

Application Note

4/28/2014



Installing Dish Network Dish 500+ System with AI Turbo S2 Satellite Meter



Connections: Connect output port of Dish 500+ LNB cluster to ODU / LNB port of AI Turbo S2 satellite meter with coax cable

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 **Dish Network**
- SYSTEM **Dish 500+/1000+**
- LNB MODEL **Dish 500+ DP34/DPP33** or other as applicable if using a wing dish
- SWITCH TYPE defaults to **Dp34**

*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*

Azimuth/Elevation Lookup:

Push the **AZ/EL** soft key (lower left corner of main run screen), use the numeric keypad to enter the zip code for your current location, and press the **ENTER** key. Press **EXIT** to return to Run Mode.

Antenna Pointing

Install the mast (pole) plumb, preset the antenna reflector's vertical angle (elevation setting) and Skew setting, mount antenna reflector to mast, and grossly align azimuth (using magnetic compass according to 'Magnetic' coordinates shown in AZ/EL screen on meter). You may want to use the AZ/EL look-up feature to obtain rough antenna reflector settings based on your zip code or latitude and longitude.

Run Mode:

- Connect a coax jumper cable from the ODU/LNB port of your AI Turbo S2 meter to the LNB output port labeled 2D. Please note that "D" stands for "DBS".
- Press **LNB** soft-key (located on middle right side of LCD screen) once to power the LNB and go to LNB1 (119°W). The satellite orbital position will be shown in upper left corner of LCD screen.
- Adjust antenna reflector azimuth (left or right) and elevation (up or down) to obtain maximum signal level (left bar graph), signal quality (right bar graph), and LOCK status.



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- Press the **ID** soft-key (located on middle left side of LCD screen) to verify that you're aligned to the 119°W satellite. "ID VERIFIED" means you are pointed correctly.
- If "ID FAILED" is displayed, press **SCAN** soft-key and Super Buddy 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.
- Disconnect the coax jumper cable from the LNBF output port labeled 2D and connect the coax jumper cable to the LNBF for the 110°W satellite.
- Press LNB power soft-key to toggle to LNB2 (110°W). Fine tune azimuth, elevation and skew of dish to maximize signal level (left bar graph) and signal quality (right bar graph), and achieve LOCK.
- Press ID soft-key to verify ID of 110°W satellite.
- If desired, you may also use Up/Down arrow keys to scroll through other transponders to check for proper level and quality.
- Disconnect the coax jumper cable from the LNBF for the 110°W satellite and connect the coax jumper cable to the LNBF output port labeled 1F. Please note that "F" stands for "FSS".
- Press LNB power soft-key to toggle to LNB3 (118.7°W). Fine tune azimuth, elevation and skew of dish to maximize signal level (left bar graph) and signal quality (right bar graph), and achieve LOCK.
- Press ID soft-key to verify ID of 118.7°W satellite.
- If desired, you may also use Up/Down arrow keys to scroll through other transponders to check for proper level and quality.

Limit Scan:

This step may be done for each satellite.

- Press the **MENU** soft key.
- Press the **LIM SCAN** soft key or scroll and highlight **Limit Scan** and press **Enter**.
- Press the **EDIT** soft key then press the **USE ZIP** soft key.
- Press **DONE** to perform limit scan.
- Review results or save them in meter for future use.

You may also choose to use the PoP Scan function of the meter to record the measurements. Please refer to the operations manual for more information and instructions related to the Proof of Performance scan feature.

Notes:

- It is NOT recommended to keep the AI Turbo S2 meter in line while checking receiver status due to attenuation from our circuitry.
- Please ensure that you have the latest versions of North American Field Guide, Software, Dish Limit values, and Postal Codes loaded into your meter. If your meter has older versions loaded, please use the FlashUpdate program to update your meter, as described in the Operations Manual.



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