

Hi!

I hope you enjoy your Decoder Buddys as much as I do!

Here are some thoughts and hyperlinks to places I would go to or use to help with an installation. There is a lot of help available. Email is good but pictures are great, and a good video is king for me.

For very fine and complete instructive videos about decoder installations, Larry Linger, a friend of mine also, has a YouTube channel called Solo Contracting. Here's the general link. If you search Larry's videos, you'll find a lot of specific installations on a lot of locomotives.

<https://www.youtube.com/@SoloContracting/videos>

I have several videos on my YouTube also. <https://www.youtube.com/@nicksanto882>. When you get to my channel page, choose videos from the navigation menu. My website is [www.nixtrainz.com](http://www.nixtrainz.com). The webpage has description, installation thoughts and help. You can also reach me or order from the website. Discounts for quantities are available too. My Facebook Page is NixTrainz.

Scale Sound Systems speakers are among the very best. JT Burke has done several Decoder Buddy installations on his website and YouTube too. [www.scalesoundsystems.com](http://www.scalesoundsystems.com) JT also stocks Decoder Buddys so you can save on some shipping when you order them from Scale Sound Systems.

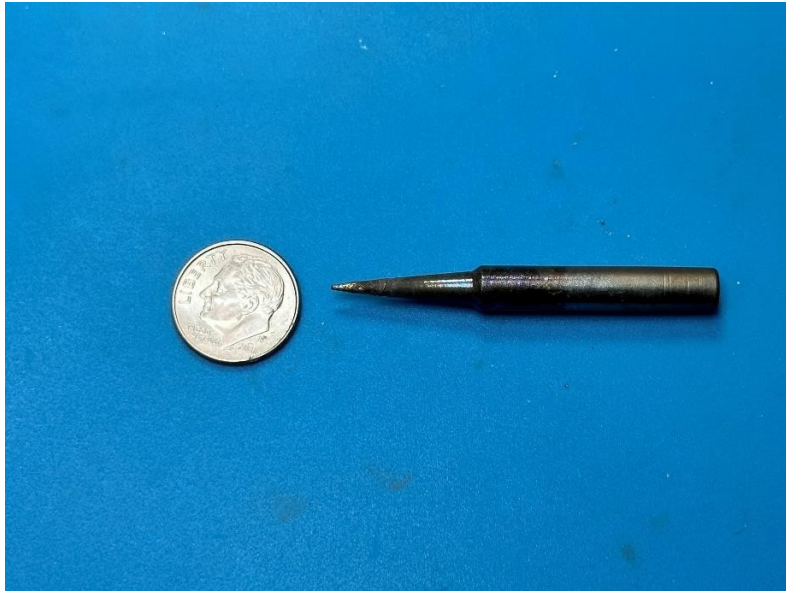


CHIPQUICK SMD291 is the solder flux I use. This is important because there are fluxes that conduct electricity. Your LEDs use so little current that some flux will cause them to light for no apparent reason. The wrong flux will cause the joint to fail and other problems also.



I use 60/40 lead solder. I like the 0.020" to 0.035" diameter Kester 44 solder for this work. The smaller the diameter the better.





The Weller wlc100 40-watt soldering station with the original chisel tip and a Weller ST-7 soldering tip are enough to build an entire railroad and solder all your decoders if you are careful with the tips. Only the Weller tips hold up well. All can be found on eBay and elsewhere. It doesn't have to be this soldering iron. A 40 watt adjustable soldering iron with a fine tip for electronics and a chisel tip for track is what I recommend.



I use a brass ball to clean the tip of the soldering iron. It is the current and very effective way to preserve soldering iron tips.

LEDs

Scale Sound Systems has warm white LEDs that are pre-wired with a very flexible silicone insulation that doesn't melt. I prefer this wire. eBay is also where you can purchase LEDs both raw and pre-wired. Search for smd LED.



Prewired 0402 LEDs come in warm white and cool white found the dime in the road one day while I was walking. I had to search for the LEDs and when my eBay supplier disappeared, I was glad to find that Scale Sound Systems has a good source again.

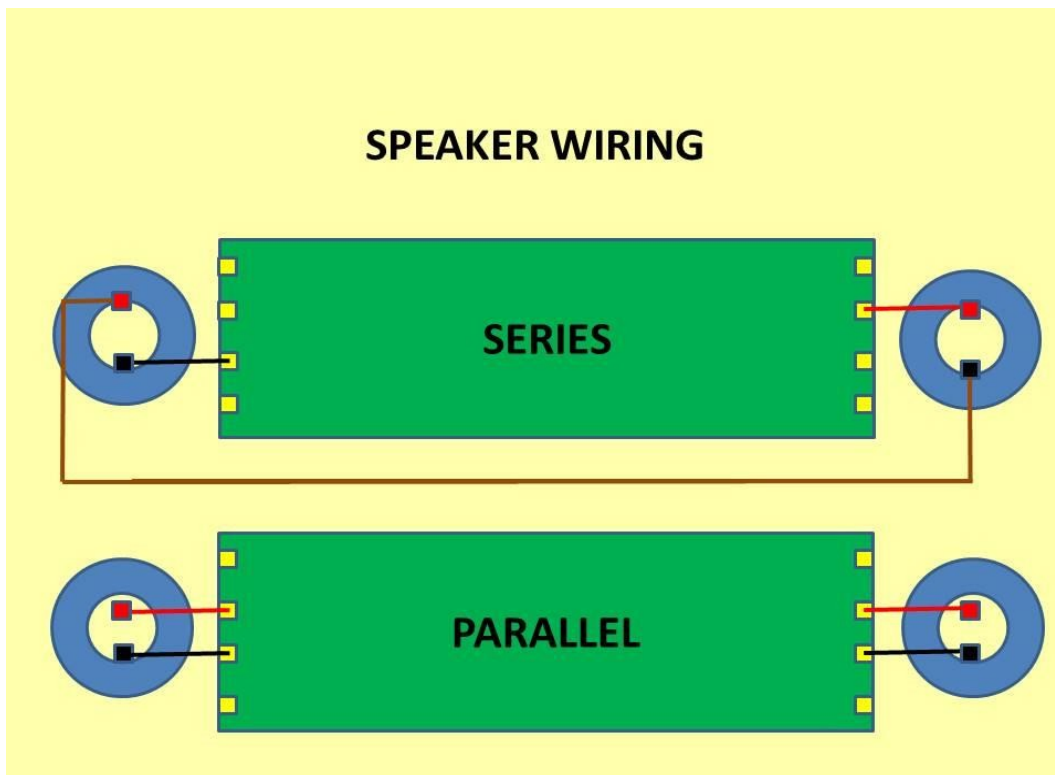
Here are the incandescent bulbs I recommend for installation in locomotives....

(Yup! None!) ( : > ) )

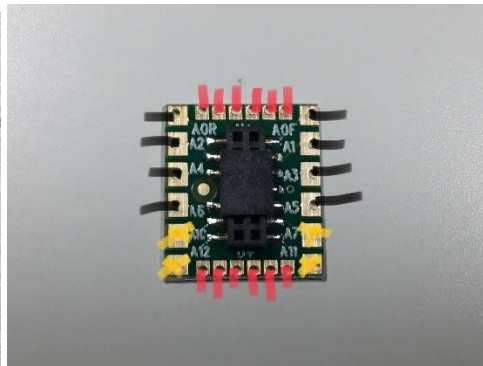
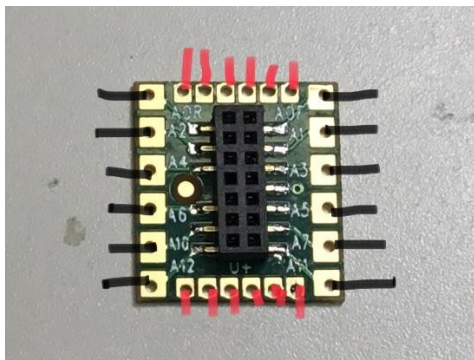


Pin Number	Decoder Buddy		LokSound		SoundTraxx	TCS	Digitrax**
	Original	V5	4	5	T2 & E2 (21PNEM8)		& NCE
1		A10		A10			
2		A7		A7			
3	A6	A6	A6	A6	(FX8)	F6*	F6
4	A4	A4	A4	A4	Fx6	F4	F4
5		A12		A12			
6		A11		A11			
7	A0r	A0r	A0r	A0r	F0r	F0r	F0r
8	A0f	A0f	A0f	A0f	F0f	F0f	F0f
13	A3	A3	A3	A3	Fx5	F3	F3
14	A2	A2	A2	A2	Fx4	F2	F2
15	A1	A1	A1	A1	Fx3	F1	F1
17	A5	A5	A5	A5	(Fx7)	F5*	F5
* Note; TCS functions 5 and 6 are not programmable, and will only output constant bright lights							
** Unavailable for comment							

This is the Manufacture's nomenclature cross reference chart for output names.



This is one way to set up series of parallel speakers in your locomotive with a large Decoder Buddy.

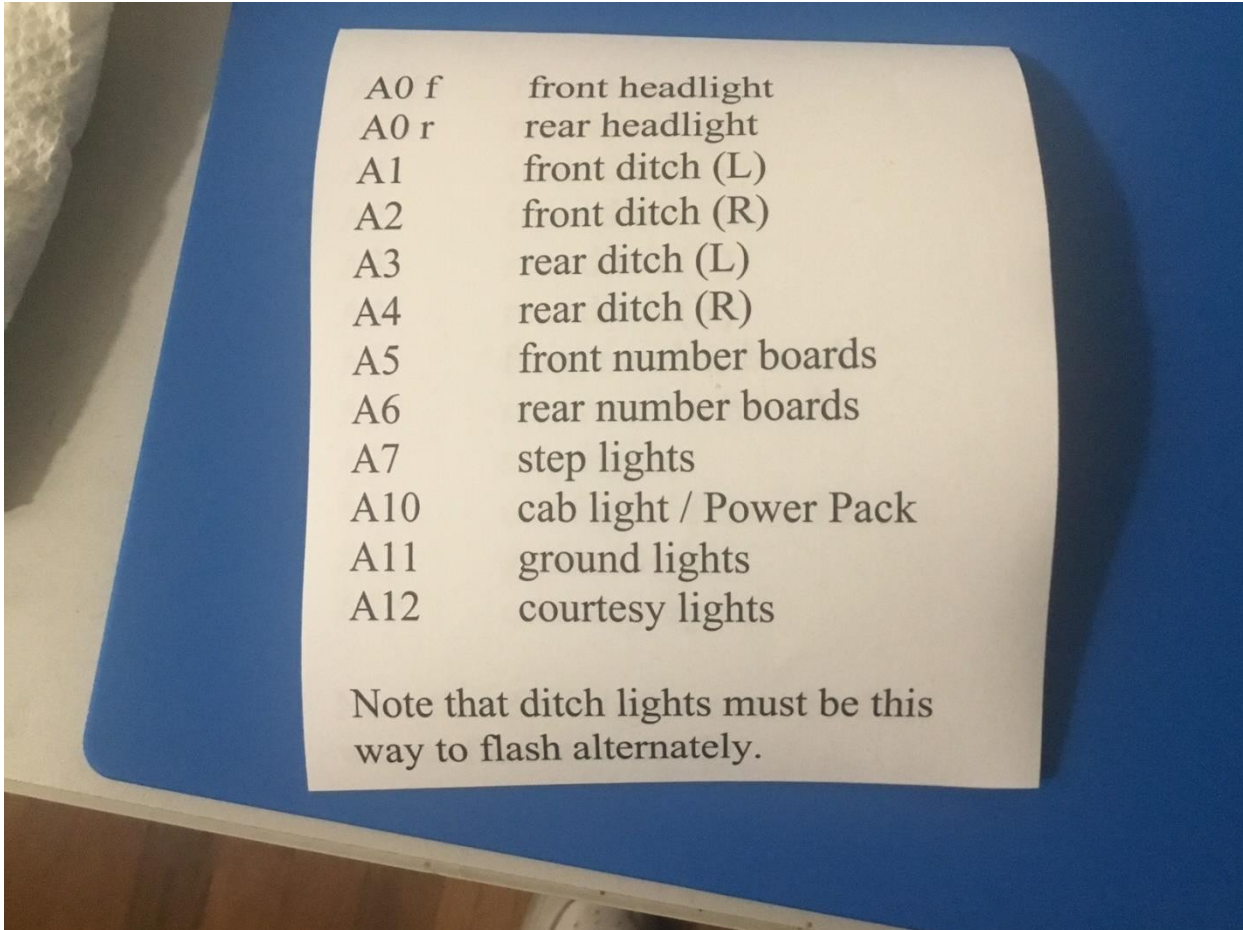


This reminds you to use the lowest numbered outputs and the color code for the pads.

58429/V5

A10	1	•	32	RTRK
A7	2	•	21	LTRK
A6	3	•	20	END
A4	4	•	19	RHOT
A12	5	•	18	LHOT
A11	6	•	• 17	A5
RHL	7	•	16	U+
FHL	8	•	• 15	A1
SP1	9		• 14	A2
SP2	10		• 13	A3
X	11		12	VCC+5v

This is the labeled 21-pin connector pinout diagram for a 12-output decoder. Combining some functions for an 8-output decoder works well also.



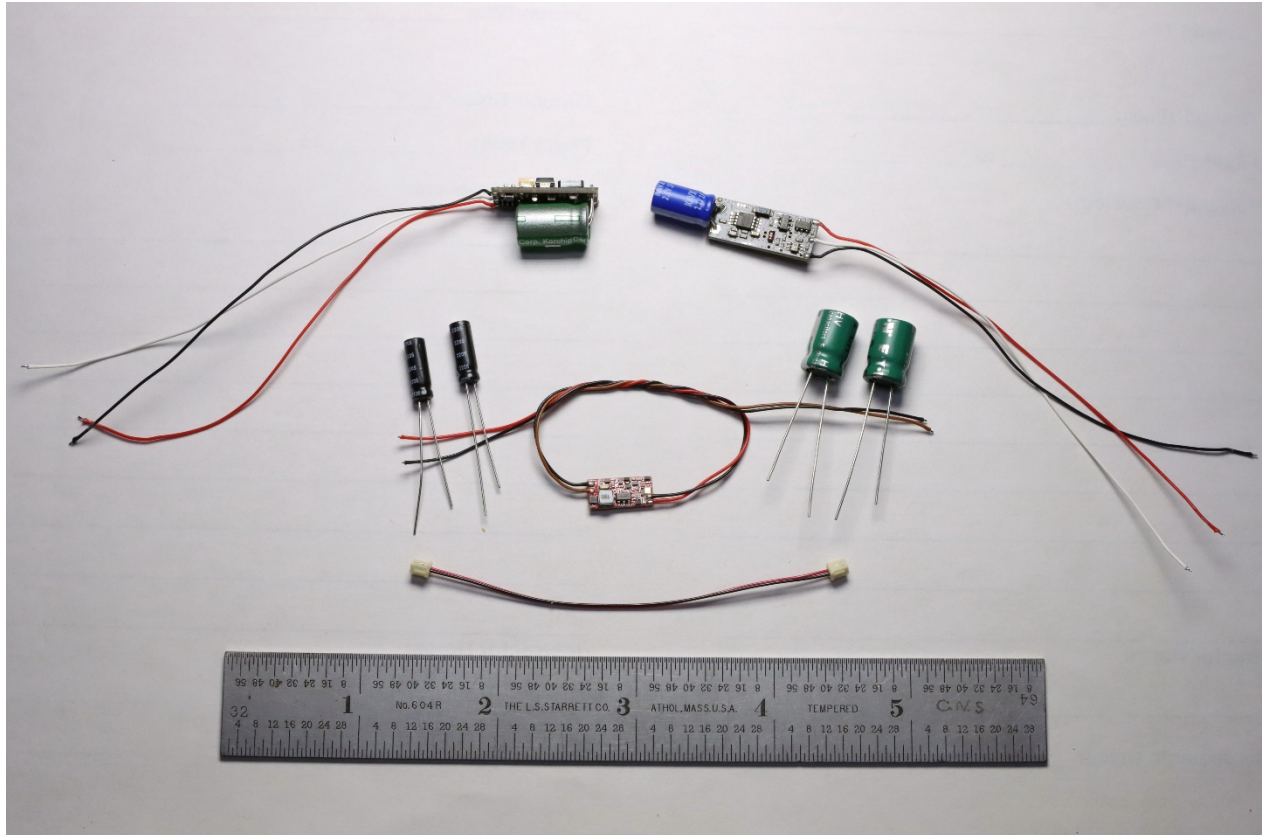
A0 f	front headlight
A0 r	rear headlight
A1	front ditch (L)
A2	front ditch (R)
A3	rear ditch (L)
A4	rear ditch (R)
A5	front number boards
A6	rear number boards
A7	step lights
A10	cab light / Power Pack
A11	ground lights
A12	courtesy lights

Note that ditch lights must be this way to flash alternately.

People sometime ask me how I set the lighting up in my locomotives. I need a list / checklist to do it about the same each time!

The important take aways for the Power Bridges is that all three can be used for either two or three wire applications. There are appropriate application videos on my YouTube channel.

The Power Bridge III can be made to have a greater effective capacitance by using 1 farad super capacitors. I can include a JST connector that connects to several 2-wire decoders. They are only available on the website as custom items. The cost of the custom combinations will not be outrageous.



Further programming may be necessary. Details will be updated as methods are uncovered. Updated details will show up on the website as they become available.

I hope these suggestions help! Be sure to ask if you have any questions! My email address is [nick@nixtrainz.com](mailto:nick@nixtrainz.com). Enjoy!!!

Later,

Nick