

South Bend Signal Company

Large Scale Double Target

Block Signal



AC100-2 AC101-2 AC102-2 AC103-2 AC104-2

Double Target Block Signal Manual 2015

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Specification:

- Large Scale: (1:26) highly detailed
- Tri-color LEDs: (green, yellow, and red) aspects with Fresnel lens
- Lower Target for Sidings and Spurs (yellow, red)
- Power Sources: 12 DC or 12 volt battery
- Detector: between the rails Infrared detector for Top Target
- Operation: automatic black signal system Automatic Block Signaling (ABS) with 2 modes (real-time ABS or simulated ABS-default) selectable. Wiring for lower target for use with auxiliary contacts on switch machine or SBSC LSW switch not included.
- 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

Caution: Do not Power the signal until all connections are made.

Signal Preparation (ABS Modes)

[1] The signal comes ready to run in simulated ABS mode. After the train clears the signal the signal will change from red to yellow and back to green automatically with no additional wiring. If you want to operate the signal in simulated mode skip **step 2** and go to **step 3**. For simulated mode you have four timing choice: 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.

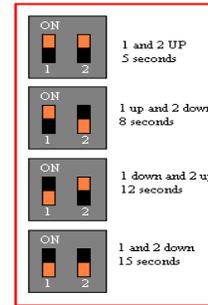


Fig 1

Mounting the Signal

The signal is supplied with 2 #4 pan head screws and two 2 inch spikes for mounting the signal next to the track. The screws are for a more permanent installation. The two spikes can be used for temporary installation.

Power Connections

[1] There is a black 2-wire harness with a plug (red dot) that is used to make the power connection either to a 12 volt battery or 12 volt DC power source. The two power wires are not polarity significant either wire can be connected to either power source (+ or -). **DO NOT USE TRACK POWER .**

[2] For powering the signal with a 12 volt battery (deep cycle marine 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.

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.

Thanks you for purchasing our products.

If you have any questions or comments fell free to do so.

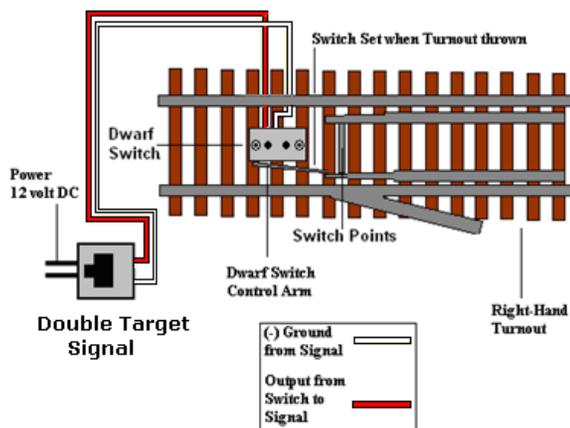
E-mail: sbsignal@live.com

Lower Target Wiring

There are two wires which must be connected to the switch machine to activate the lower target aspects (yellow for diverging route or red for straight route). If the switch machine that you are using has auxiliary contacts connect the white wire to the common on the auxiliary connects and the red wire to the contact which will display yellow when the switch points are in the diverging route position

If you are using the switch available from South Bend Signal Company ASW (not supplied) use Fig 5 bellow and the instruction which come with LSW to install and wire the switch to the signals.

Fig 5

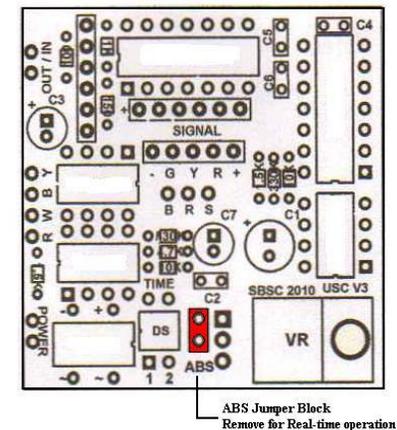


[2] If you want to have real-time **ABS** operation of the signal, complete the following:

[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



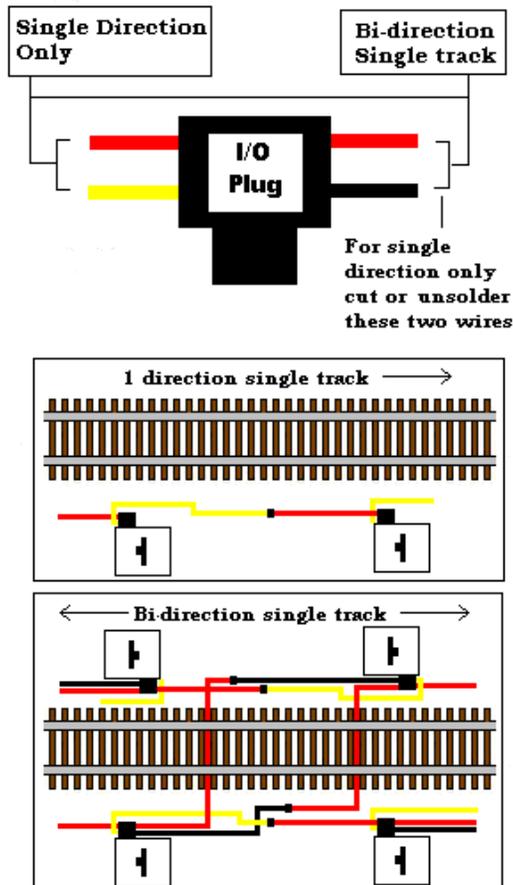
[C] Reattach the bottom on the signal base and tighten the screws.

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!

[3] 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

