SECTION 4 - OPERATING PROCEDURES

INTRODUCTION

Section 4 contains information regarding INFI 90 OPEN Modular Power System II operation. This section includes information on system and field power module status LEDs, and power monitor module status LEDs, test points, and the power fail interrupt (PFI) reset pushbutton.

LEDs

There are LEDs on the IPSYS01 System Power Module, IPFLD01, IPFLD24, IPFLD48, IPFLD125 Field Power Modules and IPMON01 Power Monitor Module that provide information on system bus voltages, power system status and operation. The following text explains the use of those LEDs. Tables 4-1 and 4-2 provide a complete list of LED states.

Power Monitor Module

The IPMON01 Power Monitor Module has three red/green status LEDs and eight red alarm LEDs on the module faceplate. Table 4-1 lists power monitor module LED states. Figure 4-1 shows the IPMON01 module faceplate LEDs.

NOTE: LED operation is configured at the time of installation via dipswitch and jumper settings. Each LED can be configured for monitoring multiple lines, buses and signals. Because of the numerous options available, it is a good practice to keep a copy of the dipswitch and jumper configuration inside or near the cabinet as a reference guide to identify the sources of an alarm signal or status LED signals.

Table 4-1. IPMON01 LED States

LED	LED State	Meaning
Self-check	Green	Good
	Red	Bad
	Off	Power off
Line 1	Green	Good
	Red	Bad
	Off	Power off
Line 2	Green	Good
	Red	Bad
	Off	Disabled or power off
Power supply	Red	Bad
	Off	Good

Table 4-1. IPMON01 LED States (continued)

LED	LED State	Meaning
Cabinet temp	Red	Overtemperature
	Off	Within limit
Fan left	Red	Failed
	Off	Operating
Fan right	Red	Failed
	Off	Operating
External	Red	Fault
	Off	Good
System power	Red	Fault
	Off	Good or disabled
I/O power	Red	Fault
	Off	Good or disabled
PFI status	Red	Fault
	Off	Good or disabled

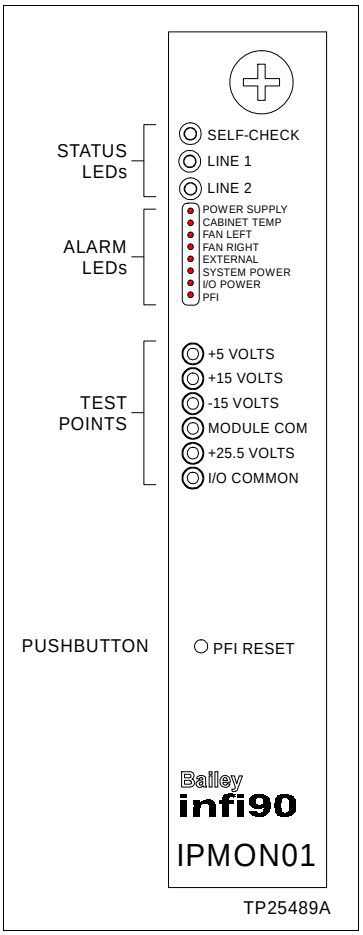

Figure 4-1. IPMON01 Faceplate LEDs

The self-check LED and line one LED are red/green status LEDs that are green during normal operation. The self-check LED turns red if the power monitor module detects an on-board hardware failure. The line one LED indicates the status of input power on N, N+1 or N+x redundant systems and turns red if the input power drops below the specified range. These LEDs are always enabled. The line two LED needs to be enabled to indicate the status of a second input power line on 2N systems.

The other eight alarm LEDs indicate the status of selected monitoring signals according to the module dipswitch and jumper configuration. Four LEDs (PFI, system power, I/O power and external) can be set up for monitoring numerous lines and signals. The PFI LED can be enabled to indicate any one or more of the system and I/O bus voltages, status input line one, or any combination of lines and buses. The I/O power LED can be set up to reflect the condition of status input lines one and two (contact inputs), and auxiliary input lines one and two (for monitoring 24, 48 and 125 VDC external power sources). The external LED can be enabled to indicate the status of line two input power and 5, 15 and -15 VDC bus voltages. If any one or more of the signals or lines associated with a LED goes bad, the LED turns red. These LEDs are off under normal operation, or disabled.

Jumpers set up the operation of the remaining five LEDs. These jumpers select the input power line sensing and operating voltage, high and low trip points for auxiliary 24, 48 or 125 VDC I/O monitoring, temperature sensor trip points, and 25.5 VDC I/O bus voltage. These LEDs operate like the other red LEDs: off for normal operation or disabled, red for a failure.

Power System and Field Modules

The power system and field module LEDs are always enabled. Table 4-2 lists the system and field power module LED states. Figure 4-2 shows IPSYS01 and IPFLD01, IPFLD24, IPFLD48, and IPFLD125 faceplate LEDs.

The PFC LED reflects the status of the power factor corrector. A red LED indicates a failed power factor corrector. A green LED indicates normal operation. Likewise, on the voltage LEDs, green indicates normal operation and red indicates failure. The voltage LEDs blink green to indicate a DC/DC converter overcurrent condition.

Table 4-2. IPSYS01, IPFLD01, IPFLD24, IPFLD48 and IPFLD125 LED States

LED	LED State	Meaning
PFC	Green	Normal
	Red	Failed

Table 4-2. IPSYS01, IPFLD01, IPFLD24, IPFLD48 and IPFLD125 LED States (continued)

LED	LED State	Meaning
25.5 V, 5 V, +15 V, -15 V, 48 V and 125 V	Green	Good
	Blinking green	Converter overcurrent
	Red	Converter failure

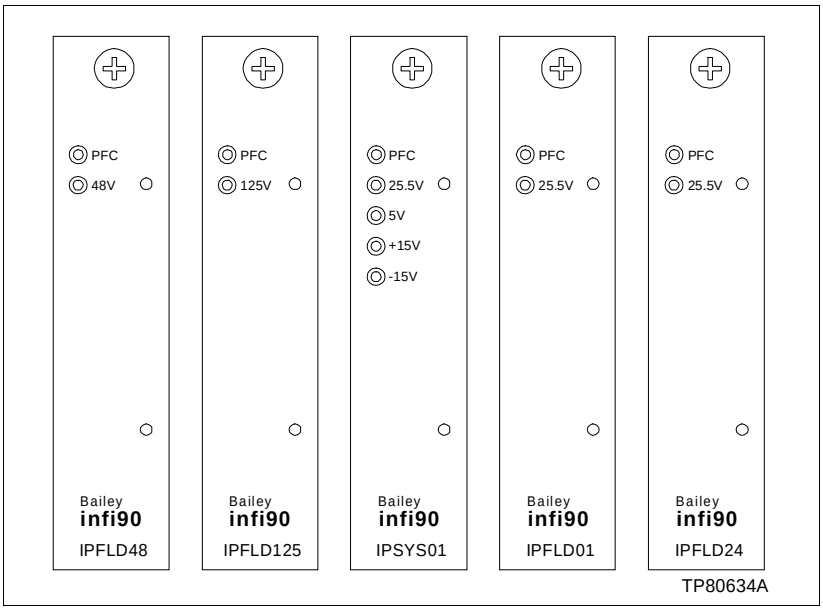

Figure 4-2. IPSYS01 and IPFLD Faceplate LEDs

TEST POINTS

There are six test points (+5 volts, +15 volts, -15 volts, module common, +25.5 volts, and I/O common) on the IPMON01 faceplate. These points provide a place to take bus voltage measurements using voltmeter probes (Fig. 4-1).

POWER FAIL INTERRUPT RESET PUSHBUTTON

Use the PFI pushbutton (Fig. 4-1) to reset a latched PFI signal. This option is enabled by a dipswitch when the power monitor module is installed. When a PFI signal is latched and a PFI alarm occurs, the alarm (LED) stays on even though the PFI condition has returned to normal. The PFI LED will remain on until it is reset by the PFI reset pushbutton. An unlatched PFI signal allows the PFI alarm (LED) to return to normal if the PFI condition returns to normal.