

FOXDELTA PM3A Power Meter Calibration Procedure

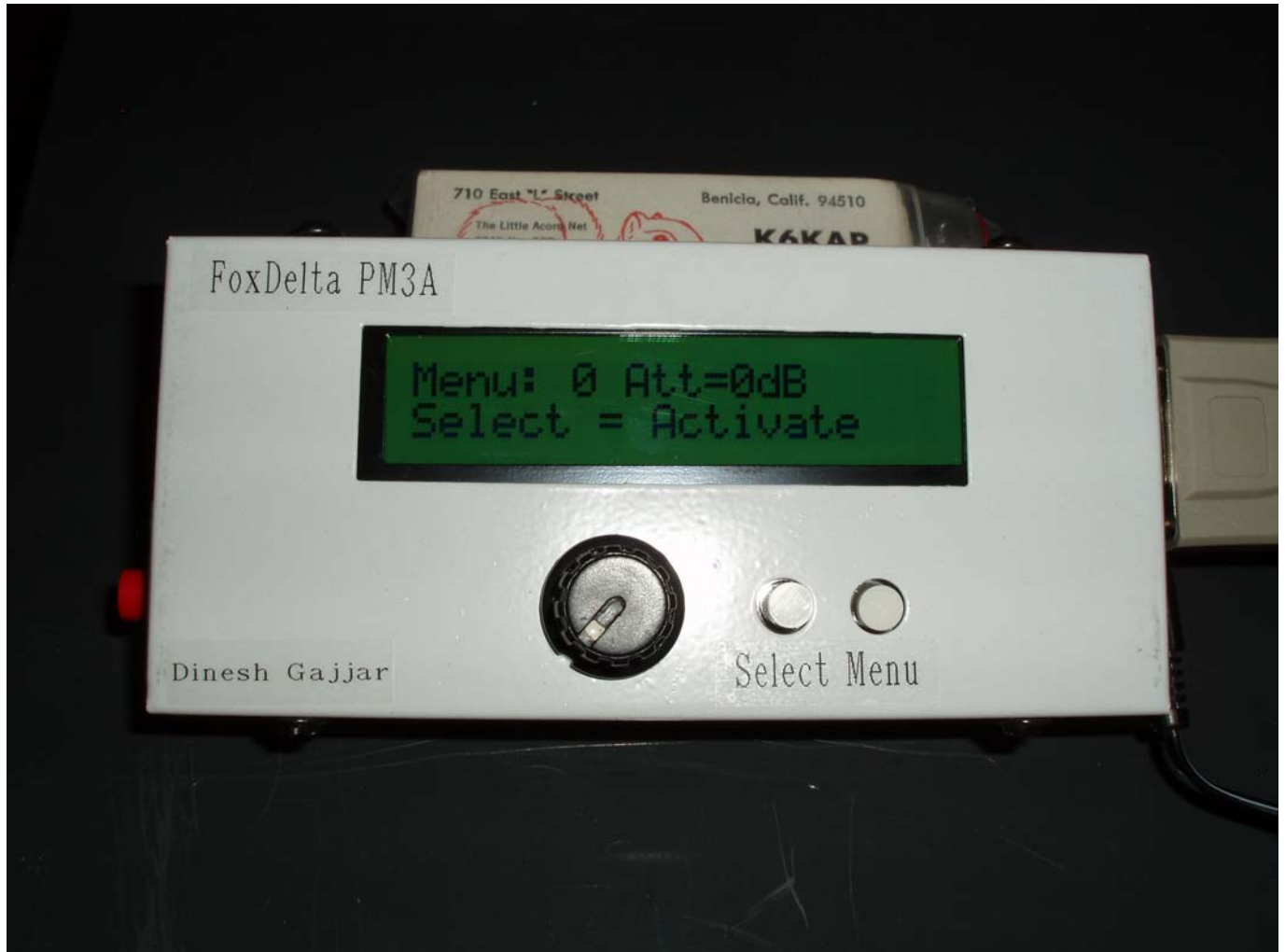
BY Frank/K7SFN

1. Attach Sensor (Power Head) to PM3A Display Unit with the supplied DB9 cable, and apply +12 VDC Power.
2. NOTE: The Display Unit has a Rotary Switch and two Push Buttons. The right-hand most push button is the "MENU" button, and the button next the rotary switch is the "SELECT" button. The Red switch on the left end of the Display Unit is the LCD "Backlight" power switch.
3. The default LCD display upon "power-up" is the Power Meter screen. (seen below)



Default Power Meter Screen (No Signal)

4. Before we begin calibrating the PM3A, let's set the Attenuator to Zero (0.0) dbm. Momentarily press the "Menu" button, and operate the rotary switch to the MENU: 0 Att=0db screen.



Menu 0 Screen Pressing "SELECT" sets Attenuator to Zero db.

5. Momentarily press the "SELECT" button to set the Attenuator to zero db.
6. There are five individual calibration memories in the PM3A: LF, HF, VHF, UHF, & SHF. The initial recommended calibration points are LF=3.6 MHz, HF=14.2 MHz, VHF= 144 MHz, U HF=430 MHz, and SHF=440 MHz, however you may custom calibrate each of these memories at any frequencies you desire, to improve the unit's accuracy.. For example: 1.9 MHz, 3.5 MHz, 7 MHz, 14 MHz, & 28 MHz.)

7. To calibrate the “LF” memory @ 3.6 MHz, make sure you are in the default power meter main screen, and rotate the rotary switch until you see “LF” displayed in the middle of the top line on the LCD display (See picture #1 above).
8. Momentarily, press the “MENU” (Right) button, then rotate the rotary switch until the top line in the display shows “MENU: 10 Cal 0dBm LF”.



Menu 10 Calibrate Screen

9. Apply a VERY ACCURATE 3.6 MHz, 0.0 dbm signal source to the J2 BNC connector on the Sensor unit. While the signal is being applied to the sensor, press the “SELECT” push button. This will store the 0dbm calibration value for 3.6 MHz into the “LF” memory. Remember, you must be applying the signal to the sensor, prior to pressing the “SELECT” button, or you will receive an error message stating “Not in Range +1- -20 dbm.”



PM3A After Calibration with 0 dbm Signal Applied

10. Once you have returned to the main Power Meter screen, you can select one of the other calibration memories with the rotary switch (HF, VHF, UHF, or SHF) and, repeat the process.
11. Remember the PM3A's range is -20 dbm to $+10$ dbm with the attenuator in the Zero db setting.
12. Good Luck, and have fun with your new PM3A Power Meter.

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