



Sunrise Herald

February 2024 Volume 17 Number 2

Sunrise Division Officers

Superintendent.....William Boorman
 Asst. Superintendent.....Dennis Hagen
 Secretary.....Bob Hochstetter
 Treasurer.....Dave Clifford
 Program Chair.....Gary Myers
 Division AP Chair.....Gerry Meltzer
 Youth Coordinator.....Position open
 Education Chair.....Stewart Jones
 Modular Layout Chair.....Larry Stephens
 Herald Editor.....Bob Hochstetter

In the Herald

Layout Photos of the Month.....	1
February Meeting Notes.....	2
Next Meeting.....	2
Videos of the Month.....	2
Upcoming Tool Time.....	2
Upcoming Clinic.....	2
Upcoming Show 'n' Tell Theme.....	2
Announcements.....	2-3
Awards.....	3
Tool Time.....	4-5
Show 'n' Tell.....	6-8
Clinic.....	8-13

Layout Photos of the Month

This month's three photographs were taken on Bill Botkin's home layout.

I need photographs for the Herald. If you have photographs of your layout that you would like to have included here, please send them to me. (Ed.)



February Meeting Notes

The regular monthly meeting of the Sunrise Division of the National Model Railroad Association was held February 1, 2024, at Holy Love Lutheran Church. Superintendent William Boorman conducted the meeting. The meeting was called to order at 7:03 p.m. Twenty-seven members attended in person, and two joined via Zoom.

William began the meeting by asking the members for a self-introduction, brief mention of modeling scale and recent accomplishments.

Announcements, Tool Time, the Clinic and more followed the self-introductions. All of these are included in this issue of the Herald. William adjourned the meeting at 9:00 p.m.

Next Meeting

The next meeting will be Thursday, March 7, 2024, in person at Holy Love Lutheran Church, 4210 S Chambers Road, Aurora, Colorado. The meeting will start at 7:00 p.m. The meeting will also be streamed on Zoom with sign-in between 6:30 and 7:00.

Videos of the Month

The layout of the month photos inspired me to select these two videos of the Lackawanna in 1958 (Ed.):

The Lackawanna Railroad & Phoebe Snow 1958

<https://www.youtube.com/watch?v=qmoHuEVDcYE>

Lackawanna Freight 1958

<https://www.youtube.com/watch?v=X4bxcP5Tm4w>

Upcoming Tool Time

March—Slanser Switch Stands—Bill Johnson

Upcoming Clinic

March—How I Built the Salida Sandhouse—Gary Myers

Upcoming Show 'n' Tell

March—Tunnel

Reminder

To reduce problems, especially for those who join the meeting on Zoom, we continue to ask that Show 'n' Tell photos, Clinic presentations, and Tool Time photos be taken before the meeting and sent to:

Gary Myers (garymyers06@comcast.net) for presentation at the meeting, and to the editor (rlhoch422@gmail.com) for inclusion in the Sunrise Herald. (Ed.)

Module Report

Larry Stephens needs to cut two rectangular holes in 28 pieces of styrene for the modules. If you have a laser cutter that will cut 0.1-inch-thick styrene and would like to help him out, please notify Larry or one of the officers of the Division.

Announcements

The Foothills Society of Model Railroaders swap meets
Green Mountain Presbyterian Church
12900 W. Alameda Parkway
Lakewood, CO
9:00 a.m. - 11:30 a.m.
on the third Saturday of odd numbered months
(303)989-0087 or (303)985-1491

Rocky Mountain Train Show - Spring 2024
April 6th & 7th
Sat 8:00 AM - 9:00 AM - Pre-Registered TCA/NMRA Members
Sat 9:00 AM - 5:00 PM - Public
Sun 9:00 AM - 4:00 PM - Public

National Western Complex
4655 Humboldt St.
Denver, CO 80216

Exhibit Areas

Expo Hall, Hall Of Education - East, Hall Of Education - West, Stadium Hall

Clinicians are needed for the Rocky Mountain Train Show. If you have a clinic that you would like to present, please contact William Boorman.

Kick Off Event! Save the date!

**COLORADO
RAIL PROTO MEET**

Saturday, September 21st, 2024
 9am-5pm—Zoe's Café and Event Center
 715 10th Street, Greeley CO
 5pm-8pm— Colorado Model Railroad Museum
 680 10th Street, Greeley CO
 \$20 admission
 (Includes free dinner at the CMMR)
 Model Displays—Clinics—Hands on Stations—Vendors

www.corpm.org

Hosted by the Colorado
 Model Railroad Museum
 and the Northern Colorado
 Division NMRA





Bill Botkin (left) was presented an Achievement certificate for Master Builder -Structures from Gary Myers.



Bill Botkin also received his Achievement certificate for Master Builder-Scenery.

The Sunrise Division Auction is Returning

When: May 2, 2024

Where: At the monthly Division meeting

Select that one quality item that you know you will never use but are willing to make available to a fellow model railroader. Sell it at the auction and line your pocket with funds to purchase an item that you cannot do without.

Awards



Gary Myers presented Bill Johnson (right) a certificate marking his 50 years as a member of the NMRA. Bill said that he joined the NMRA when he was three years old.

Tool Time

Dennis Hagen presented this month's Tool Time. He showed how to make inexpensive throttle cradles out of electrical outlet boxes. His PowerPoint presentation follows.



Cheap Throttle Cradles

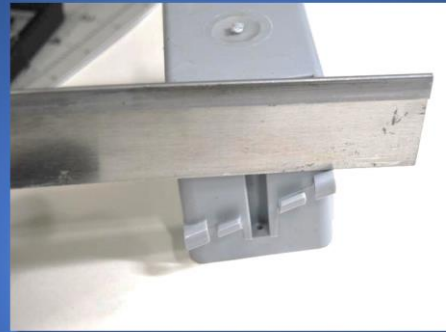
Tool Time by
Dennis Hagen
February 1, 2024



The 75-cent throttle cradle



First step—cut off nail guides



Next—drill out bottom



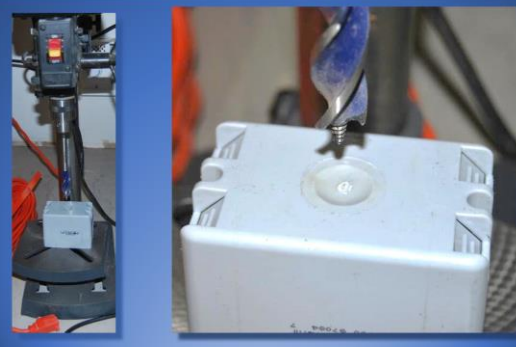
When it comes to dropping a throttle



There are store-bought cradles



Size doesn't matter





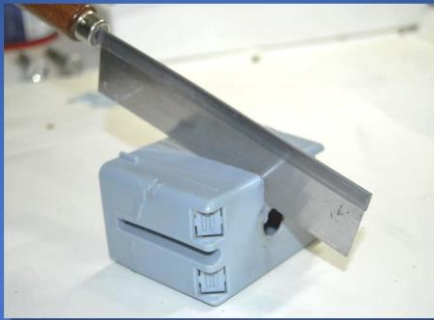
Mark and cut a channel for the cable



Give it some "rattle can"



Most any saw will work



Attach as many as you need



Measure, mark and drill mounting holes



Use the supplied paint handle

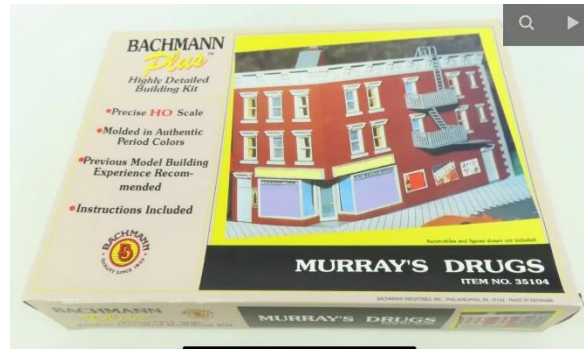


Show 'n' Tell

This month's Show 'n' Tell subject was any non-railroad structure.



*These pictures first show this house as it was on the modular layout. I was not entirely happy with how it looked, and the orientation on the layout at the Thanksgiving show, so I removed it during tear down to take home and make it better. So far, I have added all new scale framing for the addition, new paint colors and a scratch-built chimney and am working on an interior as well. **Adam Crews***



*The second building was donated to the group and was a Murray's Drugs kit which I made into a F.W. Woolworths. It got a much-needed facelift and will be the new building for the corner of Main Street on the Division's module number 3. Interior details are also being completed including a Luncheonette in the corner. **Adam Crews***



This is a commercial building I picked up from my friend Don Meeker. I liked the signage, and it was assembled very cleanly. I believe that putting structure kits together is the most rewarding return on your hobby dollar of any model railroad activity. However, after saying that, I must confess that I'm not very good at it. Therefore, I jump at the opportunity to pick up nice structures when they become available.
Bill Johnson



This picture of the Argosy Booksellers kit is in the Walthers catalog.



This was a model from Mountain Models that was displayed at Caboose Hobbies. After an accident I rebuilt it and with the help of a vendor that had a static grass applicator, we dressed it up.
Bill Johnson



Port Huron, Michigan needed a first-class hotel located near the Grand Trunk Western Railroad depot. Local investors responded by converting the Argosy Booksellers building into the first-class Grand Hotel.
Rich Flammini



Ace Hardware is a large well-known chain. Now they have some competition.
Stu Jones



HO Wild West Models Miners Supply. This is a laser cut model with a simple construction. It has a removable roof. It was painted with acrylic paints and weathered with Bragdon powders. **Gary Myers**

Clinic

Bill Botkin presented this month's clinic on fabricating non-flickering passenger car lighting circuits. His PowerPoint slides are reproduced here.

**LED Non-Flicker Lighting Circuit
for Passenger Cars**

William E. Botkin

Circuit design by Victor Hand

Requirements

- Powered from DCC track power, not batteries.
- Absolutely no flicker, even over sections of dirty track or gaps.
- Ability to position lights (LED's) in different locations depending on the floor plan of the individual car.
- Simulate both incandescent and fluorescent lighting for both heavyweight and lightweight cars.
- Able to adjust LED intensity to suit layout lighting
- Turn lights on/off without a mechanical switch or decoder
- "Economical" to build.

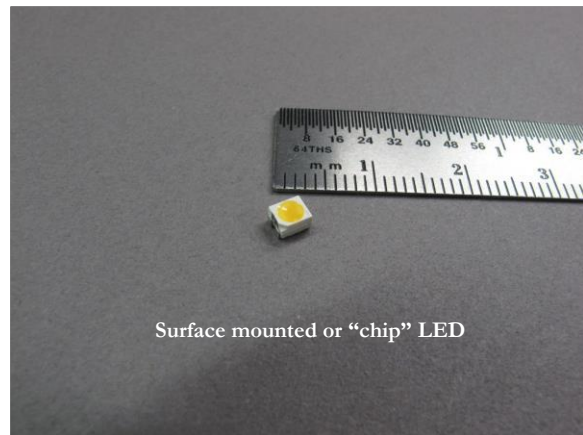
How it works

- Bridge rectifier converts DCC 14.25 VAC track power converted to 14.25 VDC.
- Two magnetic reed switches control double pole double throw (DPDT) latching relay.
 - Reed switches are located under roof at each end of the car.
 - Magnet activates one reed switch and latches relay turning on the circuit and other reed switch will reset relay when activated to turn the circuit off.
- DPDT Relay - When latched charges super capacitors and turns LED's on.
 - When relay is reset, LED's are turned off and super capacitors are disconnected.
 - Magnetic reed switches and relay can only be activated when track power is on.
- Super capacitors (3 - 5.5V .33F) are wired in series and can handle 16.5 volts.
 - Capacitors charge and deliver from 10 to 16 volts when track power is interrupted.
 - An average circuit with nine LED's will stay lighted for several minutes with no track power once charged.
- Voltage regulator reduces voltage from capacitors to 3.3 volts to power LED's.
- Trim potentiometer allows adjustment of LED brightness.
 - LED's should run at slightly less than full brightness to eliminate any slight flickering and to extend life.
 - Additional fixed resistors can be added to adjust brightness of individual LEDs in vestibules or aisles if desired

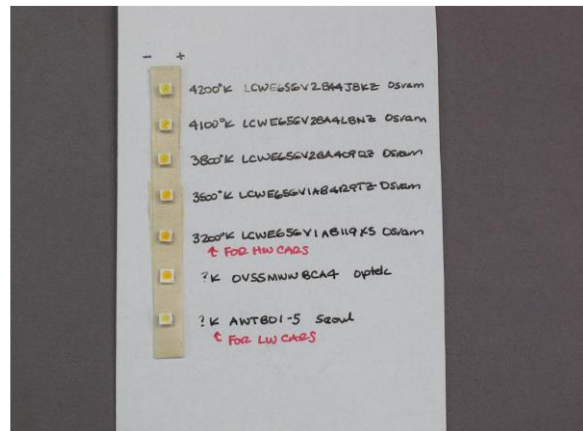
Components – Mouser Part Numbers

• Twin Industries prototype board 10x10 in. - Enough for nine circuits	589-8000-1010-LF
• Vishay bridge rectifier 1A 100V	625-DF01M-E3
• Meder Electronic magnetic reed switch - Two per circuit	876-KSK-1A66-1015
• TE Connectivity dual latching relay	655-D3066
• Elna Supercapacitors 5.5V 0.33F - Three per circuit	555-DX-5R5H334U
• ST voltage regulator 3.3V .05A	511-LF33ABV
• Bourns trimmer resistor 5K ohms 10%	652-3362W-1-502LF
• Warm white "chip" LED 2800 -3200K - Nine per circuit for 85' HW cars to simulate incandescent lighting	TBD by testing
• Cool white "chip" LED 4000-5000K - Nine per circuit for 85' LW cars to simulate fluorescent lighting	TBD by testing

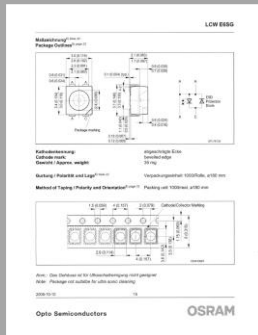
Approximate cost per circuit +/- \$25



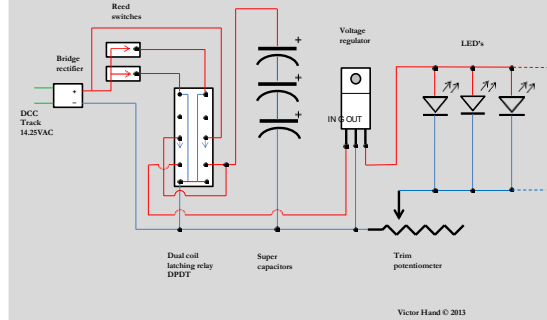
Surface mounted or "chip" LED



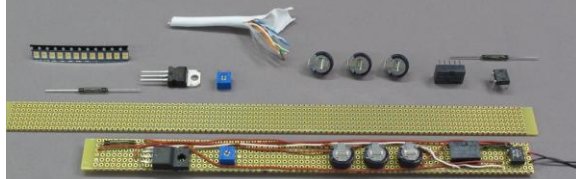
Spec sheet from Mouser shows anode and cathode



LED Non-Flicker Lighting Circuit



Components and finished board



10 inch square perf boards are cut into nine 5/8 inch strips with a table saw

Placement of Components



Other Supplies Engineering/Mouser/Home Depot

- Miniature 12 watt soldering iron * N40M2
- Needle tip – iron clad & nickel plated N4081
- Low temperature silver bearing solder N4200
- Wire wrap hook-up 30AWG wire – white 50' 801-R-30W-0050
- Wire wrap hook-up 30AWG wire – blue 50' 801-R-30B-0050
- 32 AWG super flexible wire - 5 feet N5032
- Pin Strip Headers – male (36) 517-800-01-36
- Headers –female (10) 517-929984-01-10-RK
- CAT-5 Telephone cable Home Depot

NOTE: The low voltage soldering iron and low temperature solder is used to solder the LEDs to the perf board and connect the wires to the LEDs.

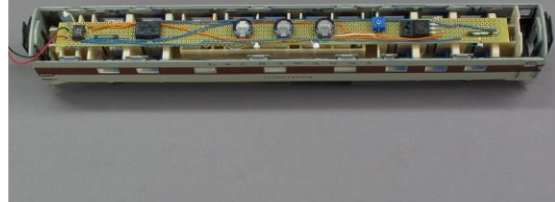
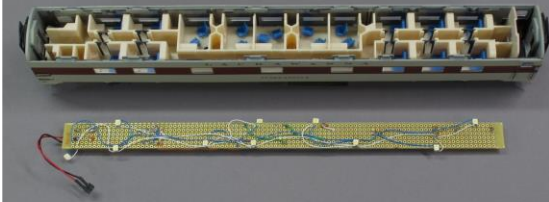
LED placement depends on the floor plan



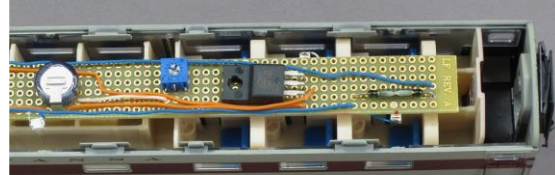
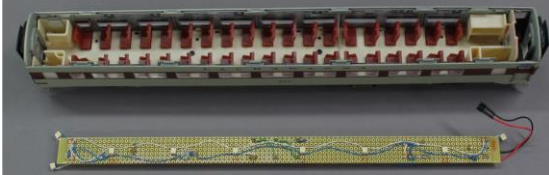
Specific placement of LEDs based on floor plans



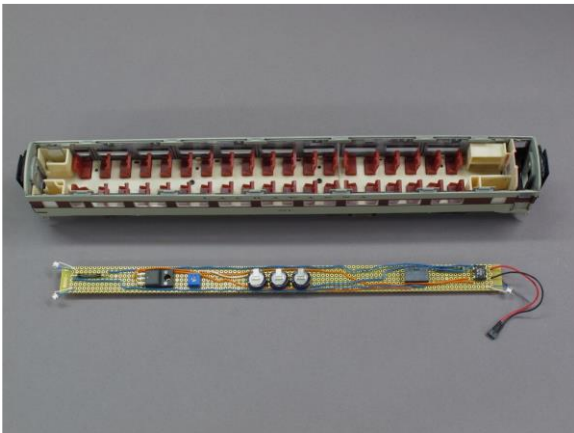
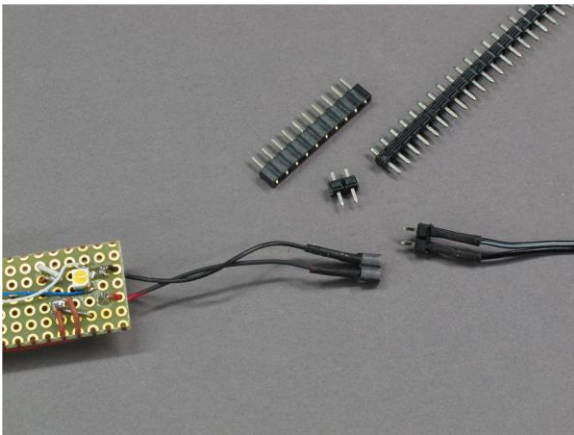
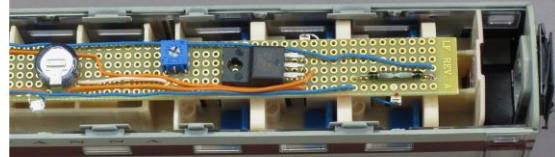
Placement of LEDs for a 10-5 sleeper



Placement of LEDs for a coach

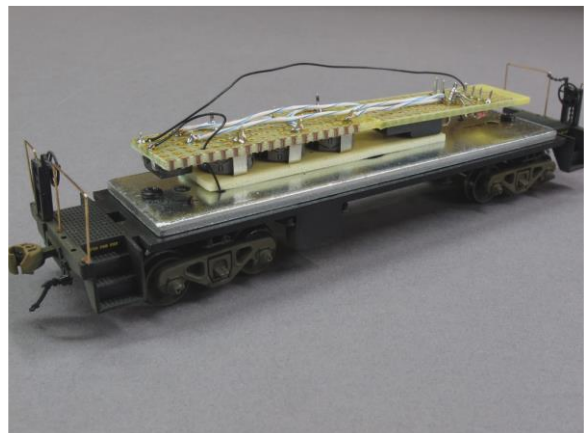
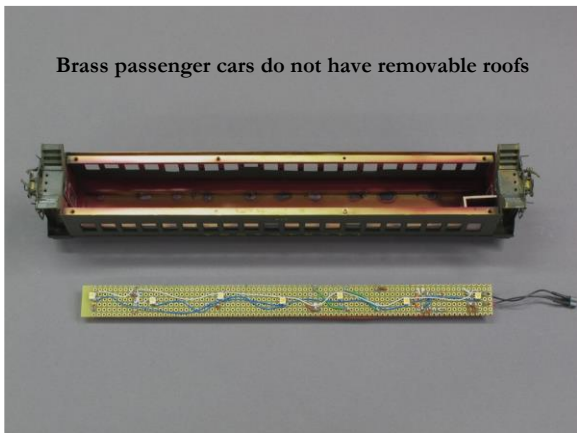
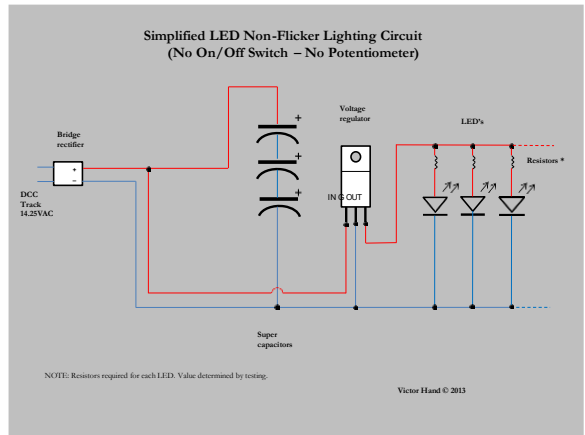
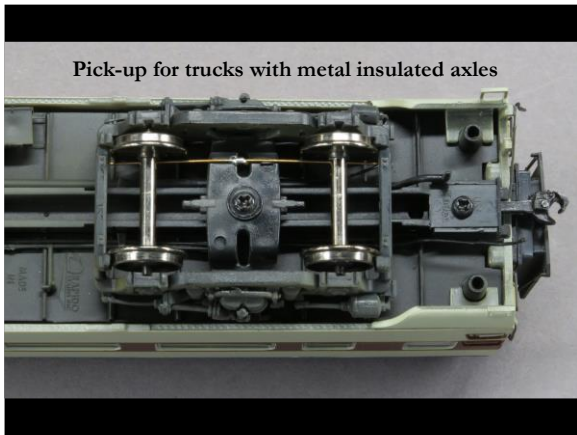
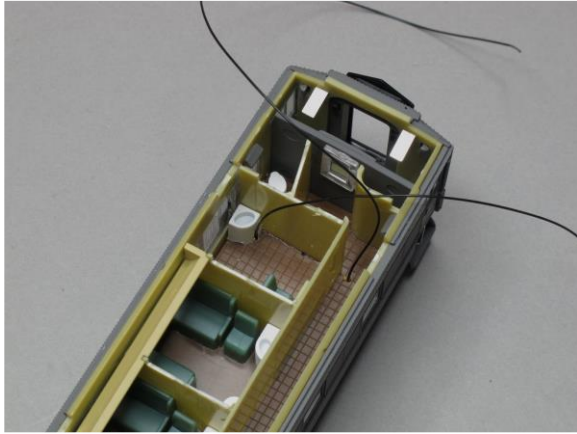
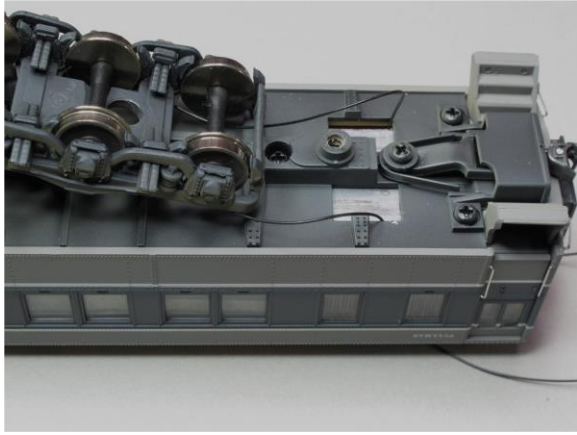


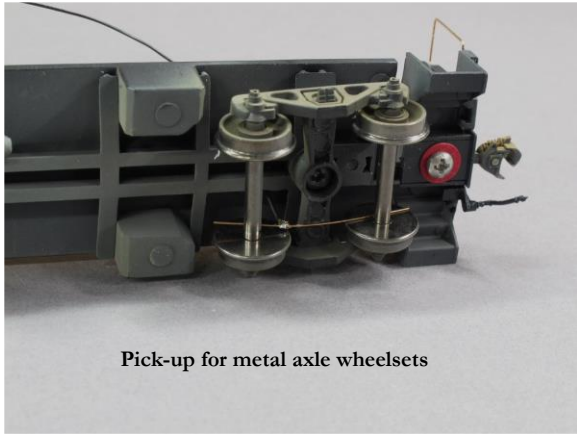
Notching out partitions for board



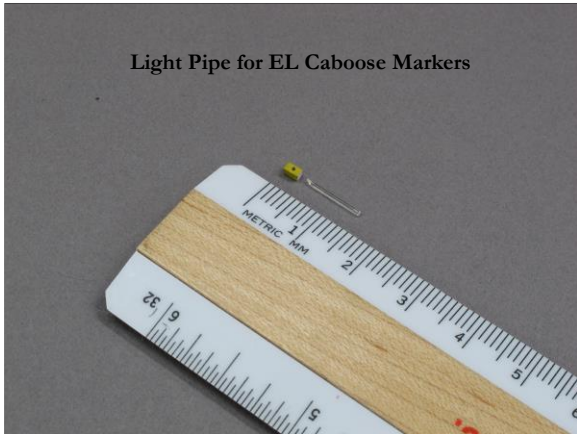
Pick-up for Walthers trucks



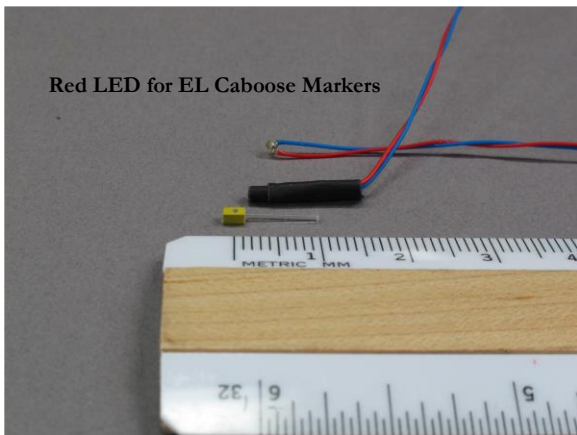
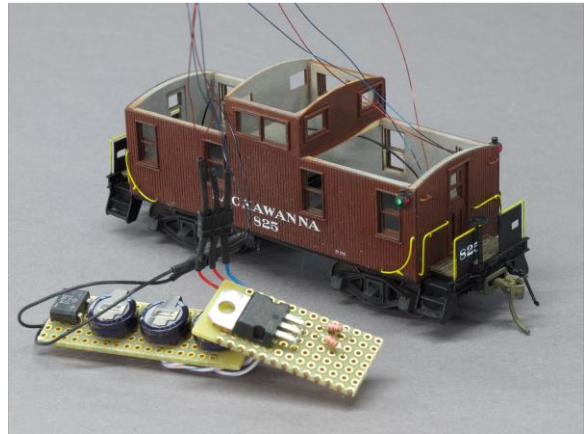




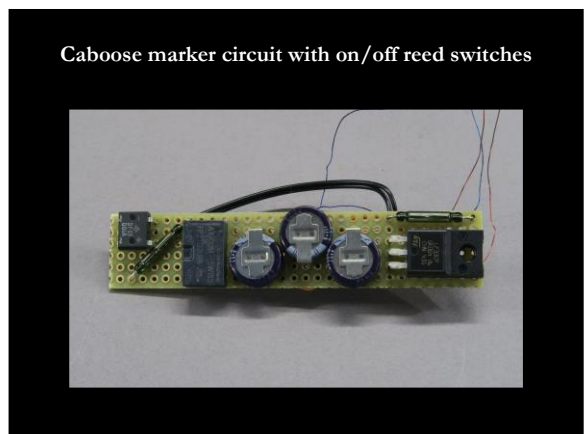
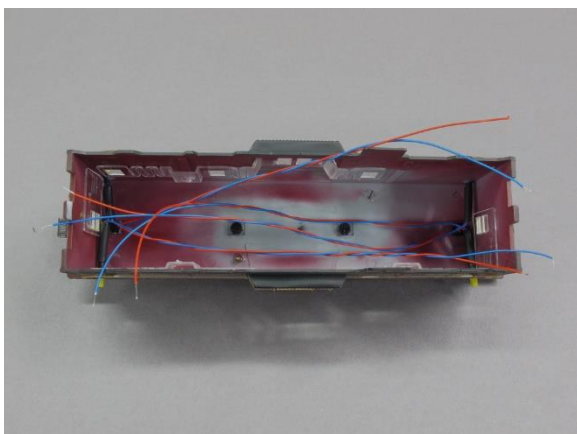
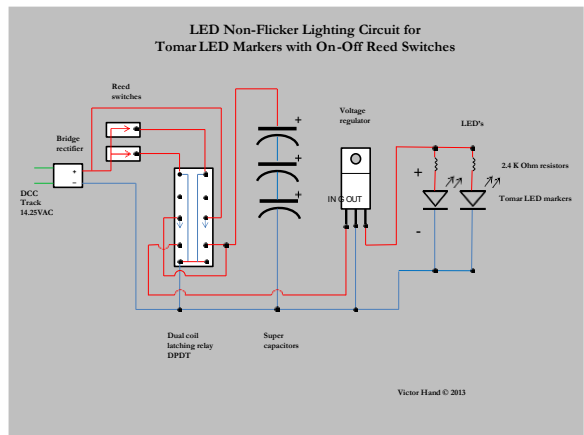
Pick-up for metal axle wheelsets



Light Pipe for EL Caboose Markers



Red LED for EL Caboose Markers



Caboose marker circuit with on/off reed switches

