



Towable Concrete, Plaster and Mortar Mixers

Lamp Kit Installation Instructions

The following instructions are intended to assist the user in the installation of the Lamp Kit to be used on all Multiquip Concrete, Plaster and Mortar Mixers. Please read all assembly instructions before installing the kit.

REQUIRED TOOLS

- Measuring tape
- Metric/SAE ratchet set
- Metric/SAE socket set
- Multimeter
- Grinder
- Pliers
- Power drill with 3/16" and 17/64" drill bits
- 1/2" and 3/4" step drill bits
- Scissors or a knife
- Scriber or marker
- Speed square
- Wire crimpers
- Wire cutters
- Wire strippers

PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.

Table 1. Combination Lamp Kit				
Item No.	Part No.	Description	Qty.	Remarks
1	LTMIX1	Combination Lamp Kit	1	Includes items 2–21
2	EE60629	Work Instruction, Lamp Kit	1	
3	EE60461-01	Bracket, Side Marker Light	1	
4	EE60213	Bracket, Combination Lamp Cover	2	
5	EE44148	Tape, Conspicuity	30"	
6	60221	Loom, Split, 3/8" Dia.	12'	
7	49048	Screw, HHFS, 1/4-20 x 3/4", Gr5	6	
8	42315	Tie Wrap, Fir Tree Mount	5	
9	32975	Bushing, Snap, .750D x .631D x .53L	2	
10	29900	Grommet w/ Wire Kit, 2-1/2"	2	
11	29898	Marker Light, Side, Amber, 2-1/2"	2	
12	29784	Harness, TRLR, 48" Loom	1	
13	2540	Connector, Butt Splice, 16-14	1	
14	29242	Tail Light, Curb Side	1	
15	29243	Tail Light, Street Side	1	
16	19762	Terminal, Splice, 16-14, Open	1	
17	9509	Screw, Tek, 12 x 3/4 Self Tap	1	
18	10031	Washer, Ext. Shkp, 1/4"	1	
19	10024	Nut, Nyloc, 1/4-20	6	
20	9512	Bushing, Snap, .50D x .311D x .5L	2	
21	1662	Tie Wrap, 11"L 50# UL	5	

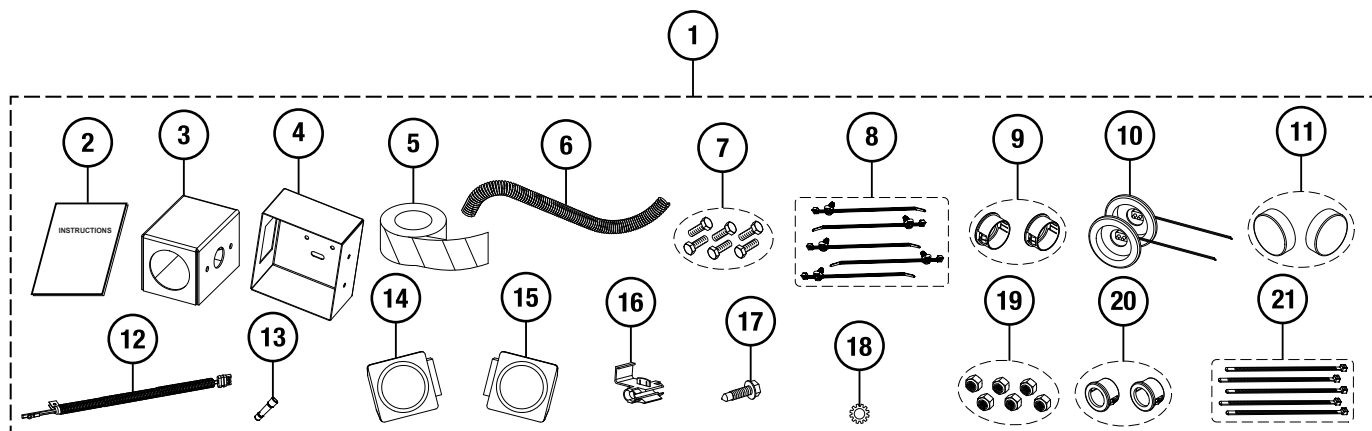


Figure 1. Combination Lamp Kit

WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

MIXER SAFETY

WARNING

- **NEVER** disconnect any **emergency or safety devices**. These devices are intended for operator safety. Disconnection of these devices can cause severe injury, bodily harm or even death. Disconnection of any of these devices will void all warranties.

CAUTION

- **NEVER** attempt service on a running machine.

ENGINE SAFETY

CAUTION

- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing the equipment.



PREPARATION

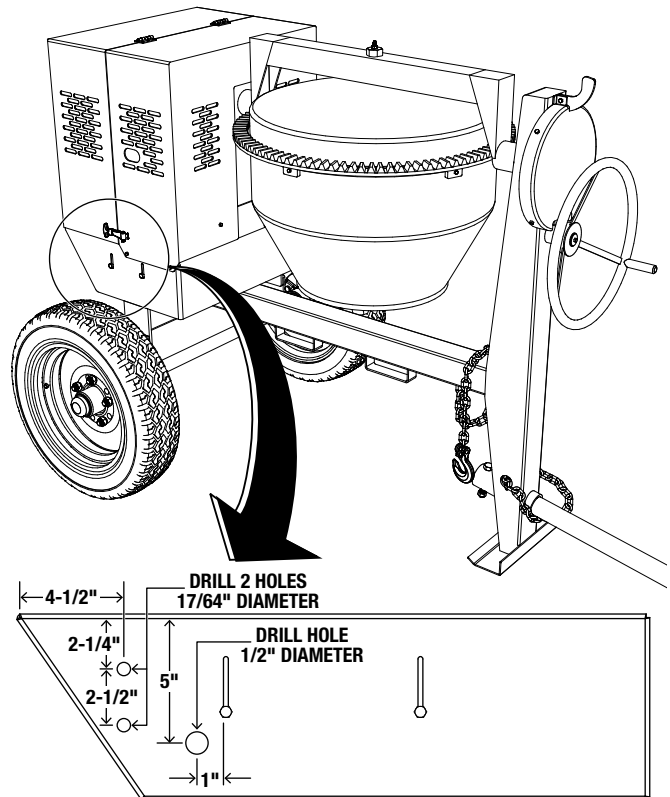
1. Make sure the mixer is turned **OFF** and the engine is cool.
2. Place the mixer in an area free of dirt and debris. Make sure it is on secure, level ground with chock blocks underneath each wheel to prevent it from rolling.

TAIL LIGHT BRACKET INSTALLATION (CONCRETE MIXERS ONLY)

The following section describes how to install the tail light brackets on all Multiquip **concrete mixers**.

If installing the lamp kit on a Multiquip plaster/mortar mixer, *skip this section* and proceed to the **TAIL LIGHT BRACKET PREPARATION (PLASTER/MORTAR MIXERS)** section.

1. On the right (curb) side of the mixer, mark and drill two 17/64-inch holes and one 1/2-inch hole into the side of the rear frame as shown in Figure 2.



**Figure 2. Drill Tail Light Bracket Holes
(Concrete Mixers)**

- Using a grinder, remove the powder coat paint around the newly drilled 17/64-inch holes and the two corresponding mounting holes in the side of the tail light bracket (P/N EE60213). See Figure 3.

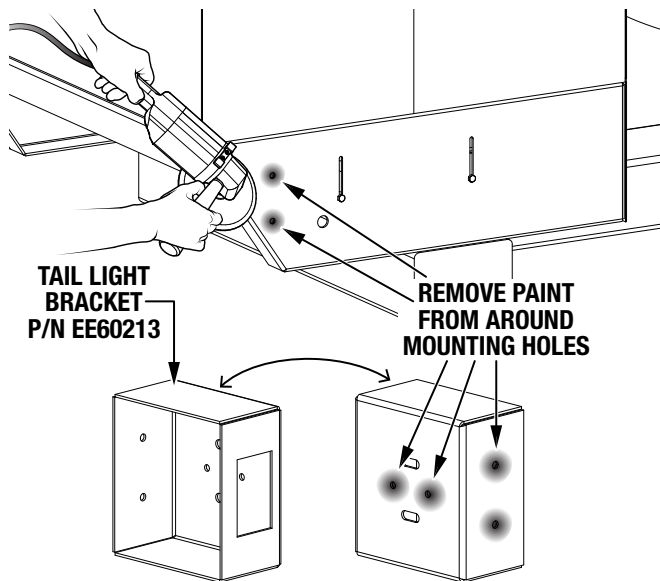


Figure 3. Paint Removal (Concrete Mixers)

- Using a grinder, remove the powder coat paint around the two tail light mounting holes in the back of the tail light bracket (P/N EE60213). See Figure 3.

- Secure the tail light bracket (P/N EE60213) to the frame with two 1/4-20 x 3/4" hex head bolts (P/N 49048) and two 1/4"-20 nyloc nuts (P/N 10024). See Figure 4.

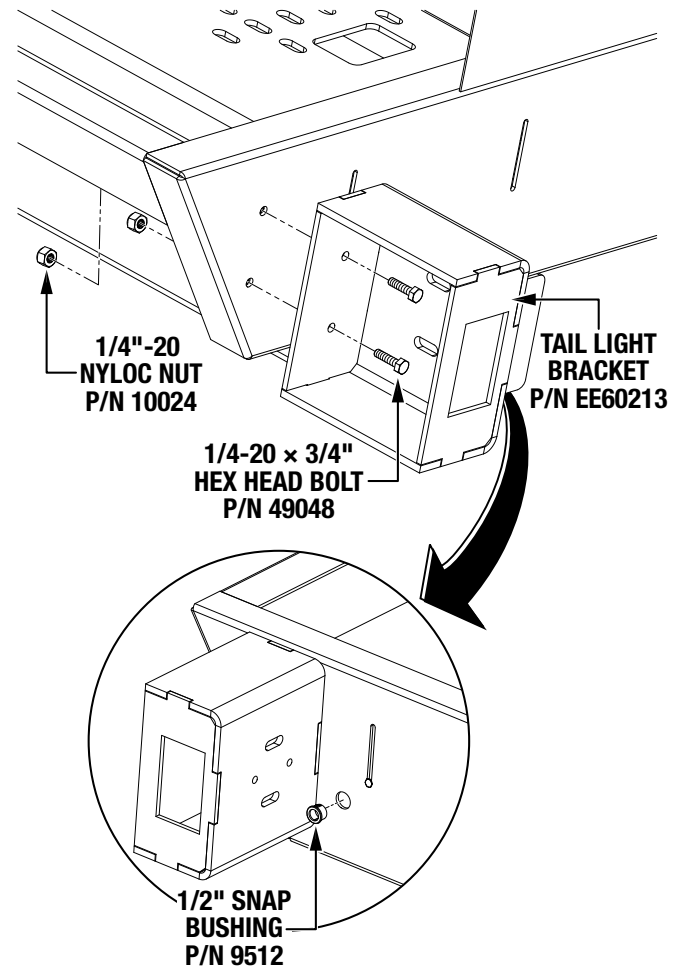


Figure 4. Tail Light Bracket Installation (Concrete Mixers)

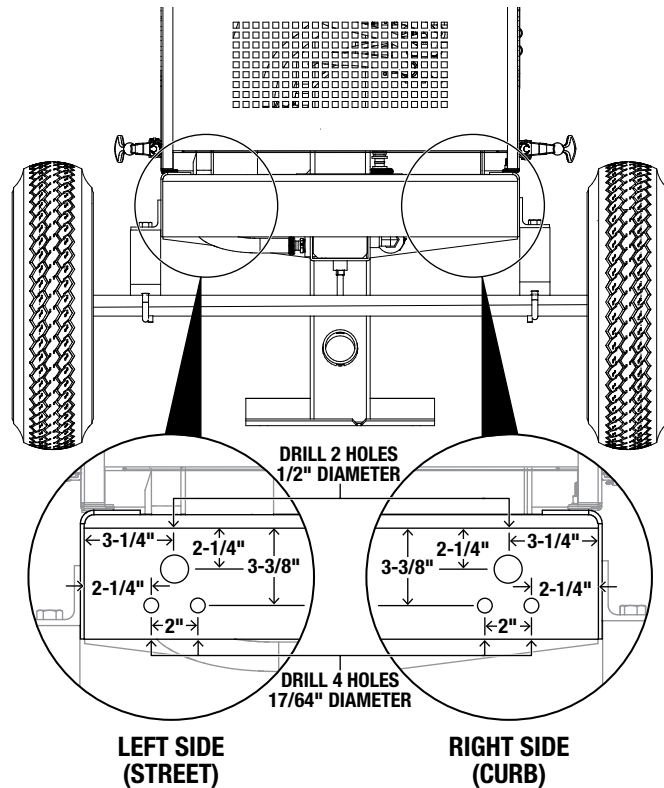
- Insert a 1/2" snap bushing (P/N 9512) into the newly drilled 1/2-inch hole. See Figure 4.
- Repeat steps #1–5 on the left (street) side of the mixer.

TAIL LIGHT BRACKET PREPARATION (PLASTER/MORTAR MIXERS ONLY)

The following section describes how to prepare mounting holes for the tail light brackets on all Multiquip **plaster/mortar mixers**.

If installing the lamp kit on a Multiquip concrete mixer, *skip this section* and proceed to the **WIRING PREPARATION** section.

1. On the rear of the chassis just below the cabinet, mark and drill four 17/64-inch holes and two 1/2-inch holes as shown in Figure 5.



**Figure 5. Drill Tail Light Bracket Holes
(Plaster/Mortar Mixers)**

2. Using a grinder, remove the powder coat paint around the newly drilled 17/64-inch holes (Figure 6).

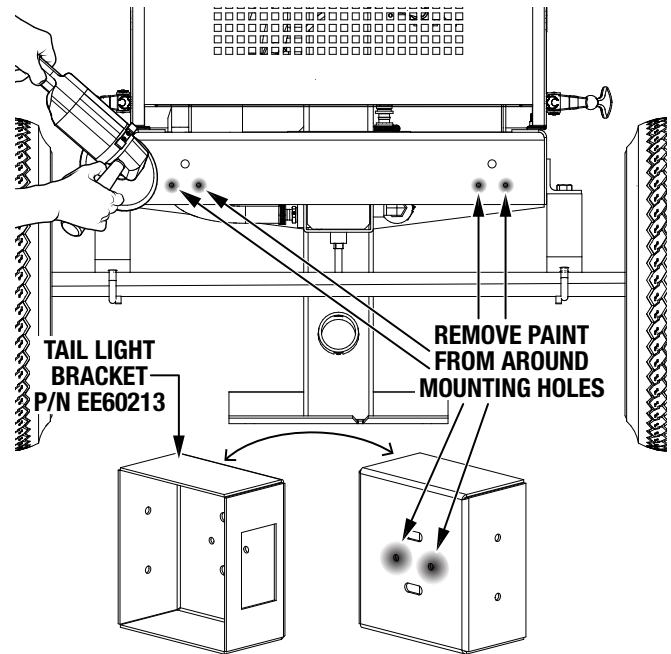


Figure 6. Paint Removal (Plaster/Mortar Mixers)

3. Using a grinder, remove the powder coat paint around the mounting holes in the back of both tail light brackets (P/N EE60213). See Figure 6.

WIRING PREPARATION

1. Mark and drill a 3/4-inch hole into the front of the cabinet as shown in Figure 7.

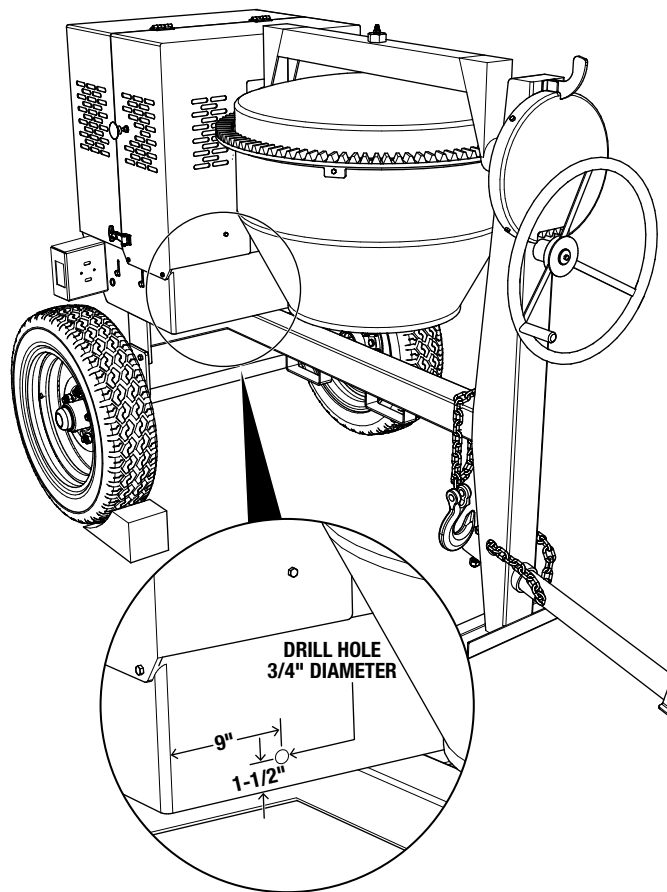


Figure 7. Drill Cabinet Hole

2. Insert a 3/4" snap bushing (P/N 32975) into the newly drilled 3/4-inch hole. See Figure 8.

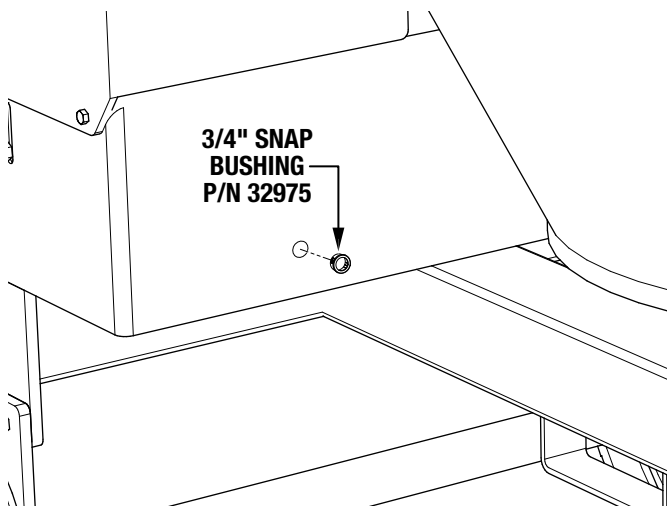


Figure 8. Cabinet Bushing Installation

3. Mark and drill four 17/64-inch holes into the crossmember as shown in Figure 9.

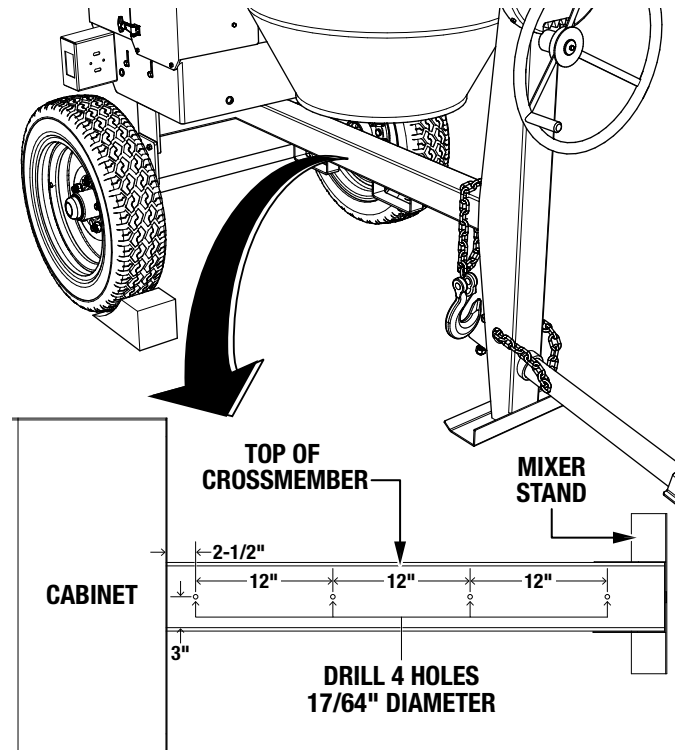


Figure 9. Drill Crossmember Holes

SIDE MARKER LIGHT BRACKET INSTALLATION

1. Mark and drill a 3/4-inch hole into the front of the mixer stand as shown in Figure 10.

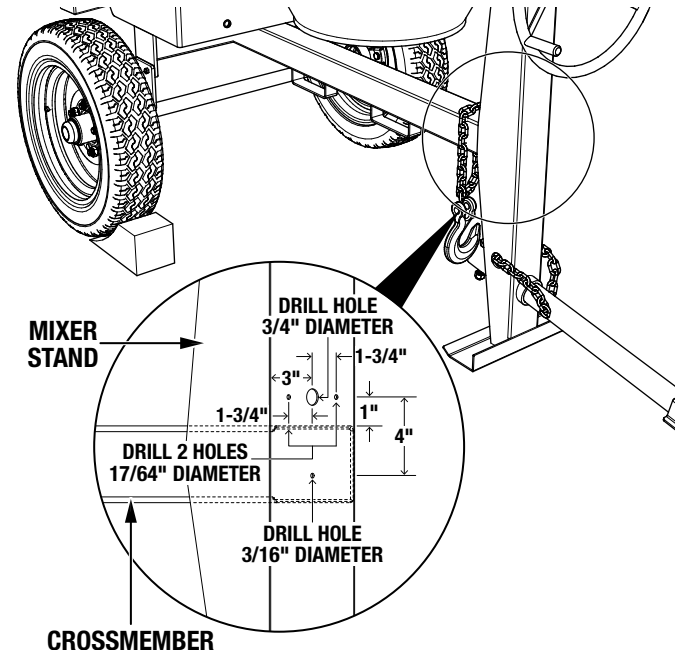


Figure 10. Drill Side Marker Light Bracket Holes

2. Mark and drill two 17/64-inch holes into the front of the mixer stand as shown in Figure 10.
3. Mark and drill a 3/16-inch hole into the front of the mixer stand as shown in Figure 10.

4. Secure the side marker light bracket (P/N EE60461-01) to the mixer stand with two 1/4-20 × 3/4" hex head bolts (P/N 49048) and two nyloc nuts (P/N 10024). See Figure 11.

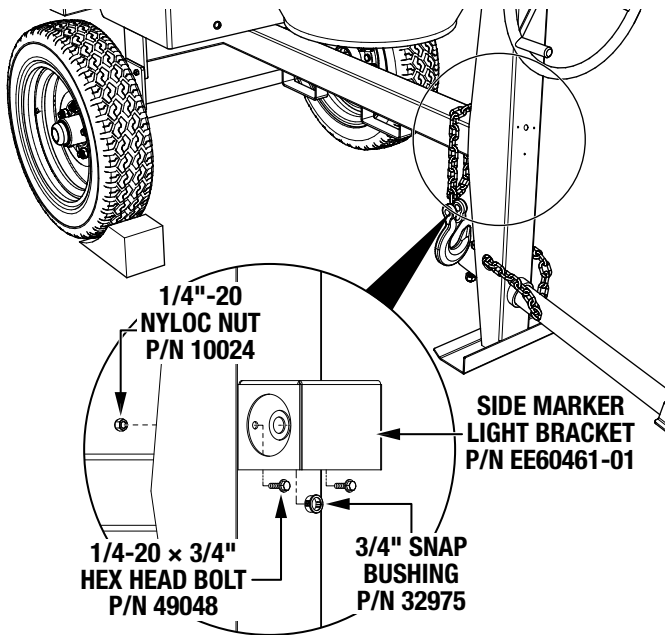


Figure 11. Side Marker Light Bracket Installation

5. Insert a 3/4" snap bushing (P/N 32975) into the newly drilled 3/4-inch hole. See Figure 11.

SIDE MARKER LIGHT INSTALLATION

1. A portion of the wiring harness (P/N 29784) is contained within a loom. Route the harness through the bushing (P/N 32975) in the mixer stand so that the loom-covered portion of the harness extends from the bottom of the side marker light bracket (P/N EE60461-01), and the uncovered portion of the harness lays on top of the crossmember. See Figure 12.

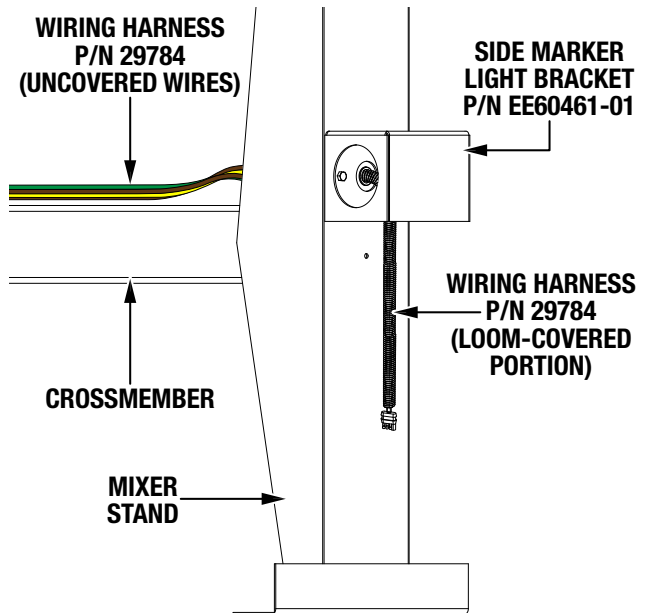


Figure 12. Harness Routing

2. Install the two amber side marker lights (P/N 29898) and two grommets (P/N 29900) into the side marker light bracket (P/N EE60461-01) as shown in Figure 13.

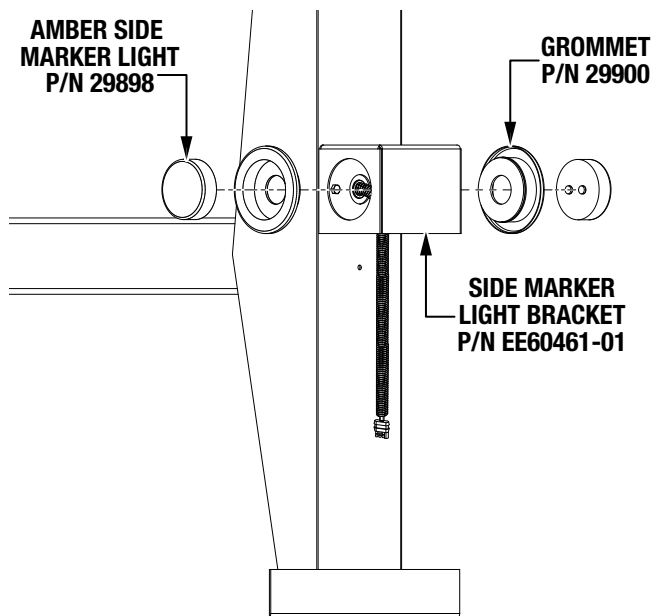


Figure 13. Side Marker Light Installation

- Each grommet (P/N 29900) includes a wire kit with a 2-pin connector on one end. Plug the 2-pin connectors into the back of the amber side marker lights (P/N 29898) as shown in Figure 14.

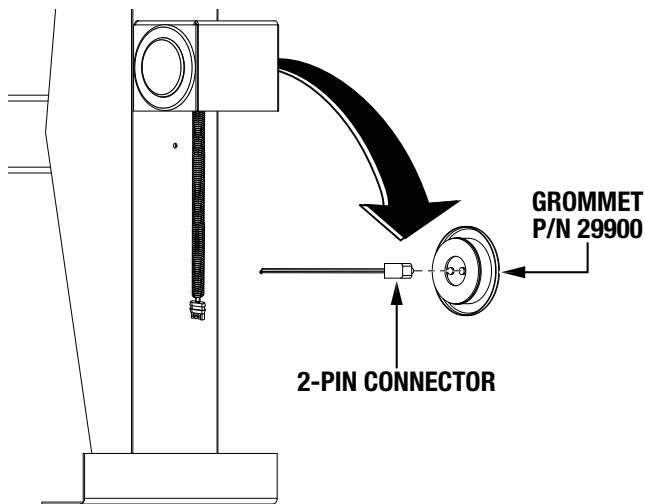


Figure 14. Side Marker Light Connection

- Each grommet wire kit includes a white wire with a ring terminal and a black, cut wire. Strip the insulation back 1/4" from the end of the black wires to expose the conductors (Figure 15).

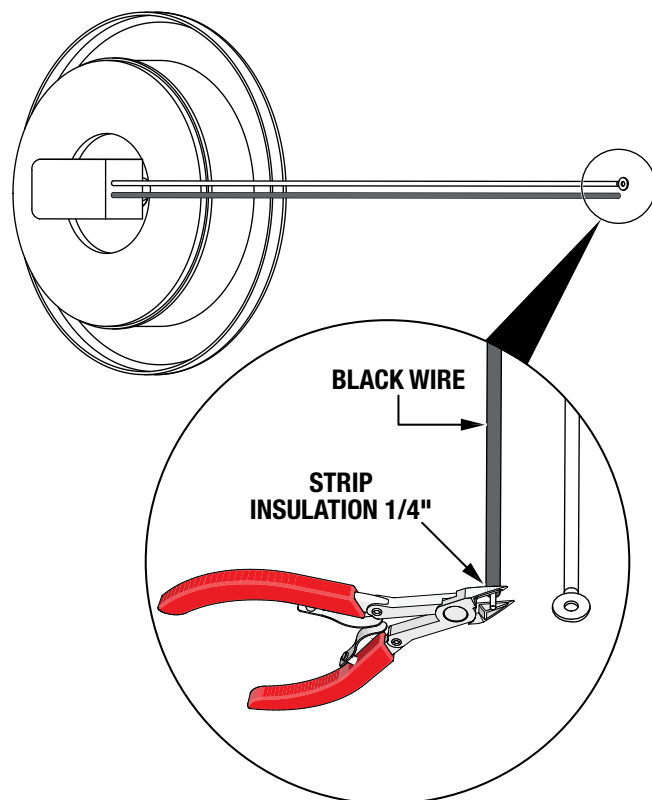


Figure 15. Wire Stripping

- Insert the two stripped, black wires into opposite sides of the butt connector (P/N 2540), and crimp both sides of the connector. See Figure 16.

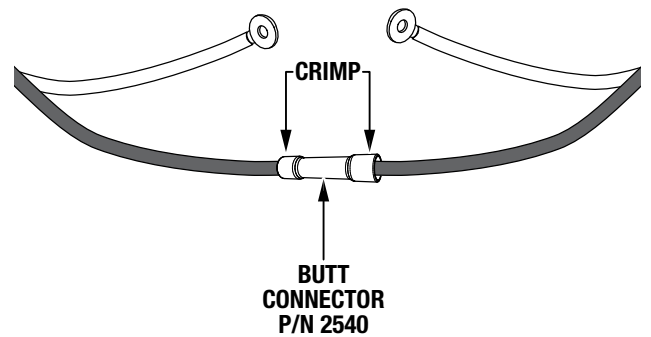


Figure 16. Wire Splicing (Butt Splice)

- Locate the splice connector (P/N 19762). Place either of the newly spliced black wires into one of the splice connector channels as shown in Figure 17.

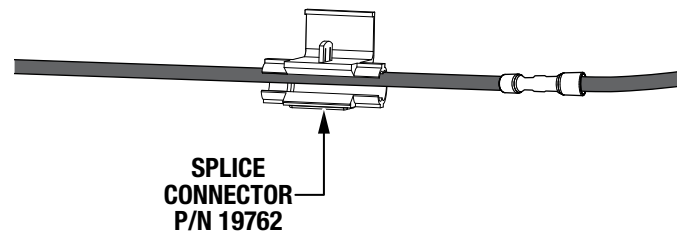


Figure 17. Black Wire Placement (Splice Connector)

- Place either of the brown wires extending from the end of the wiring harness (P/N 29784) into the other splice connector channel as shown in Figure 18.

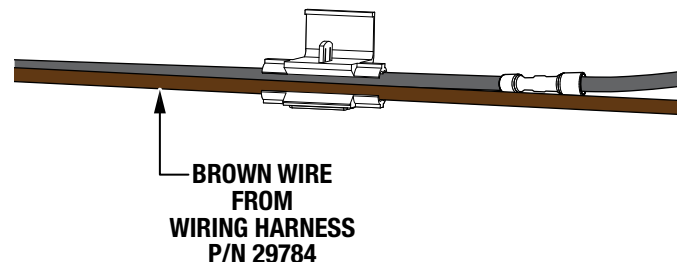


Figure 18. Brown Wire Placement (Splice Connector)

8. Using pliers, crimp the U-contact down flush with the top of the splice connector (P/N 19762). See Figure 19.

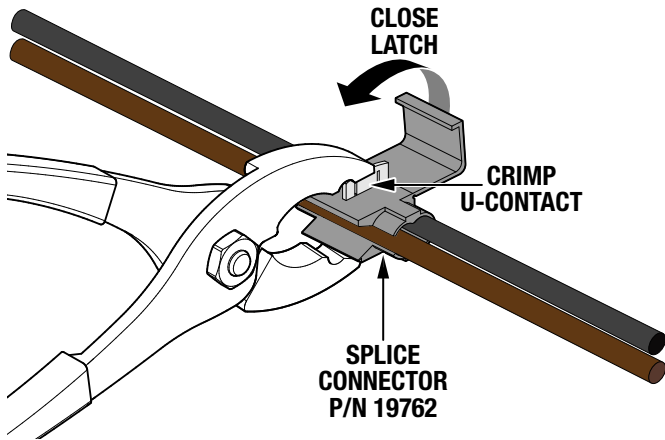


Figure 19. Crimp and Latch Splice Connector

9. Close the splice connector latch (Figure 19).
10. Gather the three white wires with ring terminals—one from the wiring harness (P/N 29784) and two from the side marker lights—and secure them to the chassis ground point with the self-tapping screw (P/N 9509), star washer (P/N 10031), and wiring harness P-clamp. See Figure 20.

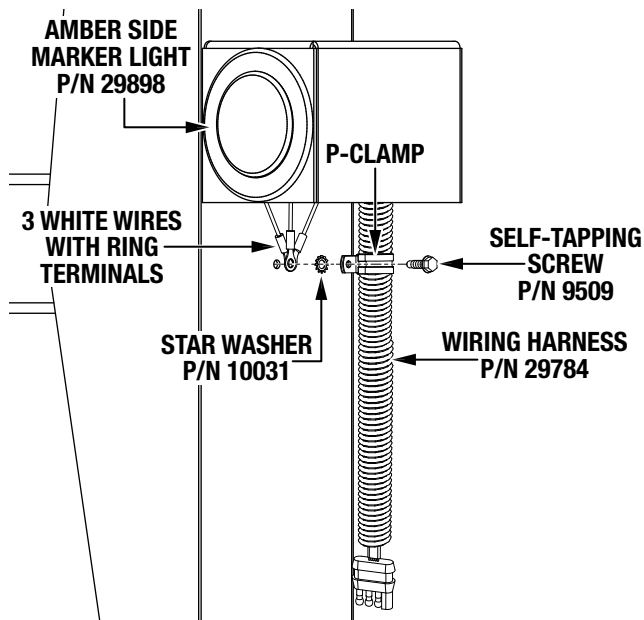


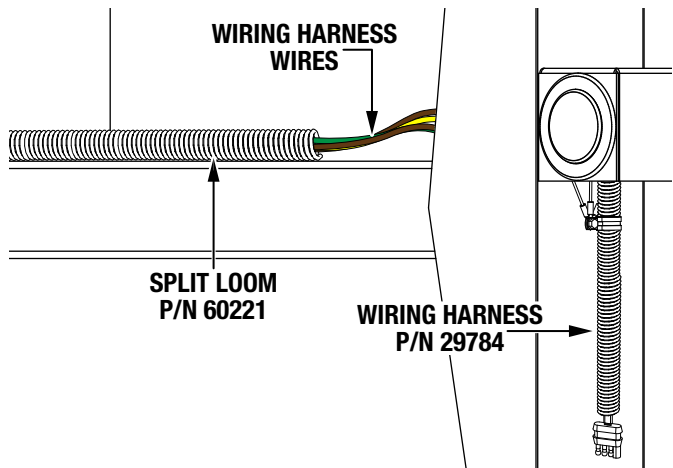
Figure 20. Ground Connection

WIRING HARNESS INSTALLATION (CONCRETE MIXERS ONLY)

The following section describes how to install the electrical wiring harness on all Multiquip **concrete mixers**.

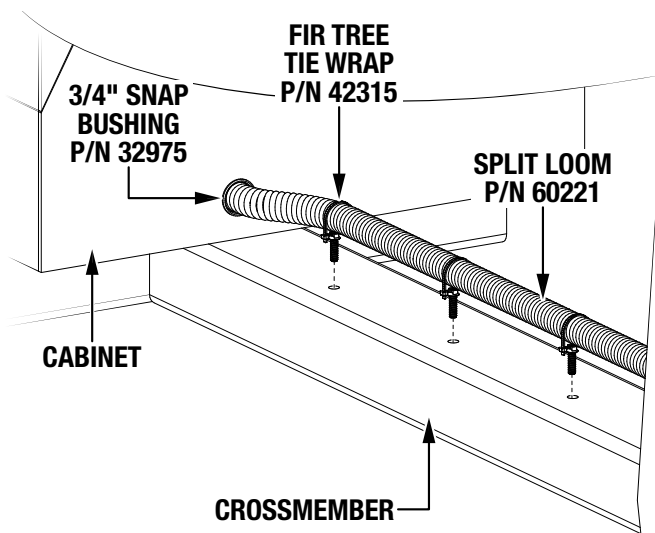
If installing the lamp kit on a Multiquip plaster/mortar mixer, *skip this section* and proceed to the **WIRING HARNESS INSTALLATION (PLASTER/MORTAR MIXERS)** section.

1. The uncovered portion of the wiring harness (P/N 29784) consists of a yellow wire, a green wire, and two brown wires. Place these four wires into the 12' split loom (P/N 60221). See Figure 21.



**Figure 21. Split Loom Placement
(Concrete Mixers)**

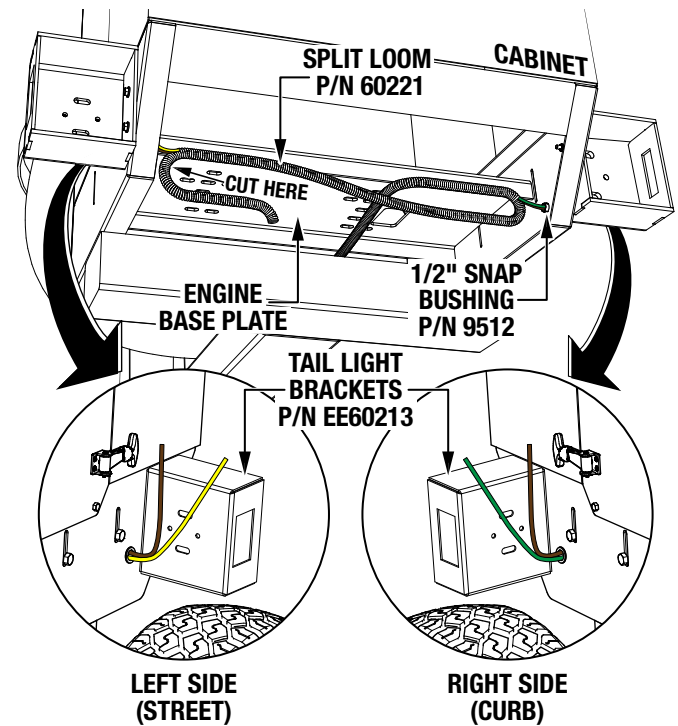
2. Route the split loom (P/N 60221) containing the four wiring harness wires along the top of the crossmember and through the 3/4" snap bushing (P/N 32975) in the front of the cabinet. See Figure 22.



**Figure 22. Split Loom Installation
(Concrete Mixers)**

3. Secure the split loom (P/N 60221) to the crossmember with four fir tree mount tie wraps (P/N 42315) as shown in Figure 22. Pull on the loom during installation to eliminate slack.

4. Continue routing the split loom (P/N 60221) with the four wiring harness wires through the cabinet and under the engine base plate. See Figure 23.



**Figure 23. Split Loom Routing
(Concrete Mixers)**

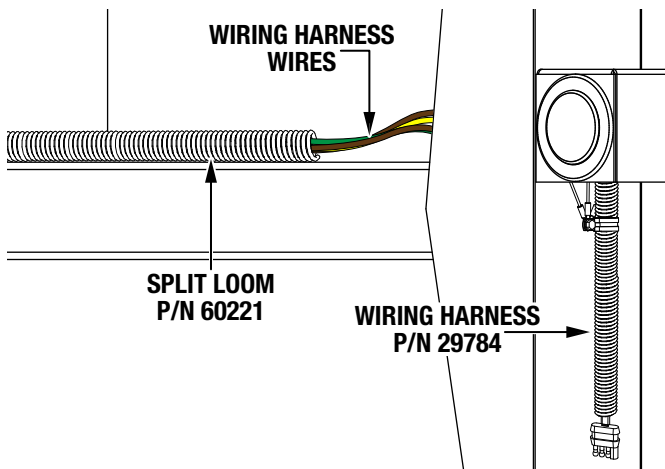
5. Route the split loom (P/N 60221) under the engine base plate to the right (curb) side of the mixer. Pull the green wire and a brown wire out of the loom and route them through the 1/2" snap bushing (P/N 9512) next to the right (curb) side tail light bracket (P/N EE60213). See Figure 23.
6. Route the split loom (P/N 60221) under the engine base plate to the left (street) side of the mixer. Pull the yellow wire and the remaining brown wire out of the loom and route them through the 1/2" snap bushing (P/N 9512) next to the left (street) side tail light bracket (P/N EE60213). See Figure 23.
7. Cut off and discard the remainder of the 12' split loom (P/N 60221). See Figure 23.
8. Secure the split loom wiring to the engine base plate with tie wraps (P/N 1662).

WIRING HARNESS INSTALLATION (PLASTER/MORTAR MIXERS ONLY)

The following section describes how to install the electrical wiring harness on all Multiquip **plaster/mortar mixers**.

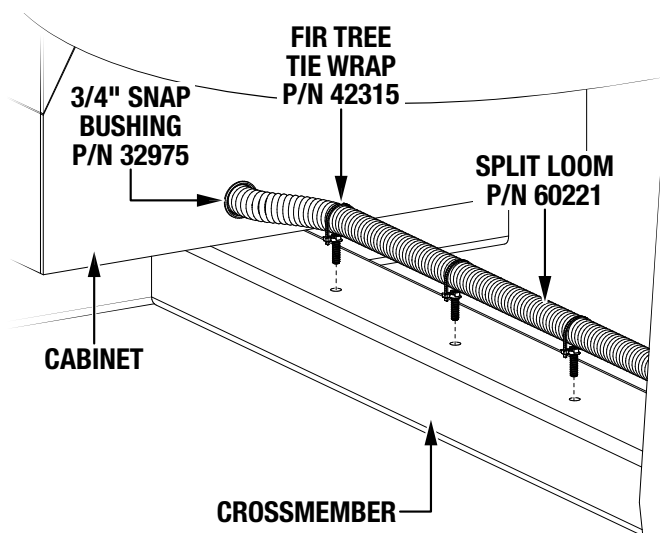
If installing the lamp kit on a Multiquip concrete mixer, skip this section and proceed to the *TAIL LIGHT INSTALLATION (CONCRETE MIXERS)* section.

1. The uncovered portion of the wiring harness (P/N 29784) consists of a yellow wire, a green wire, and two brown wires. Place these four wires into the 12' split loom (P/N 60221). See Figure 24.



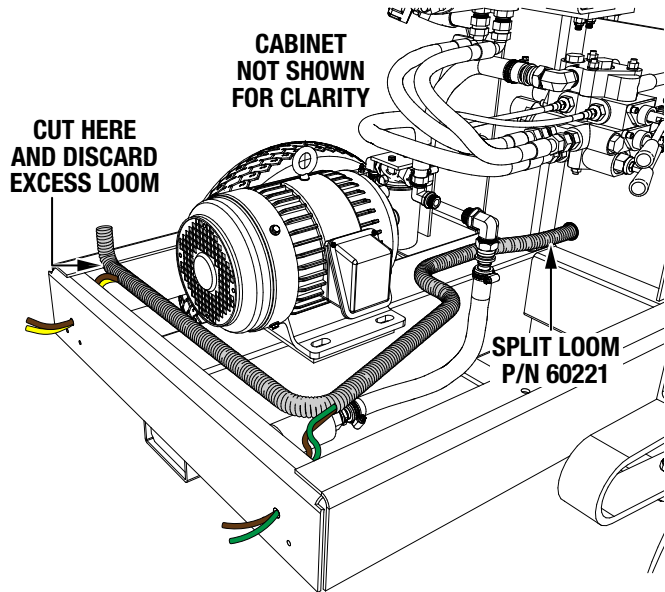
**Figure 24. Split Loom Placement
(Plaster/Mortar Mixers)**

2. Route the split loom (P/N 60221) containing the four wiring harness wires along the top of the crossmember and through the 3/4" snap bushing (P/N 32975) in the front of the cabinet. See Figure 25.



**Figure 25. Split Loom Installation
(Plaster/Mortar Mixers)**

3. Secure the split loom (P/N 60221) to the crossmember with four fir tree mount tie wraps (P/N 42315) as shown in Figure 25. Pull on the loom during installation to eliminate slack.
4. Continue routing the split loom (P/N 60221) with the four wiring harness wires through the cabinet to the rear of the chassis. See Figure 26.



**Figure 26. Split Loom Routing
(Plaster/Mortar Mixers)**

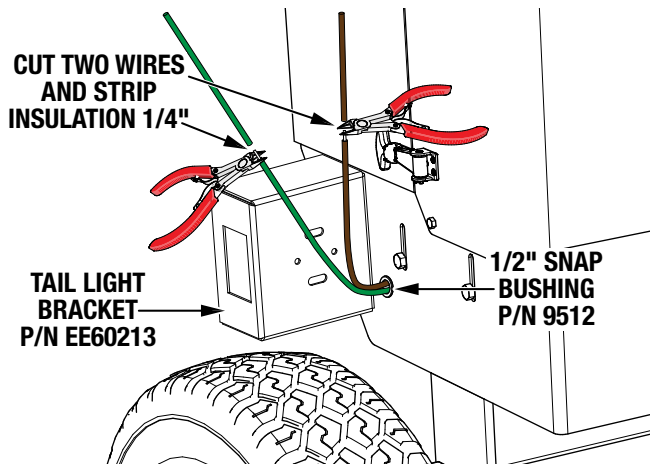
5. Route the split loom (P/N 60221) to the newly drilled 1/2-inch hole on the right (curb) side of the rear chassis. Pull the green wire and a brown wire out of the loom and route them through the 1/2-inch hole. See Figure 26.
6. Route the split loom (P/N 60221) over the crossmember to the newly drilled 1/2-inch hole on the left (street) side of the rear chassis. Pull the yellow wire and the remaining brown wire out of the loom and route them through the 1/2-inch hole. See Figure 26.
7. Cut off and discard the remainder of the 12' split loom (P/N 60221). See Figure 26.
8. Secure the split loom (P/N 60221) to the frame with tie wraps (P/N 1662).

TAIL LIGHT INSTALLATION (CONCRETE MIXERS ONLY)

The following section describes how to install the tail lights on all Multiquip **concrete mixers**.

If installing the lamp kit on a Multiquip plaster/mortar mixer, *skip this section and proceed to the **TAIL LIGHT INSTALLATION (PLASTER/MORTAR MIXERS)** section.*

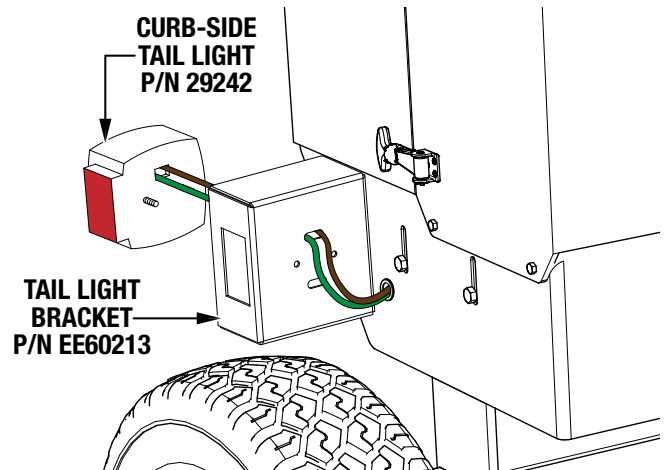
1. Using sound judgment, trim the green and brown wires extending out of the 1/2" snap bushing (P/N 9512) next to the right (curb) side tail light bracket (P/N EE60213). Leave enough wire to feed through the tail light bracket and connect the tail lights. See Figure 27.



**Figure 27. Cut and Strip Tail Light Wires
(Concrete Mixers)**

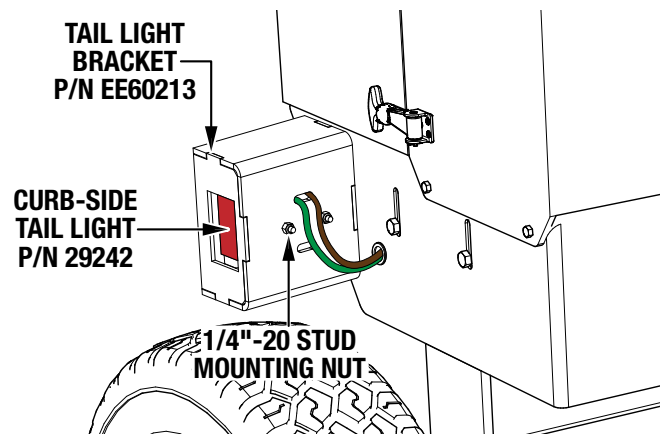
2. Strip the insulation back 1/4" from the ends of the green and brown wires to expose the conductors (Figure 27).

3. Insert the stripped green and brown wires through the tail light bracket (P/N EE60213) into the back of the curb-side tail light (P/N 29242). Make sure the wires are fully inserted into the tail light and do not disconnect when pulled lightly. See Figure 28.



**Figure 28. Tail Light Wiring Connection
(Concrete Mixers)**

4. Secure the curb-side tail light (P/N 29242) to the tail light bracket (P/N EE60213) with the two included 1/4"-20 stud mounting nuts. See Figure 29.



**Figure 29. Tail Light Installation
(Concrete Mixers)**

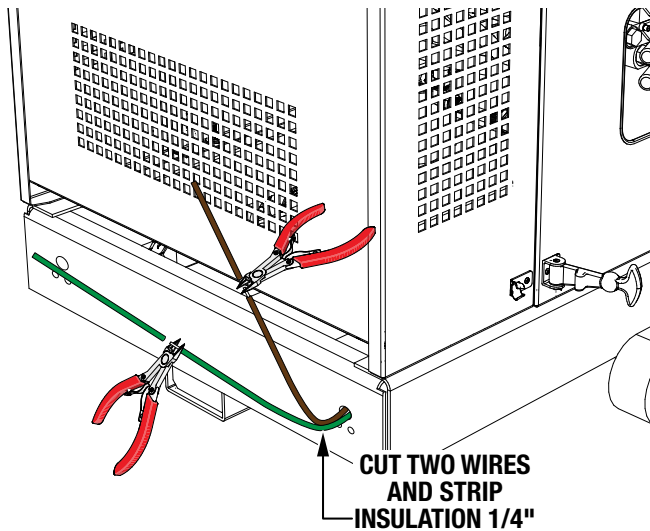
5. Repeat steps #1–4 with the street-side tail light (P/N 29243) and yellow and brown wires on the left (street) side of the mixer.
6. Use a multimeter to test the continuity of the ground.

TAIL LIGHT INSTALLATION (PLASTER/MORTAR MIXERS ONLY)

The following section describes how to install the tail lights on all Multiquip **plaster/mortar mixers**.

If installing the lamp kit on a Multiquip concrete mixer, *skip this section* and proceed to the **REFLECTIVE TAPE INSTALLATION (CONCRETE MIXERS)** section.

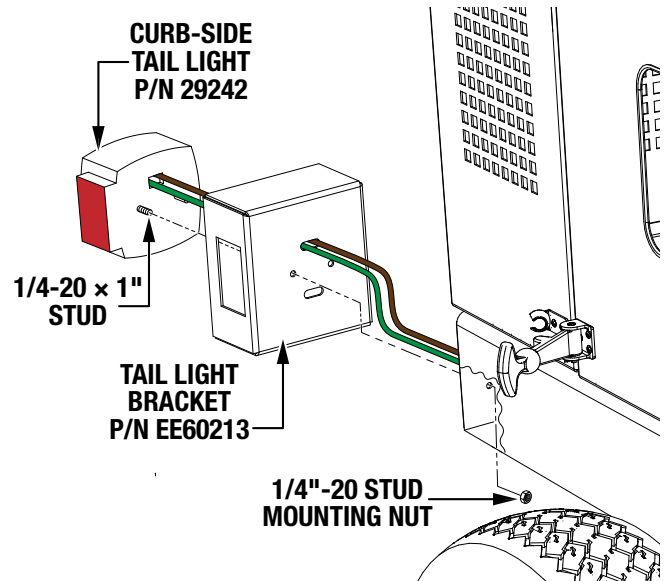
1. Using sound judgment, trim the green and brown wires extending out of the newly drilled 1/2-inch hole on the right (curb) side of the rear chassis. Leave enough wire to feed through the tail light bracket and connect the tail lights. See Figure 30.



**Figure 30. Cut and Strip Tail Light Wires
(Plaster/Mortar Mixers)**

2. Strip the insulation back 1/4" from the ends of the green and brown wires to expose the conductors (Figure 30).

3. Insert the stripped green and brown wires through a tail light bracket (P/N EE60213) into the back of the curb-side tail light (P/N 29242) as shown in Figure 31. Make sure the wires are fully inserted into the tail light and do not disconnect when pulled lightly.



**Figure 31. Tail Light Installation
(Plaster/Mortar Mixers)**

4. Secure the curb-side tail light (P/N 29242) and tail light bracket (P/N EE60213) to the chassis with the two pre-installed 1/4-20 x 1" studs and included 1/4"-20 stud mounting nuts. See Figure 31.
5. Repeat steps #1–4 with the street-side tail light (P/N 29243) and yellow and brown wires on the left (street) side of the rear chassis.
6. Use a multimeter to test the continuity of the ground.

REFLECTIVE TAPE INSTALLATION (CONCRETE MIXERS ONLY)

The following section describes how to install reflective tape on all Multiquip **concrete mixers**.

If installing the lamp kit on a Multiquip plaster/mortar mixer, *skip this section* and proceed to the **REFLECTIVE TAPE INSTALLATION (PLASTER/MORTAR MIXERS)** section.

Place reflective tape (P/N EE44148) onto the rear of the chassis beneath the cabinet as shown in Figure 32. Trim the tape to fit as needed.

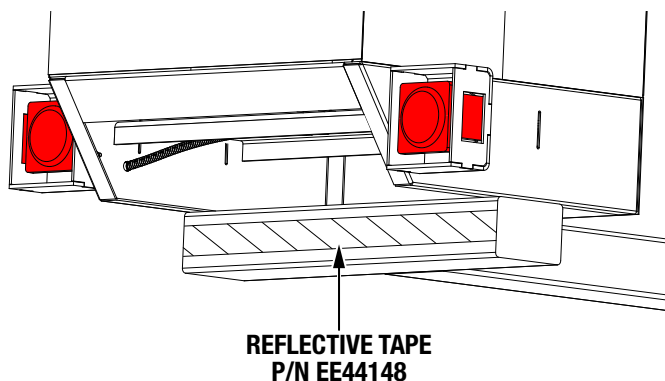


Figure 32. Reflective Tape Installation
(Concrete Mixers)

REFLECTIVE TAPE INSTALLATION (PLASTER/MORTAR MIXERS ONLY)

The following section describes how to install reflective tape on all Multiquip **plaster/mortar mixers**.

If installing the lamp kit on a Multiquip concrete mixer, *skip this section*. The installation is complete.

Place reflective tape (P/N EE44148) onto the rear of the chassis in between the installed tail lights as shown in Figure 33. Trim the tape to fit as needed.

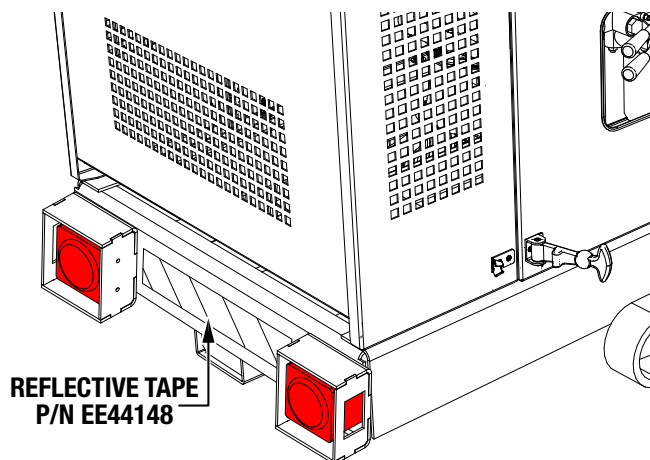


Figure 33. Reflective Tape Installation
(Plaster/Mortar Mixers)

WIRING DIAGRAM

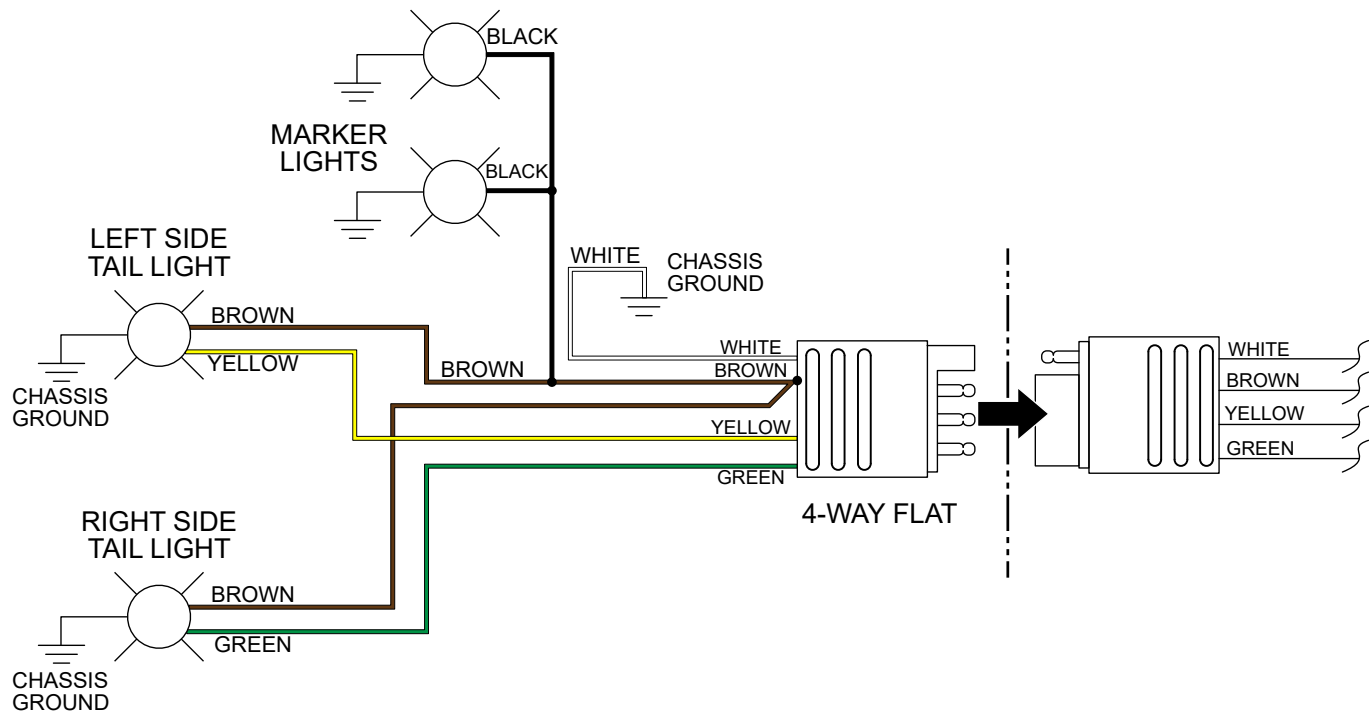


Figure 34. Lamp Kit Wiring Diagram

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Towable Concrete, Plaster and Mortar Mixers

Lamp Kit Installation Instructions

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave.
Carson, CA 90746
Contact: mq@multiquip.com

Tel. (800) 421-1244
Fax (310) 537-3927

Service Department

800-421-1244
310-537-3700

Technical Assistance

800-478-1244 Fax: 310-943-2238

MQ Parts Department

800-427-1244 Fax: 800-672-7877
310-537-3700

Warranty Department

800-421-1244 Fax: 310-943-2249
310-537-3700

CANADA

Multiquip

4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
Contact: infocanada@multiquip.com

Tel: (450) 625-2244
Tel: (877) 963-4411
Fax: (450) 625-8664

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Unit 2, Northpoint Industrial Estate, Tel: 0161 339 2223
Globe Lane, Fax: 0161 339 3226
Dukinfield, Cheshire SK16 4UJ
Contact: sales@multiquip.co.uk

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