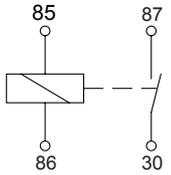


# Simple guide to track wiring for 4 lane track

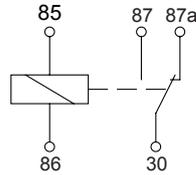
## Electrical components required

The following components may be found from local outlets or mail order stores such as Maplins, RS Components, Farnell , Conrad etc.

Single pole, single throw



Single pole, double throw



You can use either type, if you use s.p.d.t. Type then you will not use contact 87a.



4 x 40amp single pole, 12 volt coil Automotive relays (To switch track power)



1 x 12 volt 1.5 amp "plug in" Power supply (Maplins L47BL Or similar) for isolated relay Coil power.



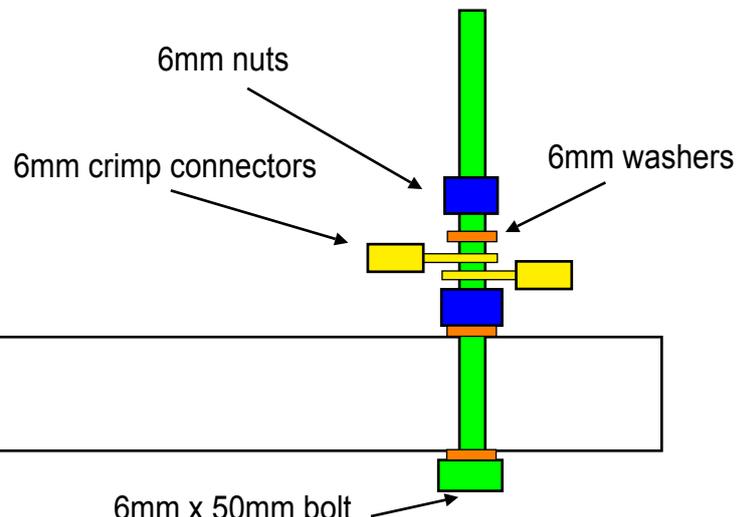
1 x Single pole, single throw Relay 12 volt coil (To activate and isolate POWER Relays)



1 x 12 volt toggle switch (for Use as a manual power on Override to race control).

You will also require a "mounting board" for the components approx size 300mm x 150mm either 12 mm thick nylon or MDF.

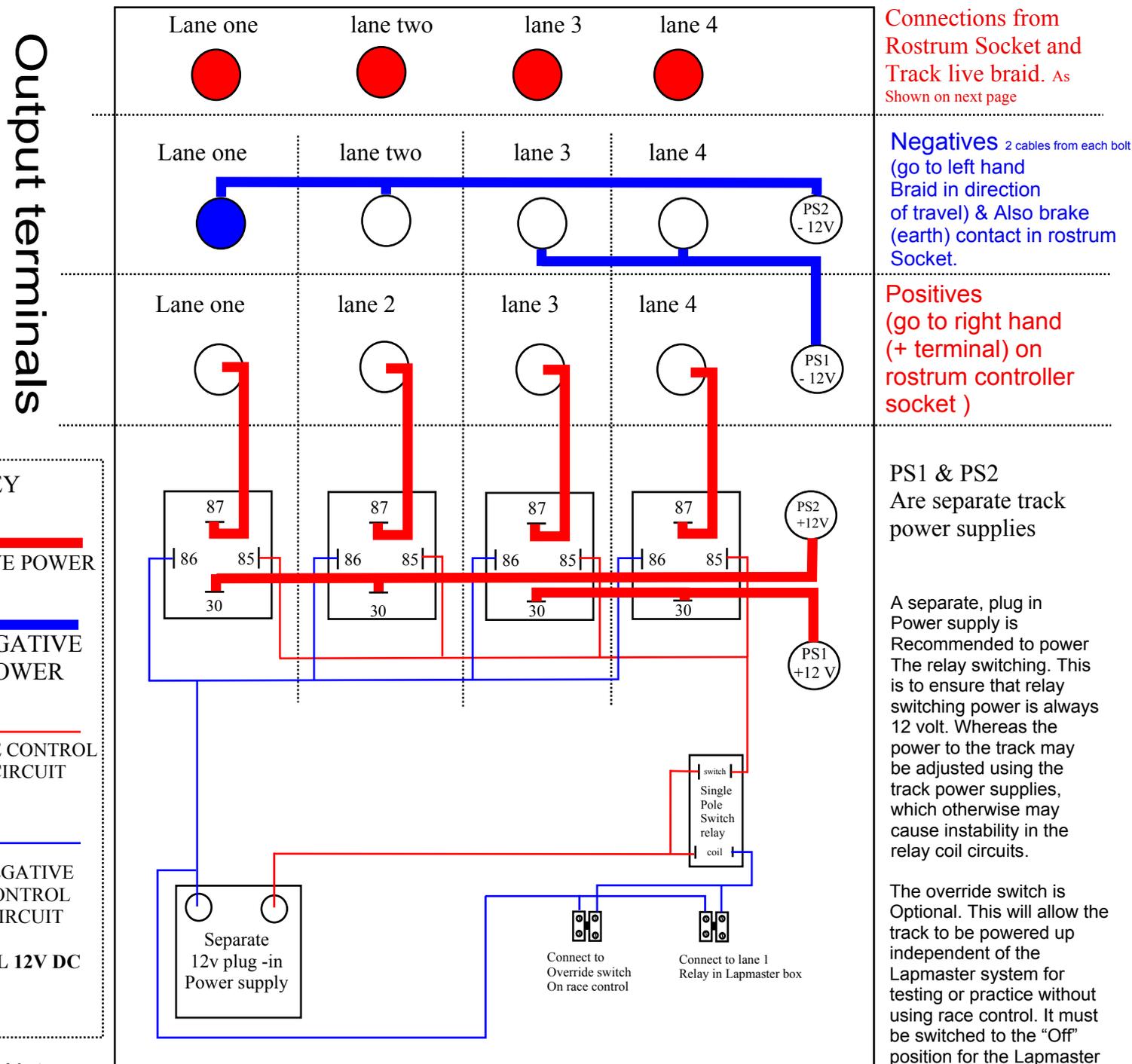
Terminal connections from the circuit board to the power taps on the track are most easily done using nuts and bolts (see sketch below) which allow for easy connection of thick cable using ring Terminals. You will need a selection of 6mm x 50mm bolts, 6mm nuts and washers and 6mm Diameter Crimp terminals to connect the 4mm cables from the control board to the track.



Mount Board

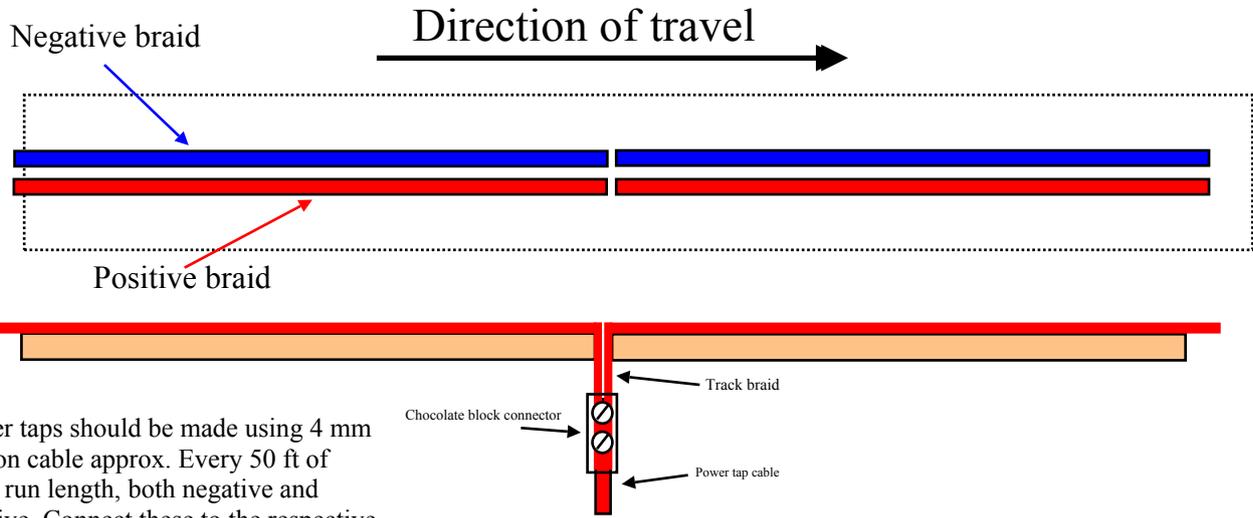
# Control board layout and schematic wiring diagram

Use crimp terminals from power relay to connection bolts on outlet terminals. All wiring between relays and power terminals and also power terminals to connections on track should be minimum 4mm cable. On Braided tracks it is recommended to run power connect "taps" every 50 Feet of track run length (minimum wire section 4mm). Tracks which use copper tape should have power taps every 20 feet of track run length..



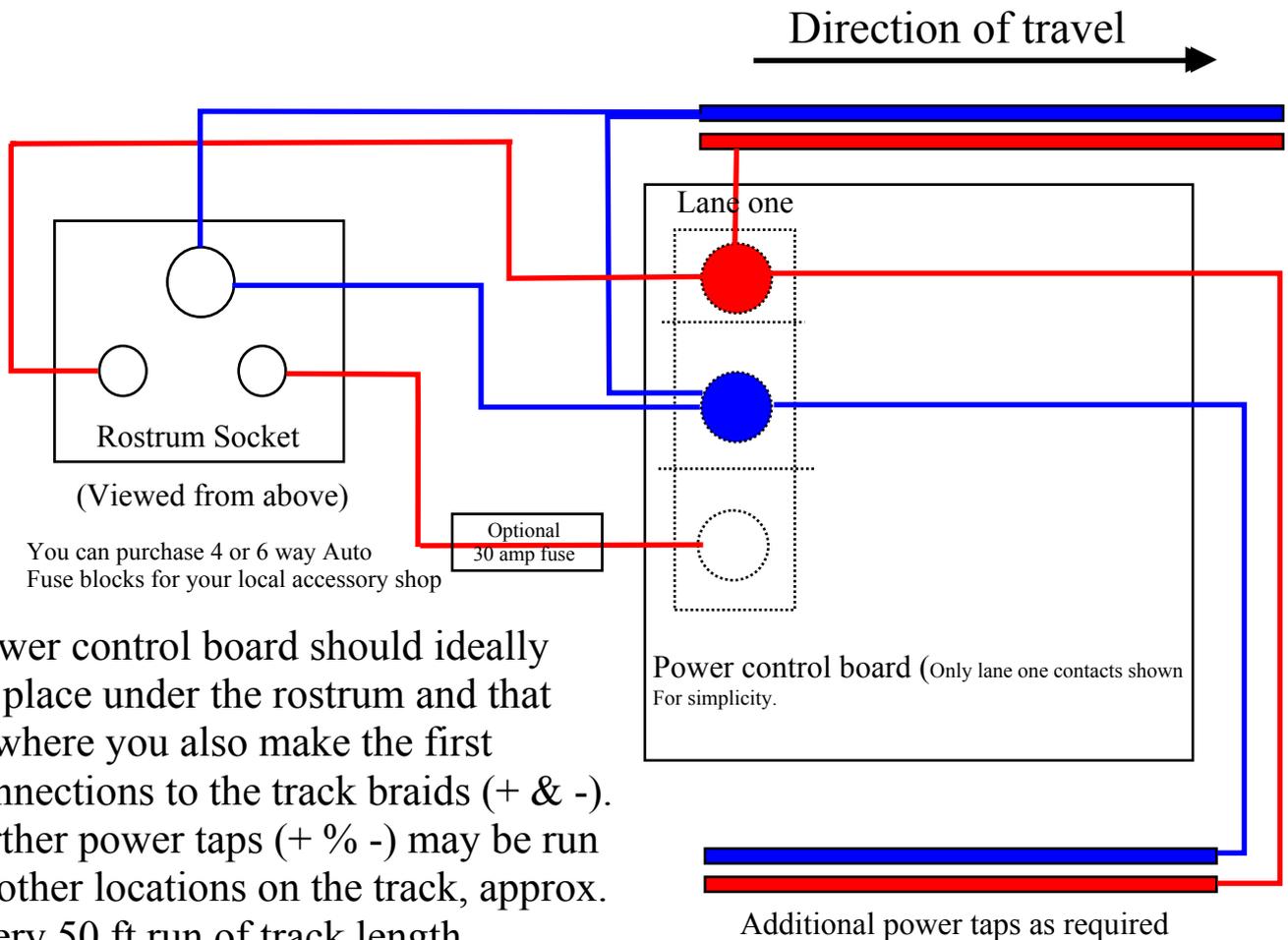
## Notes

- 1) On the schematic please note that "Power" wiring (thick red or blue lines) are not connected in any way to the thinner "relay control wiring".
- 2) All POWER wiring, on the board and all cable to the track braids should be minimum 4mm section cable.
- 3) You will note that all Power switching is done on "the live side", not the negative side, this is to ensure that when using the majority of hand controllers, dynamic braking will still be operative when the relays switch "off".
- 4) Power connections ; Make all power connections to the board connection bolts using 6mm ring, crimp connectors, When connecting power cables to the track braid, connect the 4mm cable using the "chocolate block" method suggested in the "wiring dead strips and power" document.



Power taps should be made using 4 mm section cable approx. Every 50 ft of track run length, both negative and positive. Connect these to the respective "bolt terminals" on the power board.

### Wiring from Power Board - Rostrum Socket - Track



Power control board should ideally be placed under the rostrum and that is where you also make the first connections to the track braids (+ & -). Further power taps (+ & -) may be run to other locations on the track, approx. every 50 ft run of track length.

Keep all wiring neat and ensure that cables are coded with lane number and + or - so there are no mistakes in hook up and they can be easily identified for maintenance.