2   Fit the parts into the body and lightly screw on the gland nut (do not tighten it):
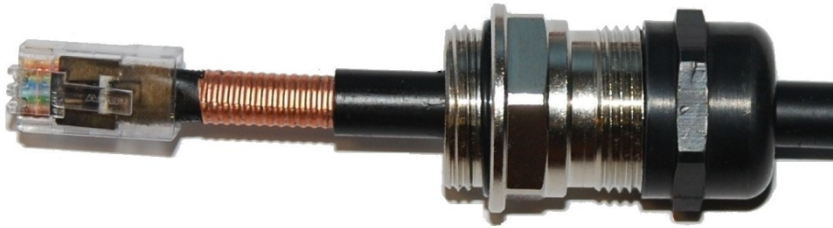

Connect the drop cable to the ODU (PSU port) and LPU

1   (a) Plug the RJ45 connector into the socket in the unit, ensuring that it snaps home.
         (b) Fit the gland body to the RJ45 port and tighten it to a torque of 5.5 Nm (4.3 lb ft):

(a)   (b)

2   (a) Fit the gland nut and tighten until the rubber seal closes on the cable. (b) Do not over-
         tighten the gland nut, as there is a risk of damage to its internal components:

(a)   (b)
                                                        Correct   Incorrect

Disconnect the drop cable from the LPU or ODU

Use this procedure if it is necessary to remove an EMC strain relief cable gland and RJ45 connector from the ODU (as illustrated) or LPU.

1 (a) Remove the gland nut. Wiggle the drop cable to release the tension of the gland body. When the tension in the gland body is released, a gap opens at the point show. Unscrew the gland body.
   (b) Use a small screwdriver to press the RJ45 locking tab, then remove the RJ45 connector.

(a)   (b)
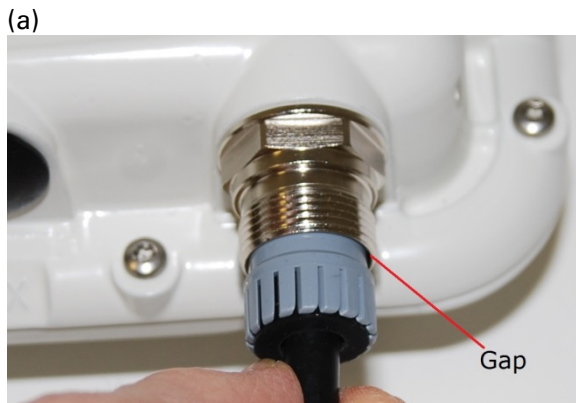
Install the main drop cable

⚠ **Warning**

The metal screen of the drop cable is very sharp and may cause personal injury.

- ALWAYS wear cut-resistant gloves (check the label to ensure they are cut resistant).
- ALWAYS wear protective eyewear.
- ALWAYS use a rotary blade tool to strip the cable (DO NOT use a bladed knife).

⚠ **Warning**

Failure to obey the following precautions may result in injury or death:

- Use the proper hoisting grip for the cable being installed. If the wrong hoisting grip is used, slippage or insufficient gripping strength will result.
- Do not reuse hoisting grips. Used grips may have lost elasticity, stretched, or become weakened. Reusing a grip can cause the cable to slip, break, or fall.
- The minimum requirement is one hoisting grip for each 60 m (200 ft) of cable.

Cut to length and fit hoisting grips

1 Cut the main drop cable to length from the top LPU to the bottom LPU.

2 Slide one or more hoisting grips onto the top end of the drop cable.

3 Secure the hoisting grip to the cable using a special tool, as recommended by the manufacturer.
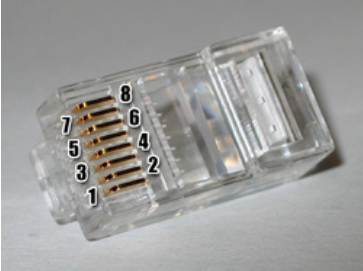
Terminate with RJ45 connectors and glands

> ⚠️ **Caution**
>
> Check that the crimp tool matches the RJ45 connector, otherwise the cable or connector may be damaged.

1   Thread the cable gland (with black cap) onto the main drop cable.

2   Strip the cable outer sheath and fit the RJ45 connector load bar.

3   Fit the RJ45 connector housing as shown. To ensure there is effective strain relief, locate the cable inner sheath under the connector housing tang. Do not tighten the gland nut:
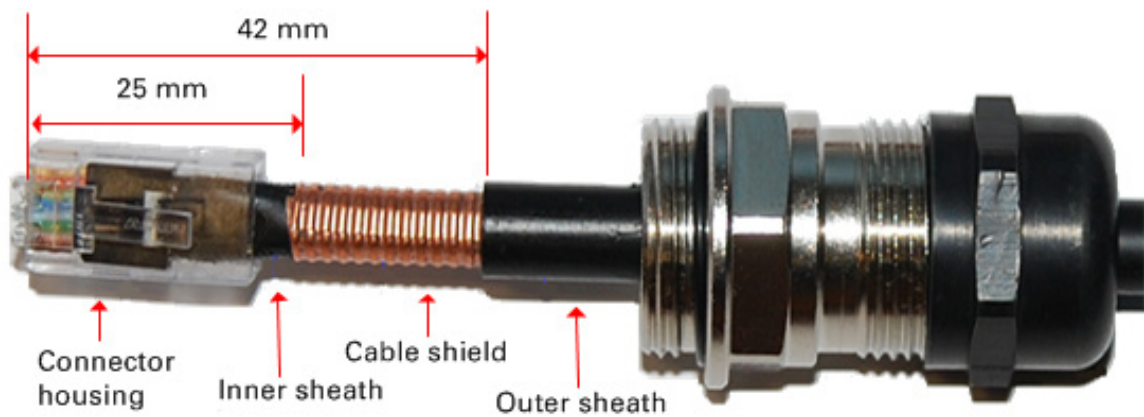
Pin	Color (Supplied cable)	Color (Conventional)	Pins on plug face
1	Light Orange	White/Orange	
2	Orange	Orange	
3	Light Green	White/Green	
4	Blue	Blue	
5	Light Blue	White/Blue	
6	Green	Green	
7	Light Brown	White/Brown	
8	Brown	Brown	

Hoist and fix the main drop cable

Warning

Failure to obey the following precautions may result in injury or death:

- Use the hoisting grip to hoist one cable only. Attempting to hoist more than one cable may cause the hoisting grip to break or the cables to fall.
- Do not use the hoisting grip for lowering cable unless the clamp is securely in place.
- Maintain tension on the hoisting grip during hoisting. Loss of tension can cause dangerous movement of the cable and result in injury or death to personnel.
- Do not release tension on the grip until after the grip handle has been fastened to the supporting structure.
- Do not apply any strain to the RJ45 connectors.

Caution

Do not lay the drop cable alongside a lightning air terminal.

1   Hoist the top end of the main drop cable up to the top LPU, following the hoist manufacturer's instructions. When the cable is in position, fasten the grip handle to the supporting structure and remove the hoist line.

2   Connect the main drop cable to the top LPU by following the procedure Connect the drop cable to the ODU (PSU port) and LPU on page 5-15.

3   Run the main drop cable to the site of the bottom LPU.

4   Attach the main drop cable to the supporting structure using site approved methods.
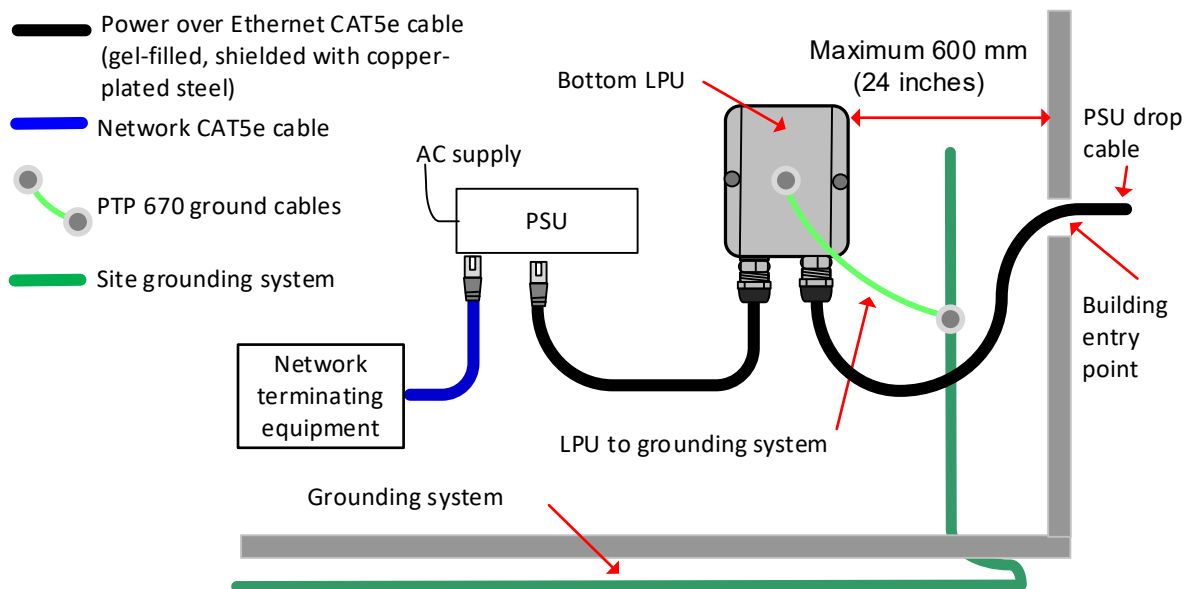
Ground the main drop cable

At all required grounding points, connect the screen of the main drop cable to the metal of the supporting structure using the cable grounding kit (Cambium part number 01010419001).
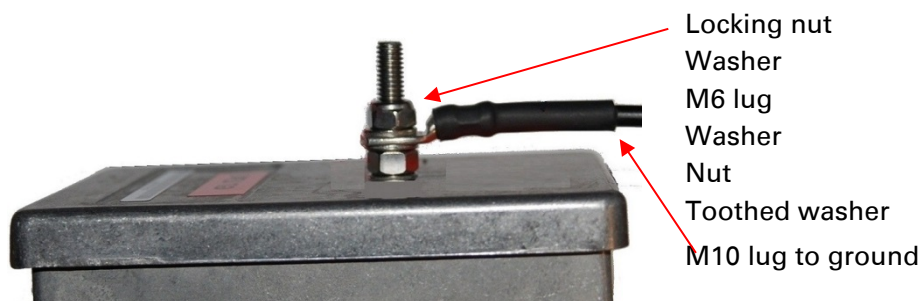
Install the bottom LPU to PSU drop cable

Install the bottom LPU

Install the bottom LPU, ground it, and connect it to the main drop cable.

1   Select a mounting point for the bottom LPU within 600 mm (24 in) of the building entry point. Mount the LPU vertically with cable glands facing downwards.

2   Connect the main drop cable to the bottom LPU by following the procedure Connect the drop cable to the ODU (PSU port) and LPU on page 5-15.

3   Fasten one ground cable to the bottom LPU using the M6 (small) lug. Tighten both nuts to a torque of 5 Nm (3.7 lb ft):

4   Select a building grounding point near the LPU bracket. Remove paint from the surface and apply anti-oxidant compound. Fasten the LPU ground cable using the M10 (large) lug.

Install the LPU to PSU drop cable

Use this procedure to terminate the bottom LPU to PSU drop cable with RJ45 connectors at both ends, and with a cable gland at the LPU end.

|	
⚠️	**Warning** The metal screen of the drop cable is very sharp and may cause personal injury. ALWAYS wear cut-resistant gloves (check the label to ensure they are cut resistant). ALWAYS wear protective eyewear. ALWAYS use a rotary blade tool to strip the cable, not a bladed knife.
⚠️	**Caution** Check that the crimp tool matches the RJ45 connector, otherwise the cable or connector may be damaged.

1 Cut the drop cable to the length required from bottom LPU to PSU.

2 **At the LPU end only:**

- Fit one cable gland and one RJ45 connector by following the procedure Terminate with RJ45 connectors and glands on page 5-17.

- Connect this cable and gland to the bottom LPU by following the procedure Connect the drop cable to the ODU (PSU port) and LPU on page 5-15.

4 **At the PSU end only:** Do not fit a cable gland. Strip the cable outer sheath and fit the RJ45 connector load bar. Fit the RJ45 connector housing. To ensure there is effective strain relief, locate the cable inner sheath under the connector housing tang:
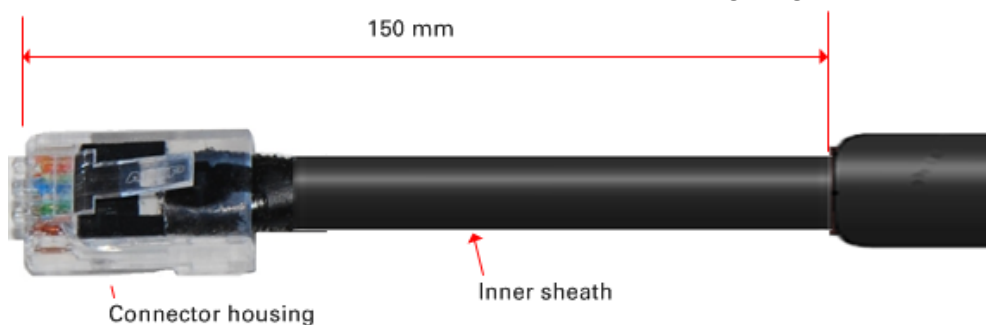
Test resistance in the drop cable

Connect the bottom end of the copper Cat5e drop cable to a suitable drop cable tester and test that the resistances between pins are within the correct limits, as specified in the table below. If any of the tests fail, examine the drop cable for wiring faults.

Measure the resistance between…	Enter measured resistance	To pass test, resistance must be…	Circle "Pass" or "Fail"	Additional tests and notes
Pins 1 and 2	Ohms	<20 Ohms (60 Ohms) (*1)	Pass Fail	Resistances must be within 10% of each other (*2). Circle "Pass" or "Fail":
Pins 3 and 6	Ohms	<20 Ohms (60 Ohms) (*1)	Pass Fail	
Pins 4 and 5	Ohms	<20 Ohms (60 Ohms) (*1)	Pass Fail	Pass
Pins 7 and 8	Ohms	<20 Ohms (60 Ohms) (*1)	Pass Fail	Fail
Pin 1 and screen (ODU ground)	K Ohms	>100K Ohms	Pass Fail	These limits apply regardless of cable length.
Pin 8 and screen (ODU ground)	K Ohms	>100K Ohms	Pass Fail	

(*1) A resistance of 20 Ohms is the maximum allowed when the cable is carrying Ethernet. A resistance of 60 Ohms is the maximum allowed when the cable is carrying only power to the ODU (when Ethernet is carried by one of the other ODU interfaces).

 (*2) Ensure that these resistances are within 10% of each other by multiplying the lowest resistance by 1.1 – if any of the other resistances are greater than this, the test has failed.

Installing the PSU

Install one of the following types of PSU (as specified in the installation plan):

- AC Power Injector 56V (Cambium part number N000065L001C). Refer to Installing the AC Power Injector 56V on page 5-22.
- AC+DC Enhanced Power Injector 56V (Cambium part number C000065L002C). Refer to Installing the AC+DC Enhanced Power Injector 56V on page 5-23.
- Cluster Management Module (CMM5). Refer to Installing the CMM5 on page 5-24.

| ⚠	**Warning**
	Always use an appropriately rated and approved AC supply cord-set in accordance with the regulations of the country of use.
⚠	**Caution**
	As the PSU is not waterproof, locate it away from sources of moisture, either in the equipment building or in a ventilated moisture-proof enclosure. Do not locate the PSU in a position where it may exceed its temperature rating.
⚠	**Caution**
	Do not plug any device other than a PTP 670 ODU into the ODU port of the PSU. Other devices may be damaged due to the non-standard techniques employed to inject DC power into the Ethernet connection between the PSU and the ODU.
	Do not plug any device other than a Cambium PTP 670 PSU into the PSU port of the ODU. Plugging any other device into the PSU port of the ODU may damage the ODU and device.

Installing the AC Power Injector 56V

Follow this procedure to install the AC Power Injector 56V (Cambium part number N000065L001C):

1   Form a drip loop on the PSU end of the LPU to PSU drop cable. The drip loop ensures that any moisture that runs down the cable cannot enter the PSU.

2   (a) Place the AC Power Injector 56V on a horizontal surface. Plug the LPU to PSU drop cable into the PSU port labeled ODU. (b) When the system is ready for network connection, connect the network Cat5e cable to the LAN port of the PSU:

(a)   (b)
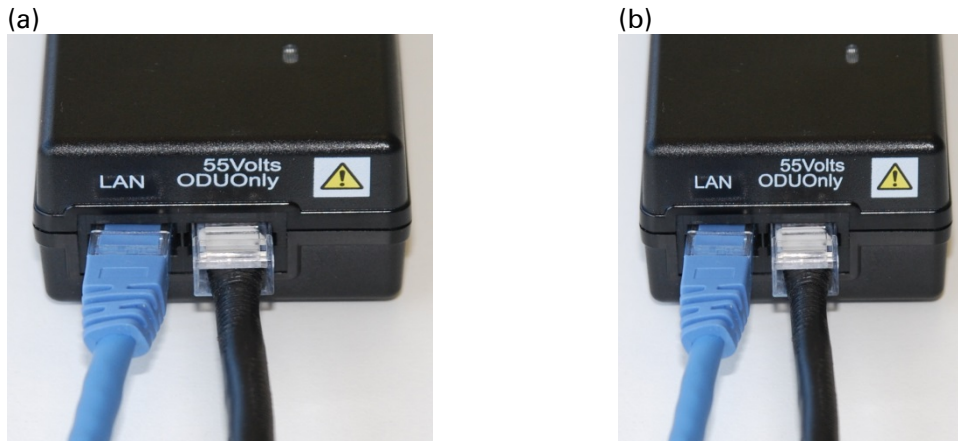
Installing the AC+DC Enhanced Power Injector 56V

Follow this procedure to install the AC+DC Enhanced Power Injector 56V (Cambium part number C000065L002C):

1   Mount the AC+DC Power Injector 56V by screwing it to a vertical or horizontal surface using the four screw holes (two holes circled):

2   Form a drip loop on the PSU end of the LPU to PSU drop cable. The drip loop ensures that any moisture that runs down the cable into the cabinet or enclosure cannot enter the PSU.

3   (a) Undo the retaining screw, hinge back the cover and plug the drop cable or the cable from the PTP-SYNC into the port. (b) Close the cover and secure with the screw. (c) When the system is ready for network connection, connect the network Cat5e cable to the LAN port of the PSU:

(a)   (b) and (c)

Installing the CMM5

Installation instructions for the CMM5 are provided in *PMP Synchronization Solutions User Guide* available from the Cambium web site.

Installing a PTP-SYNC unit

To install a PTP-SYNC unit (for TDD synchronization), use the following procedures:

- Mounting the PTP-SYNC unit on page 5-25
- Connecting up the PTP-SYNC unit on page 5-26
- Powering up the PTP-SYNC installation on page 5-28

| ⚠	**Caution**
	The PTP-SYNC unit must be installed indoors in a non-condensing environment, otherwise it will be prone to water damage.
⚠	**Caution**
	To protect the PTP-SYNC from damage, disconnect the power supply from the PSU before connecting up the PTP-SYNC.

Mounting the PTP-SYNC unit

Use this procedure to install the PTP-SYNC unit in the equipment building, either in a rack or on a wall.

- Racking mounting option: fix the PTP-SYNC to the rack mount using the M3 screws from the rack mount installation kit (Figure 118).
- Wall mounting option: mount the PTP-SYNC vertically with interfaces and cabling facing downwards (Figure 119).

Figure 118 PTP-SYNC mounted in a rack

Figure 119 PTP-SYNC mounted on a wall
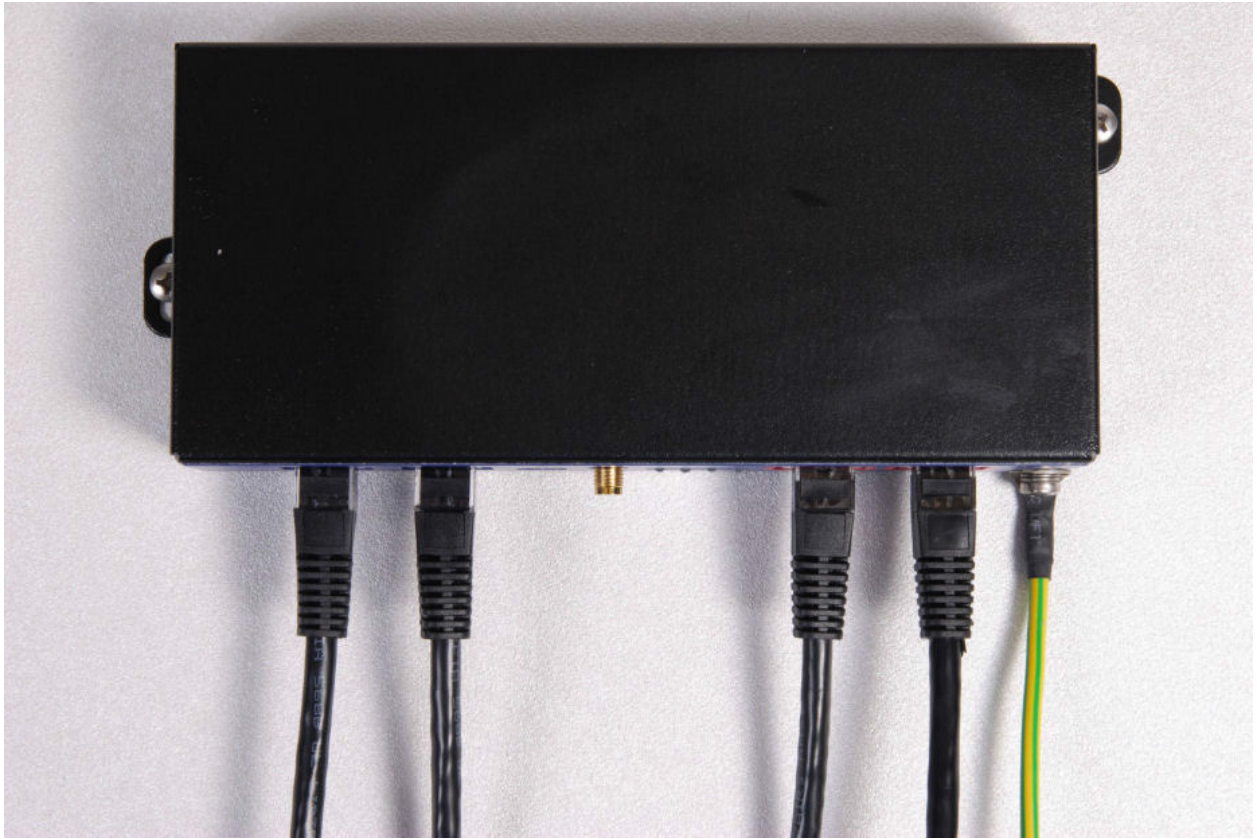
Connecting up the PTP-SYNC unit

Use this procedure to connect the PTP-SYNC to the AC+DC Power Injector 56V, ODU, GPS receiver (if fitted), and LPU (if fitted).

1   Disconnect the power supply from the AC+DC Power Injector 56V.

2   If using GPS, connect the cable from the GPS unit to the GPS/SYNC IN port.

3   To link clustered PTP-SYNC units, connect the SYNC OUT port of the first PTP-SYNC to the GPS/SYNC IN port of the second PTP-SYNC in the chain. Repeat for subsequent PTP-SYNC units in the chain.

4   Connect the cable from the PSU to the PIDU IN port. A suitable 1 meter cable is included in the PTP-SYNC kit.

5   Connect the cable from the ODU to the ODU OUT port.

6   Use a grounding cable to connect the ground stud of the PTP-SYNC to the master ground bar of the building, or to the rack ground bar.

Powering up the PTP-SYNC installation

Use this procedure to power up the PTP-SYNC installation.

> ⚠️ **Caution**
>
> Ensure that all cables are connected to the correct interfaces of the PTP SYNC unit and the GPS receiver (if used). Ensure that the installation is correctly grounded Failure to do so may result in damage to the equipment.

1   Connect the power supply to the PSU.

2   Within 90 seconds, the PTP-SYNC STATUS LED should blink once every second to show that satellite lock has been achieved.

3   If the system does not operate correctly, refer to Testing PTP-SYNC on page 8-15.

Installing the Trimble Accutime GPS receiver

To install a GPS receiver as the timing reference source for PTP-SYNC, use the following procedures:

- Mounting the GPS receiver on page 5-29
- Preparing the GPS drop cable on page 5-29
- Assembling an RJ45 plug and housing for GPS on page 5-30
- Assembling a 12 way circular connector on page 5-32
- Connecting the GPS drop cable on page 5-36
- Top grounding point for GPS adapter cable on page 5-36
- Installing and connecting the GPS LPU on page 5-38

> ⚠️ **Caution**
>
> Prior to power-up of equipment, ensure that all cables are connected to the correct interfaces of the PTP-SYNC unit and the GPS receiver module. Failure to do so may result in damage to the equipment.

Mounting the GPS receiver

Mount the GPS receiver (following manufacturer's instructions) upon either an external wall (Figure 43) or a metal tower or mast (Figure 44).

Preparing the GPS drop cable

Use this procedure to make the main drop cable that will connect the GPS receiver to its bottom LPU. GPS drop cables do not require top LPUs.

> ⚠️ **Caution**
>
> Always use Cat5e cable that is gel-filled and shielded with copper-plated steel. Alternative types of cable are not supported by Cambium.

1 Measure the distance from the GPS receiver to the LPU site at building entry.

2 Cut the required length of drop cable.

3 Attach one or more hoisting grips to the top end of the cable, as described in Install the main drop cable on page 5-16.

4   Fit a suitable GPS connector to the top end of the drop cable:

- If a GPS adapter cable kit is available, attach the plug housing and an RJ45 plug to the top end of the main GPS drop cable, as described in Assembling an RJ45 plug and housing for GPS on page 5-30.

- If a GPS adapter cable kit is not available, fit a 12 way circular connector to the top end of the main drop cable as described in Assembling a 12 way circular connector on page 5-32.

5   Hoist the GPS drop cable safely up a tower or building, as described in Install the main drop cable. on page 5-16.

Assembling an RJ45 plug and housing for GPS

Use this procedure to assemble the plug housing over the end of the drop cable. This procedure is only performed when a GPS adapter cable kit is available. This kit is used to connect the Trimble Acutime™ GG GPS receiver or the Trimble Acutime™ Gold GPS receiver to the GPS drop cable.

The kit contains an adapter cable (GPS receiver circular connector to RJ45 socket) and an RJ45 plug housing. The plug housing should be assembled over the end of the drop cable to provide a sealed connection to the adapter cable.
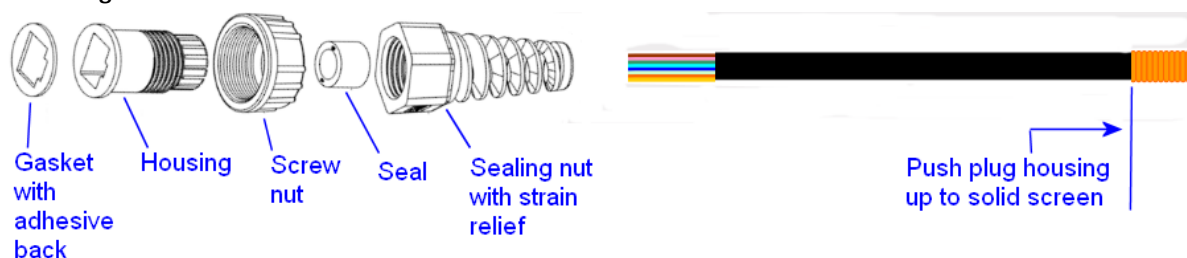
> **Note**
>
> These instructions are for the preparation of the Cambium-supplied drop cable type (Superior Essex BBDGE). Other types of cable may need different preparation methods.
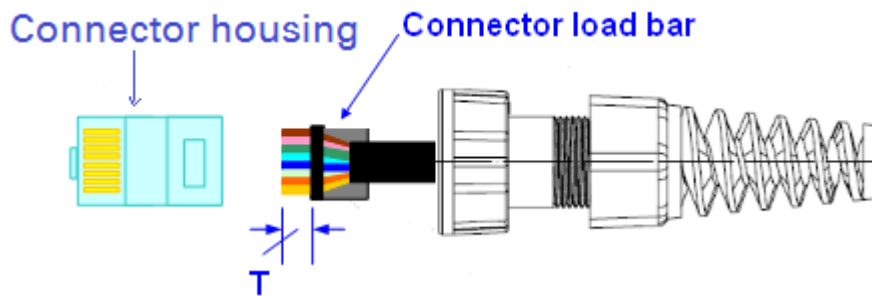
1   Prepare the top end of the GPS drop cable.
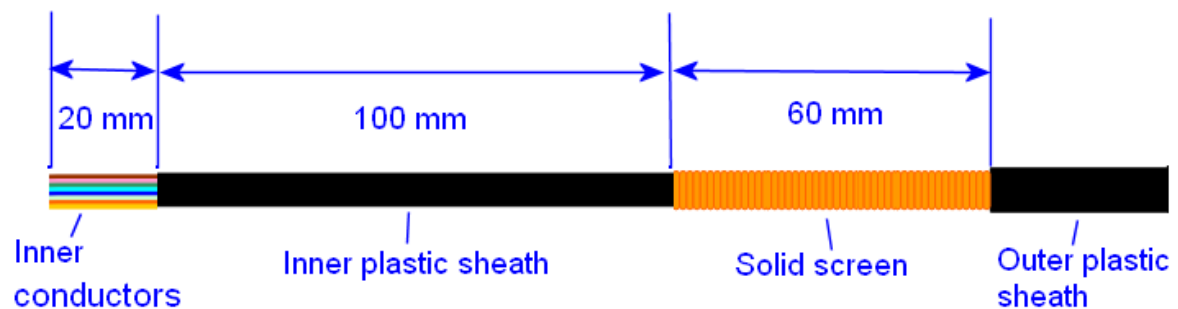
2   Install plug housing from the converter kit onto the prepared cable. Do not tighten the nuts at this stage.

3   Install the RJ45 crimp plug.

Connector housing   **Connector load bar**

T

Start with tails over-length to assist insertion into load bar, then trim them to 5 mm (T).
Connect the RJ45 pins to the following conductors (Superior Essex BBDGe colors):
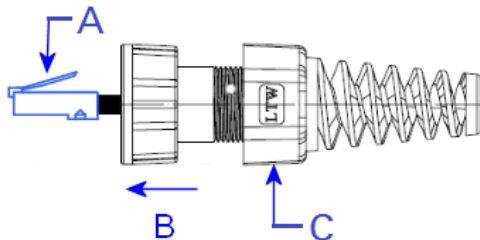
Pin 8 Brown
Pin 7 Light Brown
Pin 6 Green
Pin 5 Light Blue
Pin 4 Blue
Pin 3 Light Green
Pin 2 Orange
Pin 1 Light Orange

4   Assemble plug housing:

Depress the RJ45 locking tab (A).

Slide the plug housing assembly (B) over the RJ45 plug.

Tighten the sealing nut (C). This is easier to fully tighten when the plug housing is mated
to the socket of the adapter cable.

A

B   C

5   Check the assembly. This is an exampled of an assembled plug housing on the end of a drop
cable:

Assembling a 12 way circular connector

Use this procedure to connect the GPS drop cable to a 12 way circular connector. This procedure is only performed when a GPS adapter cable kit is NOT available.

|	
⚠	**Note** **This procedure requires a soldering iron and solder.**
⚠	**Caution** The drop cable has solid copper conductors. There are a limited number of times each conductor can be bent before it fatigues and fails.

Table 151 shows how the 12 way circular connector locations map to the PTP-SYNC RJ45 pins. Figure 120 illustrates this mapping.

Table 151 GPS 12 way circular connector to RJ45 pin mappings

GPS connector location	Function	Cat5e wire color		PTP-SYNC (J10) RJ45 pin	PTP-SYNC signal name
		Conventional	Supported drop cable		
1	DC Pwr (12V)	Orange/White	Light Orange	1	12VGPS
2	RxB-	Brown/White	Light Brown	7	GPS_TXDA
3	RxB+	Brown	Brown	8	GPS_TXDB
4	TxB-	Blue	Blue	4	GPS_RXDA
5	TxB+	Blue/White	Light Blue	5	GPS_RXDB
6	RxA-	N.C	N.C	---	
7	RxA+	N.C	N.C	---	
8	TxA-	N.C	N.C	---	
9	DC Ground	Orange	Orange	2	GND
10	TxA+	N.C	N.C	---	
11	Tx1PPS+	Green/White	Light Green	3	GPS_1PPSA
12	Tx1PPS-	Green	Green	6	GPS_1PPSB

Figure 120 Inserting RJ45 pins into the 12 way circular connector
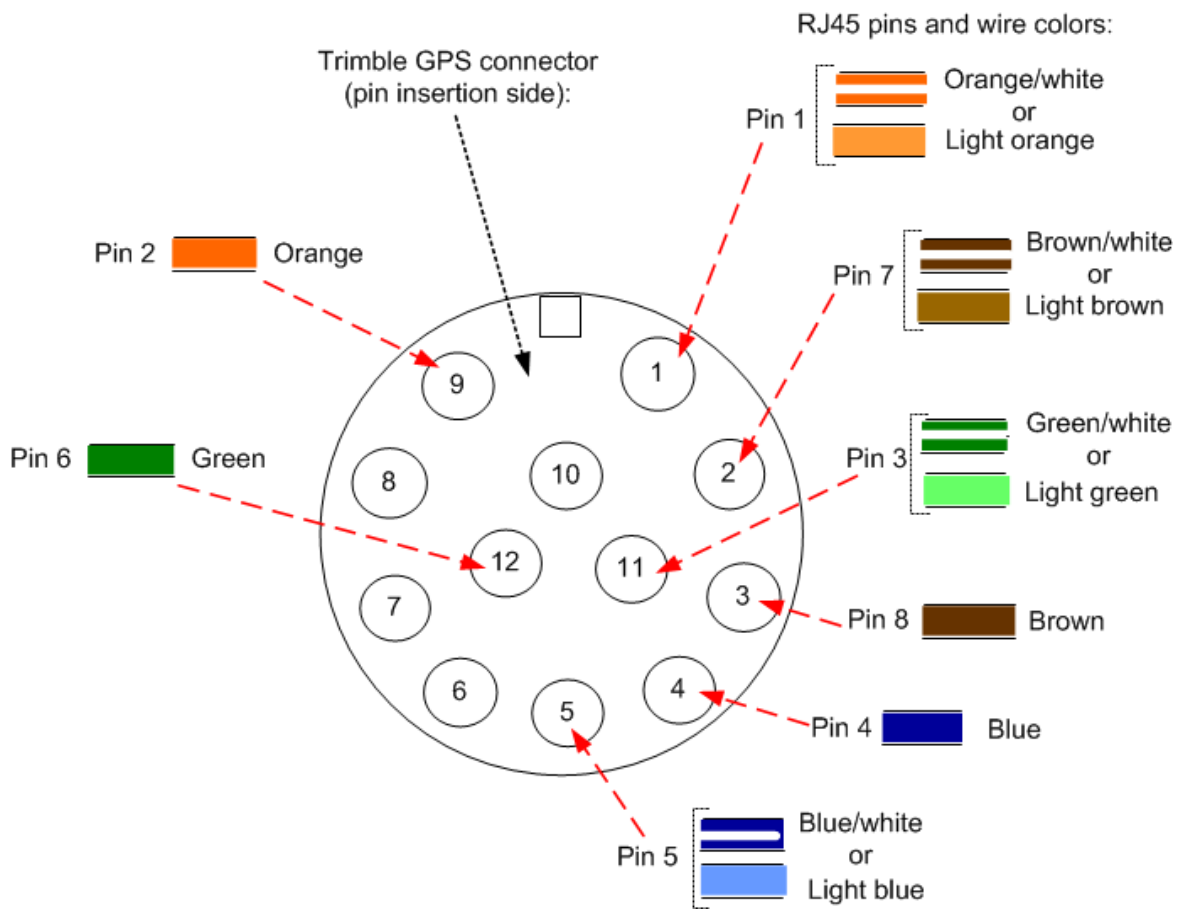
1   Prepare the drop cable end as follows:

-    Bare back the cable outer and copper screen to 50mm.

-    Bare back the cable inner to 17mm.

-    Un-twist the cable pairs.

-    Strip the individual conductors to 5mm.

2   Fit the plug outer, associated boot, and boot insert.

3   Connect the socket contacts using either of the following techniques:

- **Crimp**: Crimp the socket contacts onto each of the conductors using the correct crimp tool and positioner, setting the wire size selector to "3" for 24AWG wire.

- **Solder**: When soldering the socket contacts onto each of the conductors, ensure that there is no solder or flux residue on the outside of the contact. Care should also be taken that the individual conductor insulation does not peel back with the soldering heat, allowing possible shorts when assembled into the plug shell.

4   Fit four dummy contacts into the unused 12 way circular connector locations (6, 7, 8 and 10), to provide strength and sealing. Push the contacts in from the pin insertion side.

Pin insertion side: Plug mating side:

5   Insert the eight RJ45 contact pins into the pin insertion side of the 12 way circular connector in accordance with Figure 120.

It is easiest to insert the pins from the center out, in descending order of Trimble location number, that is, 12, 11, 9, 5, 4, 3, 2, 1. Push the contacts in so that the shoulder on the contact fits into the hole in the plug shell. When all contacts have been fitted, push them in further to engage with the locking mechanism in the plug shell. This can be done by applying pressure to the contact with a small diameter stiff object, such as tweezers.

> **Note**
>
> If a contact is pushed in to the point where the locking mechanism engages before all of the contacts have been inserted it will limit the amount of room available to fit the remaining contacts, requiring harder bends to be applied.

6   Fit the plug to its shell. The plastic ring fits inside the rubber boot and ensures a tight fit when the plug body is clipped onto the plug shell. Be aware that the plug body is a hard push fit onto the plug shell.

7   Fit the strain relief clip.

Connecting the GPS drop cable

Use this procedure to connect the GPS drop cable to the GPS unit and supporting structure.

1   If a GPS adapter cable is available, use it to connect the main GPS drop cable to the GPS unit:

2   If a GPS adapter cable is not available, connect the main GPS drop cable to the GPS unit via a 12 way circular connector. Weatherproof the connection as follows:

- Wrap a layer of self-amalgamating tape, starting 25mm below the bared back outer of the cable and finishing at the GPS housing.

- Wrap a layer of PVC tape, starting just below the start of the self-amalgamating tape and finishing at the GPS housing, overlapping at half width.

- Repeat with four more layers of PVC tape alternating the start and finish ends.

3   Lay the main drop cable as far as the building entry point, ensuring there is enough length to extend through the wall of the building to the LPU.

4   Attach the main GPS drop cable to the supporting structure using site approved methods.

5   Ground the GPS drop cable to the supporting structure at the points shown in Figure 43 (wall installation) or Figure 44 (mast or tower installation):

- For standard grounding instructions, see Creating a drop cable grounding point on page 5-56.

- If a GPS adapter cable has been installed, see Top grounding point for GPS adapter cable on page 5-36.

Top grounding point for GPS adapter cable

If a GPS adapter cable has been installed (Figure 121), use this procedure to ground the drop cable at the point where the solid screen is already exposed, and weatherproof both the ground cable joint and the RJ45 connection.

Figure 121 Grounding and weatherproofing requirements for GPS adapter cable
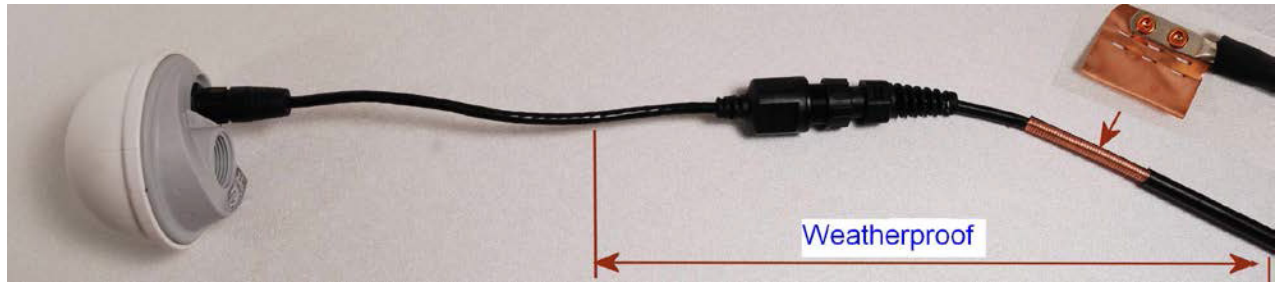
Follow the procedure described in Creating a drop cable grounding point on page 5-56, but observe the following differences:

- There is no need to remove 60mm (2.5inches) of the drop cable outer sheath, as this has already been done.
- Wrap the top layer of self-amalgamating tape around the complete assembly (not just the ground cable joint), including the RJ45 connection with the GPS adapter cable (Figure 122).
- Wrap all five layers of PVC tape around the complete assembly (Figure 123). Wrap the layers in alternate directions: (1st) bottom to top; (2nd) top to bottom; (3rd) bottom to top; (4th) top to bottom; (5th) bottom to top. The edges of each layer should be 25mm (1 inch) above (A) and 25 mm (1 inch) below (B) the previous layer.
- Check that the joint between the GPS adapter cable, drop cable and ground cable is fully weatherproofed (Figure 124).

Figure 122 Wrapping self-amalgamating tape around the GPS adapter cable joint

Figure 123 Wrapping PVC tape around the GPS adapter cable joint

Figure 124 Grounding and weatherproofing example for GPS adapter cable

Installing and connecting the GPS LPU

Install and ground the GPS drop cable LPU at the building (or cabinet) entry point, and install the LPU-PTP-SYNC drop cable, as described in Install the bottom LPU on page 5-19.

Connect this cable to the PTP-SYNC unit as described in Connecting up the PTP-SYNC unit on page 5-26.

Installing a NIDU

To install a NIDU (for TDM), use the following procedures:

- Mounting the NIDU on page 5-39
- Connecting the NIDU to the PSU, LAN and TDM cables on page 5-40
- Connecting the NIDU to a DC power supply on page 5-42

Mounting the NIDU

Mount the NIDU in the equipment building, either in a rack or on a horizontal surface:

- Racking mounting option: fix the NIDU to the rack mount using the M3 screws from the rack mount installation kit (Figure 125). The rack can hold either two NIDUs or one NIDU and one PTP-SYNC unit.
- Horizontal option: place the NIDU on a horizontal surface.

Figure 125 Two NIDUs mounted in a rack

Connecting the NIDU to the PSU, LAN and TDM cables

> ⚠️ **Caution**
>
> Always connect the NIDU to the Main PSU port of the ODU via the PSU. The TDM service will not operate if the NIDU is connected to the Aux or SFP port of the ODU.

> ⚠️ **Caution**
>
> If the ODU port has negotiated a link at 100BASE-T, the NIDU will not send or receive TDM data and will not bridge customer data traffic. Ensure that the Ethernet drop cable between the ODU and the PSU, and the network cable between the PSU and the NIDU, will reliably support operation at 1000BASE-T.
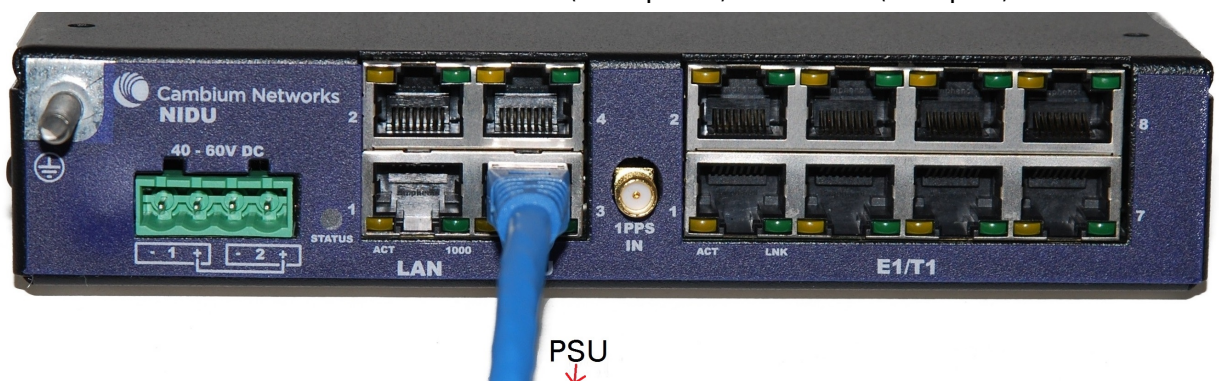
> 📘 **Note**
>
> Use the E1/T1 ports in ascending numeric sequence, for example: if there is one E1/T1 channel, use port 1; if are three E1/T1 channels, use ports 1, 2 and 3.

Use this procedure to connect the NIDU to the PSU, LAN and TDM transceivers.

1   Disconnect the power supply from the PSU.

2   Connect an indoor Cat5e cable from the NIDU (ODU port 3) to the PSU (LAN port):

3   Connect an indoor Cat5e cable from the NIDU (LAN port 1) to the Ethernet network terminating equipment:
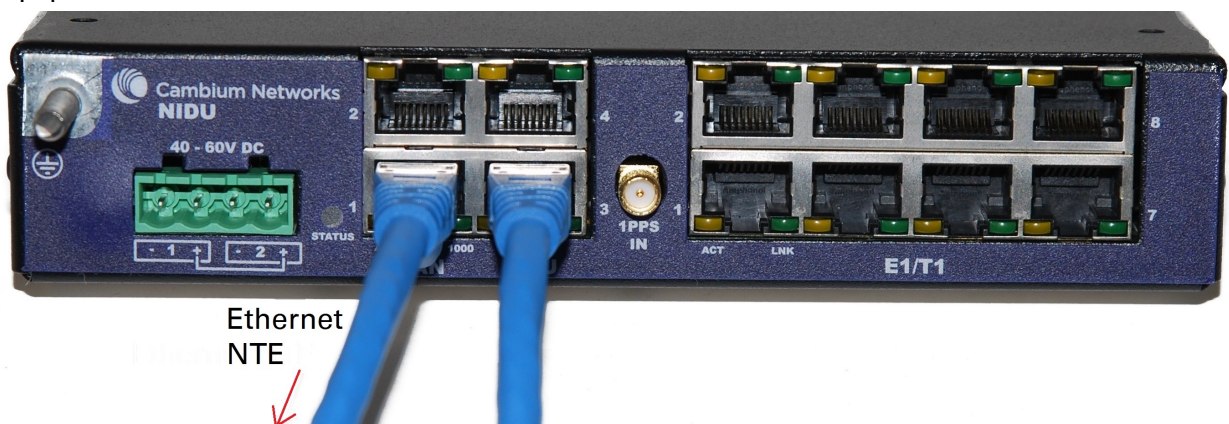
4 Connect up to eight indoor Cat5e cables (with RJ48 connectors) from the NIDU (E1/T1 ports) to the local TDM transceivers:

TDM transceivers

5 Use an M5 nut and washer to connect the grounding cable lug to the NIDU ground bolt. Connect the other end of the grounding cable to the master ground bar of the building or rack.

Connecting the NIDU to a DC power supply

> ⚠️ **Caution**
>
> Do not power up the NIDU until site installation is complete, otherwise equipment may be damaged.

Main and backup DC supplies

The NIDU requires a 40 V – 60 V DC power supply. The NIDU DC interface provides inputs for a main and a backup DC power supply (Figure 126). The main DC supply (port 1) is mandatory, but the backup (port 2) is optional.

Figure 126 NIDU DC interface
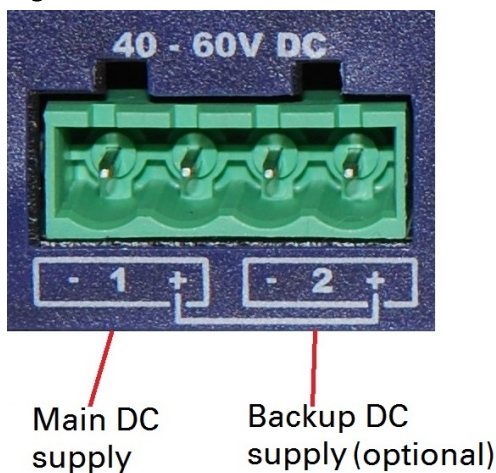
Use one of the following power supply options for the NIDU:

- The AC+DC Enhanced Power Injector 56V (Cambium part number C000065L002C) with optional backup.
- An independent DC supply (if available) with optional backup.
- The PTP 800 AC-DC Power Supply Converter (Cambium part number WB3622).

Using the DC power connector

Use this procedure to connect the NIDU to the AC+DC Enhanced Power Injector 56V (Cambium part number C000065L002C) or to an independent DC supply with an optional backup DC supply:

1 Strip the two wires of the main DC supply cable and screw them into the first and second terminals of the DC power connector (Cambium part number C000065L044). The first terminal is negative (black wire) and the second is positive (red wire). If a backup supply is required, use the third and fourth terminals of the connector:
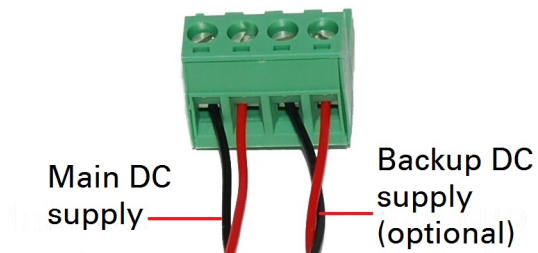
2 Plug the DC power connector into the NIDU DC interface: