**110-120V LVC-IV Low-Voltage Control Module**

**Section 1 - Overview**

The LVC-IV module contains a 3-screw terminal block for a low-voltage wall switch, an IR receiver jack, a built-in RF receiver, two-RJ25 ports for RS232 / RS485, a low-voltage relay port with cable and a user-serviceable 3.5 Amp fuse.

Compatible components for each are listed below.

**Uses**

- **IR (Infrared)** Remote Control
- **RJ25 Ports for RS-232/RS-485 Communication**
- **Low-Voltage Wall Switch**
- **“Dry” Contact Closure**
- **RF (Radio Frequency)** Remote Control
- **3rd Party Control** Control systems employing “dry” contacts or Serial Communication.

The 120V LVC-IV also used as a Single-Pole, Double-Throw dry closure to control equipment by the same means listed above.

<table>
<thead>
<tr>
<th>COMPATIBLE COMPONENTS</th>
<th>PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRT / R Infrared Remote Control (Connects to IR Port)</td>
<td>121228</td>
</tr>
<tr>
<td>WRT / R Radio Frequency Remote (antenna built in)</td>
<td>121226</td>
</tr>
<tr>
<td>LVC-S Low-Voltage Wall Switch.</td>
<td>121225</td>
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<tr>
<td>Low-Voltage Wall Switch w/ Locking Cover</td>
<td>121232</td>
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<tr>
<td>KS-1 Power Supply Key Switch.</td>
<td>121017</td>
</tr>
<tr>
<td>SP-KSM 3-position Momentary Key Switch</td>
<td>121022</td>
</tr>
<tr>
<td><strong>Auxiliary Control</strong> Control systems employing “dry” contacts or Serial Communication.</td>
<td>By Others</td>
</tr>
</tbody>
</table>

**Technical Specifications:**

- **Power Supply:** 110V-120V / 60Hz
- **Temperature:** -40° C – 85° C
- **Frequency:** 433 MHz
- **Power:** ≤300W
- **Transmit Power:** ≤10mW
- **Sensitivity:** ≤-110dBm
- **Fuse:** 3.15 Amp

If you encounter any difficulties installing or servicing your LVC-IV, call your dealer or contact Draper, Inc.
Section 2 - Programming Radio Frequency (RF) Remote Control

The LVC-IV comes with built-in Radio Frequency Remote control capability (optional handheld transmitter NOT included).

To "Learn" a remote

1. Press receiver button on LVC-IV (see Fig. 2A).
2. Signal light will flash slowly.
3. Press \( \Delta \) (UP) on transmitter within 10 seconds (see Fig. 2B).
4. Signal light flashes three times quickly.

To "Un-Learn" a remote

1. Press receiver button on LVC-IV (see Fig. 2A).
2. Signal light will flash slowly.
3. Press \( \nabla \) (DOWN) on transmitter within 10 seconds (see Fig. 2C).
4. Signal light flashes three times quickly.

To "Un-Learn" all remotes

1. Press receiver button on LVC-IV until signal light flashes quickly, then release.
2. Press receiver button once while signal light is flashing.
3. Signal light will stop flashing.

Please Note: Operating range is 250ft (76 meters) open distance. RF Signal will degrade significantly with each wall it is required to penetrate.

If you are experiencing issues with RF signal strength, the RF antenna can be threaded out one of the knockouts for better reception.

Section 3 - Infrared (IR) Remote Control

1. Plug Optional IR Eye into mini plug input provided on LVC-IV (see Fig. 3).
2. IR Remote Control transmitter does not need to be "learned" by the LVC-IV. Simply point and operate.
3. Maximum IR Eye cable length is 42" (1 meter).

Please Note: IR Transmitter Range is 26ft. (7.9 meters).
Section 4 - DC Low-voltage Trigger

The LVC-IV comes with built-in connection for sending a DC trigger (4-28 VDC) from the projector to the projection screen.

1. Connect remote trigger voltage from projector to the low-voltage trigger cable.
2. Plug the mini-jack plug of the low-voltage trigger cable to the LVC-IV (Figure 4).
3. When projector is 'ON' the low-voltage output of the projector will cause LVC-IV to deploy projection screen. When projector 'OFF' the low-voltage is removed from LVC-IV and projection screen will retract into case.

Section 5 - RS232 / RS485 Information

RS232 / RS485 CommPort Parameters:
1. Frequency (BAUD Rate): 2400
2. Data long code : 8
3. Parity Check : N
4. Start bit : 1
5. Stop bit : 1
6. Flow Control : NONE

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>COMMAND STRINGS</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP</td>
<td>9A 01 01 00 0A DD D7</td>
<td>ID No. : 1 / Channel : 01</td>
</tr>
<tr>
<td>STOP</td>
<td>9A 01 01 00 0A CC C6</td>
<td>ID No. : 1 / Channel : 01</td>
</tr>
<tr>
<td>DOWN</td>
<td>9A 01 01 00 0A EE E4</td>
<td>ID No. : 1 / Channel : 01</td>
</tr>
</tbody>
</table>

For more detailed programming instructions or group control go to: http://www.draperinc.com/DraperPro (registration required)
Section 6 - Wiring LVC-IV to Motor

**Wiring LVC-IV to Screen Motor**

**INTEGRAL SCREEN WIRING**

- GREEN/YELLOW (Ground)
- RED - to screen (directional)
- BROWN - to screen (directional)
- WHITE - Common to screen & 115V AC Neutral
- YELLOW - to 115V AC-Hot (from LVC-IV MOTOR LEAD bundle)
- BLACK - to 115V AC-Hot (from LVC-IV AC POWER bundle)

**EXTERNAL Screen Wiring**

- GREEN/YELLOW (Ground)
- RED - (UP)
- BLACK - (DOWN)
- WHITE - (Common)

**INTERNAL Screen Wiring**

- to AC Power (L1)

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**For AC supply wires:**
Attach appropriate ½" (13mm) Trade Size connector to route wiring through knockouts.

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**EXTERNAL LVC-IV ENCLOSURE DIMENSIONS**

- 2.214"
- 4.5"
- 10.39"