

Model DR4300
Circular Chart Recorder
Upgrade/Replacement Instruction

Totalizer Option Upgrade (51404894-501)

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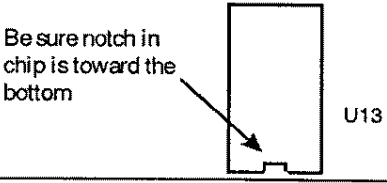
Kit Contents This kit contains a new Totalizer PROM and battery.

Summary Enclosed are a new Totalizer PROM and battery for your DR4300 recorder. Use the following procedures to install, configure, and initialize the Totalizer option. This option requires the display assembly to display the totalized value.

WARNING Never access components inside the case with power applied.

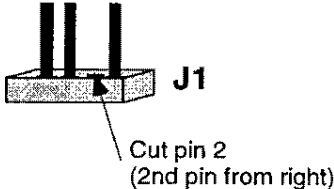
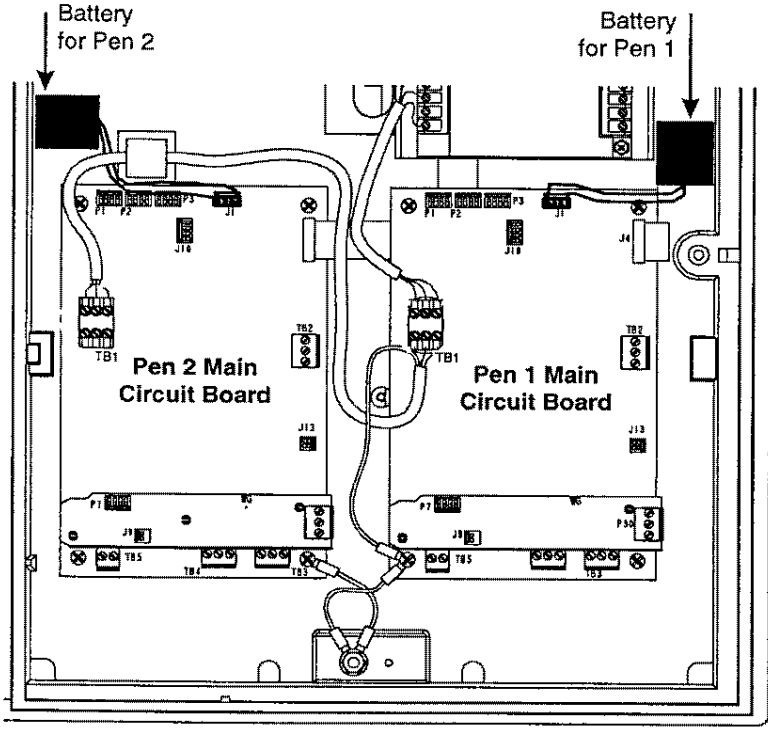
PROM Installation Procedure Follow the procedure in Table 1 to install the PROM on the Main printed circuit board.

Table 1 – PROM Installation

Step	Action
1	Power down the recorder. Open the chart door and swing the chart plate out. This permits access to the Main printed circuit board.
2	<i>If this is a replacement procedure</i> , use an extraction tool and remove the PROM at Location U13 on the Main printed circuit board.
3	Insert the new Totalizer Option PROM into U13 position on the Main board. Make sure all the pins of the PROM are aligned with the socket. 
4	Follow the procedure in Table 2 to install the Totalizer battery.

Battery Installation Procedure Follow the procedure in Table 2 to install the Totalizer battery in the recorder case.




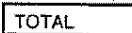

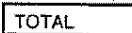

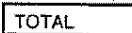











Table 2 – Battery Installation

Step	Action
1	<p><i>If this is a replacement procedure:</i></p> <ul style="list-style-type: none"> Remove the old battery by pulling from Velcro mounting on the inside of the case. Disconnect cable from J1 on printed circuit assembly <p><i>If this is an upgrade procedure:</i></p> <ul style="list-style-type: none"> On Header J1 on the Main printed circuit board (for pen 1 and/or pen 2, as appropriate), cut Pin 2 flush with the header base. 
2	<p>Install new battery in pen 1 and/or pen 2 location. Remove the peel-off adhesive protector on the Velcro. Place the battery as shown, Velcro side down, onto the mating Velcro inside the cabinet.</p>  <p style="text-align: right;">24841</p>
3	Connect to J1.
4	Close the chart plate and door.
5	Apply power and check the recorder for proper operation. The recorder should power up and pass all of its power up tests. See the Product Manual supplied with the recorder for details.
6	Follow the next procedures to configure (<i>upgrade installation</i>) and initialize the Totalizer option.

Configure the Recorder

Follow the procedure in Table 3 to configure the recorder for Totalization.





Table 3 – Configuration

Step	Press	Result or Action								
1		until TOTAL appears in the lower display. <i>For a 2-pen recorder, the desired input channel is displayed on the left side of the operator interface. Press [FUNC] key to select the channel, then press [SET UP] key.</i>								
2		until you see: <table style="margin-left: 20px;"> <tr> <td>Upper Display</td> <td></td> </tr> <tr> <td>Lower Display</td> <td></td> </tr> </table>	Upper Display		Lower Display					
	Upper Display									
Lower Display										
	 or 	to select ENAB.								
3		until RATE appears in the lower display.								
	 or 	to select one of the following rates:* SEC Engineering units per second MIN Engineering units per minute HOUR Engineering units per hour DAY Engineering units per day MDAY Millions of units per day <i>*Rate setting must equal engineering units (EU) of PV input.</i>								
4		until SCALER appears in the lower display.								
	 or 	to select one of the following scaling factors: <table style="margin-left: 20px;"> <tr> <td>1</td> <td>1000</td> <td>1E6</td> </tr> <tr> <td>10</td> <td>1E4</td> <td>1E7</td> </tr> <tr> <td>100</td> <td>1E5</td> <td>1E8</td> </tr> </table>	1	1000	1E6	10	1E4	1E7	100	1E5
1	1000	1E6								
10	1E4	1E7								
100	1E5	1E8								
5		until RSTABL appears in the lower display.								
	 or 	to select how the totalizer value can be reset. NO Totalizer value cannot be reset. KEY Totalizer value can be reset from the keypad by setting the RESET parameter to YES. REM1* Totalizer value will be reset when remote switch (digital input 1) goes to ON. REM2* Totalizer value will be reset when remote switch (digital input 2) goes to ON. <i>*Digital input card must be installed.</i>								
6		Go to Table 4 to initialize the recorder.								

Initialize the Recorder

Follow the procedure in Table 4 to initialize the recorder.

Table 4 – Initialization from Totalizer Setup Group

Step	Press	Result or Action
1		until RESET appears in the lower display.
		to select YES.
2		The totalizer will reset to zero.
3		to return to the same state it was in before configuration (set up) mode was entered.

Installing the Totalizer Option for Second Input

The procedure for installing the Totalizer option for the second input is the same except that the PROM should be installed on the *Second* Input Main board.