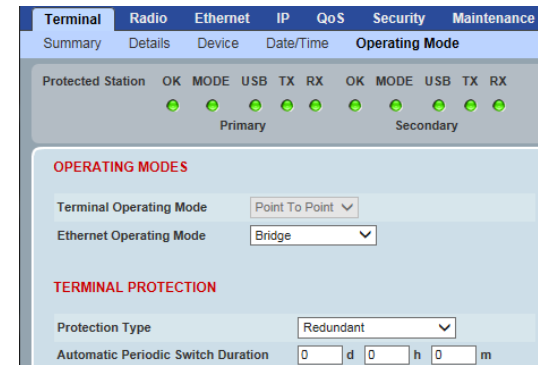


5. Setup the Aprisa FE Protected Station

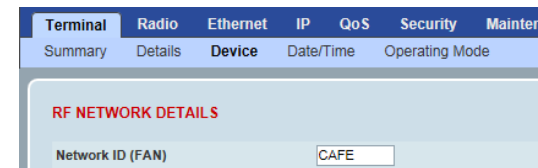
Login using the IP address of either the primary or secondary radio (do not use the PVIP address for login). All parameters will be automatically synchronized on both radios.

Set the Protection Type to Redundant (if not set already).

Set the Ethernet Operating Mode and the Compliance Mode required.

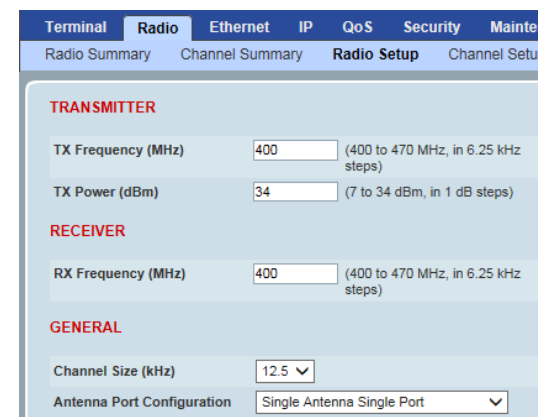


Set the unique radio Network ID to be the same on both radios.



Set the Aprisa FE TX Frequency, RX Frequency, TX Power and Channel Size to comply with your site license.

Set the Antenna Port Configuration required.



You can now configure the remaining protected station and link parameters and settings. Please refer to the Aprisa FE User Manual on the Information and setup CD for more information.

Reboot both Primary and Secondary radios and restore the Hardware Manual Lock switch is set to AUTO.

The Aprisa FE Protected Station is ready to operate.

6. Monitor the Aprisa FE Protected Station signal strength

When the link is installed, the radio signal strength can be monitored by setting the radio to Test Mode.

To enter Test Mode, press and hold the TEST button on front panel until all the LEDs flash green (about 3 - 5 seconds).

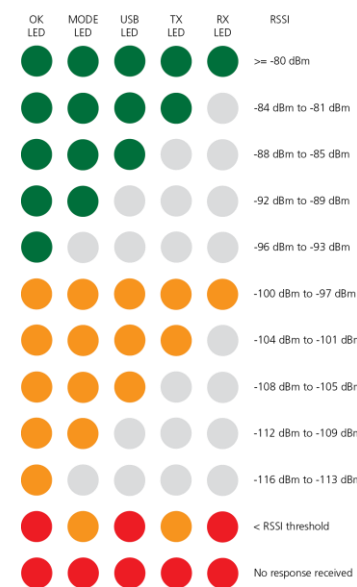
In Test Mode, the LED Display panel presents a real time visual display of the RSSI. This can be used to adjust the antenna for optimum signal strength.

Note: The response time is variable and can be up to 5 seconds.

To exit Test Mode, press and hold the TEST button until all the LEDs flash red (about 3 - 5seconds).

If the link is operating correctly, the LEDs will show:

- Active radio - the OK, MODE and USB LEDs will be light green and the TX and RX LEDs will be solid or flash green.
- Standby radio - the OK will light green, the MODE LED will light orange, the USB LED will light green and the TX and RX LEDs will light green (steady).




Quick Start Guide

Aprisa FE Protected Station

Contents

Follow these steps to setup your Aprisa FE Protected Station:

1. Check the box contents
2. Install the Aprisa FE Protected Station and connect the protection earth
3. Connect the antenna and apply power to the Aprisa FE Protected Station
4. Connect to the Aprisa FE Protected Station
5. Set up the Aprisa FE Protected Station
6. Monitor the Aprisa FE Protected Station signal strength

1. Check the box contents *

The Aprisa FE Protected Station is shipped to you in a box containing the following:



(1) Aprisa FE Protection Station:

- One Aprisa FE Protected Station containing two Aprisa FE radios pre cabled to the protection switch with product options of:
 - (1) Standard Protected Station - single antenna with or without duplexer (part number suffix ends with AA)
 - (2) Dual antenna Protected Station - dual antenna with or without duplexer (part number suffix ends with DA)
 - (3) Power supply input of 48 VDC (part number suffix ends with AB or DB)
- Two rack mounting brackets
- Two 2 pin female power connectors
- One 4 pin female remote control connector

(2) Information and setup CD containing the following:

- Aprisa FE System Software
- Aprisa FE Product Description and Aprisa FE User Manual
- Aprisa FE Software Release Notes
- Adobe® Reader® (for viewing the PDF files on the CD)
- TFTP server software
- USB Serial Driver
- Microsoft® Internet Explorer and Mozilla Firefox web browser

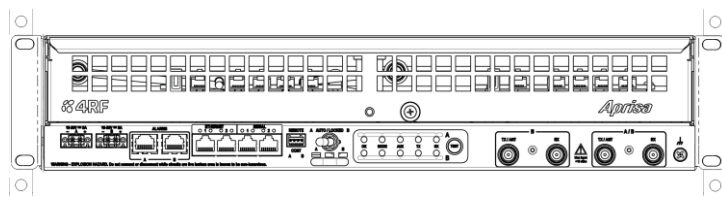


(3) USB Cable USB A to USB micro B, 1m

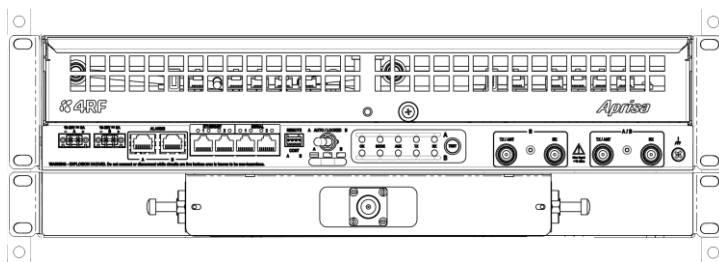
(used for Command Line Interface management - see the Aprisa FE User Manual)

2. Install the Aprisa FE Protected Station and connect the protection earth

The Aprisa FE Protected Station is designed to mount in a standard 19" rack.



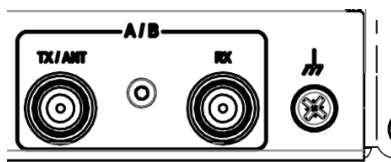
Rack mounted Aprisa FE Protected Station without duplexer



Rack mounted Aprisa FE Protected Station with duplexer

The Aprisa FE Protected Station has an earth connection point on the bottom right of the chassis. Use the supplied M4 screw to earth the enclosure to a protection earth.

The antenna feeder cable should use grounding kits for lightning protection as specified or supplied by the coaxial cable manufacturer to properly ground or bond the cable outer.



Note * When the spare Aprisa FE Protection Switch is supplied (APFS-XPSW-nnn-vv), the item includes the Aprisa FE Protection Switch chassis, mounting brackets, 2x power connectors, 1x remote control connector but no radios.

3. Connect the antenna and apply power to the Aprisa FE Protected Station

(1) Connect the antenna to the Protected Station antenna port (TNC female connector). If the antenna is not available, terminate the TX/ANT A/B antenna port with a TNC male 50 ohm terminator (10 Watts min). If the Protected Station is the dual antenna option, then both TX/ANT A/B antenna ports / terminators must be connected.

(2) The Aprisa FE Protected Station has two possible power supply input options nominal 12 VDC (+10 VDC and +30 VDC negative earth) and nominal 48 VDC (18 to 60 VDC floating) and consumes up to 42 Watts. Two power connectors (Molex 2 pin female) are supplied fitted to the Protected Station. Wire your power source to the two power connectors (- / +) and plug the connectors into the Protected Station. The connector screws can be fastened to secure the connectors.



(3) Turn your power source on.

All the LEDs on both radios will flash orange for one second and then change to:

- Active radio - the OK will light green, the TX and RX LEDs will light green (steady or flashing), the MODE and USB LEDs will light green.
- Standby radio - the OK will light green, the TX and RX LEDs will light green (steady), the MODE LED will light orange and the USB LED will light green.

4. Connect to the Aprisa FE Protected Station

Ensure that the Hardware Manual Lock switch is set to radio A (this is a factory default setting). This prevents random switching when changing the radio settings.

The Aprisa FE primary radio (radio A) in the Protected Station has a factory default IP address of 169.254.50.10 and the secondary Aprisa FE radio (radio B) in the Protected Station has a factory default IP address of 169.254.50.20, both with a subnet mask of 255.255.0.0.

- Set up your PC for a compatible IP address e.g. 169.254.50.1 with a subnet mask of 255.255.0.0.
- Connect your PC network port to one of the Aprisa FE Protected Station Ethernet ports (1 to 4).
- Open a browser and enter <http://169.254.50.10>.

Note: The Aprisa FE has a self-signed security certificate which may cause the browser to prompt a certificate warning. It is safe to ignore the warning and continue. The valid certificate is 'Issued By: 4RF-APRISA' which can be viewed in the browser.

- Login to the primary radio with the default login 'admin' and password 'admin'.
- Both radios in the Protected Station must be setup with unique IP addresses on the same subnet.

Set the Primary IP address and the Secondary IP address to network compatible IP addresses. Set the Protected Station Virtual IP Address. This is the IP Address of the active radio used in both bridge and router modes. Set the Subnet mask and Gateway.

The screenshots show the 4RF Supervisor web interface. The first screenshot is the login page with fields for Username and Password. The second screenshot shows the 'Terminal Summary' page with details for the Protected Station, including location (Wellington), contact details (4RF Limited), and protection information (Redundant, Primary Active Unit). The third screenshot shows the 'Networking IP Settings' page with fields for Virtual IP Address (172.10.1.50), Primary IP Address (172.10.1.30), Secondary IP Address (172.10.1.31), Subnet Mask (255.255.0.0), and Gateway IP Address (0.0.0.0).

If the IP addresses of radios in the protected station are unknown for some reason, they can be shown or changed via the Command Line Interface (CLI) on the radios MGMT USB ports.

- Open the protected station drawer by sliding it from the front
- Connect your PC USB port to the primary Aprisa FE (A) MGMT USB port (see the Aprisa FE User Manual CLI section)
- Login to the radio with the default login 'admin' and password 'admin'.
- At the command prompt >> type 'cd APRISASR-MIB-4RF' and enter
- At the command prompt >> type 'ls Terminal' and enter to show the existing IP address
- At the command prompt >> type 'set termEthController1IpAddress xxx.xxx.xxx.xxx' and enter to change the IP address.

The Protected Station is configured in the 4RF factory as a protected station. If for some reason it is not setup as a Protected Station, please see 'Creating a Protected Station' in the Aprisa FE User Manual.