APPLIED INSTRUMENTS, INC.

RF TEST AND MEASUREMENT

Application Note

29 June 2018

Installing **DTN**™ with the XR-3 satellite meter

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

Meter set-up

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

- REGION   your geographic region
- SERVICE   **Other Providers**
- SYSTEM   **DTN**
- LNB MODEL   choose either **Velocity SES3 103W** or **FarmData G3C 95W** or **97W G19**
- SWITCH TYPE   defaults to **none**

*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*

Dish Setup:

- Press the left / right arrow keys to select the desired satellite (orbital position displayed in upper left corner of LCD screen). Refer to your DTN paperwork to know which satellite to aim dish at. DTN uses signals from the 95°W Galaxy 3C, 97°W Galaxy 19, and 103°W SES-3 satellites for different services.
- Press the **AZ/EL** soft-key, type in the local postal code, and press **ENTER**. Approximate antenna settings will be displayed. Press **EXIT** soft-key to return to the main Run screen.
- Install the mast plumb, preset the antenna vertical angle, mount to mast and grossly align azimuth using the Azimuth/Elevation look-up feature to obtain rough antenna settings.
- Pre-set the dish's elevation to the elevation angle shown in the AZ/EL screen.
- Press the soft-key in the upper right corner of the LCD screen to choose the correct receive polarization, selecting either horizontal **(HZ)** or vertical **(VT)** receive polarity. Refer to your DTN paperwork to know which receive polarity to use. Note: Your feed horn must be positioned for the same downlink/receive/outbound polarization specified to the meter for proper operation.

Run Mode:

- Press **LNB** soft-key (located on middle right side of LCD screen) to power the LNB.
- Adjust antenna azimuth and elevation to obtain maximum signal level (left bar graph), signal quality (right bar graph), and LOCK status.
- 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 the 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 to check for proper level and quality for supporting evidence.

Notes:

-It is NOT recommended to keep XR-3 meter in line while checking IRD/receiver/modem status due to attenuation from our circuitry.