

Loos City - BN Wiring Colors



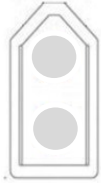
Pin

PINS AND HOUSING CONNECTORS MALE HOUSING



Sleeve

The housing is hollow and each pin sticks up within the outer wall that will encircle the female housing.



FEMALE HOUSING

The female pins are inset within the housings to maintain them being separated when inserting the male pins.



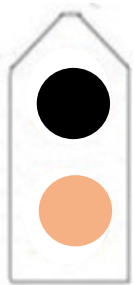
Note this is the way that we started using the housings over 30 years ago.

THIS FILE WAS CREATED ORIGINALLY FOR BETHESDA NORTH HOSPITAL TRAIN LAYOUT

All DC Negative wiring is attached to one common BLACK Wire no matter the voltage.
All AC Common wiring is connected to the common WHITE wire no matter the voltage.
The color wires assigned are to be used in the plugs to help identify the voltage by the installer and or the trouble shooter.

Note that all listed plugs are attached to the power source.

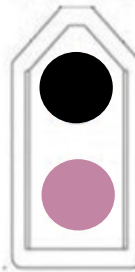
3 Volt DC Female Housing



Negative—Black

Positive—Tan

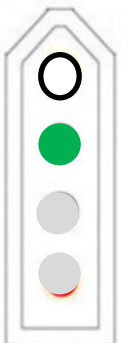
4.5 Volt DC Male Housing



Negative—Black

Positive—Purple

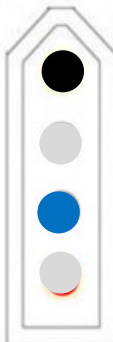
6 Volt AC Male Housing



Common—White

Hot—Green

6 Volt DC Male Housing

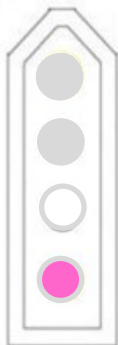


Negative—Black

Positive—Blue

Loos City - BN Wiring Colors

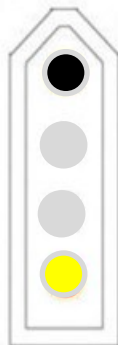
9 Volt AC Male Housing



Common—White

Hot—Pink

9 Volt DC Male Housing



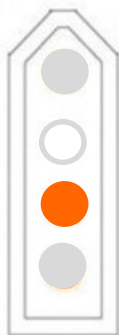
Negative White—9 Pin #6

New Black

Positive Black—9 Pin #5

New Yellow

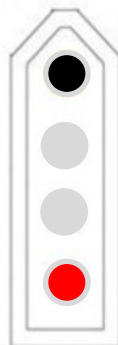
12 Volt AC Male Housing



White AC Common

Orange AC Hot

12 Volt DC Male Housing



Negative—Black

Positive—Red

12 Volt DC RCA Male Plug



This Male plug is Attached to the item That is to be operated.

Using Red Positive and Black Negative.

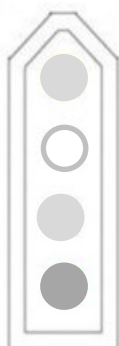
12 Volt DC RCA Female Plug



This Female plug is Attached to 12 Volt Power Supply.

Using Red Positive And Black Negative.

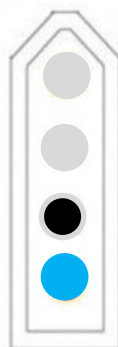
14 Volt AC Male Housing



Common—White

Hot—Gray

14 Volt DC Male Housing

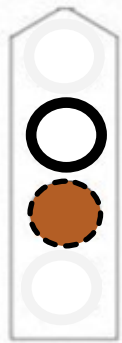


Negative—Black

Positive—Blue Marked

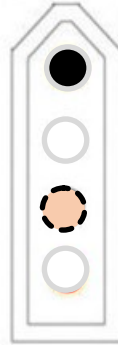
Loos City - BN Wiring Colors

16 Volt AC Female Housing



Common—White
Hot—Brown Marked

16 Volt DC Male Housing



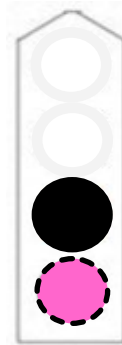
Negative—Black
Positive—Tan Marked

18 Volt AC Female Housing



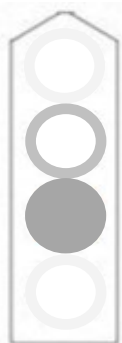
Common—White
Hot—Green Marked

18 Volt DC Female Housing



Negative—Black
Positive—Pink Marked

24 Volt AC Female Housing

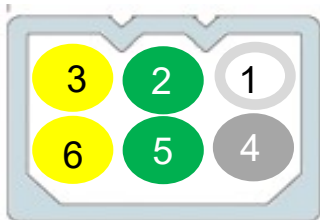


Common—White
Hot—Gray Marked

24 Volt DC Female Housing



Negative—Black
Positive—Yellow Marked



Connection for any activated building such as the FIRE HOUSE with Sound.

Pin 1 Common AC -

Pin 4 Hot AC 14 Volt being used

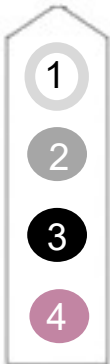
Pin 2 and Pin 5 are the activation wires from the button

Pin 3 and Pin 6 are the wires to external speaker if used

Male plug on the board and Female plug comes from building

Loos City - BN Wiring Colors

Combination 4.5 V DC and 14 V AC



Connection for any building with 14 V AC Lights and any 4.5 volt item such as an operating sign with the Female plug on the board

Male plug comes from building - Pin assignment:

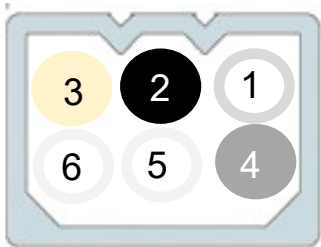
Pin 1 Common AC - Building Lights

Pin 2 Hot AC - Building Lights

Pin 3 Negative DC - For Miller Sign

Pin 4 Positive 4.5 V DC - For Miller Sign

Combination 3 V DC and 14 V AC



Connection for any activated building and 3 Volt DC Accessory Male plug on the board and Female plug comes from building

Pin 1 - Common AC - White Wire

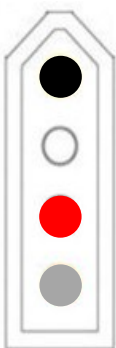
Pin 2 - Negative DC - Black Wire

Pin 3 - Positive 3 Volt DC - Tan Wire

Pin 4 - Hot AC 14 Volt - Gray Wire

Pin 5 & Pin 6 - Are left empty

Special—House on Fire and IRS on Fire



Lionel House on Fire and the IRS Building on Fire Connection Plug with or without added 12 V DC LED lights

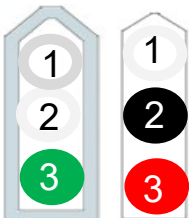
Pin 1 - 12 V DC Negative Black Wire for Lights

Pin 2 - Common AC - White Wire

Pin 3 - 12 V DC Positive **Red Wire** for Lights

Pin 4- Hot AC 14 Volt - Gray Wire for the Smoke

External Power Sources



External Power Sources only for temp use not to the Buss wires

Pin 1 - Common AC - White Wire—DC is not in use

Pin 2 - AC is Not in use—Black for 12 V DC Negative Lights

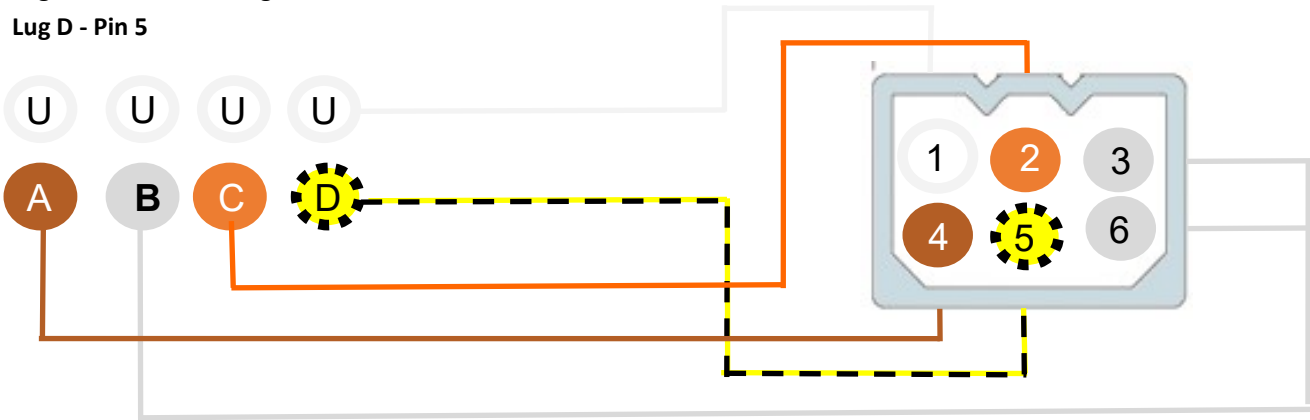
Pin 3 - Hot wire is Green for AC—Red for 12 V DC Pos-

L-3 Standalone Operation

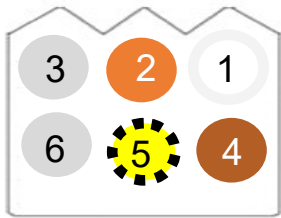
Special Molex Connections

Cable - ZW LUGS to Male Molex Connector

Lug U - Pin 1
 Lug B - Pin 3 & 6
 Lug D - Pin 5
 Lug A Pin 4
 Lug C Pin 2



Under Board Female Molex Connector



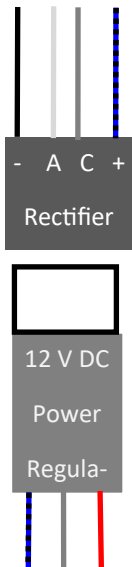
- Pin 1 Common White for AC Direct to Buss and to the Rectifier
 - Pin 2 Orange for 12 V AC Direct to Buss
 - Pin 3 Gray for 14 V AC Direct to Buss
 - Pin 4 Brown for 16 V AC connected to the Trolley Timer
 - Pin 5 Yellow Marked for Variable AC Trolley Operation To (Connected to the Red wire connected to the center rail)
 - Pin 6 Gray for 14 V AC to the Rectifier Under the board
- Do not attach this lead to the Buss only Pin 3 to the buss for Gray

Rectifier from incoming Connector for 14 V Under board

- White Common AC to Rectifier then continue to the Buss
- Black for 12 V DC Negative Rectified from the White
- Red Wire for 12 V DC Positive Rectified from the Gray
- Gray 14 V AC to Rectifier and does not continue to the Buss

12 V Power Regulator are from the rectified wires then to Buss

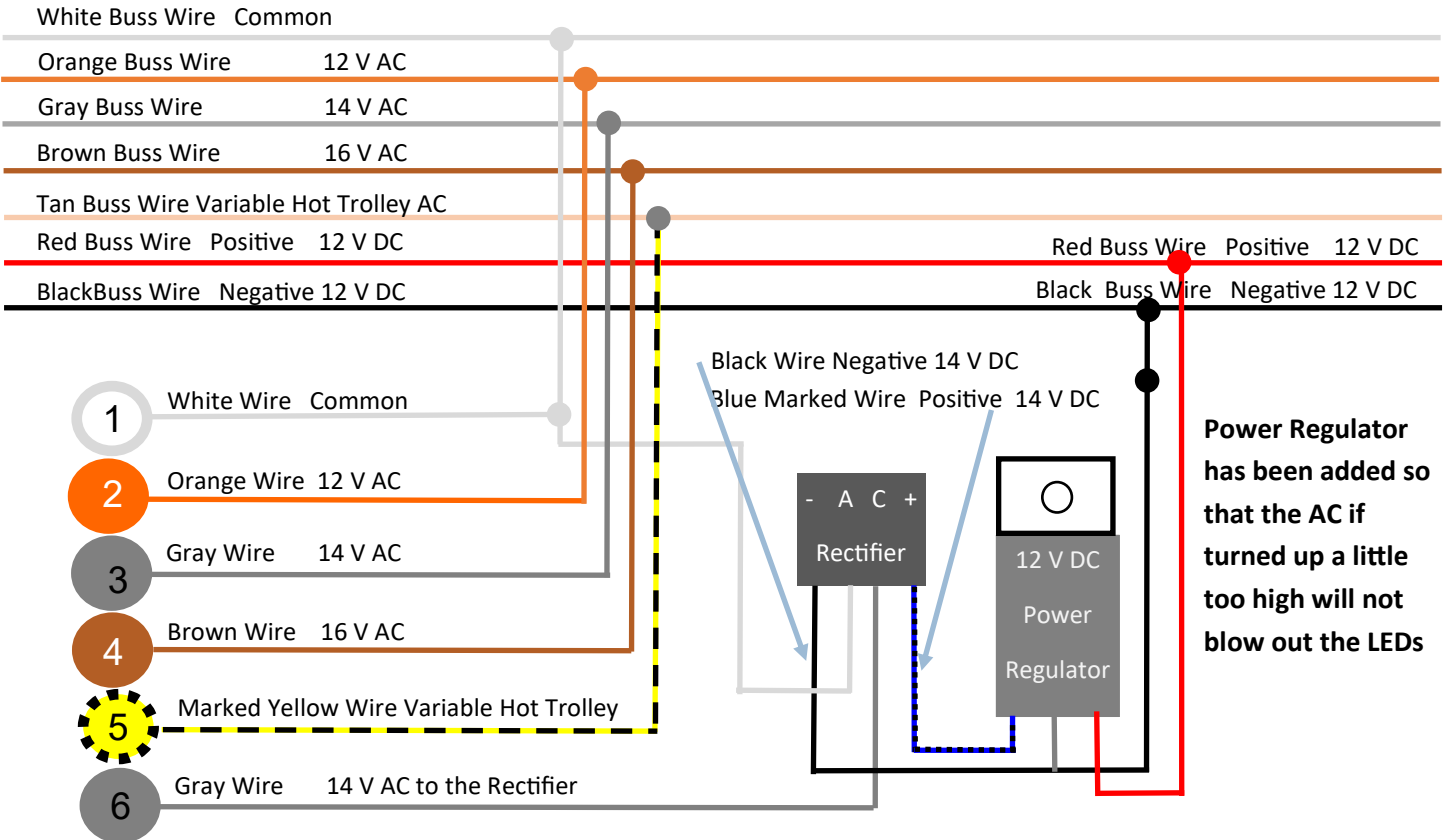
- Blue Marked to left leg of Power Regulator from the Rectifier
- Black to the Center leg of Power Regulator
- Black from the Center leg to the Black DC Negative Buss
- Red from the right leg of Power Regulator to Red Positive Buss



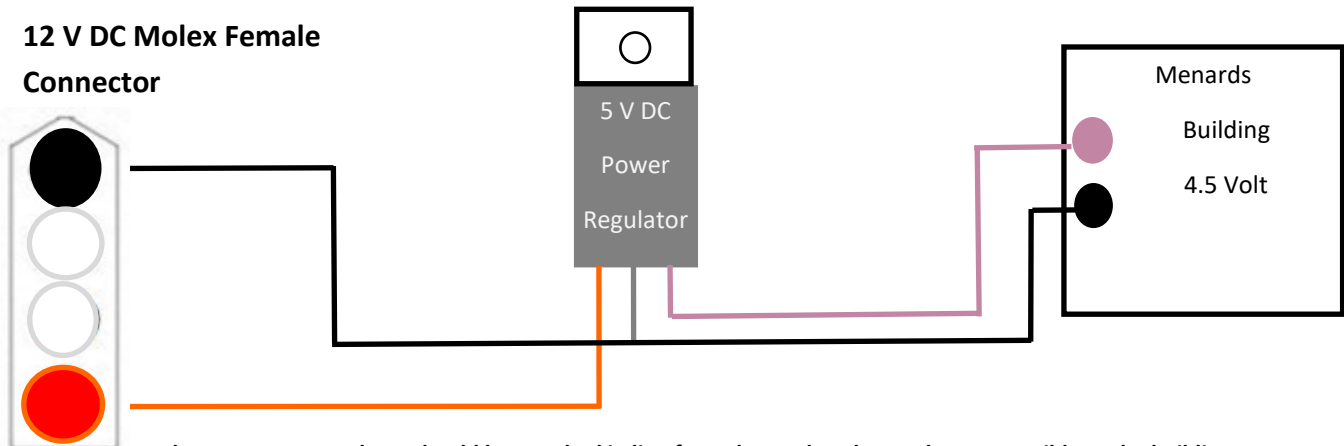
Bumper Trolley Special Wiring

L-3 Standalone Operation

Under Board Wiring



Menards Building to 12 V DC to 5 V DC

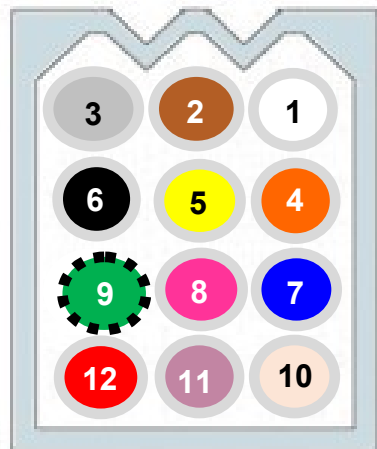


The 5 V Power Regulator should be attached in line from the Molex Plug as close as possible to the building. If possible install it in the building itself but there is not a problem if it is just installed in the line.

Loos City New Wiring Colors

**All 12 Pins are filled on LL2 - LL4 - LL1
On LL3 LL5 and LL6**

- Pin 1 = White - Common AC Ground
- Pin 2 = Brown - 16 Volt AC
- Pin 3 = Gray - 14 Volt AC
- Pin 4 = Orange - 12 Volt AC
- Pin 5 = Yellow - 9 Volt DC
- Pin 6 = Black - DC Negative
- Pin 7 = Blue - Variable AC Voltage City Streets
- Pin 8 = Pink - Variable AC Voltage City Streetw
- Pin 9 = Green Marked - 18 Volt AC
- Pin 10 = Tan - Power for Bumper Trolley
- Pin 11 = Purple - 4.5 V DC
- Pin 12 = Red - 12 V DC



Male
Molex
Plug



Female
Molex
Plug

Pin Voltage

11 4.5 V DC

5 9 V DC

12 12 V DC

4 12 Volt AC

3 14 Volt AC

2 16 Volt AC

9 18 Volt AC

6 Neg DC Black

1 Common AC White

7 City Streets Variable

8 City Streets Variable

10 Bumper Trolley

City Streets Buss Connection

Pin 7 = Blue - Variable DC Voltage

Pin 8 = Pink - Variable DC Voltage

Bumper Trolley Buss Connection

Pin 1 = White - Variable AC Common

Pin 10 = Tan - Variable AC Hot



Suggested Building locations for set up

LL2 (6 Foot) (Super Streets front/back/left side)

- Jenny Bakery/Breyer's Ice Cream Sign on top (thin corner MTH Building)
- Grand American Maple Donuts (thin MTH Building)
- Store with Coke Machine in front (thin MTH Building)
- Irish Brewing Company/O'Mara's (thin MTH Building)
- Dewey, Cheatum, and Howe Attorneys (thin MTH Building)
- Internal Revenue Service (thin MTH Building w/action – on fire)
- House on Fire (MTH Building w/action – fire and smoke, on a button)
- Firehouse (MTH Building w/action – firetruck exits building)

LL4 (4 Foot) (Super Streets front/back)

- Ford Dealership (MTH Building w/action – showroom cars rotate, sound)
- Starlite Diner (lighted interior)
- Madison Hardware (Lionel – moving miniature trains inside – plan to put on a button)

LL1 (6 Foot) (Super Streets front/back/right side)

- McDonalds (MTH Building w/action – car moves, sound, on a button)
- Dreyfuss Six-Story Building (wide MTH Building)
- Cook, Books & Hyde (wide MTH Building)
- Gateway Auto Parts (thin corner MTH Building)
- Car Wash (MTH Building w/action – car moves, sound, on a button)

LL3 (4 Foot) (Super Streets Trolley Start/End)

- Chippie's 72 Steak House (wide MTH Building)
- Smith Bros. Television & Appliances (Woodland Scenics w/activated TVs inside)
- Mel's Drive In (MTH Building w/action – car moves, sound, on a button)

L6 (4 Foot) (No Super Streets)

- Red Owl Supermarket (Menards, 4.5 volts)
- Red Owl Annex/J.R. Watkins (Menards, 4.5 volts)
- Piggly Wiggly (Menards, 4.5 volts)

C17 & C18 (Corner) (Car Show/Ballfield)

- Soft Serve Ice Cream Stand
- American Flag (Lionel – plan to put on button)
- Snack Time Junction
- Ticket Booth
- Ball Field/Bleachers/Small Tower/3 Floodlights
- Ticket Booth
- Outhouses

L5 (4 Foot) (Trailers/Balloons)

- Trailers (Three, Woodland Scenics)
- Playground Equipment

Or

- Balloons (Lionel)

Wiring Colors for Various Voltages

All Molex connections listed are from the power source

Check File "[All - Wiring 01 - 2-3-4-6-9-12-MOLEX-PLUGS](#)" for Pin & Wire Color Locations

Wiring Colors for Various Marked Colors are with Dashes by Permanent Marker

Original File is located "[All - Chart 01 -Wiring Colors for Various Voltages.pub](#)"

VOLTAGE	MOLEX PINS
3 V DC	2 Female
4.5 V DC	2 Male
6 V AC	4 Male
6 V DC	4 Male
9 V AC	4 Male
9 V DC	4 Male
12 V AC	4 Male
12 V DC	4 Female
14 V AC	4 Male
14 V DC	4 Male
16 V AC	4 Female
16 V DC	4 Male
Common	Alternating
Negative	Direct
18 V AC	4 Female
18 V DC	4 Female
24 V AC	4 Female
24 V DC	4 Female

HOT / POS	COM / NEG
Tan	Black
Purple	Black
Green	White
Blue	Black
Pink	White
Yellow	Black
Orange	White
Red	Black
Gray	White
Blue Marked	Black
Brown	White
Tan Marked	Black
White	White
Black	Black
Green Marked	White
Pink Marked	Black
Gray Marked	White
Yellow Marked	Black

COLORS
Tan
Purple
Green
Blue
Pink
Yellow
Orange
Red
Gray
Blue Marked
Brown
Tan Marked
White
Black
Yellow Marked
Pink Marked
Gray Marked
Green Marked

Buttons to operate various items

Note Items in Red for updating

LOOS CITY MODULES

LL2 (6 Foot) (Super Streets front/back/left side)

- House on Fire (**No Button / No Timer**)
- Add the IRS building on Fire to the operation with the House on Fire
- Firehouse (**Button / Timer / External Speaker**)

LL4 (4 Foot) (Super Streets front/back)

- Starlite Diner (**Button / No Timer / External Speaker**)
- Madison Hardware (Lionel – moving miniature trains inside (**No Button / No Timer**))
-
- Disappearing People at Station (**No Button / No Timer**)

LL1 (6 Foot) (Super Streets front/back/right side)

- McDonalds (**Button / No Timer / External Speaker**)
- Speedy Car Wash (**Button / No Timer / No External Speaker**)

LL3 (4 Foot) (Super Streets Trolley Start/End)

- Mel's Drive In (**Button / No Timer / No External Speaker**)
- Hobby Shop (**No Button / No Timer**)
- Disappearing People at the trolley stop (**No Button / No Timer**)

L6 (4 Foot)

C17 & C18 (Corner) (Car Show/Ballfield)

- American Flag (**No Button / No Timer**)

L5 (4 Foot) (Trailers/Balloons)

- Balloons (**Button / Timer**) (**Total rework is needed to reduce the confusion**)(This will be the last item to be updated due to complexity of the upgrade)

- **STANDARIZE ALL CONNECTIONS TO VOLTAGE AND PLUGS**

- 11 Timers to build are needed

- 5 New Buttons are needed

Loos City - QCHR Module Connection

QCHR Module 6 Pin Wiring Housings

You are looking at the coupling ends of the plugs

The wires themselves protrude out of the back end of the plugs

Pin 1 = Track 1 Outer Track (Blue Wire)

Pin 2 = Track 2 Middle Track (Black Wire)

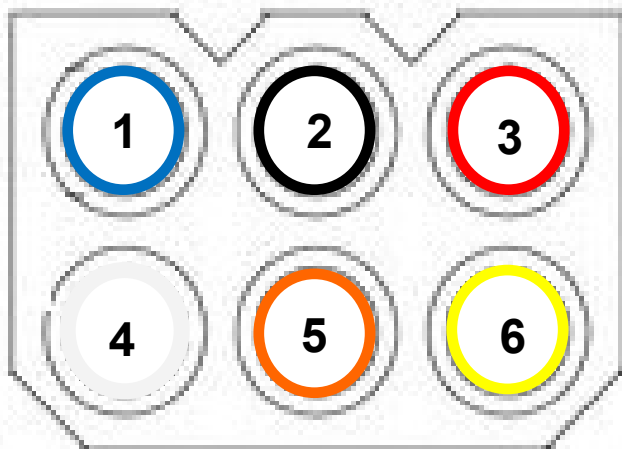
Pin 3 = Track 3 Inside Track (Red Wire)

Pin 4 = Common Ground (White Wire)

Pin 5 = 14 Volt Accessory (Orange Wire)

Pin 6 = Track 4 Yard Lead or extra 4th track (Yellow Wire)

Female Housing



Male Housing

