



Application Note

06/13/2017

Using XR-3™ Satellite Meter to Align Commercial Style C Band Satellite System to 105°W AMC-18 for Radio Station Migration

Connections: Coax cable connected from LNB output port to LNB/ODU port of XR-3's satellite meter module

Meter set-up

Press the **SYST** System shortcut soft-key (located near top left corner of LCD screen) to enter the System Setup menu. Then select the following:

- REGION your geographic region (i.e. **NE Continental US**)
- SERVICE **Generic C Band**
- SYSTEM **H/V Sngl Pol LNB**
- LNB MODEL depends on your LNB model specs, but the most common in the USA is **LO= 5.15, 3.7-4.2**. You may choose another LNB model if applicable to your LNB.
- SWITCH TYPE defaults to **none** assuming you'll have meter connected directly to LNB with no multi-switch in line

*To make selections, arrow up or down to the item to change and press **Enter**, then arrow up or down to the desired option and press **Enter**. Press **EXIT** or **DONE** to return to Run Mode*

Antenna Pointing

Install the mast plumb, preset the antenna vertical angle, mount to mast and grossly align azimuth. You may want to use the AZ/EL lat/long or postal code look-up feature to obtain rough antenna settings.

- Use left / right arrow keys to select the desired satellite (orbital position displayed in upper left). Refer to your service paperwork to know which satellite to aim dish at (i.e. AMC 18 satellite at 105°W).
- Press the **AZ/EL** soft-key (located near lower left corner of main Run screen), type in the local postal code, and press **ENTER**. Approximate antenna settings (i.e. magnetic compass heading, azimuth, elevation, and polarization offset) will be displayed. Press **EXIT** soft-key to return to the main Run screen.

Run Mode

- Select the vertical receive polarity (**VT**) with the upper right soft-key. If meter displays HZ in top right corner of screen, then press the top right soft-key to toggle to VT. Important: You must have your feed horn physically oriented for the vertical downlink/receive polarization that you specify to the meter.
- Press **LNB** soft-key (located near middle right side of LCD screen) to power the LNB.
- Adjust antenna reflector alignment (azimuth and elevation) to obtain maximum signal level (shown on left bar graph in dBm), signal quality (shown on right bar graph in IRD, C/N, Eb/No, or Es/No), and LOCK status.
- Rotate the LNB and feed horn assembly (adjusting the polarization offset) or skew of dish antenna reflector (if applicable) to maximize signal level and quality.
- Press the **ID** soft-key to verify the satellite. "ID VERIFIED" means you are pointed correctly.
- If "ID FAILED" is displayed, press **SCAN** soft-key and XR-3™ will find which satellite you are aimed at.
- If desired, you may also use Up/Down arrow keys to scroll through other transponders (besides the default transponder) to check for LOCK (for more supporting evidence you're aimed at desired sat) and proper level and quality.

Note: It is NOT recommended to keep XR-3™ meter in line while checking IRD/receiver/modem status due to attenuation from the meter's circuitry.