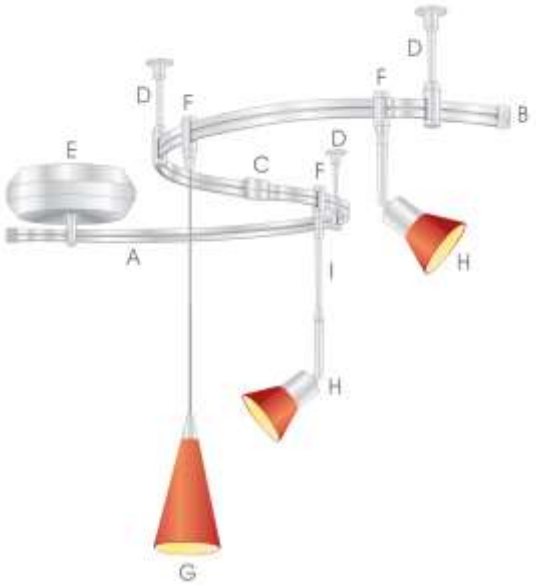
# MONORAIL SYSTEM

**5 STEPS TO CREATING A BASIC CONFIGURATION**
Layout, Suspension, Power and Transformers

| | |
|---|---|
| Type | |
| Project | |
| Catalog No. | |

## 5 Steps to Creating a Basic Configuration

1. **Layout:** Start with creating a design of the Monorail System.
2. **Suspensions:** Determine how the Monorail is to be suspended.
3. **Power:** Determine how much power is required.
4. **Transformer:** Determine the appropriate transformer type.




Components of the Monorail System:

**A.** Monorail
**B.** End Cap
**C.** Connector
**D.** Standoff
**E.** Transformer
**F.** Fixture Adapter
**G.** Quick Adapt Pendant
**H.** Quick Adapt Spot
**I.** Fixture Extension

**FIXTURE ADAPTER**
Provides connection from Quick Adapt Spots and Pendants to Monorail. One fixture Adapter required per Quick Adapt Spot or Pendant.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–FA | Fixture Adapter | SN – Satin Nickel / CH – Chrome |

**FIXTURE EXTENSION**
For use with Quick Adapt Spots to extend the length of the stem. Non adjustable.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–FE09 | 9” Fixture Extension | SN – Satin Nickel / CH – Chrome |
| MA–FE12 | 12” Fixture Extension | SN – Satin Nickel / CH – Chrome |
| MA–FE18 | 18” Fixture Extension | SN – Satin Nickel / CH – Chrome |
| MA–FE24 | 24” Fixture Extension | SN – Satin Nickel / CH – Chrome |
| MA–FE36 | 36” Fixture Extension | SN – Satin Nickel / CH – Chrome |
| MA–FE48 | 48” Fixture Extension | SN – Satin Nickel / CH – Chrome |

## 1. LAYOUT

**MONORAIL**
Rail with 2 End Caps. Field cuttable. Hand-bendable to a minimum radius of 12". Rated for 300 watts at 12 Volts; 600 watts at 24 volts. Material: Aluminum

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–R4 | 4' Rail with 2 End Caps | SN – Satin Nickel |
| MA–R8 | 8' Rail with 2 End Caps | SN – Satin Nickel |

**END CAP**
Inserts over cut-end Rail for finished look.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–EC | End Cap | SN – Satin Nickel |

**BENDING TOOL**
Makes smooth consistent bends in Monorail.

| MODEL | DESCRIPTION |
|---|---|
| MA–BT | Bending Tool |

**I Connector**

**Flexible Connector**

**T Connector**

**X Connector**

**Ceiling-to-Wall Connector**

Connectors may be used for longer runs or to create geometric shapes.

**CONDUCTIVE CONNECTORS**
Allow power to pass from rail to rail.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–I | Conductive I-Connector | SN – Satin Nickel |
| MA–FLX | Conductive Flexible Connector | SN – Satin Nickel |
| MA–T | Conductive T-Connector | SN – Satin Nickel |
| MA–X | Conductive X-Connector | SN – Satin Nickel |
| MA–CW | Conductive Ceiling-to-Wall-Connector | SN – Satin Nickel |

**NON CONDUCTIVE CONNECTORS**
Isolates power from one rail to the next.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–I–NC | Non-Conductive I-Connector | SN – Satin Nickel |
| MA–FLX–NC | Non-Conductive Flexible Connector | SN – Satin Nickel |
| MA–T–NC | Non-Conductive T-Connector | SN – Satin Nickel |
| MA–X–NC | Non-Conductive X-Connector | SN – Satin Nickel |

## 2. SUSPENSIONS

Unlike standard track systems, Monorail cannot be mounted directly onto the ceiling. It must be suspended from the ceiling. Standoff supports the rail from the ceiling. Start by determining the appropriate type of standoff.

### RIGID STANDOFF

- Non-Electrical.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–S03 | 3” Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–S06 | 6” Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–S12 | 12” Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–S24 | 24” Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–S36 | 36” Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–S48 | 48” Rigid Standoff | SN – Satin Nickel / CH – Chrome |

### SLOPED CEILING RIGID STANDOFF

- Non-Electrical.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–SS06 | 6” Sloped Ceiling Rigid Standoff | SN – Satin Nickel / CH – Chrome |

### T–BAR CEILING RIGID STANDOFF

- Non-Electrical.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–ST03 | 3” T-Bar Ceiling Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–ST06 | 6” T-Bar Ceiling Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–ST12 | 12” T-Bar Ceiling Rigid Standoff | SN – Satin Nickel / CH – Chrome |
| MA–ST24 | 24” T-Bar Ceiling Rigid Standoff | SN – Satin Nickel / CH – Chrome |

### AIRCRAFT CABLE SUSPENSION

- Suspends Rail up to 12’ below Ceiling with Aircraft Cable. Length adjustable with cable lock. Tools not required. Furnished with canopy.
- Non-Electrical.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA–SC12 | 12’ Aircraft Cable Suspension | SN – Satin Nickel / CH – Chrome |

## 3. POWER

Monorail is rated at 25A. This means the Monorail system will handle up to 300W on a 12V system; or 600W on a 24V system. Start by adding up the total wattage of all the Pendants and Spots being used on the configuration. For example, 6 Quick Adapt Pendants and Spots x 50W each = 300W. Match up the total wattage with the appropriate transformer. In the example above, a 300W transformer will be appropriate.

The transformer is key to the Monorail system. If total wattage of Pendants and Spots exceed the transformer wattage, you have 2 options. You can use a lower wattage lamps for the Pendants and or Spots. Another option is to introduce a second transformer. When using a second transformer, the power will be isolated. A non-conductive connector may be used to create a continuous run but powered by two separate power sources.

## 4. TRANSFORMERS

### TRANSFORMER OPTIONS

**Surface Mounted Transformers**
Features:
- Installed in a finished ceiling.
- The transformer is visible, it is part of the Monorail System.
- Select Electronic or Magnetic Surface Mounted Transformer.

**Remote Transformers**
Features:
- Installed behind the ceiling or wall.
- The transformer is hidden from view, provides a cleaner look.
- Select Electronic or Magnetic Remote Transformer.

### SURFACE MOUNTED TRANSFORMERS

Surface Mounted Transformers are installed in a finished ceiling. Transformer housing is a visible part of the system. There are two types of Surface Mounted Transformers:

**ELECTRONIC SURFACE MOUNTED TRANSFORMERS**
Features:
- Smaller profile, lighter weight.
- Electronic Dimmers may be used for dimming.
- Compatible with 3” Standoffs.
- Use MA-PFS48/96 for longer drops. Sold separately.

| MODEL | INPUT-OUTPUT | MAX WATT | FINISH |
|---|---|---|---|
| MST-12012/150E | 120V-12V AC | 150W | SN – Satin Nickel / CH – Chrome |
| MST-12012/300E | 120V-12V AC | 300W | SN – Satin Nickel / CH – Chrome |

**MAGNETIC SURFACE MOUNTED TRANSFORMERS**
Features:
- Larger profile, heavier weight.
- Magnetic Dimmers may be used for dimming.
- Compatible with 3” Standoffs.
- Use MA-PFS48/96 for longer drops. Sold separately.

| MODEL | INPUT-OUTPUT | MAX WATT | FINISH |
|---|---|---|---|
| MST-12012/150M | 120V-12V AC | 150W | SN – Satin Nickel / CH – Chrome |
| MST-12012/300M | 120V-12V AC | 300W | SN – Satin Nickel / CH – Chrome |



**OPTIONAL EXTENSION**
Each Surface Mounted Transformer is a standoff in itself. It is compatible with 3” standoff. For longer drops, a Power Feed Cable Extender may be used to bring power to Rail. Ideal for sloped ceiling applications. May be field cut. **MA-PFBR** bushing that goes into the canopy is included.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-PFS48 | 48” Power Feed Cable Extender | SN – Satin Nickel / CH – Chrome |
| MA-PFS96 | 96” Power Feed Cable Extender | SN – Satin Nickel |

### REMOTE TRANSFORMERS

Remote Transformers are installed behind the ceiling or wall. Transformers are not visible, and provide a clean look.

**MAGNETIC SURFACE MOUNTED TRANSFORMERS**
Features:

- Magnetic Dimmers may be used for dimming.
- To bring power from transformer to Rail, select from the following:
  Power Feed options: MA-PF1, MA-PF2, MA-PFW, MA-PFCS48/96
  Power Feed Canopy optional suspensions: MA-PFE12/24/36/48

| MODEL | INPUT-OUTPUT | MAX WATT | CIRCUITRY |
|---|---|---|---|
| MRT-12012/300M | 120V-12V AC | 300W | 1 x 300W |
| MRT-12012/600M | 120V-12V AC | 600W | 2 x 300W |
| MRT-12012/1200M | 120V-12V AC | 1200W | 4 x 300W |
| MRT-12024/600M | 120V-24V AC | 600W | 1 x 600W |
| MRT-12024/1200M | 120V-24V AC | 1200W | 2 x 600W |
| MRT-27712/300M | 277V-12V AC | 300W | 1 x 300W |
| MRT-27712/600M | 277V-12V AC | 600W | 2 x 300W |

### POWER FEEDS FOR TRANSFORMERS

**SINGLE POWER FEED CANOPY**
For use with Remote Transformer. Mounts over an electrical junction box and brings power to a single run of Rail. 25A Max. per circuit. Compatible with 3" Rigid Standoff. May be extended with Power Feed Extension Rod.

| MODEL | FINISH |
|---|---|
| MA-PF1 | SN – Satin Nickel<br>CH – Chrome |

**POWER FEED EXTENSION**
For use with Single/Dual Power Feed Canopies. Furnished with Rail Feed. Use (1) with MA-PF1 to bring power to a single run of Rail; or (2) MA-PF2 to bring power to two isolated runs of Rail.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-PFE12 | 12" Power Feed Ext. | SN – Satin Nickel<br>CH – Chrome |
| MA-PFE24 | 24" Power Feed Ext. | SN – Satin Nickel |
| MA-PFE36 | 36" Power Feed Ext. | SN – Satin Nickel<br>CH – Chrome |
| MA-PFE48 | 48" Power Feed Ext. | SN – Satin Nickel<br>CH – Chrome |

**DUAL POWER FEED CANOPY**
For use with Remote Transformer. Mounts over an electrical junction box and brings power to two isolated runs of Rail. 25A Max. per circuit. Compatible with 3" Rigid Standoff. May be extended with Power Feed Extension Rod.

| MODEL | FINISH |
|---|---|
| MA-PF2 | SN – Satin Nickel<br>CH – Chrome |

**CABLE SUSPENSION POWER FEED CANOPY**
For use with Remote Transformer. Canopy mounts over an electrical junction box and brings power to Rail. 25A Max. Ideal for sloped ceiling applications. Field cuttable.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-PFCS48 | 48" Cable Power Feed | SN – Satin Nickel<br>CH – Chrome |
| MA-PFCS96 | 96" Cable Power Feed | SN – Satin Nickel<br>CH – Chrome |

### WALL MOUNT

**WALL MONORAIL POWER FEED**
Furnished with canopy for use with remote transformer. Canopy mounts over an electrical junction box and brings power to Rail. Includes Support Cable. 25A Max. Rail sold separately.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-WMPF06 | 6" Power Feed Extension from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WMPF12 | 12" Power Feed Extension from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WMPF18 | 18" Power Feed Extension from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WMPF24 | 24" Power Feed Extension from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WMPF36 | 36" Power Feed Extension from Wall | SN – Satin Nickel / CH – Chrome |

**WALL MONORAIL SUPPORT BRACKETS**
Non electrical. Pairs up with MA-WMPF to provide support for Monorail. Use two or more Brackets for longer runs of Rail. Includes Support Cable.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-WM06 | 6" Support Bracket from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WM12 | 12" Support Bracket from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WM18 | 18" Support Bracket from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WM24 | 24" Support Bracket from Wall | SN – Satin Nickel / CH – Chrome |
| MA-WM36 | 36" Support Bracket from Wall | SN – Satin Nickel / CH – Chrome |

**WALL MOUNTED POWER FEED**
Wall Mounted Power Feed for Remote Transformer. Single Feed Mounts over electrical junction box and brings power to a single run of rail. 25A Max.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-PFW | Wall Mounted Power Feed | SN – Satin Nickel / CH – Chrome |

**CEILING TO WALL CONNECTOR**
Conductive connector joins two sections of Rail from ceiling to wall at 90° angle.

| MODEL | DESCRIPTION | FINISH |
|---|---|---|
| MA-CW | Ceiling-to-Wall Connector | SN – Satin Nickel |

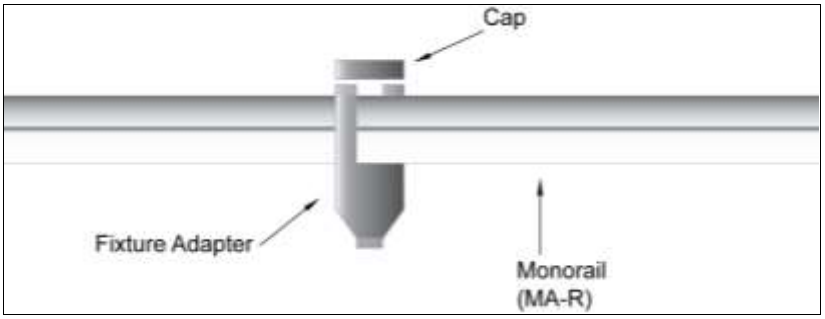
# INSTALLATION INSTRUCTIONS
LOW VOLTAGE MONORAIL BASIC COMPONENTS

## CAUTION

- Read all instructions before attempting to install this product.
- Ensure main power is off before attempting to install, modify, or wire this product.
- Do not install in a wet or damp location.
- All electrical equipment should be installed by a qualified electrician or technician in accordance with local electrical codes and National Electrical Code.

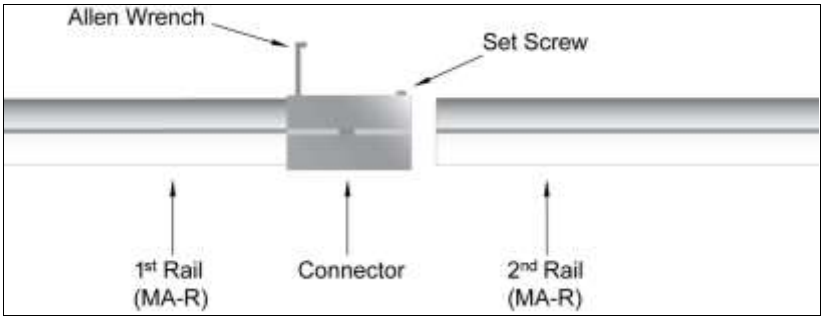
**NOTE:** Configure design and layout of system on floor before attempting to install any of the following products.

## **MA–FA** • Fixture Adapter




1. Unscrew cap from Fixture Adapter.
2. Insert Fixture Adapter onto installed Monorail system.
3. Replace cap onto Fixture Adapter and tighten.

## **MA–I** • *Conductive Connector* & MA-I-NC • *Non-Conductive Connector*




1. Insert rail into open connector end.
2. Ensure the rail is set completely within the connector.
3. Tighten setscrew with Allen wrench. (Included)

# INSTALLATION INSTRUCTIONS
LOW VOLTAGE MONORAIL BASIC COMPONENTS

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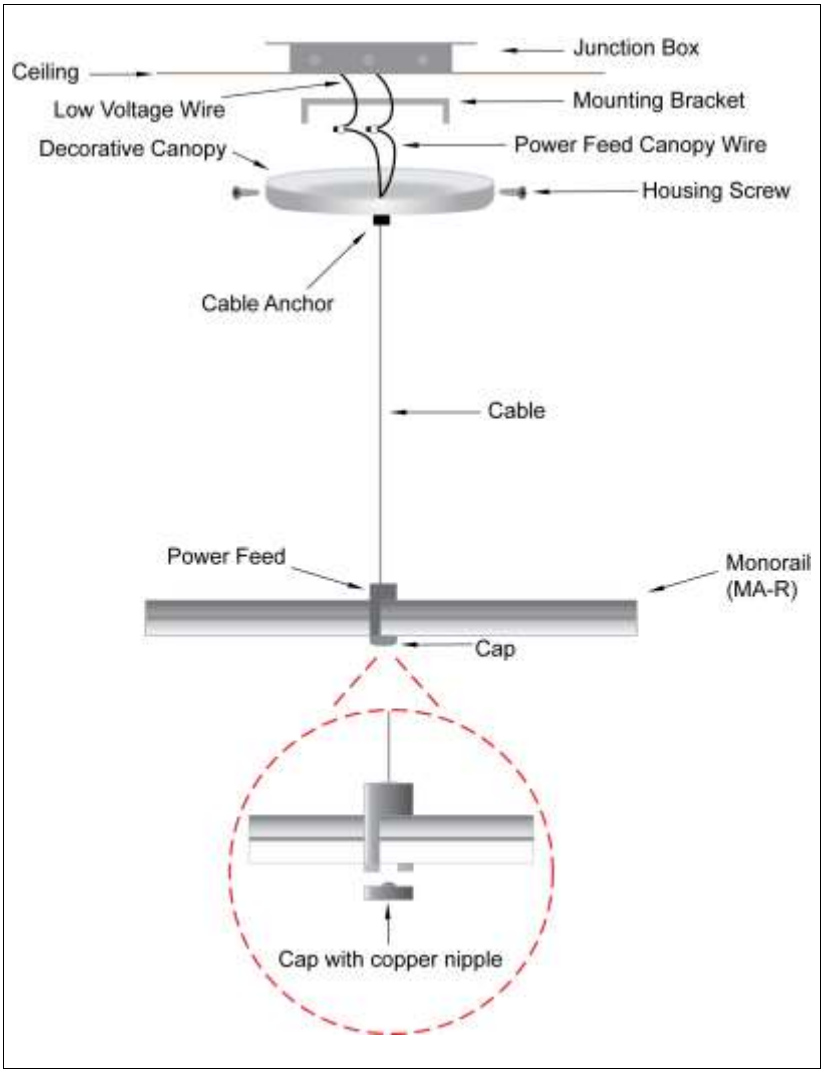
  **NOTE:** Install remote power supply first.

## **MA–PFCS48 & MA–PFCS96** • Cable Suspension Power Feed Canopy




1. Remove decorative canopy from mounting bracket by unscrewing housing screws.
2. Secure mounting bracket to junction box by lining up bracket slots with junction box holes.
3. Adjust cable length to desired height by loosening the anchor.
4. Connect low voltage wire to power feed canopy wires.
5. Place wires into junction box.
6. Place excess cable into decorative canopy.
7. Mount decorative canopy to mounting bracket with housing screws.
8. Remove cap from the power feed.
9. Insert the monorail into the power feed.
10. Replace and tighten cap onto the power feed. Adjust copper nipple within the cap as needed to make a good contact. Double check cap has been tightened and ensure a good connection is made. Loose connections may damage your system.

# INSTALLATION INSTRUCTIONS
LOW VOLTAGE MONORAIL BASIC COMPONENTS

## CAUTION

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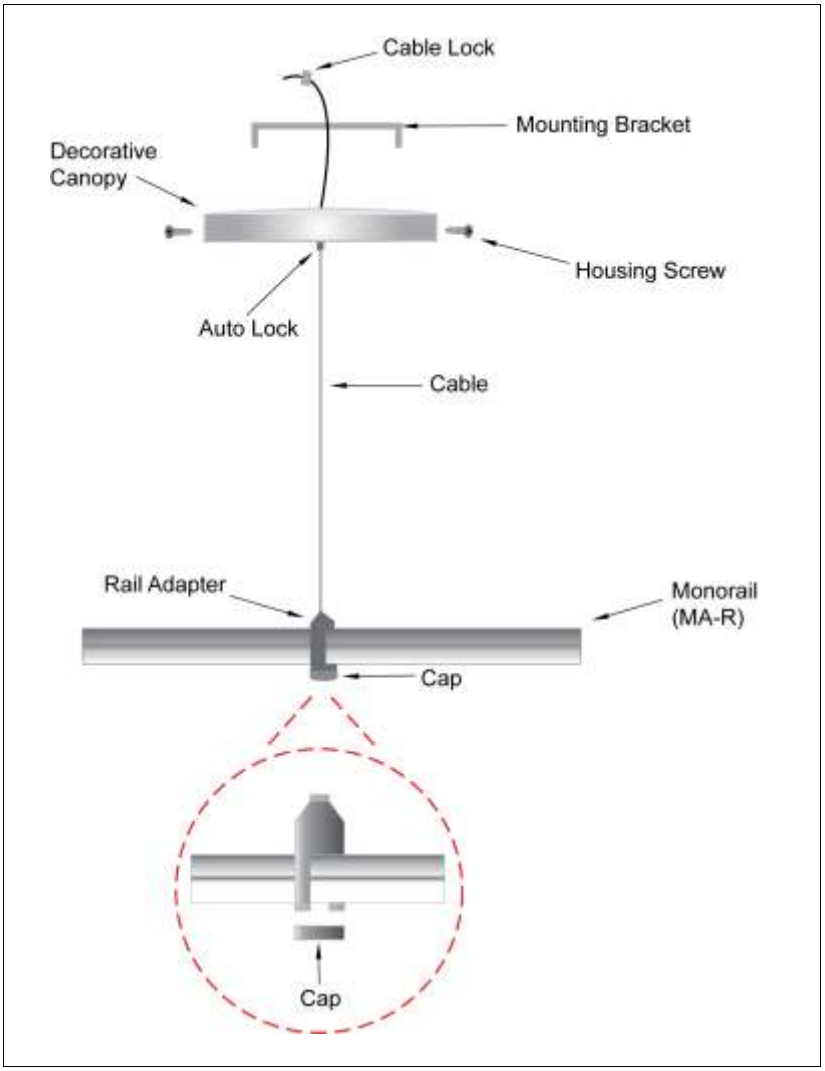
**NOTE:** Configure design and layout of system on floor before attempting to install this product.

## **MA-SC12** • Cable Standoff




1. Remove decorative canopy from mounting bracket by unscrewing housing screws.
2. Secure mounting bracket to mounting surface.
3. Adjust cable length by pushing cable up into the decorative canopy. The decorative canopy's auto lock mechanism will hold the cable to desired length.
4. Place excess cable into decorative canopy.
5. Adjust cable length by pushing cable up into the decorative canopy. The decorative canopy's auto lock mechanism will hold the cable to desired length.
6. Place excess cable into decorative canopy.
7. Mount decorative canopy to mounting bracket with housing screws.
8. Remove cap from the rail adapter.
9. Insert monorail into the rail adapter.
10. Replace and tighten cap onto the rail adapter.

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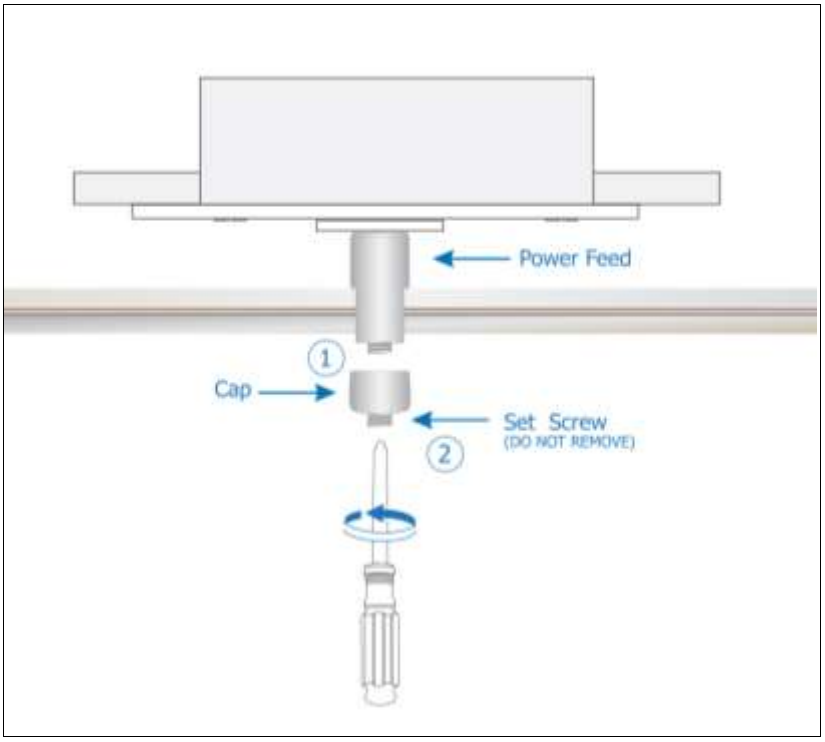
**NOTE:** Configure design and layout of system on floor before attempting to install this product.

## Cap to Power Feed Connection




1. Unscrew the cap from the power feed.
2. Slightly loosen the set screw on the cap, **DO NOT REMOVE IT**.
3. Place the Monorail into the power feed.
4. Tighten the cap to the power feed. Make sure the cap is not cross threaded.
5. Tighten the set on the cap firmly for proper power connection.

# INSTALLATION INSTRUCTIONS
LOW VOLTAGE MONORAIL BASIC COMPONENTS

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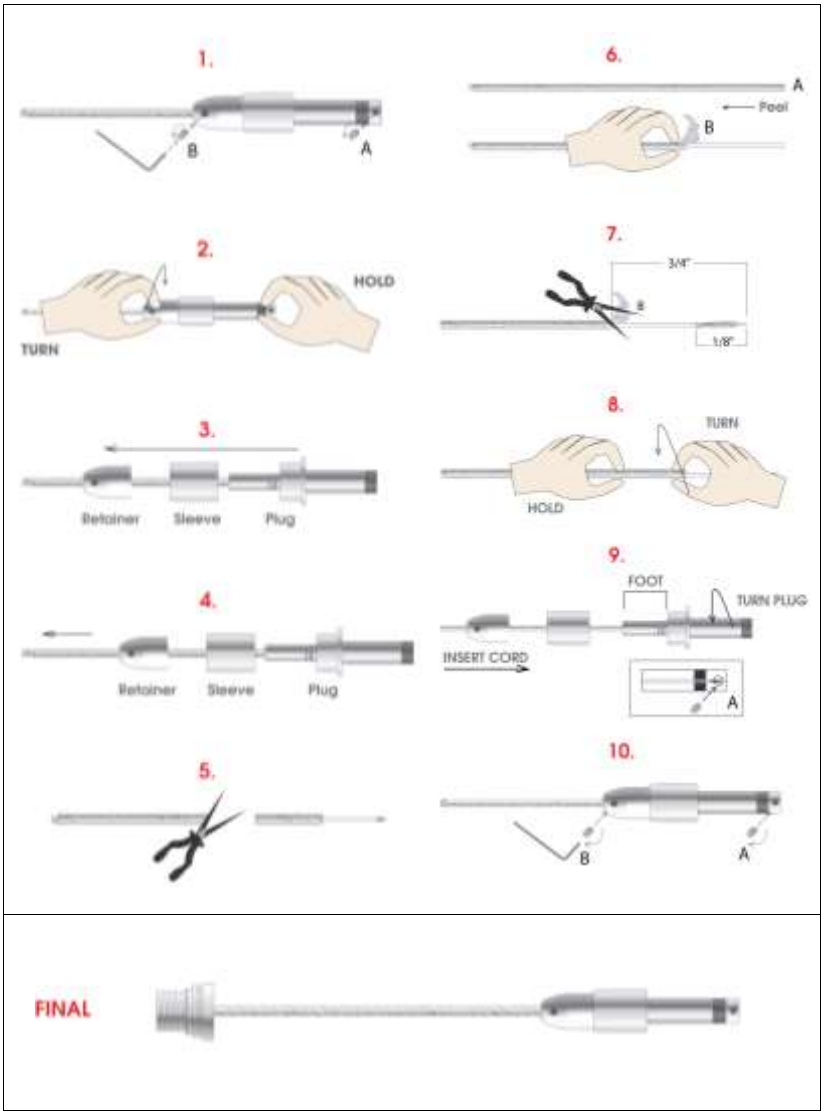
**NOTE:** Configure design and layout of system on floor before attempting to install this product.

## Quick Adapt Connector • Field Cut Instructions




1. Locate the Quick Adapt connector at the top of the coaxial cord. Completely remove screws A and B with the provided Allen key.
2. While holding the tip of the Quick Adapt connector, remove the base by turning it away from you.
3. You can now identify the three components that make up the Quick Adapt connector.
4. Disassemble the Quick Adapt connector by pulling the coaxial cord out of and away from all three components.
5. Measure the desired length and cut the cord. (Note: Approx. 1 inch of the cord will be inserted into the Quick Adapt connector).
6. Once you've cut the cord to it's desired length, I will look like picture A shown to the left. Peel back the braided jacket approx.. ¾" from the tip of the insulated center wire (Picture B).
7. Cut off the excess braided jacket so that ¾" of the insulated center wire is exposed. Strip no more than 1/8" off of the insulated center wire.
8. Twist the remaning braided jacket snugly around the center wire to ensure a clean insertion around the center wire to ensure a clean insertion into the Quick Adapt connector.
9. Reassemble the Quick Adapt connector by passing the cord throught the retainer and sleeve first. Then insert the cord into the turn plug making sure that the foot of the plug covers the braided jacket. Turn the plug while inserting the cord for an easier insertion. Make certain you can see the center wire at the top opening A of the plug to ensure a good connection.
10. Again using the provided Allen key, tighten screw A at the tip of the plug. Reattach the sleeve and retainer to the plug. Tighten screw B on at the retainer. Your Quick Adapt Pendant is now ready to one of many mounting options in out Quick Adapt System.

# NOTES