



[FD-HFB5 HF SWR/Wattmeter Calibration Procedure with SWM5](#)

1. Complete Assembly and any preliminary tests before proceeding with this calibration Procedure. I have not provided images of each step, since this procedure is relatively simple.
2. Attach a dummy load to the “Ant” SO-239 connector on the HFB5 RF Sensor board. Try to keep this connection as short as possible (ie: double male UHF adapter if possible). The better the quality dummy load the more accurate your calibration will be.
3. Connect the “TX IN” SO-239 to your radio with a coax jumper.
4. Remove the 4 cabinet screws on the Display Unit, and verify DIP switches 1,2 & 4 are in the “up” position, and all others are “Down”. The DIP switches are located at the rear left-hand side of the display board, when viewed from the front.
5. Replace the GCPU cover and 4 cabinet screws.
6. Apply power (+12vdc) to the SWM5 + GCPU-0813, and press the Power “ON” button on the lower back of the GCPU-0813.
7. Connect the supplied DB9F-DB9F cable between the FD-HFB5 sensor board, and the “A” DB9M on the SWM5 display unit. NOTE: The DB9F connector on the HFB5 is not used at this time.
8. The GCPU-0813 Display should show the SWM5 Start-up Display, v01.02, 00001011, , USB INT
9. Momentarily Press any button to enter the Stand-Alone Mode. The screen will briefly say “Standalone”, then show one of the display screens.

10. Momentarily Press either “White” button to toggle thru the various display screens. Select the C
11. “ChA” PwrFWD, PwrREF, PwrOUT, SWR display.
12. Press and hold the Green Button for 1 second, then release it. When the Green button is released, you should see the “Scalemode” Screen.
13. A “>” should be just left of ChA. If the “>” is next to the “ChB”, momentarily press the “Red” button to move the “>” to next to “ChA”.
14. Momentarily Press either “White” button until “1KW” is displayed next to “ChA”.
15. Press and hold the Green Button for 1 second, then release it. When the Green button is released, you should have returned to the display screen selected in Step 11.
16. Apply a RF carrier to the HFB5 Sensor of known value For Example: 100W
17. Adjust potentiometer “P2” in the HFB5 to display 100W in the PwrFWD field on the GCPU-0813 Display.
18. Unkey you transmitter.
19. Swap ((Reverse) the coax cables on the HFB5
20. Key your transmitter again, and adjust potentiometer “P3” for a reading of 100W in the PwrREF field on the GCPU Display.
21. Swap coax cables back to “Normal”.
22. The calibration procedure for “ChA” is now complete If desired, you may add a second RF Sensor board, and calibrate it to the “ChB” input.
23. Congratulations! You’re Done! Have Fun...