

USER'S MANUAL and INSTALLATION GUIDE

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THANK YOU

Thank you for purchasing a Munters AM Series Inlet. Munters equipment is designed to be the highest performing, highest quality equipment you can buy. With the proper installation and maintenance it will provide many years of service.

PLEASE NOTE

*To achieve maximum performance and insure long life from your Continuous Ceiling Inlet it is essential that it be **installed and maintained properly**. Please read all instructions carefully before beginning installation.*

SECTION 1. REQUIREMENTS FOR INSTALLATION

Tools:

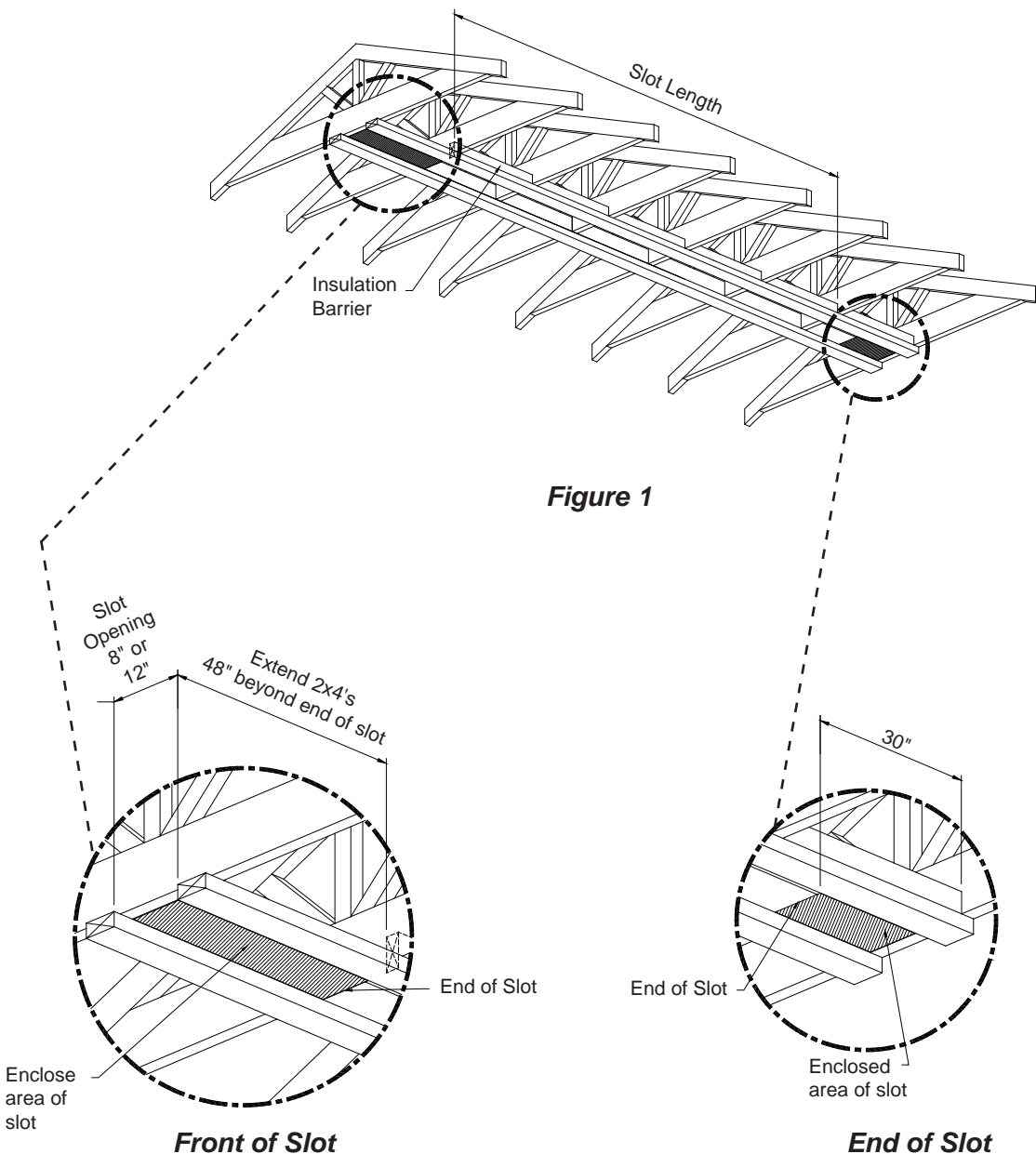
Drill gun
 #2 Phillips head screwdriver
 Tape Measure
 7/16" Socket wrench
 Framing square
 Pliers - slip or arc joint
 5/16", 3/8", 1/2" Nut driver

Supplies (purchased separately):

AC2187 - 3/16" diameter, 7x19 stainless steel cable
 AC1039 - 3/16" cable clamps
 AC1599 - Rod Track Length Guage for setting distance (length) between sets of rod tracks. (See #20 on page 4)
 AC2599 - Rod Track Spacer Tool - For aligning and mounting sets of rod tracks. (See #28 on page 4)

Prepare air inlet slot:

- 1) The slot length shall be 2 feet shorter than the baffle run.
- 2) The slot should be framed with 2x4 material. Securely attached to trusses to prevent warping, See **Figure 1**.
- 3) The attic side of the slot should incorporate an insulation barrier to stop the insulation from entering the slot during operation. The insulation barrier should extend above the insulation along the entire length of the slot. See **Figure 1**. The ends of the slot should also include insulation barriers.



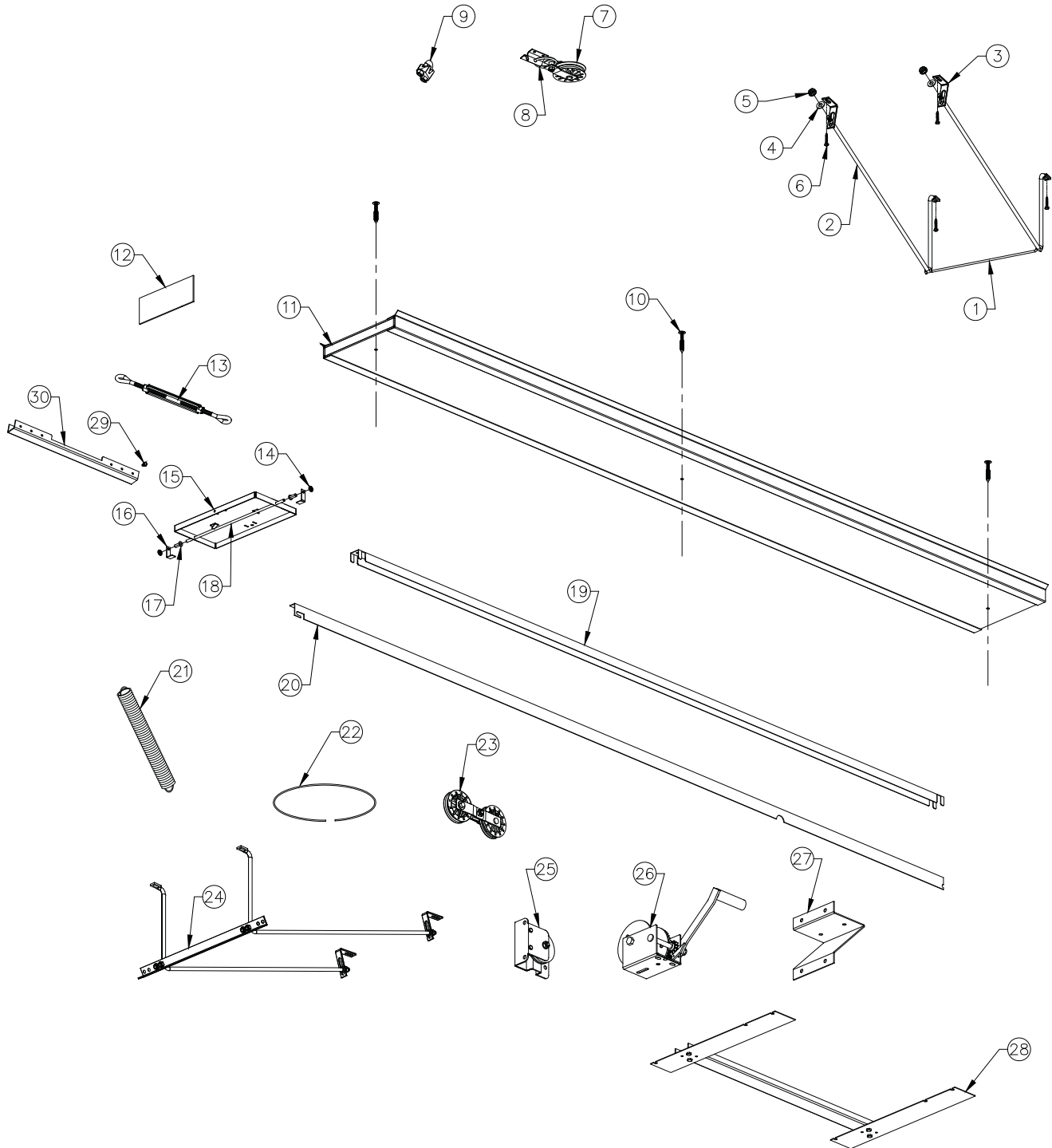
SECTION 2. UNPACKING THE AIR MANAGER

Before beginning installation, check the overall condition of the equipment. Remove packing materials, and examine all components for signs of shipping damage. Any shipping damage is the customer's responsibility and should be reported immediately to the freight carrier. **See Page 4 for list of parts.**

Important installation tip – To reduce installation time it is recommended to read Sections 3 through Section 8 in their entirety before proceeding with the installation. With proper preassembly operations each baffle run can be hung in a single pass along the slot. A second pass along the slot is required for adjustment.

Recommended process:

- 1) Locate all components and hardware.
- 2) Preassemble adjustment rod tracks (Section 3), carrier plate subassemblies (Section 4A) and baffle door subassemblies (Section 4B).
- 3) Install the Air Manager Inlet system (Section 5 through 8).
 - 3a. Install 4 rod tracks & 2 track spacers and 1 end seal.
 - 3b. Install 1 baffle door subassembly with 1 extra carrier plate subassembly.
 - 3c. Install 2 rod tracks & 1 track spacer.
 - 3d. Install 1 baffle door subassembly.
 - 3e. Repeat 3d through 3f along slot opening.
 - 3f. Install return spring kits.
 - 3g. Install 1 end seal at the end of the slot.
 - 3h. Adjust baffles to equal settings, set limit switches on actuator.



No.	Part Name/Description	Cat. No. all sizes	Cat. No. 8" baffle	Cat. No. 12" baffle
1	Track Spacer	--	FA2118	FA2122
2	Rod Track	AC2116	--	--
3	L Bracket (galvanized)	AC2106	--	--
4	Washer, 3/8" I.D.	KW3005	--	--
5	Nut, 3/8" - 16	KN1011	--	--
6	Screw, lag 1/4"x1.5" HX, ZP	KS2463	--	--
7	Hanging Pulley	AC1286	--	--
8	Hitching Ring	AC1385	--	--
9	Cable clamps, 1/8"	AC1381	--	--
	Cable clamps, 3/16"	AC1039	--	--
	Cable clamps, 5/16"	AC1383	--	--
10	Push Fastener	KX1043	--	--
11	Inlet, Door, Plastic, 96"L.	--	AC3508	AC3512
12	End Seal	FA2129	--	--
13	Turnbuckle	AC1159	--	--
14	Retainer Clip	KX1003	--	--
15	Carrier Plate	--	AC2108	AC2112
16	L Bracket (aluminum)	AC2101	--	--
17	Nylon Bushing	KX1127	--	--
18	Slide Rod	--	FA1355	FA1356
19	Support Runner	AC2110	--	--
20	Rod Track Length Guage , optional	AC1599	--	--
21	Return Spring	AC1194	--	--
22	1/8" Cable, 24" L	AC1380	--	--
23	Double Hanging Pulley, optional (2)	AC1286	--	--
24	Return Spring Anchor	AC1518	--	--
25	Wall/Ceiling Bracket pulley, optional	AC1264	--	--
26	Hand Winch, optional	AC1004	--	--
27	Winch Mounting Bracket, optional	WB1	--	--
28	Rod Track Spacer Tool, optional	AC2599	--	--
29	Screw, TEK, #10-16 x 3/4"L. HXWSR, SS	KS2282	--	--
30	Support Runner Splice	AC2107	--	--

SECTION 3. ADJUSTABLE ROD TRACK ASSEMBLY

Attach slotted side of 'L' bracket to threaded end of adjustable rod track with $\frac{3}{8}$ " nut and washer, **See Figure 2.**

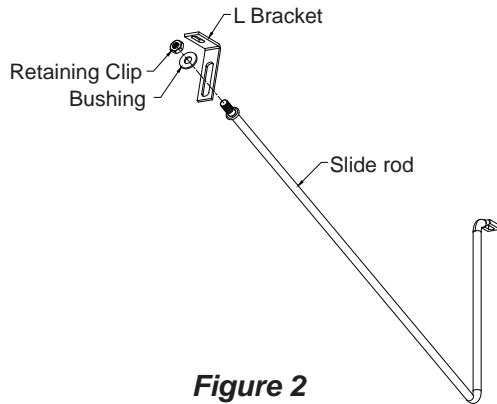


Figure 2

SECTION 4A. CARRIER PLATE SUBASSEMBLY

Use a $\frac{3}{8}$ " nut driver and a pair of pliers to assemble the carrier plate subassembly. **See Figure 3.** Each carrier plate subassembly requires the following components (provided):

- 1 – Carrier plate
- 1 – Slide rod
- 2 – Bushings
- 2 – L brackets
- 2 – Retaining clips

Step 1

Insert the slide rod through the carrier plate flange holes. **See Figure 3.**

Step 2

Place bushing on the slide rod. Bushing flange should rest against carrier plate flange. **See Figure 3.**

Step 3

Install L bracket on slide rod, **See Figure 3.**

Step 4

Lock bushing and L bracket into place with a retaining clip using a $\frac{3}{8}$ " nut driver. **See Figure 4.** **DO NOT** push retaining clip tight against L bracket. The bushing and L bracket should pivot freely on the slide rod.

Step 5

Bend the carrier plate tabs down until they come to rest tightly against the slide rod. **See Figure 4.** FAILURE to bend carrier plate tabs may result in premature failure of slide rod.

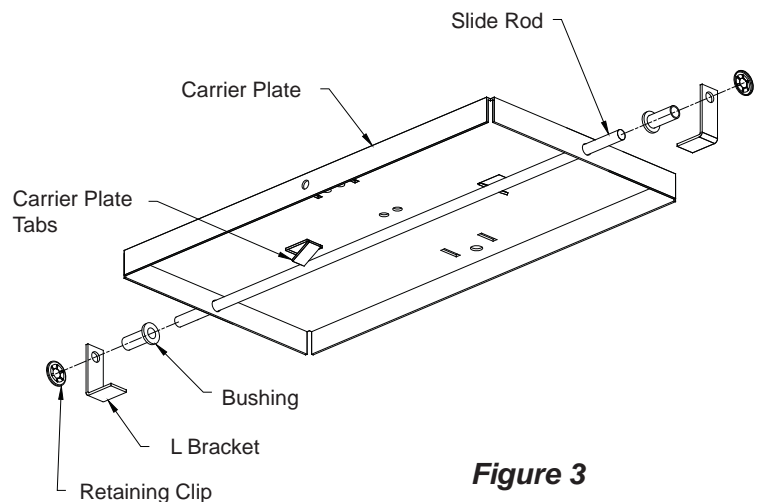


Figure 3

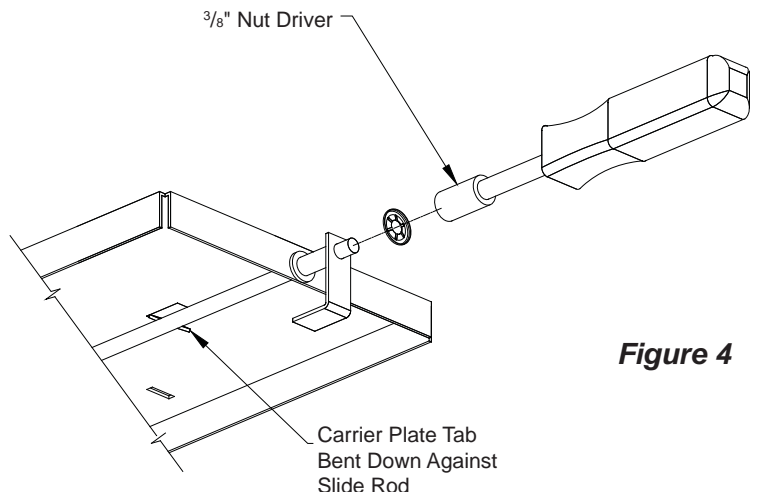


Figure 4

SECTION 4B. BAFFLE SECTION SUBASSEMBLY

Baffle sections may be assembled on the floor. They will be connected together as they are placed on the rod tracks. Each baffle section subassembly will require the following components (provided):

- 1 – Carrier plate subassembly
- 1 – Support runner
- 1 – Plastic Baffle Door
- 3 – Push fasteners

Step 1

Insert one end of the support runner tabs into the matching slots of the carrier plate subassembly and bend the tabs outward. **See Figure 5.** The other end will be connected during installation.

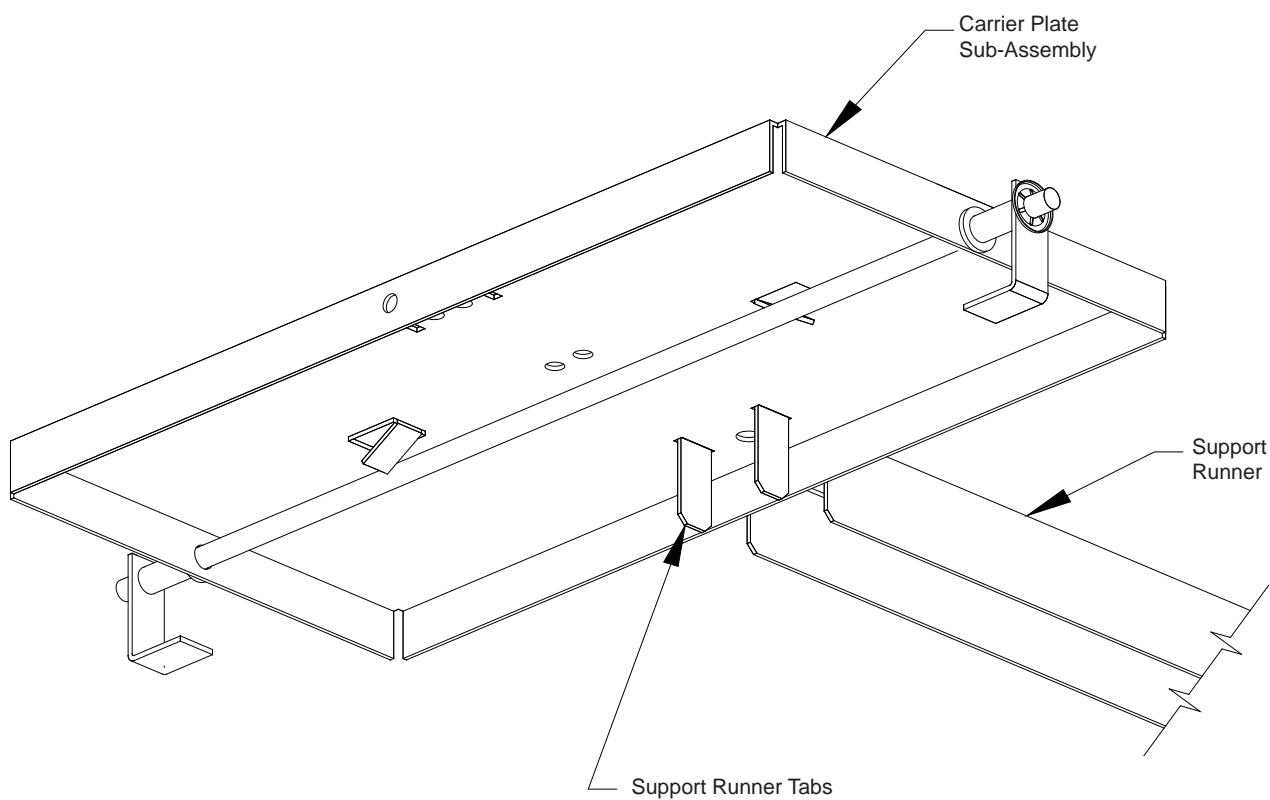


Figure 5

Step 2

Place the baffle door on top of the carrier plate subassembly and support runner, with the edge seal facing up. aligning the three pre-drilled holes, **See Figure 6.**

Step 3

Insert the push fasteners through the baffle door from the top down, and into the mounting holes of carrier plate subassembly and support runner. **See Figure 6.**

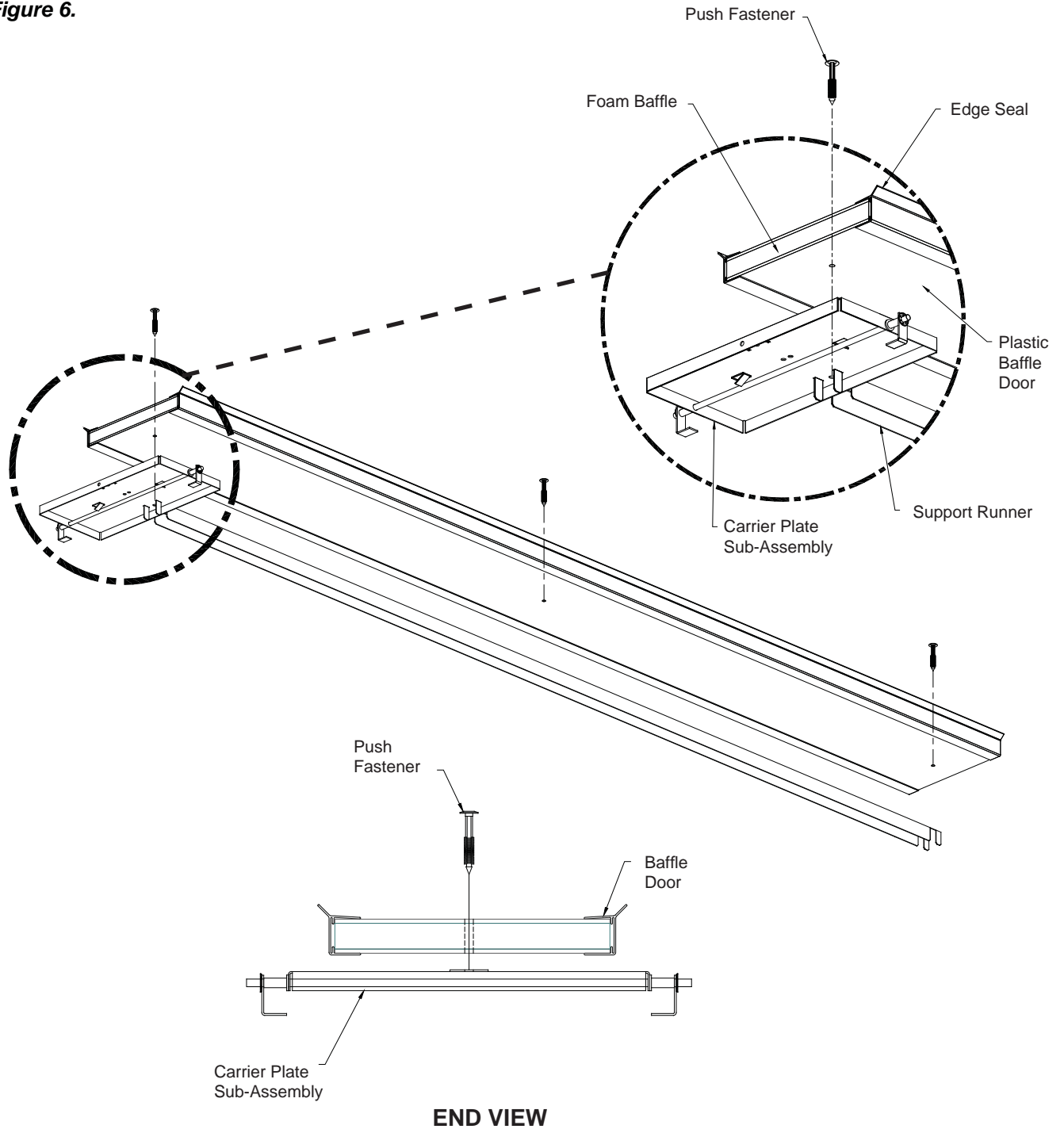


Figure 6

SECTION 5. ROD TRACK AND TRACK SPACER INSTALLATION

If using the Rod Track Spacer Tool proceed to **Step 4** otherwise proceed with **Step 1**.

Step 1

Install the first rod track as shown at the front of the inlet. Position the long end of the first rod track at the end of the slot opening and $2\frac{1}{16}$ " from the inside edge of the slot opening. **See Figure 7A & 7B.** This will ensure proper rod track spacing, mount the track using (2) $\frac{1}{4}$ " x $1\frac{1}{2}$ " hex head lag screws. **See Figure 7A & 7B.**

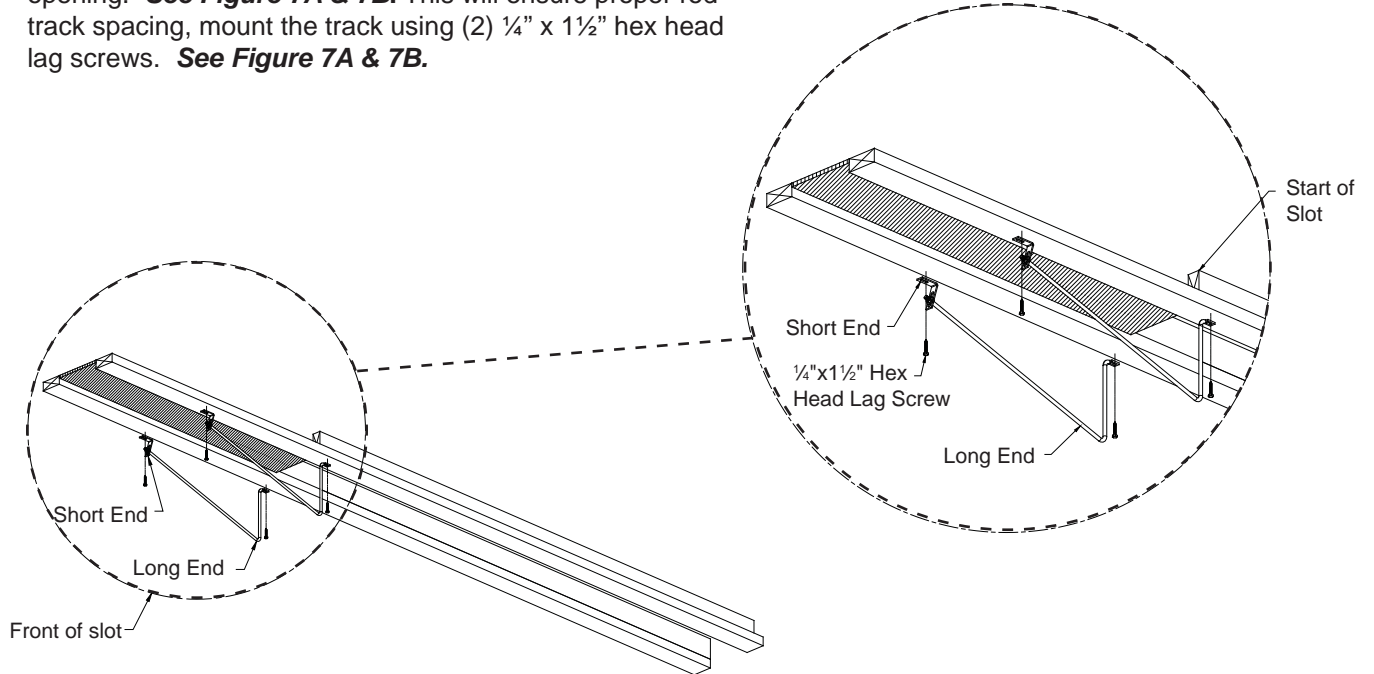
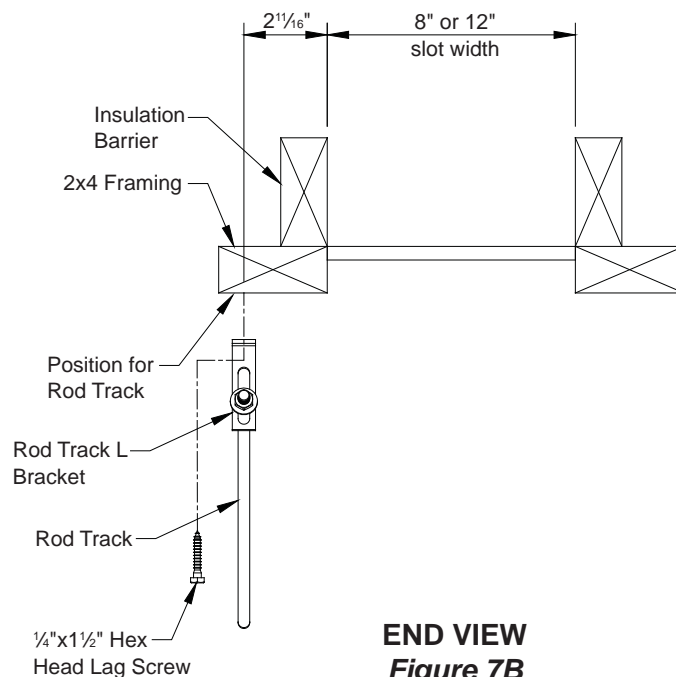


Figure 7A



**END VIEW
Figure 7B**

Step 2

Use a framing square to align the second rod track with the first, located across the slot opening mounted in previous step. The track is $2\frac{1}{16}$ " from the edge of slot opening and $13\frac{3}{8}$ " for 8" slot and $17\frac{3}{8}$ " for 12" slot from the first track.

See **Figure 7C** and **7D**.

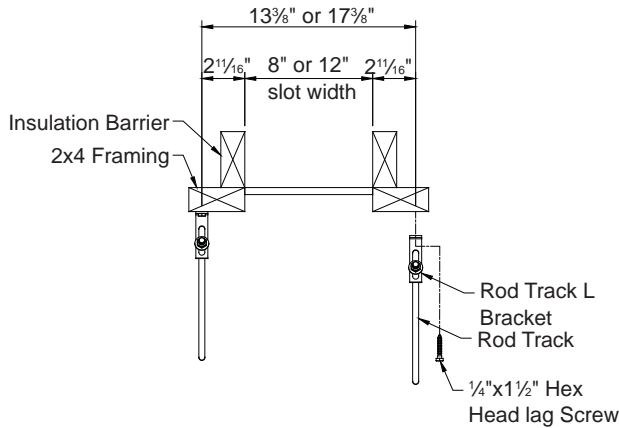


Figure 7C

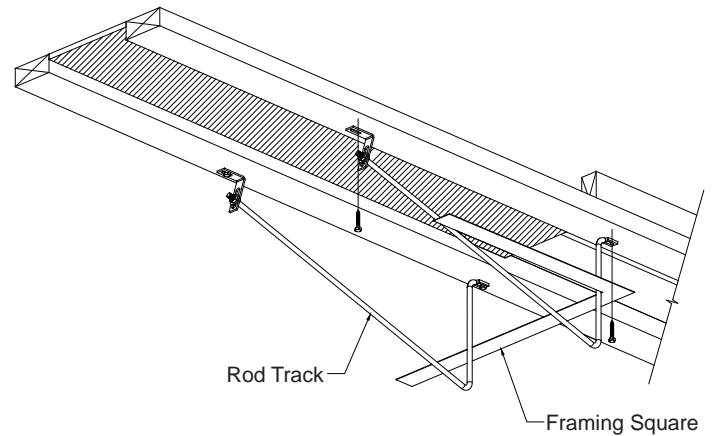


Figure 7D

Step 3

Install the track spacer at the bottom of the vertically long end of the rod tracks. The tracks will need to be pushed in slightly in order to install the spacer. Use a pair of pliers to crimp the ends of the track spacers. See **Figure 7E** & **7F**. Proceed to Step 5.

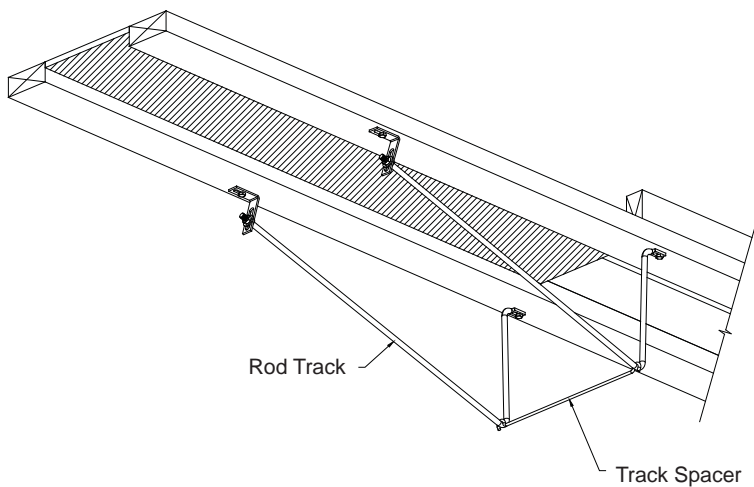


Figure 7E

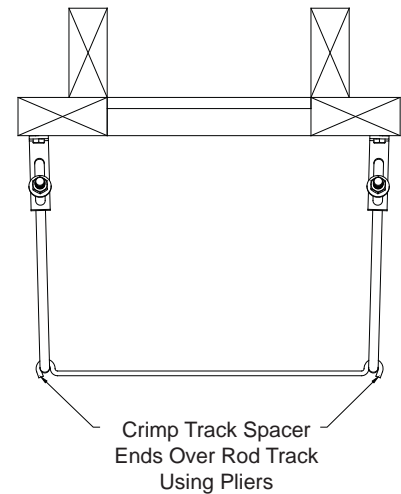


Figure 7F

Step 4

If AC2599 Rod Track Spacer Tool purchased...

Hold the Rod Track Spacer Tool up to the opening with the tabs against the inside edge of slot opening. Position the long end of the first rod track at the end of the slot opening and use the notches in the tool as a guide to locate the rod tracks. **See Figure 8A & 8B.** Once both rod tracks are started slide the location tool out of the way and finish fastening the tracks in place.

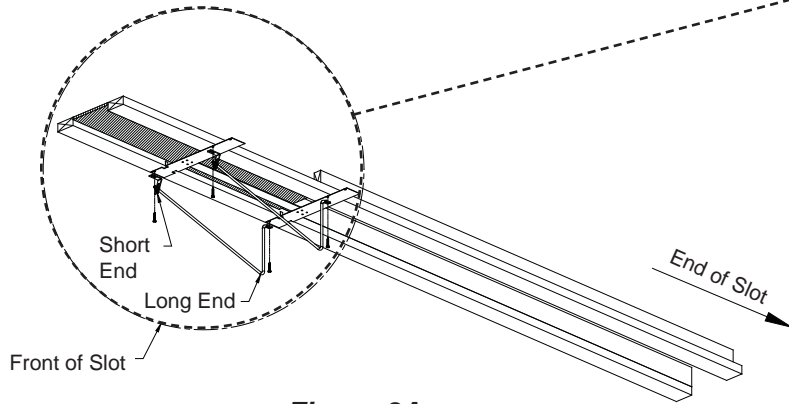
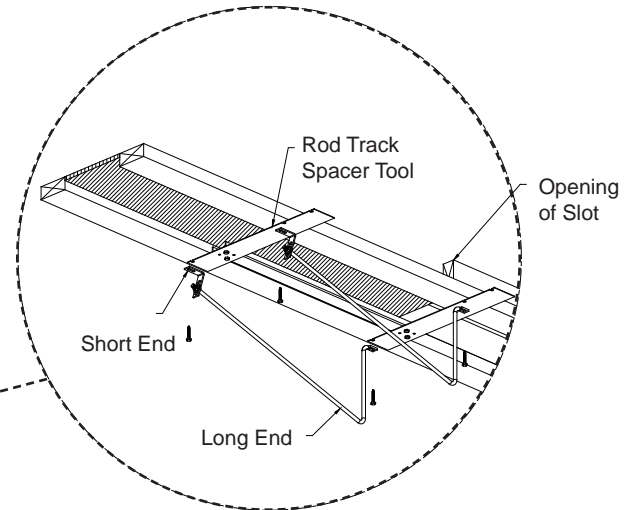


Figure 8A



Step 5

Install the track spacer at the bottom of the vertically long end of the rod tracks. The tracks will need to be pushed in slightly in order to install the spacer. Use a pair of pliers to crimp the ends of the track spacers. **See Figure 8C & 8D.** Install the end seals to the insulation barriers at each end of the slot using (4) #8 x 5/8" screws in each end seal. The bottom edge of the seal should rest on top of the baffle door when it is in the close position. **See Figure 8C.**

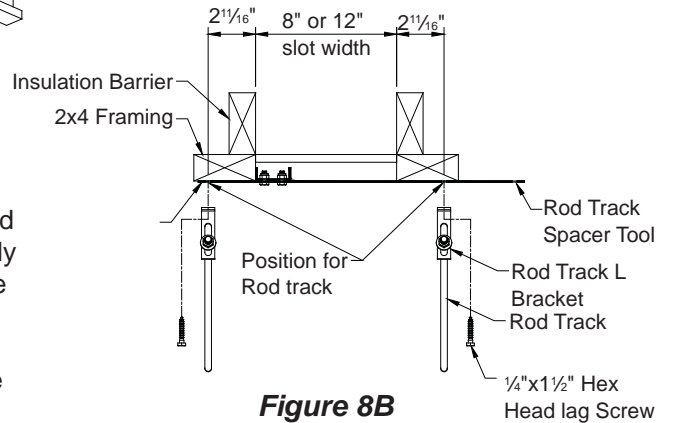


Figure 8B

1/4"x1 1/2" Hex Head lag Screw

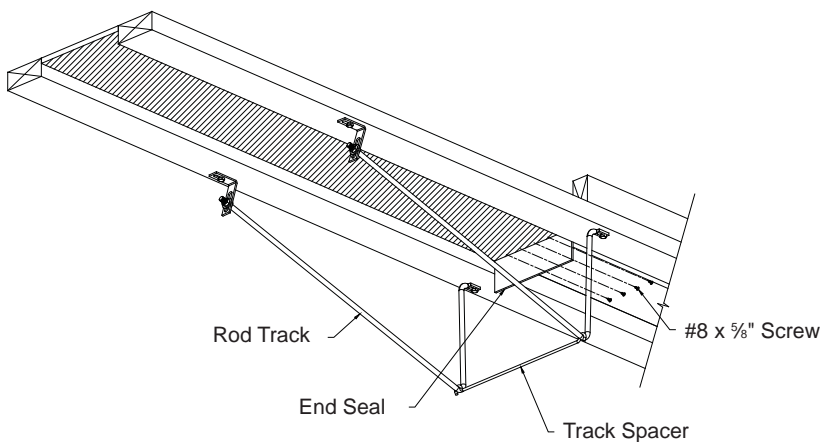


Figure 8C

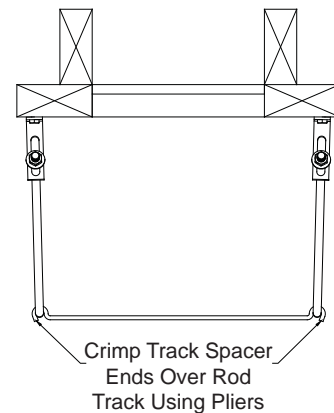


Figure 8D

Step 6

Using the Rod Track Length Guage and Rod Track Spacer Tool, install the next rod track, **See Figure 8E** or measure 96" along the slot from the first set of rod tracks and mark the mounting location of the next pair of rod tracks. **See Figure 8F**. Mount as before.

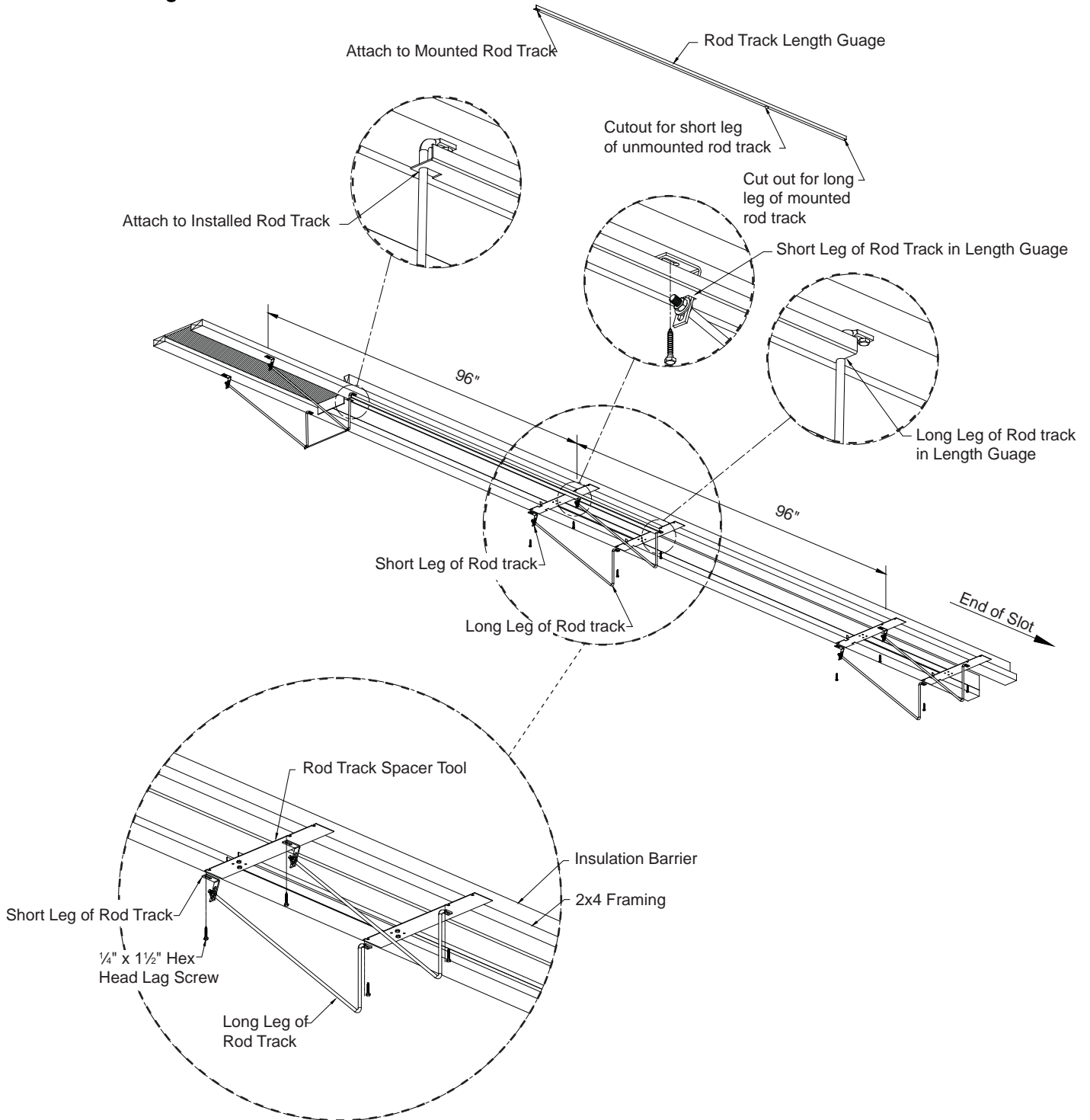


Figure 8E

SECTION 6. BAFFLE SECTION SUBASSEMBLIES INSTALLATION

Step 1

Start with one of the Baffle Section Subassemblies completed in Section 4B. Add the remaining Carrier Plate Subassembly completed in Section 4A. See **Figure 9A**.

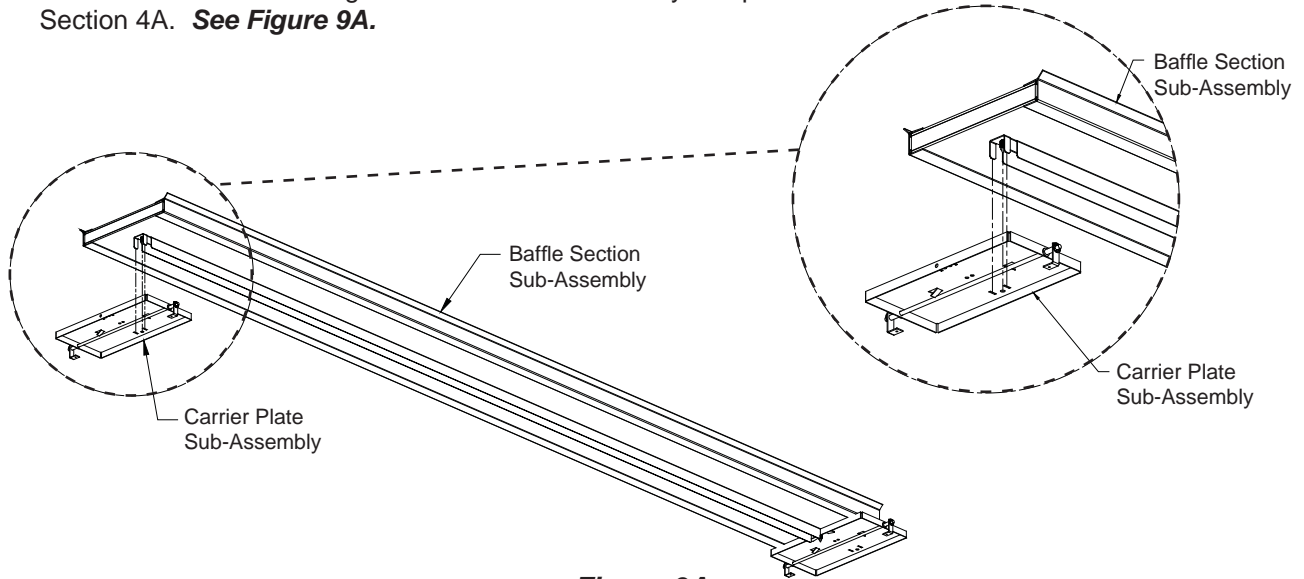


Figure 9A

Step 2

Start installing baffle sections at the front of the slot. Begin with the Baffle Section Subassembly with 2 Carrier Plates, assembled in previous step. Position this baffle section on the first two sets of rod tracks. The baffle section should be tilted sideways at an angle for installation which will allow it to pass between the rod tracks and above the track spacers. Pivoting the L brackets will allow the bushings to set on top of the rod tracks, be sure to reposition the L brackets so they hang below the rod tracks. To finish the installation of this first baffle section subassembly, place a #10 x 1/2" self tapping screw through the carrier plate and support runner. (Screw should only be on the extreme ends of the inlet.) See **Figure 9B**.

Step 3

Using a piece of wire threaded through the carrier plate flange and a screw anchored in the 2x4 frame, position this first baffle midway on the rod track, or use vice grips and clamp carrier plate to rod track. See **Figure 9B** for position. Repeat at the beginning of each inlet run.

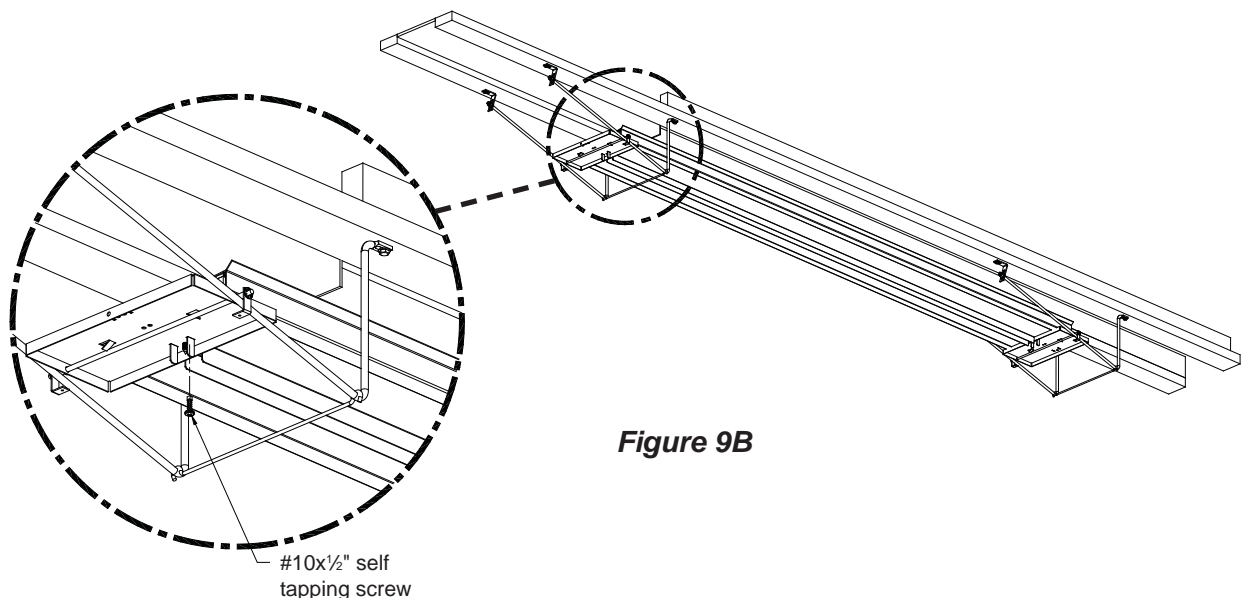


Figure 9B

Step 4

Position the next baffle door subassembly on the second and third sets of rod tracks. Connect this section to the carrier plate of the first baffle door by sliding the support runner tabs into the slots in the carrier plate and securing the push fastener through the carrier plate. At the opposite end, pivot the L brackets on the carrier plate subassembly to allow the bushings to set atop the rod tracks and the L brackets to hang below the track. Continue this process along the length of the slot. **See Figure 9C.**

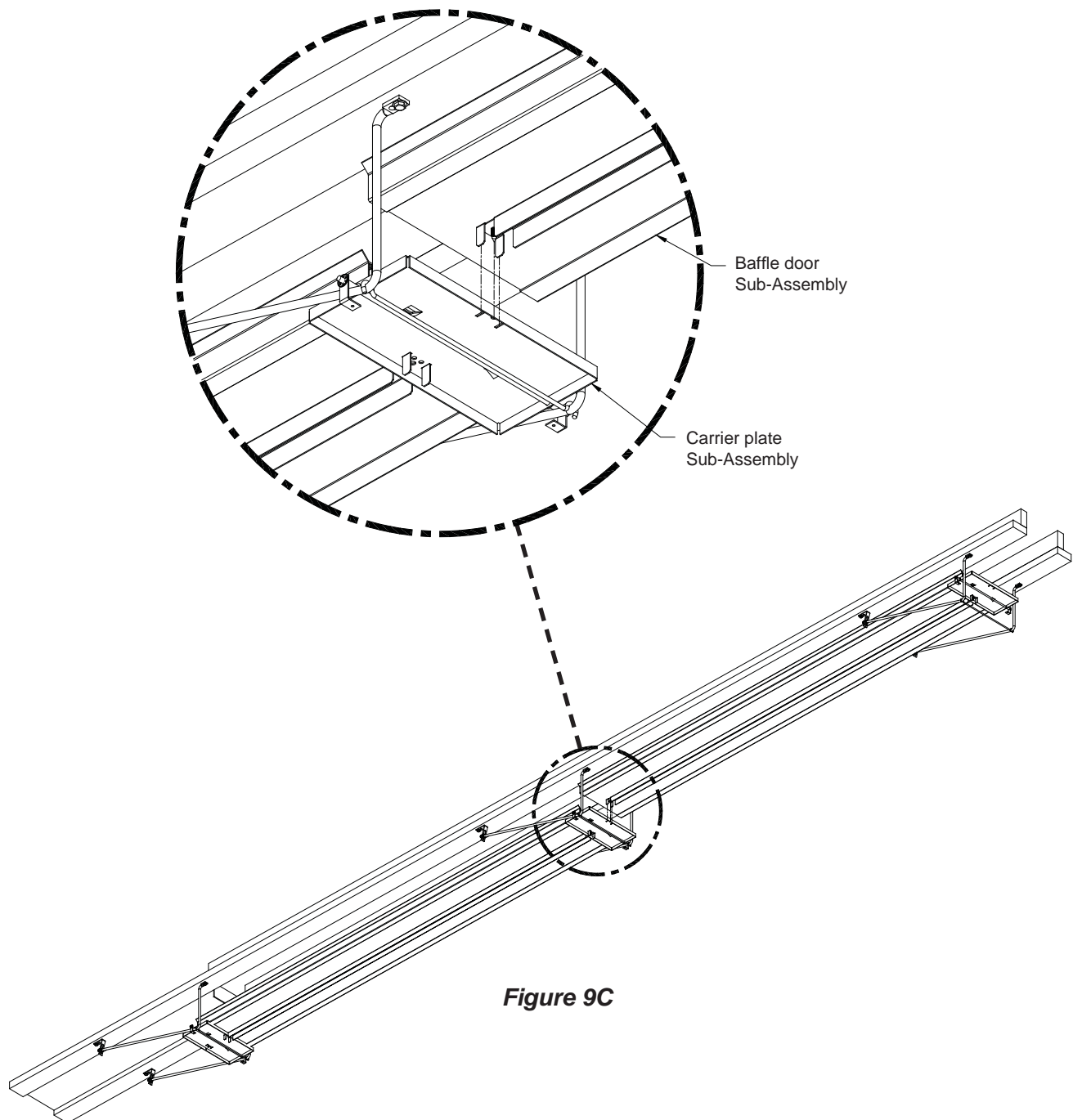


Figure 9C

Step 5

Once all the baffle sections are installed go back and install a Support Runner Splice over the carrier plate and the support runner on each side. Attach the splice using (12) #10 x 3/4" TEK Screws. The carrier plate at each end of the baffle run will have a Support Runner Splice also, but will only be attached to one support runner with (6) #10 x 3/4" TEK Screws. **See Figure 9D.**

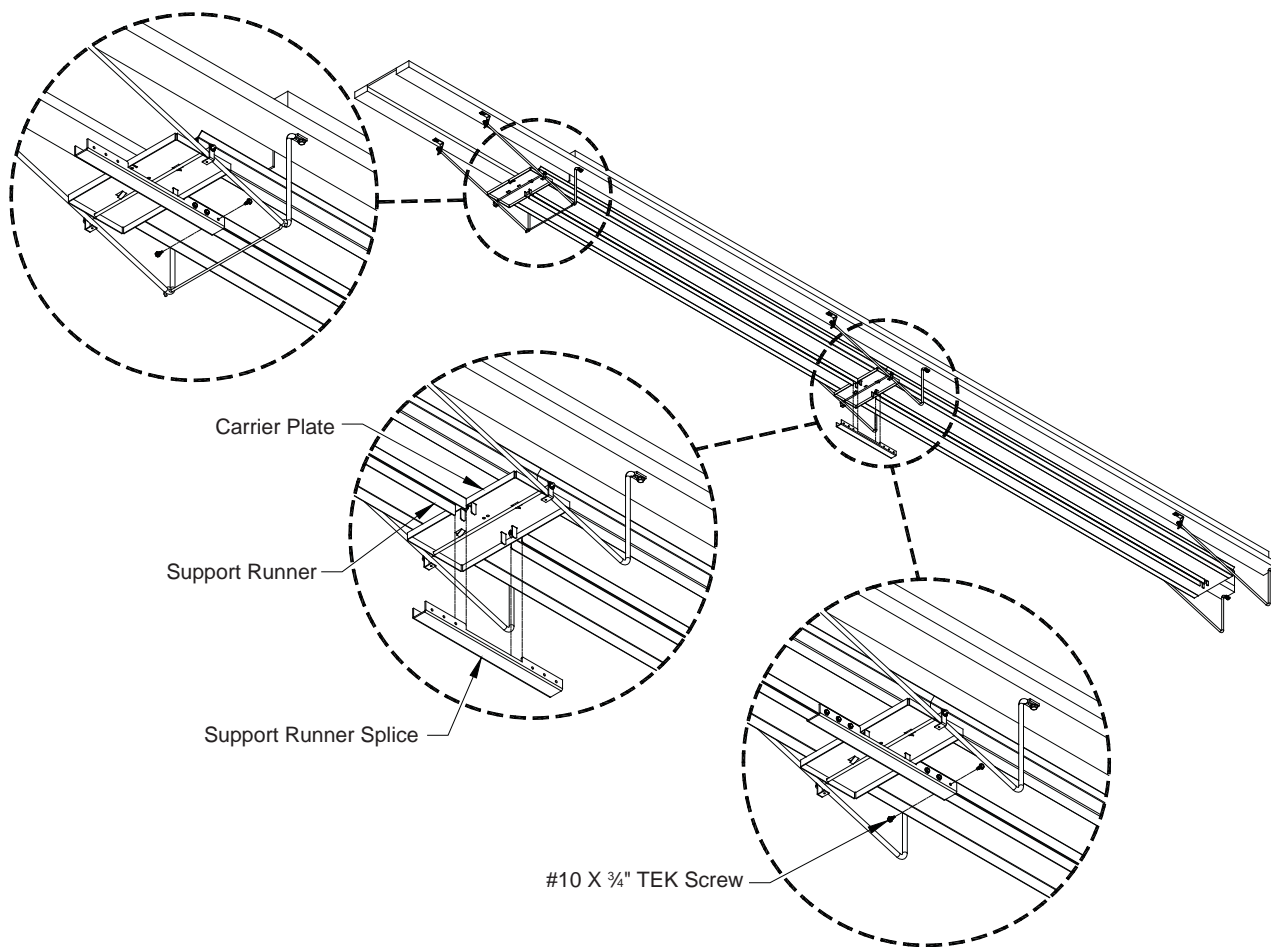


Figure 9D

SECTION 7. INSTALLING THE RETURN SPRING KITS

The return spring kit has two rod tracks, a return spring, a spring anchor, (2) $\frac{5}{16}$ " Cable clamps, a 24" piece of $\frac{1}{8}$ " dia. cable and (2) $\frac{1}{8}$ " cable clamps. A return spring kit should be mounted a maximum of every 192' (feet) from the front end of the slot.

Step 1

Remove the track spacer from the adjacent rod tracks.

Step 2

Install the rod tracks for the return spring kit in the opposite direction of the baffle carrying rod tracks with a 7" gap between the rod tracks. Mount the spring anchor with the $\frac{5}{16}$ " cable clamps, **See Figure 10**. There are 4 sets of holes in the spring anchor, the inside holes are for the 8" slot, the outside holes are for the 12" slot.

Step 3

Attach the spring loop to the spring anchor with the 24" piece of $\frac{1}{8}$ " dia. cable. Adjust cable to position spring 10" away from spring anchor when cable is taut and tighten cable clamps. Overlapping cable ends about 2" will provide proper spacing.

Step 4

Attach spring hook to Support Runner Splice. **The spring and cable should be taut and become stretched before the baffle is closed.**

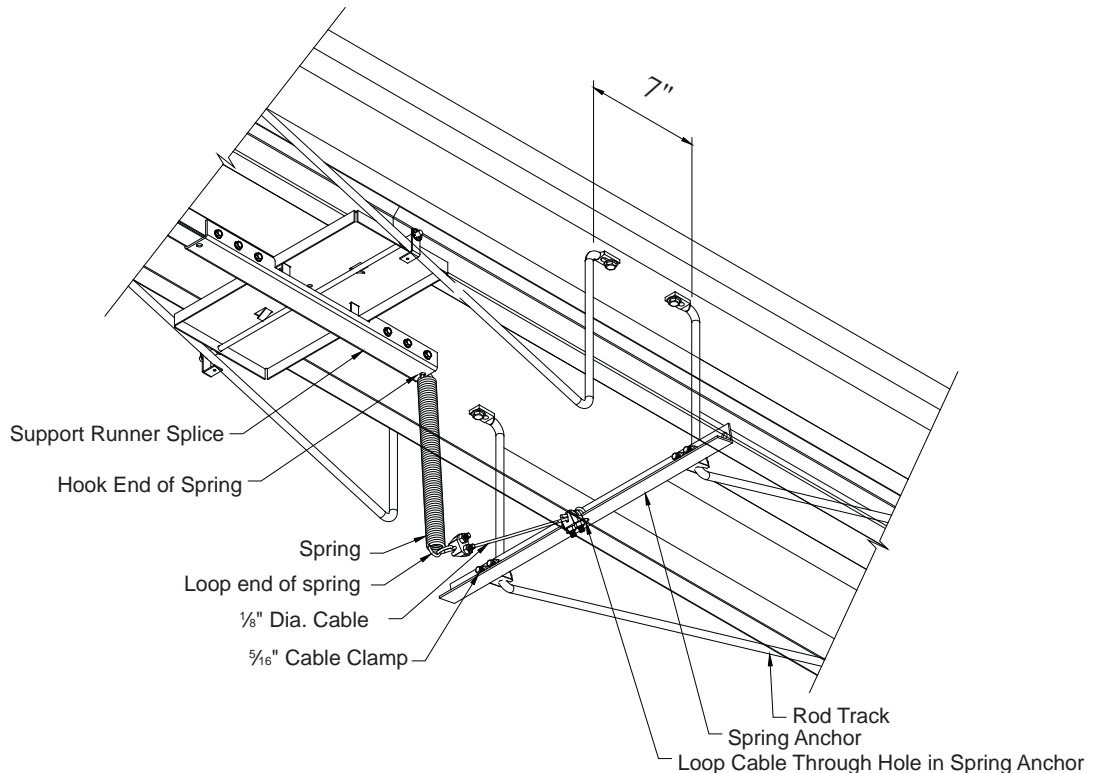
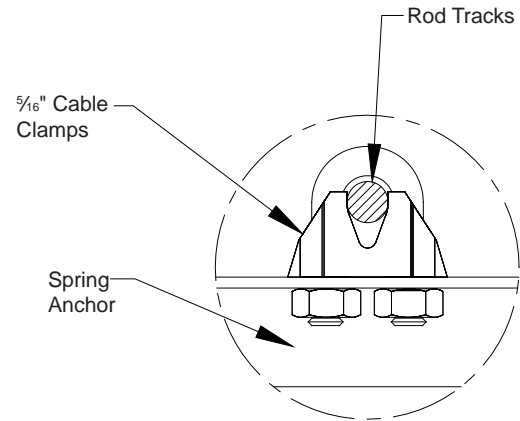


Figure 10

SECTION 8. ACTUATOR TO BAFFLE CONNECTIONS

The baffle is installed and resting in the half open position. There are two connection options listed below, follow the one which best fits your system.

NOTE: Turnbuckles should be installed in the half extended position. Also, it is important to leave sufficient cable between cable clamps, pulleys, and actuators to allow for cable travel. An 8" baffle system requires 18" of travel between the closed and open position, a 12" baffle system requires 22" of travel.

Connection with Actuator Machine Mounted Off Center of Baffle.

Step 1

Locate the hitching ring and 3¹/₂" pulley. Attach the pulley to the hitching ring. Using a 2x6 piece screwed to the bottom end of the 2x4 frame, mount the hitching ring. Maintain four feet from the slot opening to the pulley.

Install the hitching ring with (4) 1/4" x 1¹/₂" hex head lag screws. The hitching ring should be positioned slightly off the center line of the baffle, so that the pulley is positioned to allow the cable, coming off the pulley, to be inline with the center of the baffle. **See Figure 11.**

Step 2

Locate the turnbuckle, 1" O.D. washers, 1/4" locknut, 1/4" - 20x1" bolt and (4) 3/16" dia cable clamps. Attach the end of turnbuckle to Support Runner Splice.

Step 3

With the turnbuckle in the half extended position attach one end of 3/16" dia. cable using two cable clamps. Thread the cable through the pulley and attach it to the actuator cable. Note the proper cable routing and connections, **See Figure 11.**

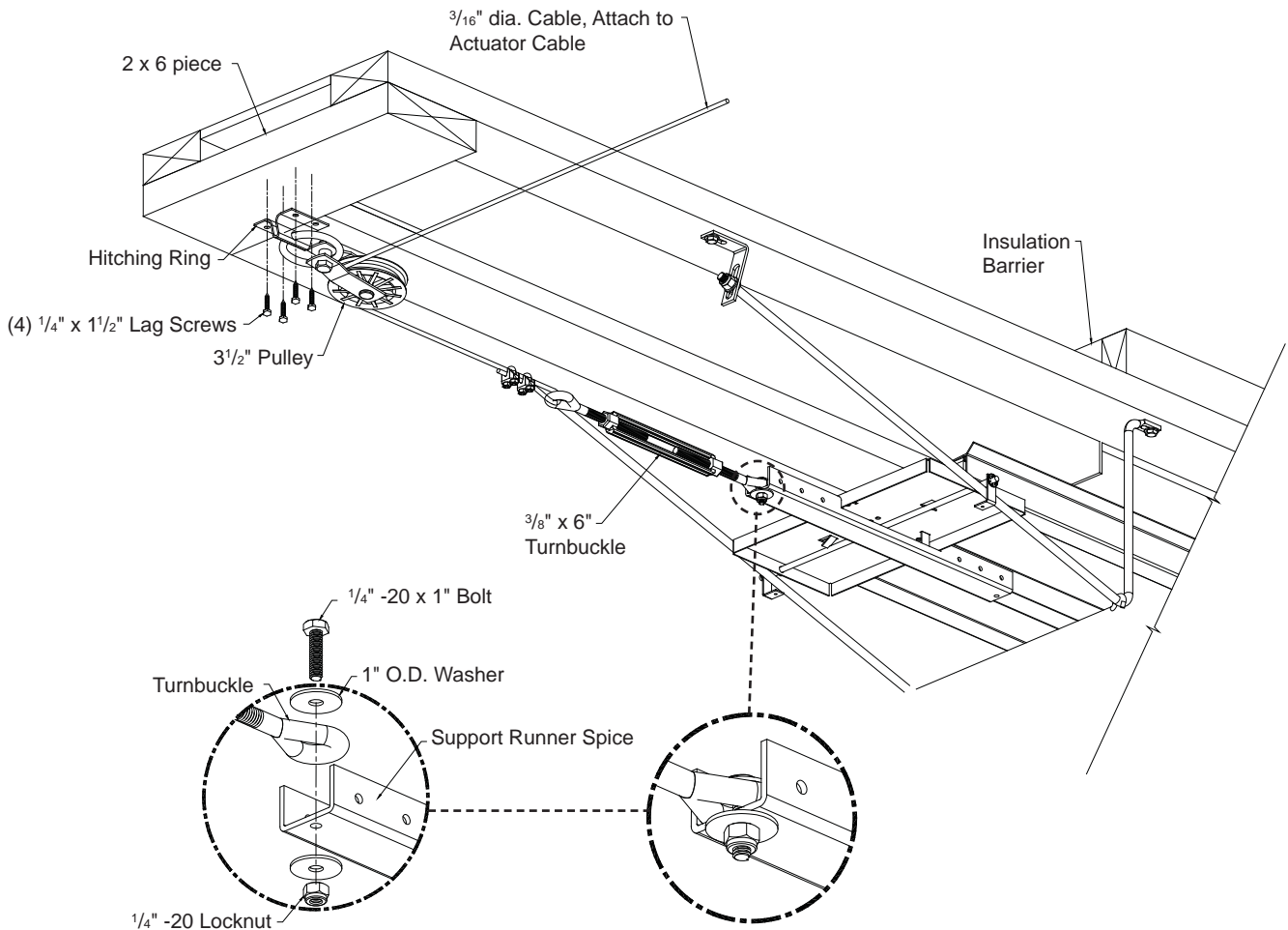


Figure 11

Connection with Actuator Machine Mounted On the Center Line of Baffle.

Step 1

Locate the (4) $\frac{3}{16}$ " cable clamps, 1" O.D. washers, $\frac{1}{4}$ " locknut, $\frac{1}{4}$ "-20x1" bolt and turnbuckle. Ensure the actuator is in the half open position.

Step 2

Attach turnbuckle to the Support Runner Splice. **See Figure 12.**

Step 3

Attach one end of $\frac{3}{16}$ " dia. cable, using two cable clamps, to the actuator out and thread through the pulley system exiting the actuator cabinet toward the baffle. Ensure the actuator cable is in line with the center of the baffle. Attach the other end to the turnbuckle with $\frac{3}{16}$ " cable clamps, pulling out all slack before tightening.

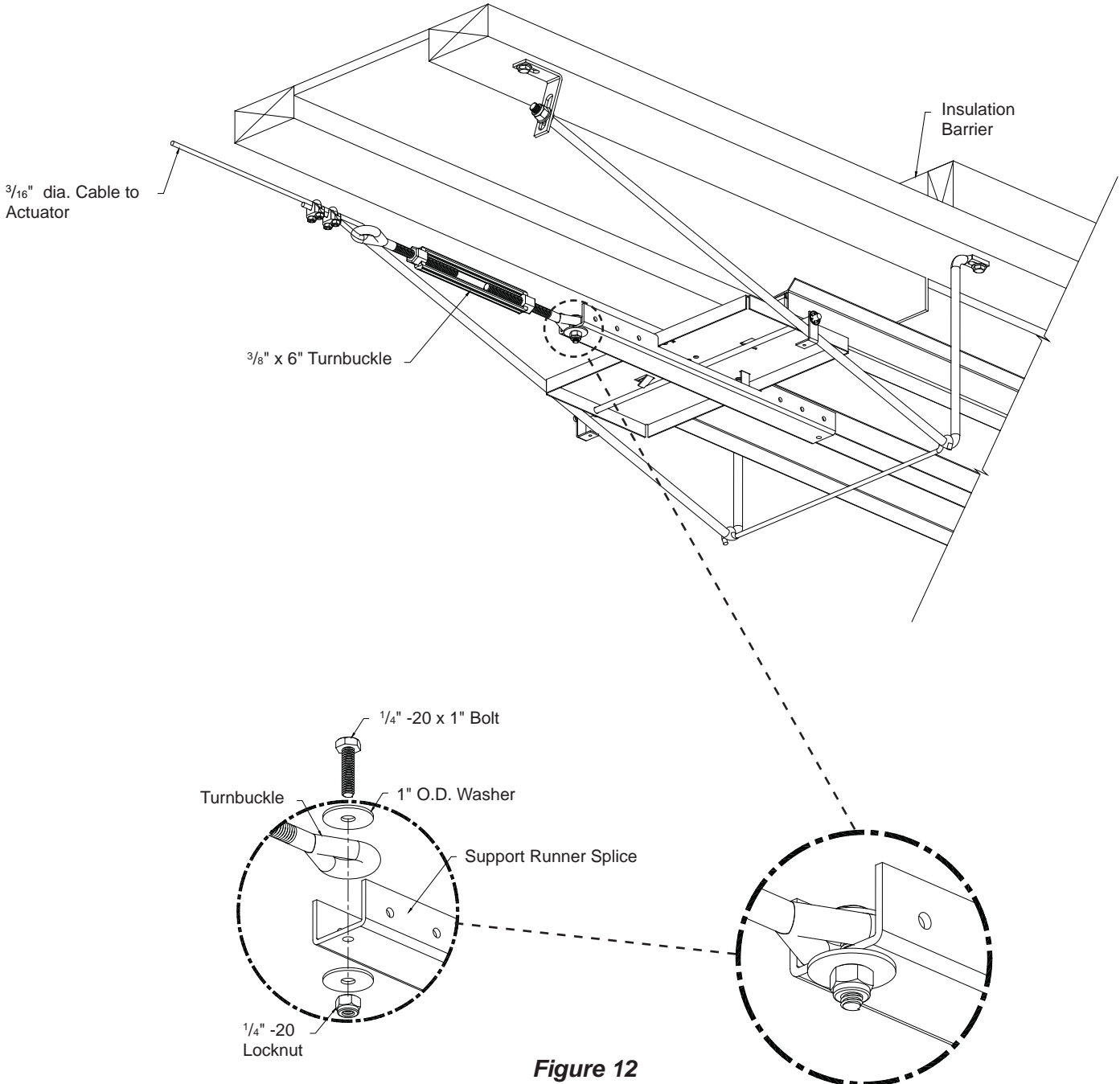


Figure 12

Connection to Actuator Machine with Optional Hand Winch Connection.

Cable and Pulley with Hand Winch Option.

Locate the manual winch, Support Bracket, (2) Hanging Pulleys, (1) Hitching Ring, (2) bracketed single pulleys, $\frac{3}{16}$ " cable clamps, and a turnbuckle.

Step 1

Install the hand winch and a bracketed pulley inline with the center of the baffle and mounted on 2x6 pieces which are securely screwed to the sidewall frame. Install the other bracketed pulley inline with the actuator cable. **See Figure 13.**

Step 2

Load the winch with $\frac{3}{16}$ " dia. cable and route the cable through bracketed pulleys. This cable will be attached to the actuator later.

Step 3

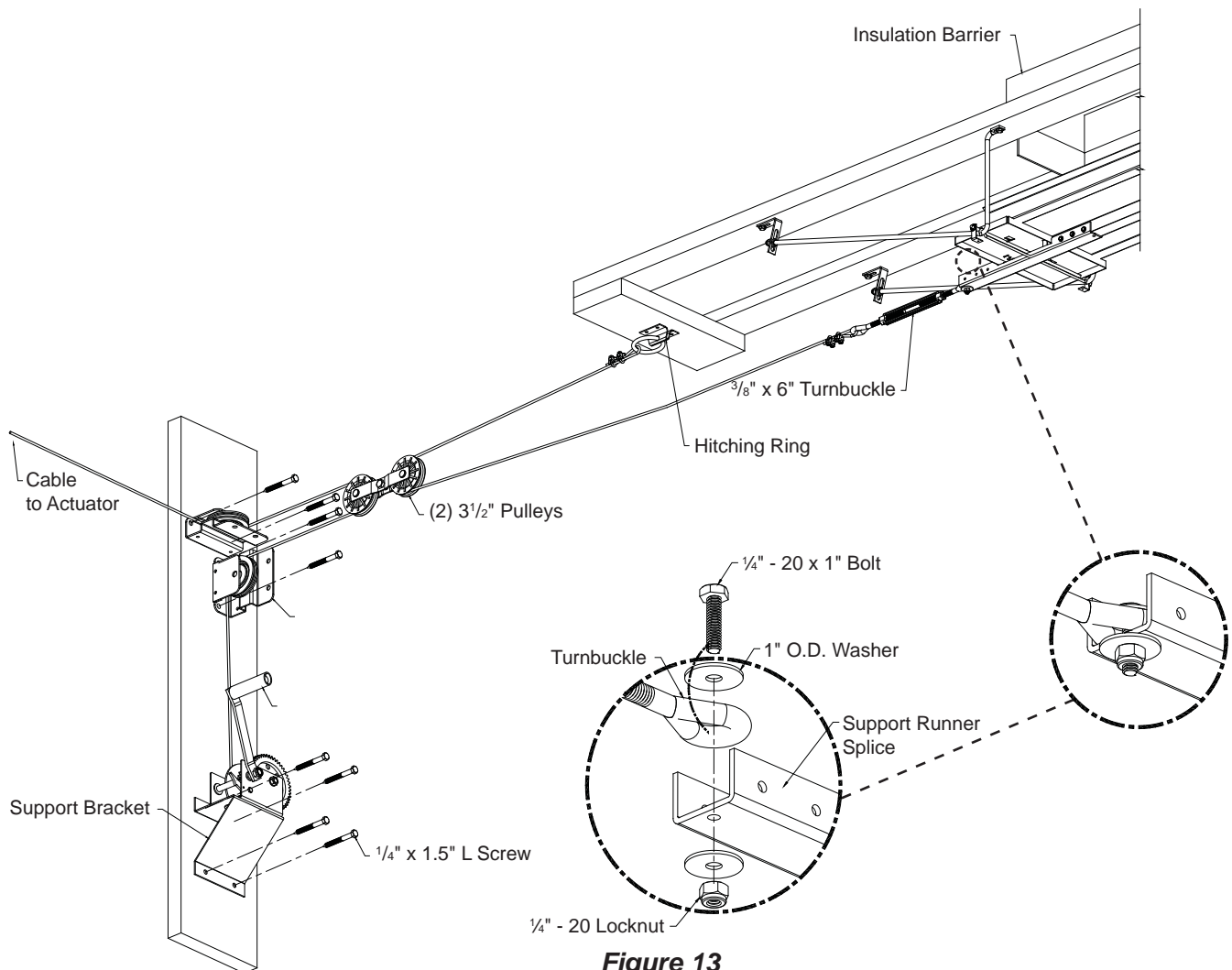
Install a hitching ring, inline with the center of the baffle, on a 2x6 piece screwed to the bottom end of the 2x4 slot frame. **See Figure 13.**

Step 4

Attach one end of turnbuckle to the support runner splice with washers, nut and bolt as depicted in **Figure 13.**

Step 5

Use $\frac{3}{16}$ " dia. cable and $\frac{3}{16}$ " cable clamps for connecting to the other end of the turnbuckle. Connect (2) $3\frac{1}{2}$ " pulleys together and route both $\frac{3}{16}$ " dia. cables per **Figure 13.** Attach the winch cable to the actuator cable. Attach the turnbuckle cable to the hitching ring, after routing cable through $3\frac{1}{2}$ " pulley.



Actuator Machine Adjustment

With all the baffles connected to the actuator cable, the open and closed limit switches of the actuator machine can now be set.

Step 1

Begin by untying the baffle sections to make the cables taut. This is close to the half open position. Set all the baffle runs to the same open distance by measuring between the inlet door and the corresponding 2x4 frame, use the turnbuckles for adjustment. Apply power to the actuator machine so that the baffles are moving in the open direction. For an 8" slot system, the blue foam board should be 4" below the corresponding surface of the 2x4 frame. For a 12" slot system the drop is 6". Shut off power to the actuator and set the open limit switch according to the actuator machine instructions.

Step 2

Power up the actuator machine and begin closing the Air Manager baffle. When the first baffle makes contact with the air seal, shut off the actuator machine. This is the closed position. Set the closed limit switch according to the actuator machine instructions. Note: some of the baffles may not be in contact with the 2x4 frame.

SECTION 9. BAFFLE ADJUSTMENT

Step 1

Adjust the rod tracks until the inlet door seal makes contact with the 2x4 frame.

Step 2

After repositioning the rod tracks, verify that return springs are being stretched before the baffle is closed.

Installation is complete.

SECTION 10. MAINTENANCE

To maintain your inlet system in top working condition the following recommendations should be forwarded.

Step 1

As the building settles with time, it is recommended to inspect the slot to baffle relationship along the entire length of the inlet. Some rod track adjustments may be required to maintain uniform open area.

Step 2

Inspect baffle rod tracks and cable system and remove all foreign debris.

Step 3

Inspect return spring kits for proper functionality as described in Section 8.

Step 4

The inlet must be in the closed position for power washing. Failure to close the inlet/baffle may result in damaged components.