

South Bend Signal Company

Large Scale Crossing Signals



LCSG (L)

LCS

LCDW

LCSZ

Grade Crossing Signal

NOTES

Thank you for buying this signal. We hope that this fine scale model will enhance your railroad and bring you years of enjoyment.

Signal Installation

[1] Inside Installation: Attach it with 1/2 inch #2 screws provided. The signal should be mounted far enough away from the track so that your widest piece of rolling stock will not hit the signals. Attach the plugs to their appropriate terminals making sure that the yellow dots on the plugs are up.

[2] Outside Installation

Cut a piece of treated lumber large enough to support the signal and allow for attachment with the screws provided. The board should be level with the ties. The signal should be mounted far enough away from the track so that your widest piece of rolling stock will not hit the signals. Use a 1/16th drill and make pilot holes for the signal mounting screws. Mount the signal and attached with 1/2 inch #2 screws provided. **Attach the plugs to their appropriate terminals making sure that the dots on the plugs match the dots on the signals and the plug dots are up.**

Signal Plugs

The signal has three plugs. Each plug has its own color dot designation. The signal has corresponding color dots above the pins. Make sure that you match the pins and plug color dots or you will damage the signal. Below is a chart of the colors and there function.

	Power Plug
	Detector Plug
	Input/Output Plug I/O

System Wiring Installation (Refer to Figures 1, 2, & 3)

[1] POWER Connection: The Crossing require a separate **12 volt DC** power source. The source can be a **12 volt battery** or a plug in **12 volt DC** source. A wire harness with a plug (**RED DOT**) is supplied for use with your power source. **When inserting the plugs, make sure the dots on the plugs are up.**

Notes

Connect the wire harness to your power source. The polarity of the power source (+ and -) is not important. The control board in the base of the signal will convert it to the proper polarity. **Do not plug the power wire in until all wiring is complete. DO NOT USE TRACK POWER. It will damage the circuitry of the signal.**

[2] Detector Connection: The signal comes with an infrared proximity detector. Determine the distance from the crossing that you want the signal to begin flashing. Mount the detector centered between the rails at this location using the 2 screws provided. Slip the wires between the ties and under the rail. Attach the detector plug to the signal (**GREEN DOT**). Add wire between the detectors for each track to tie the detectors together and then connect additional wire from the detector back to the signal detector plug. If you have more than one track at the crossing add one detector for each side of the crossing on the other track and wire the detectors together and then back to the signal plug. **No more than 3 detectors can be connected to one signal.** The detector plug must be inserted into the signal with the Green dot up. Additional detectors may be purchased at the website Item (LDS).

Figure 1

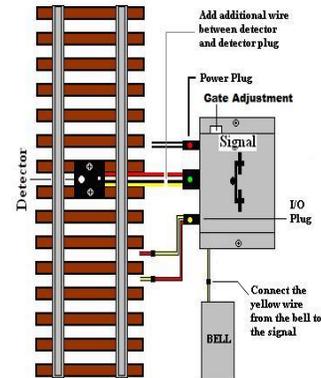
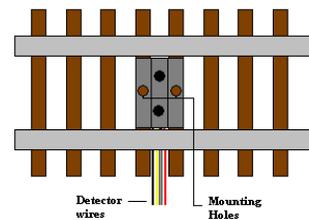


Figure 2



[3] I/O (Input/ Output Connections):

The I/O Plug (**Yellow Dot**) provides communication between the signals so that when one signal detector is activated a signal is sent to the other signal to be activated as well. Plug in the I/O plug for each signal. Connect signal #1's Red wire to signal #2's Yellow wire. Connect Signal #1 Yellow wire to Signal #2's Red wire.

[4] Bell Installation:

If you have purchased a bell for the crossing do the following. Install the bell next to Crossing Signal #1. Inside the base of the crossing signal is a yellow wire. Remove the base plate and slip the yellow through the hole provided. Replace the base plate. Connect the yellow wire from the bell to the yellow wire on the side of Signal #1. Only one signal should be connected to the bell.

Gate Adjustment:

If you purchased a signal with gates the gate can be adjusted so that it is level with the ground. There is a trim pot on the side of the signal base. Power the signal with the detector connected. Cover the detector so that the gate is activated. Once the gate is down use a small Philip screw driver and turn the pot to move the gate to the desired position. Remove the cover over the detector. Once the gate is up. Cover the detector again to verify that the gate is working properly.

Weather Considerations

It is best to unplug the signal and bring it indoors out of bad weather. Never spray water from sprinklers on the signal. Place a plastic bag or other container over the signal to protect it from rain or bad weather. The plugs are not water proof. Apply dielectric grease to the pins before inserting the plugs to help make a good connection between the plug and pins. Dielectric grease can be purchased from most automotive stores.

Thanks again for purchasing the Grade Crossing Signal from South Bend Signal Company. Enjoy the fun that this signal will add to your layout. Oh, don't forget to tell them where you bought it!

Thanks again!

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Figure 3

