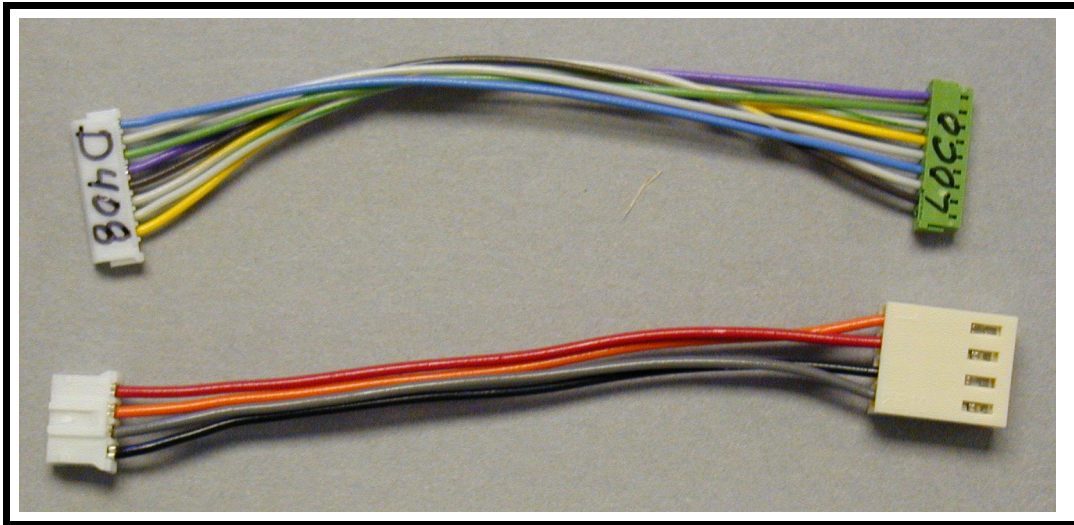# NCE
The Power of DCC

ATLAS
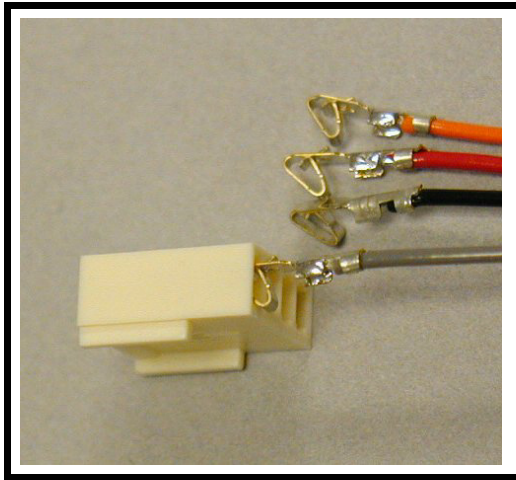
HARNESS

Plug and play wiring harness

$12.95

Converts D408SR decoder to a plug and play decoder for:
Weaver 2-8-0 and New Haven I-5
Atlas (new)SW8/9, RS1, C44-9, SD35, C40-8, and other locomotives
**using the Train America Studios lighting boards**

√ Easy to install Plug-and-play installation
√ Accomodates "backwards" wired locos such as Weaver 2-8-0.
√ Provides missing Function #1 on F6 output of light board in locomotive

Configuring the power and motor connector:
Some locomotives, such as the Weaver 2-8-0, are factory wired "backwards." meaning the right hand track pickups are wired to the left hand track terminals of the lighting circuit board. We have supplied the motor/track connector as a separate component into which you will insert the wires. The photographs below illustrate the correct procedure for insertion of the wire clips in the connector body and the correct order of the wires in the connector.

Proper orientation of the wire clips in the connector body

RED   BLACK   RED

ORANGE   GRAY   ORANGE

NORMAL WIRING   WEAVER WIRING
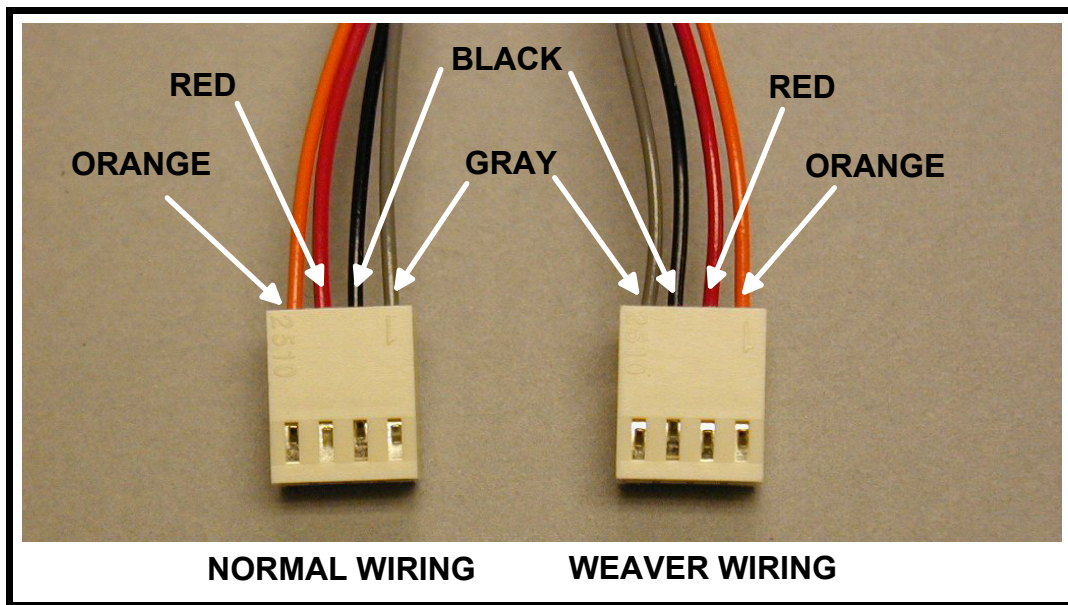
**In the photo above the harness on the left is wired for normal locomotive wiring.
The harness on the right is setup for the Weaver 2-8-0.**

Normally, the order of the wires (left photo above), left to right is: Orange, Red, Black, Gray. For the Weaver 2-8-0 the order of the wires (right side of photo) is: Gray, Black, Red, Orange. Use the Weaver wiring if you want your Atlas RS1 to run short hood forward.

If you make a mistake the wire clips can be removed from the connector body by depressing the tiny metal clip through the small rectangular opening in the face of the connector body with the tip of a hobby knife, then drawing the wire back out of the hole.

The orange and gray wires are for the motor. The red and black wires supply track power to the decoder. Double check your wiring to make sure you don't have any of these mixed up.

**Installation of the decoder in the locomotive:**

Remove the diode board that is plugged into the main lighting circuit board of the locomotive. Pull straight up on the small circuit board and it will come out with a small amount of side-to-side wiggling.

Diode board
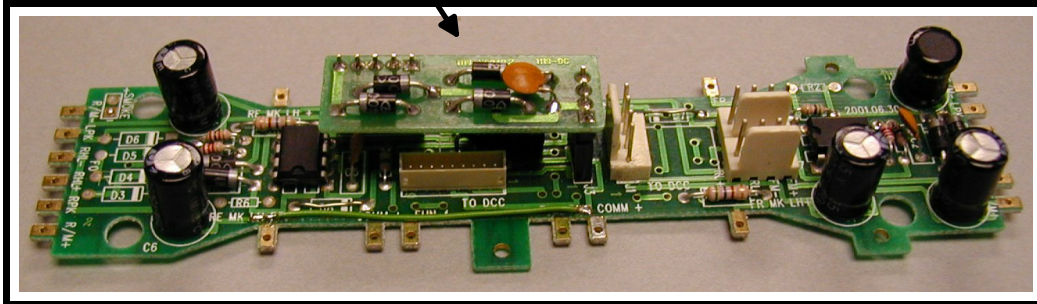
Locate the 9 pin wire harness. Insert the **white** connector in the corresponding jack on the D408SR decoder. Insert the **green** end in the corresponding jack (J2) on the lighting circuit board of the locomotive.

Take the 4 wire harness you assembled and insert the white end into the corresponding jack of the D408SR decoder.   Connect the remaining ivory colored end to the jack labeled J1 on the light board as shown in the photo below.
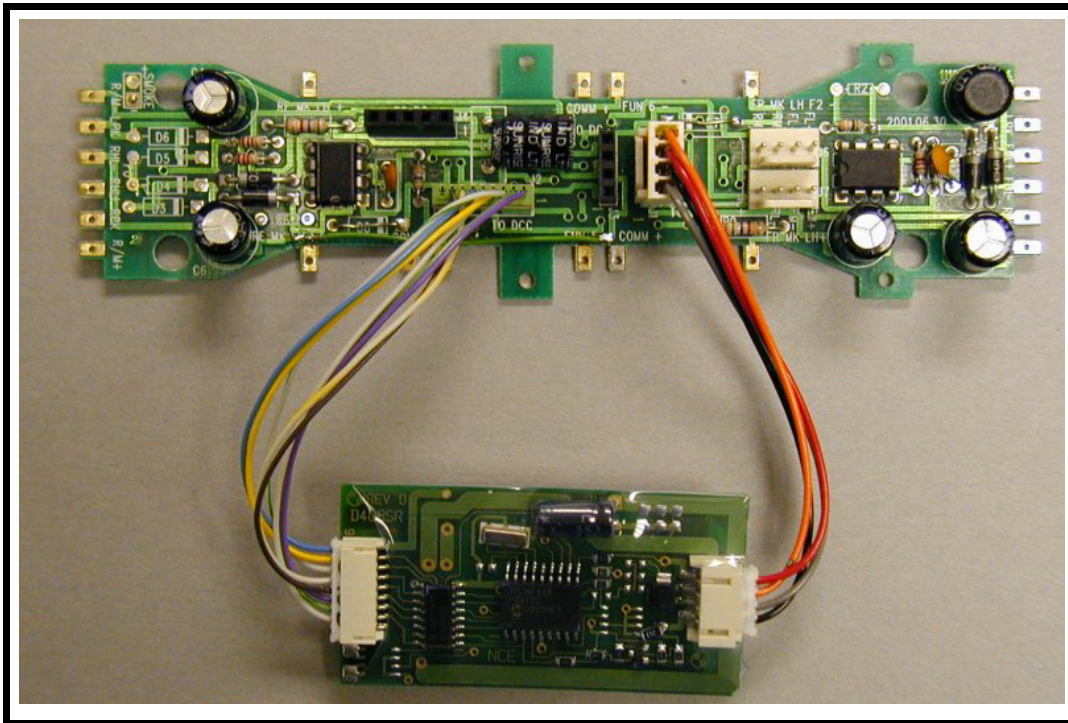
You can "reverse" the headlights of the D408SR by programming CV120 = 2 and CV126 = 1.

Test run the locomotive at this point before reassembly of the body shell or tender. If all runs well reassemble the locomotive and enjoy its operation.

Connnecting the extra lighting functions to the light board:

Below is a photo of the lighting output of the light board in your locomotive. If extra lights are not already connected in the loco then you can add additional lighting features. We have brought out F1 of the decoder to the terminal labeled F6 on the light board. The white "bulbs" below illustrate the connections for wiring the additional lights.

Special instructions for the Atlas RS1:

The white LEDs as supplied with the RS1 for the headlights are not properly powered for use with DCC. You can easily correct this by moving the red wire for each light on the light connector to the opposite end of that connector. The photo below shows the proper wiring. This change connects a "current limiting" resistor (R9 can be seen peeking out from behind the rear connector in the photo) that is already on the T.A.S. circuit board to the LED. This will greatly extend the life of the LED.