

# SCDC REWIND CONTROL

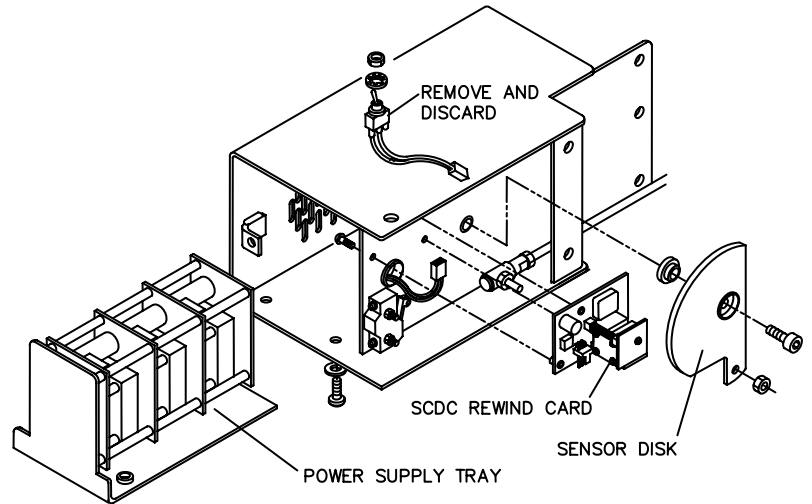
## Installation Instructions #4496

### To install the SCDC Rewind Control into a DMC Power Supply:



**WARNING:** TO AVOID ELECTRICAL SHOCK HAZARD turn the power switch to OFF and unplug the power supply cord before Rewind Control removal.

1. Remove the Power Supply Cover.
2. Remove the two screws securing the Power Supply Tray and remove.
3. Remove the nut securing the Take-up Rod to the Sensor Disk. Remove The Sockethead Capscrew securing the Sensor Disk, and slide the disk out of the Rewind Card.
4. Unplug the Rewind Card, remove the three hex nuts on the inside of the mount plate and remove the Rewind Card.



**Figure 1**

5. Remove the Calibrate Switch and discard.
6. Install the SCDC Rewind Card with three PPH 4-40 x 1/4 Screws from inside the mount plate and re-connect the plug.
7. Reinstall the Sensor Disk and power supply tray.

**NOTE:** When reinstalling the sensor disk make sure the flanged washer is installed with the large flange against the mount plate.

8. Reinstall the Power Supply Cover and reconnect power.

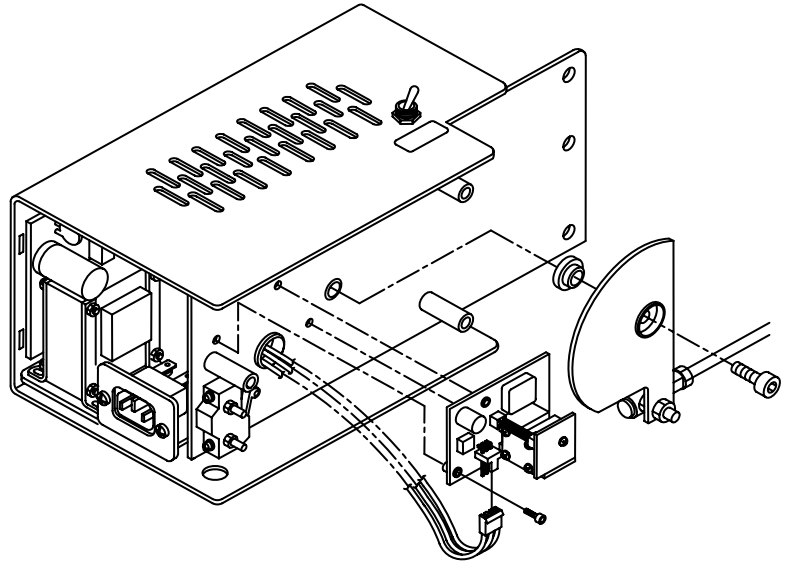
**NOTE:** After installing the SCDC Rewind Control into a DMC Power Supply the calibration instructions are no longer valid. Refer to the instructions on page 2 and 3 to service the SCDC Rewind Control. Keep these instructions with the original DMC manual for future reference.

## To install the SCDC Rewind Control into a SCDC Power Supply:



**WARNING:** TO AVOID ELECTRICAL SHOCK HAZARD turn the power switch to OFF and unplug the power supply cord before Rewind Control removal.

1. Turn power OFF, disconnect power cord and remove the Power Supply Cover. The Power Supply Tray does not need removed on the SCDC power supply.
2. Remove the Sockethead Capscrew securing the Sensor Disk and slide the disk and Take-Up Rod out of the way.
3. Unplug the rewind card. Remove the three Sockethead Capscrews and the Rewind Card.
4. Install the new SCDC Rewind Card with three Sockethead Capscrews, 2-56 x 3/8" and reconnect the plug.
5. Reinstall the Sensor Disk and Take-Up Rod.



**Figure 2**

- NOTE:** When reinstalling the sensor disk make sure the flanged washer is installed with the large flange against the mount plate.
6. Reinstall the Power Supply Cover and reconnect the power cord.

## SCDC UNIT TEST SERVICE PORT

The Rewind SCDC control features a service port next to the LED that permits connecting a computer with the appropriate cable and software to perform pixel tests, read logged error data, upgrade SCDC software, read or change EEPROM data and read real time values. The software and cable are available through your service department.

**NOTE:** only the lower 6 pins in the port are used. Do not use the 2 pins closest to the corner of the card.

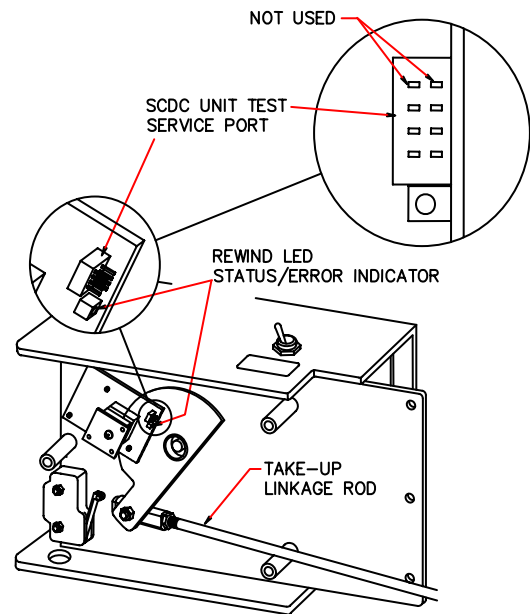
**NOTE:** The Rewind control may have one of two types of service ports. When connecting the computer cable to a control with a serial port (as shown in Figure 3) only 6 of the pins in the port are used. Do not use the 2 pins shown in Figure 3. The cable simply plugs into a control using a USB port.

## SCDC LED ERROR INDICATION

The SCDC Rewind Card red indicator LED is visible through the opening on the back of the power supply case where the linkage arm travels (Figure 3). At power-up the red LED will blink a number of times equivalent to the version number of the software installed on the control.

1. **Continuous fast blinking** indicates proper operation.

The same LED is used to indicate errors. If an error occurs, it will appear on the error log screen with a check mark in the box of the current error. It will also be added to the logged error count, which is a permanent record. The current error field is cleared when the control is powered down. Error indication is as follows:



**Figure 3**

2. **One blink every two seconds** indicates that the motor or the feed castor diode is shorted. This error will log as a MOTOR SHORT on the logged error screen. See Feed Castor Diode Checking page 7 of PIB 4493. Also unplug the suspect drive motor to isolate.

**Note:** If the motor or feed castor diode is defective, you should get the same error indication from the Pay-Out or Rewind control used on that arm.

3. **Two blinks every two seconds** indicate an open Feed Castor Diode. This error will log as a LOSS OF MOTOR DIODE on the logged error screen. If you get this error, turn the power off and on again.

If the error is indicated a second time on a Rewind Control, activate a different Rewind Feed Castor. If the problem exists with only one castor, the problem is an open feed castor diode. The diode needs to be replaced. See Feed Castor Diode Checking page 7 of PIB 4493.

**Note:** If the feed castor diode is defective, you should get the same error indication from the Pay-Out or Rewind control used on that arm.

4. **Three blinks every two seconds** indicate one of four possible optical errors. This error will log as OPTICAL ERROR 1-4 on the logged error screen. Optical error 1 and 2 indicate that the optical chip is either defective or improperly installed.

This error detection was put into place primarily as a factory test to ensure that the optical chip has been properly installed and is not likely to occur in the field. However, if it does occur, review Service Bulletin #6802 before proceeding with any other corrections.

Optical error 3 and 4 indicate that the Rewind sensor disk is damaged or missing. If the disk is installed correctly, a few pixels at the end of the row of pixels on the optical chip will be covered and a few pixels on the opposite end will never be covered. The operating system reads which end is covered and determines from that whether the card is installed as a Pay-Out or Rewind control.

Optical error 3 occurs when both ends of the pixels are seeing light all of the time. Verify that the Rewind sensor disk is installed correctly and undamaged.

Optical error 4 occurs when both ends of the pixels are not seeing light. Check the LED light level. See SCDC LED Failure Test on page 17 of PIB 4493. If the LED has reached its fail point, an optical error 4 will be logged. This refers to the LED used to stimulate the optical chip, not the red indicator LED. Verify that the Rewind sensor disk is installed correctly and undamaged. This error can also occur if there is an obstruction between the LED and optical chip. Remove the LED board and remove any dust or lint that may be covering the optical chip.

Optical error 3 and 4 may also occur as result of an internal defect on the control. Replace the suspect Rewind control with a working control from another SCDC power supply. If the problem exists after changing the control, the disk is defective. If the problem disappears after changing the control, the original control is defective and needs to be replaced.

- 5. Four blinks every two seconds** indicate a bad check sum on flash or EEprom memory. If you get this error, turn the power off and on again. If the error is indicated a second time, check the error log. If this error logs as BAD FLASH CHECKSUM, use the software upgrade function to install new software. If it logs as BAD EEPROM CHECKSUM, use the EEprom Function and reload defaults. If this fails to correct the problem, the control is defective and needs to be replaced.