

MAC-200/201
Trackside Shunt Boxes
Type #1

MAC Rail LLC.
Model Train Products & Services



Thank you purchasing our MAC-200 or 201 Trackside Shunt Box Type #1. This kit brings to your railroad an all-too-common prototype detail not found on model railroads. These instructions will walk you through the building and installation of this detail. Depending on which kit your purchases the boxes come painted in gray or orange like the prototype with enough parts to make (4) shunt boxes. To maximize your time, we also gloss coated the boxes to allow decaling once built.

Our kits are designed to minimize benchwork time and providing a prototype look. Enjoy the build!

- MAC

STEP 1 – OPENING YOUR KIT

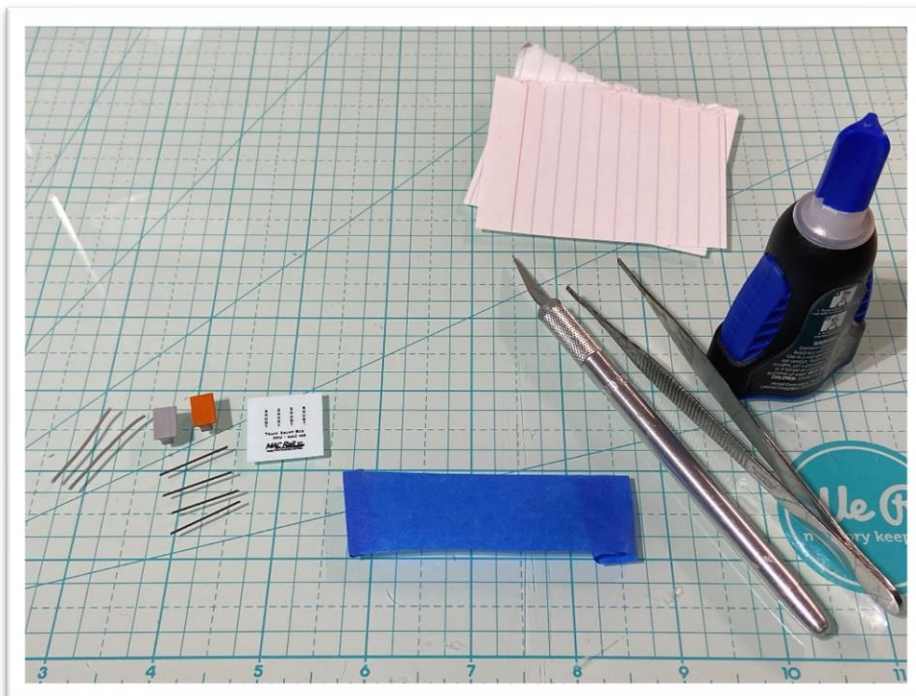
When opening your kit, you will find the following parts:

- (4) Shunt Boxes
- (8) Wire metal legs
- (1) Piece of 4" gray 30-gauge wire
- (2) Decal Sets (Each does two boxes)

If you are missing anything – please send an email to macrailllc@gmail.com

TOOLS FOR INSTALL:

- Safety glasses
- Glue (CA Gel Type & White Glue)
- CA Accelerator (Recommended)
- Hobby Knife / Tweezers
- Decal Setting Solution
- Painters Tape
- Ruler

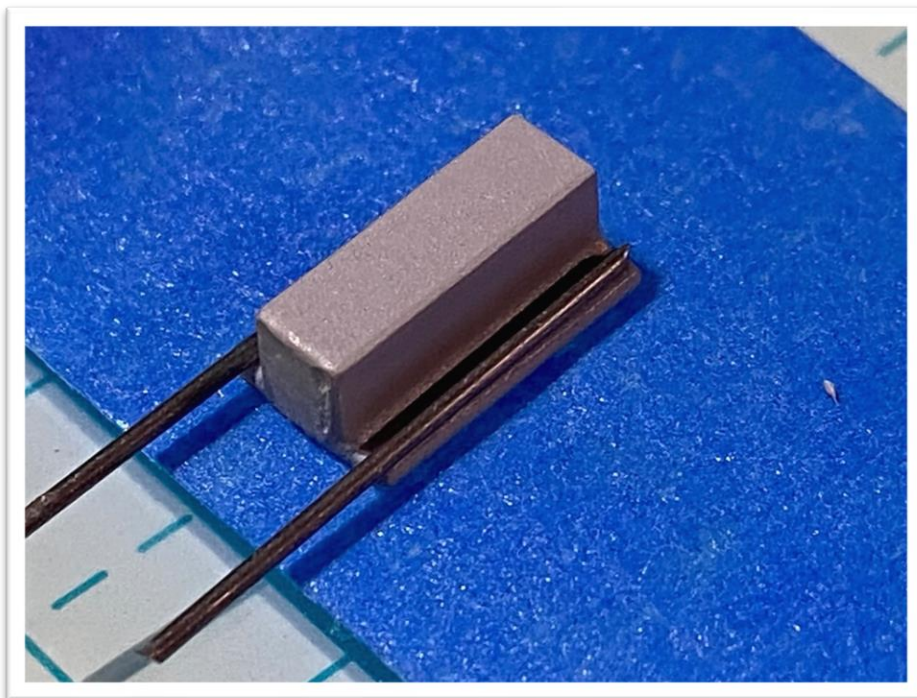


STEP 2 – LEG INSTALL

Start by putting down a piece of painters tape on a flat surface. You will be glad you did this. Next put the boxes on the tape door side down. The bottom of the boxes are unpainted and should be facing toward you.

If the bottom of your box is not smooth, use sand paper to remove the nubs.

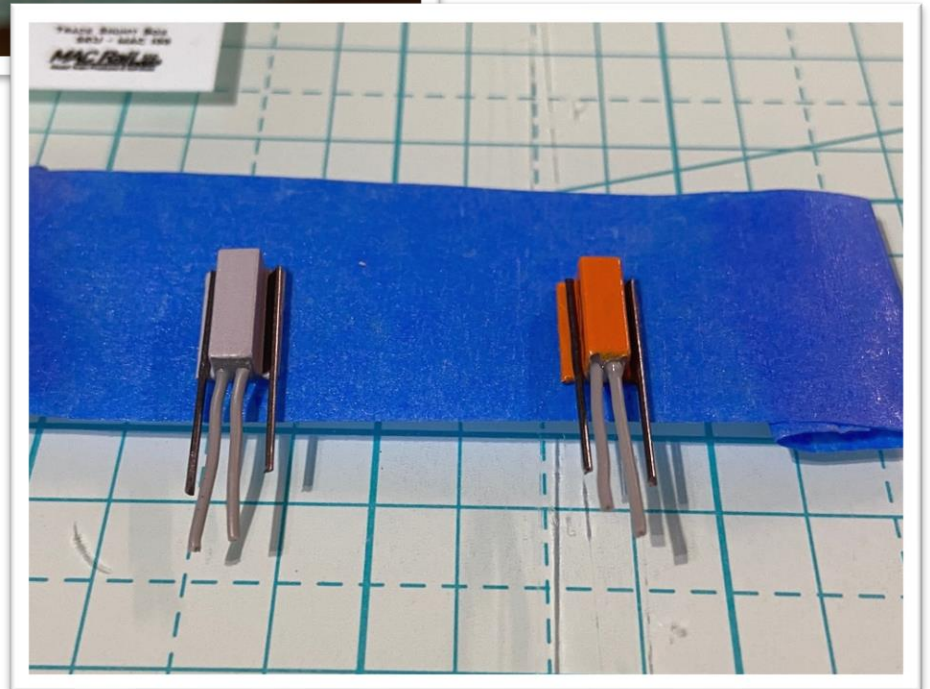
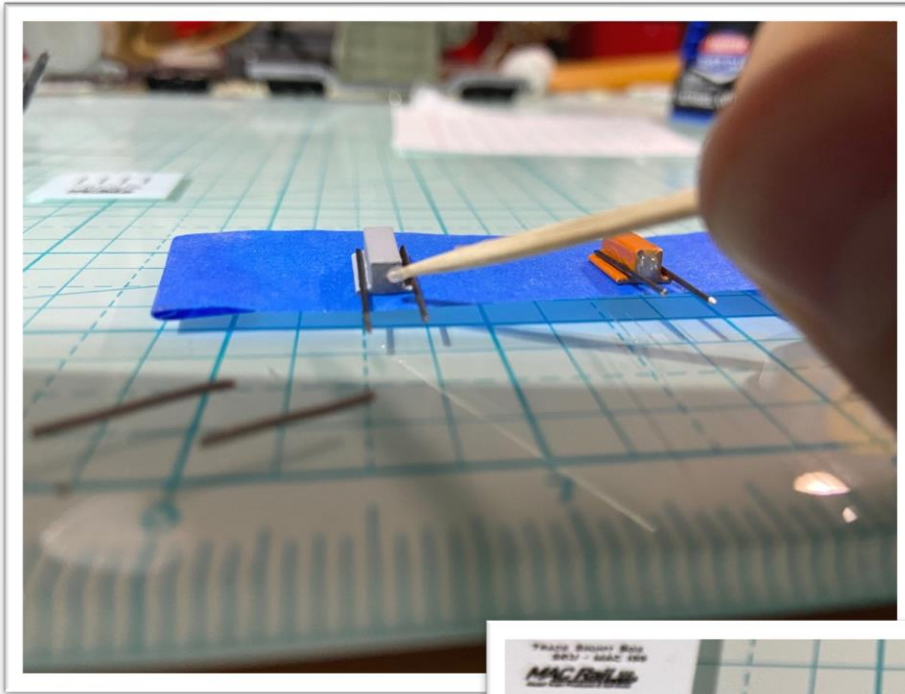
Apply CA to the wing on each side of the box from top to bottom. Next place one leg on each side. Top of leg should be flush with top of the box and extend out the bottom. After both legs are installed, you can use CA accelerator to speed up the process if preferred.



STEP 3 – ADD CONDUIT

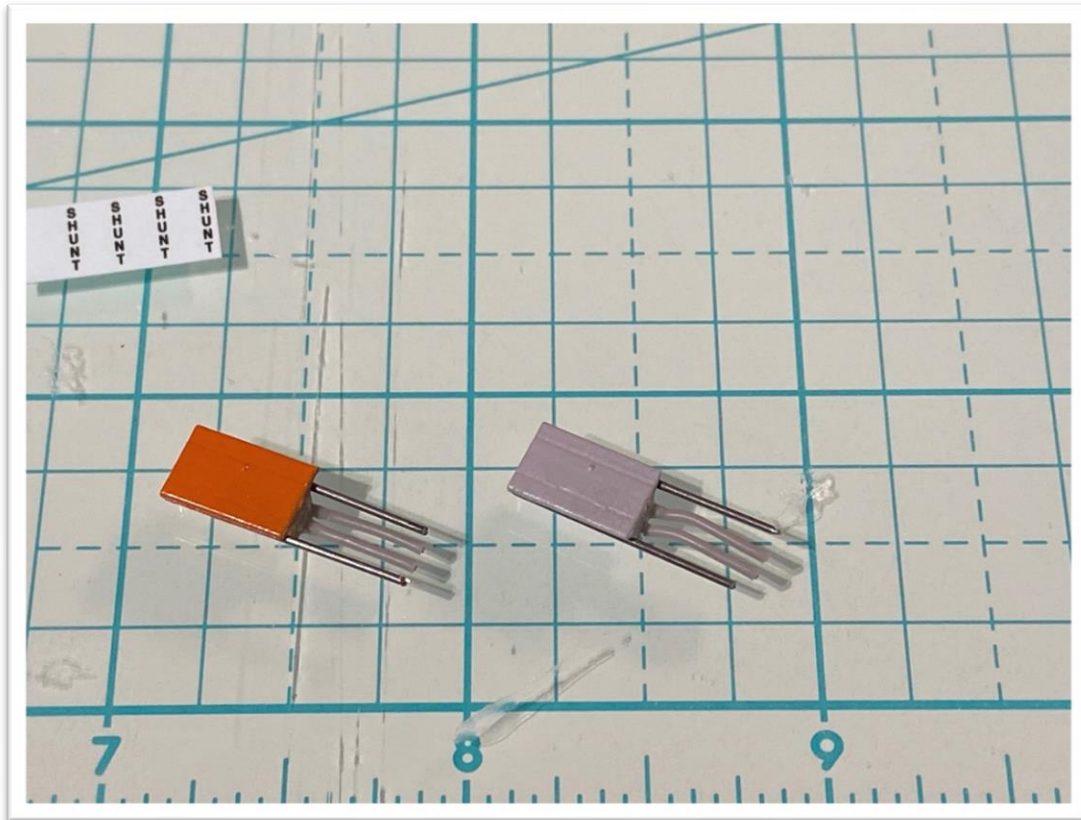
Once your legs are secured, next install the conduit. Cut the 4” piece of 30 gauge wire provided in box into ½” pieces. Each shunt box will have two ½” pieces used.

Place CA on the end of the box or conduit and then glue together. Once glue is setup let dry.



STEP 4 – CONDUIT TRIM

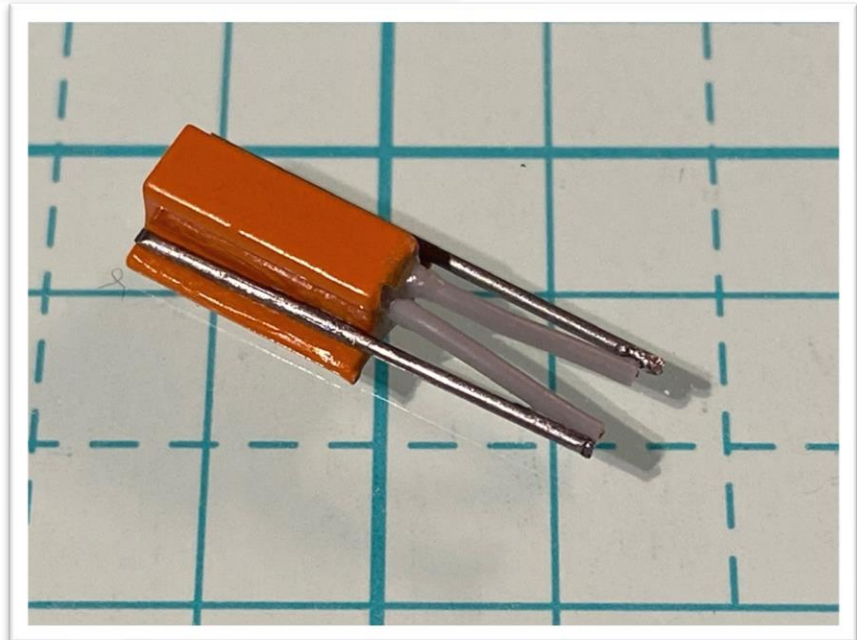
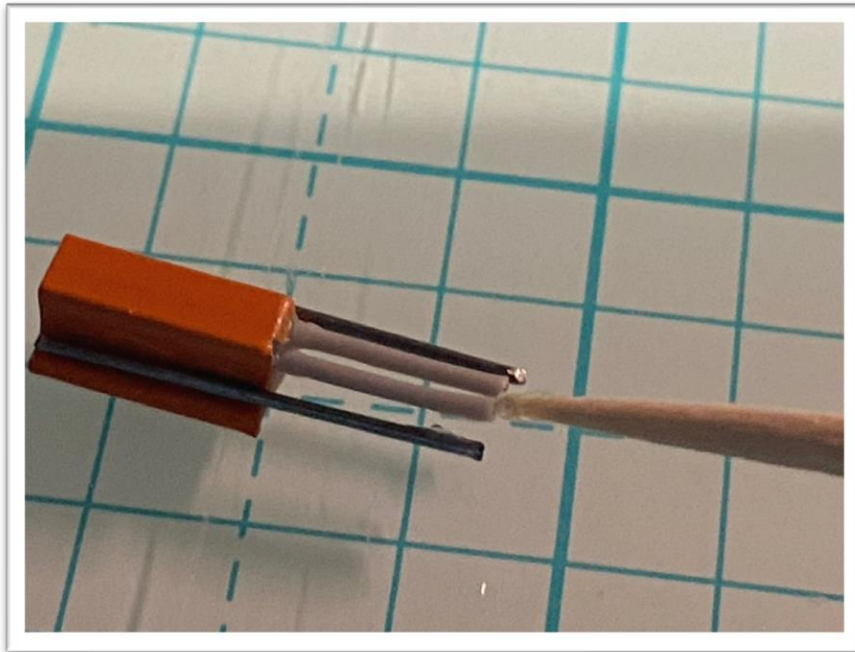
Once conduit wires are dry, next trim them flush with the bottom of the legs. Like the prototype, the conduit enters the ground next to the legs.



STEP 5 – CONDUIT FIT

After cutting the conduit flush, we are now going to glue the ends to the adjacent wire leg. Using a toothpick apply CA to the side of the conduit wire that will make contact with the legs.

Using the other end of the toothpick (with glue on it), gently work the conduit wire over to the leg and hold it until glue sets. **** Recommend placing the box back on painters tape like step 2 as you will need both hands****. Repeat for other leg then let dry.



STEP 6 – DECALS

Cut out the “SHUNT” decals flush and soak in water for a few seconds. The decals are made by Circus City Decals & Graphics for this kit and work best with Walthers Solvaset.

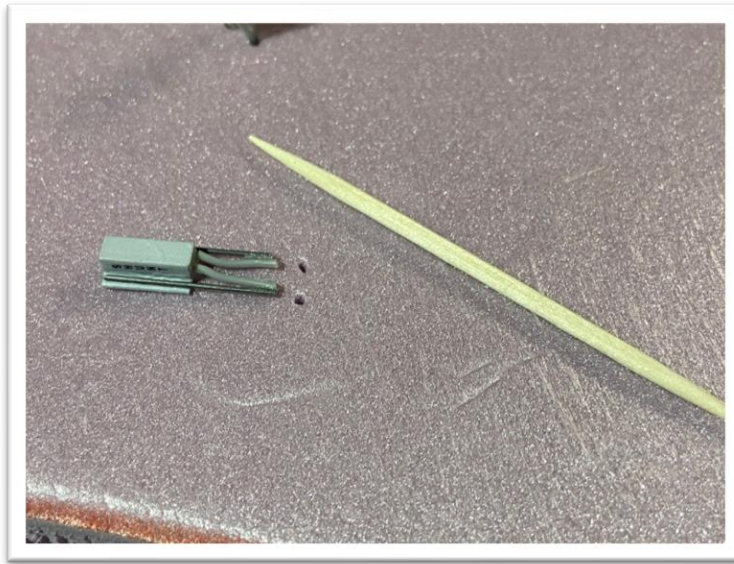
Apply decals and let set. Once dry use Testors Dullcote only to seal before weathering.



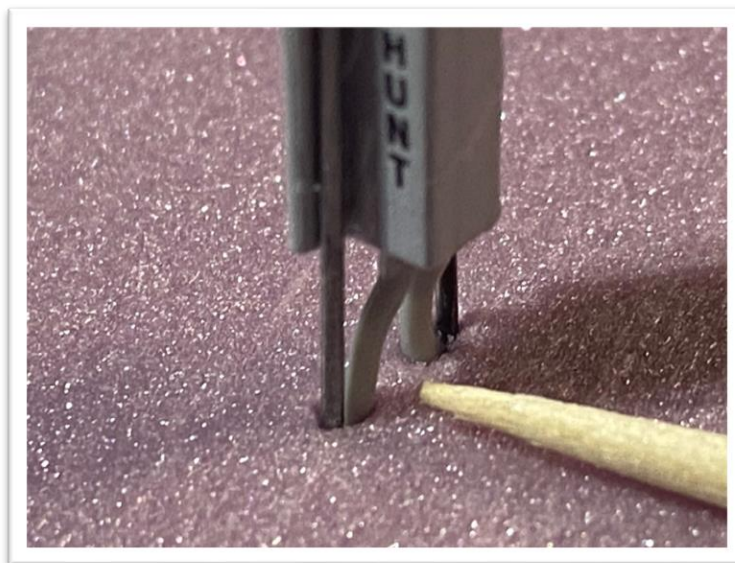
STEP 7 – INSTALL

After your shunt box is completely dry, next we will install on the layout. Depending on your subbase (foam, hardboard, plaster shell, or plywood) will determine the type of tool used to create your placement holes.

Using the shunt box legs, mark the location with a pencil or in the case of a softer subbase like foam make indentions. Continue with creating the placement holes.



Your hole should be large enough to insert the legs and conduit adjacent. In the photo below I used a clean toothpick to ensure the conduit wires did not become detached or not go into the hole. Once satisfied with fit, secure with a small amount of white glue.



UNDERSTANDING SHUNT BOXES

On the prototype, these boxes have a few different uses around signal systems.

1) If observed on right of way alone they just contain a track shunt.

2) When found at insulated track joints they are being used to assist getting the grade crossing detection current frequency that is in the rail around an insulated joint found at Control Points and Intermediate Signals.

Given the different configurations found on railroads circuit frequencies, track configuration, and speed it is best to refer to prototype photos using google streetview.

General Placement:

- 8' from track center
- Door is located on "Field" side away from tracks
- Using item #1 and #2 as guidance, install away!

Example below @ Rhome, TX. Photo is taken from grade crossing.

