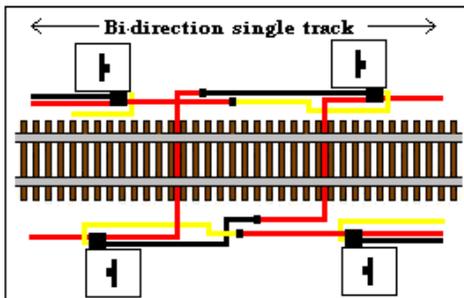
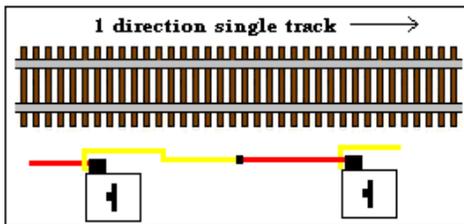
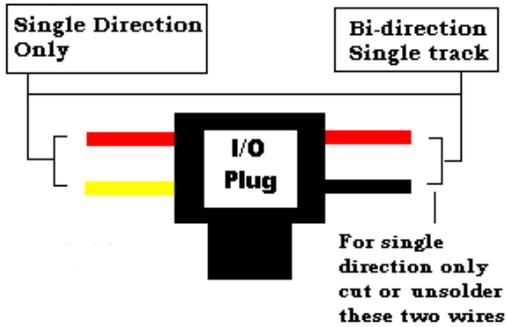


Real-Time ABS Connections

- [1] Remove the cover from the base and remove the red jumper.
- [2] Replace the cover and plug in the I/O plug with yellow dot up. The plug has 4 wires (2 red and a yellow and black). Connect additional wire to the make connection for a one direction signal track or bi-direction single track configuration.

FIG 4



Caution: Make sure that you plug the ABS connector in the signal with the yellow dot up. If not the signal electronics will be damaged when the final connections are made!

Power Connections

- [1] There is a black 2-wire harness with a plug that is used to make the power connection either to a battery or external 12 volt DC power source. **DO NOT USE TRACK POWER.**

- [2] For powering the signal with a 12 volt battery (rechargeable battery recommended) attach the two wires from the power harness to the outside of the ties and run wire back to the battery. The power bus can be daisy-chained from one signal to the next around the railroad.

9 Volt Battery Option

South Bend Signal Company offers a 9 volt battery box with a plug and on/off switch. Simply plug the battery box into the terminals and use the on/off switch to provide power to the signal. Never leave the battery box connected when not in use. It is not water proof. The battery box **cannot** be used with AC105 or AC106.

Weather Concerns

Never allow sprinklers to directly hit the signals. Bring the signal in winter where snow and cold temperatures prevail. Cover the signal with a plastic bag or 4 inch PVC pipe with cap or a 2 liter bottle with the neck cut off.

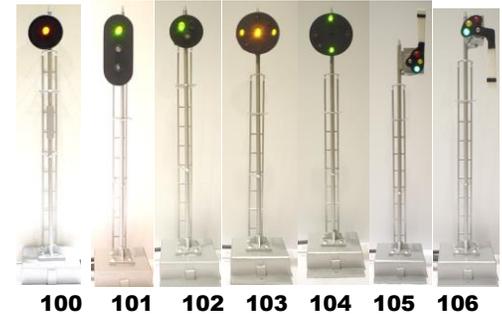
Thanks you for purchasing our products. If you have any questions or comments fell free to do so.

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South Bend Signal Company



Large Scale
Block Signals



SBSC 2016
www.sbsignal.com

AC100, AC101, AC102, AC103, AC104, AC105, AC106

Specification:

- **Large Scale: (1:26) highly detailed**
- **Bi-color LED: green, yellow, and red aspects**
- **Power Sources: 12 volt DC or 12 volt battery or battery box option.**
- **Detector: between the rails Infrared detector.**
- **Operation: automatic black signal system (ABS) with 2 modes (real-time or simulated ABS-default)**
- **Plug and Run: connections for power, detector, and real-time ABS connections allowing removal of signal from connectors for safety and storage**
- **Environment: Inside or outside use**
- **Brass and styrene construction**
- **Complete Manual**

Signal Preparation

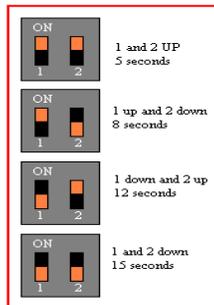
For AC105 and AC106 power the signal without the detector. When the light comes on move the Semaphore blade to the green position so that the light is centered over the green lens. Tighten the blade screw. Remove power.

Modes of Operation (Simulated and Real-Time ABS)

Simulated ABS Mode

[2] For simulated mode you have four timing choices: 5, 8, 12, or 15 second delay. The double dip switch is on the board (See Fig 1). The red and yellow will delay for the time you set.

FIG 1



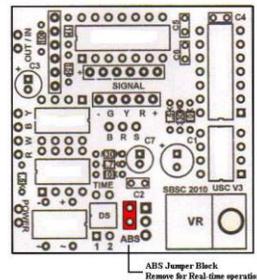
Real-Time ABS Mode

If you want to have real-time ABS operation of the signal, complete the following:

[A] Lay the signal on its side and remove the two screws from the base using a small Phillips screwdriver.

[B] On the board is a red jumper block. For real-time ABS operation remove the jumper block and reattach it on just one post. You may want to operate the signal in simulated ABS mode in the future. (see FIG 2)

FIG 2

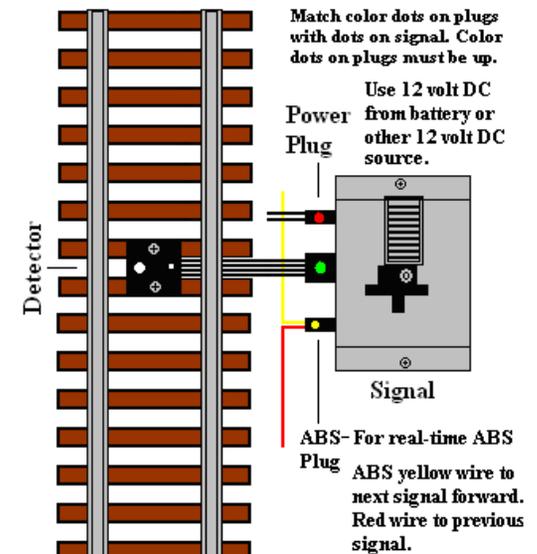


[C] Reattach the bottom on the signal base and tighten the screws. Use the wiring direction for Real-Time mode below.

Installing the Detector

The signal comes with an Infrared proximity detector. Determine the location for the signal. The detector is designed to be placed centered between the rails. The plug from the detector should be slipped between two adjacent ties and under the rail. Place the detector in position and mark the center for the two holes for the screws. Drill two 3/32nd inch pilot holes for the screws. Install the detector using the screws provided. (see FIG 3)

FIG 3



Mounting the Signal

The signal is supplied with 2 #2 pan head screws. The screws are for a more permanent installation. For temporary installation use either velcro or magnetic tape.

[1] Screw installation:

The signal should be installed approximately 2 inches from the rail on the right side of the track. The detector assembly is designed to have the signal at the proper distance from the rail if the detector is centered between the rails. Attaching the detector to the signal at this point will allow for proper spacing. Mount the signal on a piece in treated lumber which can be placed in the ground. After cutting the lumber to an appropriate size, make holes to receive the two screws. Drill 3/32nd inch pilot holes at the marks you just made. Attach the signal to the mounting surface using the screws provided. Do not over tighten.

[2] For temporary installation use Velcro or Magnetic tape.