

Model T8000-LDV

Lamp Drive Module

for FireSpy® Tracker Control Panels

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product. Listed below are some other important safety instructions and precautions you should follow.

- This unit must be installed and maintained by a qualified electrician in accordance with NFPA 72 and National and local Electrical and fire codes, under the direction of the authority having jurisdiction.
- Do not connect this unit to system wiring when circuits are energized.
- After installation and completion of initial system test, provide a copy of this instruction sheet to all personnel responsible for operation, periodic testing and maintenance of this equipment.
- Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you and others.

GENERAL

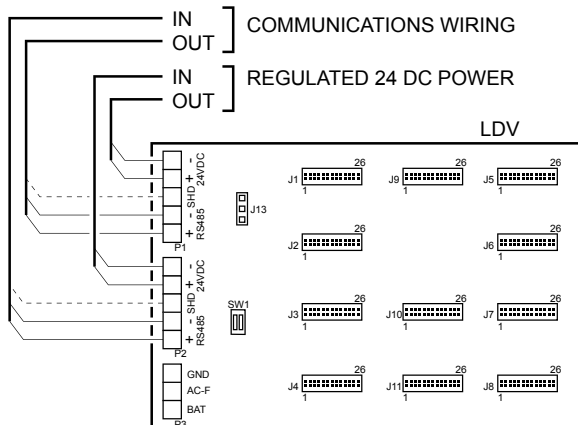
The lamp driver module (T8000-LDV) is for use in appropriately UL864 Listed custom enclosures to provide graphic annunciator capabilities. The module may be configured to use either LED or incandescent lamps; both types of outputs are supervised. Up to 4 LDVs may be used for a total of 255 programmable outputs per Tracker panel. Additionally, each module has outputs for power on; common alarm, supervisory, and trouble visual indicators; and a sounder.

The LDV may be powered by any UL864 Listed power supply, or by the panel if within system current limitations.

INSTALLATION

Install the module as described below.

1. Secure the module to the enclosure standoffs using four screws.
2. See Figure 1 or Figure 2 for wiring. Current limiting resistors are not provided on the LDV. Use an appropriate resistor for each LED. See Figure 3 for calculations. Resistors are not used with incandescents.
3. Set the LDV address on SW1. See Figure 5.



All circuits are supervised and power limited. Segregate power-limited wiring from non-power-limited wiring by at least 1/4 inch.

290-0113

Figure 1: Wiring (powered by control panel)

Specification	Rating
Listed	ETL, Standard UL864
Use / Environment	Commercial / Indoor, dry
Temperature range	32 to 120°F
Maximum relative humidity	95%
Input voltage	Regulated 24 DC
Output voltage	8VDC (LEDs) 24VDC (incandescents)
Operating current (LEDs)	30mA standby 20mA per each energized LED
Operating current (incandescents)	60mA standby 60mA per each energized bulb

Table 1: Specifications

4. Set J13 to select the output voltage. Use position 1 for LEDs and position 3 for incandescents.
5. Program the panel to activate outputs as desired. Refer to the control panel documentation for programming details.

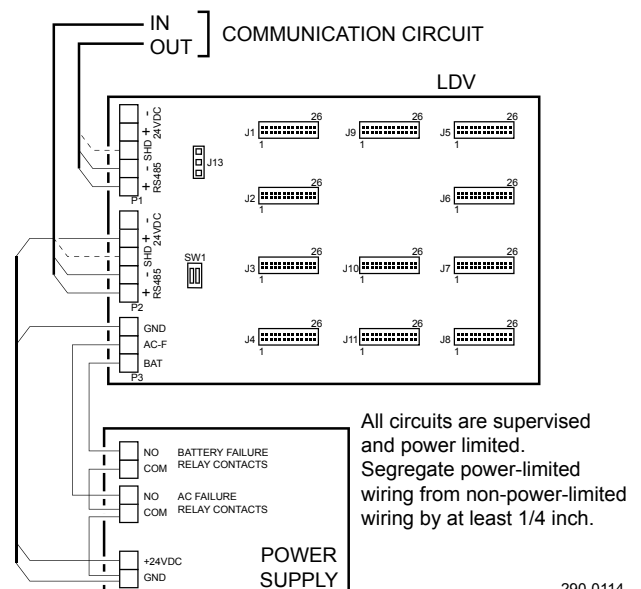
OPERATION

Supervision of the outputs occurs once per day during the panel's daily test. The supervision test turns all outputs off, scans all outputs for open circuit conditions and then restores the outputs to their original state.

A short circuited output will restore itself once the short condition is removed.

The LDV monitors the AC trouble and battery trouble relay contacts on the power supply, when power is not supplied by the panel. Troubles on these circuits are transmitted to the network for annunciation.

Refer to the control panel documentation for operation and programming details.



All circuits are supervised and power limited. Segregate power-limited wiring from non-power-limited wiring by at least 1/4 inch.

290-0114

Figure 2: Wiring (powered by power supply)

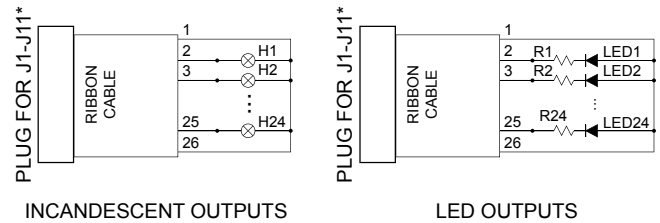
$$\text{MIN. RESISTOR VALUE} = \frac{8 - \text{LED_VOLTAGE}}{\text{LED_CURRENT}} \times 1000$$

$$\text{MIN. RESISTOR WATTS} = (8 - \text{LED_VOLTAGE}) \times \text{LED_CURRENT} \times 2$$

Obtain values for LED_VOLTAGE and LED_CURRENT from the LED's datasheet.
Convert the LED current to milliamps before using in the equations.

290-0115

Figure 3: Resistor selection for LED current limiting



*Use 3M 3326-7626 or equivalent. Refer to chart for actual pinouts.

290-0116

Figure 4: Resistor selection for LED current limiting

ORDERING INFORMATION

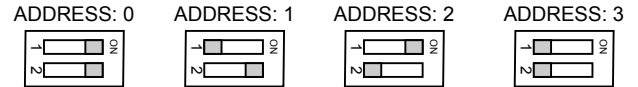
Model	Stock No.
T8000-LDV Lamp driver module	T-LDV
Mounting hardware kit	T-KIT

SERVICE

To get help with problems or questions not covered in these instructions, contact:

Technical Service Department
Harrington Signal Inc.
2519 - 4th Avenue
Moline, IL 61265
(800) 577-5758

FireSpy is a registered trademark of Harrington Signal Inc.



290-0112

Figure 5: Address setting (SW1)

Pin	Connector										
	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11
1	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
2	Lamp 1	Lamp 17	Lamp 41	Lamp 65	Lamp 89	Lamp 113	Lamp 137	Lamp 161	Lamp 185	Lamp 209	Lamp 233
3	Lamp 2	Lamp 18	Lamp 42	Lamp 66	Lamp 90	Lamp 114	Lamp 138	Lamp 162	Lamp 186	Lamp 210	Lamp 234
4	Lamp 3	Lamp 19	Lamp 43	Lamp 67	Lamp 91	Lamp 115	Lamp 139	Lamp 163	Lamp 187	Lamp 211	Lamp 235
5	Lamp 4	Lamp 20	Lamp 44	Lamp 68	Lamp 92	Lamp 116	Lamp 140	Lamp 164	Lamp 188	Lamp 212	Lamp 236
6	Lamp 5	Lamp 21	Lamp 45	Lamp 69	Lamp 93	Lamp 117	Lamp 141	Lamp 165	Lamp 189	Lamp 213	Lamp 237
7	Lamp 6	Lamp 22	Lamp 46	Lamp 70	Lamp 94	Lamp 118	Lamp 142	Lamp 166	Lamp 190	Lamp 214	Lamp 238
8	Lamp 7	Lamp 23	Lamp 47	Lamp 71	Lamp 95	Lamp 119	Lamp 143	Lamp 167	Lamp 191	Lamp 215	Lamp 239
9	Lamp 8	Lamp 24	Lamp 48	Lamp 72	Lamp 96	Lamp 120	Lamp 144	Lamp 168	Lamp 192	Lamp 216	Lamp 240
10	Lamp 9	Lamp 25	Lamp 49	Lamp 73	Lamp 97	Lamp 121	Lamp 145	Lamp 169	Lamp 193	Lamp 217	Lamp 241
11	Lamp 10	Lamp 26	Lamp 50	Lamp 74	Lamp 98	Lamp 122	Lamp 146	Lamp 170	Lamp 194	Lamp 218	Lamp 242
12	Lamp 11	Lamp 27	Lamp 51	Lamp 75	Lamp 99	Lamp 123	Lamp 147	Lamp 171	Lamp 195	Lamp 219	Lamp 243
13	Lamp 12	Lamp 28	Lamp 52	Lamp 76	Lamp 100	Lamp 124	Lamp 148	Lamp 172	Lamp 196	Lamp 220	Lamp 244
14	Lamp 13	Lamp 29	Lamp 53	Lamp 77	Lamp 101	Lamp 125	Lamp 149	Lamp 173	Lamp 197	Lamp 221	Lamp 245
15	Lamp 14	Lamp 30	Lamp 54	Lamp 78	Lamp 102	Lamp 126	Lamp 150	Lamp 174	Lamp 198	Lamp 222	Lamp 246
16	Lamp 15	Lamp 31	Lamp 55	Lamp 79	Lamp 103	Lamp 127	Lamp 151	Lamp 175	Lamp 199	Lamp 223	Lamp 247
17	Lamp 16	Lamp 32	Lamp 56	Lamp 80	Lamp 104	Lamp 128	Lamp 152	Lamp 176	Lamp 200	Lamp 224	Lamp 248
18	Alarm	Lamp 33	Lamp 57	Lamp 81	Lamp 105	Lamp 129	Lamp 153	Lamp 177	Lamp 201	Lamp 225	Lamp 249
19	Superv.	Lamp 34	Lamp 58	Lamp 82	Lamp 106	Lamp 130	Lamp 154	Lamp 178	Lamp 202	Lamp 226	Lamp 250
20	Trouble	Lamp 35	Lamp 59	Lamp 83	Lamp 107	Lamp 131	Lamp 155	Lamp 179	Lamp 203	Lamp 227	Lamp 251
21	Power	Lamp 36	Lamp 60	Lamp 84	Lamp 108	Lamp 132	Lamp 156	Lamp 180	Lamp 204	Lamp 228	Lamp 252
22		Lamp 37	Lamp 61	Lamp 85	Lamp 109	Lamp 133	Lamp 157	Lamp 181	Lamp 205	Lamp 229	Lamp 253
23		Lamp 38	Lamp 62	Lamp 86	Lamp 110	Lamp 134	Lamp 158	Lamp 182	Lamp 206	Lamp 230	Lamp 254
24		Lamp 39	Lamp 63	Lamp 87	Lamp 111	Lamp 135	Lamp 159	Lamp 183	Lamp 207	Lamp 231	Lamp 255
25		Lamp 40	Lamp 64	Lamp 88	Lamp 112	Lamp 136	Lamp 160	Lamp 184	Lamp 208	Lamp 232	
26	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS

Table 2: Connector pinouts