EIS-9VB / EIS-9VC ELECTRONIC MOTOR CONTROL RELAY

WARNING! INSTALLATION OF THIS UNIT REQUIRES DIRECT CONNECTION TO THE AC POWER WIRING AND MUST BE PERFORMED BY QUALIFIED PERSONNEL ONLY.

GENERAL INFORMATION

The Trek II ® EIS series relays are designed to replace the electromechanical relays originally supplied in Leslie® speakers. These solid state units provide extremely reliable motor switching that is both mechanically and electrically noiseless. This makes them ideal for use in studio, church, and professional applications where quiet switching or ultimate reliability is essential.

COMPATIBILITY

Several versions of the EIS relays are available for standard 122 and 147 family Leslies. However, the EIS-9V is a special version designed for non-standard installations where the original Leslie amplifier has been removed and the user desires to implement their own motor control system. The EIS-9V is supplied with a small transformer which powers the relay and also provides a low DC voltage source (isolated from the AC line) which allows safe remote tremolo switching.

In addition to basic fast / slow operation, the EIS-9V can also provide the Leslie with a stop function. In order to implement this feature a 3 position switch (or two 2 position switches) will be required.

When wired for 3 speed operation, the EIS-9VB will offer both brake and coast modes, while the EIS-9VC is configured to only stop in the coast mode.

ⓘ **IMPORTANT NOTE:** While the EIS-9V provides all the electrical functions required for a custom Leslie motor control system, the mechanical implementation is left entirely to the installer. A suitable enclosure, AC power inlet, motor sockets, etc. must be selected, purchased and assembled by the installer. Since each of these custom built systems will have unique construction details, it is not possible to provide detailed installation instructions for the EIS-9V. The diagram on the following page shows a typical EIS-9V installation.

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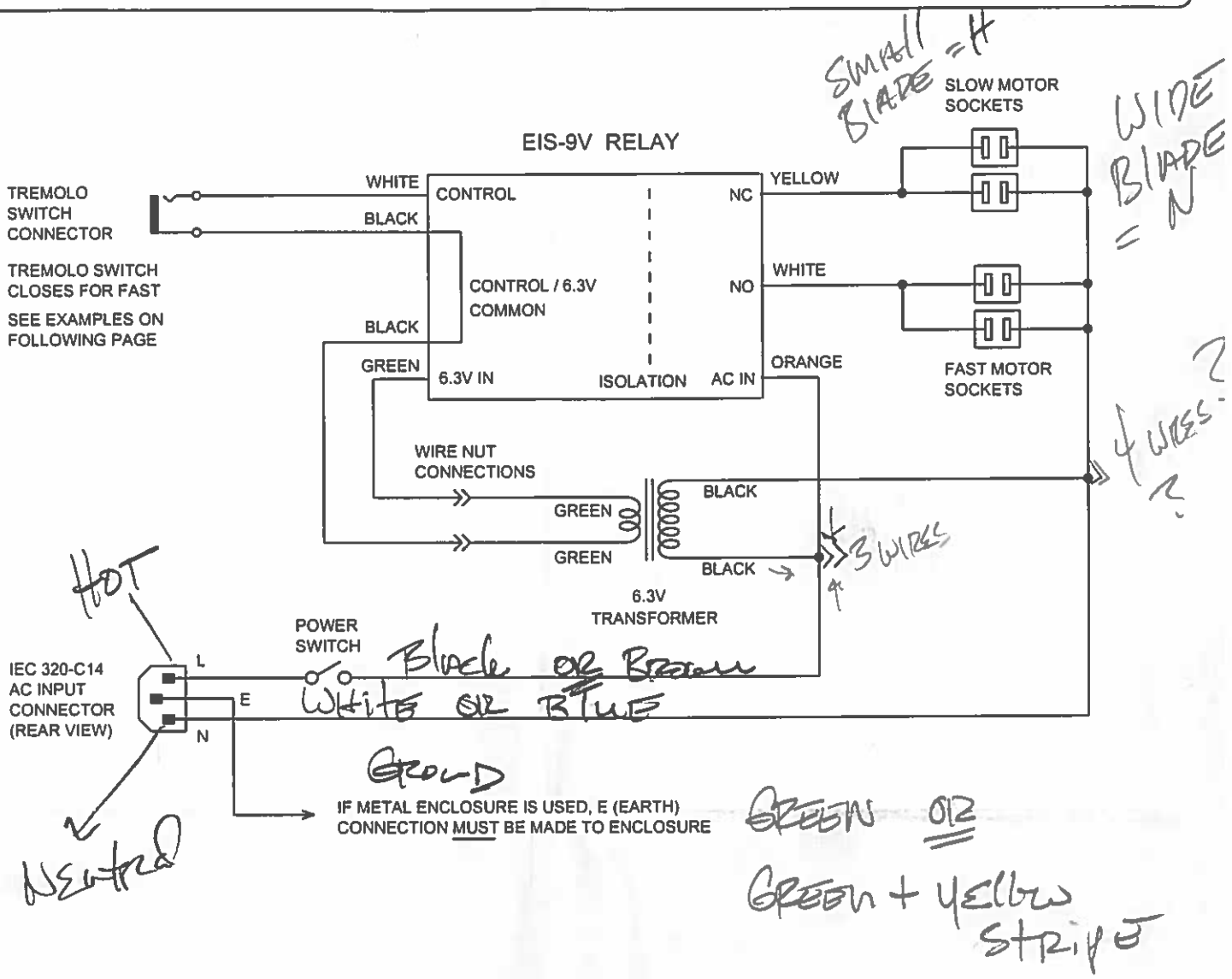
EIS-9V WIRING



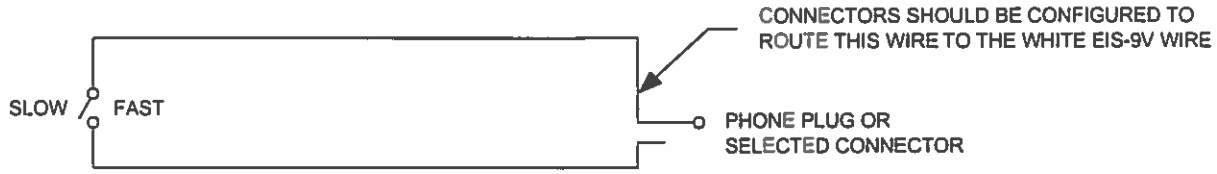
WARNING! THE INSTALLER MUST MAKE SURE THAT ALL ASPECTS OF THEIR MOTOR CONTROL SYSTEM DESIGN AND FABRICATION ARE DONE IN A MANNER THAT WILL INSURE SAFE OPERATION.

AFTER COMPLETION, THE UNIT MUST BE CAREFULLY INSPECTED AND TESTED TO VERIFY THAT NO SHOCK HAZARD WILL EXIST TO THE USER .

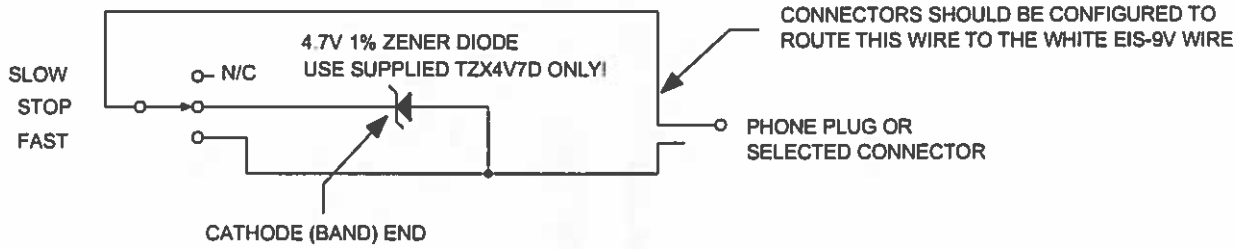
SWITCH WIRING

The EIS-9V uses an isolated low DC voltage for switching and can therefore be used with virtually any switch type. Connection between the EIS-9V and the tremolo switch can be made by 1/4" phone jack or other selected connector.

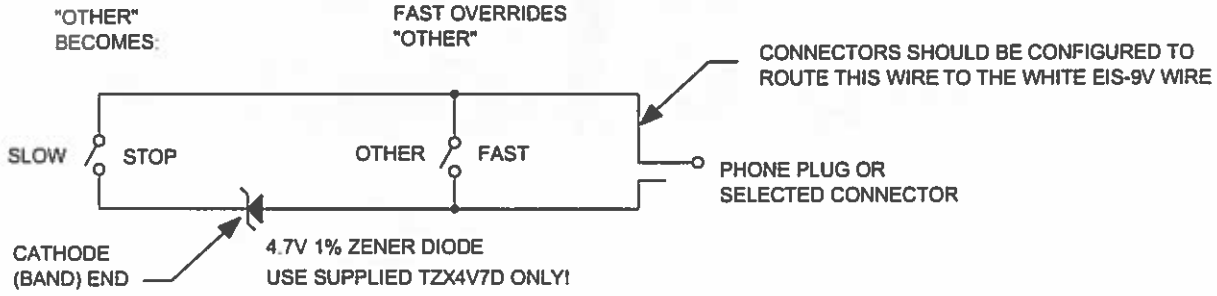
BASIC FAST / SLOW OPERATION



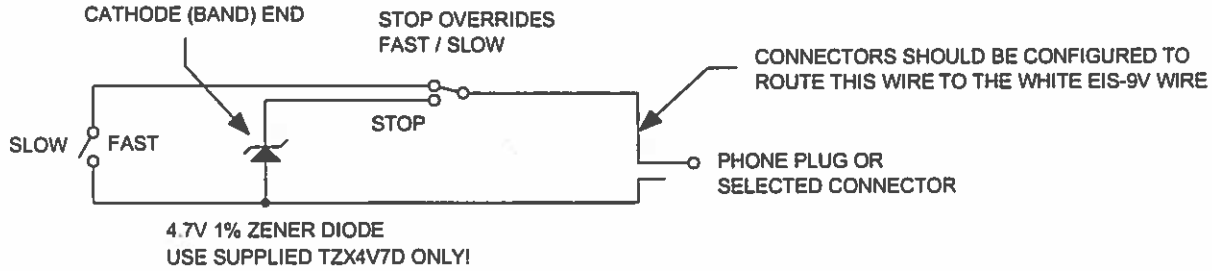
3 SPEED OPERATION WITH 1 SWITCH



3 SPEED OPERATION WITH 2 SWITCHES (WIRING OPTION #1)



3 SPEED OPERATION WITH 2 SWITCHES (WIRING OPTION #2)



OPERATION

STOP MODES

When set up for three speed operation, there are two ways to stop the rotors.

METHOD 1 (BRAKE)

Switching from Tremolo to Off will energize the slow motors for a short time. This serves to *brake* the lower rotor. After the lower rotor has slowed, all motors will switch off.

ⓘ **NOTE:** The relay will vary the duration of the brake period based on the rotor speed that had been attained at the time the Leslie was switched to stop.

ⓘ **NOTE:** If your relay was ordered as "coast only" (EIS-9VC), the brake feature will be disabled.

METHOD 2 (COAST)

Switching from Tremolo, momentarily to Chorale and then to off will turn all motors off instantly, allowing the rotors to *coast* to a stop.