



GUARDRAIL DELINEATOR ASSEMBLY

FOR STEEL OR WOOD GUARDRAIL POSTS

The following instructions are meant to familiarize workers with proper assembly procedures of the SAFE-HIT® Guardrail Delineator using self-tapping drill screws or nails.

Caution: Always wear protective clothing and personal protective equipment (PPE) such as eye and hearing protection, work gloves, and safety-toe shoes while doing the following work.

Steel Post Screw Attachment Tools

3/8" Standard Depth Socket
Electric Drill with Socket Adaptor

Wood Post Nail Attachment Tools

16oz. (min.) Hammer

The SAFE-HIT® guardrail delineator is available in a version for mounting to steel guardrail posts - designated by SAFE-HIT® model number GRS, and for wood guardrail posts - designated by SAFE-HIT® model number GRD. Be sure to order the correct version for your application.

ASSEMBLY STEPS FOR STEEL POSTS USING SCREWS

1. Locate the steel posts for attachment of the guardrail delineators.
2. Place delineator with self-tapping drill point screws pre-assembled in position at the desired post or rail.
3. Ensure the reflector is facing the direction of traffic.
4. Plumb the delineator so it is vertical and the bottom of the SAFE-HIT® label is even with the top of the post or rail.
5. Drill the self-tapping drill point screw with the socket drill into the post or rail until the delineator is flattened by the screw's washer.
6. Repeat for the drilling of the second pre-assembled screw to complete the assembly.

ASSEMBLY STEPS FOR WOOD POSTS USING NAILS

1. Locate the wood posts or rails for attachment of the guardrail delineators.
2. Place delineator with self-sealing nails pre-assembled in position at the post.
3. Ensure the reflector is facing the direction of traffic.
4. Plumb the delineator so it is vertical and the bottom of the SAFE-HIT® label is even with the top of the post or rail.
5. Drive the nails with the hammer into the post until the delineator is flattened by the nail's sealing washer.

Please contact our Customer Service Department if you have questions.



REPLACEABLE BARRIER MARKER

ASSEMBLY INSTRUCTIONS

The following instructions are meant to familiarize workers with proper placement procedures of SAFE-HIT® Barrier Markers using expansion anchors or quick set adhesive.



Caution: Always wear protective clothing and personal protective equipment (PPE) such as eye and hearing protection, work gloves, and safety toe shoes while doing the following work.

Required Materials

Expansion Anchor Attachment

Barrier Marker Post
Barrier Marker Base (RBA) (with hole)
Hardware Set:
Expansion Anchor, Drop-In 3/8" (PN 113187)
Hex Bolt 3/8" x 1" (PN 113599)
Lock Washer 3/8" (PN 118093)
Flat Washer 3/8" x 2" (PN 118041)

Quick Set Adhesive Attachment

Barrier Marker Post
Barrier Marker Base (RBM)
Adhesive Kit (PN 603538):
Part A Epoxy
Part B Hardener
Mixing Bowl
Stir Stick

Recommended Tools

Electrical Power Source (110V)
Rotary Hammer Drill with Depth Gauge
Carbide Tipped Drill Bit (1/2" dia.)
Hammer (2 1/2 lb.)
Socket Wrench
9/16" Socket
Compressed Air or Blowout Bulb
Torque Wrench (20 ft.-lbs.) [240 in.-lbs.]
1/4" Pin Punch (PN 116560)
Anchor Setting Tool (PN 117800)
(included with drop in anchors)

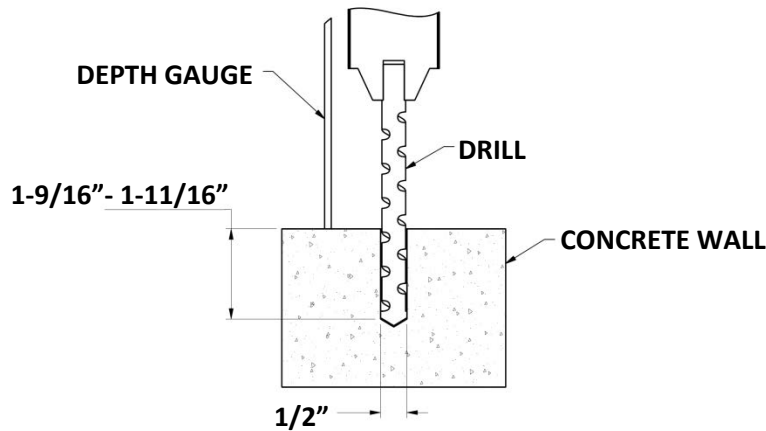
Whisk Broom or Compressed Air

PLACEMENT PROCEDURE USING DROP-IN ANCHOR

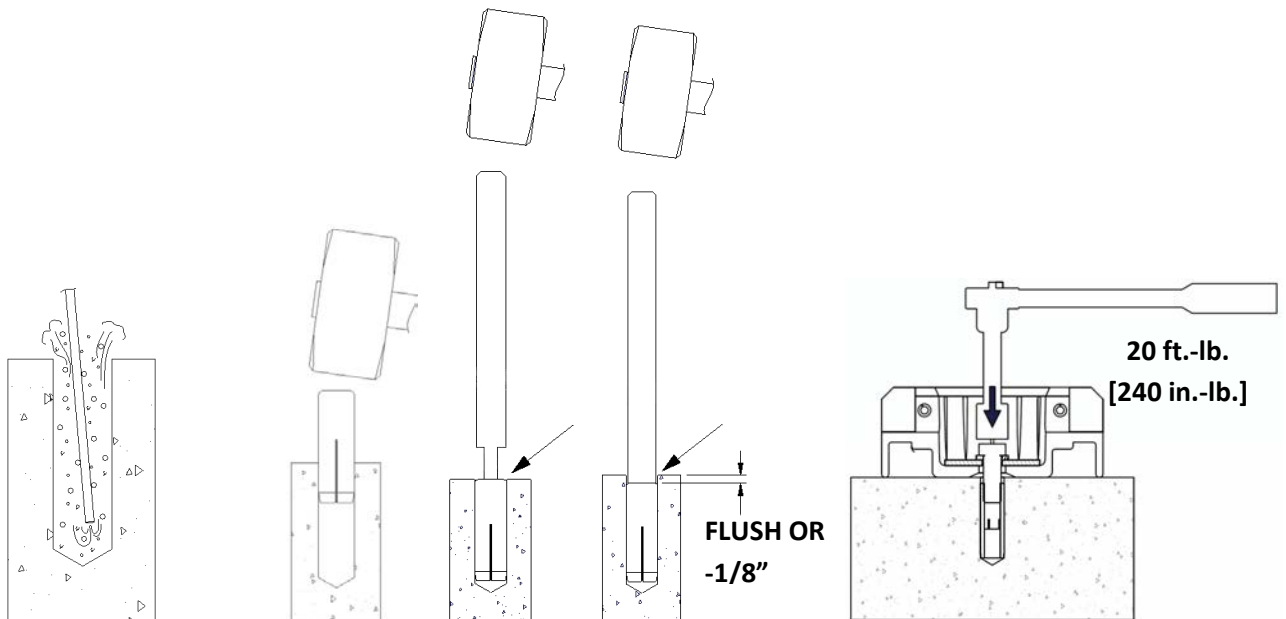


Warning: Ensure that your assembly procedure meets all appropriate Occupational Safety and Health Administration (OSHA) and local standards.

1. Mark the drill locations in the concrete barrier for the anchor holes.



2. Set the depth gauge on the Rotary Hammer drill to $1\frac{9}{16}''$ ($-0'' - +\frac{1}{8}''$).
3. Drill the holes with the Rotary Hammer Drill using $\frac{1}{2}''$ diameter carbide tipped drill bit to a depth of $1\frac{9}{16}''$.



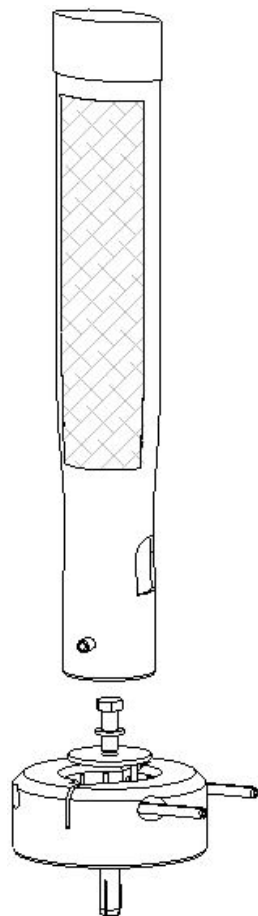
4. Blow out the holes and clean off the top of the barrier wall using compressed air or a blow-out bulb.
5. Place the anchor into the hole. Using the hammer and anchor setting tool, drive the setting tool into the anchor until the setting tool shoulder meets the top of the anchor.



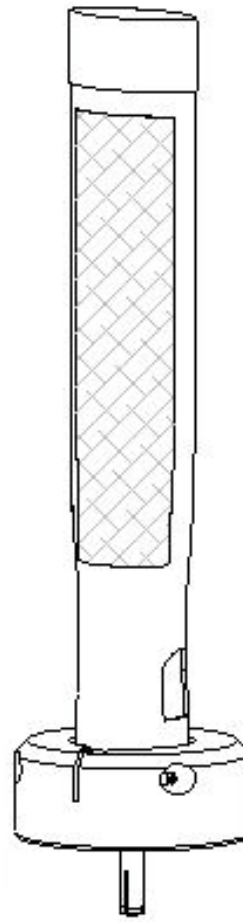
Important: Use the Manual Anchor Setting tool provided with anchors. Anchor setting tools that attach to motorized drill equipment are strictly prohibited. Motorized tools lack the driving force to properly set the anchors.

Note: IT IS IMPORTANT THAT THE ANCHORS ARE COMPLETELY SET.

6. Place the RBA base over the anchor position so the locking pins are oriented perpendicular to the direction of traffic. Using the lock and flat washers with the hex bolt, tighten the bolt and torque 20 ft-lb (240 in.-lb.).
7. Insert the Barrier Marker Post into the base with the pin aligned in the slots in the base. Drive the pre-inserted roll pins across to the opposite side of the base using a hammer.



RBA Exploded



RBA

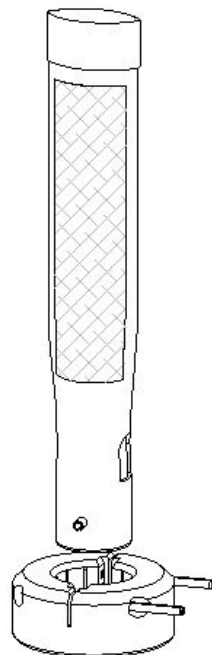


PLACEMENT PROCEDURE USING QUICK SET ADHESIVE

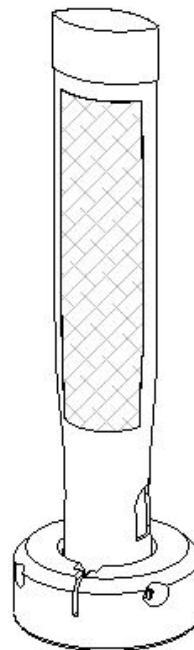
1. A clean dry surface is required for proper adhesion.
2. Pull the outer caps off each of the adhesive components pre-measured tubes. Using the stir stick, push on the embedded cap(s) to empty both tubes into the mixing bowl.



3. Stir adhesive until it is a consistent gray color with no streaks.
4. Apply the adhesive evenly to the bottom of the base using the stir stick.
5. Press the RBM base down firmly on the barrier surface until a bead of adhesive appears around the edge. Ensure the base is positioned correctly so the locking pins are oriented perpendicular to the direction of traffic.
6. Allow the adhesive to cure approximately one hour before placing the Barrier Marker Post into the base (allow extra time for cold weather). After the adhesive hardens, insert the Barrier Marker Post into the slots in the base. Drive the pre-inserted roll pins into the opposite side of the base using a hammer.



RBM Exploded



RBM

Please contact Customer Service for any questions at 888-323-6374.



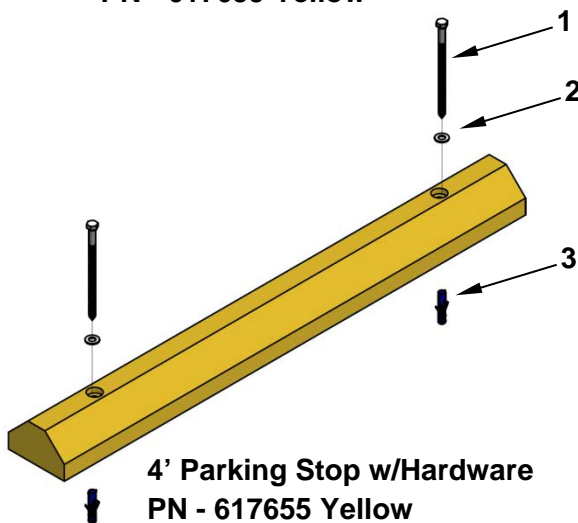
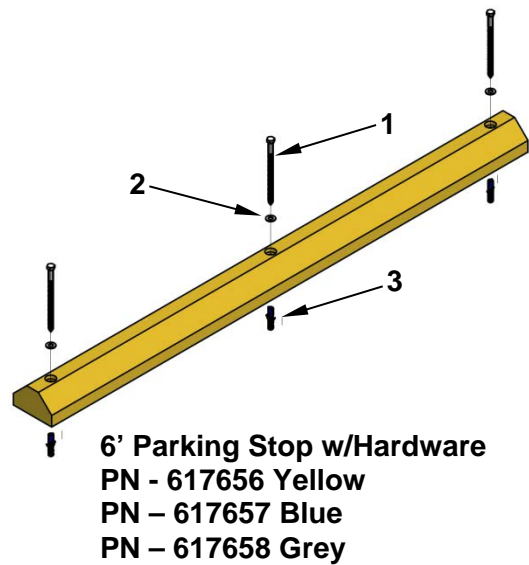
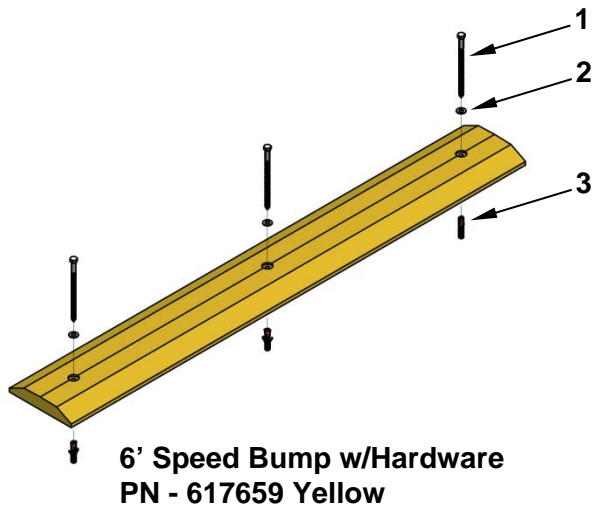
PARKING STOP & SPEED BUMP PLACEMENT INSTRUCTIONS

IT IS THE RESPONSIBILITY OF THE INSTALLER TO MAINTAIN A SAFE WORK AREA INCLUDING THE USE OF STANDARD WORK ZONE SAFETY EQUIPMENT & PPE: GLOVES, SAFETY-TOE SHOES, EYE & EAR PROTECTION

Recommended tools:

- Rotary hammer drill
- Hammer
- 9/16" Masonry bit
- 3/4" Socket wrench

1. Select an area where the pavement surface is unbroken and as flat as possible.
2. Position the Speed Bump or Parking Stop in designated location. Using the 9/16" masonry bit, bore a hole to a pavement depth of 7 1/2" for the Speed Bump or 6" for the Parking Stop through the pre-drilled holes of the Speed Bump or Parking Stop. Press a nylon expander into the holes in the asphalt and hammer until flush with surface. Position the Speed Bump or Parking Stop over holes and tighten down using the 1/2" x 8" lag bolts provided.



Consult OSHA respiratory standards for crystalline silica exposure.

Replacement Hardware		
ITEM	PN	DESCRIPTION
1	116899	SCREW,LAG,1/2X8,G2,P
2	118245	WASHER,FLAT,1/2X1 1/16,P
3	113181	ANCHOR,EXPANSION, 14mmX70mm ,NY, MN14

