

# POTOMAC MODULE CREW'S MODULE STANDARDS

## INTRODUCTION:

- THE POTOMAC MODULE CREW [PMC] IS GROUP OF MODEL RAILROADERS WHO ALL BUILD PIECES OF A MODEL RAILROAD. THESE PIECES OF RAILROAD ARE KNOWN AS MODULES, AND ARE BUILT TO A SET OF NATIONAL STANDARDS THAT ALLOW OUR RAILROAD TO BE SET UP IN A VARIETY OF WAYS AND STILL BE COMPATIBLE. ANOTHER FACET OF THESE NATIONAL STANDARDS IS THAT THE MODULES CAN BE USED IN CONJUNCTION WITH OTHER MODULAR GROUPS ACROSS THE COUNTRY TO FORM LARGER RAILROADS THAN A SINGLE GROUP CAN BUILD.

## PMC MODULE STANDARD SIZES:

- STANDARD STRAIGHT MODULE IS 4'-0" BY 2'-0".
- STANDARD CORNERS:
  - 4' CORNER IS 4'-0" BY 4'-0"
  - 3' CORNER IS 3'-0" BY 3'-0"
- STRAIGHT MODULES CAN BE IN INCREMENTS OF 2'-0" IN LENGTH AND 2'-0" WIDE. YOU CAN GO DEEPER THEN 2'-0" BUT WATCH OUT, IT CAN BE A HEADACHE TO TRANSPORT, HANDLE AND SETUP. SAME APPLIES TO THE LENGTH OF MODULES BEYOND 6'-0".

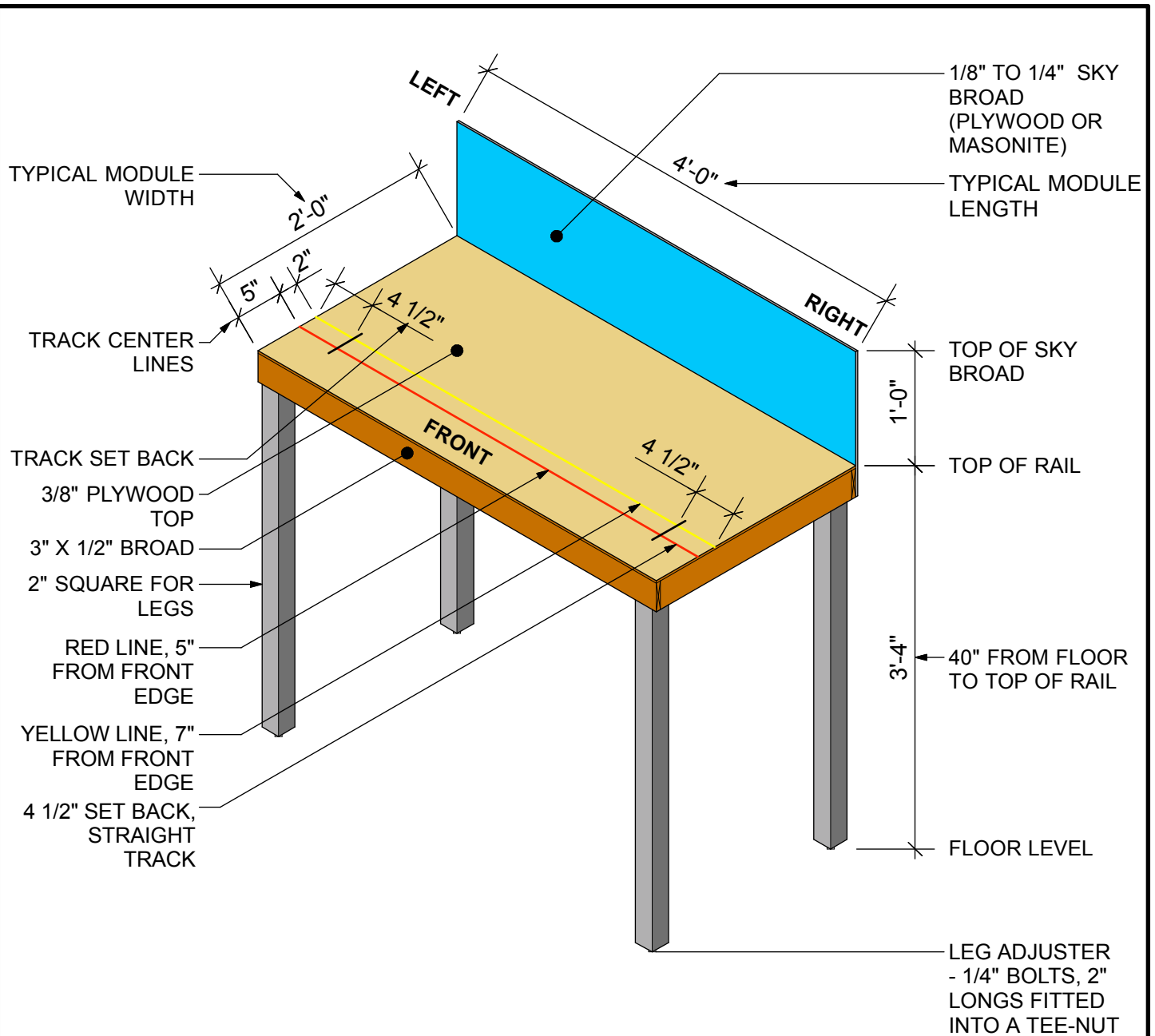
## PMC TRACK STANDARDS:

- RAIL CODE SIZES:
  - RAIL CODE 100 FOR MAIN LINES (RED LINE AND YELLOW LINE)
  - RAIL CODE 83 AND 70 ARE OK FOR SIDING AND YARDS ON THE FRONT SIDE OF THE MODULE. HOWEVER, REMEMBER THAT NOT EVERYONE HAS RP25 WHEEL SET AND OLDER SETS HAVE DEEPER FLANGES.
  - ANY YARD THAT LEADS FROM THE MAIN LINE TO THE BACK SIDE OF MODULE SHOULD BE CODE 100 AND HAVE A MINIMUM RADIUS OF 24" THAT WILL ALLOW MOST EQUIPMENT TO PASS THROUGH.
- MINIMUM RADIUS:
  - 4'-0" CORNER MODULE: 36" MINIMUM.
  - 3'-0" CORNER MODULE: 24" MINIMUM.
  - MAIN LINE: 36" MINIMUM.
- SETBACK MINIMUMS:
  - SET BACK FOR TRACK FROM FRONT OF MODULE IS 5" FOR RED LINE AND 7" FOR YELLOW LINE.
  - TWO OTHER TRACKS CAN BE SET AT 3" FOR ORANGE LINE AND 9" FOR BLUE LINE (WHICH IS MORE OFTEN USED).
  - SET BACK FOR TRACK AT END OF MODULES IS 4 1/2" FOR ALL TRACKS UNLESS THE MODULES ARE PAIR TOGETHER ALL THE TIME.
  - TRY TO AVOID HAVING SWITCH RIGHT AT THE 4 1/2" MARK UNLESS THEY ARE PECO TYPE. THE RAILS ARE MORE SECURE THEN ATLAS SWITCH.
  - BRIDGES, TUNNELS, AND SIGNAL BRIDGES CLEARNESS: 3" FROM TOP OF RAIL TO UNDER SIDE OF STRUCTURE. MINIMUM OF 2 1/2" IS ACCEPTABLE.
- POINTS / SWITCHES / TURNOUTS:
  - #6 OR GREATER FOR ALL MAIN LINE CROSSOVER, TO SIDING, BRANCH LINES AND YARDS.
  - #4 OR GREATER IS OK FOR USE WITHIN SIDING, BRANCH LINE AND YARDS. HOWEVER, REMEMBER SOME ROLL STOCK WILL NOT WORK WELL WITH #4 SWITCH SUCH AS 60' TO 90' LONG CARS.
  - THREE WAY TURNOUT ARE NOT RECOMMEND ON THE MAINLINE.
  - #4 OR LESS ARE GOOD FOR THE YARD IN LADDER FORM.

## PMC ELECTRICAL STANDARDS:

- SEE DRAWING FOR WIRE SCHEME PARTS AND HOOKUP. (SHEETS S03, S06, S08 AND S09)
- RECOMMEND USING 16ga TO 12ga WIRE FOR MAIN BUS WITH 26ga TO 22ga FOR TRACK FEED.
- USE TERMINAL BLOCKS AT EITHER END OF THE MODULE(S).
- FEED THE TRACK POWER FROM ONE END ONLY. THIS WILL HELP FIND POWER PROBLEMS FASTER.

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Revised Date:	Date: 26 MAR 2013	Project Name:  <b>POTOMAC MODULE CREW MODULE STANDARDS</b>	
	Scale: NO SCALE		

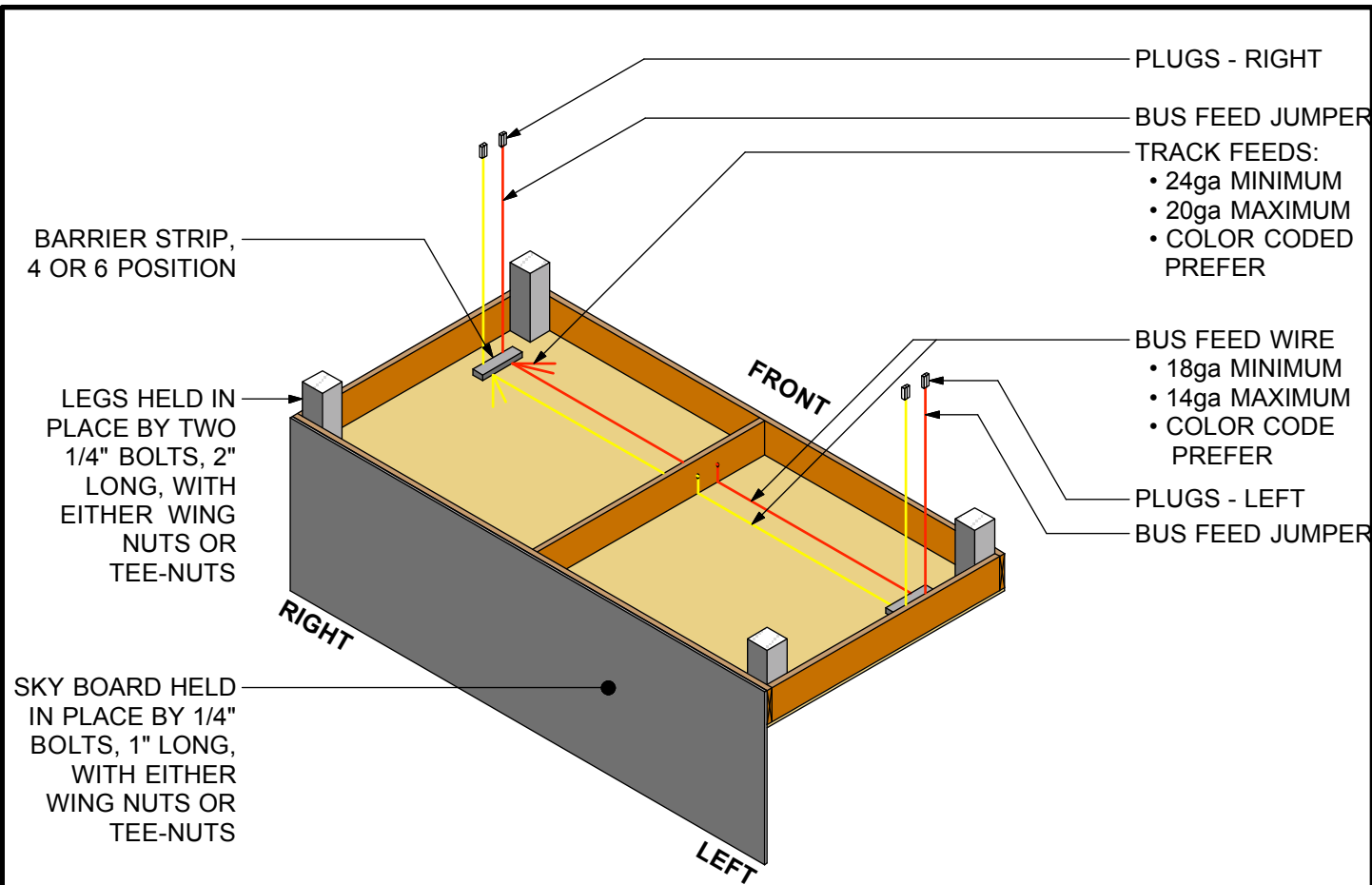


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**MODULE STANDARD - TYPICAL 4'-0" STRAIGHT (TOP VIEW)**

Scale: 3/4" = 1'-0"

Copyright © 2013 Colin Weiner All Right Reserved www.potomacmodulecrew.org		Subject: <b>STANDARD 4'-0" STRAIGHT MODULE</b>	Sketch Number: <b>S02</b>
Revised Date:	Date: 26 MAR 2013 Scale: AS NOTED	Project Name: <b>POTOMAC MODULE CREW MODULE STANDARDS</b>	

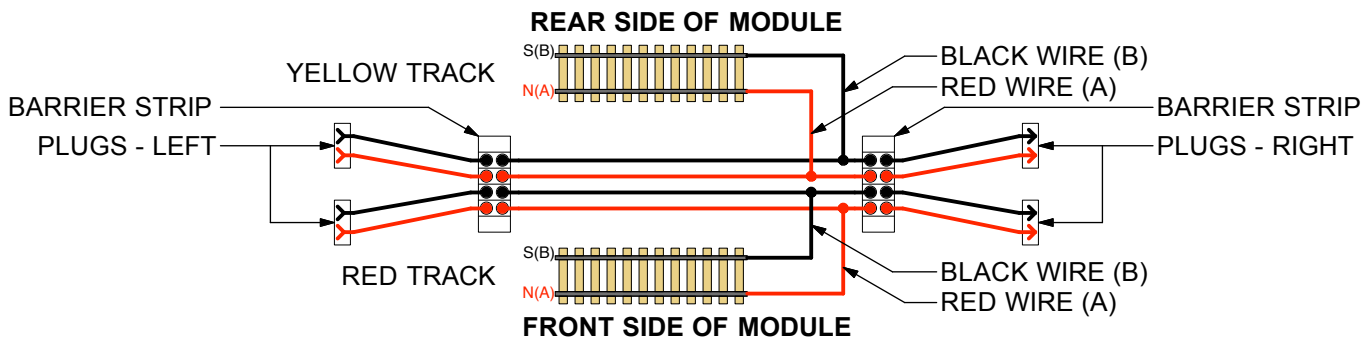


**BUS FEED JUMPER NOTES:**

- 18" LEAD MAXIMUM
- 18ga MINIMUM
- 14ga MAXIMUM

**PLUG NOTES:**

- WE ANDERSON 'POWERPOLE' PLUGS INSTEAD OF 'CINCH-JONES' PLUGS
- SEE SHEET S08 FOR PLUG SETUP AND DETAILS WHICH INCLUDES OLD PLUGS.
- THERE TWO OPTIONS FOR DOING PLUGS:  
 OPTION 1: 18" BUS FEEDER JUMPER  
 OPTION 2: MOUNT POWERPOLE PLUGS ON THE MODULE



**STANDARD MODULE WIRE SCHEME**  
AS VIEWED FROM THE TOP

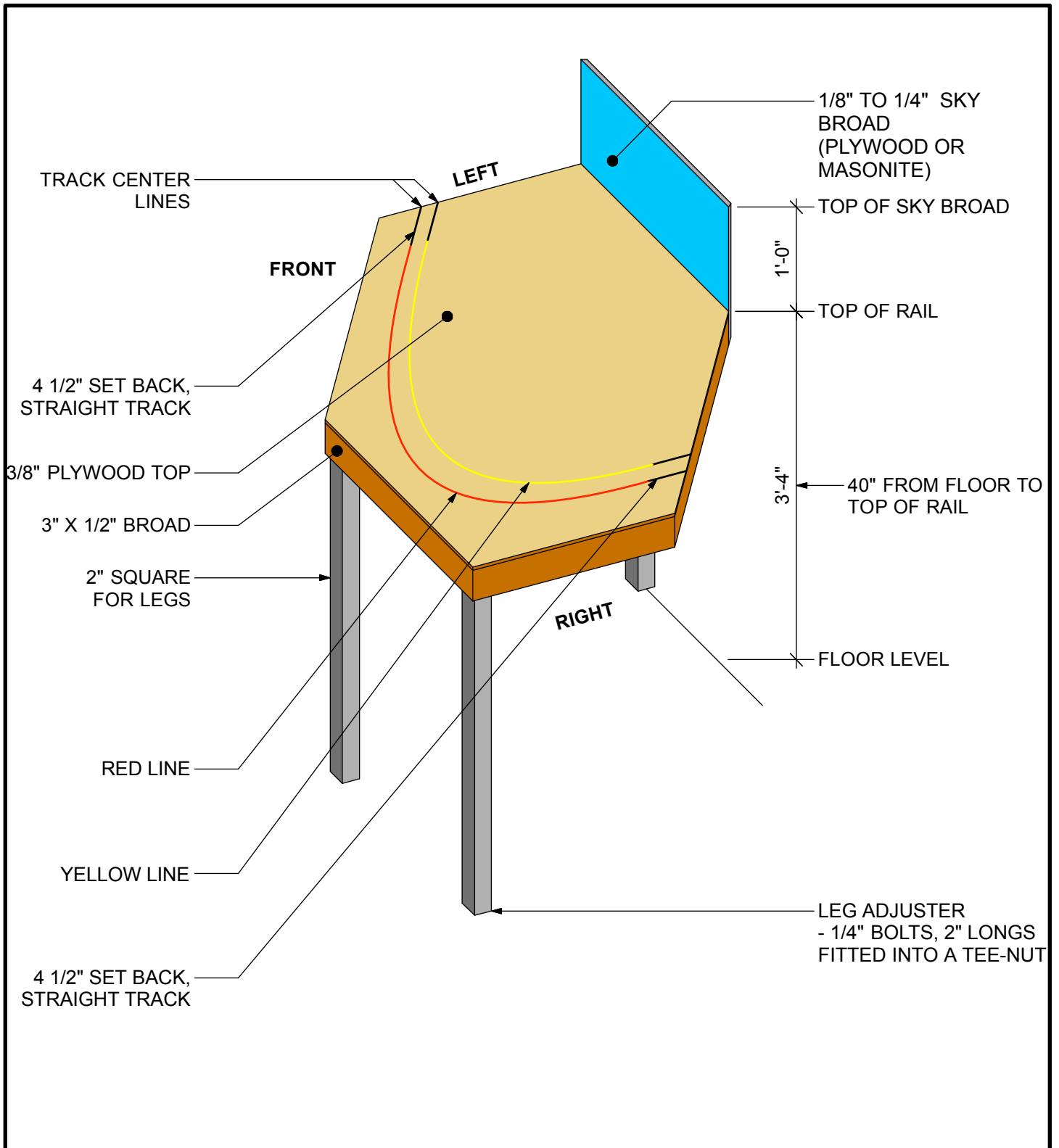
**3**

**MODULE STANDARD - TYPICAL 4'-0" STRAIGHT (BOTTOM VIEW)**

Scale: 3/4" = 1'-0"

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Revised Date:	Date: 26 MAR 2013 Scale: AS NOTED	Project Name: <b>POTOMAC MODULE CREW MODULE STANDARDS</b>	





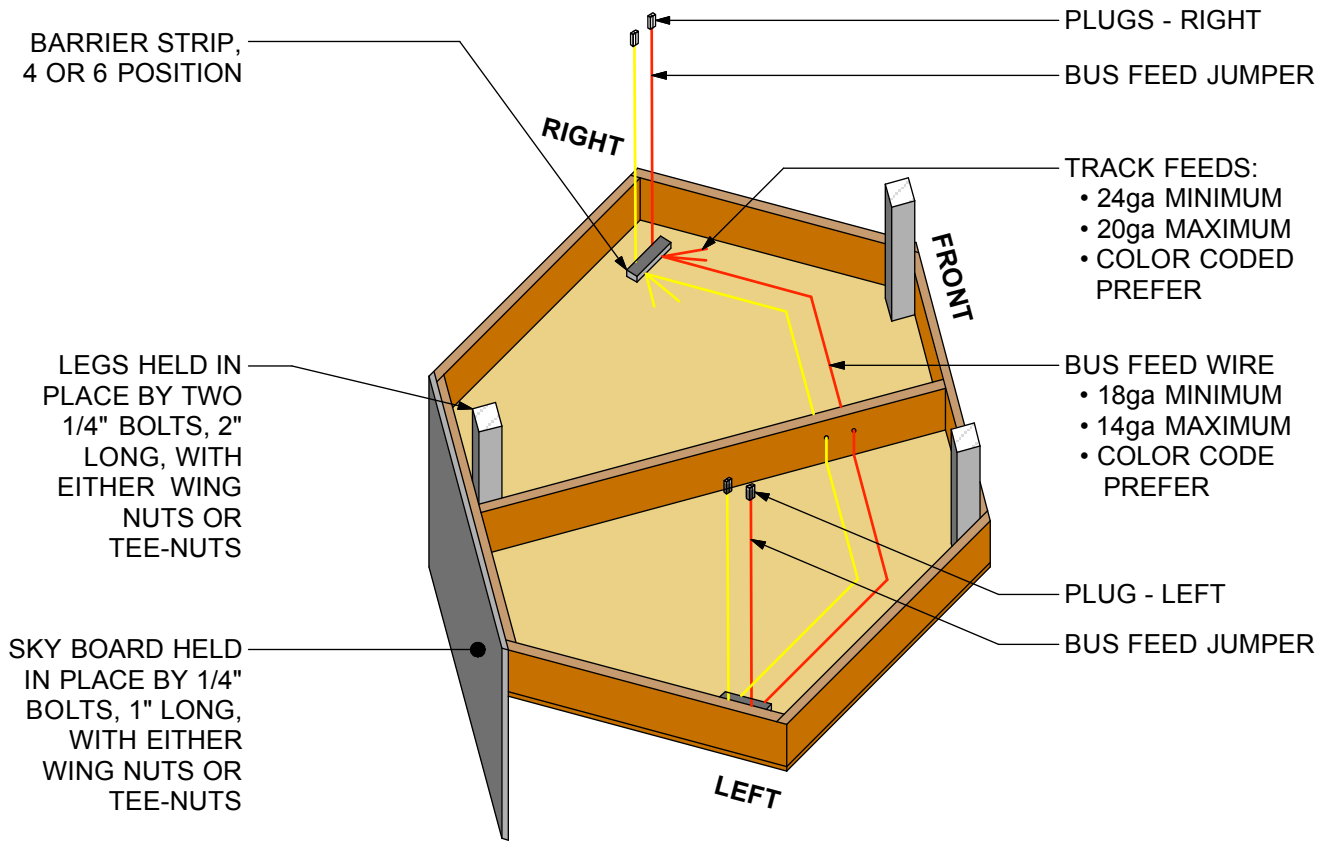
**5**

**MODULE STANDARD - TYPICAL 4'-0" CORNER (TOP VIEW)**

Scale: 3/4" = 1'-0"

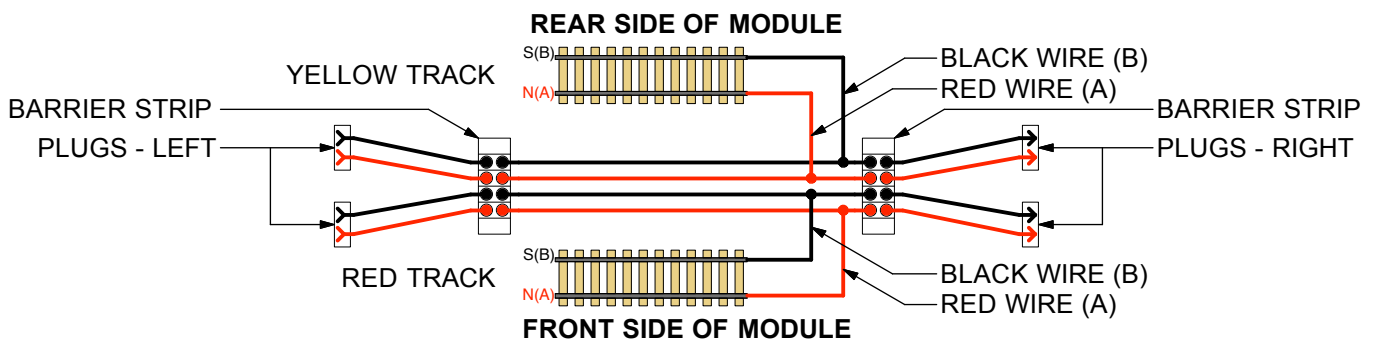
(TYPICAL 3'-0" CORNER SIMILAR)

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Revised Date:	Date: 26 MAR 2013 Scale: AS NOTED	Project Name: <b>POTOMAC MODULE CREW MODULE STANDARDS</b>	



- BUS FEED JUMPER NOTES:**
- 18" LEAD MAXIMUM
  - 18ga MINIMUM
  - 14ga MAXIMUM

- PLUG NOTES:**
- WE ANDERSON 'POWERPOLE' PLUGS INSTEAD OF 'CINCH-JONES' PLUGS
  - SEE SHEET S08 FOR PLUG SETUP AND DETAILS WHICH INCLUDES OLD PLUGS.
  - THERE TWO OPTIONS FOR DOING PLUGS:  
 OPTION 1: 18" BUS FEEDER JUMPER  
 OPTION 2: MOUNT POWERPOLE PLUGS ON THE MODULE



**STANDARD MODULE WIRE SCHEME**  
AS VIEWED FROM THE TOP

**6**

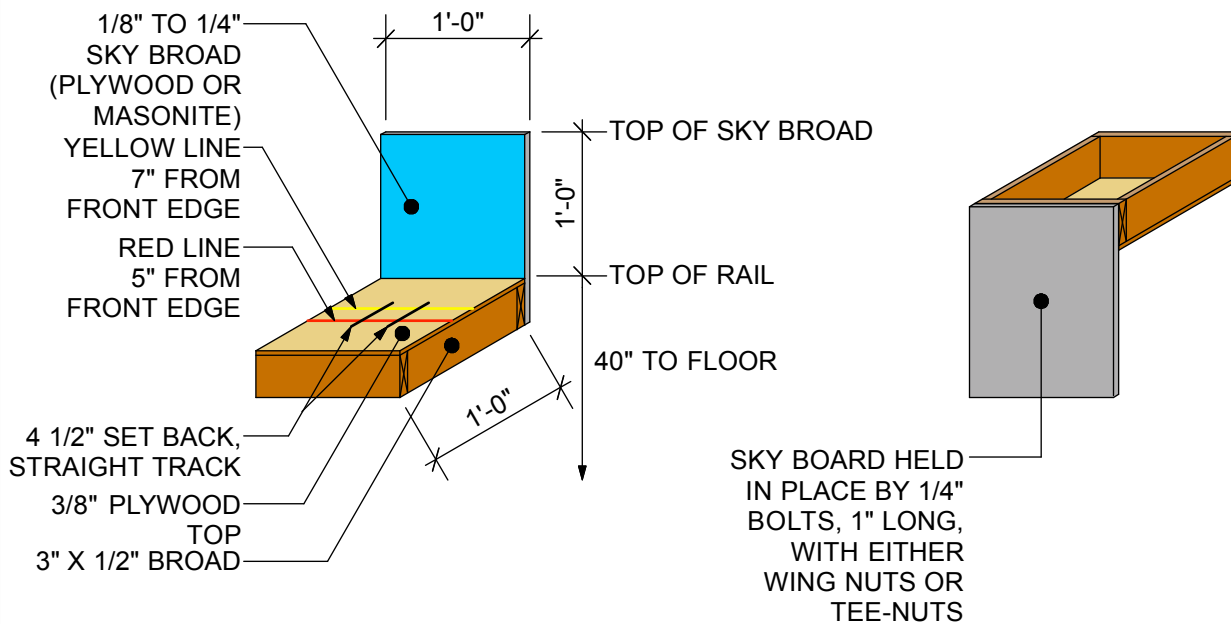
**MODULE STANDARD - TYPICAL 4'-0" CORNER (BOTTOM VIEW)**

Scale: 3/4" = 1'-0"

(TYPICAL 3'-0" CORNER SIMILAR)

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	Scale: AS NOTED		

THE 1'-0" LONG BY 2'-0" WIDE MODULE EXTENSION IS USE WITH 3'-0" CORNERS TO EITHER EXTEND 1'-0" FOR USE WITH 3 OTHER 4'-0" CORNERS OR FOR DOING INSIDE TURN WITH 4'-0" CORNER.



MODULE DEEP CAN BE EXTENDED TO 2'-0"  
**1'-0" WIDE MODULE**

WIRING IS NOT NEED BUT OPTIONAL  
**UNDER SIDE OF 1'-0" WIDE MODULE**

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**MODULE STANDARD - MISCELLANEOUS MODULES**

Scale: 3/4" = 1'-0"

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Subject:

**STANDARD MISCELLANEOUS MODULES**

Sketch Number:

**S07**

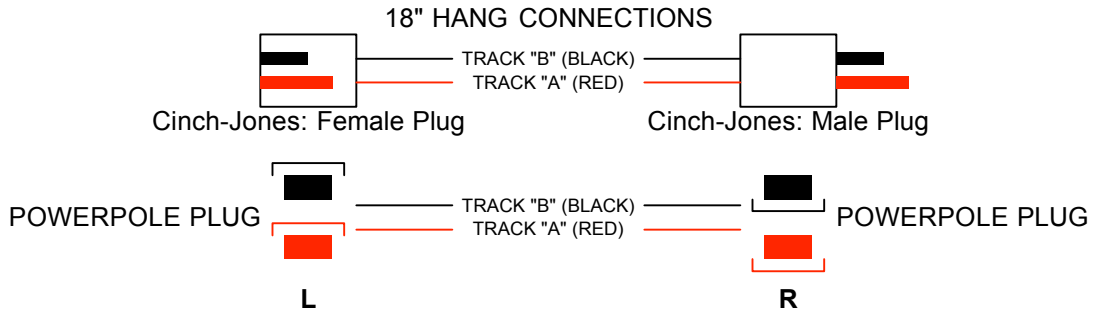
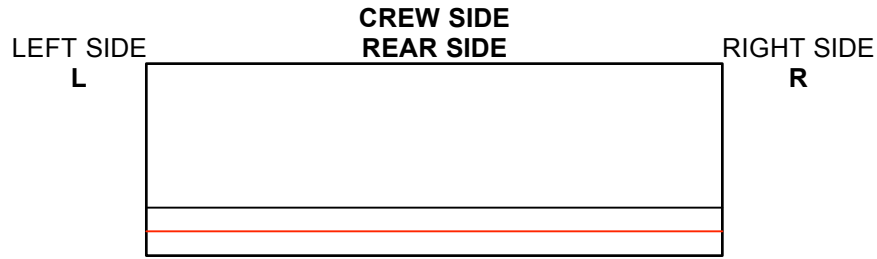
Revised Date:

Date: 26 MAR 2013

Project Name:

**POTOMAC MODULE CREW MODULE STANDARDS**

Scale: AS NOTED

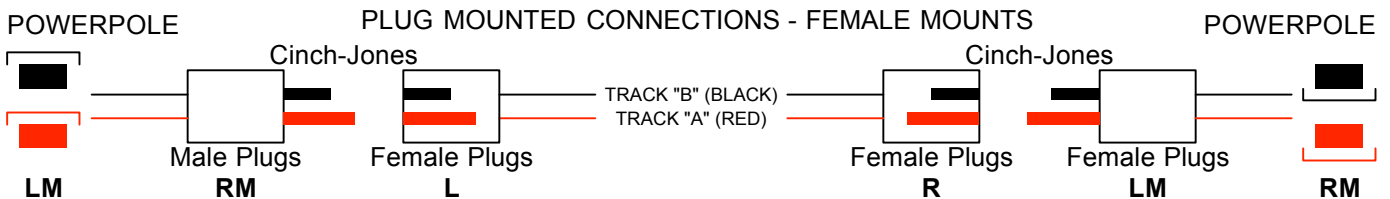
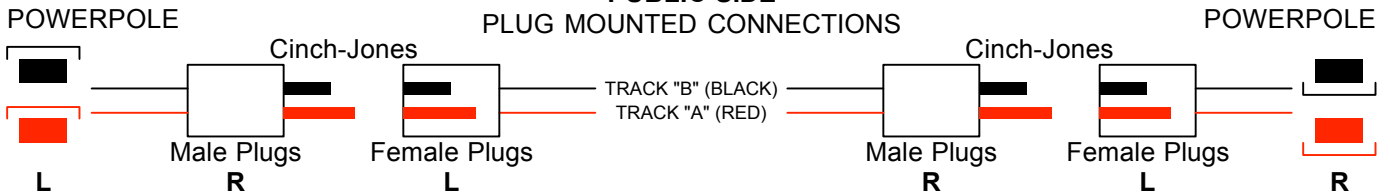
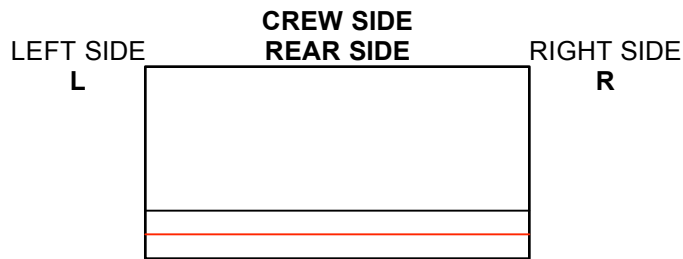


(NOTE: MARK POWERPOLE CONNECTORS AS "L" OR "R")

8.1

STANDARD MODULE CONNECTIONS WITH 18" HANG

NO SCALE



(NOTE: MARK POWERPOLE ADAPTOR AS "L" OR "R")

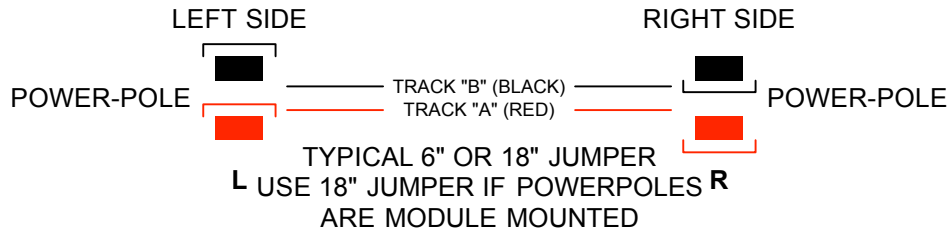
8.2

STANDARD MODULE CONNECTIONS FOR MODULE MOUNT (CINCH-JONES ONLY)

NO SCALE

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	Scale: NO SCALE		





**9.1**

**STANDARD POWERPOLE JUMPER**

NO SCALE

**Standard PowerPole Colors:**

Track Name:	Track "A" (Red)	Track "B" (Black)	Comments
MAIN LINE - RED LINE (5")	RED	BLACK	
MAIN LINE - YELLOW LINE (7")	YELLOW	BLACK	
SIDING - OUTSIDE (3")	RED	BLUE	
SIDING - INSIDE (9")	YELLOW	BLUE	
SIDING - INSIDE (+11")	PURPLE	BLUE	
AUXILIARY POWER LINE	WHITE	BLACK	POWER LINE FOR MODULE LIGHTS AND OTHER ITEMS

**9.2**

**STANDARD POWERPOLE COLORS**

NO SCALE

**PowerPole Parts**

Description	Part No	Pkg	Company	Comments
Powerpole Housing - Black	1327G6	1	Anderson	
Powerpole Housing - Red	1327	1	Anderson	
Powerpole Housing - Yellow	1327G16	1	Anderson	
Powerpole Housing - Blue	1327G8	1	Anderson	
Powerpole Housing - White	1327G7	1	Anderson	
15 Amp Contacts	1332	25	Anderson	
Short Spacer without Hole	1399G6	1	Anderson	Used to space bus power lines when mounting to module

**9.3**

**POWERPOLE PARTS**

NO SCALE

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Revised Date:	Date: 26 MAR 2013 Scale: NO SCALE	Project Name: <b>POTOMAC MODULE CREW MODULE STANDARDS</b>	

# POTOMAC MODULE CREW'S MATERIAL LIST AND MODULE SITES

## FRAME SUPPLIER:

- HOME DEPOT
  - CHECK YOUR LOCAL PHONE BOOK OR THEIR WEB SITE FOR THERE LOCATION.
  - WEB SITE: [www.homedepot.com](http://www.homedepot.com)
- LOWES
  - CHECK YOUR LOCAL PHONE BOOK OR THEIR WEB SITE FOR THERE LOCATION.
  - WEB SITE: [www.lowes.com](http://www.lowes.com)
- WOODCRAFTS
  - CHECK YOUR LOCAL PHONE BOOK OR THEIR WEB SITE FOR THERE LOCATION.
  - SOURCE FOR SPECIALLY PARTS SUCH AS LEG ADJUSTER AND BRASS TREADS.
  - WEB SITE: [www.woodcraft.com](http://www.woodcraft.com)

## MODEL RAILROAD SUPPLIER:

- WALTHERS, INC
  - WEB SITE: [www.walters.com](http://www.walters.com)
- POTOMAC MODULE CREW'S WEB SITE
  - WEB SITE: [www.potomacmodulecrew.org](http://www.potomacmodulecrew.org)
  - CHECK OUR WEB SITE UNDER "HOBBY STORES" FOR A LIST OF STORES IN THE WASHINGTON DC METROPOLITAN AREA.
  - CHECK OUR WEB SITE UNDER "WEB LINKS" UNDER "MODEL RWY STORES" AND "MANUFACTURES"

## ELECTRONIC SUPPLIER:

- MOUSER ELECTRONICS
  - WEB SITE: [www.mouser.com](http://www.mouser.com)
- DIGIKEY
  - WEB SITE: [www.digikey.com](http://www.digikey.com)
- CONNEX ELECTRONICS
  - WEB SITE: [www.connex-electronics.com](http://www.connex-electronics.com)
  - SOURCE FOR ANDERSON POWERPOLES
- POWERWERX
  - WEB SITE: [www.powerwerx.com](http://www.powerwerx.com)
  - SOURCE FOR ANDERSON POWERPOLES
- RADIO SHACK
  - WEB SITE: [www.radioshack.com](http://www.radioshack.com)

## OTHER MODULE STANDARD SITES:

- NATIONAL MODEL RAILROAD ASSOCIATION [NMRA]
  - WEB SITE: [www.nmra.org](http://www.nmra.org)
- NMRA MODULE STANDARDS
  - WEB SITE: [www.nmra.org/standards/modules/](http://www.nmra.org/standards/modules/)
  - NMRA MODULE STANDARDS COVER ALL GAUGES. HOWEVER, THERE ARE OTHER MODULE STANDARDS AROUND, SOME LISTED BELOW.
- PRINCE WILLIAM MODEL RAILROAD CLUB
  - WEB SITE: [www.pwmrc.org](http://www.pwmrc.org)
  - LOCAL HO CLUB IN NORTHERN VIRGINIA.
- NTRAK MODULAR RAILROADING SOCIETY, INC.
  - WEB SITE: [www.ntrak.org](http://www.ntrak.org)
  - NRMA MODULE STANDARDS STARTED HERE.
- FREE-MO
  - WEB SITE: [www.ntrak.org](http://www.ntrak.org)
  - MODULE GROUP THAT EMPHASIS IS ON REALISTIC, PLAUSIBLE SCENERY AND FLEXIBILITY TO CREATE PRACTICALLY ANY PROTOTYPE OR FREELANCE TRACK CONFIGURATION.

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Revised Date:	Date: 26 MAR 2013  Scale: NO SCALE	Project Name: <h3 style="text-align: center;">POTOMAC MODULE CREW MODULE STANDARDS</h3>	