,120

station

4874

08:34:48,708 --> 08:34:46,070

nasa astronauts mark vanda high and

4875

08:34:50,388 --> 08:34:48,718

megan mcarthur working to wrangle some

4876
08:35:46,948 --> 08:34:50,398
of the equipment used during today's

4877
08:35:52,150 --> 08:35:50,230
again during today's six hour and 54

4878
08:35:54,468 --> 08:35:52,160
minutes spacewalk

4879
08:35:57,750 --> 08:35:54,478
jaxa astronaut and current space station

4880
08:36:00,548 --> 08:35:57,760
commander aki hoshide and issa astronaut

4881
08:36:02,868 --> 08:36:00,558
pesquet completed tasks to build and

4882
08:36:04,070 --> 08:36:02,878
install a mounting bracket on the 4a

4883
08:36:06,388 --> 08:36:04,080
power channel

4884
08:36:09,990 --> 08:36:06,398
in preparation for the next delivery of

4885
08:36:11,830 --> 08:36:10,000
iss rollout solar arrays or iroses

4886
08:36:13,590 --> 08:36:11,840
additionally the space walking duo

4887
08:36:17,270 --> 08:36:13,600
removed and replaced the floating

4888
08:36:19,830 --> 08:36:17,280

potential measurement unit or fpmu

4889

08:36:21,910 --> 08:36:19,840

and aki hoshide was able to complete one

4890

08:36:24,948 --> 08:36:21,920

get ahead task in which he removed and

4891

08:37:02,788 --> 08:36:24,958

replaced a pip pin in the airlock on the

4892

08:37:06,150 --> 08:37:04,388

an air like you said on one mark when

4893

08:37:14,788 --> 08:37:06,160

you get a chance can you um tell me if

4894

08:37:18,468 --> 08:37:16,308

okay yeah just a quick check for any

4895

08:37:24,628 --> 08:37:18,478

visual damage but other than that we'll

4896

08:37:29,270 --> 08:37:26,708

nasa astronaut mark vanda high has

4897

08:37:50,708 --> 08:37:29,280

removed jaxa astronaut aki heshides

4898

08:37:56,070 --> 08:37:53,350

meanwhile nasa astronaut megan macarthur

4899

08:39:22,548 --> 08:37:56,080

working on toma pesquez helmet camera

4900

08:39:33,350 --> 08:39:24,548

nasa astronaut mark vanda high now

4901
08:39:38,230 --> 08:39:36,230
once pishgah's helmet camera is removed

4902
08:39:47,030 --> 08:39:38,240
macarthur will work to remove his gloves

4903
08:39:51,190 --> 08:39:49,190
also in the airlock floating in the

4904
08:41:41,350 --> 08:39:51,200
front of the screen is nasa astronaut

4905
08:42:03,030 --> 08:41:43,990
both gloves off for our space walking

4906
08:42:06,708 --> 08:42:04,868
you see them stretching out their hands

4907
08:42:08,868 --> 08:42:06,718
their hands really put in overtime

4908
08:42:11,590 --> 08:42:08,878
during today's spacewalk as that is how

4909
08:42:14,308 --> 08:42:11,600
they moved and translate installed and

4910
08:43:01,190 --> 08:42:14,318
removed pieces and utilized the pistol

4911
08:43:06,150 --> 08:43:04,230
during today's six hour and 54 minutes

4912
08:43:08,548 --> 08:43:06,160
spacewalk jaxa astronaut and current

4913
08:43:11,350 --> 08:43:08,558

space station commander aki hoshide and

4914

08:43:14,468 --> 08:43:11,360

european space agency astronaut thomas

4915

08:43:16,628 --> 08:43:14,478

pesquet successfully completed tasks to

4916

08:43:19,270 --> 08:43:16,638

build and install a mounting bracket on

4917

08:43:21,750 --> 08:43:19,280

the 4a power channel in preparation for

4918

08:43:23,750 --> 08:43:21,760

the next delivery of iss rollout solar

4919

08:43:25,750 --> 08:43:23,760

rays or iroses

4920

08:43:27,750 --> 08:43:25,760

additionally they removed and replaced

4921

08:43:30,708 --> 08:43:27,760

the floating potential measurement unit

4922

08:43:33,590 --> 08:43:30,718

or fpmu ensuring the device can provide

4923

08:43:36,150 --> 08:43:33,600

measurements for years to come

4924

08:43:39,030 --> 08:43:36,160

hoshide completed a get ahead task as

4925

08:43:40,150 --> 08:43:39,040

well in which he removed and replaced a

4926

08:43:43,670 --> 08:43:40,160

pip pin

4927

08:43:48,468 --> 08:43:45,750

all tasks were completed today as

4928

08:43:50,708 --> 08:43:48,478

planned during the 6 hour and 54 minutes

4929

08:43:54,628 --> 08:43:50,718

spacewalk

4930

08:43:56,868 --> 08:43:54,638

that will conclude our coverage for

4931

08:44:09,230 --> 08:43:56,878

today thanks for watching signing off