Installation Instructions

**CAUTION - Risk of Damage. Handle carefully.**
1. Do not twist, bend, fold or crease Tivotape™.
2. Do not bend or crease lead wire at solder point.
3. Do not attempt to remove Tivotape™ once it has been installed. Attempting to pull Tivotape™ away from mounting surface after it has been adhered will cause damage to the product.
4. Do not use chemical solvents on Tivotape™ during routine maintenance.

**Failure to comply will damage the product and void the warranty.**

**Option 1: Direct to Surface**

**Note:** Use in clean, smooth, surface applications. Attaching to textured surfaces without the use of a mounting channel is not recommended.

**Step 1:** Identify Tivotape™ from supplied lengths to fit the area as marked.
**Step 2:** Trim off excess length at cutoff zones only.

**Step 3:** Make sure surface where Tivotape™ is to be installed is smooth, clean, free of dirt, oil and debris.

**Note:** For backing tape to remain permanently attached, mounting surface must be clean and free of oil and debris.

**Step 4:** Peel off 3M VHB tape backing and apply Tivotape™ to clean, smooth, surface area.

**Step 5:** Press firmly with hand along the entire length of Tivotape™ to ensure a strong bond to the mounting surface.

**Caution:** Do not attempt to remove Tivotape™ once it has been adhered to surface. Stick down once to avoid damage to the product. If there is a misapplication, remove the Tivotape™, clean off all adhesive from the mounting surface and start over with a new strip of Tivotape™ on a clean surface.

**Step 6:** Make necessary electrical connections. (See Page 3)

**Caution:** Do not bend, twist or crimp the lead wire at the solder connection point. This will damage the product and void the warranty.
Option 2: Mounting Channel
Mounting channels are recommended for most applications to create a smooth, flat adhesion surface and are also used for different effects.

**Step 1:** Measure and cut mounting channel from supplied lengths to fit full length of mounting surface and drill countersunk mounting holes every 24” along channel.

**Step 2:** Attach mounting channel using No. 6 flat head screws (supplied by others) appropriate for mounting surface, ie: wood screws for wood.

**Step 3:** Make sure channel where Tivotape™ is to be installed is smooth, clean, free of all dirt, oil and debris. **Note:** Cleaning channel mounting surface with alcohol is recommended.

**Step 4:** Peel off VHB backing tape and apply Tivotape™ to clean mounting channel.

**Step 5:** Press firmly with hand along the entire length of Tivotape™ to ensure a strong bond to the Mounting Channel.

**Step 6:** Install Lens and End Caps as required for application.

**Step 7:** Make neccessary electrical connections.

Examples of available Channels

- **MCHAN-8-LP**
  - Clear Polycarbonate Mounting Channel

- **TPL-45-MCH-8-S**
  - 45° Wide Mounting Channel

- **INF-C-CHAN-8**
  - Infinity Mounting Channel for LED protection in tight spaces

There are a variety of compatible Channels available in Plastic and Aluminum. See Specification Sheet for more information.

Maintaining Color Consistency

**Note 1:** Each RGB LED is a composite of red, green and blue components. If the Tivotape light strip is located within 2” of an adjacent surface, the color closest to that surface may dominate the other colors. A distance of 2” or more will allow the light to even out and permit the colors to mix together.

**Note 2:** In applications where multiple strips of Tivotape™ are reflecting on a common surface, it is recommended that the tape be mounted at least 2” away from the reflecting surface and oriented with the same edge of Tivotape™ mounted closest to the outside edge, as shown. Note the position of the lead end.
Electrical Connections for Indoor RGBW Tivotape™

**Step 1:** Turn power off before beginning electrical installation.
**Note:** Contacting hot wires against the Tivotape™ leads may damage the product and void the warranty.

**Step 2:** Connect Tivotape™ lead wires to RGBW-Sub-Controller, or if using our ADUL-DIN series transformers, connect to pre-wired connectors which are found inside the power supply box. Refer to diagram on page 4. Make sure each lead wire is connected to the correct terminal, as follows:

<table>
<thead>
<tr>
<th>TIVOTAPE™ PAD DESIGNATION</th>
<th>LEAD WIRE COLOR</th>
<th>SUB-CONTROLLER TERMINAL OR ADUL-DIN CONNECTOR WIRE COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Black (+)</td>
<td>Black (+)</td>
</tr>
<tr>
<td>B</td>
<td>White</td>
<td>Blue</td>
</tr>
<tr>
<td>R</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td>G</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>Not used for RGB</td>
</tr>
</tbody>
</table>

**Step 3:** Connect to a listed Class 2, 24V DC transformer only. See list of approved transformers.

**Step 4:** Optionally, RGB Tivotape™ may be dimmed using an MLV or ELV dimmer that is suitable for the power supply. Please contact our technical support staff for more information.

### Basic Sub-Controller

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CAT NO</th>
<th>MODES</th>
<th>OUTPUT POWER</th>
<th>PRIMARY VOLTAGE</th>
<th>DIMENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMX Subcontroller</td>
<td>TPL-RGBW-180-24</td>
<td>Subcontroller only</td>
<td>5X(96-192)W/14W</td>
<td>24V DC</td>
<td>2.85&quot; W X 6.45&quot; L X 1.5&quot; H</td>
</tr>
</tbody>
</table>

- DMX512 RDM decoder, RDM function can provide the interface between DMX master and decoder, for example, DMX decoder's address may be set from DMX master console.
- Multiple kinds of DMX in/out ports: RJ 45, XLR, normal screws.
- Total 5 PWM output channels, common anode. DMX channel quantity from 1CH~5CH programmable
- PWM output resolution ratio 8bit, 16bit settable.
- Output PWM frequency from 500HZ ~ 9K HZ settable.
- Output dimming curve gamma value from 0.1 ~ 9.9 settable.
- Programmable Decoding mode.

### Safety and Warnings:

- Do not install with power applied to device.
- Do not expose to moisture.

**Note:** The Installation Instructions for your power supply includes DMX programming instructions.
There are many possible options for controlling RGB Tivotape™. See the specification Sheet for more information. The following wiring diagram is for reference only. Please refer to the Installation Instruction for the Power Supply you choose for detailed wiring instructions.

Power Supply with Sub-Controller Sample Wiring Diagram

- **Incoming Power**
  - Black 18ga (Line)
  - White 18ga (Neg)
  - Green 18ga (Gnd)

- **Power Supply**
  - 1 Circuit Breaker

- **RGB Sub-Controller**
  - RJ45 From DMX Controller (By Others)
  - RJ45 To next Sub-Controller or End Cap (By Others)

- **14ga Wire**
  - RED
  - GREEN
  - BLUE
  - WHITE
  - BLACK (+)

- **INPUT**

- **OUTPUT**