

T-02a

ELECTRICIAN TRAINING

SKILL CHECK GUIDE

Duty T: Drives (AC, DC, VFD, and Hydraulic)

T-02a: Set Up/Adjust Drive (ACVS-A/B)

Issued 06/01/98

Rationale

This Skill Development Guide provides the knowledge a Learner needs to set up an AC Servo drive. The Learner must be able to set up and adjust the drive.

Skill Check Set-Up

Designate a drive for the Learner to demonstrate setting up the AC servo drive.

Provide the tools, materials, and resources needed to demonstrate the task.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before setting up and adjusting the AC servo drive.



- Follow all Caterpillar facility safety standards when performing this task.
- There is 440VAC inside the control cabinet. Use lock and tag to avoid electrical hazard.



- 1391 Allen Bradley Axis Drive
- DVM
- Electrician's hand tools



- 1391 Allen Bradley Axis Drive Electrical Service Manual or 1391 Allen Bradley Axis Drive Instruction Manual
- electrical prints



Skill Check

Given an AC Servo drive that has been replaced, set up and adjust the drive.

Needs
Mastered Practice

Safe Work Practices

- | | | |
|-------|-------|---|
| _____ | _____ | 1. Follow all Caterpillar facility safety standards when performing this task. |
| _____ | _____ | 2. There is 440VAC inside the control cabinet, use lock and tag to avoid electrical hazard. |

Task Standards

- | | | |
|-------|-------|---|
| _____ | _____ | 1. The new drive logic board must be configured identically to the drive that was removed. |
| _____ | _____ | 2. The BAL potentiometer (pot) on the logic board must be adjusted for no motion. |
| _____ | _____ | 3. The BAL pot on the Servo Interface Card must be adjusted for 0 volts. |
| _____ | _____ | 4. The Gain pot on the Servo Interface Card must be adjusted for $1.33 \pm .01$ volts at 50 ± 1 IN/MIN. |
| _____ | _____ | 5. The following error must be ± 50 counts from 0.000. |



Evaluator's Sign-Off

The Learner has demonstrated safe work practices and competent performance of the task.

Evaluator: _____ Date: _____

Learner: _____ Clock No: _____

