COBHAM

EXPLORER 323
Installation guide

What's in the box?

EXPLORER 323

The following items are included in the delivery:

- EXPLORER 323 terminal
- Combined DC power and Ethernet cable, 6 m
- 3 pcs M6 mounting bolts and washers
- Torx bit for the screws for the SIM compartment

Step 1: Insert SIM

The SIM card is placed in the SIM compartment on the bottom side of the terminal.

1. Use the included Torx bit to unscrew the 3 screws for the SIM compartment and remove the cover. Keep screws and cover for later.
2. Locate the SIM holder in the middle of the compartment.
3. Slide the lock to release the SIM holder.
4. Lift the end of the SIM holder and insert the SIM card as shown.
5. Lower the SIM card holder with the SIM card inserted and lock it.
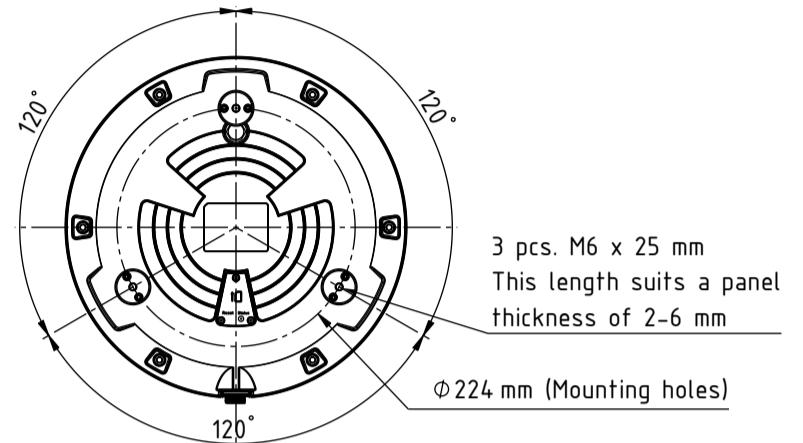6. Remount the small cover and use the included Torx bit to fasten the 3 screws.

IMPORTANT: Before you install the terminal, **note the serial number** from the label on the bottom side of the terminal. You will need it if you want to connect to the terminal using WLAN and/or if you log into the web interface as **user**.

Step 2a: Installation instructions, with bolts

For best performance, mount the EXPLORER 323 in the center of the roof, with 10 mm space between roof and terminal and with free line of sight in all directions.

For details, see the User & Installation Manual in https://sync.cobham.com/ (select **Products** and search for EXPLORER 323 manual).

1. Make sure the material of the mounting surface is strong enough to hold the antenna during the intended use.
2. Use the drawing below to mark the position of the holes in the roof.
   NOTE: Remember to check the wanted position of the cable compared to the position of the holes!

3 pcs. M6 x 25 mm
This length suits a panel
thickness of 2–6 mm

Φ224 mm (Mounting holes)

3. Drill the 3 holes.
4. Depending on your configuration, you may want to drill a fourth hole for the cable as well.
5. Use the 3 plastic spacers that are mounted on the EXPLORER 323.
   IMPORTANT: Make sure there is 10 mm of space between any part of the EXPLORER 323 bottom and the roof.
6. Mount the supplied bolts through the roof and spacers and into the bushings in the bottom of the EXPLORER 323.
7. The length of the bolts suit a panel thickness of 2-6 mm. If you have a different panel thickness, use longer or shorter M6 bolts.
8. Make sure that all mounting bolts and nuts are secured properly.

Step 2b: Installation instructions, Magnetic mount

We recommend mounting the antenna with bolts through the roof instead of using the magnetic mount kit. However, if you want a temporary installation, you can use the magnetic mount kit.

Safety guidelines for magnetic mount

Note the following safety guidelines for mounting the antenna with magnetic mounts:

WARNING! Do not place your fingers underneath the antenna when placing the antenna on the vehicle! The magnetic force is very powerful and your fingers may be hurt if they are caught between the antenna and the mounting surface.

Under normal driving circumstances the magnetic force of the magnetic mount kit for the antenna should be sufficient to hold the antenna. However, the magnets **may not be able to hold the antenna in place**, if:

- the vehicle is involved in an accident or similar extreme conditions,
- the magnets are not mounted properly,
- the roof is not plain or is made of a material that will not stick properly to the magnets,
- the speed of the vehicle is too high

Mounting with magnetic mount

1. Acquire a magnetic mount solution from your supplier (order number 403723A-009).
2. Remove the 3 plastic spacers from the bottom of the EXPLORER 323 and mount the magnets according to the installation guide included with the magnets.
3. Wipe the roof surface clean before you place the terminal on the roof, in order to make a better connection between the magnets and the roof and to avoid scratches in the surface.
4. Carefully place the terminal with the magnets in the center of the car roof. Note that the car roof must be flat and made of magnetizable material!
5. Check that all 3 magnets are firmly attached and that there is 10 mm free space under the bottom of the terminal.

Step 3: Connect the system

Power and Ethernet (LAN) connection

1. Take the combined 6 m cable supplied with the EXPLORER 323.
   NOTE: If you are using a longer cable, you must use 24 VDC power.
2. Connect the end with the circular connector to the EXPLORER 323.
3. Lead the cable inside the car.
4. Connect the other end of the cable according to your configuration. You may use a connection box or mount connectors directly on the cable.
- Connect the power wires (red and black) to the vehicle's battery power. For pin allocation and wire colors see the next page.
  IMPORTANT: There is a risk of draining the vehicle's battery. It is recommended to connect the blue Ignition on/off wire to the ignition of the vehicle and then enable the Ignition function in the built-in web interface. With this function, the terminal will only be on when the Ignition is on.
- Connect the Ethernet wires, e.g. via the Connection box, to the EXPLORER 3647A, to a switch or directly to your PC, depending on your configuration.
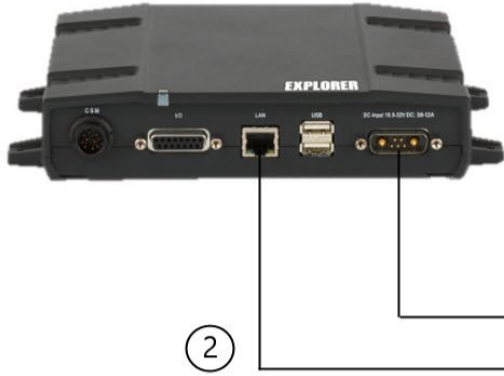
Wireless connection (WLAN)

IMPORTANT: Before you can use the WLAN interface you must connect a computer using a LAN cable, access the built-in web interface and enable and configure the WLAN interface. When WLAN is enabled and configured, do as follows:

1. Start the ignition of the vehicle to switch on the EXPLORER 323 (if connected to the ignition).
2. Place your WLAN-enabled device (computer, tablet or smartphone) close to the EXPLORER 323 (max. 50 m with free line of sight).
   NOTE: The reception of the WLAN signal is reduced inside the vehicle.
3. On your device, search for available WLAN networks.
4. Select the EXPLORER 323 WLAN access point when it appears in your list of available wireless networks. The default name is **EXPLORER323**.
5. Enter the password. By default the password is the serial number of your EXPLORER 323[1] and the encoding type is WPA2-AES.
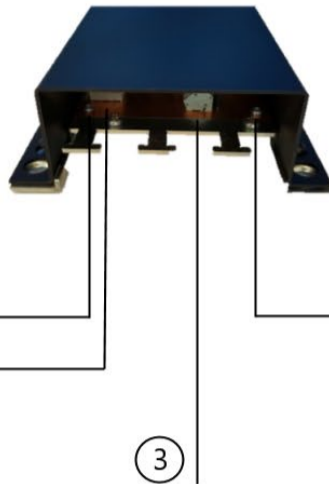   **NOTE**: We recommend changing the password in the WLAN page of the web interface.

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1   You find the serial number on the label on the bottom side of the EXPLORER 323

System Configuration - Example with PTT System

EXPLORER 3647A
PTT Unit
(optional)

EXPLORER 6208B
Connection Box
(optional)

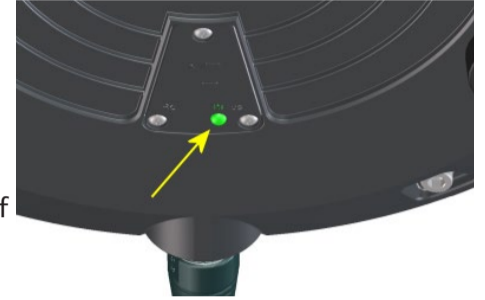EXPLORER 323 BGAN terminal

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For wiring and pinout for the Connection Box, see the installation guide included with the EXPLORER 6208B Connection Box.

Connect to vehicle's battery and ignition

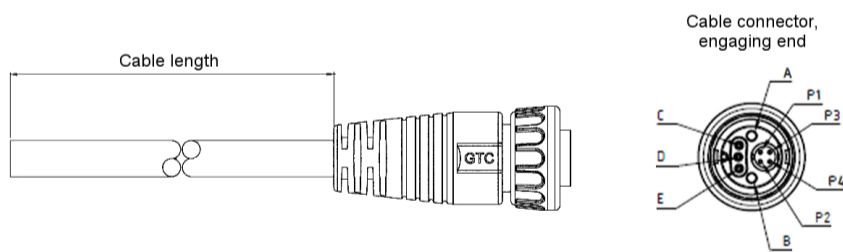SIM compartment with Status LED (under the bottom of the EXPLORER 323)

Number	Cable	Description
1	Power cable	Supplied with EXPLORER 3647
2	Ethernet cable	Supplied with EXPLORER 6208B
3	Cables from vehicle: DC power and Ignition	Not supplied.
4	Combined cable (LAN & DC in)	Supplied with EXPLORER 323

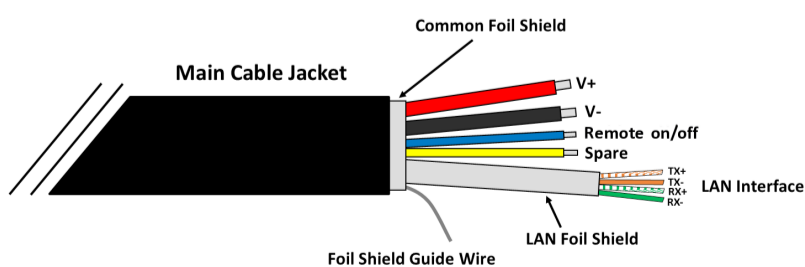| LED status	Description
Off	Power off or Power save
Green flashing rapidly	Starting up
Yellow flashing	Antenna searching for BGAN signal
Green flashing	Antenna tracking on BGAN signal
Green constant	Ready for BGAN service
Yellow flashing rapidly	Closing down
Yellow constant	Warning (user recoverable). See web interface for the warning text.
Red constant	Error. See the web interface.
Blue flashing	Uploading software to the terminal
Blue flashing rapidly	Safe mode

Cable and pin allocation

Cable length

Cable connector, engaging end

EXPLORER 323 cable (LAN & DC input)			
Pin	Signal	Wire colour	Interface
P1	TX+	Orange/White	LAN (Ethernet)
P2	TX-	Orange	
P3	RX+	Green/White	
P4	RX-	Green	
A	V+	Red	DC input
B	V-	Black	
C	Remote on/off	Blue	
D	Foil Shield Guide Wire	Metal	
E	Spare	Yellow	

Common Foil Shield
Main Cable Jacket
V+
V-
Remote on/off
Spare
TX+
TX-
RX+
RX-
LAN Interface
LAN Foil Shield
Foil Shield Guide Wire

Verifying the installation

To verify the successful installation of the EXPLORER 323 do the following:

1. Start the ignition of the vehicle (if you are using the ignition function).
2. On a connected computer (LAN or WLAN), start your browser.
3. Access the web interface at the local IP address (default 192.168.0.1).
4. If prompted, enter user name = **user** and Password = **<serial number of the EXPLORER 323>** (See label on the bottom side of the terminal).
5. Wait until the status field shows **Ready** and the LED lights green.
6. From the Dashboard, click **Start** on the **Standard data** connection.
7. From your browser, verify that you can access a known web site on the Internet.

IMPORTANT: After first installation or reinstallation calibrate the terminal by driving at a speed of minimum 20 km/h (12mph) for about 5 minutes with turns (preferably in the shape of figure 8) and braking and acellerating.

User & Installation Manual: In the web interface press ❓ to access the User & Installation Manual, or go to https://sync.cobham.com/ and select **Products** and search for EXPLORER 323 manual.

Technical specifications

Item	Specification
Safety distance	70 cm / 2.3 ft
Dimensions, EXPLORER 323 terminal	Height: 97 mm / 3.8 inches including spacers (87 mm / 3.4 inches without spacers) Diameter: 320 mm / 12.6 inches
Weight, EXPLORER 323 terminal	3900 g (8.6 lbs) including spacers
Operating temperature	-25°C to +55°C (-13°F to 131°F)
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Power supply	12-24 VDC -10% +30%
Power consumption	Max.: 27 W (transmitting Rx and Tx)
Start-up peak current	20 A at Vin 12 V (Steady-State after 3 sec.) and 40 A at Vin 24 V (Steady-State after 3 sec.).
Water and dust	IP66
Maximum vehicle velocity	110 km/h (68 mph) for magnetic mount, 200 km/h (124 mph) for bolt mounting

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