K-02b

ELECTRICIAN TRAINING

TRAINER'S GUIDE

DUTY K: PLC (Modicon)
K-02b: Back Up Software

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Instructions To The Trainer

1. The Learner will contact you when ready to practice backing up software.

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 new machine program, a newly installed controller, or no back up copy exists for a controller program, back up the software.

Task Standards

1. Backup results in the program being accessed from a tape to the P190.

2. Backup is complete for the P190 when the verification process returns to the Controller Operations screen with no error messages.

3. Backup results in the program being accessed from the hard drive on the P230.

4. Backup on the P230 is complete when the Modsoft Main Menu reappears and no error messages occur during the backup.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before backing up software.

o Follow all Caterpillar Facility Safety Standards when performing this task in the plant.

o Use caution when working around the PLC; high voltage is present on the inside of the PLC cabinet door and near the I/O chassis.

o Wear safety glasses and hearing protection in assembly and production areas.

o P190 programmer (Typically used with the 184, 384, 484, 584, 884, and 984 processors.)

o P230 programmer (Used with the 984 processor and the 184, 384, 484, 584, and 884 processors in the P190 emulator mode.)

o PLC communication cable

o Tape loader tape (P190 only)

o Blank or "old" program tape (P190 only)

o Modicon Bus Plus (Used with all processors.)

o Basic Help Keys; which are available on programmer software

o Modsoft Programmer User's Manual (GM-MSFT-001   Rev. F)

o Modicon P230 Quick Key reference card

o Modbus Plus Data Highway Chart

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 backing up a PLC program with your supervision using the P190 programmer. Tell the Learner to perform this task without stopping the controller so that there will be no downtime for the respective machine. Ask the Learner to discuss safety issues related to this task.

Practice Objective 1

The Learner should back up a PLC program using the P190. The Learner should perform a tape verification to verify that the program is backed up properly. Safety issues the Learner should be able to discuss include verifying that the correct program is backed up and properly labeling the program.

Practice 2

Ask the Learner to practice backing up a PLC program with your supervision using the P230 programmer. Ask the Learner to discuss safety issues related to this task.

Practice Objective 2

The Learner should back up the PLC program using the P230. If the Learner encounters any error messages during the backup you should help to rectify the problem and have the Learner try to back up the program again. Safety issues the Learner should be able to discuss include verifying that the correct program is backed up.

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.