

DHUnx Installation Instructions

Model Name: **DHUnx**



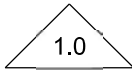
Picture showing the Toyota DHUnx unit to the left. Connected with a four-port mini-fakra to the Molex antenna to the right.

DHUnx is a telematic node, intended to be mounted into a Toyota forklift. It is always stationary installed in a forklift where it has several wired connections e.g., power, can buses etc.

It also communicates wireless with LTE, WiFi and Bluetooth technology. It has an externa antenna connected.

Following Pages

The following pages shows a typical forklift installation of the DHUnx and antenna. These pages shall be seen as one example of a forklift installation. More forklift variants exist, but the use is the same and the installation is similar.



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REVISION HISTORY

Date	Revision Notes	PIC	Approved	Revision
11/16/2021	Initial			

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H1T DHU and Antenna Installation

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H1T DHU and Antenna Installation Instructions**1. Purpose**

This document describes the H1T DHU and antenna installation performed on the G861 truck model.

2. Scope

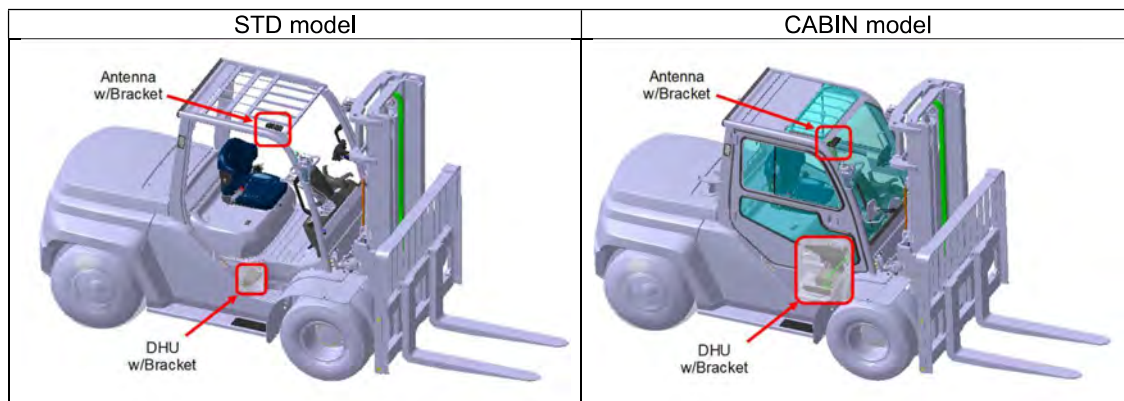
This document applies to H1T DHU and antenna installation used by TOYOTA Material Handling (TMH).

IMPORTANT: These installation instructions are for G861 models only. Installation instructions for other forklift truck models may be similar.

3. Installation Instructions

WARNING! Wear safety glasses, safety shoes and gloves at all times. Failure to do so may result in serious injury or death.

WARNING! Watch hand placement for pinch points. Failure to do so may result in serious injury.

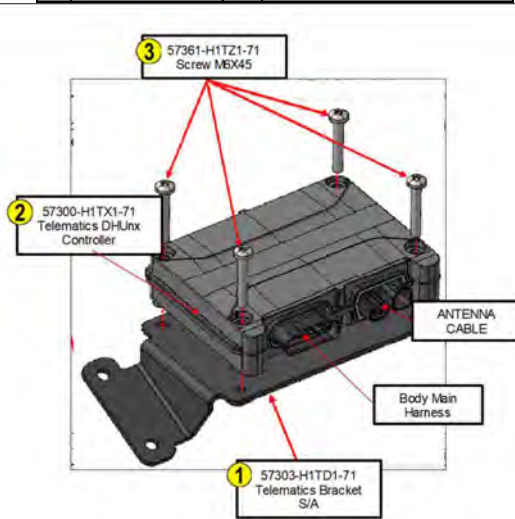
3.1 Antenna and DHU Installation Location Overview

H1T DHU and Antenna Installation**Model: G861****NPD****3.2 Sub Assembly DHU Controller Installation**

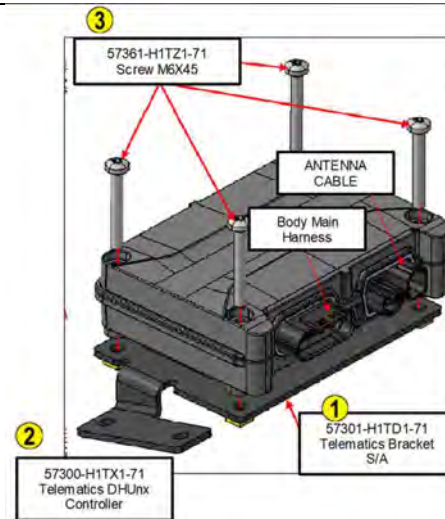
3.2.1 Set the controller onto the bracket as shown in the illustrations below. Align the controller holes to the bracket holes and hand start the screws, then tighten.

Sub Assembly DHU Controller (P35-80, C0-70)

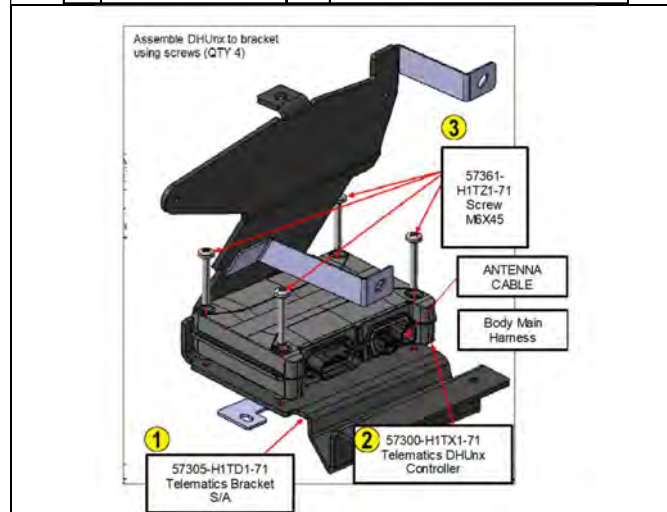
No	Part No.	Qty	Part Description
1	57303-H1TD1-71	1	Telematics Bracket S/A
2	57300-H1TX1-71	1	Telematics DHUnx Controller
3	57361-H1TZ1-71	4	Screw M6X45

**Sub Assembly DHU Controller (C35-55)**

No	Part No.	Qty	Part Description
1	57301-H1TD1-71	1	Telematics Bracket S/A
2	57300-H1TX1-71	1	Telematics DHUnx Controller
3	57361-H1TZ1-71	4	Screw M6X45

**Sub Assembly DHU Controller (CABIN only)**

No	Part No.	Qty	Part Description
1	57305-H1TD1-71	1	Telematics Bracket S/A
2	57300-H1TX1-71	1	Telematics DHUnx Controller
3	57361-H1TZ1-71	4	Screw M6X45

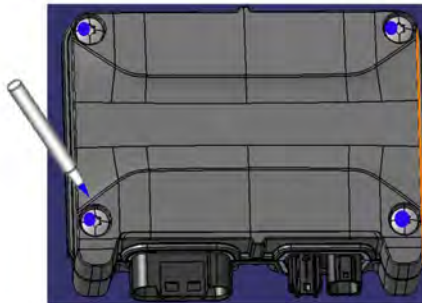


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CAUTION! Do not handle controller assembly roughly or drop it. If the controller is handles roughly or dropped, it will need to be replaced due to damage and functioning issues.

3.2.2 Use the electric impact to tighten the screws to TT = 4.5 Nm C.

3.2.3 Use the paint marker to paint mark the screws to verify that they have been tightened and are not loose.



3.3 DHU Controller Assembly Installation and Cables Connection

3.3.1 Install the controller assembly with the bracket to the right hand (RH) side frame below the oil tank cover.

Sub Assembly DHU Controller (P35-80, C0-70)				Sub Assembly DHU Controller (C35-55)			
No	Part No.	Qty	Part Description	No	Part No.	Qty	Part Description
1	91551-80812	3	Flange Bolt	1	91551-80812	3	Flange Bolt
2	90465-U2001-71	1	Band	2	90465-U2001-71	1	Band

Install DHUnx assembly to RH side frame using bolts (QTY 3)

Install DHUnx assembly to RH side frame using bolts (QTY 3)

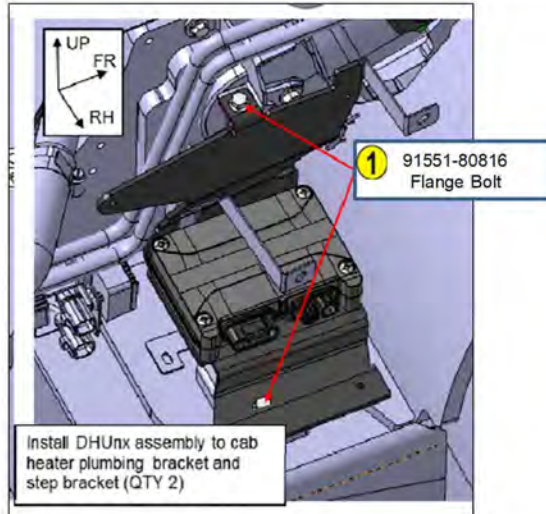
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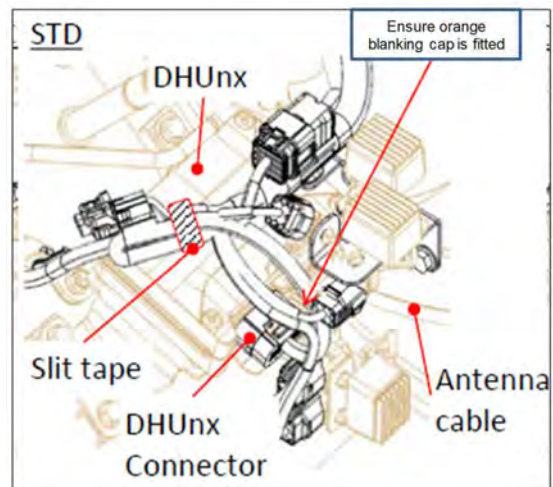
NPD

Sub Assembly DHU Controller (CABIN model only)

No	Part No.	Qty	Part Description
1	91551-80816	3	Flange Bolt
2	90465-U2001-71	1	Band

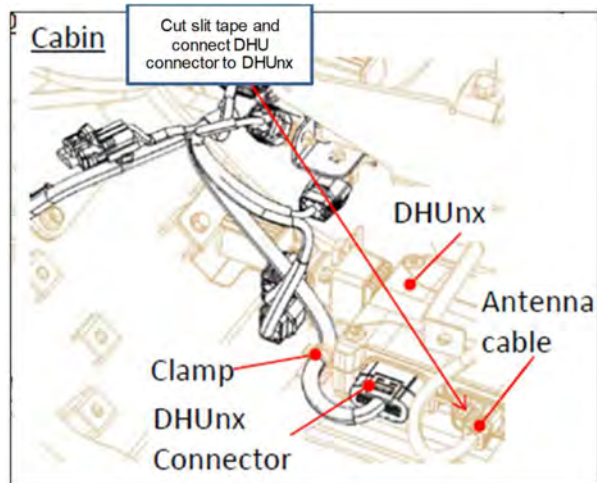


- 3.3.2 For Standard (STD) models, do not cut the slit tape. Connect the antenna cable to the smaller port and DHUx connector the larger port as shown in illustration below.

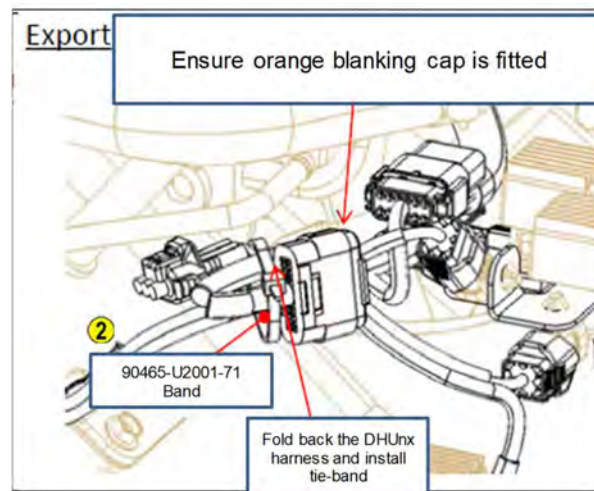


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- 3.3.3 For CABIN models, cut the slit tape and press in the antenna connector to the smaller port and the DHUx Connector to the larger port shown in illustration below.



- 3.3.4 For Export models, attach the cap to the DHUx connector as shown below. Fold back the DHUx cable and attach the band around it. Remove the excess tab from the band.

**3.4 Antenna Installation**

WARNING! This device is approved for use in a mobile rf exposure environment. A minimum separation distance of 20 cm must be maintained between the antenna and nearby persons.

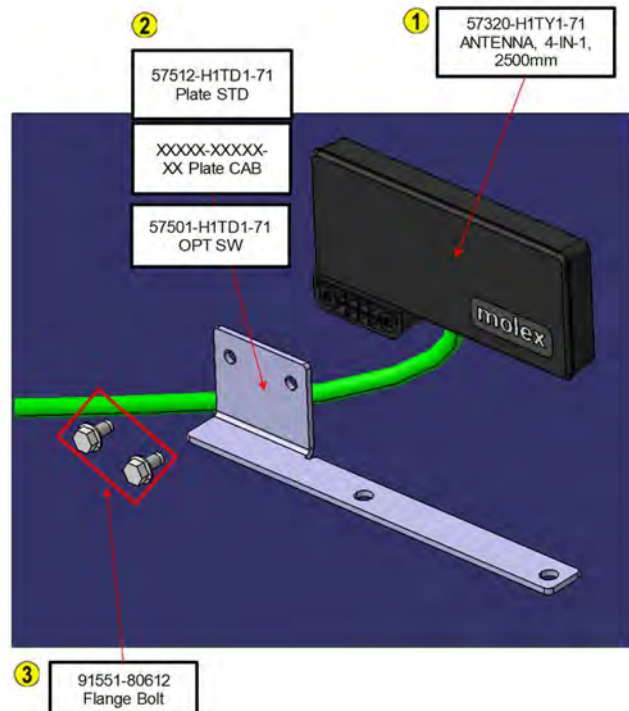
No	Part No.	Qty	Part Description
1	57320-H1TY1-71	1	ANTENNA, 4-IN-1, 2500mm
2	57512-H1TD1-71	1	Plate STD
3	XXXXX-XXXXX-XX	1	Plate CAB
4	57501-H1TD1-71	1	OPTION SWITCH
5	91551-80612	2	Flange Bolt

H1T DHU and Antenna Installation

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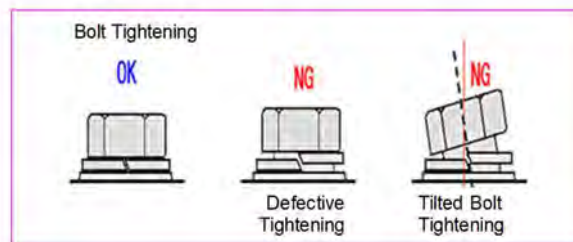
NPD

- 3.4.1 Install the antenna cable assembly to the bracket as shown below.
- 3.4.2 Set the bracket with the bolt holes to the lower portion of the cable assembly. Hand start the bolts, then tighten.



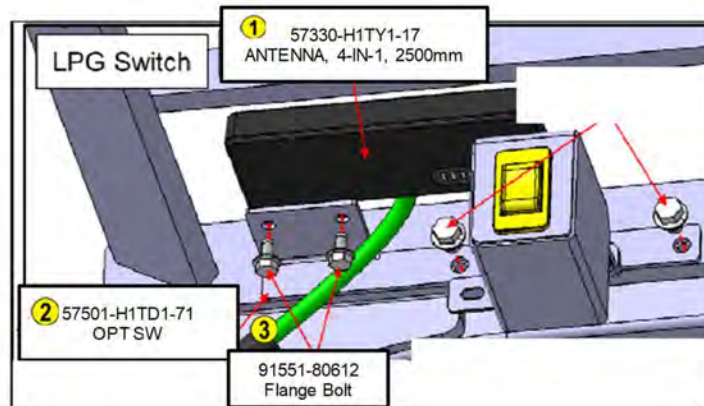
CAUTION! Do not handle the cable assembly roughly or drop it. If the cable assembly is dropped, it will need to be replaced due to damage and functioning issues.

- 3.4.3 Use the electric impact to tighten the screws to TT = 2.5 Nm B 2.0 ~ 3.0 Nm. Make sure the bolts are tight and flush.



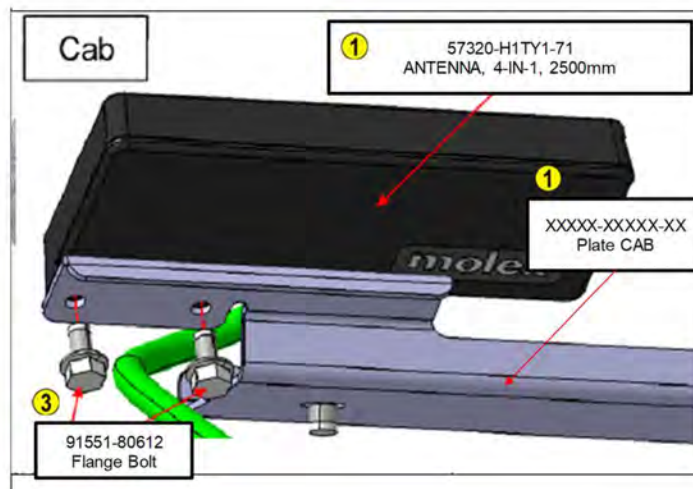
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- 3.4.4 For STD models, set the bracket with the bolt holes to the lower portion of the cable assembly as shown below. Hand start the bolts, then tighten.



NOTE: Illustration shown above shows the switch available as Option only.

- 3.4.5 Use the electric impact to tighten the screws to TT = 2.5 Nm B 2.0 ~ 3.0 Nm. Make sure the bolts are tight and flush.
- 3.4.6 For CABIN models, set the bracket with the bolt holes to the lower portion of the cable assembly as shown below.

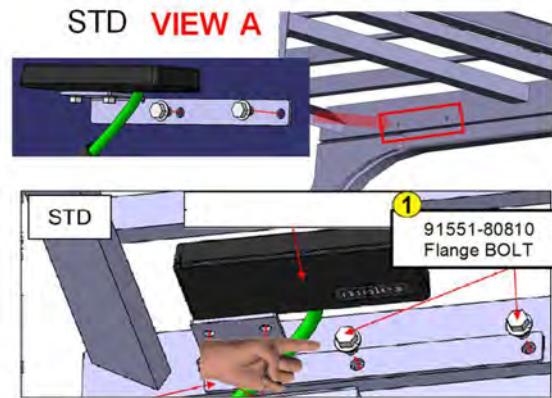


- 3.4.7 Use the electric impact to tighten the screws to TT = 2.5 Nm B 2.0 ~ 3.0 Nm. Make sure the bolts are tight and flush.

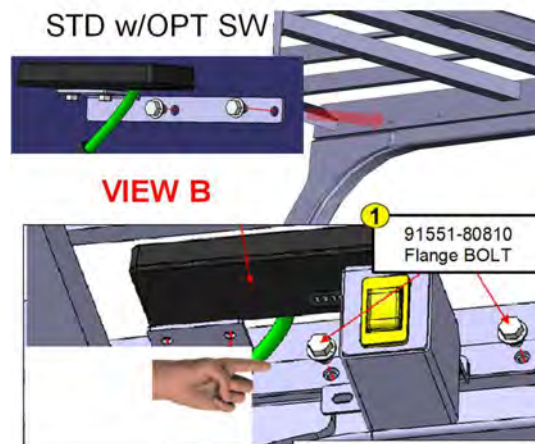
H1T DHU and Antenna Installation**Model: G861****NPD****3.5 Antenna with Bracket Installation**

No	Part No.	Qty	Part Description
1	91551-80810	2	Flange Bolt

- 3.5.1 For STD models, align the holes of the bracket to the holes of the overhead guard. Hand start the bolts, then tighten.



- 3.5.2 For models equipped with Option Switch, align the holes of the bracket to the holes of the overhead guard. Then align the holes of the tab on the Option Switch to the first holes, hand start bolts, then tighten.



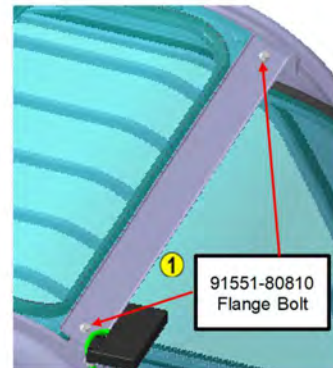
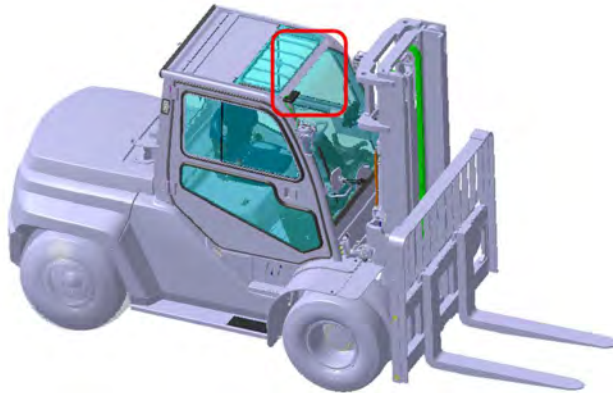
NOTE: Make sure the Option Switch is straight and bolts are tight and flush.

- 3.5.3 Use the electric impact to tighten the bolts to TT = 35 Nm C 30.0 ~ 40 Nm. Make sure the bolts are tight and flush. Be careful not to damage the paint on the overhead guard.

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3.5.4 For CABIN models, install the antenna assembly to the upper windshield bracket.

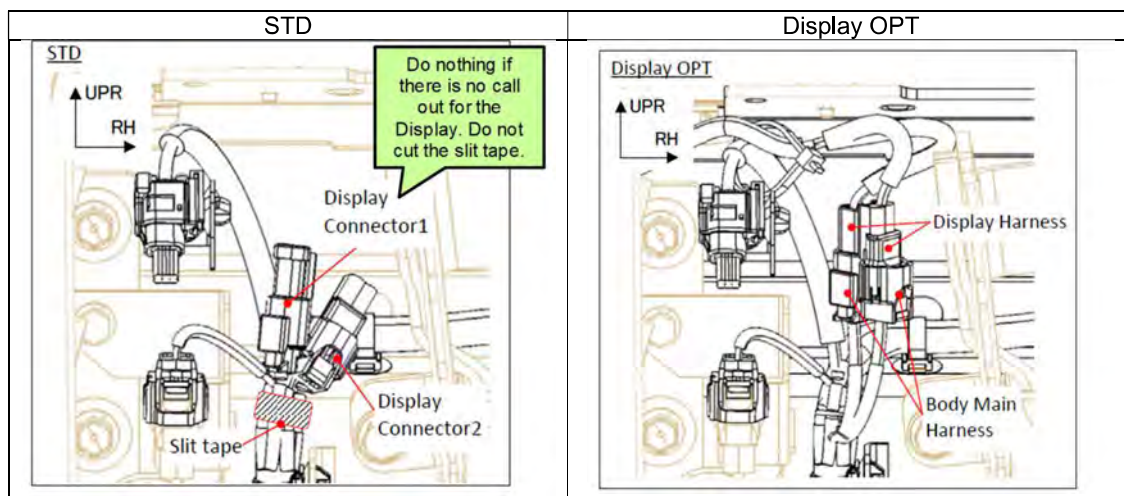
No	Part No.	Qty	Part Description
1	91551-80810	2	Flange Bolt



3.6 Main Body Harness and Display Harness Connection

NOTE: Check the Spec Sheet for the Display Option. No changes are necessary if there is no Display Option installed. Do not cut the slit tape.

NOTE: If there is the Display Option installed, cut the slit tape and snap in connector body main harness and display harness.



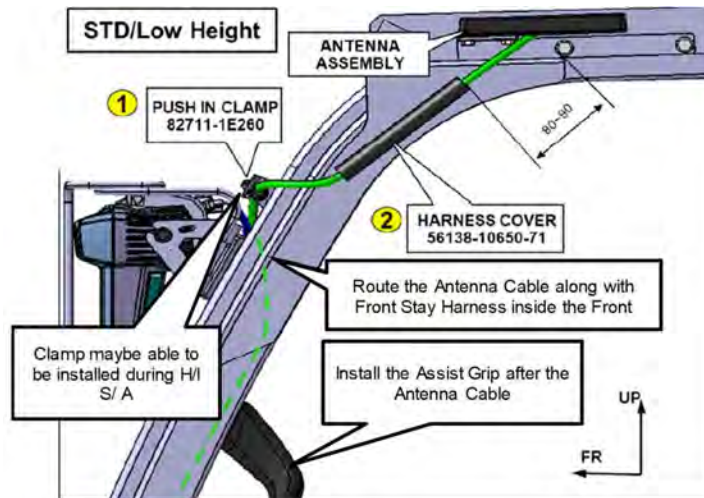
3.7 Antenna Cable Installation

3.7.1 Install the antenna cable to the inner LH (left hand) overhead guard.

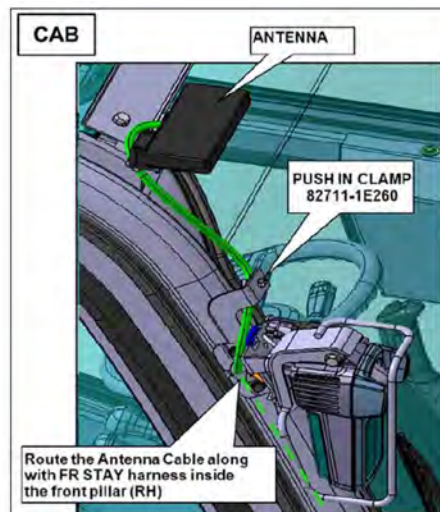
No	Part No.	Qty	Part Description
1	91551-80810	1	Flange Bolt
2	56138-10650-71	1	Harness Cover

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- 3.7.2 For STD models, as shown in the illustration below remove the backing from the cover and place 80 ~ 90 mm from the bolt to the plate on the overhead guard. Close the cover around the cable and ensure it is secure.



- 3.7.3 Press Clamp into Head Lamp Bracket with the opening of the Clamp facing up, then place the Cable into it. Make sure Clamp is secure in Bracket and the Cable is secure within the Clamp.
- 3.7.4 For CABIN models, route the antenna cable along with the front stay harness inside the front stay (RH).

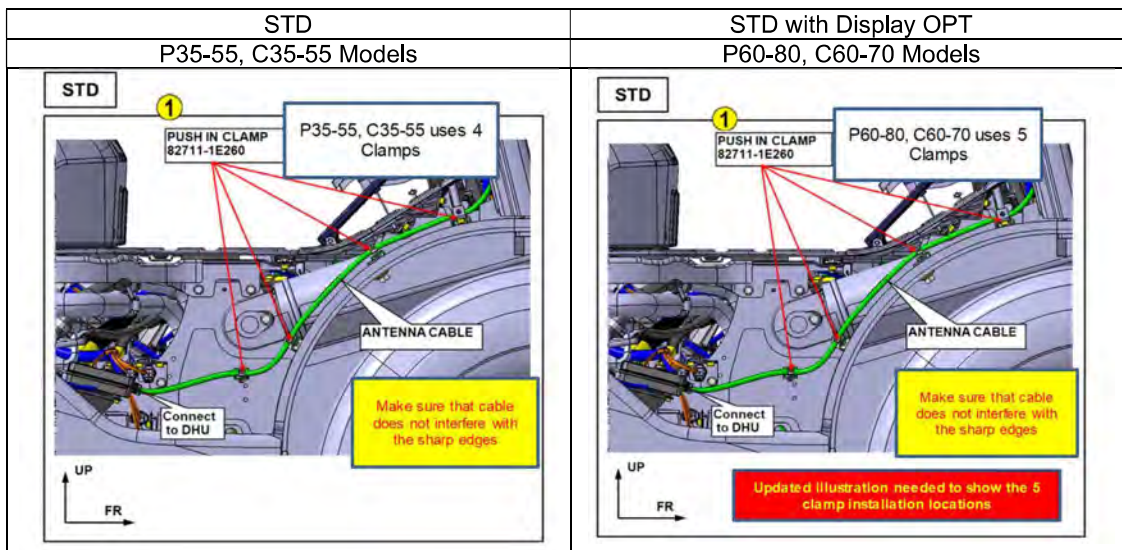


- 3.7.5 Press the clamp into head lamp bracket with the opening of the clamp facing up, then place the cable into it. Make sure clamp is secure in the bracket and the cable is secure within the clamp.

H1T DHU and Antenna Installation**Model: G861****NPD****3.8 Wiring Harness Clamps/Bands Installation and Antenna Cable Routing**

No	Part No.	Qty	Part Description
1	82711-1E260	5	Push In Clamp
2	90465-U2001-71	3	Wiper Sub Harness

- 3.8.1 For STD models, press in the clamps to the tabs on the RH (right hand) step area. Keep the opening of the clamp outward then place antenna cable into all the clamps. Make sure the clamps are secured in the tabs and that the cable is also securely installed to the clamps.



- 3.8.2 For CABIN models, secure the band at the three positions indicated. Wrap the band around the wiper sub harness and the antenna cable. Cut off the excess band. Make sure the band is secured at the locations and both the wiper wire and antenna cable are together in the band.

