#### Introduction

Ever since modern signals were introduced on railroads in the mid-1920's, model train manufacturers have strived to produce this quintessential layout accessory in a way that combines both smooth operation and prototypical appearance.

Atlas is proud to introduce it's Model RR Signal System in both HO & N Scales, offered in three styles, each complete with a signal relay shed. The signals are available as either: single target, double target (interlocking), or bi-directional single targets. Single target signals come individually packaged or in a convenient value-priced four pack. The double and bi-directional target signals are sold individually. See back panel for item#'s, descriptions and pricing.

The Atlas Model RR Signal System features true scale dimensions and details, and includes circuitry for North American prototype operation. These signals can be used as a stand-alone accessory, or connected to one another for complete dynamic integration. They are the perfect compliment to the full line of realistic and reliable Atlas HO & N gauge track systems.

Multiple target signals are designed to allow modelers to incorporate most any track plan. Each signal is wired using common cathode wiring and can be incorporated into any system designed to operate with a common cathode configuration. The Atlas Model RR Signal System can be used on layouts operating on either analog (direct current), or Digital Command Control, (DCC), with a "block detector" compatible with DCC, (not available from Atlas). Digital Command Control is a method of controlling multiple trains and accessories using digital communications packets to send commands.



An HO Reading Lines MP15DC, approaches a "G" style, double target signal (item# 238), indicating a "Medium Clear" condition.

### **Operating Options**

## **Stand-Alone Signal Operation**

(Simplest, using single signal)

Each signal is completely independent and gives a Red-Yellow-Green aspect operation. The yellow aspect is timed for eight seconds. The signal turns red when a train enters the block.

## **Integrated Operation**

#### (Prototypical operation)

Each signal is connected and the Red-Yellow-Green aspects are controlled by the blocks and signals in front of and behind your train. Hook-up between signals is easily accomplished with the Atlas Signal Cable, pre-packaged in lengths of 7', 15' and 25', available separately. A block detection system is required. A DC version is offered by Atlas, sold separately. (See back panel for specifics.)

# **Approach-Only Signal Operation**

On some prototype railroads, signals are off until a train approaches. The Atlas Signal System has the provision to duplicate this operation by working in conjunction with integrated signal operation.

## **Complex Signaling**

(In conjunction with the signal and signal boards offered by Custom Signals, Inc., www.customsignals.com, 845-592-1302)

The Atlas Model RR Signal System has been designed to be fully compatible with the turnout signal controller offered by Custom Signals, Inc., a premier custom signal builder.

### **Three-Step Quick Start Method**

- STEP 1: Connect power from your transformer to the signal control board.
- STEP 2: Connect a single wire from a detector on your layout.
- STEP 3: Plug in your signal to signal control board.

You can find additional information on signals in the following books:

- "Railroad Signaling" by Brian Solomon
- "Realistic Model Railroad Operation: How to Run Your Trains Like the Real Thing" by Tony Koester

**NOTE:** For additional wiring information, visit: www.atlasrr.com/pdf/Instructions/Signallightwiring.pdf Detailed directions and diagrams are provided in the product box. Photos show pre-production items.

### **Frequently Asked Questions**

- Q. What do you need to get started?
- A. The number of signals and detector boards you use depends on the size and complexity of your layout. Each signal target requires a separate control board and block detector. The easiest way to get started is to use the all-in-one pack Type G Single Target Kit, #236 (HO Scale) #2236 (N Scale). More information is available in the manual that comes with the signals.
- Q. What does the signal control board (SCB) and the block detector board (BDB) do?
- A. The signal control board and block detector board comprise the electronic "brain" of the system. The block detector senses current flow in the block. Installed under the table or mounted under your layout, the control board is capable of four modes of signal operation. It controls the input from the block detector board and output to the signal target head.
- Q. How does the stand-alone signal operation work?
- A. The Red and Green are controlled by occupancy. The Yellow is the controlled timed feature in this mode of operation.
- Q. Where do I install the signal?
- A. The signal is normally placed at the entrance to a block. (A block is any section of track that is electrically isolated from the rest of the layout.)
- Q. How do I add integrated signal operation?
- A. To add integrated signal operation of two or more signals, plug in the modular Atlas Signal Cable Item#s 230 (7'), 231 (15') & 232, (25'), in the length that is appropriate to your block size. Next, plug the cable into a jack, (RJ-11), on the first signal board and into the jack, (RJ11), on the other signal board. Jack 3, (RJ12), is where the signal plugs in.
- Q. How does the integrated signal operation work?
- A. Installation of the Integrated Signal Cable automatically disengages the timed Yellow feature of the stand-alone signal. All aspects are now under full control of the blocks and signals in front of and behind your train (See manual for details.)

#### **Features**

- Simplest, most realistic system on the market (Does not require external relays!)
- Scale signal structures that have true scale dimensions and details
- True Prototype operation circuitry
- Modular design with telephone-style cord connections (for use with multiple signals, sold separately)
- Seamless integration that grows with your railroad
- Designed to be fully compatible with products offered by Custom Signals, Inc., (www.customsignals.com)



"Clear Block" ahead as the locomotive approaches a green Bi-Directional Single Target signal. The opposite side of the signal is red, instructing any approaching traffic to halt.

To preview these exciting new products, visit:

**HO** — www.atlasrr.com/trackmisc/hosignals.htm

**N** — www.atlasrr.com/trackmisc/nsignals.htm

"The versatile signals can be set up to operate independently with Red-Yellow-Green aspects. In integration mode the signals function together with the aspects controlled by block sections in the tracks, or in an approach-only mode which is activated as trains approach. ..No relays or similar devices are required. The signals are highly detailed, are made to exact scale dimensions, and feature brilliant and easily visible three-color illumination...they looked very realistic.

...modelers should consider this versatile system for their layout."
-Model Railroad News March 2006

| ITEM #   | DESCRIPTION                               | MSRP/<br>Unit | PACKING<br>STYLE |
|--|---|---------------|------------------|
| HO & N ATLAS MODEL RR SIGNAL SYSTEMS! – NEW SIGNALS! |   |               |                  |
| 230  | 7' Signal Cable                           | \$3.95        |                  |
| 231  | 15' Signal Cable                          | \$7.25        | _                |
| 232  | 25' Signal cable                          | \$10.95       | _                |
| 233  | Analog Block Detector                     | \$12.95       | _                |
| HO SCALE   |   |               |                  |
| 234  | HO Signal Control Board                   | \$19.95       |                  |
| 235  | HO Type "G" Single Target                 | \$29.95       | A                |
| 236  | HO Type "G" Single Target Kit             | \$49.95       | В                |
| 237  | HO Type "G" Single Target (4-Pack)        | \$99.95       | (                |
| 238  | HO Type "G" Double Target                 | \$39.95       | A                |
| 239  | HO Type "G" Bi-Directional Single Targets | \$39.95       | A                |
| N SCALE  |   |               |                  |
| 2234   | N Signal Control Board                    | \$19.95       |                  |
| 2235   | N Type "G" Single Target                  | \$29.95       | A                |
| 2236   | N Type "G" Single Target Kit              | \$49.95       | В                |
| 2237   | N Type "G" Single Target (4-Pack)         | \$99.95       | (                |
| 2238   | N Type "G" Double Target                  | \$39.95       | Α                |
| 2239   | N Type "G" Bi-Directional Single Targets  | \$39.95       | A                |

#### **Packing Style Notes:**

- A Includes the signal, jumper wire (signal plug to RJ-11 jack), and signal shed.
- B Includes the signal, jumper wire, signal shed, signal control board and (analog) block detector.
- C Includes 4 pieces each of the signal, jumper wire, signal shed.

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To find an Atlas dealer near you, please visit http://www.atlasrr.com/locator/zsearch.asp, or call 908-687-0880

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