ARINCDirect℠ Xplore Operator's Guide

For XPLORE-PROD-90001-REV-

```
This document is intended for installers and operators.
```

Installing Xplore unit onboard aircraft:

Please refer to the **Xplore System Description and Installation Manual (SDIM)** for detailed installation information.

Confirm that :

1. The Xplore unit is connected to aircraft's cabin standard 115 VAC power source (using AC-DC adapter) or directly to the onboard 12 VDC or 28 VDC power source, via the power input connector labeled 'PWR' on back panel of Xplore unit.

2. Verify that the installed Iridium antenna is connected to the Xplore unit via RF cable at the TNC female connector labeled 'IRD' at the back panel of the unit. Confirm that the Iridium antenna has a clear, unobstructed view of the sky, 360 degree and 30 degrees above horizon, for direct access to the Iridium satellites.

Attention:
*Ensure IRD cable is connected to Xplore unit before making a voice call or sending an SBD message. If a call or SBD is attempted and Xplore does not have the IRD cable attached, **YOU WILL DAMAGE THE LBT's!***

3. Verify that the installed active GPS antenna is connected to the Xplore unit via RF cable at the SMA female connector labeled 'GPS' at the back panel of the unit. Confirm GPS antenna has unobstructed view of GPS satellites in the sky.

4. Ensure two Wi-Fi dual band Rubber Duck antennas are attached to SMA female jacks labeled 'Wi-Fi' on back panel of Xplore unit. Verify Wi-Fi antennas are secure and orientation of the two antennas is vertical.

Note:
The customer may also choose to have remote Wi-Fi antennas installed using RF cable interfaces.

To turn on the Xplore unit:

5. If the Xplore unit is accessible after installation, then press Power button in front of the unit.

Note:
If the Xplore unit is not accessible after installation, then the unit should be automatically turned on activating power to the cabin systems.

Definitions

WIFI-1 = Wi-Fi Conn.	
WIFI-2 = Wi-Fi Conn.	
IRD = Iridium Conn.	
LAN = Local Area Network	
RS-232 = (Iridium)	
PWR = Power Conn. & LED	
WAN =Wide Area Network (Inmarsat)	
RST = Reset Button	
FXO = (Iridium)	
WIFI = Wi-Fi LED	
GPS = Global Positioning System & LED	
GSM = Global System for Mobile comm. *(Not enabled)*	
USB = Universal Serial Bus	
LBT-1 = L-Band Transceiver - 1	
LBT-2 = L-Band Transceiver - 2	

LED Boot-up and Sequence Order

LED Name	LED Color	LED Flashing	LED Solid
Power	Off <-> Red	Repeating ~4 second oscillations between OFF and ON while Booting (for ~1 minute)	No Assigned state [N/A]
Power	Green	N/A	Boot Complete
Wi-Fi	Red	N/A	No Wi-Fi
Wi-Fi	Green	Wi-Fi in Use	Wi-Fi Enabled
Wi-Fi	OFF	N/A	Wi-Fi Disabled
LBT-1	Red	N/A	LBT1 not available/failed (IMEI all zeros)
LBT-1	Amber	Iridium signal < 1 (satellite not available)	N/A
LBT-1	Green	LBT1 in use: Voice-flash "V" Morse (…_) MSG+ - Flash "M" (_ _)	LBT1 available Iridium signal > 0, channel idle
LBT-2	Red	N/A	LBT2 not available/failed (IMEI all zeros)
LBT-2	Amber	Iridium signal < 1 (satellite not available)	N/A
LBT-2	Green	LBT2 in use: SBD - flash "S" Morse (…) PPP - flash "P" Morse (.__.)	LBT2 available Iridium signal > 0, channel idle
GPS	Amber	Acquiring GPS satellites	N/A
GPS	Green	N/A	Good GPS Reading (valid LAT, LON)
GSM	Off	N/A	GSM *(Not Enabled for Xplore)*

Connecting via Wi-Fi to Xplore unit

1. On the client's device settings, tap:
   > Settings   > Wi-Fi
   (ensure Wi-Fi indicator is green or enabled).

2. Connect to the Xplore unit's Wi-Fi Access Point (AP); select Wi-Fi SSID (for Xplore Crew xxx).
   Password: **Lambchop**   *(Note: case sensitive)*

*Note: It may take a few moments to locate and display the Xplore Wi-Fi AP SSID. If the device fails to see the ESSID, or cannot connect, please refer to the section 7 in the **Xplore Unit Troubleshooting Guide**.*

Accessing Xplore Unit Status Page

The Xplore unit's configuration will already be set for the customer prior to delivery.

1. Connect to Xplore Wi-Fi AP as shown above.

2. Launch internet browser, go to url
   auxadmin.xplore.aero and log in.
   Username: **operator** Password: **xplore**

If needed, one can also access the Xplore system configuration settings via this AUX status page.

Caution:
Any changes to these configuration settings may seriously affect the operation of the Xplore system.

Xplore Status Page

3. The **Status** page presents the Xplore system information : AUX and TELE SW build versions

4. Status of the interfaces: GPS, the Iridium L=Band Transceivers, and connected wireless client status.

5. Green LED status lights indicate proper functioning. *(GSM is disabled for Xplore).*

ARINCDirect℠ Xplore Status   LBT-1 Voice in Use   LBT-2

System Information
Hostname xplore-3204
Auxiliary Firmware XPLORE-AUX-SW-REV-A e7e1da4b8c5b98ccdd85ac2bedf5665c
Telephony Firmware XPLORE-TEL-SW-REV-A
LED Status   PWR WIFI LBT-1 LBT-2 GPS GSM

GPS Information
GPS Mode 3-D Fix
Latitude 38.976218
Longitude -76.549282
Altitude 34.000000
Speed 0.000000
Heading 0.000000
Horizontal Accuracy 8.622000
Vertical Accuracy 27.600000
GPS Time 17:34:05 20 Jun 17

Iridium L-Band Transceiver #1
IMEI 300125010906040
Registered with Satellite 1
Transceiver Status Voice in Use
Signal Strength 4

Iridium L-Band Transceiver #2
IMEI 300125010906030
Registered with Satellite 1
Transceiver Status Free
Signal Strength 4

Connected Wireless Clients

Network	IP Address	Hostname	MAC Address	Time	RX Pkts
Xplore Crew 3204	10.10.0.16	StacyAlworkiPad	4c:32:75:2a:5c:17	1219	44459
Xplore Crew 3204	10.10.0.13	SAMSUNG-SM-N920V	00:ae:fa:d1:10:0a	2762	31600
Xplore Crew 3204	10.10.0.15	Mahlons-iPad	84:29:99:67:4e:4d	9479	19983

Wi-fi Setup

If any changes are needed to the default Wi-Fi settings, click on **Wi-fi Setup** on left hand menu and make any necessary changes, then tap **Save Configuration.**

If device is not connecting to Xplore Wi-Fi AP SSID

1. If device does not connect or displays error "Unable to Join Network", within device go to *Settings > Wi-Fi* and press button to disable Wi-Fi. Wait approximately 15 to 20 seconds and attempt to reconnect device to Xplore unit's Wi-Fi AP (crew).

2. Check device is within approximately 20 to 25 feet from Xplore unit.

3. Ensure there are no significant barriers (e.g. multiple internal or solid walls, bulkheads, metal cabinets) in its "line of sight".

*Note: It may take a few moments to locate and display the Xplore Wi-Fi AP SSID. If the device fails to see the ESSID, or cannot connect, please refer to the **Xplore Unit Troubleshooting Guide**.*

Diagnostics: Verify SBD (MO & MT) Message Operation

Confirm Xplore's messaging service is functioning correctly by testing SBD MO (Mobile Originated) / air to ground messages and MT (Mobile Terminated) / ground to air message transmissions.

1. Click on **Diagnostics** on left hand menu and enter a number (bytes) in the **Packet Size** field (1800 bytes max) and click on "Transmit Ping" button.

2. It may take a few minutes to receive a response from ground server.

*Note: Reselecting **Diagnostics** refreshes the Result field.*

Example of successful return of an MT ping response:

Xplore Unit Software Updates

Detailed procedures for installing and verifying software updates for the TELE board and the AUX board on the Xplore units will be included within the Service Bulletins issued by Rockwell Collins-ARINCDirect.

Telephony (TEL) Configuration GUI

The TELE configuration page allows access to the Telephony Board configuration settings. The TEL GUI settings will be configured as recommended upon delivery.

You will need to access this page if you need to update the software on the TELE or the AUX boards.

1. Connect to your Xplore unit's Wi-Fi AP; select the Wi-Fi SSID (for crew). Password is **Lambchop** *(Case sensitive).*

   Launch internet browser; go to url teladmin.xplore.aero and log in. Username: **operator** Password: **xplore**

Telephony Board software update

Note: *If there is a need to update the image on both the Telephony Board and the Auxiliary Board, the Telephony Board should be done first.*

1. Tap **Firmware Update** from top menu tab.

2. Ensure **Web Update** is enabled.

3. Tap **Select File** to navigate to the image file that needs to be loaded

4. Confirm that "**Reset Configs**" is the ONLY checkbox selected.

5. Tap **Upload** and follow additional prompts.

6. Allow countdown to completely expire before attempting to reconnect to Xplore Wi-Fi.

Attention: *Do not power cycle unit before verification of Step 7. Doing so will corrupt the image loading process.*

7. Wait until system is fully loaded and all LEDs are green. Verify by successfully connecting to Xplore Wi-Fi AP.

8. Power cycle unit.

Auxiliary Board software update

Note: *If there is a need to update both the image on the Telephony Board and the Auxiliary Board, the Telephony Board should be done first. Refer to next section.*

1. Click on **Firmware Update** on left-hand menu.

2. Click on **Choose File** to navigate to the image file that needs to be loaded and press **Update Firmware**.

Attention: Do not power cycle unit before verification of next step. Doing so will corrupt the image loading process.

3. Wait until system is fully loaded and all LEDs are green. Verify by successfully connecting to Xplore Wi-Fi AP.

Power cycle unit.

Factory image restoration of telephony board

In a rare event it would be needed, to restore the factory default on the telephony board do the following.

1. Locate the **RST** access hole in back of unit.

2. While Xplore unit is powered on, with a small tipped object press and hold the Reset button *until* PWR LED starts to **blink green**.

3. Wait until system has fully booted to factory default and all LEDs are green. Verify by successfully connecting to Xplore Wi-Fi AP.

Load unit with desired software release. Refer to steps above in the section, ***Telephony Board software update.***

For questions or support, contact Rockwell Collins- ARINCDirect technical support at:
+1-410-266-2990 or E-mail: ADTech@ARINC.com