North Raleigh Model Railroad Club

Application Note

Red Rock Junction Module — Setup and Tear Down Instructions

by
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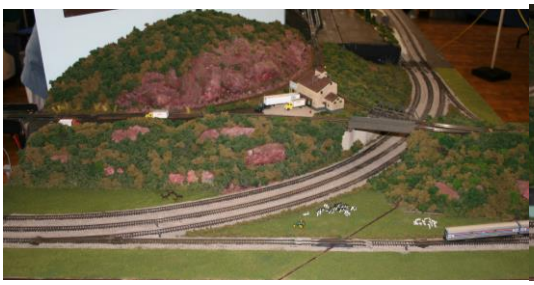


Red Rock Junction is comprised of two main pieces and a number of accessories — Corner Module, Junction Module, Control Panels, Cables, Power Supply, Vehicles and Buildings.

Transport

The corner should be transported with the module on the skyboard. The junction may be transported flat or on a side if properly braced. The accessories are carried in the (toaster oven) box provided. Prior to setup the corner should be placed on the skyboard and the junction should be flat on the floor.

Setup

With the corner placed on the skyboard extend the legs and attach the leg braces, which are attached to the inner legs for transport. Then all wires should be let down for later connection.

Stand the corner upright and adjust legs to level and height as required. Note that the ultimate setting of the leg height will be determined when the junction piece is fitted to the corner.

Place the junction on the long side and, while holding the module, extend the legs and connect the attached braces. Let down all wires including the signal wires. Remove the signals. Remove the plastic box that holds the pegs and connector pieces and place two pegs in the holes on the diagonal end of the junction. Set the junction upright and bring together with the corner aligning the pegs. Screw in the captive Eye bolts on the corner into the junction. Adjust the legs of the junction to level, and then test fit the track connector pieces, adjusting level of corner and junction to achieve the best fit (fit trumps level). Place the plastic container under the module and secure with the Velcro straps.

Next make the plug connections (6 and 12 volt) of all the interconnecting power, control and LocoNet cables noting that the Brown line connection is made via the PS12 power supply adapter. The PS12 supplies power for the DS64s, the PM42, the DBD22s and for the control panels.

Now plug the three orange RJ45 cables into the three jacks provided under the corner and then connect each cable to one of the control panels. Next attach the panels to the modules using spring clamps, noting that the one panel (with a white background) should be placed along the long side of the junction.

At this point the buildings and vehicles may be positioned as desired.

When AC power is available and the LocoNet is working, test each route by pressing buttons on a control panel. This is necessary because sometimes the turnouts get out of synch with the control panels. Also check that each turnout is operating satisfactorily as the Tortoise fulcrums sometimes need re-adjusting. If a turnout fails to operate it is likely that the Tortoise machine needs to be adjusted by sliding the fulcrum a bit toward the operating arm of the tortoise.

The Yellow, blue and Green tracks of the spine are powered by a PM42, through AR1 reversing circuits and DBD22 occupancy detectors. The Red line is powered through a section of the PM42 through an occupancy detector but uses no reversing circuits. For best operation the reversing sections of the spine should be extended by at least one but preferably two or more modules. At the end of the reversing sections insulated joiners should be used for all four lines. There are many ways to operate the spine beyond the reversing sections so these details are not discussed here. What is important to note is that there should never be two reversing sections abutting without a section of non-reversing track between them. Consult the Digital Master if in doubt.

If the occupancy signals are to be used, connect the green cable from the RJ45 jack provided under the spine module to the RYB signal bridge. Then connect a LocoNet cable from the signal bridge to the Green line signal. Attach the signal bridges using clamp or magnets.

Tear down

Remove each building and vehicle and store in the boxes.

When operations are over, remove each connecting track (two straight and two short, curved pieces) and store in the plastic container stored under the junction. Remember to slide rail joiners onto the connecting track pieces.

Remove the control panels and remove cables then store cables, panels and clamps in the box. Disconnect all plug-in connections. Store PS12 the Box.

Remove the signal bridges and disconnect the cables, storing the cables in the box, and storing the bridges in the place provided under the spine module using Velcro straps.

Separate the corner from the junction by unfastening the captive eyebolts under the corner. Pull the junction away from the corner and lay the junction on the long side, leaving the legs extended.

Store the pegs in the plastic box along with the track connectors and attach the plastic box under the junction using the Velcro straps,

Store the interconnecting wires by fastening with the Velcro straps provided.

While holding the junction, remove braces from the leg end (they will remain fastened by screws to the module end) and store while folding the legs to their stored position and secure with fastener. Now place the junction flat on the floor.

When corner is unclamped and the interconnecting wires are removed, lay the corner on the skyboard.

Store the interconnecting wires and Cinch-Jones to Powerpole adapters, if used, by fastening with the Velcro straps provided.

Remove braces and store in the place provided on the inner leg set and secure with the Velcro straps. Fold legs and secure with fastener. Likely you will have to turn in some of the leg adjusting Eyebolts to allow legs to fit.

The corner, junction and accessory box are now ready to transport.

Diagrams

Attached are the wiring diagrams for Red Rock Junction:

- Red Track and Spine Schematic
- Green, Blue and Yellow Track Schematic

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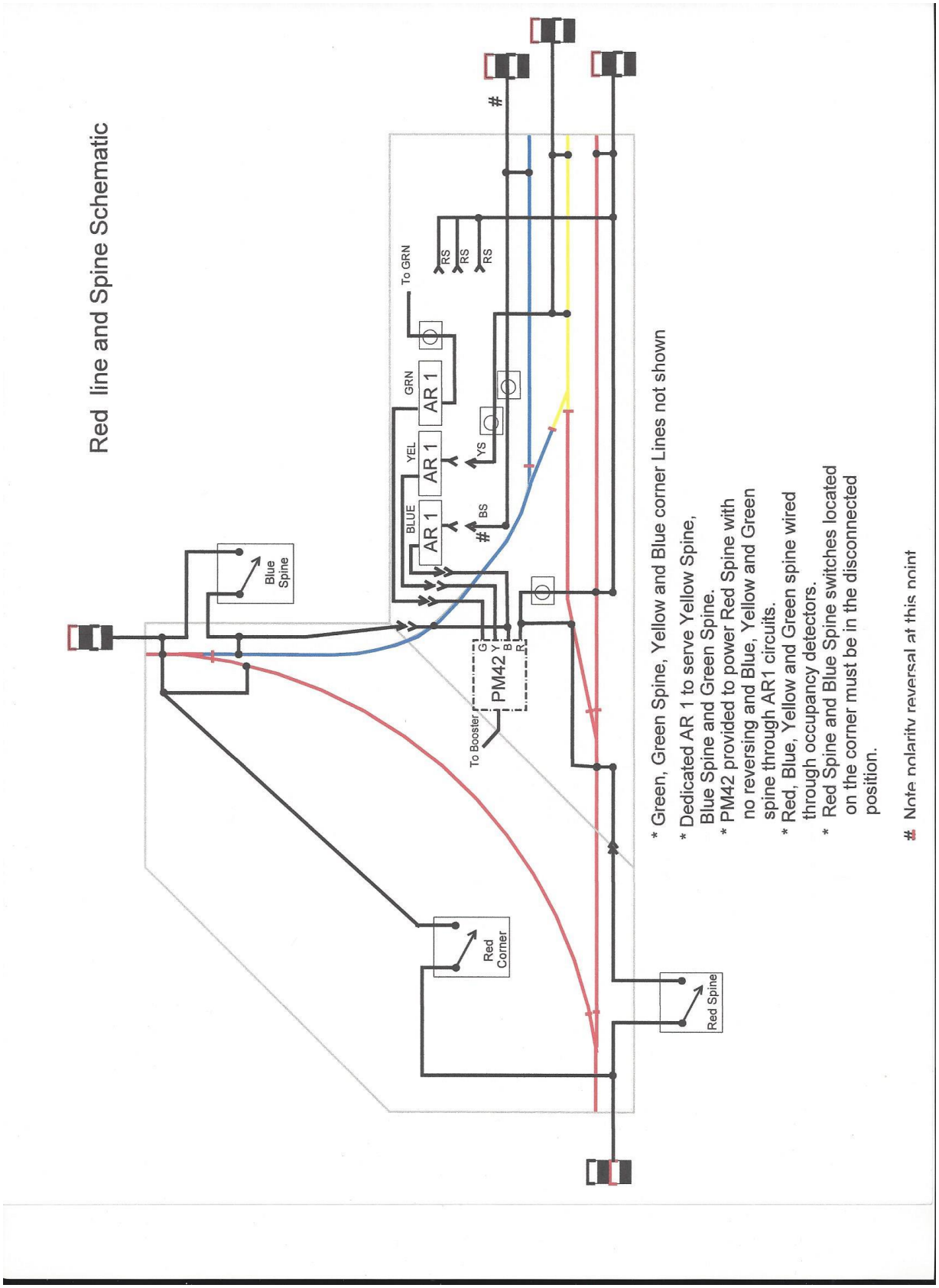
Red Track and Spine Schematic



Green, Blue and Yellow Track Schematic