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CPE INSTALLATION MANUAL Chapter 5

revision 0.3

Software version 0.9.7

TOPICS:

FRONT PANEL LEDS:

Figure 5-1 illustrates the IDU front panel LEDs. Table 5-1 describes the function/interpretation of the LEDs.

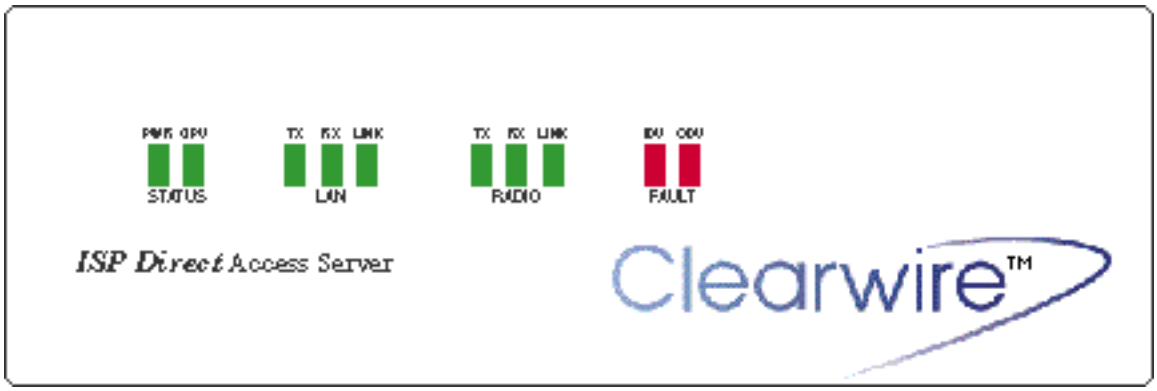

Figure 5-1. IDU Front Panel LEDs

Table 5-1. IDU Front Panel LEDs	
LED	Description
STATUS PWR (green) CPU (green)	 Indicates power is applied when lit. If not lit, make sure the power supply is properly connected to the IDU DC PWR connector, and is plugged in to a 120 VAC source. If that's ok, replace the power supply and/or IDU. Indicates CPU activity when blinking. If not lit when power is on, replace the IDU.
LAN TX (green)	If any of these is not active, replace the IDU. Indicates output activity to LAN when blinking.

RX (green) LINK (green)	Indicates input activity from LAN when blinking. Indicates good link to LAN when lit.
RADIO TX (green) RX (green) LINK (green)	If any of these is not active, run the Loop Back Test. If the unit fails the Loop Back Test, replace the IDU. Indicates radio transmission activity when blinking. Indicates radio receive activity when blinking. Indicates good radio link to ISP when lit.
FAULT IDU (red) ODU (red)	 Indicates IDU fault detected by self test when lit. Replace the IDU. Indicates ODU fault (or faulty connection to ODU) detected by IDU self test. Check the RF connection between the IDU and ODU. Check out the ODU by connecting it to a test IDU. If the same fault appears, replace the antenna assembly. If the ODU is ok, replace the IDU and/or RF cable.

LOOP BACK TEST:

The Loop Back Test checks IDU radio operation by transmitting TCP/IP packets to itself and verifying reception of the packets.

NOTE: Other tests available in the Maintenance Mode are for Network Manager or factory use only.

If you suspect a radio problem, run the Loop Back Test as follows:

1. Power down the IDU. Connect the IDU rear panel CONSOLE port to the serial port of the computer. Disconnect the RF cable from the RF port.
2. Power up the IDU. Wait for the system to boot.
3. At the **Press any key to change device parameters** prompt, press any key to advance to the Device Parameters Menu. Select **1 Maintenance Mode**, and set Maintenance Mode to **Enabled**.
4. Press **4** to quit the Device Parameters Menu and enter the Maintenance Menu Screen.
5. Press **7** to **Initiate Loop Back Test**.
6. Press **3** to run the **Default RF Loop Back** test.
7. While the test is running, the following message screen will appear. This message will be repeated for each successive test.

   ```
   Number of Blocks Per Cycle
    ByteErrsPerCycle=0  BlkErrsPerCycle=0
    ByteErrRate=0.000000e+00  BlkErrRate=0.000000e+00
    TxNumBlks=100  RxNumBlks=100  Blocks Missed=0
   ```

   ByteErrsPerCycle and BlkErrsPerCycle indicate errors in transmitting/receiving packets. Both values should equal zero. ByteErrRate and BlkErrRate should also equal zero. The number of packets transmitted (TxNumBlks) should equal the number of packets received (RxNumBlks), and the number of Blocks Missed should equal zero. Any other indication reveals a problem in the IDU radio section. Replace the IDU and return the faulty IDU for service.
8. Press **1** and **ENTER** to end the test.

9. Press **13** to **Reboot**.

10. At the **Press any key to change device parameters** prompt, press any key to advance to the Device Parameters Menu. Select **1 Maintenance Mode**, and set Maintenance Mode to **Disabled** to return to normal operation.

11. Press **4** to quit.

FAULTS DETECTED BY NETWORK MANAGER:

The network manager can remotely detect and diagnose a variety of faults and conditions. This may lead directly to identification of a component to be replaced, or may require on-site troubleshooting while in contact with the network manager.

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