

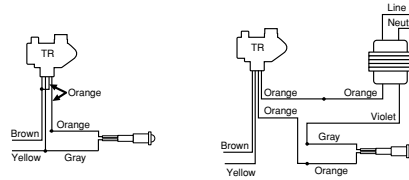
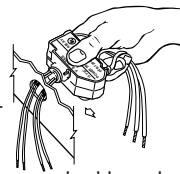
# TR Transformer Relay Installation Instructions



The ILC Transformer Relay (TR) is a magnetically latching lighting control relay that is available with or without auxiliary contacts for pilot status. The TR relay is self-powered and controlled by momentarily rectifying the AC control voltage (15 VAC) positive or negative to change states. The TR relay requires momentary a contact switch(s) be used for both local and master control. Maintained contact switches and devices may be used with a Contact Interface Device (CIF) to convert it to a momentary contact signal. Any momentary SPDT switch with a Standard Switch Adaptor (SSA) may be used. The ILC NFP Positive Control Switch (NFP PCS) ships with a SSA for controlling a single TR relay. For control of more than one TR relay from a single switch, a Interface Module (IFM) is required. For more information about the TR relay, SSA, NFP PCS, CIF, IFM or other ILC devices, contact ILC or visit the Resource Library at [www.ilc-usa.com](http://www.ilc-usa.com) for the associated product description or installation document.

## Installation

1. Mount the TR relay into a 1/2" knockout as shown.
2. Connect the TR relay control leads from the relay to the NFP PCS or NFP MCS switch(s) and IFM (see back) or CIF module. The yellow and brown wires are the control leads with the yellow used as common.
3. Connect the TR relay auxiliary contact leads (orange) if so equipped to the PLPS transformer and pilot light LED assembly as shown.



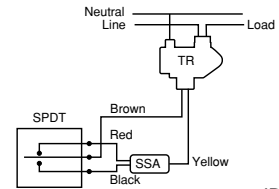
The LED pilot light can be powered by two methods as shown. When only one ILC LED Assembly is used with a TR and the distance between them is less than 40 feet, the TR can be used to power the LED. When two or more ILC LED Assemblies are being used, it is necessary to use a Pilot Light Power Supply (PLPS).

4. Connect the high voltage neutral wire (white for 120 VAC and gray for 277 VAC) to the neutral bus of the power source.
5. Connect high voltage black wire to the Line (lighting breaker output).
6. Connect high voltage blue wire to the Load (lighting fixture).
7. Energize circuit and test functionality.

**CAUTION:** Be sure to select conductors in accordance with their current and voltage capacities required by the National Electrical Code Specifications.

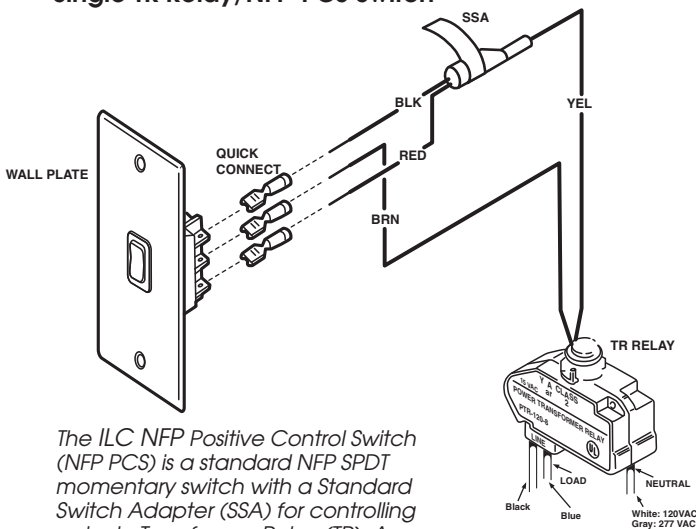
**CAUTION:** Installation must be in accordance with all local, state, and national codes.

**CAUTION:** Use solid or stranded copper wire only.



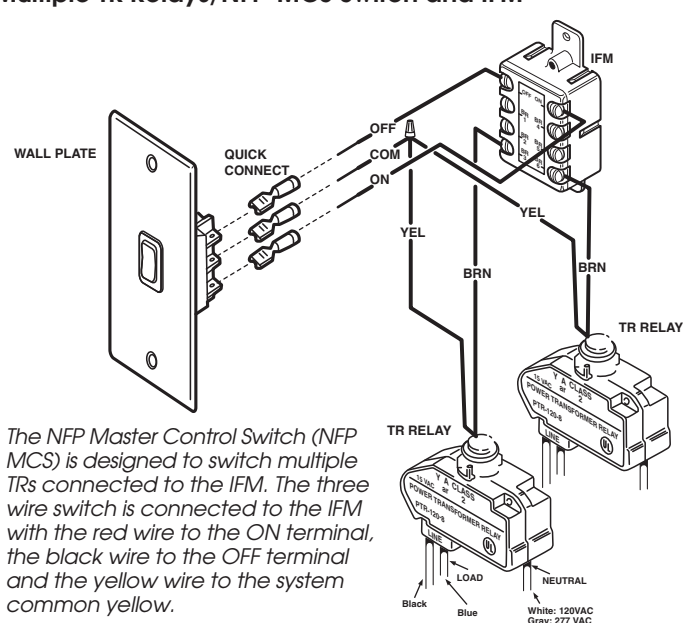
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## Single TR Relay/NFP-PCS Switch



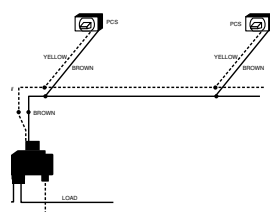
The ILC NFP Positive Control Switch (NFP PCS) is a standard NFP SPDT momentary switch with a Standard Switch Adaptor (SSA) for controlling a single Transformer Relay (TR). Any momentary SPDT with the use of a SSA can control a TR. Because the Transformer Relay responds to a momentary current flow, any number of NFP PCS can be wired in parallel and provide independent control.

## Multiple TR Relays/NFP-MCS Switch and IFM

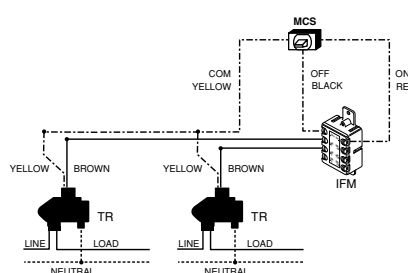


The NFP Master Control Switch (NFP MCS) is designed to switch multiple TRs connected to the IFM. The three wire switch is connected to the IFM with the red wire to the ON terminal, the black wire to the OFF terminal and the yellow wire to the system common yellow.

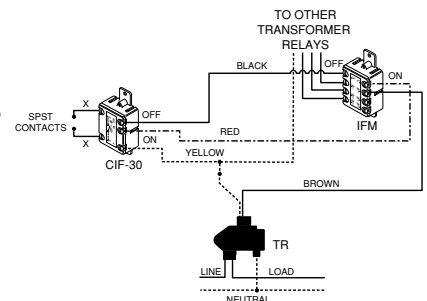
## Example Schematics



Single TR/multiple switch



Multiple TRs/ MCS switch/ IFM



Multiple TRs/ SPDT switch/ IFM/CIF

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