

Maintenance and Troubleshooting

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- Troubleshooting the OP-1500/OP-1510 panels

Troubleshooting the OP-1500/1510 Panels

Troubleshooting

In this section, we explain how to isolate potential problems, which may occur while using the OP-1500 and OP-1510. If you are unable to troubleshoot and correct your problems using this document, please contact our product support team. You can reach technical product support within the hours of 9:00 AM and 6:00 PM (EST) Monday through Friday. Call **1-800-633-0405** or fax **(770) 889-7876**.

We have organized the troubleshooting into three categories:

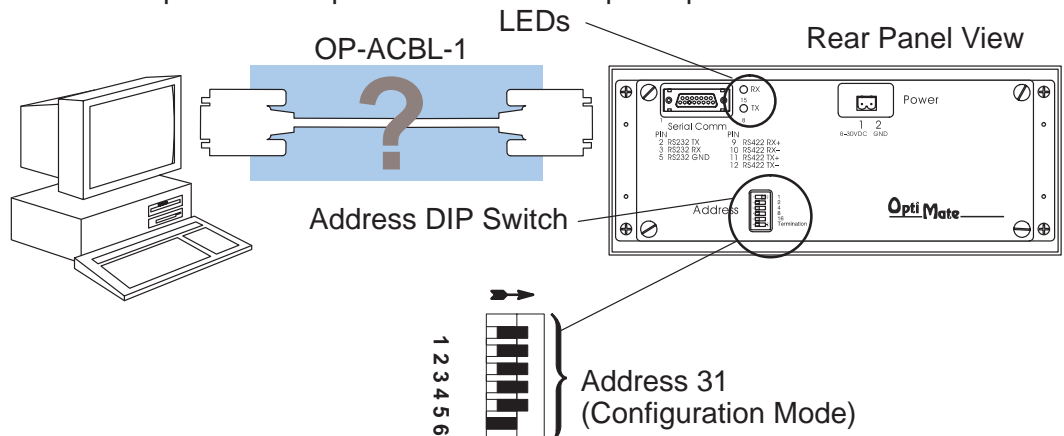
- Panel configuration problems
- Panel and PLC communications failures
- Panel Operation problems

Panel Configuration Problems

We explained in previous sections the OP-WINEDIT configuration software is used to create OP-panel applications, download, and upload your OP-panel programs. If you are online with the panel and communications fails, the following error message is displayed.

“Could not communicate with panel” (OP-WINEDIT)

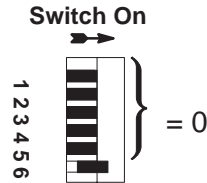
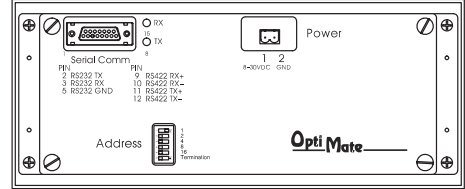
1. Check the rear panel RX/TX LEDs while attempting the Upload or Download operation. If the LEDs (RX/TX) are slow alternating flash signals, the PC and OP are connected. If *only* the TX (transmitter) LED is flashing, or the TX/RX are *not* alternating between flashes, verify the OP-panel is set to address 31 (Configuration Mode).
2. Check and verify the configuration cable (**OP-ACBL-1**) is properly connected. For cable details, refer to Chapter 2, the Cable Specification section.
3. Ensure configuration mode is selected, by setting all *address* switches to the ON position (Address 31).
4. Ensure the correct communications port is selected with the software, such as COM1, COM2, COM3, COM4.
5. Check 24VDC power source.
6. Reattempt the online panel Download or Upload procedure.



Panel to PLC Communications

If you experience communications difficulties between the OP-panel and PLC, you will get a "HOST COMM FAILURE" message flashing on the display screen. You may also notice the Pushbuttons, Lamps, and Operator messages are not working. In this case, you should check the following items:

1. Observe the TX and RX LEDs on the rear of the panel. If both LEDs are not a steady flash or glow (depending on baud rate) check and ensure the proper communications cable is securely connected.



Switch	1	2	3	4	5	6
Address Value	1	2	4	8	16	T

Termination Resistor

Example Address

2. Examine Address switches to ensure correct address selection (valid settings 0 – 30). You must cycle OP-panel power for address switch changes to take effect.
3. Examine the communications information for the PLC type, protocol type, baud rate, parity, stop bit, address number. Use the respective user manuals for the PLC product you are using to determine the proper settings.
4. If you are using an OP cable, verify cable pinout. For RS422 connections use a Belden 9279 or equivalent cable.
5. Check 24VDC power source.



DirectLOGIC PLCs : If you are using the secondary communications port such as **DirectLOGIC** PLC port 2, ensure the communications port address and protocol setting match.

PLC Model	Port/Baud Rates	Parity	Stop Bit
DL105/230/240	Top	9600	Odd
	Bottom	Bottom (DL240 only) 9600/19.2k	Odd/None
DL250	Top	9600	Odd/None
	Bottom	9600/19.2K	1
DL330	DCU only	4800/9600/19.2k	Odd/None
DL340	Bottom & Top	4800/9600/19.2k	Odd/None
DL350	Top	9600	Odd
	Bottom	4800/9600/19.2K	1
DL430/440	Top	Top 9600	Odd
	Bottom	9600/19.2k	Odd/None
DL450	DB15	9600	Odd
	DB25	9600/19.2k	Odd/None
	RJ12	9600/19.2k	Odd/None

Allen-Bradley Panel to PLC Communications

For Allen-Bradley, you may connect to Channel 0 (bottom serial port), using DF1 in full duplex mode. Additionally, the Allen-Bradley software allows the bottom port to a unique PLC address. The Allen-Bradley software default is PLC address one. You must ensure the OP-panel configuration address matches the PLC address you have assigned. The Allen-Bradley port only communicates using either 4800 or 9600 baud. No other baud rates are supported between the OP-panel and Allen-Bradley PLC. For example, on Allen-Bradley PLC's the serial port baud rate defaults to 1200 baud and must be changed. The baud rate for channel 0 must be set to 4800 or 9600 baud to match the OP-WINEDIT configuration. Also the base memory area must be expanded to include the full range of registers such as N7:0 through N7:7.

OTHER

PLC

OTHER PLCs : Regardless of which PLC brand you are implementing, the communications parameters should be reviewed and properly configured. Please check the appropriate manual for your PLC product to ensure proper communications port and panel type settings.
