



Application Note

09/04/2009

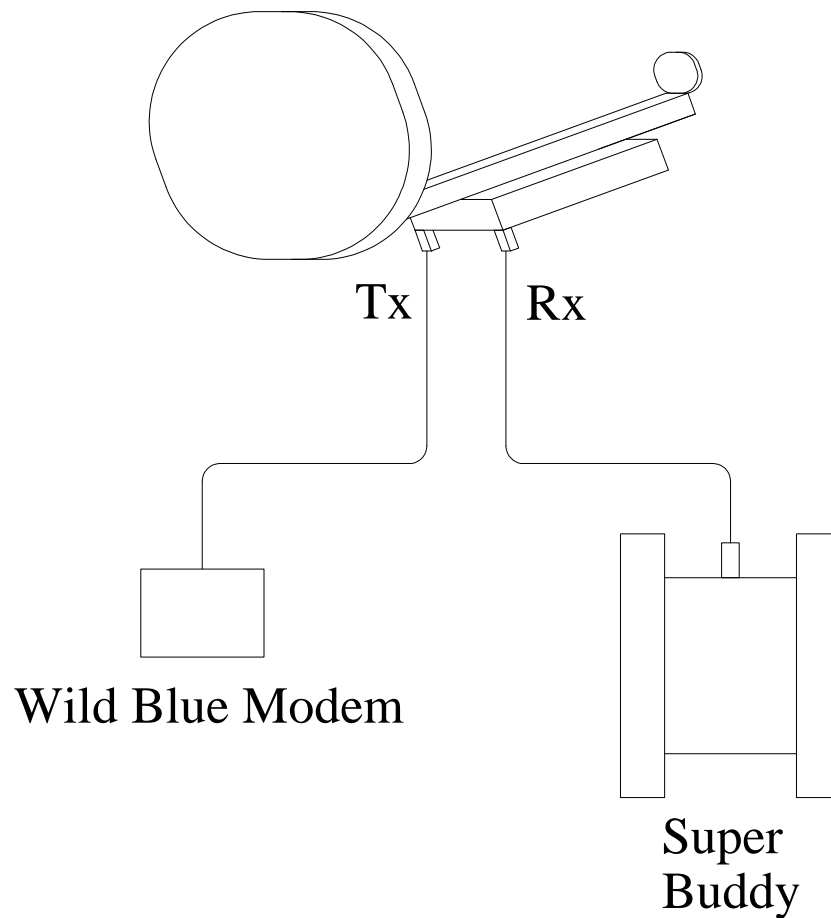
How to install Wild Blue® with a Super Buddy™ Satellite Meter

The Wild Blue antenna system is powered by 29 volts DC on the TX port of the antenna module (TRIA). There are three different configurations that may be used to power the Wild Blue TRIA:

1. Powering the TRIA from the modem

This configuration works with all styles of Super Buddy meters.

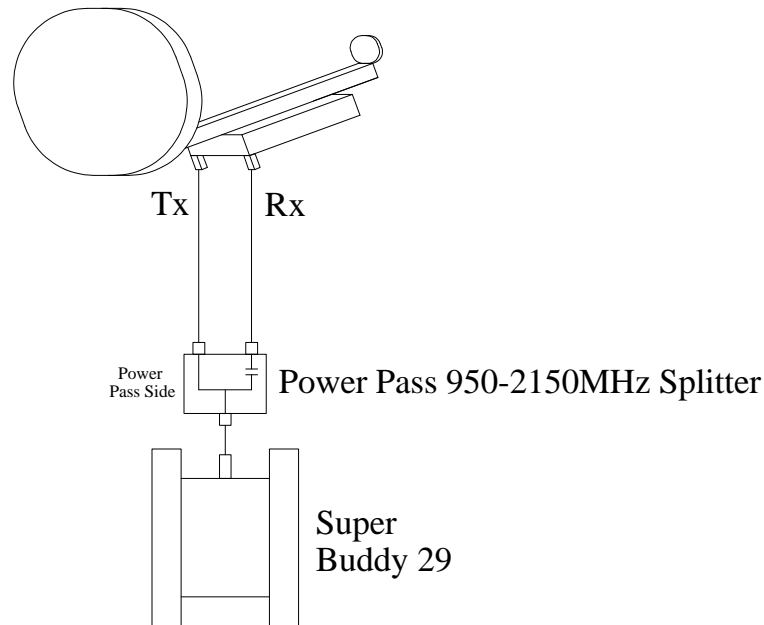
Connect the TX port on the Wild Blue TRIA to the TX port of the Wild Blue modem.
Connect the RX port on the Wild Blue TRIA to the Super Buddy meter's Signal In port (top).
Turn the Wild Blue modem on. Note: you shouldn't have anything connected to the bottom (IRD) port of the Super Buddy meter in this configuration.



2. With The Applied Instruments Super Buddy 29

Connect the power passing side of a splitter to the TX port on the Wild Blue TRIA.
Connect the DC block (non-power passing) side of a splitter to the RX port on the Wild Blue TRIA.
Connect the bottom remaining port on the splitter to the Super Buddy meter's top (Signal In) port.

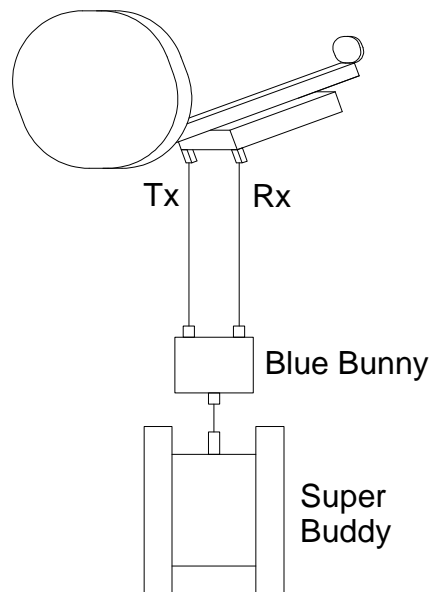
To prevent sparking and to protect components, connect all cables before turning the LNB power on.
Turn off the LNB power before disconnecting the cables.



3. With The Applied Instruments Blue Bunny™ Voltage Converter Box

Connect the TX side of the Blue Bunny converter box to the TX port on the Wild Blue TRIA.
Connect the RX side of the Blue Bunny converter box to the RX port on the Wild Blue TRIA.
Connect the remaining port on the converter box to the Super Buddy meter's top (Signal In) port.

To prevent sparking and to protect components, connect all cables before turning the LNB power on.
Turn off the LNB power before disconnecting the cables.



Wild Blue Satellites

Wild Blue provides service from two satellites that are located at 111 West and one satellite located at 105.0W (AMC-15). Anik F2 (111.1W) was in service first and uses left-hand circularly polarized signals. The Wild Blue 1 satellite (111.0W) began providing service in 2007 and uses right-hand circularly polarized signals. The polarization difference allows the two 111 West satellites to use the same frequency range without interference. The LNB assemblies (TRIA) for these systems are designed for either right or left-handed polarization. You must use the correct LNB assembly (TRIA) for the system you are installing. The AMC-15 satellite (105.0W) began providing service in mid-2009 and uses right-hand circularly polarized signals.

Wild Blue Spot Beams

The Wild Blue system uses spot beams for different areas. The Super Buddy meter will look up the beam number for your area given the zip code. Each spot beam has two or three signals on each spot beam. The spot beam numbers are NOT the same as the pointing aid (APA) settings given by Wild Blue although they are related.

Meter Setup

Push the **SYST** System soft-key to select the following:

- REGION your geographic region
- SERVICE **Other Providers**
- SYSTEM **Wild Blue**
- LNB MODEL WB Anik – if you are installing for the Anik F2 satellite (111.1W)
 OR
 Wild Blue 1 – if you are installing for the Wild Blue 1 satellite (111.0W)
 OR
 WB AMC-15 – if you are installing for the AMC-15 satellite (105.0W)
- SWITCH TYPE 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

Zip Code Lookup

Push the **ZIP** soft-key and enter the zip code where you are installing the system and then press the Enter key. *The Super Buddy will look up the zip code and the Wild Blue beam number for your area. The beam number will be displayed at the bottom of the screen and utilized when you return to the Run Mode.*

```
Wild Blue 1
111.0W        ◀E W▶
Zip/Postal    46203
Latitude     39.5
Longitude    -85.7
Azimuth     216.6
Magnetic    220.8
Elevation    37.3
Polar off    27.4
SPOT BEAM            [EXIT]
Beam        115
Arm angle    19.7
Skew        62.6
APA         2
```

The arm angle, skew setting and APA number are also calculated and displayed at the bottom of the screen.

Press **EXIT** or **DONE** to return to Run Mode

Over-riding the Beam Number

If for some reason you want to view the signals on beams other than the one assigned to your zip code, you can override the assigned beam. Go to the ZIP screen, arrow down to the Wild Blue beam number and enter the desired beam number and press Enter. Press EXIT soft-key to return to the Run screen and you will see the entered beam will be displayed but may not be visible in your area. If you enter a beam number of 0 (zero), you can scroll through all of the beams using your up/down arrow keys while on the main Run screen.

Run Mode

When you return to the Run screen, satellite Anik F2 (111.1W), Wild Blue 1 (111.0W), or AMC-15 (105.0W) will automatically be selected and the available transponders will be limited to the spot beam used in your area. The up and down arrow keys allow the user to scroll through the 2 or 3 carriers on the beam. Any of these should work, but you can test to confirm by scrolling through them while connected to a properly aligned dish.

- Press the LNB power soft-key to power up the LNB (not needed if using power from the modem)
- Align the antenna to obtain a strong signal level, a lock, and the best quality (C/N)
- Disconnect the Super Buddy from the system before using the Wild Blue SVT tool to obtain an accurate SVT reporting of the down stream channel power.

Note: the ID function does not work with Wild Blue as it does for other installations. If you receive a LOCK status, you can be sure you are pointed correctly.

Modem Provisioning

After the dish is peaked using the Super Buddy, you should remove the Super Buddy and connect the Wild Blue APA device. Follow WildBlue's instructions to set the APA device to the proper setting for your area, this is shown on the Super Buddy zip code screen and is provided by Wild Blue on the work order. Then connect the modem and allow the modem to find and lock onto the correct beam.

NOTE for Modem Provising: You must have the APA device connected to ensure the modem will lock to the correct signal.

Without the APA, it is possible that the modem will lock onto the wrong beam and never obtain the necessary provisioning signals from the satellite.

Follow Wild Blue's instructions for provisioning and final testing.

NOTE: None of the meters in the Super Buddy line (Super Buddy, Super Buddy 21, and Super Buddy 29) or Sat Buddy line (Sat Buddy, Sat Buddy 2, and Dual Buddy) can be used, alone or with a Blue Buddy Voltage Step Up, to power the Wild Blue TRIAs manufacturer by Ko Space in Korea. This is due to the extremely high current level required. For the Ko Space applications, use power from the WildBlue modem during dish alignment. Refer to the section on page 1 of this application note titled "Powering the TRIA from the modem" for detailed instructions.

The Super Buddy 29 and the Blue Bunny Voltage Step Up used with the Super Buddy, Super Buddy 21 and Sat Buddy line (Sat Buddy, Sat Buddy 2, and Dual Buddy) can power the more popular WildBlue TRIA manufactured by UMA in Taiwan. Please refer to the manufacturer tag on the TRIA. If it says "Made in Taiwan by UMA", then it is compatible. If it says "Made in Korea by Ko Space", then it is NOT compatible.

Updates

Applied Instruments will make changes as we learn of them and post them on our web site in our Field Guide updates. (http://www.appliedin.com/www/products/SuperBuddy_SoftwareUpdates.html)