

REPLACING SERVO MOTOR OR FEEDBACK ELEMENT ONTO GEAR/FEEDBACK ASSEMBLY

A. SERVO MOTOR

1. Note the positioning of the wires and connectors from the motor/feedback assembly to be serviced. Unplug the motor and feedback connectors from the drive/display circuit card. Cut off the old motor connector (Orange, Brown, Red and Green wires ONLY).
2. Loosen the M3 set screw that attaches the pen arm crank to the motor/feedback assembly and remove the four screws that hold the assembly to the platen.
3. Carefully separate the assembly from the pen arm crank and lift the assembly out of the recorder. Loosen the cable clamp screws on the back of the assembly and pull the motor cable out of the sleeve.
4. Take out the two screws that hold the old motor to the assembly remove and discard the old motor.
5. Mount the new motor with its wires across the gear/feedback assembly. The flat on the pen arm shaft should be facing the end of the gear/feedback assembly (the flat points away from motor) as the motor is inserted into its mounting hole. Make sure the new motor is seated properly so that the internal gears will mesh.
6. Replace the two motor mounting screws and tighten securely.
7. Dress the new motor leads through the cable clamp with the feedback element leads and along the sleeve. If necessary fold the motor leads back along the sleeve so that the motor lead is the same length as the feedback lead.
8. Use wire ties to bind the new motor leads to the sleeve neatly so that the bundle will dress as it was before service.
9. Carefully slide the pen arm crank onto the pen arm shaft (do not tighten set screw yet) and remount the motor/feedback assembly onto the platen.
10. Position the pen arm crank on the shaft so that the pen linkage is parallel to the platen and clears any other pen arm shafts for other channels. Tighten the pen arm crank set screw.
11. Test the new motor by restarting the recorder and lifting the Pen Lifter to the top position to move the pens to the high end of the chart.
12. The "Cal Pen" procedure in the Calibration Menu should be run to assure that the pen tracks properly on the paper.

(OVER)

B. FEEDBACK ELEMENT

1. Note the positioning of the wires and connectors from the motor/feedback assembly to be serviced. Unplug the motor and feedback connectors from the drive/display circuit card. Cut off the old feedback element connector (Blue, Black and Grey wires ONLY).
2. Loosen the M3 set screw that attaches the pen arm crank to the motor/feedback assembly and remove the four screws that hold the assembly to the platen.
3. Carefully separate the assembly from the pen arm crank and lift the assembly out of the recorder. Loosen the cable clamp screws on the back of the assembly and pull the feedback element cable out of the sleeve.
4. Take out the four screws that hold the old feedback element to the assembly remove and discard the old element. Be careful not to damage the feedback contacts on the exposed gear face.
5. Carefully place the new element on the back of the gear/feedback assembly with its wires at the motor end of the assembly. Insert and tighten the four screws.
6. The feedback element cable goes around the right side of the assembly (motor down and facing the new element) and under the cable clamp with the motor leads.
7. Dress the new element leads along the sleeve. If necessary fold the motor leads back along the sleeve so that the motor lead is the same length as the feedback lead.
8. Use wire ties to bind the new element leads to the sleeve neatly so that the bundle will dress as it was before service.
9. Carefully slide the pen arm crank onto the pen arm shaft (do not tighten set screw yet) and remount the motor/feedback assembly onto the platen.
10. Position the pen arm crank on the shaft so that the pen linkage is parallel to the platen and clears any other pen arm shafts for other channels. Tighten the pen arm crank set screw.
11. Test the new feedback element by restarting the recorder and lifting the Pen Lifter to the top position to move the pens to the high end of the chart.
12. The "Cal Pen" procedure in the Calibration Menu should be run to assure that the pen tracks properly on the paper.