Chapter 6
Troubleshooting

GENERAL

If the unit appears to malfunction, verify the following before further troubleshooting:

- Telco and DTE connectors are correctly inserted and attached
- DDS/MDDS/MR64R64 is plugged into power socket and jack
- Power is available at the plug
- Timing is selected to DDS (and only DDS)

NS LED ON

The NS LED being on indicates a line disorder. Recheck for proper Telco line connection

OS LED ON

If the OS LED is on, check the power and Telco line connections on the remote unit.

If remote unit is set up properly, report the problem of "out-of-service" code on the DDS circuit to the telephone company.

TM LED ON

If the TM LED is on perform the following steps:

- Ensure unit is in DATA mode and disable all DTE test functions
- Disconnect the DTE and Telco cables
- Toggle power on, off, on.
- If TM light remains on, refer to Chapter 9, Maintenance.

TM LED FLASHING

If TELCO INITIATED LOCAL LOOPBACK or TELCO INITIATED REMOTE TERMINAL appears on the LCD, remove the Telco cable. If the TM LED stops flashing, report to the telephone company that the DDS circuit is in a test configuration. If the TM LED continues flashing, refer to Chapter 9, Maintenance.

- If REMOTE INITIATED REMOTE TERMINAL appears on the LCD, remove the Telco cable. If TM LED stops flashing, the remote unit is in a test configuration. If the TM LED continues flashing, refer to Chapter 9, Maintenance.

If troubleshooting procedures performed so far have not resolved the problem, continue.

☞ **Note**
   To use the diagnostic and test features built into the modem, the Front Panel Option must be strapped EN.

SELF TEST   LL/TP
Using the front panel pushbuttons, place the unit in LL/TP. The TEST PATTERN OK should be displayed. If the TEST PATTERN ERRORS is continuously displayed, refer to Chapter 9, Maintenance.

END-TO-END TEST   TP
Using the front panel pushbuttons, place both local and remote units into TP. NS and OS LED's should be off. TEST PATTERN OK should be displayed. If TEST PATTERN ERRORS is displayed, refer to Chapter 9, Maintenance.

LOCAL LOOPBACK TEST   LL
Using the front panel pushbuttons, place the unit in LL. All data sent from the local DTE is looped back to itself. This will test the DTE equipment, cable, interface, and local DDS/MR64. If data is not the same, refer to Chapter 9, Maintenance. This test is not applicable for DTE devices without display terminals.

REMOTE LOOPBACK TEST   RL
Ensure power is plugged in for both units, timing is set for DDS, and the remote unit is in DATA mode. Using the front panel pushbuttons, place the unit in RL. REMOTE LOOPBACK RECEIVED is displayed on the local unit and REMOTE INITIATED REMOTE TERMINAL is displayed on the remote unit. The TM LED should be flashing on the local modem and on the remote modem. All data sent by local DTE equipment will be looped back through the remote modem. This tests

the DTE, cables, interface, the local DDS/MR64, DDS circuit, and the remote unit. If REMOTE LOOPBACK UNRECEIVED or data is not the same, refer to Chapter 9, Maintenance.

REMOTE LOOPBACK WITH TEST PATTERN   RL/TP

Using the front panel pushbuttons, place the unit in RL/TP. SENDING PATTERN is displayed on the local unit until the remote unit is placed into RT. If the remote unit does not respond, the local DDS/MR64 displays REMOTE LOOPBACK UNRECEIVED. Otherwise, TEST PATTERN OK or TEST PATTERN ERRORS is displayed on the local unit and REMOTE INITIATED REMOTE TERMINAL is displayed on the remote unit. This tests local DDS/MR64, DDS circuit, and the remote unit. If TEST PATTERN ERRORS or REMOTE LOOPBACK UNRECEIVED is displayed, refer to Chapter 9, Maintenance.