

K-08b

ELECTRICIAN TRAINING

TRAINER'S GUIDE

Duty K: PLC (Modicon)
K-08b: Troubleshoot Peripheral
Issued 01/01/98

Instructions To The Trainer

1. The Learner will contact you when ready to practice troubleshooting a SMART Screen or Panel Mate.
2. Be prepared to demonstrate the steps for this task.
3. Ask the Learner to contact the Evaluator when ready for the Skill Check.



Skill Objective

Upon notification of a peripheral device problem, troubleshoot the peripheral.

Task Standards

1. The Learner identifies the problem and determines a corrective action.
2. The corrective action results in the peripheral functioning within specifications.
3. If corrective action fails to resolve the peripheral problem, the Learner clearly describes the problem to the Electrical Engineer.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before troubleshooting a peripheral.



- Follow all Caterpillar Facility Safety Standards when performing this task in the plant.
- This task poses an electrical hazard. Use caution when working around the peripheral.
- Wear safety glasses and hearing protection in assembly and production areas.



- SMART Screen
- Panel Mate
- Voltmeter
- Flat head screwdriver



- None



Practice Set-Up

The Learner may perform the following practice to help prepare for the Skill Check. Set up the practice for the Learner. Assist the Learner during the practice, if necessary; answer any questions concerning the task; and be prepared to demonstrate the task to the Learner. Make sure the Learner follows safe work practices while practicing the task.

Practice 1

Ask the Learner to practice troubleshooting the Panel Mate. You should arrange to have a Panel Mate available for the Learner. Modify the screen so that it simulates a power loss by turning the power switch off or removing the power supply or remove one end of the data communication cord for the Learner to troubleshoot. Be prepared to discuss the safety issues associated with performing the task.

Practice Objective 1

The Learner should perform all of the troubleshooting steps, in sequence, and determine the cause for the Panel Mate failure. The Learner should determine what you did to temporarily disable the Panel Mate and restore the screen back to its normal operating conditions. Verify that the screen is returned to its normal operating specifications after the Learner has practiced.

Practice 2

Ask the Learner to practice troubleshooting the SMART Screen. You should arrange to have a SMART Screen available for the Learner. Modify the screen by removing the power supply or removing one end of the data cord. Ask the Learner to discuss the safety issues associated with performing the task.

Practice Objective 2

The Learner should perform all of the troubleshooting steps, in sequence, and determine the cause for the SMART Screen failure. The Learner should determine what you did to temporarily disable the SMART Screen and should restore the screen back to its normal operating specifications. You must verify that the SMART Screen is returned back to its normal operating conditions.

Next Step

Allow the Learner to continue practicing and developing skills needed to demonstrate the task. The Learner should ask the Evaluator to schedule a Skill Check whenever he or she is ready to demonstrate the task unaided and meet all the task standards and safe work practices.