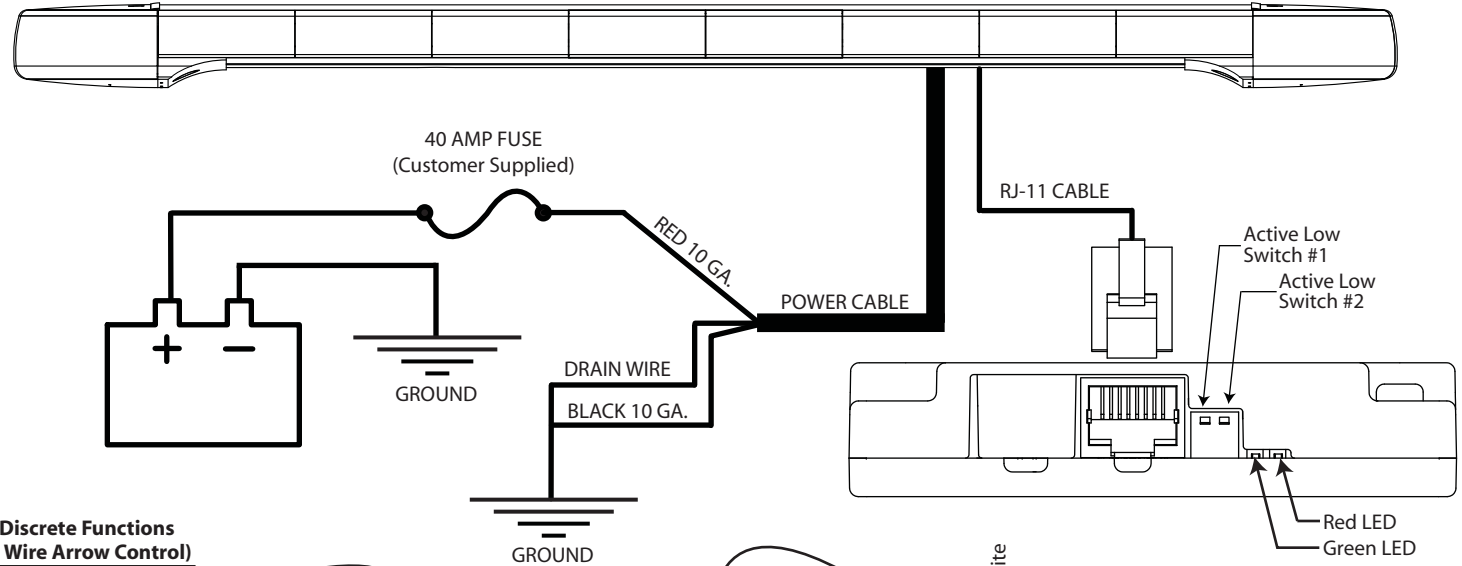


3900 Central Parkway  
Hudsonville, MI 49426  
toll free 800.338.7337  
office 616.896.7100  
techsupport@soundoffsignal.com  
www.soundoffsignal.com

## BREAKOUT BOX WITH DSC TECHNOLOGY INSTALLATION INSTRUCTIONS PETLJ00



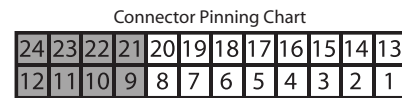
**WARNING:** Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.

Wire Color (Major Color/Stripe)	Pin# (4 Wire Arrow Control)	Standard Functions	Discrete Functions (8 Wire Arrow Control)
Light Green/White	24	Left Turn Signal*	Discrete Output #4*
Red/Black	23	Right Turn Signal*	Discrete Output #3*
Orange/White	22	Rear Inboard 3	Discrete Output #2*
Yellow White	21	Rear Inboard 2	Discrete Output #1 (L)*
Brown	20	Front Takedown	Front Takedown
Red/White	19	Alley Flash	Alley Flash
Pink	18	Alley Driver	Alley Driver
Red	17	Alley Passenger	Alley Passenger
Orange	16	Front Inboard 3	Front Inboard 3
Yellow	15	Front Inboard 2	Front Inboard 2
Green	14	Front Inboard 1	Front Inboard 1
Blue	13	Front Corners	Front Corners
Pink/White	12	Arrow, Left*	Discrete Output #8 (R)*
Purple/White	11	Arrow, Center*	Discrete Output #7*
Gray/White	10	Arrow, Right*	Discrete Output #6*
Black/White	9	Arrow, Warning	Discrete Output #5*
White	8	Pattern Select*	Pattern Select*
Purple	7	Low Power	Low Power
Brown/White	6	Front Takedown Flash	Front Takedown Flash
Light Green	5	Auxiliary*	Auxiliary*
Black	4	Cruise Lights*	Cruise Lights*
Gray	3	Mode Select*	Mode Select*
Green/White	2	Rear Inboard 1	Rear Inboard 1
Blue/White	1	Rear Corners	Rear Corners

\* - Reference next page for detailed explanation of functions

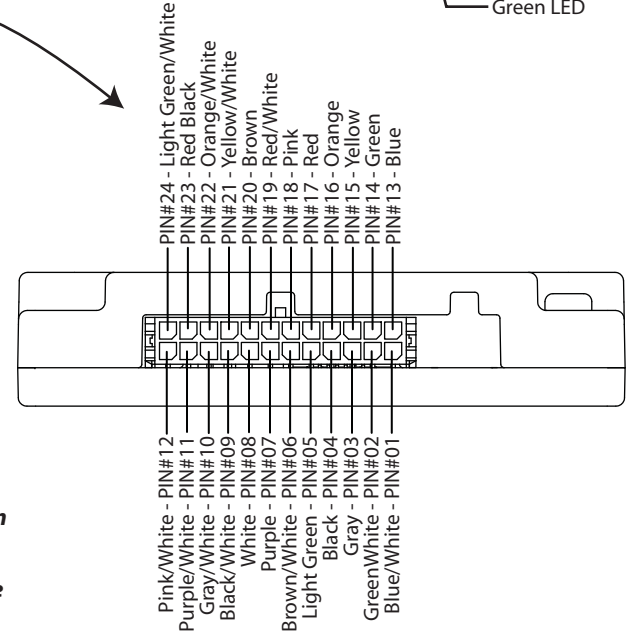
Note - Reference Switch table for explanation of what inputs are affected by Active Low Switches

**Functional Inputs**  
Functional inputs connect to your control head or switching unit. Applying +12Vdc to any functional input will activate it's function (default-active high). For more information, see switches explanation on second page.



- Controlled by Active Low Switch #2
- Controlled by Active Low Switch #1

- When the switch is in the up position, then the inputs connected to that switch are active high. To activate an active high input, apply 12Vdc.
- When the switch is in the down position, the inputs connected to that switch are active low. To activate the active low, apply ground (negative).





# BREAKOUT BOX WITH DSC TECHNOLOGY INSTALLATION INSTRUCTIONS PETLJ00



3900 Central Parkway  
Hudsonville, MI 49426  
toll free 800.338.7337  
office 616.896.7100  
techsupport@soundoffsignal.com  
www.soundoffsignal.com

## Detailed Explanation of Functions:

### Standard Functions

**Left Turn Signal** - If the Lightbar is equipped with RED rear facing LED modules on the outer most inboard locations and input connected to the vehicle's directional indicator circuit, when activated will function as auxiliary LEFT turn and the LEFT stop light.

**Right Turn Signal** - If the Lightbar is equipped with RED rear facing LED modules on the outer most inboard locations and the input connected to the vehicle's directional indicator circuit, when activated will function as auxiliary RIGHT turn and RIGHT stop light.

**Arrow, Left** - This input activates the rear directional LED modules in a LEFT directional flash pattern.

**Arrow, Center** - This input activates the rear directional LED modules in the CENTER OUT directional flash pattern.

**Arrow, Right** - This input activates the rear directional LED modules in a RIGHT directional flash pattern.

**Arrow, Warning** - This input activates the rear directional LED modules in a WARNING flash pattern.

**Pattern Select** - Momentarily activating the pattern select input will cause the activated light heads to advance one flash pattern. Also, when used in conjunction with the cruise mode pattern select input will toggle the cruise mode setting.

**Low Power** - Activating this input will DIM all LED modules.

**Auxiliary** - Activating this input will turn on the Auxiliary output inside the lightbar.

**Cruise Lights** - This input works in conjunction with the patterns select input and any activated LED light heads. To set cruise mode on any light head group, activate the cruise mode input and the desired lights then momentarily activate the pattern select input to toggle cruise mode ON and OFF.

**Mode Select** - Mode 1 is ON when the input is floating, Mode 2 is ON when the input is activated. (See mode select details on ETL 5000 Instruction Sheet.)

### Discrete Functions

**Discrete Output 1** - This input directly activates the LEFT MOST discrete module #1

**Discrete Output 2** - This input directly activates module #2

**Discrete Output 3** - This input directly activates module #3

**Discrete Output 4** - This input directly activates module #4

**Discrete Output 5** - This input directly activates module #5

**Discrete Output 6** - This input directly activates module #6

**Discrete Output 7** - This input directly activates module #7

**Discrete Output 8** - This input directly activates the RIGHT MOST discrete module #8

### **RED LIGHT**

No Inputs	Flashes Every 5 Secs.
Input Activated	Steady On
Added Input	Brief Flash

### **GREEN LIGHT**

Command Received	Steady On	Has good connection
------------------	-----------	---------------------

### **8-Wire Split Arrow Module**

Note: With the use of the Split-Arrow ETL5000 with aftermarket arrow controller, while Rear Inboard 1 is activated the lights on the rear of the Lightbar will flash warning color. If any discrete inputs are activated during this time, the warning lights will turn off. They will turn on again if any discrete outputs are not activated for one second.

### **Switches Explanation:**

This DSC control box is equipped with Active Low/Active High configuration switches. Typically, Arrow controller outputs pulse to ground to turn the lights on. This is referred to as Active Low. The Breakout Box with DSC Technology has the ability to accommodate an Active Low and an Active High controller at the same time. If an Active Low controller is being used to control the Arrow Modules, then set switch 2 to the down position. An active High controller can be used for the other functions by setting switch 1 to the up position.

When the switch is in the up position, then the inputs connected to that switch are active high. To activate an input, apply 12Vdc. When the switch is in the down position, the inputs connected to that switch are active low. To activate the active low, apply ground (negative).

### **Discrete Functions:**

These functions change for their respective pins. All other functions remain the same.

Switch 1 Position	Switch 2 Position	Pins in Active Low (Apply Ground to Activate)	Pins in Active High (Apply 12Vdc to Activate)
Up	Up	None	All
Up	Down	9, 10, 11, 12, 21, 22, 23, 24	1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19, 20
Down	Up	1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19, 20	9, 10, 11, 12, 21, 22, 23, 24
Down	Down	All	None