

**APPENDIX 5**  
**USER'S GUIDE**

The FS-466F is professionally installed, no User's Guide is applicable.

**USER GUIDE**  
**FCC ID: D8T800MTDMABASE**  
**APPENDIX 5**

**APPENDIX 6**  
**TRANSCEIVER ALIGNMENT**

THREE (3) PAGE TEST BOX USERS' MANUAL FOLLOWS THIS SHEET

TRANSCEIVER ALIGNMENT  
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**APPENDIX 6**

## Test Box User's Manual

### Scope

Test Box is a windows based application that allows us to control the TX and RX setting of the Wireless Base Station Unit (WBSU). The program is provided to assist FCC approval testing of the WBSU.

Test Box can be install on any machine equipped with either Windows 95 or Windows 3.x. This application allows you to change the Tx and the Rx parameter settings on the WBSU. To monitor the status of the WBSU, use any terminal program such as Windows HyperTerminal or Procomm Plus with setting of COM ?, 9600 and N81.

### Connecting your PC to the WBSU

Connecting the WBSU to a PC running Test Box involves 1) connecting a -48 Vdc power supply to the PC, 2) connecting the WBSU Interface Cable, and 3) connecting the WBSU Debug Cable. The block diagram below show the connections.

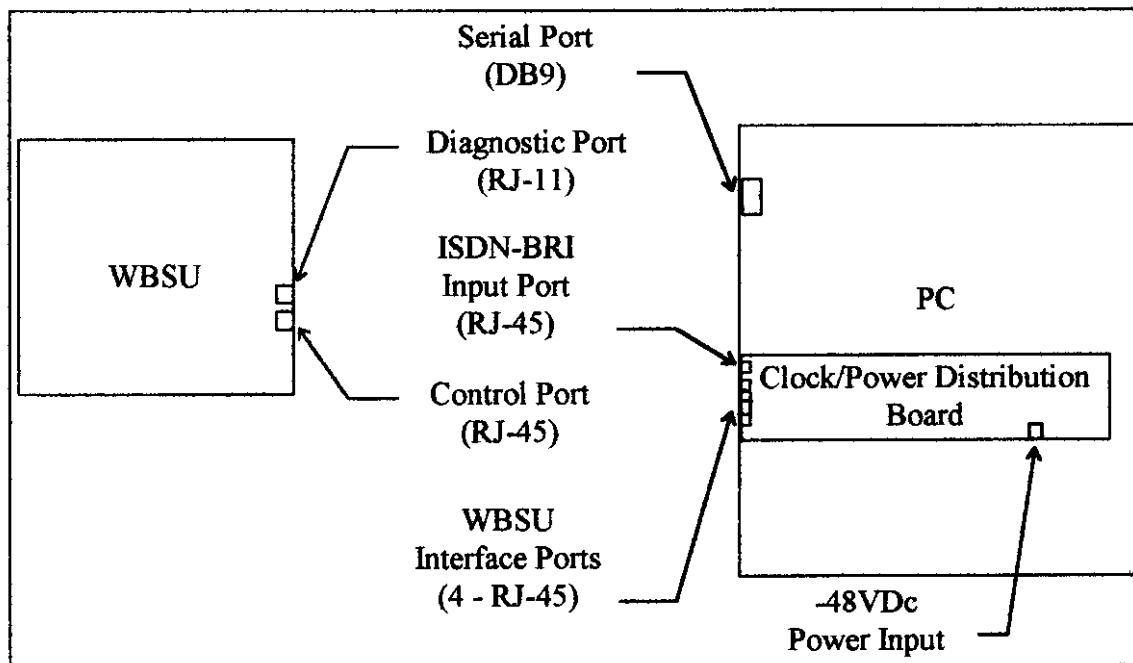


Figure 1-1 WBSU Test Box Block Diagram

A -48VDC power supply is connected to the Clock/Power Distribution Board. A 4-foot cable with banana jacks is provided to connect to the Clock/Power Distribution Board and the external -48VDC power supply. A WBSU Interface Cable (an 8-conductor cable with male RJ-45 connectors) connects to the WBSU's Control Port and one (any) of the four WBSU Interface Ports on the Clock/Power Distribution Board. The WBSU Debug Cable

(a cable with a male RJ-11 connector and female DB9) connects to the PC's serial port (COM 2) and the WBSU's Diagnostic Port. The ISDN-BRI Input Port on the Clock/Power Distribution Board is not used.

To monitor the WBSU activity (debug port) use COM port 2 on your PC to connect to the WBSU. The debug communication port on the WBSU is a female RJ-11. You can use a cable with DB9 or DB25 on one end for your PC COM port and connect the PC to the WBSU with a straight through RJ-11 cable. Set your terminal program with COM port 2, 9600 baud rate and N81 settings.

### **Running the Test Box Application**

1. To run the Test Box application, double click on the Test Box icon.
2. At the initial screen, select the COM Setting button to setup **COM port 2** and select **9600** for the baud rate.
3. Click on the Test Box option to start.
4. The screen splits into two sections: Carrier 1 and Carrier 2.
5. For **Carrier 1 TRX Setting**,
  - \*\* Enter the desire **Channel** and **Frequency Band**.
  - \*\* Enter a **Tx Power Level** (0 - 10) for all the time slots 1 to 6.  
**Note:** 0 is at maximum power level. It is recommended that all the time slots have the same Tx power level.
    - \*\* The **ALL** button allows quick assignment of a particular power level to all 6 time slots.
    - \*\* Set **Modulation** to **Off**.
    - \*\* Set **Tx Data Pattern** to **PN9**.
  - 6. For **Carrier 1 Rx Setting**,
    - \*\* Set **Rx to Diversity**.
    - \*\* Click on **Next Page** for other Rx Setting.
    - \*\* Set **Sync Pattern** to **Sync1**.
    - \*\* Set **Sync+ Pattern** to **Sync + 1**.
    - \*\* Enter a value for the **DVCC** (1 - 255).
    - \*\* For **DCCH/DTC** setting, **leave all time slots uncheck**.
    - \*\* Make sure **DVCC is selected**.
    - \*\* Set **First Regular AGC** ("Auto Gain Control") to **First**.
    - \*\* Click on **Prev Page** to return.

7. Repeat the same procedure for Carrier 2.
8. Click **OK** to setup and to activate the WBSU with the above parameters.
9. Click **DSP On** to set the WBSU in-service and to begin transmitting on the assigned channel.

**Important Note:** If you decide to change the Tx or Rx setting while the WBSU is in-service, you must click the "**Reset**" option to reset the WBSU prior making any change to any setting. While resetting your WBSU, your terminal program should display:

Boot 1> DSP Download Carrier 1 OK

Boot 1> DSP Download Carrier 2 OK

Boot 2>

APPENDIX 7

CIRCUITS FOR ESTABLISHING AND STABILIZING  
CARRIER FREQUENCY

Frequency stabilization is achieved with a temperature compensated 19.2 MHz crystal oscillator (TCXO) as a reference oscillator for PLL circuitry.

CIRCUITS FOR ESTABLISHING  
AND STABILIZING ETC.  
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APPENDIX 8

CIRCUITS TO SUPPRESS SPURIOUS EMISSIONS, LIMIT  
MODULATION AND ESTABLISH OUTPUT POWER LEVEL

TRANSMITTER SPURIOUS SUPPRESSION

A low pass filter is employed between the power amplifier and the antenna.

CIRCUITS TO SUPPRESS  
SPURIOUS EMISSIONS ETC.  
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## APPENDIX 9

## TDMA FORMAT

Fig. 1. TDMA Burst Format

