

## DR 4500 & DR4500A Truline Circular Chart Recorder Pen Arm Assembly Kit Replacement Instruction

Assembly 30756304-501 (High Speed)  
Assembly 30756304-502 (Abrasion Resistant)

Form: 44-45-33-35  
Effective: 3/99  
Supersedes: 44-45-33-35 -- 5/96

### Summary

Enclosed with this instruction is a pen arm assembly for either your

- DR4500 Recorder (Truline)
- DR4500A Recorder (Truline)

**WARNING** Never access components inside the case with the power applied.

### Removing the existing pen arm

Table 1 Procedure for removing the existing pen arm.

Step	Action
1	Open the recorder door.
2	Press the [CHART] key. The pen arm will move to its outer limit and stop. Prompt "CHT HOLD" will appear in the lower display.
3	Remove power from the recorder.
4	Loosen the captive screw on the right side of the chart plate and swing the plate out.
5	Disconnect the stylus wires by removing the plug connector from J8 on the Main printed circuit board (on current models, located on the left hand edge of the board - under alarm PCB, if supplied).
6	Remove the screw that fastens the pen arm to the plastic sector gear on the servo shaft, and remove the pen arm with stylus wires from the shaft.

*Continued on next page*

**Installing the new pen arm**

Table 2 Procedure for installing the new pen arm.

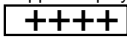
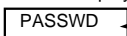
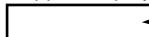
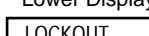
<b>Step</b>	<b>Action</b>
1	Feed the stylus wires through the hole in the center of the sector gear. Place the pen arm on the sector gear and fasten it with the screw provided with the pen assembly, but don't tighten it completely.
2	Be sure a chart is installed and swing the chart plate out.
3	Use finger pressure on the sector gear to move the pen arm toward the chart hub until the sector gear comes to its limit stop.
4	Close the chart plate. Rotate the pen arm on the sector gear so that the stylus (pen tip) sets on the chart plate next to the chart hub but not touching the chart hub. Then tighten the screw holding the pen to the sector gear. Swing the chart plate out.
5	Route the plug end of the stylus wires to connector J8 on the Main printed circuit board. Secure the wires to other wires with wire ties.
6	Close the chart plate and tighten the captive screw.
7	Follow the next procedure to adjust the printing.

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Adjust Printing

Table 3 Procedure for selecting pen and trace information.

Step	Press	Result or Action
1	<b>SET UP</b> until you see:	Upper Display SET UP  Lower Display LOCKOUT
2	<b>FUNC</b> until you see:	Upper Display ++++  Lower Display PASSWD ← Use ▲ or ▼ to enter password as each appropriate character is highlighted.
3	<b>FUNC</b> until you see:	Upper Display [ ] ← Use ▲ or ▼ to select <b>NONE</b>  Lower Display LOCKOUT
4	<b>SET UP</b> until you see:	Upper Display ADJUST  Lower Display PRINTING
5	<b>FUNC</b> until you see:	Upper Display [ ] ← Use ▲ or ▼ to select <b>MEDIUM</b>  Lower Display TRACE LN
6	<b>FUNC</b> until you see:	Upper Display [ ] ← Use ▲ or ▼ to select <b>MEDIUM</b>  Lower Display GRID LN
7	<b>FUNC</b> until you see:	Upper Display [ ] ← Use ▲ or ▼ to select <b>NORMAL</b> for P/N 30756304-501 <b>JEWEL</b> for P/N 30756304-502  Lower Display PEN TYPE
8	<b>SET UP</b> until you see:	Upper Display SET UP  Lower Display LOCKOUT

<p><b>9</b></p>	<p><b>FUNC</b> until you see:</p>	<p>Upper Display                    Lower Display   ← Use ▲ or ▼ to enter password as each appropriate character is highlighted.</p>
<p><b>10</b></p>	<p><b>FUNC</b> until you see:</p>	<p>Upper Display   ← Use ▲ or ▼ to select any selection other than NONE                  Lower Display  </p>
<p><b>11</b></p>		<p>Check the pen alignment.</p>

**Check pen alignment**

Check the pen alignment by creating a chart. The base or bottom line of the created chart should not print over the word HONEYWELL logo on the blank chart. The base line of the created chart should not be further than 1/8th of an inch away from the HONEYWELL logo.

**ATTENTION** If the alignment is incorrect, loosen the screw at the sector gear and readjust. Adjustment is linear.  
 If the printing is too dark, repeat steps 4, 5, and 6 in Table 3.  
 If any other problem occurs, call Honeywell Technical Assistance Center  
 1-800-423-9883