OPERATING MANUAL

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

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

MANUFACTURED

BY

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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.

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, and #10 Drill Bits
Socket Wrench
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)
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 cottar 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 below picture.

![COMMON SWITCH POINT](image)

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.

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.

G. If rail hardware placement does not allow the slots of the center covers to be used, a custom hole placement 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 cottar 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. FIBERGLASS SIDE COVER WIDE 8’ 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 with the flange of the bracket above 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: 2 slotted tie brackets may have to be used together 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 in order to mark the location of the holes that need to be cut the same as was done with the fiberglass nozzle cover. Once again, check to be sure that the side of the fiberglass side cover wide 8’ rests up against the side of the rail head and is not resting above it.
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 cottar 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 fiberglass side cover wide 8’.

(The use of a slotted tie bracket and adjustable slotted tie bracket in tandem may be needed)
6. FIBERGLASS SIDE COVER 8’ INSTALLATION

A. To begin installation of the fiberglass side covers (9279947), start by laying the covers lengthwise along the outside of the track switch.

B. 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.

C. Place two side cover hinges (9279904) onto each of the side covers (see next page). They are to be placed in the middle of last covered tie on either end of each cover. Mark the areas that need drilling on the side covers with a grease pencil. Drill out the marked areas using a 5/16” drill bit. Using two 5/16 X 1 carriage bolts (2831691116), four 5/16 flat washers, and two 5/16” hex head lag bolts for each cover, fasten the side covers to the ties.

Note: The side cover hinge can be utilized 2 different ways as pictured on next page.
D. The above left side cover hinge arrangement is to be used when there is no limitations due to tie length. If the tie is short and does not allow for this configuration, 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 left 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 right picture, use the flat head screw included as a set screw to hold down the bracket once the side cover is in position. Once the set screw is placed, flip the side cover over and install the lag bolts with washers to securely fasten the bracket to the tie.

F. Coat the side cover hinges with penetrating oil to prevent corrosion.
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 fiberglass side covers 8’ by removing the cotter pins on 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 fiberglass side cover wide 8’ 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 4
FIGURE 6

ON THE SWITCH NOZZLE SIDE OF THE DUCT WITH NOZZLES POINTED TOWARDS THE SWITCH MACHINE.

REMOVE SUMMER COVER PLATE AND INSTALL SWITCH NOZZLE ASSEMBLY.