

# INSTRUCTION SHEET FOR ELECTRO-RAIL®

## 20AMP TROLLEYS

### Application

ELECTRO-RAIL® is an all-purpose electrical trolley busway system designed to serve all of your distribution needs. Its ease of operation and versatility make it perfect for all of your flexible power requirements. Track systems can be designed to coincide with your manufacturing, fabrication or test line needs, providing a continuous power supply for your mobile machinery or test equipment. Redeployment of machinery tools and lighting is made easily. No longer is it necessary for expensive running of hard wire systems or hazardous cords stretched across the work area.

ELECTRO-RAIL® 'E60' 2 and 3 pole systems have:

- Track rating: 60 amperes (continuous); 90 amperes (intermittent).  
Trolleys rated 5, 15, or 20 amperes (continuous)
- Track — 300 volts.

### Recommended Tools

Cable Cutters	Screw Drivers
Ohmmeter	Wire Strippers
Torque Wrench	5/64 Allen Head Wrench

Select Cable size from table according to ampere rating of device.

AMPERE RATING	5	15	20
CABLE SIZE AWG.	18	14	12

Establish a wiring pattern so the same colored wire is put in the same terminal on all trolleys in the system. Trolleys are polarized so that they will enter the track casing only one way.

### WARNING!

All wiring should be done in strict accordance with the NEC. Consult National and Local Codes for requirements in your area.

### ELECTRICAL TESTING

Do not connect to power until the following electrical tests have been performed.

1. Make continuity checks of wiring with Ohmmeter to verify correct phasing and grounding connections.
2. Check insulation resistance to be sure system does not have any short circuits or unwanted grounds.

Connect all devices in the system, turn the power on and test the system.

### For Trolleys with Cabinets and Fuse Box

1. Strip cable jacket 1½ inches and conductors ½ inch.
  2. Open door on terminal box. Slide supply cable through cable clamp and into box.
  3. Loop stripped ends of supply wire in clockwise direction, under head of terminal screw according to established wiring pattern. Tighten terminal screw down over wire to specified torque value.
  4. To insure a proper ground, attach ground wire to the ground screw inside the terminal box. Tighten to a torque of 20 lbs/in.
- NOTE:** Consult National and Local Codes for requirements in your area.
5. Secure cable clamp around supply cable.
  6. Install proper fuses and close door.

### Maintenance

Inspection of electrical equipment used in industrial and heavy use situations must be conducted regularly to ensure proper function and safety.

Check for the following during inspection:

1. Unsecured contact wire terminals
2. Cracked or broken housings
3. An unfastened or loose ground conductor
4. Deteriorated or misplaced gaskets
5. Loose or missing screws.

### WARNING!

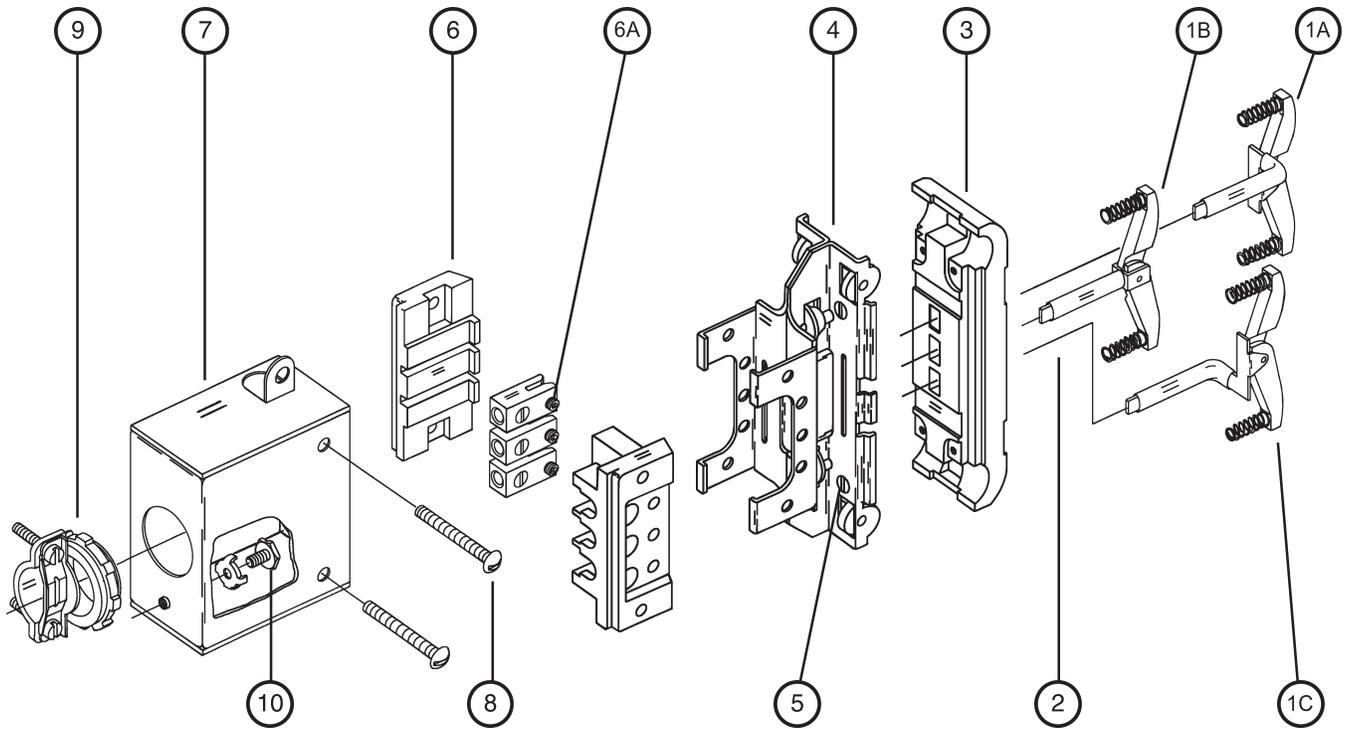
If any part of the plug, receptacle or connector appear to be missing or damaged, **DISCONTINUE USE IMMEDIATELY** replace with factory replacement parts only before continuing use

**ELECTRO-RAIL®**

**P.O. Box 24200**

**St. Louis, MO 63130**

# 20 AMPERE TROLLEYS



1. Place trolley on flat surface.
2. Slide junction box #7 and cable clamp assembly #9 off trolley.
3. Place trolley assembly so that the polarizing tab on the chassis #4, located at the top center (side), is facing down. Check to see that the terminal lugs located in the terminal block #6 face up.
- NOTE:** For replacement of contacts #1a, b, c follow all steps while omitting step 11. For wiring of trolley, go to step 10.
4. Remove four chassis screws #5.
5. Orient the trolley so that the terminal lugs in the terminal block #6 are facing towards you. Insert 5/64 Allen Head wrench into holes located on side of chassis #4. Loosen three pressure screws #6a and lift body assembly #1-3 off chassis #4. Slide terminal block #6 out of chassis.
6. Remove contacts #1a, b, c with insulators #2 from trolley body #3.
7. To reassemble, insert contacts #1a,b,c first, then insert inner contact #1b last.
8. Place chassis #4 so that polarizing tab, located at top center (side) is facing down. Slide terminal block #6 into the chassis so that the terminal lugs are facing up.
9. Place body assembly #1-3 on top of chassis #4.
 

Install four chassis screws #5 and tighten. Locate three pressure screws #6a in terminal block #6. Place pressure downwards on the two outer contacts #1a, c while tightening the two outer pressure screws with the 5/64 Allen Head wrench. Then place pressure downwards on the center contact #1b, while tightening the center pressure screw.
10. With the trolley in this position, polarizing tab down, the terminal lugs are labeled Z, Y, X from left to right. **NOTE:** If terminal lugs are located on the same side of the trolley as the polarizing tab, the terminals are labeled X, Y, Z from left to right.
11. Strip cable jacket 1½ inches and conductors ½ inch.
12. Loosen terminal lugs located on terminal block #6. Slide junction box #7 and cable clamp assembly #9 over supply cable. Insert conductors into the terminal block according to established wiring pattern. Tighten terminals to 20 LBS-IN. Attach ground wire to ground screw #10 located inside junction box.
 

**NOTE:** Consult National and Local Codes for requirements in your area.
13. Slide junction box #7 and cable clamp assembly #9 over chassis #4. Remove two junction box screws #8 from plastic bag. Insert junction box screws through box and chassis and tighten. Secure cable clamp around supply cable.