

EXPLORER Mobile Gateway

Installation guide

What's in the box?

The following items are included in the delivery:

- EXPLORER Mobile Gateway
- Power cable with connectors for V+, V- and Ignition and Ring terminal, screw and washer for grounding.
- Kit with connectors
 - I/O and Radio connectors, 2 pcs (one black, one green)
 - EXPLORER 323 power and ignition (3 Pin terminal block)
 - Ethernet, 2 pcs (5 Pin terminal block)
 - Aux power (2 Pin terminal block)
 - EXPLORER 325 (2 Pin terminal block)
- Modem installation parts (Connection cables, gap pads and screws in bag)



Before installation in the vehicle

Before installation, the system must be configured in the PRISM PTT+ Portal. This is usually done by the system administrator.

1. Use a Torx 20 screwdriver to unscrew the 4 screws holding the cover, and carefully remove the cover.
2. If you are using an embedded LTE modem, install it as described in the User & installation manual for the EXPLORER Mobile Gateway. Note that the installation differs depending on the modem type!
3. Connect the power wires to the DC input in the EXPLORER Mobile Gateway as shown to the right under **DC Input power cable connection**. Connect the other end of the wires to the included crimp terminals.
4. If you are using a satellite terminal, install it as described in the installation manual for the satellite terminal. For EXPLORER 323 satellite terminal, use the cable included with the EXPLORER 323 and connect as shown in **EXPLORER 323 cable connection** to the right.
5. Put the cover back on and tighten the Torx screws.



Caution: Make sure that no wires are caught between the cover and the base!

Note: If possible, before installation in the vehicle, switch on the unit with a connection to the Internet (satellite, WLAN or LAN). The EXPLORER Mobile Gateway will automatically look for the server in order to authenticate the unit and get the initial configuration from the server.

Installation in the vehicle

Note: In order to maintain an IP grade of IP21, mount the EXPLORER Mobile Gateway vertically on a wall with the connectors facing downwards.

1. Mount the EXPLORER Mobile Gateway according to the drilling plan to the right on this page. Make sure the connector panel is easily accessible.
2. Connect a ground wire from vehicle chassis ground to the EXPLORER Mobile Gateway. See **DC Input power cable connection** to the right.
3. If you have installed a cellular modem in the EXPLORER Mobile Gateway, mount the LTE antenna(s) in a suitable place, preferably on the outside of the vehicle.
4. Connect the cable(s) from the cellular antenna(s) to the SMA Female connector(s) marked **Cellular Main** (and **Div** for Diversity).
5. If you are using Wi-Fi, mount the Wi-Fi antenna(s) in a suitable place, preferably on the outside of the vehicle.
6. Connect the cable(s) from your Wi-Fi antenna(s) to the SMA Male connector(s) marked **Wi-Fi Main** (and **Div** for Diversity).
7. If you are using a GNSS receiver, mount it in a suitable place, preferably on the outside of the vehicle. Then:
 - If the GNSS receiver is to be used with your internal LTE modem, connect it to the SMA Female connector marked GNSS.
8. Use cable ties to fasten the cables to the cable support.



Caution! Check the documentation for your LTE modem: some modems require either an active or passive GNSS antenna, and may be damaged if you connect the wrong type!

- If you do not have a satellite terminal nor an LTE modem that supports GNSS, you can connect a USB GNSS receiver to the USB interface.

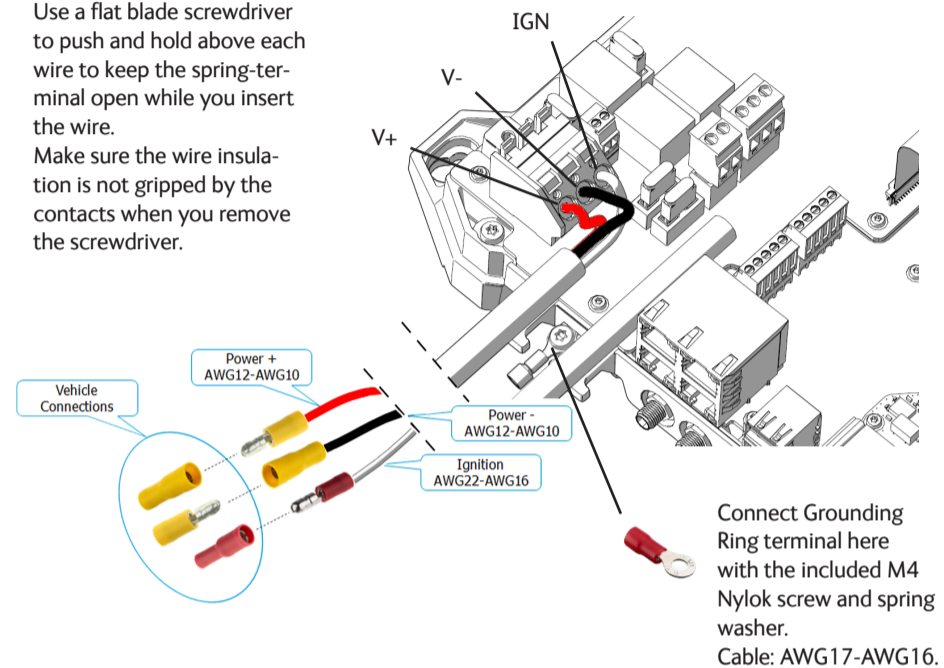
Optional accessories

The following accessories are available (more may be added):

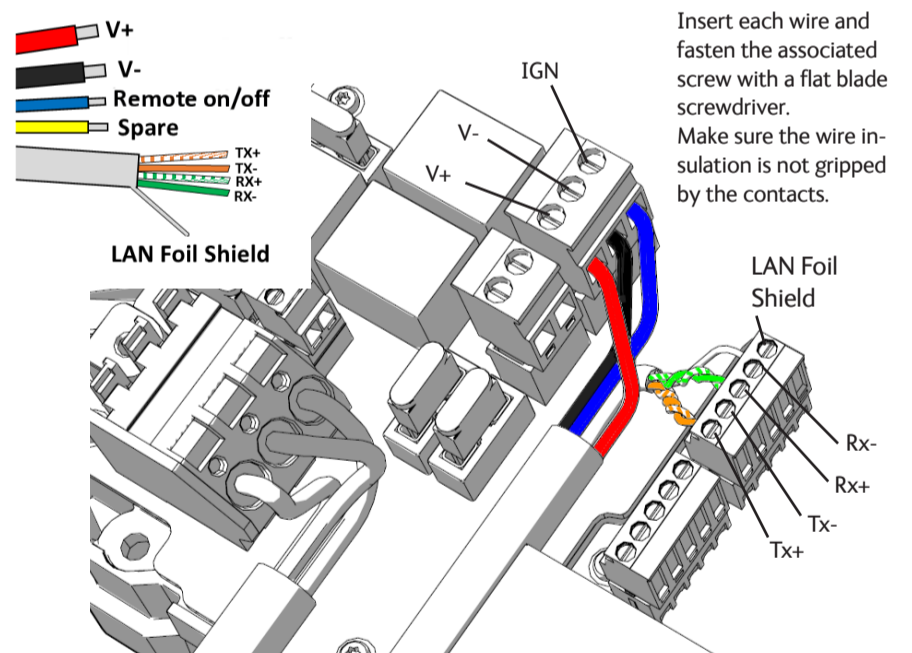
- EXPLORER 6205 Control Speaker Microphone (406205B-00501)
- 5 m extension cable for EXPLORER 6205 CSM (406204-940)
- Cable relief bracket (403667A-010)
- LTE modems. For available models, see price list in the Cobham SYNC Partner Portal.

DC Input power cable connection

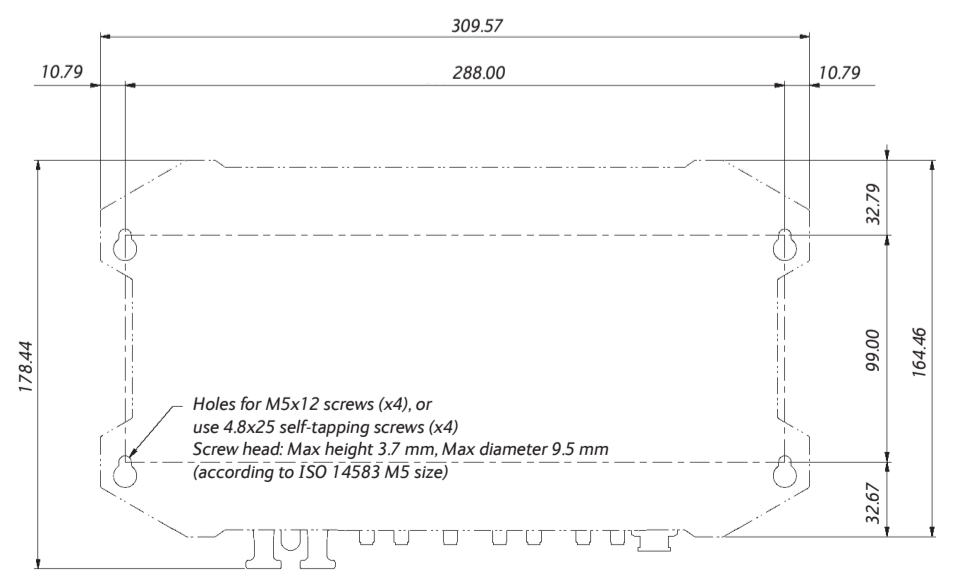
Use a flat blade screwdriver to push and hold above each wire to keep the spring-terminal open while you insert the wire. Make sure the wire insulation is not gripped by the contacts when you remove the screwdriver.



EXPLORER 323 cable connection



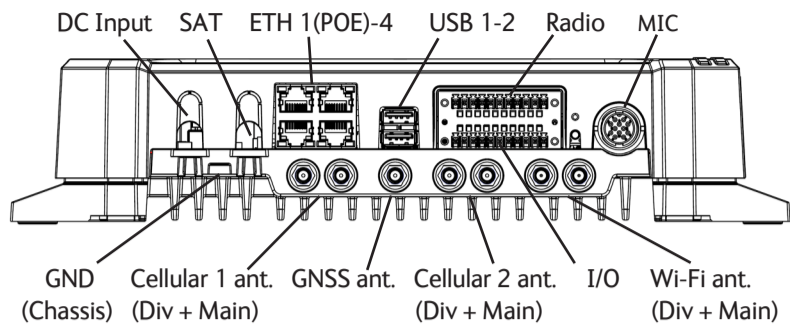
Drilling plan for the EXPLORER Mobile Gateway



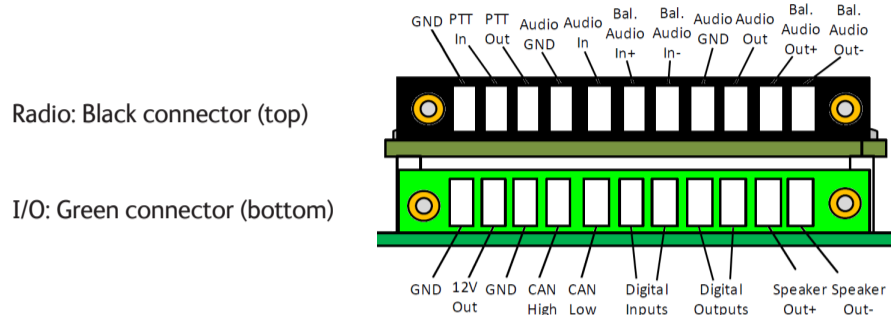
All dimensions are in mm

Connectors and pin allocation

Connector panel



Pin allocation for I/O and Radio connector



Radio connector (top connector)		
Pin	On MG3	Conn. on radio
1	GND	Ground
2	PTT In	PTT Out
3	PTT Out	PTT In
4	Audio In GND	Audio Out GND
5	Audio In	Audio Out
6	Balanced Audio In+	Bal. Audio Out+
7	Balanced Audio In-	Bal. Audio Out-
8	Audio Out GND	Audio In GND
9	Audio Out	Audio In
10	Balanced Audio Out+	Bal. Audio In+
11	Balanced Audio Out-	Bal. Audio In-

I/O connector (bottom connector)		
Pin	Signal	Details
1	GND	Ground
2	12 V Out	Future use
3	GND	Ground
4	CAN High	Future use
5	CAN Low	Future use
6	Digital Input 1	Future use
7	Digital Input 2	Future use
8	Digital Output 1	Future use
9	Digital Output 2	Future use
10	Speaker Out+	to Speaker+
11	Speaker Out-	to Speaker-

Verifying the installation

The first time the EXPLORER Mobile Gateway is connected it automatically looks for the server to authenticate with the system, obtain a certificate and get the initial configuration which is stored on the server. To verify the successful installation of the EXPLORER Mobile Gateway unit do the following:

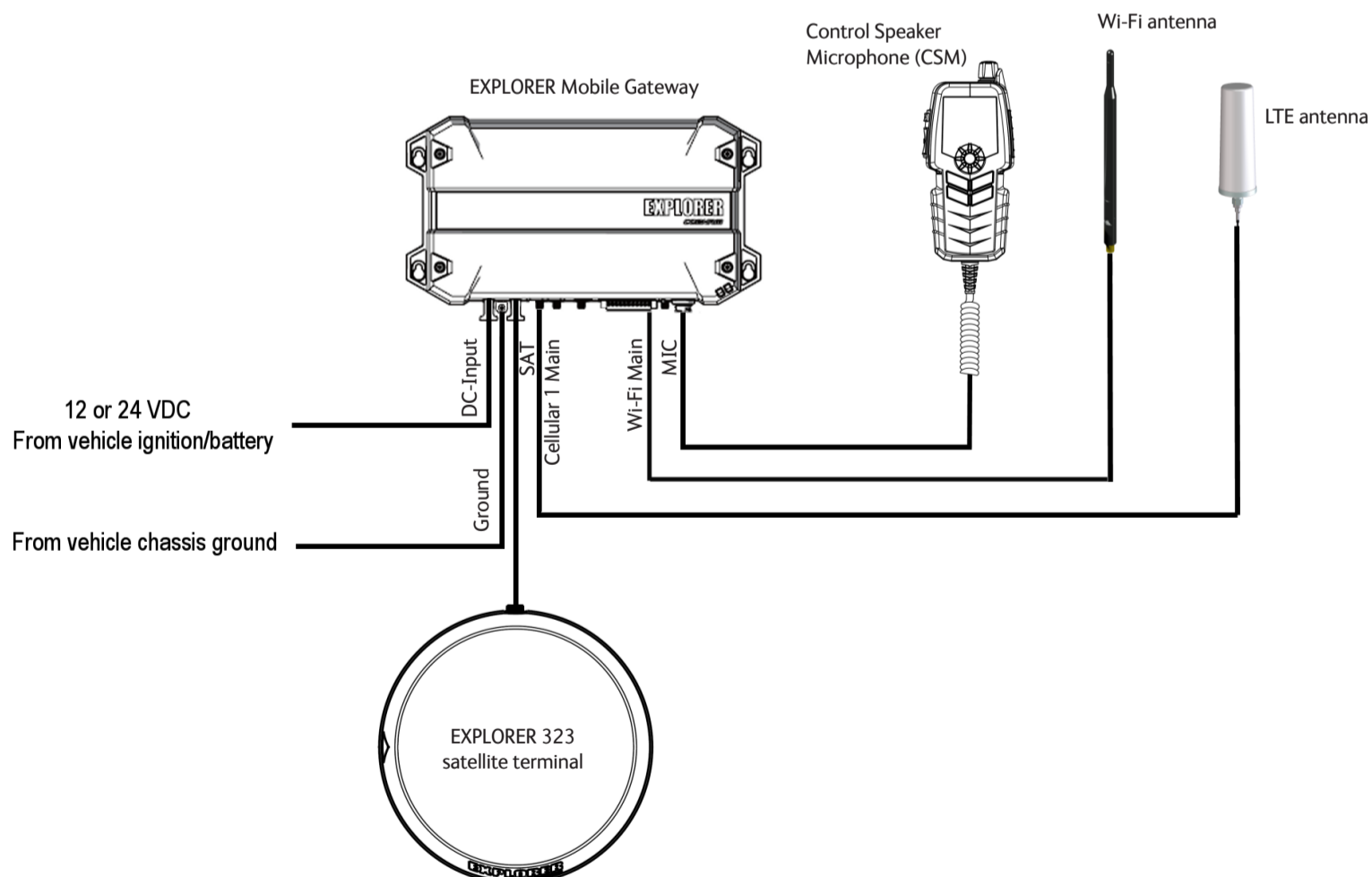
1. Start the engine of the vehicle.
2. Check that the PWR LED on the EXPLORER Mobile Gateway unit is green.
3. Check the CONN LED:
Yellow: setting up modems
Light blue: Get configuration
Blue: waiting for PTT network
Green: Ready
4. If you are using the EXPLORER 6205 Control Speaker Microphone, check that the display is on.
5. If it is the first time you connect your EXPLORER Mobile Gateway, it will start negotiating with the server to obtain a certificate for authentication and get the initial configuration. The Control Speaker Microphone will show the progress, if connected.
6. In the Control Speaker Microphone (if connected), check the signal bars for cellular modem(s) and satellite network.



Technical specifications

Item	Specification
Dimensions, EXPLORER Mobile Gateway unit	Height: 65.5 mm Width: 309.6 mm Depth: 178.5 mm
Weight, EXPLORER Mobile Gateway unit	1785 g (4 lbs)
Operating temperature	-25 to 55 °C
Storage temperature	-40 to 80 °C
Power supply, PTT terminal	Nominal 12-24 VDC Operating 10.8-31.2 VDC
Power consumption	Typical: 10 W (excl. LTE module and ext.units)

System configuration example



Disclaimer: Any responsibility or liability for loss or damage in connection with the use of this product and the accompanying documentation is disclaimed by Thrane & Thrane A/S. The information in this manual is provided for information purposes only, is subject to change without notice and may contain errors or inaccuracies. The manuals are periodically revised and updated. Anyone relying on this information should acquire the most current version e.g. from www.cobhamsatcom.com or from the distributor. Thrane & Thrane A/S is not responsible for the content or accuracy of any translations or reproductions, in whole or in part, of this manual from any other source. Thrane & Thrane A/S trading as Cobham Satcom. Copyright © 2022 Thrane & Thrane A/S. All rights reserved.

GPL notification: The software included in this product contains copyrighted software that is licensed under the GPL/LGPL. The verbatim licenses can be found online at: <http://www.gnu.org/licenses/old-licenses/gpl-2.0.html> and <http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html>. You may obtain the complete corresponding source code from us for a period of three years after our last shipment of this product, which will be no earlier than 1. August 2028, by sending a money order or check for DKK 50 to: SW Technology/GPL Compliance, Cobham Satcom (Thrane & Thrane A/S), Lundtoftegaardsvej 93D, 2800 Lyngby, DENMARK. Write "source for product 3667A EXPLORER Mobile Gateway" in the memo line of your payment. This offer is valid to anyone in receipt of this information.