

OPERATING MANUAL

MODEL NO. 9279-9020, 9279-9030, 9279-9040, 9279-9021, 9279-9031, 9279-9041,  
9279-9120, 9279-9130, 9279-9140, 9279-9220, 9279-9230, and 9279-9240

20', 30', AND 40' FIBERGLASS TRACK SWITCH COVER SYSTEMS

MANUFACTURED

BY

***RECO***

RAILWAY EQUIPMENT COMPANY

525 9<sup>th</sup> St S

DELANO, MINNESOTA 55328

TEL. 763-972-2200

FAX 763-972-2900

E-Mail: [mail@rwy.com](mailto:mail@rwy.com)



**CAUTION**

**GENERAL HAZARD WARNING**

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS COVER SYSTEM, CAN RESULT IN DEATH, SERIOUS INJURY AND PROPERTY LOSS OR DAMAGE.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THESE INSTRUCTIONS SHOULD USE OR SERVICE THIS COVER SYSTEM.

IF YOU NEED ASSISTANCE OR COVER INFORMATION, SUCH AS INSTRUCTIONS MANUAL, LABELS, ETC., CONTACT THE MANUFACTURER.

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**PLEASE READ THE WARNINGS AND CAUTIONS LISTED BELOW.  
READ THE INSTRUCTION MANUAL ENTIRELY BEFORE HANDLING THIS MATERIAL, OR ATTEMPTING TO INSTALL, OPERATE, OR SERVICE THE SWITCH COVER SYSTEM.**



**CAUTION**

**SHEET METAL EDGES MAY BE VERY SHARP AND CAN CAUSE SEVERE CUTS OR LACERATIONS. PROTECTIVE GLOVES AND CLOTHING SHOULD BE WORN. USE CAUTION WHEN HANDLING ALL SHEET METAL COMPONENTS.**

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**I. REQUIRED TOOLS FOR INSTALLATION:**

Tape Measure

Grease Pencil

1 ½” Hole Saw

Reciprocating Saw + Extra Blades

Power Drill

5/16”, 7/16”, #8 Drill Bits

Socket Wrench

Impact Drill

½” and 5/8” Drive Sockets

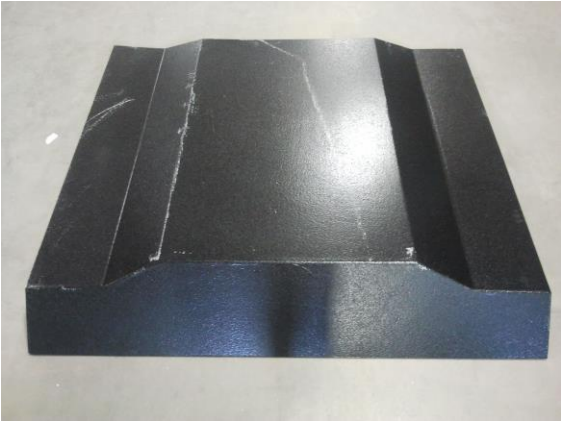
12” adjustable Wrench

Aerosol Penetrating Oil

Grease

Circular Saw

**II. PART IDENTIFICATION:**



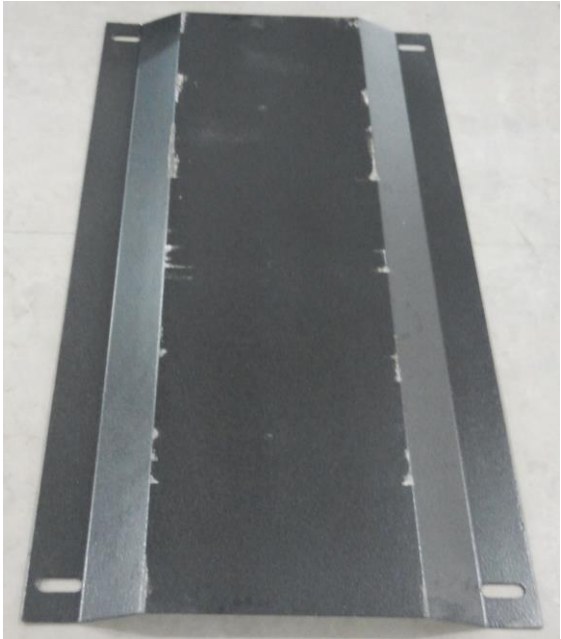
FIBERGLASS NOZZLE COVER (9279949)



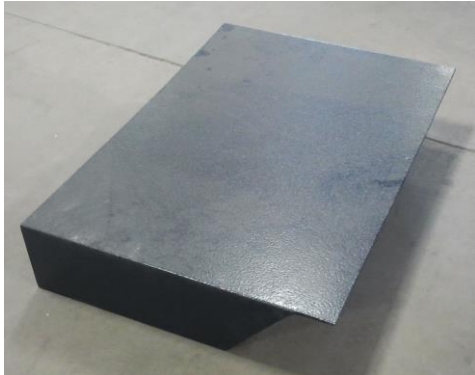
FIBERGLASS 4FT CENTER COVER (9279956)



FIBERGLASS 4FT CENTER COVERS HINGED



FIBERGLASS 8FT CENTER COVER (9279957)



SWITCH MACHINE COVER 9279926



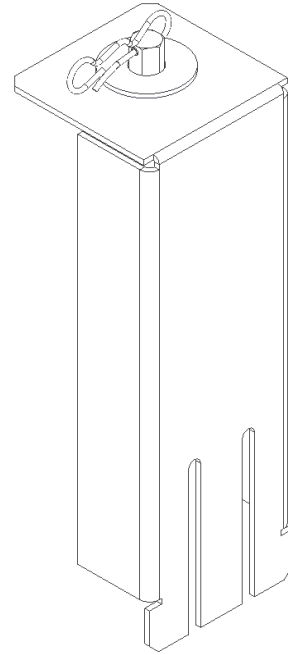
RAIL VICE BRACKET 9279960



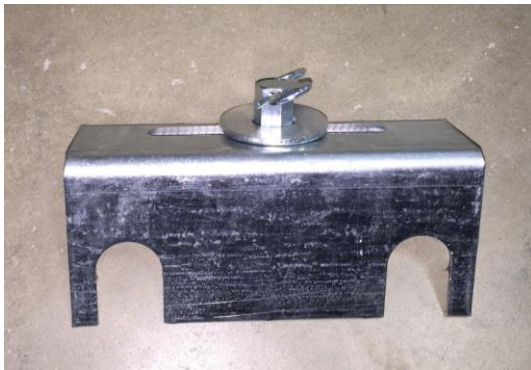
SIDE COVER 9279860



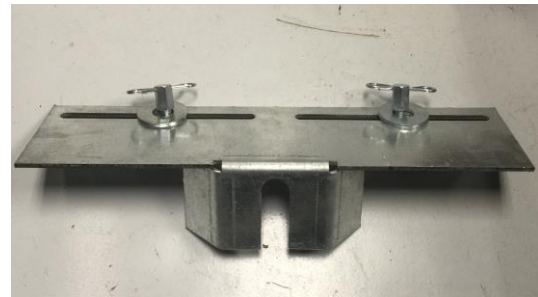
WIDE 8FT SIDE COVER 9279948



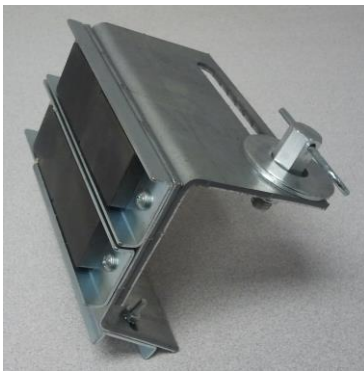
SLOTTED TIE BRACKET 9279929



SWITCH POINT BRACKET 9279930



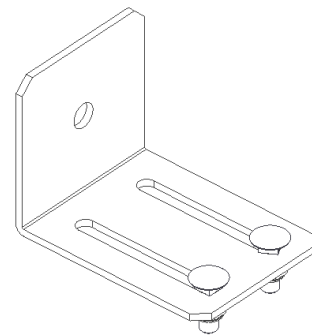
CENTER COVER JOINT BRACKET



MAGNETIC BRACKET 9279915

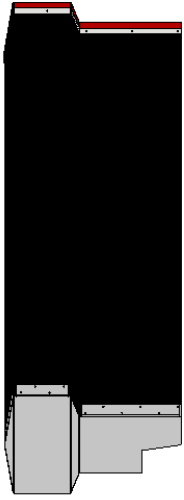


HEEL BLOCK BRACKET 9279927



SLOTTED BRACKET 9279928

## HELPER RODS



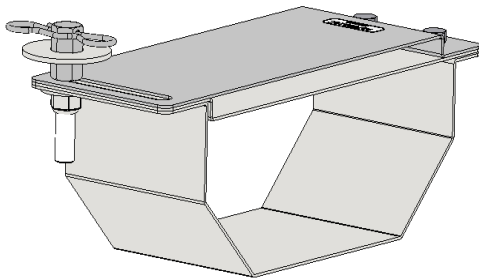
WITH RIGHT DEFLECTOR  
92794677



WITH LEFT DEFLECTOR  
92794676



WITH GASKETING  
92794675



TRACK DUCT BRACKET  
92799210

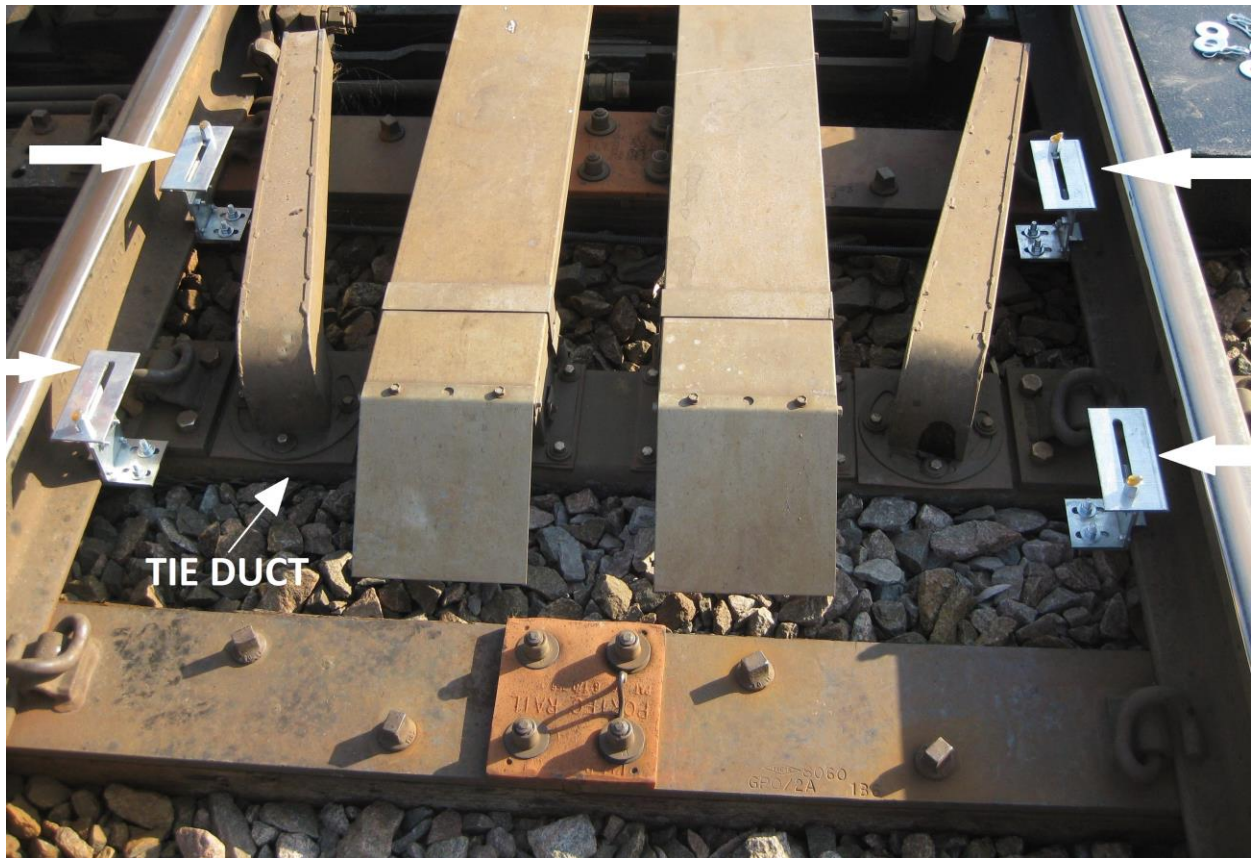
### III. INSTALLATION:

**BEFORE BEGINNING INSTALLATION, BE SURE THAT PERMISSION HAS BEEN GRANTED BY THE DISPATCHER AND THE SWITCH MACHINE IS OFFLINE AND/OR LOCKED OUT.**

It may be beneficial before installation to study this manual and drawings included in order to become more familiar with the cover system and its components.

## 1. FIBERGLASS NOZZLE COVER INSTALLATION

- A. The first step to install the fiberglass nozzle cover (9279949) is to first install the rail vice brackets (9279960). There are 4 rail vice brackets used to install the fiberglass nozzle cover. The fiberglass nozzle cover will be installed just in front of the point of the switch. The fiberglass nozzle cover does not have slots due to inconsistent tie placement. Holes will have to be cut in the cover for each rail vice bracket.
- B. Install the 4 rail vice brackets to the base of the rail at locations near the tie duct similar to that shown in the picture below.



- C. Set the fiberglass nozzle cover on top of the hex head pin bolts on the brackets. Make sure that the cover will not be resting on anything but the brackets. The edges of the cover should be under the head of the rail once holes are cut for the hex head pin bolts and the cover is resting on the top of the brackets. Adjust the rail vice bracket height as needed for the size of rail used at the switch. The vice brackets are set up for 136lb rail from the factory. There may need to be some trimming of the fiberglass cover to ensure a correct fit.
- D. Remove the cover and mark the tops of the hex head pin bolts with grease. Put the cover back into place making sure that the end of the cover toward the point is about 1 ½" away

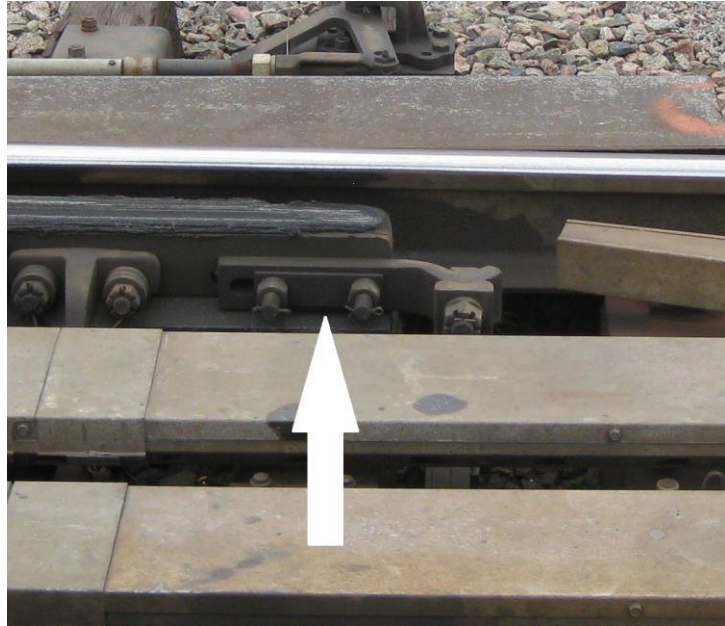


from the switch rail point. The grease will mark the areas that need to be cut using a drill and a 1 ½” hole saw. Coat the brackets with penetrating oil to prevent corrosion. Use the bow tie cotter pins and 2 ½” fender washers that come attached to the brackets to complete the installation of the nozzle cover.

## 2. FIBERGLASS CENTER COVER INSTALLATION

- A. Once the nozzle cover has been properly installed, lay out the remaining fiberglass center covers and brackets along the length of the tracks.

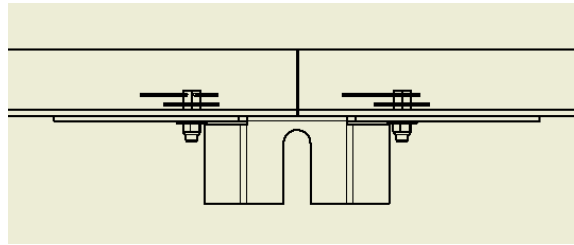
- B. Begin at the point of the switch with the first set of 4’ hinged fiberglass center cover sections (9279956). Use two switch point brackets (9279930) at the point of the switch rails. The brackets should be fastened as close to the point as possible on the inside web of the rail using the hardware that is already installed on the inside web of the switch rails. Most switches have something similar to the right picture.



(Common Switch Point)

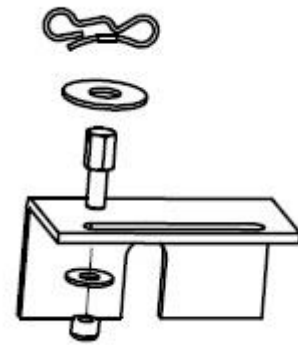
- C. If no hardware is available at that location, a magnetic mounting bracket (9279915) may be considered. Magnetic mounting brackets are designed to be installed at the user’s discretion. The magnetic mounting bracket is adjustable for use with different sizes of rail see FIGURE 3.

- D. Once the switch point bracket has been installed by utilizing the switch point hardware (similar to what is pictured above), continue by installing the center cover joint brackets (9279912). These brackets will ideally be placed such that each bracket can support 2 covers. Continue installing center cover joint brackets at all of the locations where 2 center covers meet. Be sure that all the center covers are in contact with one another when installed, except for the nozzle cover. Be sure that the edges of all covers rest below the head of the rail once installed to prevent damage from train wheels.



2 COVERS SUPPORTED BY BRACKET

- E. If there is no hardware at these locations, a magnetic mounting bracket may be considered instead.
- F. Install the heel block brackets (9279927) to support the end of the last center cover, the heel deflector cover (9279959). The heel block brackets can be placed 4" in either direction of the cover's slot to accommodate hardware placement on the rail. If no hardware is available in that area, a magnetic mounting bracket may be considered instead.



HEEL BLOCK BRACKET 9279927

- G. If rail hardware placement does not allow the slots of the center covers to be used, a custom hole will have to be made in the covers to accommodate the hex head pin bolt on the brackets. Mark the tops of the hex head pin bolts with grease. Place the covers back onto the installed brackets in the desired position, allowing the grease to mark the locations that need to be cut with a 1½" hole saw.
- H. Coat all of the bracket assemblies with penetrating oil to prevent corrosion. Place the center covers and fasten them to the brackets using bow tie cotter pins and 2 ½" fender washers. The center covers are now installed and should resemble FIGURE 2.

### 3. SWITCH MACHINE NOZZLE INSTALLATION

- A. Install the switch machine nozzle by removing the metal summer storage plate on the tie duct located on the switch machine side of the tracks. Using the hardware from the summer storage tie duct plate, fasten the switch machine nozzle onto the tie duct with the nozzles facing down the track towards the switch machine (see FIGURE 6).

#### 4. WIDE 8' FIBERGLASS SIDE COVER INSTALLATION

- A. First rest the wide 8' fiberglass side cover (9279948) in place. When the cover is installed it should be up against the rail, but not higher than the rail head. The cover should shield the switch machine nozzle that is included in select fiberglass cover systems. Using the bracket on the top of the nozzle on one end of the cover as one of two supports, a slotted tie bracket will act as the second support on the opposite end of the cover. If a switch machine nozzle is not included in the cover system being installed, use a second slotted tie bracket to achieve the proper support for the cover.



(Slotted Tie Bracket Installed)

- B. The slotted tie bracket should be fastened to the last full tie toward the heel block that the cover shields. Fasten the slotted tie bracket to the side of the tie using the two 5/16" hex head lag bolts and two 5/16" flat washers included with each bracket (see FIGURE 4). Note: A slotted tie bracket may be used together with a slotted bracket in order to obtain the height needed to support the cover properly. The top of the slotted tie bracket should be the same height as the top of the switch machine nozzle bracket.
- C. Be sure to account for rail braces when placing the fiberglass side cover wide 8'. When installing this cover, be sure no rail brace will interfere with any side covers including the fiberglass side cover 8' (see section 6) by adjusting the placement up or down the length of the tracks. Look for any areas of the cover that may need trimming in order for the cover to fit correctly.



- D. Mark the tops of the hex head pin bolts with grease and place the cover to mark the location of the holes to be cut the same as was done with the fiberglass nozzle cover. Once again, check to be sure that the side of the wide 8' fiberglass side cover rests up against the side of the rail head and is not resting above it.



(Wide 8' Side Cover Installed)

- E. Coat the slotted tie bracket with penetrating oil to prevent corrosion. Cut the holes in the cover marked by the grease and install the wide 8' side cover fastening it with bow tie cotter pins and 2 ½" fender washers.

## 5. FIBERGLASS SWITCH MACHINE COVER INSTALLATION

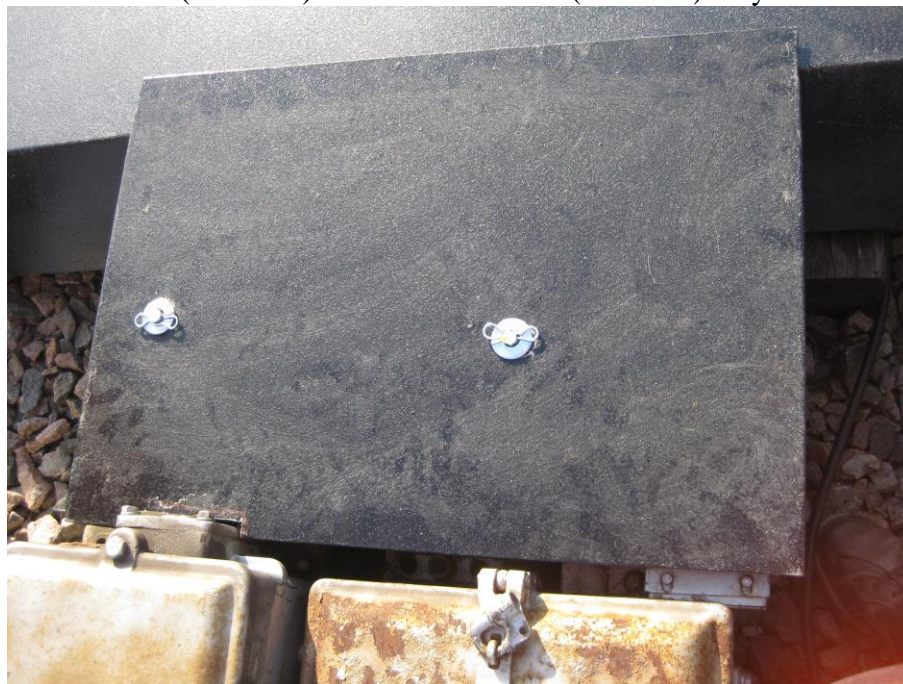
Note: The fiberglass switch machine cover was designed to be installed onto a switch using a "dual control switch machine" or similar.

- A. The switch machine cover will rest on the push rod covers of the switch machine and the wide 8' fiberglass side cover while being supported near the center by a slotted tie bracket (see FIGURE 7).

- B. Fasten the slotted tie bracket to a tie such that the top flange is approximately ½” lower than the top of the switch machine nozzle cover.
- C. If needed, a magnet can be fastened to the underneath of the switch machine cover just above where the slotted tie bracket is located when the cover is in place (see FIGURE 7). Some trimming of the fiberglass switch machine cover is likely to ensure a proper fit due to the variety of track switch layouts. When fully installed, the push rods should be completely covered by the fiberglass switch machine cover and wide 8’ fiberglass side cover.

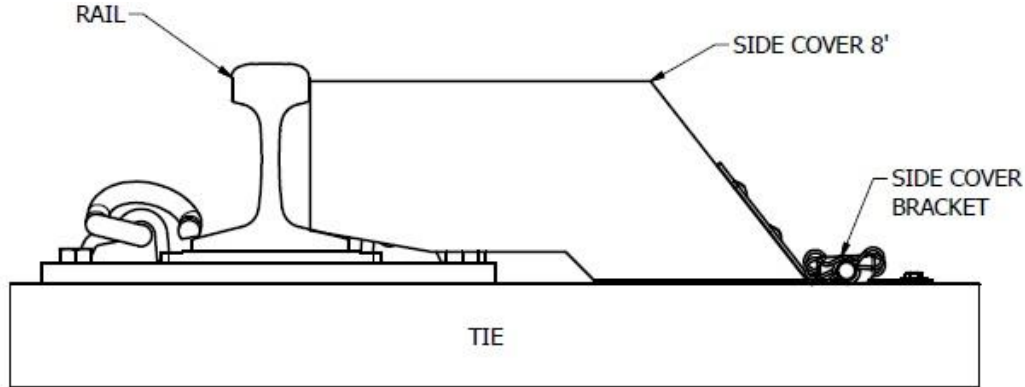


(A slotted tie bracket (9279929) and slotted bracket (9279928) may be used in tandem)



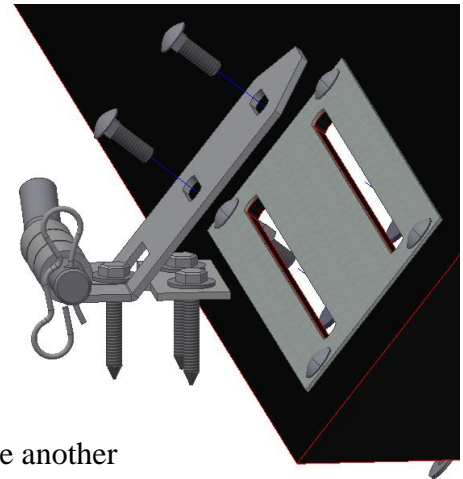
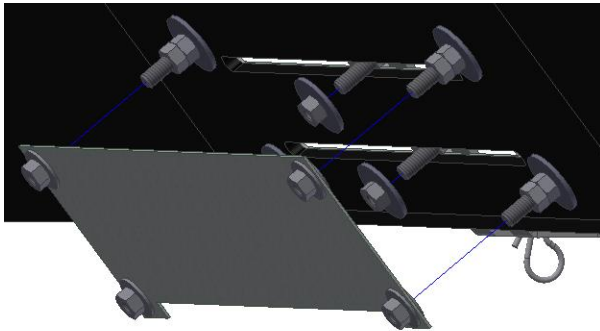
(Switch Machine Cover trimmed and installed)

## 6. FIBERGLASS SIDE COVER 8' INSTALLATION



EXAMPLE OF SIDE COVER INSTALL

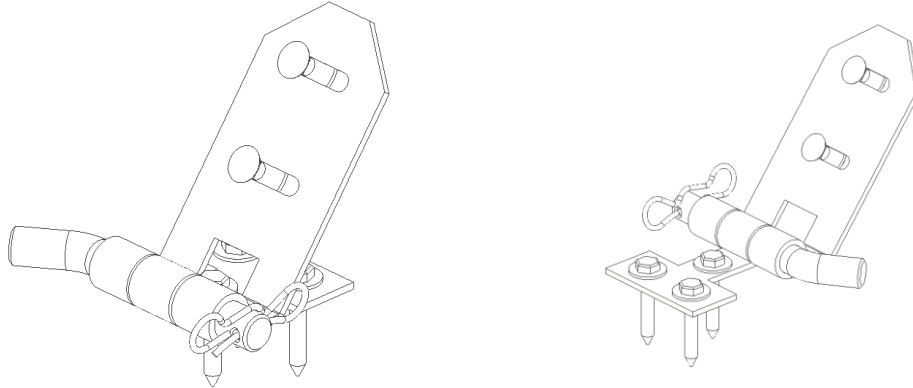
- A. To begin installation of the fiberglass side covers (9279860), start by laying the covers lengthwise along the outside of the track switch.
- B. If side cover hinges (9279904) or plates (9279110, 9279120) are not installed, install as shown below with 5/16" carriage bolts, washers, and lock nuts. Plates use 1 1/2" carriage bolts (2831691117), 12 lock nuts (2832-6901), 8 washers (2833-6110), and 4 fender washers (2833-6112). Hinges use shorter 1" carriage bolts (2831691116), 2 fender washers, and 2 lock nuts.



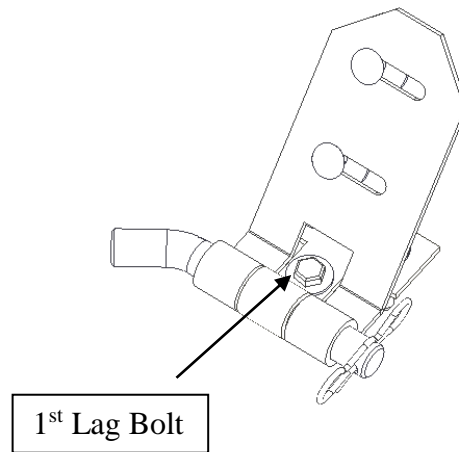
- C. All fiberglass side covers 8' are to be placed up against one another down the length of the track. The fiberglass side covers on the switch machine side of the tracks will run from the heel block side of the fiberglass side cover wide 8'. When placing of the fiberglass side covers on the opposite side of the tracks from the switch machine take into account the rail braces, this will prevent unnecessary trimming of the side covers.

**Note: The side cover hinge can be utilized 2 different ways as pictured below.**

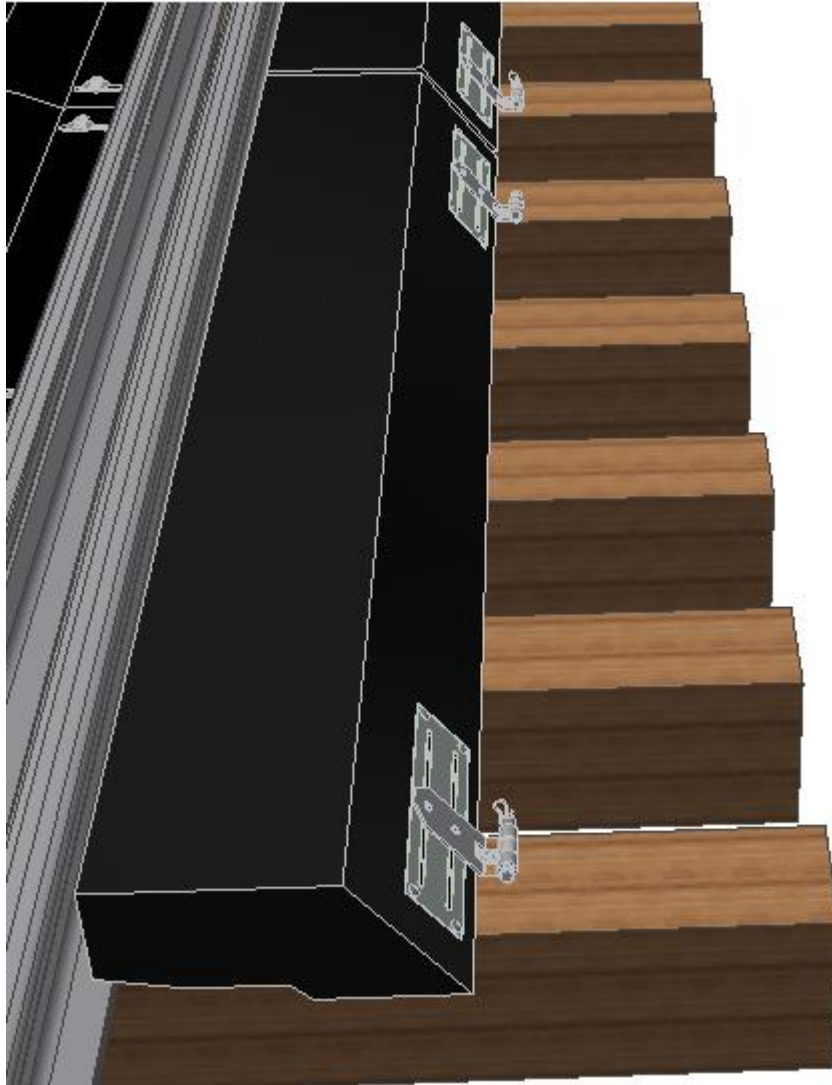
- D. The above left side cover hinge arrangement (standard setup) is to be used when there are limitations due to tie length. If the tie is long and has more room, you can remove the pin and flip the bottom piece upside down as shown in the above right picture and reattach the pin.



- E. If using the configuration in the above right picture, simply place the side cover into place and lag the lower piece of the bracket to the tie. If using the configuration in the above left picture, use a lag bolt and washer to hold down the bracket once the side cover is in position. Once the first lag bolts are placed, flip the side cover over and install the 2<sup>nd</sup> and 3<sup>rd</sup> lag bolts with washers to securely fasten the bracket to the tie.



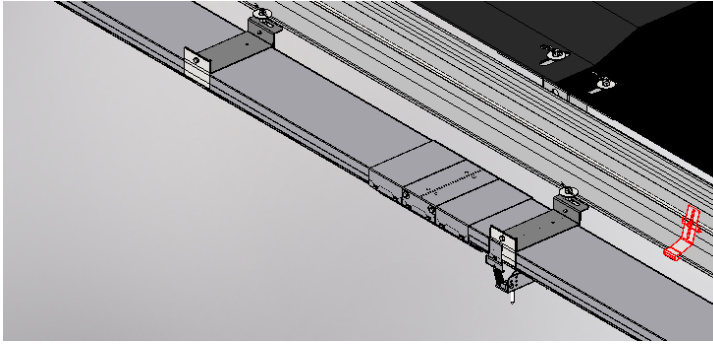
- F. Coat the side cover hinges with penetrating oil to prevent corrosion.



## 7. HELPER ROD INSTALLATION (OPTIONAL)

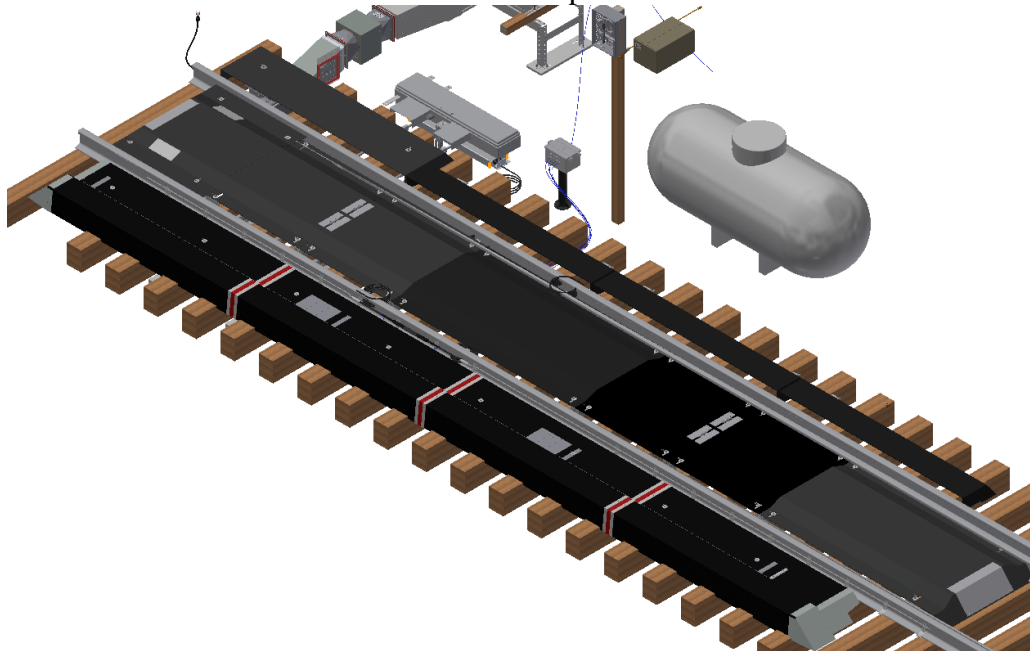
- A. To begin installation, place helper rod covers (92794675, 92794676, and 927946770) in order lengthwise alongside the track. The covers with deflectors go on the ends.
- B. Take apart track duct brackets (92799210) and put them back together around the tie duct. Use 2 brackets per cover, 1 on each end and tighten screws. See picture below.





- C. Place grease on top of the pin bolt. Line up covers carefully over the greased pin bolt to mark where the holes will be drilled into the helper rod covers.
- D. Drill holes into rod covers with the 1 ½ hole saw.
- E. Place helper rod covers over the brackets allowing the pin bolt to go through. Place washer on the pin bolt before putting in the pin.

This finishes the rod cover installation. See picture below.



The cover system is now completely installed and should resemble FIGURE 2. Not all railroad switches are the same, and there may be some variation in installation procedure needed. Be sure to inspect the cover system once it is installed before allowing the switch to come back online. Make sure there are no parts protruding higher than the head of the rail and all parts are fastened firmly in place.

#### IV. SEASONAL MAINTANANCE

##### 1. SPRING DISASSEMBLY

**BE SURE PERMISSION IS GRANTED BY THE DISPATCHER AND THE SWITCH IS OFFLINE PRIOR TO ANY ADJUSTMENT, INSTALLATION, OR UNINSTALLATION OF THE SWITCH COVER SYSTEM. WHILE**

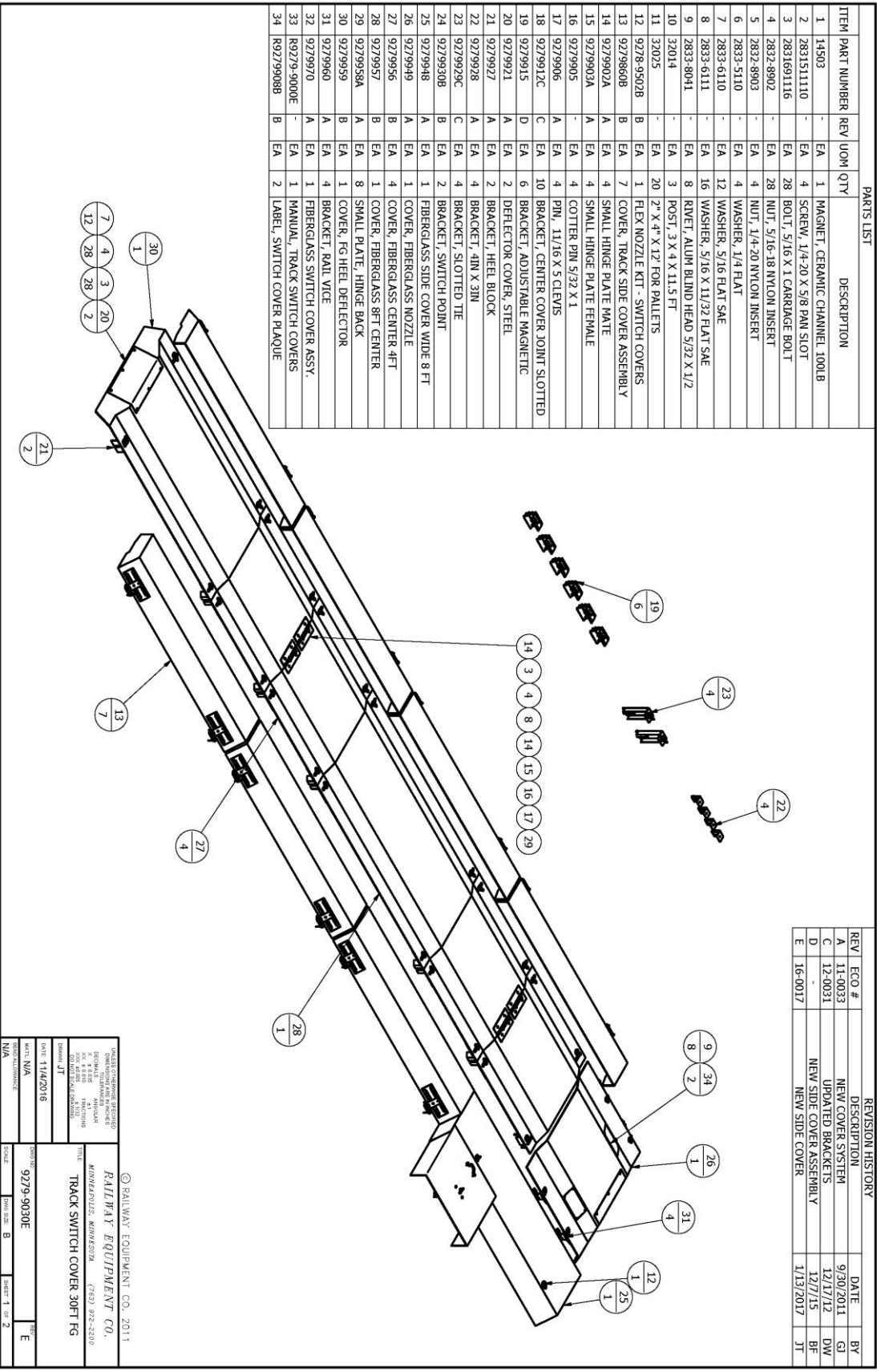
**DISASSEMBLING THE COVER SYSTEM, INSPECT EACH PART AND DISCARD ANY PARTS THAT HAVE FAILED, BEEN DAMAGED, OR RECEIVED MODERATE CORROSION. REPLACE FAILED, DAMAGED, OR CORRODED PARTS BEFORE REINSTALLATION OF THE COVER SYSTEM. USE ONLY FACTORY SPECIFIED PARTS WHEN REPLACING PARTS.**

- A. Remove bowtie cotter pins and 2 ½” fender washers on all fiberglass center covers (9279949, 9279956, 9279957, and 9279959). The fiberglass center covers can now be removed.
- B. Any brackets that are bolted on to the rails can remain installed, but be sure to inspect all brackets for corrosion or failure. Remove any brackets that have either failed or received moderate corrosion. Remove the rail vice brackets from the rail.
- C. Remove all magnetic mounting brackets.
- D. Uninstall the 8’ fiberglass side covers by removing the cotter pins and the clevis pins of the side cover hinges.
- E. The fiberglass switch machine cover (9279926) can be removed by either pulling up on the handle detaching the magnet, if a magnet was used, or removing the bowtie cottar pin from the pin head bolt.
- F. Uninstall the wide 8’ fiberglass side cover by removing the bow tie pins and fender washers.
- G. To prevent corrosion, metal parts that are to be left outside should be coated with penetrating oil.

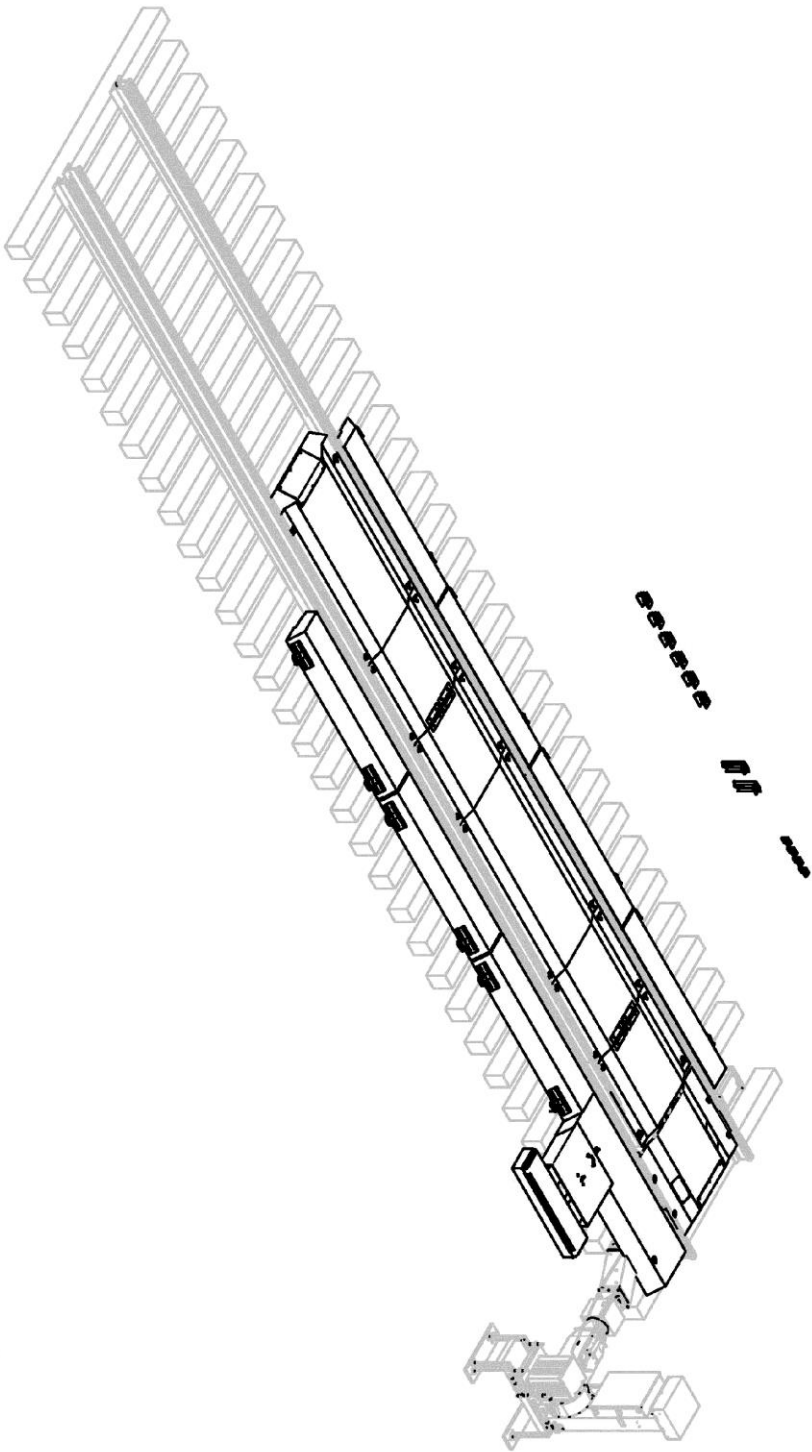
## **2. REASSEMBLY**

When reinstalling the fiberglass switch cover system, follow the same instructions as the initial installation. No trimming or cutting of the covers should be needed if the switch has not been modified since the last installation.

# FIGURE 1

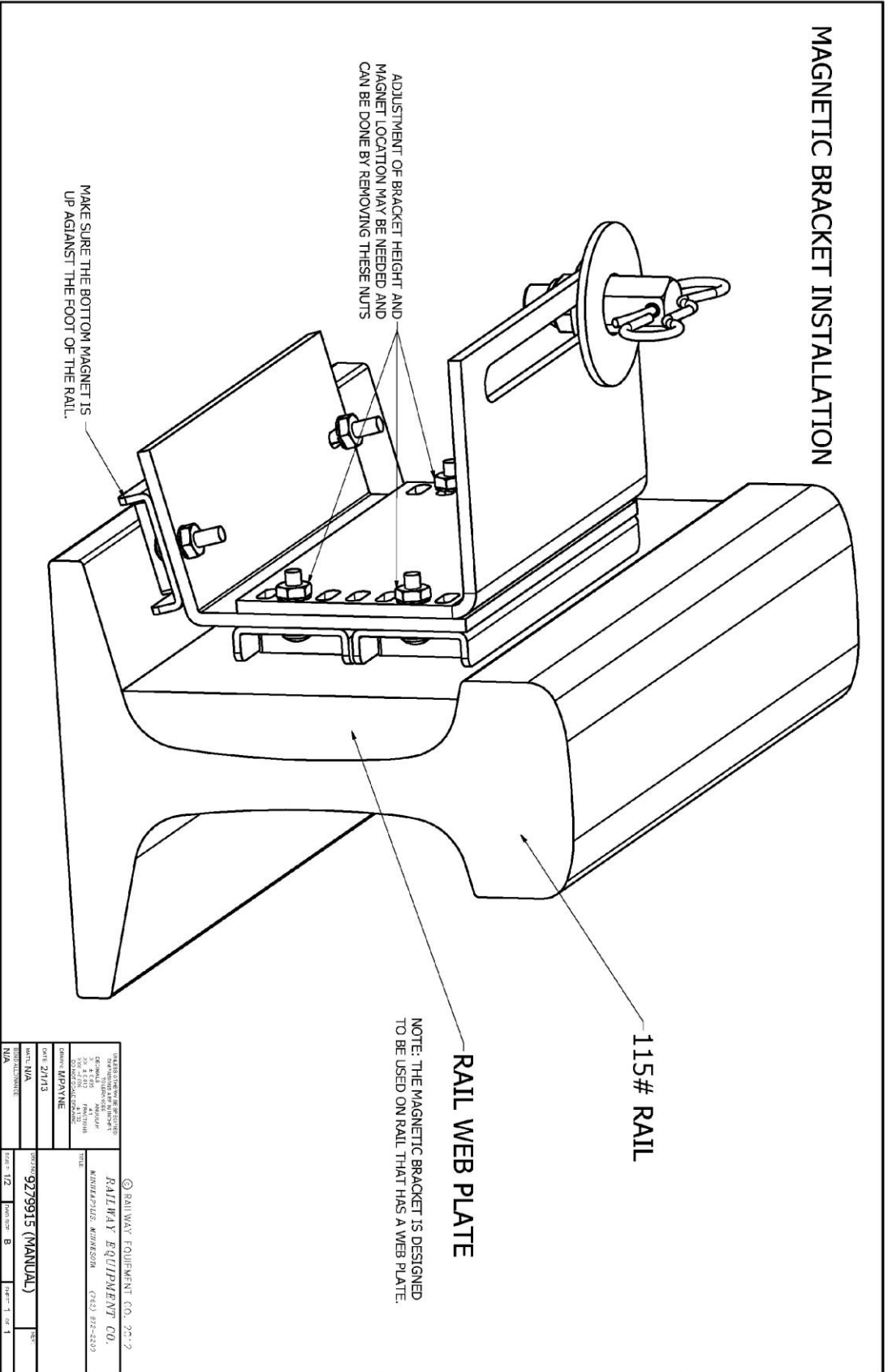


**FIGURE 2**

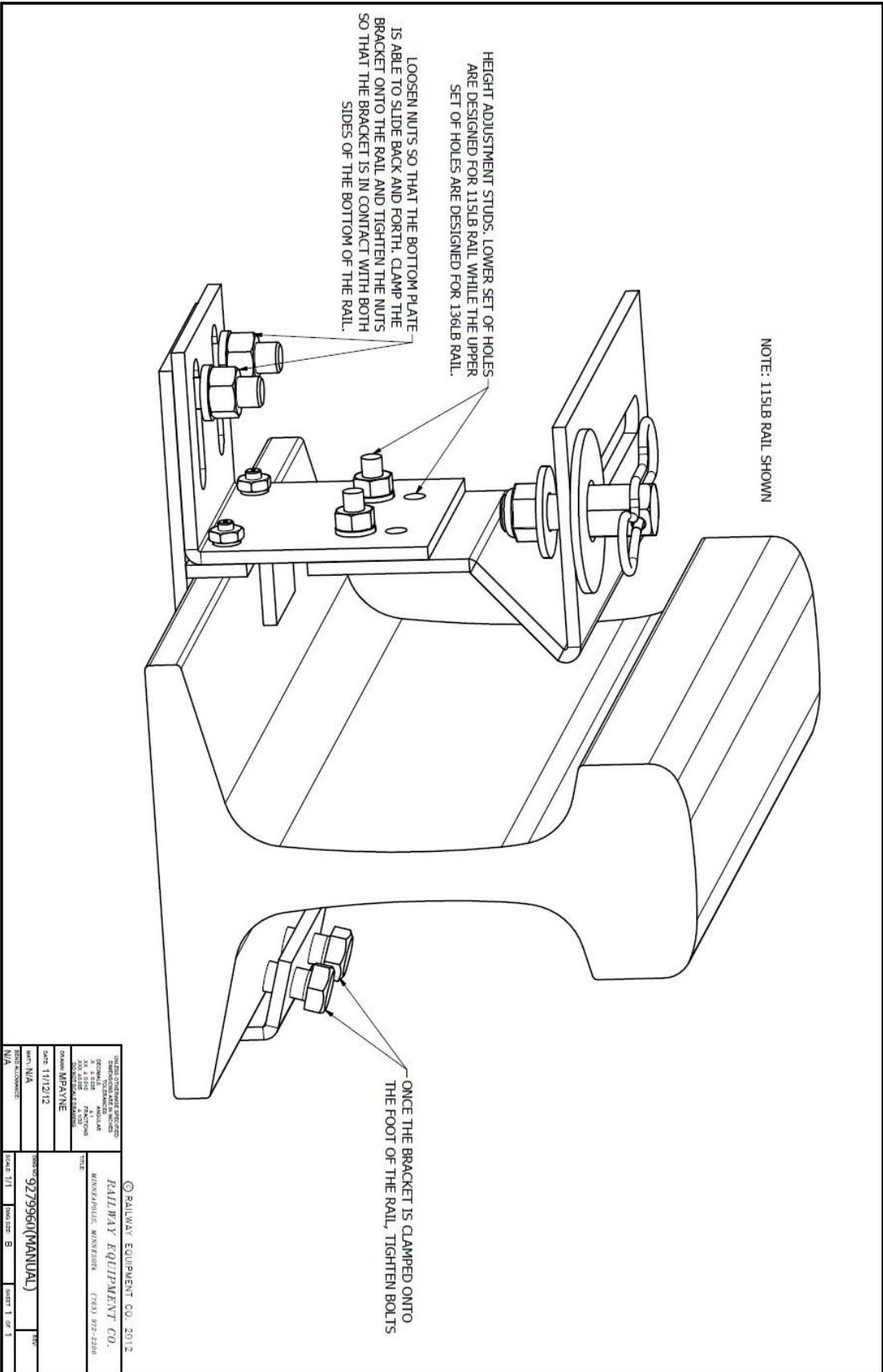


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DATE	11/14/16	TITLE	TRACK SWITCH COVER 30FT FS
DESIGNER	JT	QUANTITY	9279-9030E
DATE	11/14/16	SCALE	AS SHOWN
DATE	11/14/16	REV	E
DATE	11/14/16	REV	2
DATE	11/14/16	REV	2

**FIGURE 3**

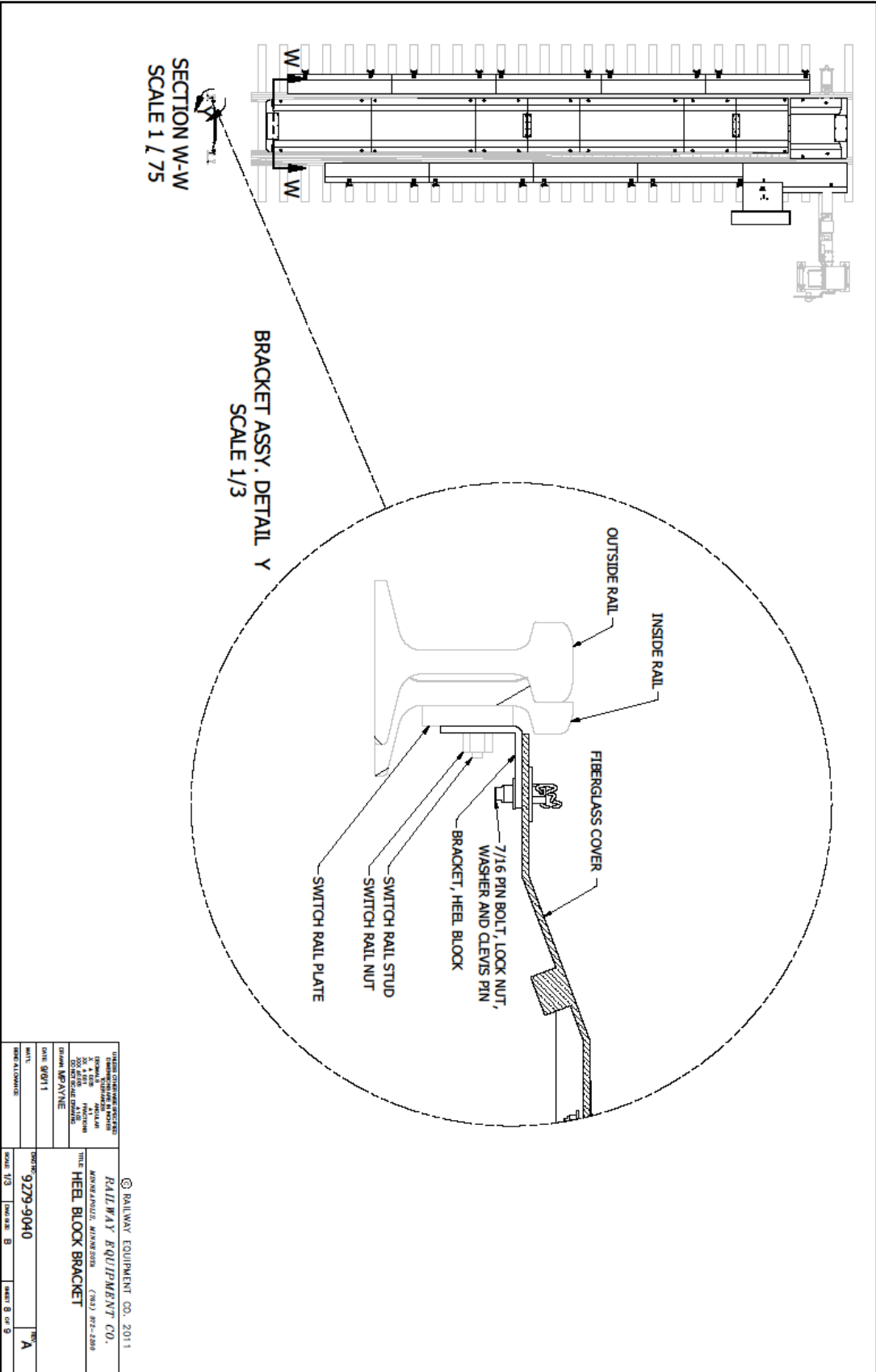


# FIGURE 4



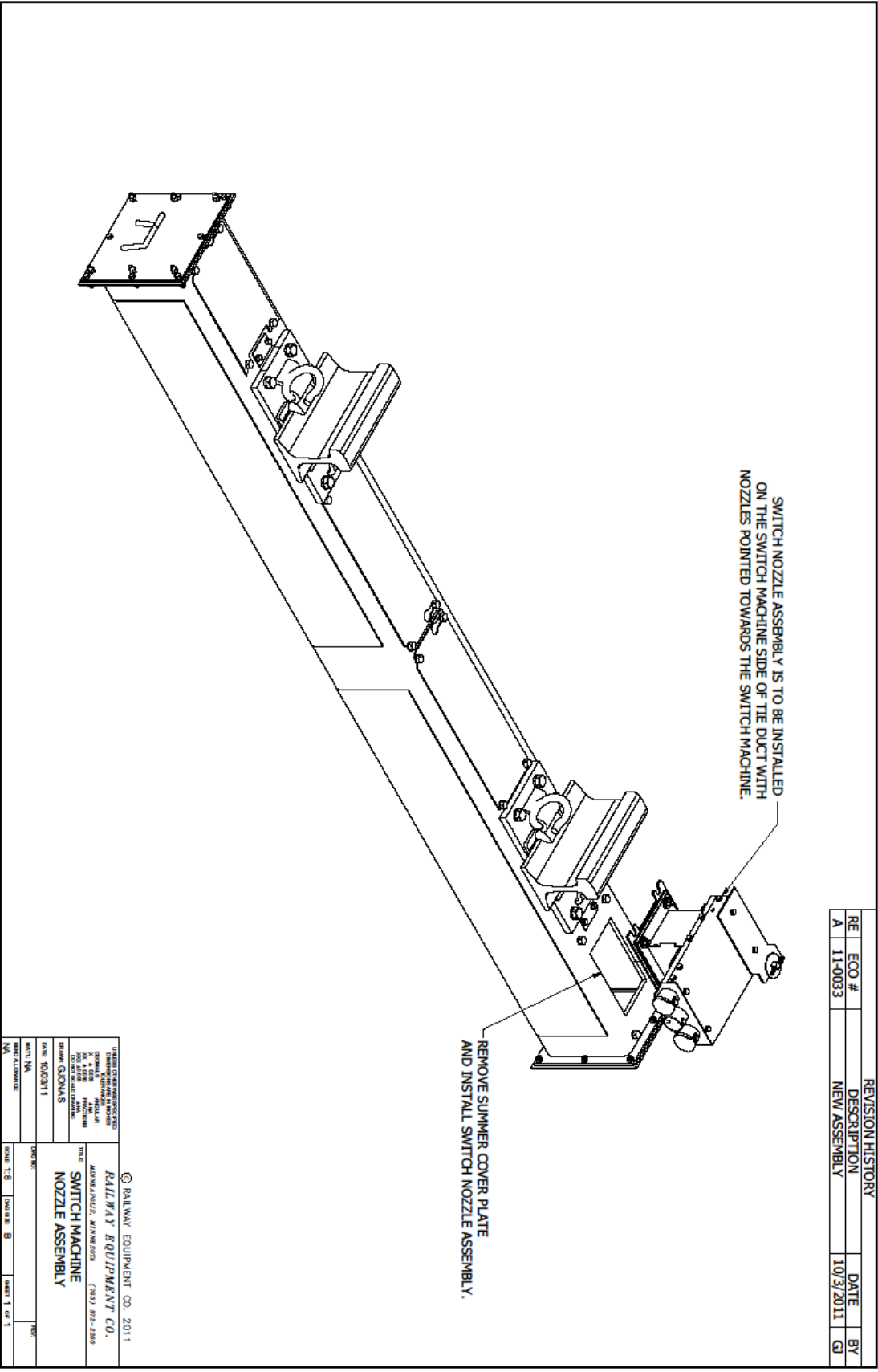
RAILWAY EQUIPMENT CO. MANUFACTURING DIVISION (781) 872-2200	
TITLE DRAWING NO. 9279960(MANUAL)	SHEET 1 OF 1
DATE 11/12/12	SCALE B
DRAWN BY N/A	CHECKED BY B
DESIGNED BY N/A	APPROVED BY

**FIGURE 5**



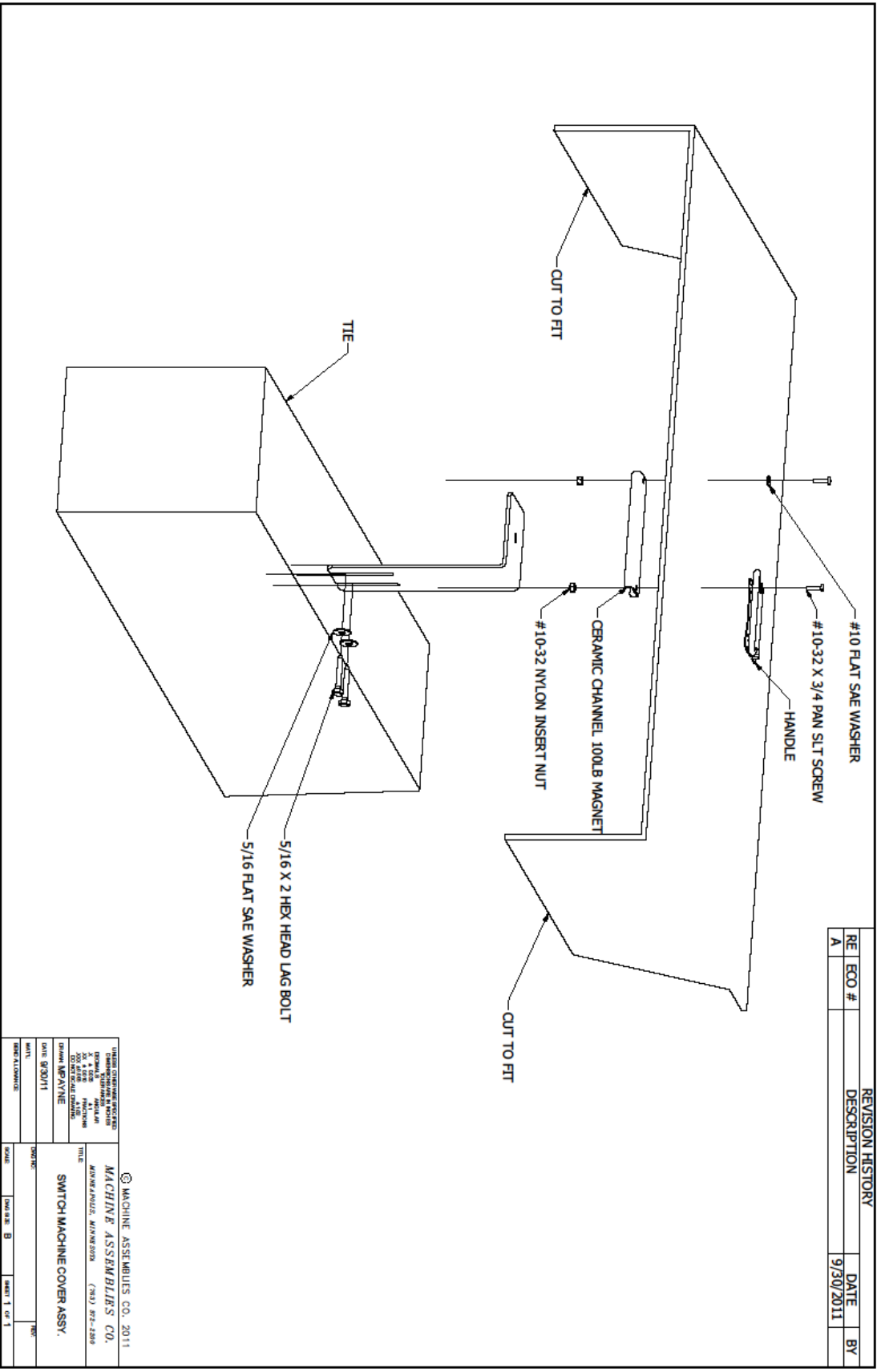
UNITED STATES PATENT AND TRADEMARK OFFICE OFFICE OF PATENT AND TRADEMARKS 500 M STREET, N.W. WASHINGTON, D.C. 20540-4400		RAILWAY EQUIPMENT CO., 2011 RAILWAY EQUIPMENT CO. 4000 WASHINGTON AVENUE (760) 872-2888	
DRAWN BY: MPAYNE DATE: 8/8/11		TITLE: HEEL BLOCK BRACKET PART NO: 9279-9040	
SHEET NO: 1 OF 1 REV: A		SCALE: 1/3 SHEET NO: B OF 8	

# FIGURE 6





# FIGURE 7



© MACHINE ASSEMBLIES CO. 2011 <b>MACHINE ASSEMBLIES CO.</b> 4000 W. 10TH AVENUE, SUITE 100 DENVER, CO 80202	
TITLE SWITCH MACHINE COVER ASSY.	DATE 9/30/2011
DRAWN MPAYNE	CHECKED [Signature]
PART NUMBER 9279-9000	SHEET 1 OF 1