



## 4500 Series Combination Wiring

# INSTALLATION INSTRUCTIONS

Triple ProTrap<sup>®</sup>


PHONE: 1.866.748.7435 | FAX: 1.605.665.0501

2309 SHURLOCK STREET | YANKTON, SD 57078-0713

**SHURCO.com**



### SAFETY INSTRUCTIONS

At Shurco, your safety is our top priority. Please read and thoroughly understand all instructions before operating all equipment. Failure to READ AND FOLLOW INSTRUCTIONS may result in system failure, property damage, or personal injury. Pay close attention to warnings, cautions, and operating instructions. The hazard symbol  alerts users of potentially hazardous conditions, and is followed by Caution, Warning, or Danger messages to indicate risk:

- **Danger:** (red) Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury.
- **Warning:** (orange) Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury.
- **Caution:** (yellow) Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury, or damage to the system.
- **Notice:** (blue) Indicates operational notes or other essential information without addressing safety.

Regularly inspect equipment to ensure proper performance. Always repair or replace worn or damaged parts immediately to maintain safety. Safety decals are placed at critical locations on equipment. Keep these decals clean and legible at all times. Replace any decal that is worn, damaged, painted over or otherwise unreadable. Replacement decals can be obtained by your local Shurco dealer.

- Always wear safety glasses during installation and operation.
- Stay clear of moving parts.
- No other use of Shurco equipment is authorized, except as designed.

### SHUR-CO, LLC TERMS OF SERVICE

ORDER  
TERMS AND CONDITIONS



WARRANTY



PATENTS



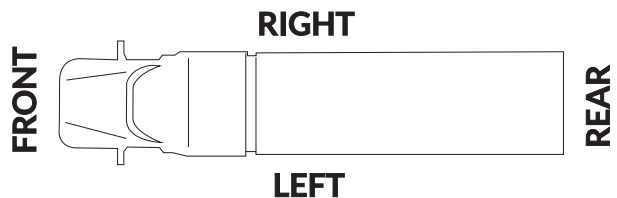
### QUESTIONS?

CALL OUR HELP LINE:

**1-866-748-7435**

MONDAY-FRIDAY  
8 AM-5 PM CENTRAL TIME

### VEHICLE ORIENTATION



**⚠ WARNING**

Failure to disconnect power before performing wiring may result in equipment damage, serious injury, or death.

- Disconnect power before performing any wiring or service.
- This installation instructions is a supplement; follow all warnings, cautions, and procedures in the owner's manual.

**NOTICE:** This instruction sheet is supplied with a variety of trailer models, therefore the locations for the SMARTwire components shown here may vary slightly on your trailer. Mounting locations are critical because wire lengths cannot be altered. Mount SMARTwire components as close as possible to the locations shown.

**⚠ CAUTION**

- Do not cut molded SMARTwire ends. Molded SMARTwire ends are designed with sealed connections to prevent corrosion; cutting the wire may lead to operational problems.
- Bind excess wire with cable ties to prevent loose wire entanglement.

Item	Part #	Description
1.		Flex Arm SMARTwire™ - 6 Ga. - Plug - 10'-9" w/Encoder Wire
6.	1704751	Harness Lock Pin - 1/4" x 7/8"
7.	1120670	SMARTwire™ Dual-Conductor Socket
10.	1704695	Harness Junction Block
11.	1704717	Wire Harness Rubber Plug
12.	1704696	Harness Lock Pin - Long
13.	1704711	Harness Lock Pin - Short
14.	1704338	Self-Tapping Screw - 1/4" x 1"
16.		ShurLink™ Receiver
20.	1702108	Wire Clip - 3/4"
21.	1704704	SMARTwire™ Socket x Plug - 6 Ga. x 25'
22.	1703231	Cable Tie - 8"
25.	1120817	SMARTwire™ Socket x 1/4" Terminal - 6 Ga. x 6'3"
26.	1704705	SMARTwire™ Plug x 1/4" Terminal - 6 Ga. x 2'4"
33.	1704827	SMARTwire™ - 6 Ga. x 16' - Plug/Socket

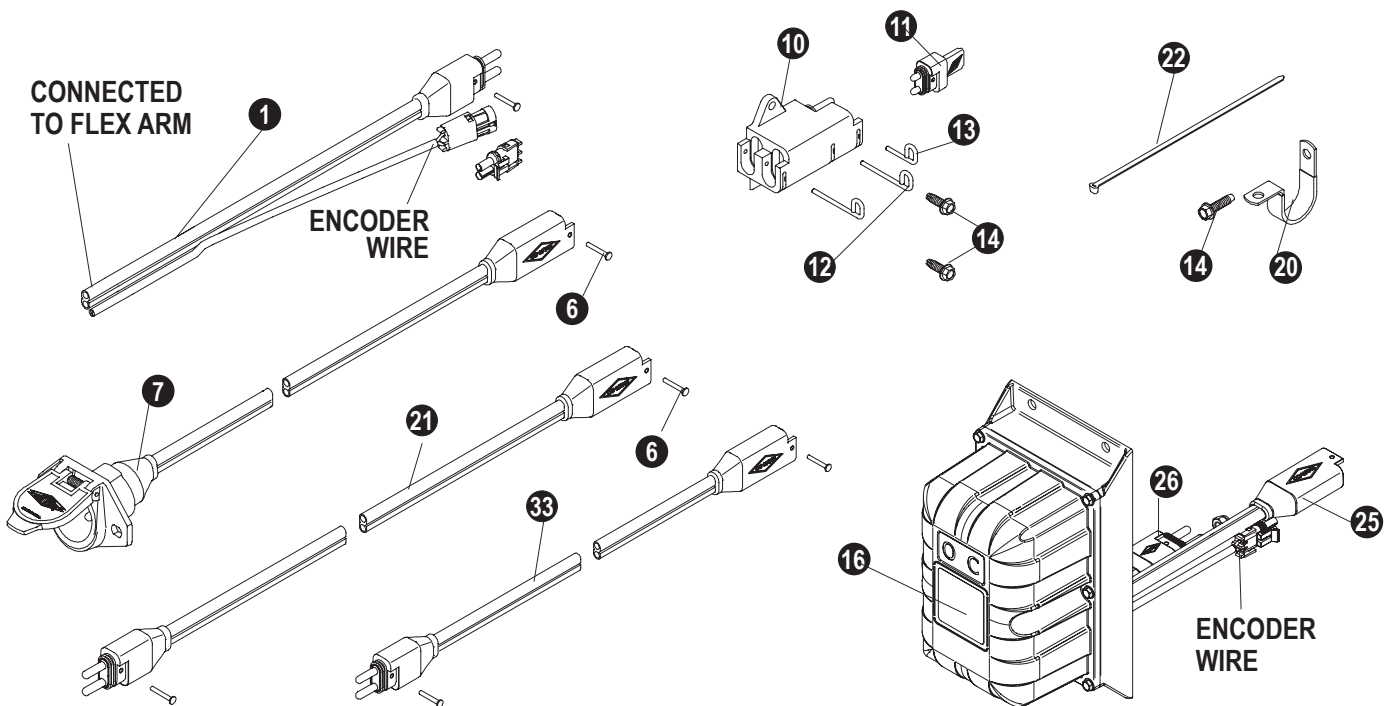


IMAGE 101

**NOTICE:** Coat each connection with dielectric grease (P/N 1704378) to prevent corrosion.

**CAUTION**

Do not fasten SMARTwire components to the trailer through the hopper walls. Doing so may damage the hopper walls or compromise system performance.

**FRONT OF TRAILER**

**STEP 1:** Route SMARTwire (25) from the receiver to the flex arm adapter plug (1). Connect encoder wire ends. Connect wires (25) and (1) and secure with lock pin (6).

**STEP 2:** To determine location of front junction block (10a), route SMARTwires (7) and (26) to location where wires reach. Mount junction block (10a) at this location. Using holes in junction block as guide, mark and drill two 7/32-inch holes.

**STEP 3:** Fasten junction block (10a) to trailer with screws (14).

**STEP 4:** Connect SMARTwires (7), (21) and (26) to junction block (10a). Insert plug (11) into remaining socket. Secure connections with lock pins (12) and (13).

**STEP 5:** Route SMARTwire (21) from front to apex of trailer.

**APEX OF TRAILER**

**STEP 6:** To determine location for junction block (10b), route SMARTwires (21) and ProTrap wires (P1), (P2) to location on apex of trailer where wires reach. Position junction block (10b) at this location. Using holes in junction block as guide, mark and drill two 7/32-inch holes.

**STEP 7:** Fasten junction block (10b) to trailer with screws (14).

**STEP 8:** Connect SMARTwires (21), (33) and ProTrap wires (P1), (P2) to junction block (10b) at apex of trailer. Secure all connections with lock pins (12) and (13).

**STEP 9:** Route SMARTwire (33) toward rear of trailer and connect to rear ProTrap SMARTwire (P3). Secure with lock pin (6).

**STEP 10:** Secure all wires to trailer with wire clips (20) and screws (14). If needed, use cable ties (22).

**NOTICE:** For lead/pup trailer configurations, continue on next page.

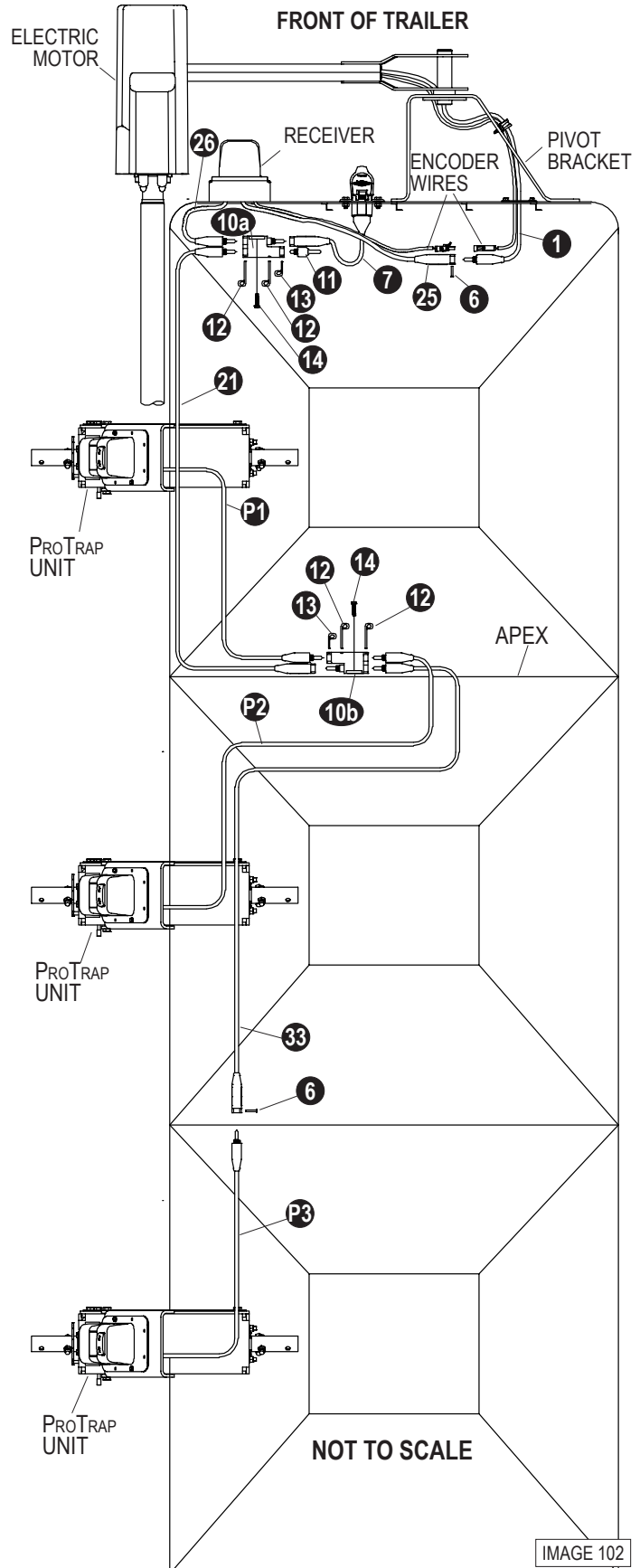


IMAGE 102

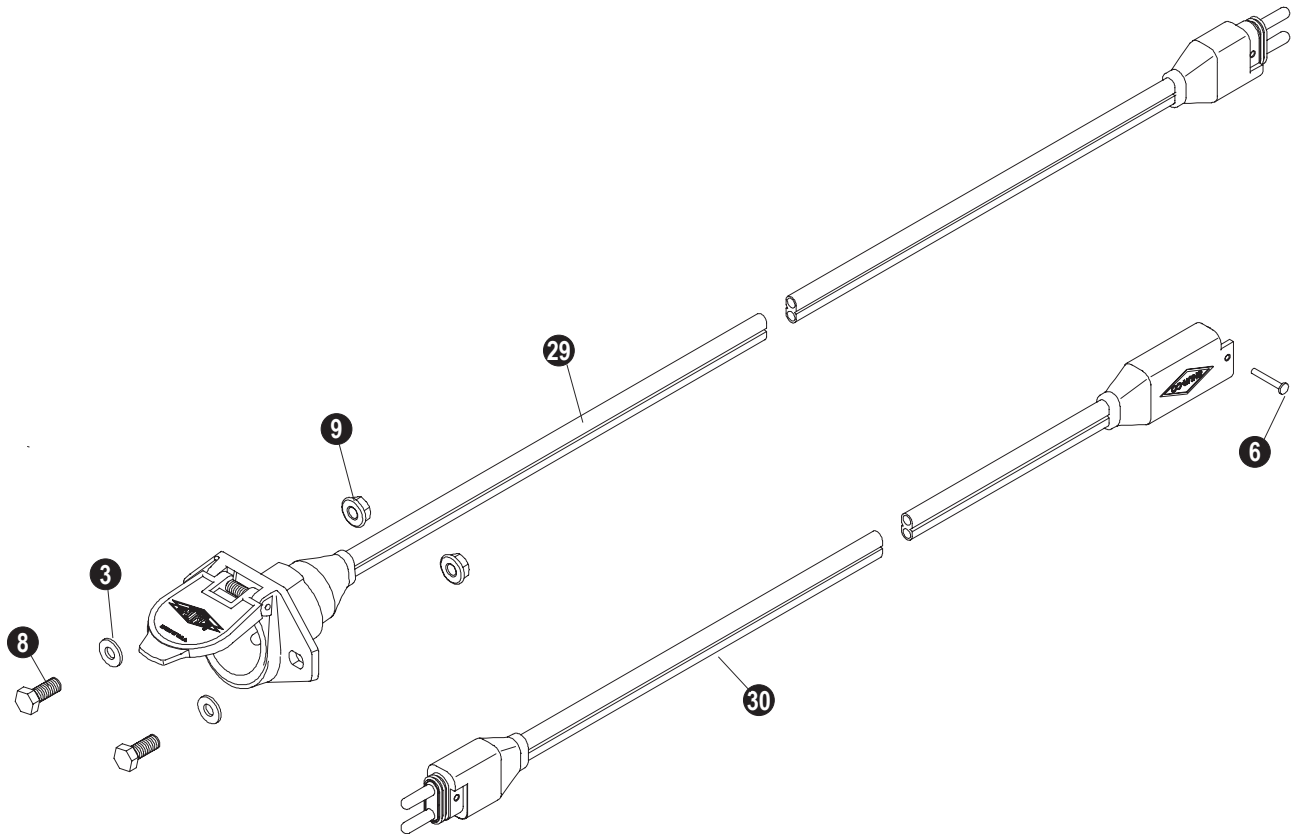
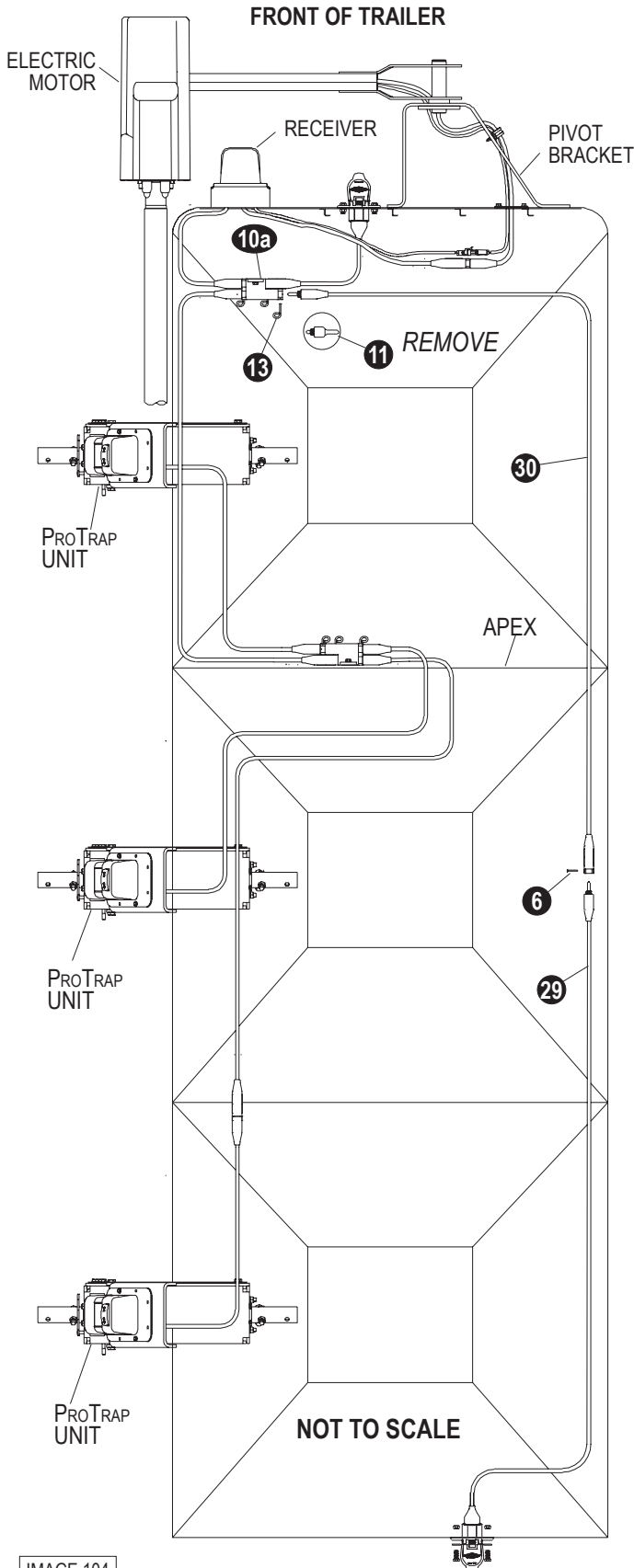


IMAGE 103

**LEAD TRAILER WIRING PARTS FOR SUPPLYING  
POWER TO REAR/PUP TRAILERS**

Item	Part #	Description
3.	1700427	Flat Washer - 1/4"
6.	1704751	Harness Lock Pin - 1/4" x 7/8"
8.	1701045	Cap Screw - 5/16" x 3/4"
9.	1704946	Flanged Top Lock Nut - 5/16"
29.	1122541	SMARTwire™ Dual-Cond Socket x Plug - 4 Ga. x 22'
	1122542	SMARTwire™ Dual-Cond Socket x Plug - 4 Ga. x 32'
	1122543	SMARTwire™ Dual-Cond Socket x Plug - 4 Ga. x 40'
30.	1704888	SMARTwire™ Socket x Plug - 4 Ga. x 25'



**NOTICE:** Coat each connection with dielectric grease (P/N 1704378) to prevent corrosion.

**CAUTION**

Do not fasten SMARTwire components to the trailer through the hopper walls. Doing so may damage the hopper walls or compromise system performance.

**NOTICE:** Complete all wiring shown in the first schematic (page 4) before proceeding with pup wiring.

**FRONT OF TRAILER**

**STEP 1:** Remove lock pin (13) and plug (11) from junction block (10a). Connect SMARTwire (30) to junction block (10a) and secure with lock pin (13).

**STEP 2:** Route SMARTwire (30) towards rear of trailer.

**REAR OF TRAILER**

**STEP 3:** To determine location for conductor socket (29) on rear of trailer, route SMARTwire (30) and conductor socket SMARTwire (29) to location near middle of trailer, where wires will reach. Mount conductor socket at this location.

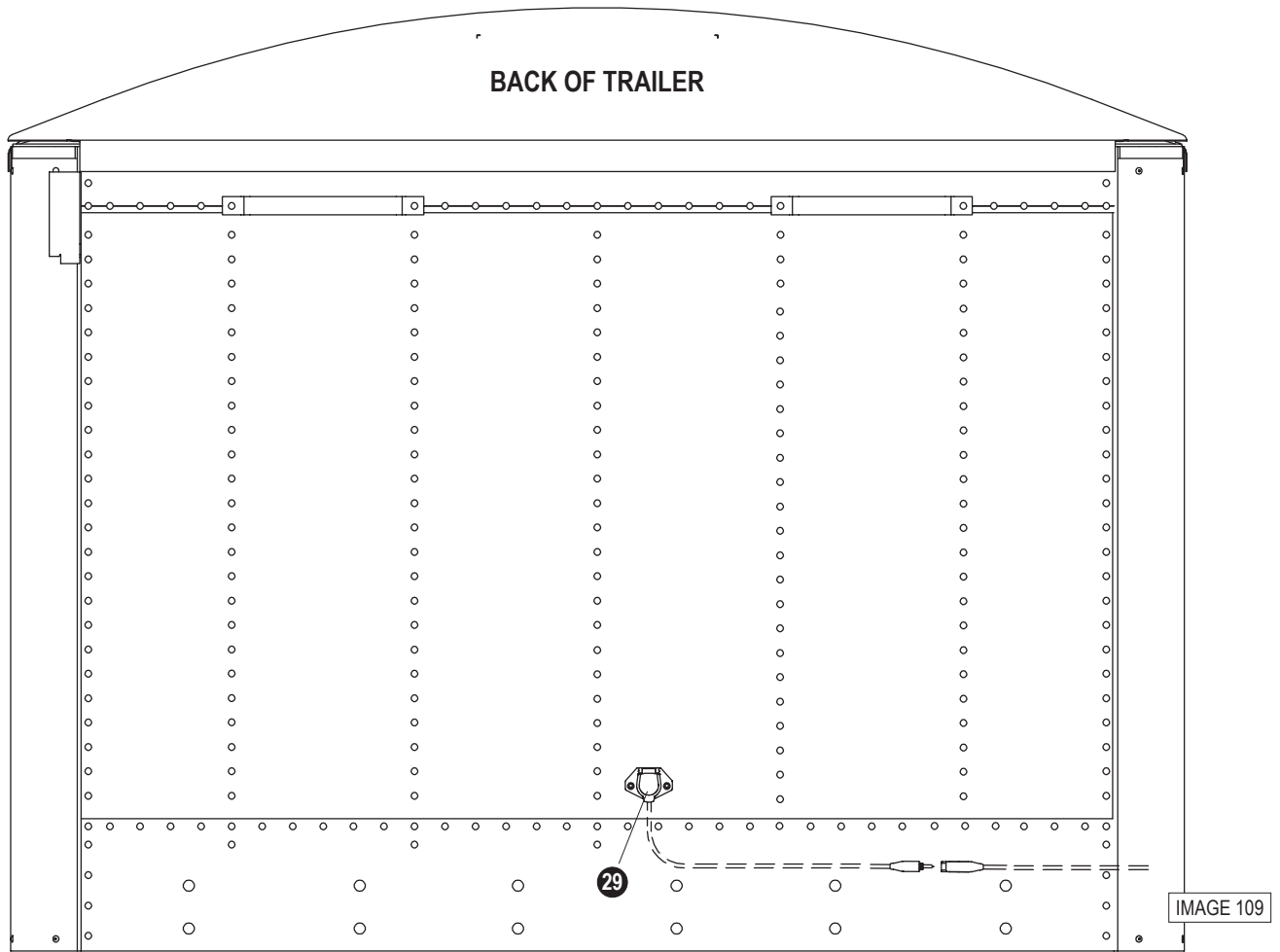
**STEP 4:** Follow STEPS 1 to 3 on page 7 to install conductor socket (29).

**MIDDLE OF TRAILER**

**STEP 5:** Connect SMARTwires (30) and (29). Secure with lock pin (6).

**STEP 6:** Secure all wires to trailer with wire clips (20) and screws (14). If needed, use cable ties (22).

IMAGE 104



**NOTICE:** Wire lengths are predetermined. Before installing SMARTwire components, review and confirm wire routing so that wires will reach components with ample room for connection.

**DUAL-POLE CONDUCTOR SOCKET INSTALLATION**

**STEP 1:** Locate the dual-pole conductor socket (29) in the center of the trailer. Determine location and drill 2-inch hole through trailer skin.

**STEP 2:** Align socket over 2-inch hole. Using holes in flanges on socket as a guide, mark and drill two 5/16" holes.

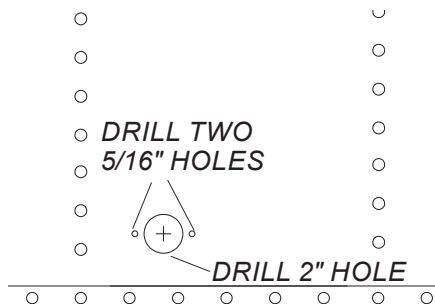


IMAGE 111

**STEP 3:** Fasten conductor socket (29) to trailer with two cap screws (8), flat washers (3) and nuts (9).

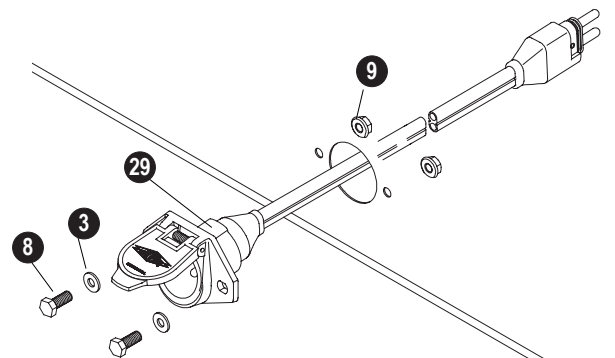


IMAGE 113

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