

# SWR/Power Meter DR-235/250Dual

## CALIBRATION INSTRUCTIONS

1. Press the "SETUP" icon to enter menu.
2. With the "Up or Down" arrows, select the "Calibrate" pressing "ENTER".
3. Press "B.SEL" to select on which Band/coupler you will make calibration. "If you select wrong profile then you will overwrite calibration on it loosing previous data".
4. Select "1<sup>st</sup> level (dbm) option pressing the "ENTER".
5. Select with the arrows the power you will use in dbm (In this step you transmit the higher power).
6. Make a TX with a "known" power, for example 100 W, at Dummy Load.
7. While in TX, and the display show "Signal Detected", press the "ENTER" to save the measurement...
8. Select "2<sup>nd</sup> level (dbm) option pressing the "ENTER".
9. Select with the arrows the power you will use in dbm. (In this step you transmit the lower power).
10. Now reverse the coax cables on "TX-Antenna" connectors, and repeat the same procedure as did before. (Using same powers for 1<sup>st</sup> & 2<sup>nd</sup> steps)
11. The screen **in this case** will show "Reverse Signal Detected", because it has recognized the reversal of the cables. Do not worry, go ahead...
12. Press the "ENTER" icon to save again the measurements...
13. If you made a mistake, don't worry, you can repeat the process from the beginning.
14. If you finished don't forget to reverse again the RF cables for correct readings.

### **Advice:**

For more accurate results always do this calibration with a good Dummy load connected directly to the "Antenna" connector of the coupler or connect it using a very short cable.

### **NOW take a note "How to calibrate the correct Profile" :**

When you have entered "Calibrate Menu", you see on TOP which Band/Coupler Calibration Profile is selected for Calibration.

There are 8 Calibration profiles:

4 used for Internal "Coupler 1" (HF-6M-2M-70cm)

4 used for external "Coupler 2" (HF-6M-2M-70cm).

## Profiles referred to Band segment of 1<sup>st</sup> and 2<sup>nd</sup> Coupler you have connected

By pressing Icon “B.SEL” on top right of display in Calibration menu you can select at which profile this calibration will be stored.

There are the following sequential options:

1. Coupler 1 for HF
2. Coupler 2 for HF
3. Coupler 1 for 6M
4. Coupler 2 for 6M
5. Coupler 1 for 2M
6. Coupler 2 for 2M
7. Coupler 1 for 70cm
8. Coupler 2 for 70cm

**Tip 1: Take attention to select the correct Profile** otherwise you will save the values on a wrong previous calibrated profile....

**Tip 2: To calibrate the external 2nd coupler you have to select firstly** on main display the CPL2 otherwise the RF will be directed to CPL1 (internal Coupler), making calibration to CPL2 impossible.

**Calibrate using an accurate RF power level:** For example....

50dbm = 100Watts  
40dbm = 10 Watts  
30dbm = 1Watt  
57dbm = 500Watts  
47dbm = 50 Watts

**Tip 3:** If you intend to use up to 100W then calibrate for 100W 50dbm 1<sup>st</sup> step & 10W 40dbm 2<sup>nd</sup> step

**If you use 500W or more** then calibrate for 500W 57dbm 1<sup>st</sup> step & 50W 47dbm 2<sup>nd</sup> step to have more accurate readings up to 2KW

For VHF/UHF calibrate for 50W 50dbm 1<sup>st</sup> step & 10W 40dbm 2<sup>nd</sup> step

**Tip 4:** After selecting which coupler/Band Profile you want to calibrate, then select using the “Up/Down Arrows”, RF power in dbm is going to use!!

**Tip 5:** In “Config Menu” Can select which “Screen Buttons” will be showed in main screen.

You can hide or not the “Screen band buttons” depended on the configuration of your Power meter. (WiFi-HF-6M-2M-70cm).



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