

# INSTRUCTION SHEET FOR ELECTRO-RAIL®

## 5AMP AND 15AMP 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	

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

AMPERE RATING	5	15
CABLE SIZE AWG.	18	14

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!

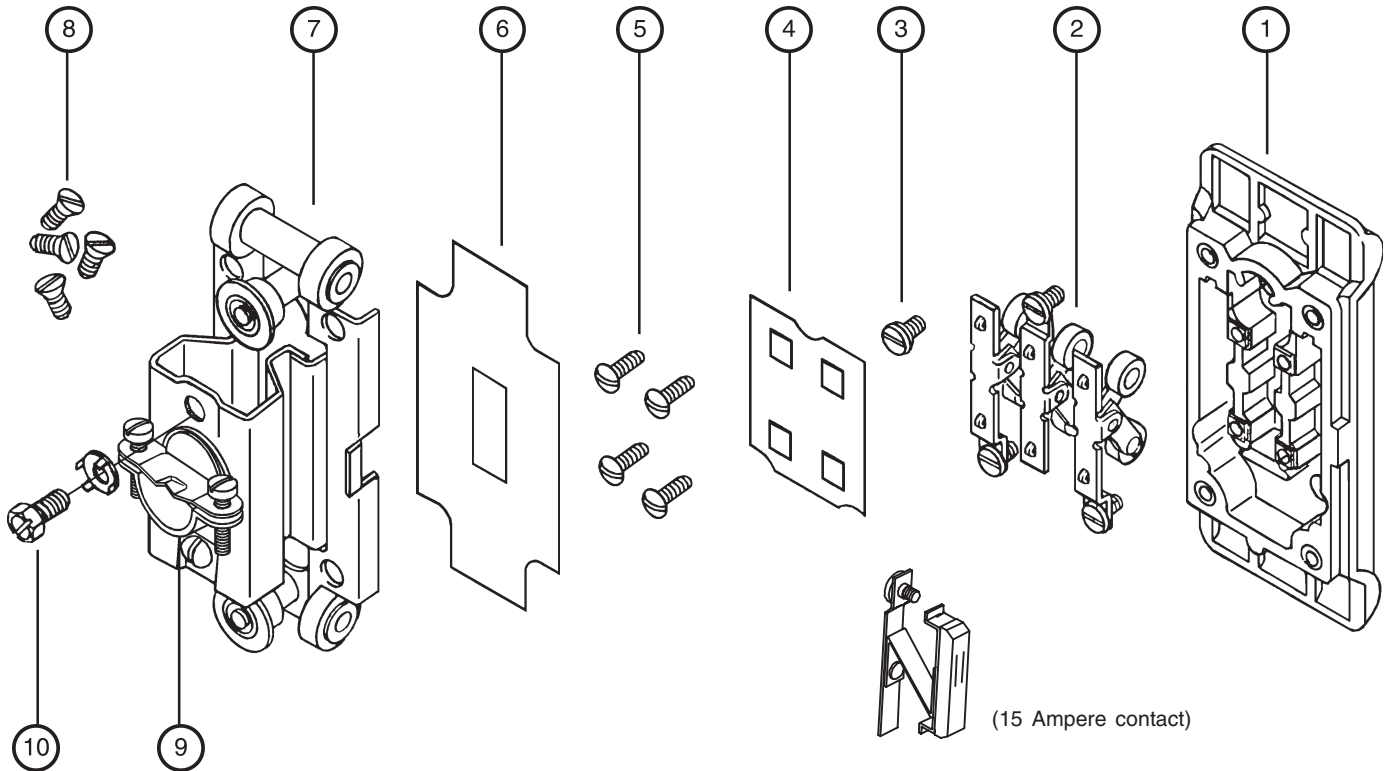
If any part of the plug, receptacle or connector appear to be missing or damaged, **DISCONTINUE USE IMMEDIATELY** replace with factory replacement parts only before continuing use

## ELECTRO-RAIL®

### P.O. Box 24200

### St. Louis, MO 63130

# 5 AND 15 AMPERE TROLLEYS



1. Place trolley on flat surface with trolley body #1 facing down.
 

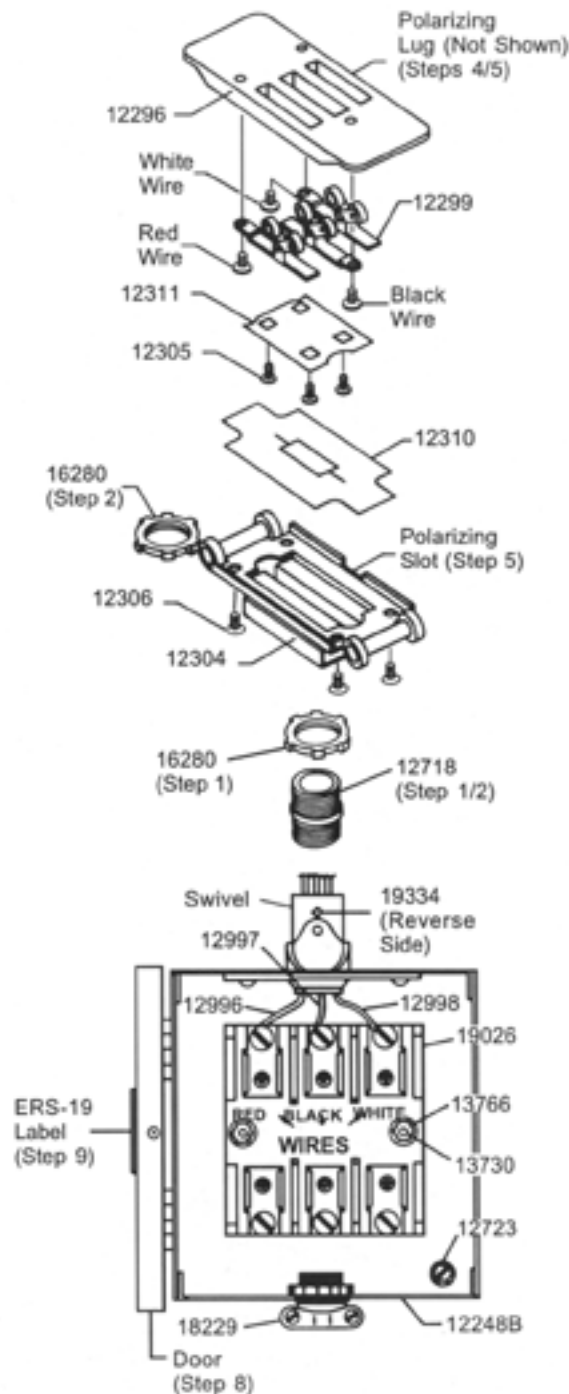
**NOTE:** For replacement of contacts #2 follow all steps while omitting steps 6 and 7. For wiring of trolley, go to step 6.
2. Remove four #5 insulator screws from trolley body #1.
3. Remove insulator #4 and contacts #2 from trolley body #1.
4. To Reassemble, insert contacts #2 into trolley body #1 making sure that contacts extend through the body, they sit flat, and that terminal screws #3 are properly aligned with holes in trolley body #1.
5. Place insulator #4 over contacts #2. Make sure side notches in insulator line up with contact terminal screws #3. Press downward on insulator, while making sure that contacts are sitting properly in trolley body #1. Install insulator screws #5 and tighten.
 

**NOTE:** Do not over-tighten.
6. Strip supply cable jacket 1½ inches and conductors ½ inch.
7. Remove liner #6 and four chassis screws #8 from plastic bag.
8. Slide cable through cable clamp #9 on chassis #7 and through liner #6.
9. Loosen terminal screws #3.
 

**NOTE:** Markings in trolley body #1 near terminal screws #3 indicate proper wiring orientation.
10. 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 a torque of 20 LBS-IN.
11. Slide chassis #7 and liner #6 over cable and place on trolley body #1 by lining up notch in chassis with tab on trolley body.
12. Install chassis screws #8 and tighten securing chassis to trolley body.
13. Secure cable clamp #9 around supply cable.
14. Grounding of equipment can be made by attaching ground wire to the ground screw #10 on the bottom of chassis #7.
 

**NOTE:** Consult National and Local Codes for requirements in your area.

## ERS-19 3-POLE ROLLER TROLLEY w/BOX ASSEMBLY INSTRUCTIONS (No. 12248)



### Step

- Screw #16280 Nut on #12718 Nipples as far as it will go.
- Slide #16280 Nut (See Drawing) into #12304 Trolley Chassis. Then screw Nipple w/Nut, nut facing trolley chassis, in as far as it will go and tighten extra tight with 1-1/16" open end wrench.
- Place #12299 Roller Contacts (3) in #12296 Trolley Body. Secure with #12311 Contact Retainer and #12305 Screws (4).
- IMPORTANT!!** With polarizing lug on #12296 Trolley Body facing you, attach black wire on right center contact, red wire on upper left contact and white wire on left contact. Fold 3 wires to center and bend straight up.
- Install #12310 Chassis Liner on #12304 Chassis and place chassis assembly with **polarizing slot** on chassis so that it lines with **polarizing lug** on trolley body. Secure with #12306 Screws (4).
- Insert trolley assembly wires thru swivel on #12248B Box. Then screw nipple into swivel as far as it will go. **Make sure that polarizing lug on trolley is facing to the back of #12248B Box.** Then tighten #19334 Socket Set Screw located on the box swivel.
- Install #12723 Grounding Screw, #9026 Fuse Box with #13730 Screws (2) and #13766 Nuts (2), and #18229 Cable Clamp in #12248B Box.
- With door to #12248B Box open to the left and trolley at the top, attach wires to #9026 Fuse Block - **Red left, Black Center and White right.**
- Affix ERS-19 label to the front cover of #12248B Box, insert completed assembly in 9" x 12" plastic bag and pack in C10 carton. Stuff with paper if needed.

<b>UNIVERSAL SEWING SUPPLY</b> 1011 EAST PARK INDUSTRIAL DRIVE SAINT LOUIS, MISSOURI 63130		DATE <b>06-11-97</b>
PART NAME <b>ERS-19 3-POLE ROLLER TROLLEY w/BOX</b>		
MATERIAL / FINISH		SCALE <b>NONE</b>
UNIVERSAL NUMBER <b>12248</b>	MANUFACTURER NUMBER <b>ERS-19</b>	DRAWING NUMBER <b>12248D</b>