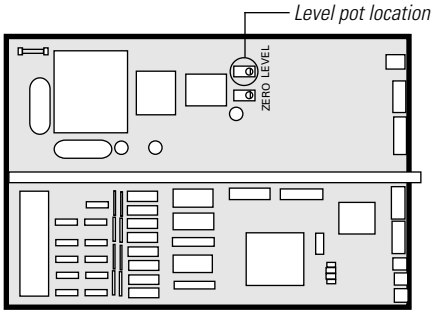
L86 EM264

electronics module

TECHNICAL MANUAL

The instructions in this manual are intended for ETC-authorized service technicians. Please consult ETC Field Service before beginning any of these procedures.

Line voltage input calibration



This test checks the line voltage input calibration for the module. In order to calibrate the module accurately, be certain it is connected to a 120 VAC (±1/2V) power source. Set the front panel rotary switches to **970** and press [Reset] to run the test. Once the test begins to run, adjust the Level pot inside the module until both the High Volt and Low Volt LEDs turn off. The illustration on the left shows the location of the Level screw. You will need a small flathead screwdriver to make the adjustment.

Caution: Do not touch the Zero pot, located next to the Level pot.

EEROM test

Warning: This test destroys all programming in the EM264's memory!

This test checks the status of the *EM264's* EEROM (Electrically Erasable Read Only Memory). Set the Lock switch to **Disable**. Set the front panel rotary switches to **980** and press [Reset] to run the test. Once the test begins to run, set the rotary switches to **000** start the test. If the test encounters an error, the system will flash the Error LED. The test takes several minutes to run, during which time the LEDs flash intermittently. When the test is finished, all the LEDs except for Power flash simultaneously.

RAM test

This test checks the status of the *EM264's* RAM (Random Access Memory). Set the front panel rotary switches to **990** and press [Reset] to run the test. If the test encounters an error, the system will flash the Error LED. As the test runs, the DMX 1, DMX 2 and SIO LEDs will flash slowly individually or in pairs. The test will run until you interrupt it or it encounters an error. Generally, ten minutes is a sufficient run for this test.

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Rotary switch test

The **Rotary switch test** uses the systems first 12 outputs as indicators to confirm that the front panel rotary switches are functioning. Set the front panel rotary switches to **900** and press [Reset] to run the test.

As the test runs, rotate each rotary switch through all nine settings. If the switches are functioning properly, when a number is set on the switch, the four outputs assigned to that switch will turn on as shown on the charts below. For example, if rotary switch 2 is set to **5**, outputs 6 and 8 turn on and outputs 5 and 7 stay off. If rotary switch 3 is set to **7**, output 9 turns off and outputs 10 through 12 turn on.

Rotary switch 1	Output			
Setting	1	2	3	4
0	—	—	—	—
1	—	—	—	on
2	—	—	on	—
3	—	—	on	on
4	—	on	—	—
5	—	on	—	on
6	—	on	on	—
7	—	on	on	on
8	on	—	—	—
9	on	—	—	on

Rotary switch 2	Output			
Setting	5	6	7	8
0	—	—	—	—
1	—	—	—	on
2	—	—	on	—
3	—	—	on	on
4	—	on	—	—
5	—	on	—	on
6	—	on	on	—
7	—	on	on	on
8	on	—	—	—
9	on	—	—	on

Rotary switch 3	Output			
Setting	9	10	11	12
0	—	—	—	—
1	—	—	—	on
2	—	—	on	—
3	—	—	on	on
4	—	on	—	—
5	—	on	—	on
6	—	on	on	—
7	—	on	on	on
8	on	—	—	—
9	on	—	—	on

LED and DIP switch test

The **LED and DIP switch test** uses outputs 13 through 23 as indicators to confirm that front panel DIP switches and LEDs are functioning. Set the front panel rotary switches to **900** and press [Reset] to run the test.

As the test runs, set each DIP switch in turn to **Disable** and **Enable**. If the switches are functioning properly, your outputs turn on or off to match the setting on the switch you are testing. If the switch is enabled, the output turns on; if the switch is disabled, the output turns off.

The DIP switches (with the exception of the Lock switch) correspond with outputs 13-23 in order from left to right, as shown on the chart below. In addition, as the first eight DIP switches (with the exception of the Lock switch) are enabled, the LEDs should turn on in order from left to right. (The Power LED is on throughout the test.)

Switch	Output	LED
1. Table	13	DMX 1
2. Table	14	DMX 2
3. Table	15	SIO
4. DMX 2	16	Error
5. SIO	17	Quiet
6. Quiet	18	High voltage
7. Lock	None	None
8. Preheat	19	Low voltage
9. Softstart	20	None
10. Filter	21	None
11. Filter	22	None
12. Delay	23	None