

Insulated Track Signal Driver

The **ITSD** (*Insulated Track Signal Driver*) is a small board designed to allow reliable driving of signals and accessories when using an insulated rail to detect a train in a block.

Features

- Provides reliable triggering without contact bounce
- High reliability euro style connectors, no soldering
- Optional relay contact set for complex applications
- Optional timing capacitor connection for longer hold times
- Flexible installation options, track powered or externally powered
- Internal power jumper to simplify wiring of signal power
- Compact board that easily mounts below layout
- Fully DCS compatible, will not affect DCS signal

There are several jumper fields on the ITSD board, these are detailed below.

J2	Aux timing capacitor connection. If it is desired to have a longer release time for the signal, each 1,000uf of capacitance at 18VAC power results in approximately 1 second of delay. The capacitor should be rated at 35V or greater, and note the + sign on the connection.
J3	Signal common power options. Jumper A to B for ground on relay common, B to C for board power on relay common. Leave jumper uninstalled for isolated relay contacts.
J4	Secondary relay contacts. These connections provide a separate set of relay contacts for more complex signaling tasks. You can use a JST EH family header and matching plug for convenient connections here, or you can solder directly to the J4 header locations.

Below are several suggested signal wiring diagrams. Note all use a simple red/green signal as an example. The actual usages of the board are only limited by your imagination.

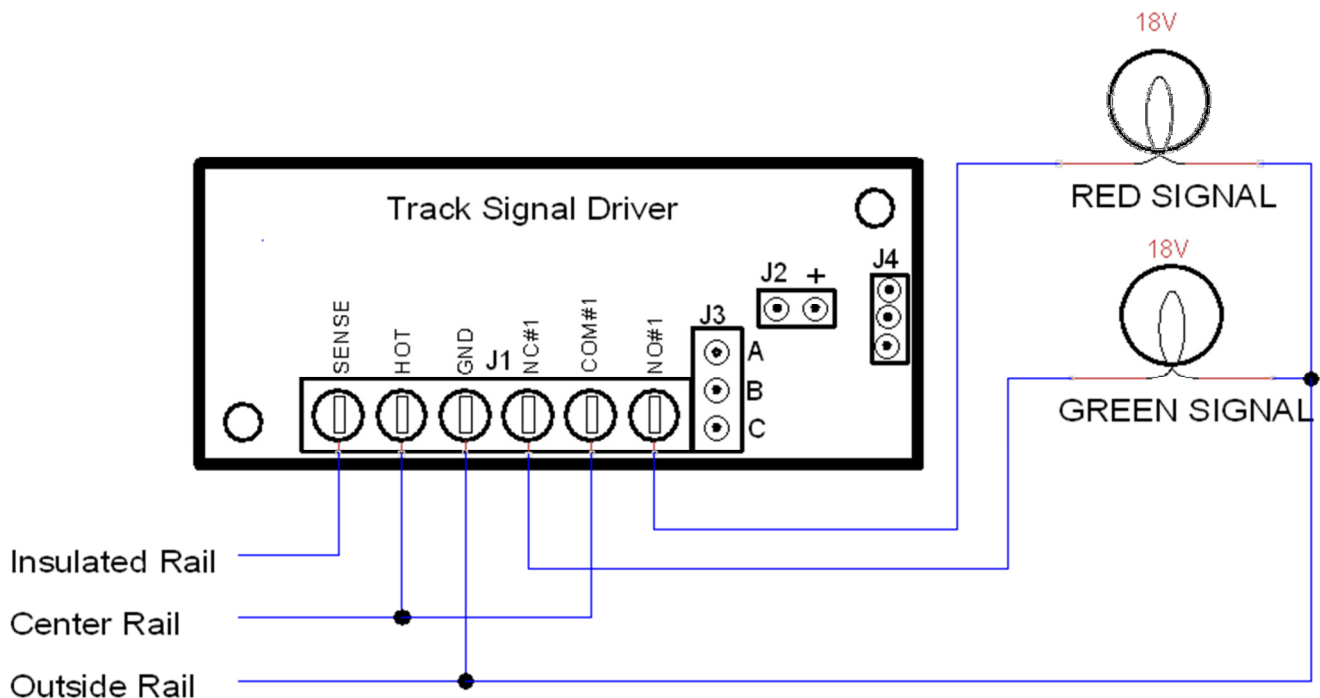


Figure 1 Signal and Board Using Track Power

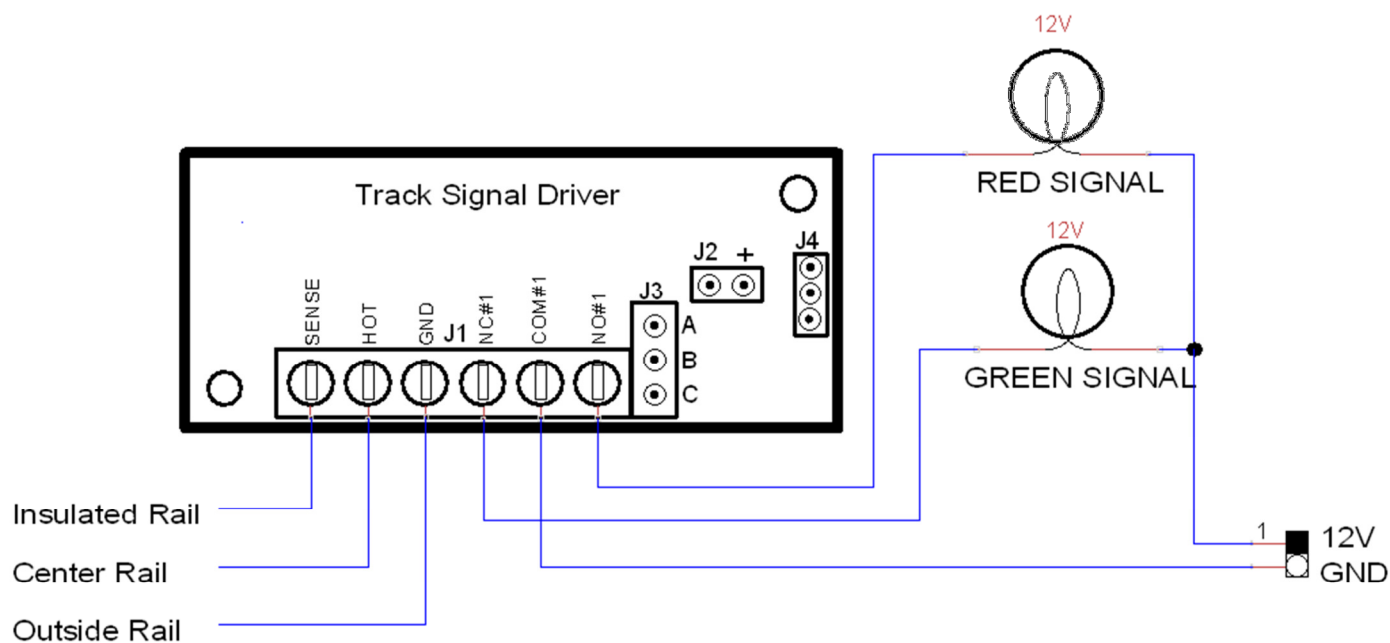


Figure 2 Board Using Track Power, Signal Using External Power

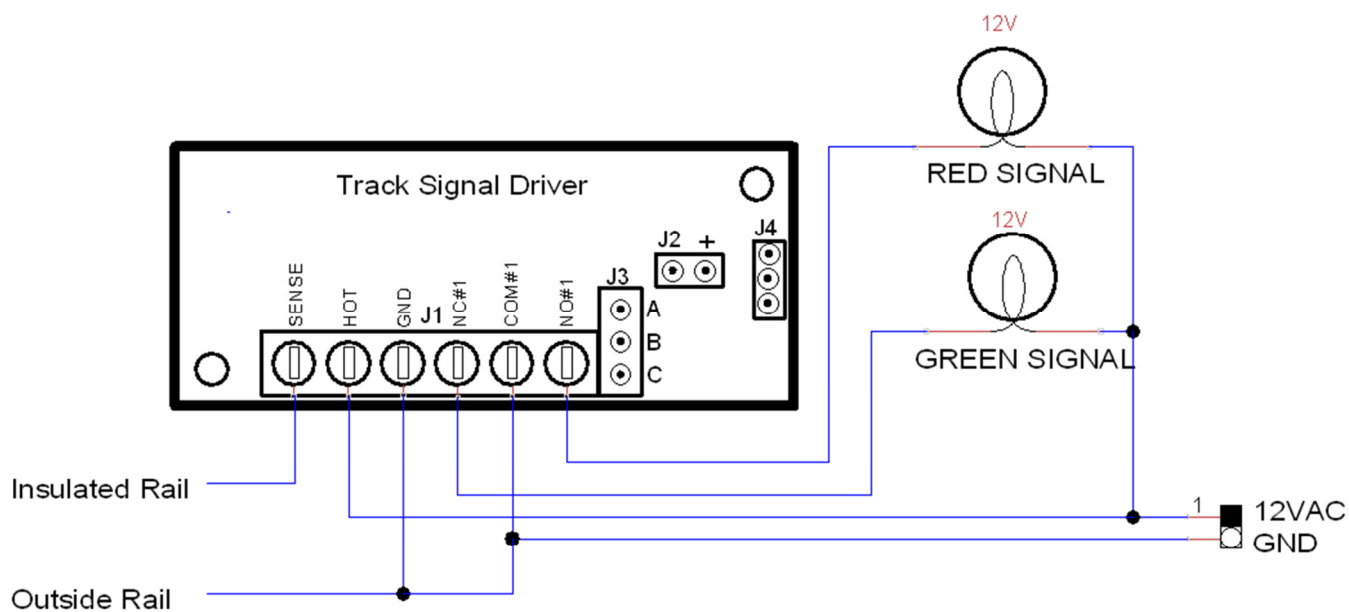


Figure 3 Signal and Board Using External Power

If you have any questions or comments, you can contact us at tracksignaldriver@will-enterprises.com

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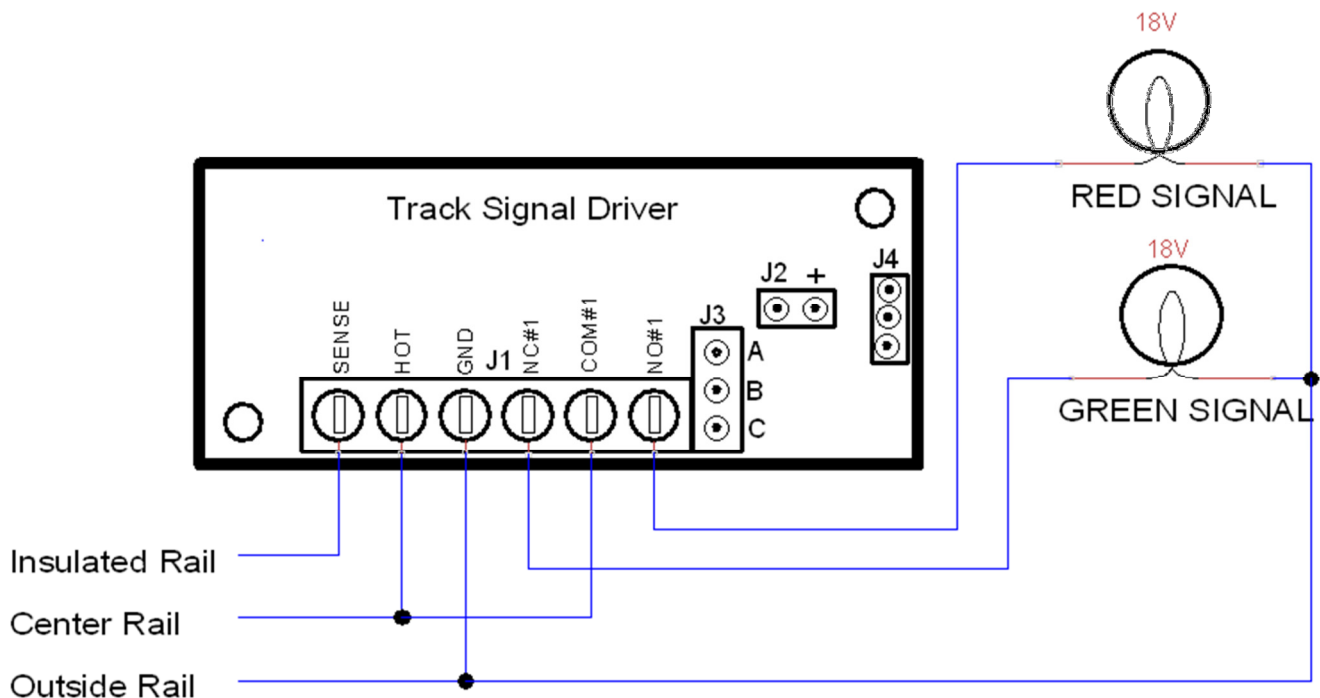


Figure 4 Signal and Board Using Track Power

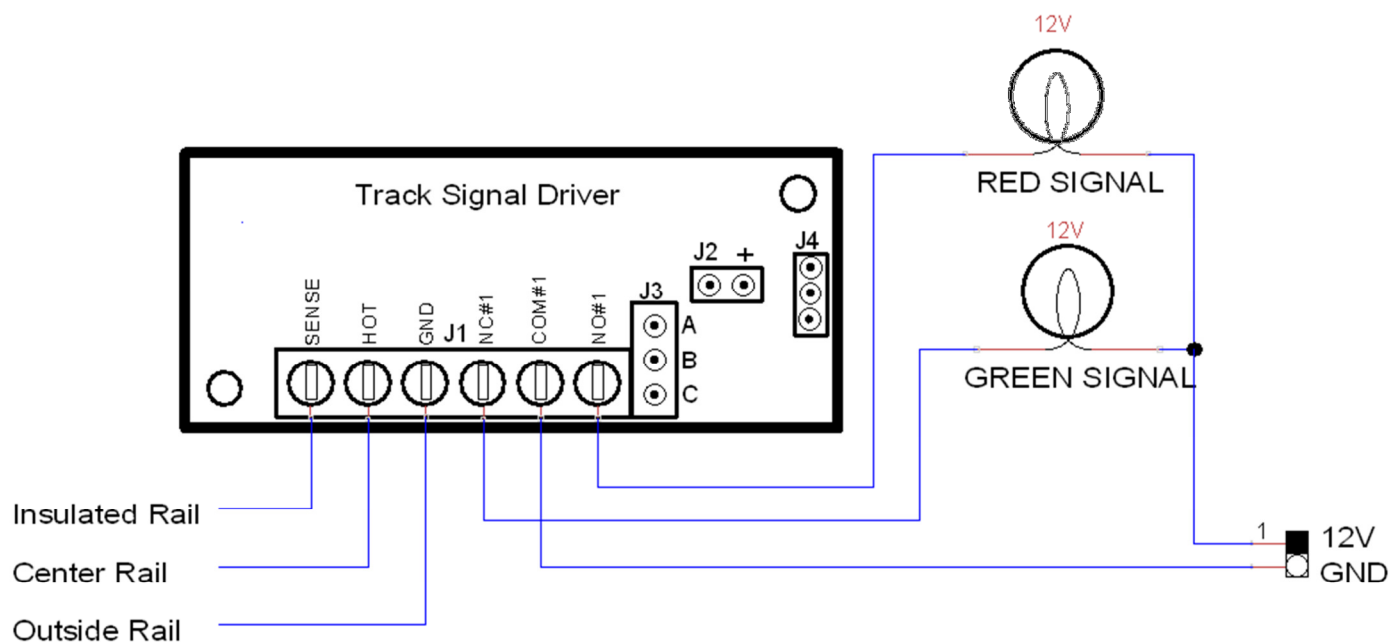


Figure 5 Board Using Track Power, Signal Using External Power

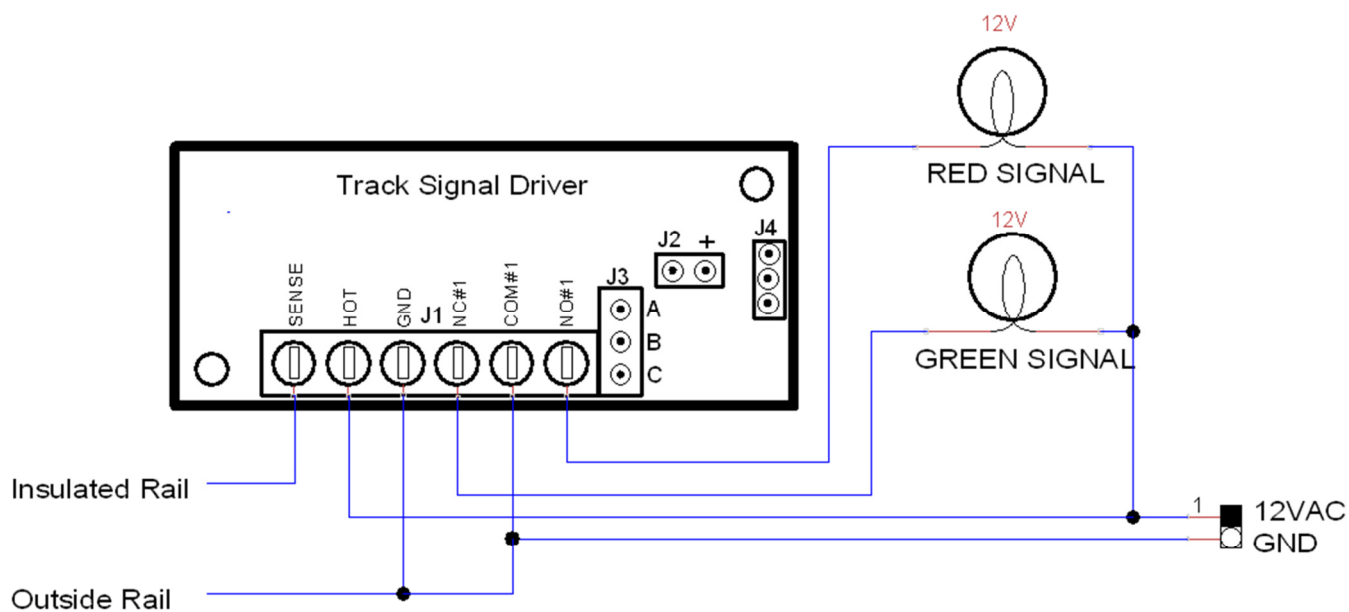


Figure 6 Signal and Board Using External Power

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