

K-04a

ELECTRICIAN TRAINING

TRAINER'S GUIDE

Duty K: PLC (Allen-Bradley)
K-04a: Access and Modify Data Table

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Instructions To The Trainer

1. The Learner will contact you when ready to practice modifying a data table.
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 receiving a request to modify the data table, or after determining a need to perform a temporary modification, access and modify the data table.

Task Standards

1. When the machine is cycled, the machine demonstrates the effect of the data table modification.
2. The machine operates within specifications and meets production requirements.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before modifying a data table.



- Follow all Caterpillar Facility Safety Standards when performing this task in the plant.
- Use caution when working around the PLC; high voltage is present on the inside of the PLC cabinet door and near the input/output (I/O) chassis.
- Be careful when working near moving or rotating machinery.
- Wear safety glasses and hearing protection in assembly and production areas.
- Use caution when making any modifications, pay attention to values, addresses, etc.
- When making any modifications to a program data table, use caution when cycling the machine.



- PC equipped with PLC software
- PLC
- Interconnect cable
- Floppy disk (to back up processor memory, if needed)
- Processor Keyswitch Key (if the processor is not in the REM position)
- Password (if necessary)



- Electrical Schematics
- Ladder Diagram printout
- Engineering Modification



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

Designate a PLC location for the practice. Provide the Learner with a Ladder Diagram printout of the program. Ask the Learner to perform all of the following types of data modifications. Provide the Learner with the data for the modification.

- Change the preset value of a timer.
- Set or reset a bit to resequence the machine.
- Enter an integer value to enable the machine to move into position.

Ask the Learner to describe the safe work practices required for this task.

Practice Objective

The ladder file must display the data table modification you specified. When the Learner cycles the machine, the machine must demonstrate the effect of the data table modification.

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.