

INSTRUCTION MANUAL

SOFT START

A START-UP AND SHUT DOWN AUTOMATIC SEQUENCER



MODEL # 091-27

3 YEAR WARRANTY



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INTRODUCTION:

The SOFT START is an automatic electronic switching system which permits the driver of an emergency vehicle to preset all lights and then turn them ON and OFF in sequence from a single master switch. Up to seven lights or warning devices may be operated, one by one, at 1/2 second intervals. The SOFT START protects the alternator from power surges by reducing the transients in the vehicle's electrical system.

It is not necessary to use all outputs of the SOFT START. Also the SOFT START does not interfere with the normal operation of the lights as they can be individually turned ON and OFF by their control switches. Relays are required to carry the high current loads as illustrated in the wiring diagram.

A provision has been made for the installation of a bypass switch. This can be used to operate all the relays simultaneously during a system test or it may be used to bypass the SOFT START in operation.

INSTALLATION:

Figure 1 illustrates the vehicle wiring. A "plug-in" connector is provided to make all connections to the SOFT START. This permits the installer to easily wire all connections and check for continuity before connecting to the SOFT START.

CAUTION

It is possible to damage the SOFT START by making incorrect electrical connections. CHECK ALL WIRING BEFORE PLUGGING IN SOFT START

NOTE:

The SOFT START operates relays made by Bosch, Potter & Brumfield and others. Each output of the SOFT START is capable of driving a load up to .25 amperes, 48 ohms minimum resistance. This is more than ample for the commonly available relays.

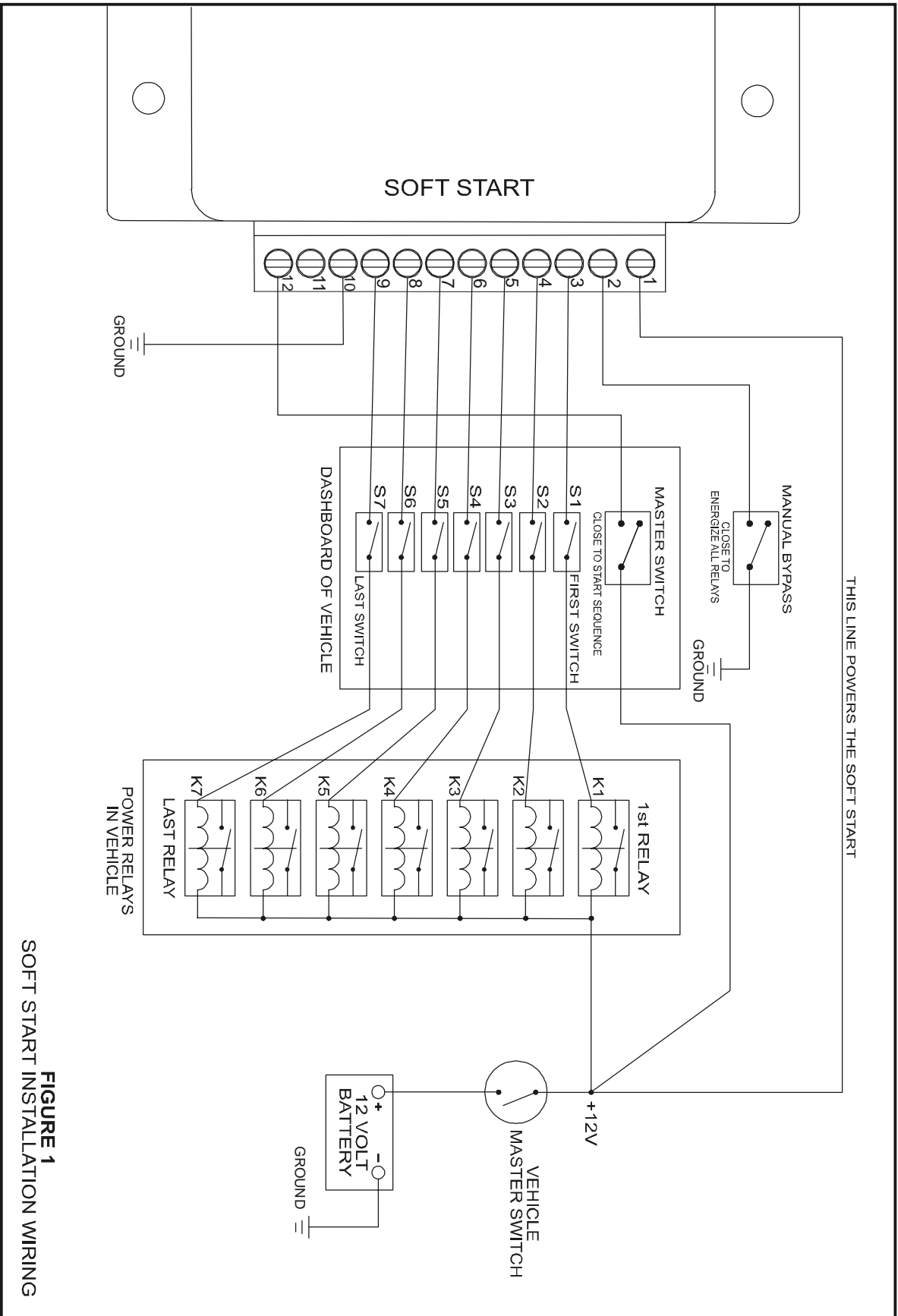


FIGURE 1
SOFT START INSTALLATION WIRING

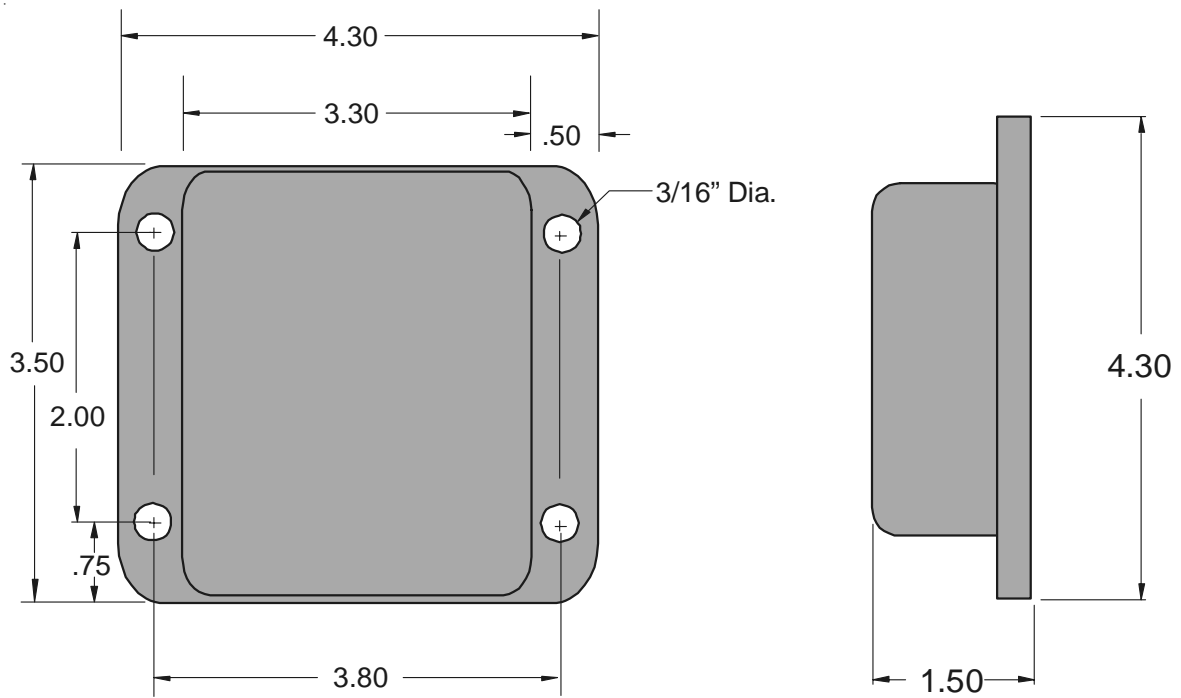


Figure 2, Outline Drawing, Soft Start

INSTALLATION RECORD & WARRANTY

Date Installed _____

Installed By _____

Vehicle Identification _____

Vehicle Owner _____

WARRANTY

All products of Kussmaul Electronics Company Inc. are warranted to be free of defects of material or workmanship. Liability is limited to repairing or replacing at our factory, without charge, any material or defects which become apparent in normal use within 3 years from the date the equipment was shipped. Equipment is to be returned, shipping charges prepaid and will be returned, after repair, shipping charges paid.

Kussmaul Electronics Company, Inc. shall have no liability for damages of any kind to associated equipment arising from the installation and /or use of the Kussmaul Electronics Company, Inc. products. The purchaser, by the acceptance of the equipment, assumes all liability for any damages which may result from its installation, use or misuse, by the purchaser, his or its employees or others.