

INSTRUCTION MANUAL

AUTO CHARGE 75-BG

AUTOMATIC BATTERY CHARGER

MODEL # 091-149-XX-XXX



NOTE:
THIS CHARGER IS DESIGNED
FOR A SINGLE BATTERY SYSTEM.

3 YEAR WARRANTY



KUSSMAUL ELECTRONICS CO., INC.

170 CHERRY AVE., WEST SAYVILLE, N.Y. 11796

TEL: in NY 631-567-0314

TOLL FREE: 800-346-0857

FAX: 631-567-5826

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INTRODUCTION

The Auto Charge 75-BG, Model 091-149 is a compact, high output, completely automatic battery charger. Available in a wide array of output voltages, it may be specified for operation from either 120 volts or 230 volts, 50/60 Hz. The specification chart lists the various models with the output current ratings.

Battery Charger Features:

- * Electronic remote sensing of true battery voltage, eliminates the need for remote sensing wires
- * Automatic current limiting
- * Battery charge/condition indicator, bottom bar indicates power "ON"
- * 0-100 ampere panel meter to indicate charger output current
- * A controlled fan operates when the current exceeds 30 amperes and keeps the charger components cooled.

The charger functions automatically by adjusting its output voltage by varying the triggering angle of the silicon controlled rectifiers of the full wave rectifier. Output current is detected by sensing the voltage across a low resistance shunt and modifying the triggering angle to limit the current. A block diagram appears in figure 1.

Automatic remote sensing measures the true battery voltage, eliminating the need for additional sensing wires. The output current of the charger is inherently a series of pulses whose frequency is determined by the power line frequency. Therefore there are brief intervals when no charging current flows. During this brief interval the battery charger measures and stores the battery voltage. The measured voltage is compared to a reference and any error detected is used to control the charger output.

This charger may remain energized and connected to the battery for extended periods of time with no danger of overcharging or water boil-off.

INSTALLATION

The Auto Charge 75 – BG automatic battery charger should be installed in an area with adequate ventilation. A power cord and output wires are provided. A 3 foot extension for the remote bar graph is included. These 3 wires may be extended using butt splices if a longer distance is required.

Mount the charger using the four holes provided. See the outline and mounting drawings.

1. Connect the red wire to the battery positive, and the black wire to the battery negative. Be certain that the battery voltage corresponds to the output voltage rating of the charger.
2. Connect the bar graph cable as shown in the installation diagram.
3. Double check all wiring before proceeding.
4. Wire the A.C. power line to a power source that corresponds to the input requirements of the charger.

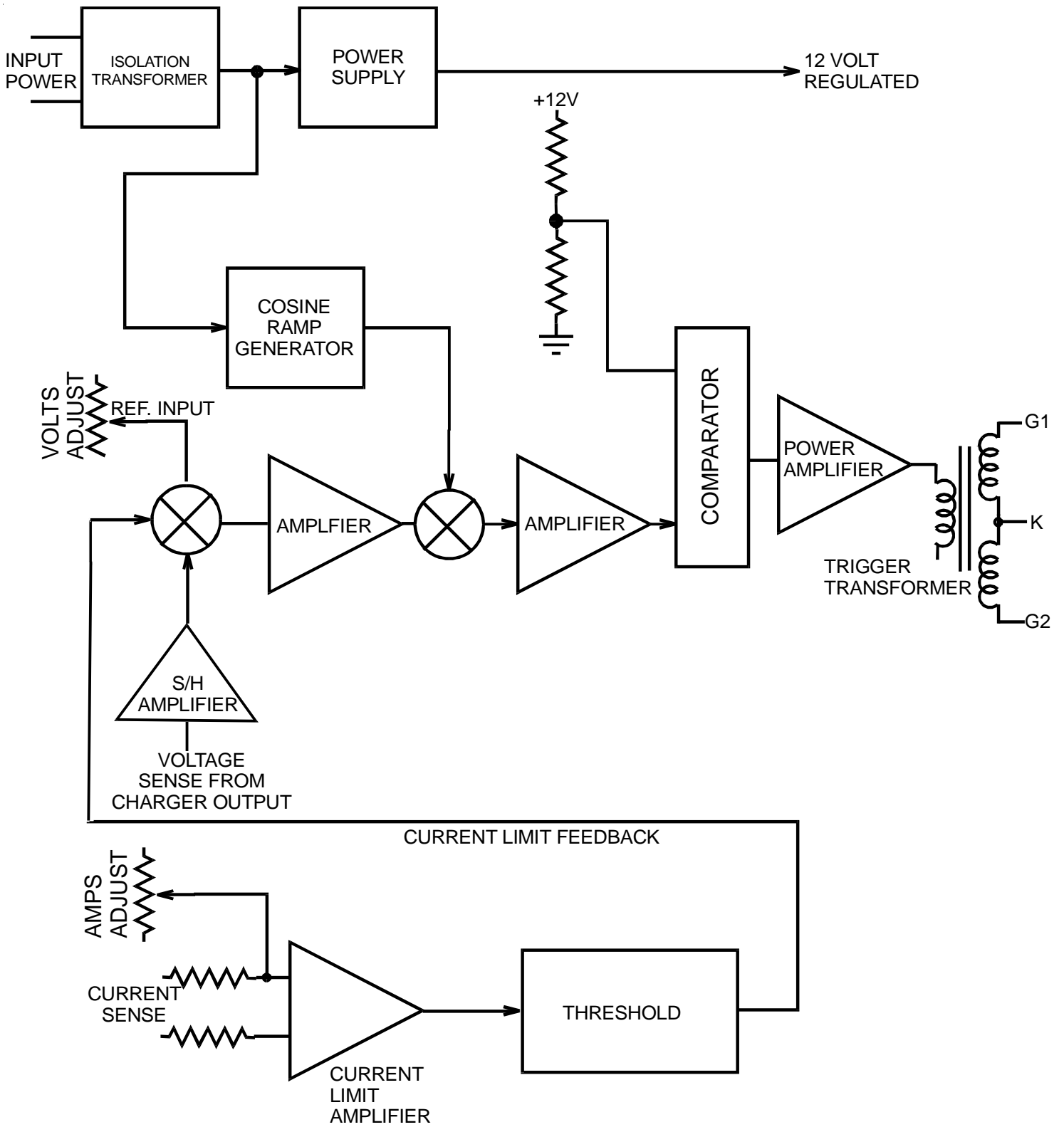


Figure 1

BLOCK DIAGRAM, AUTO CHARGE CONTROL CIRCUIT

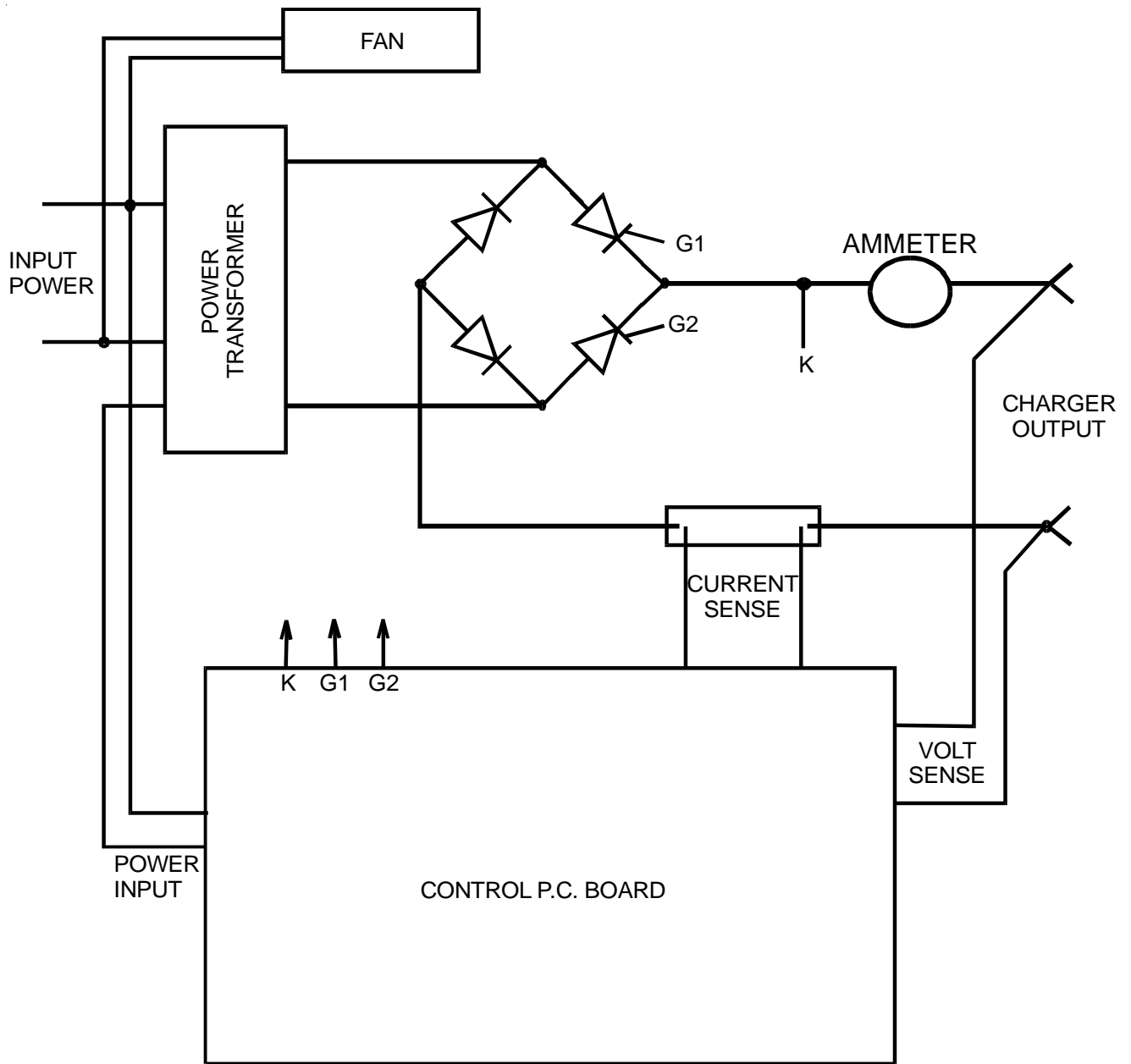


Figure 2

Model 091-75, Auto Charge, Electrical Arrangement

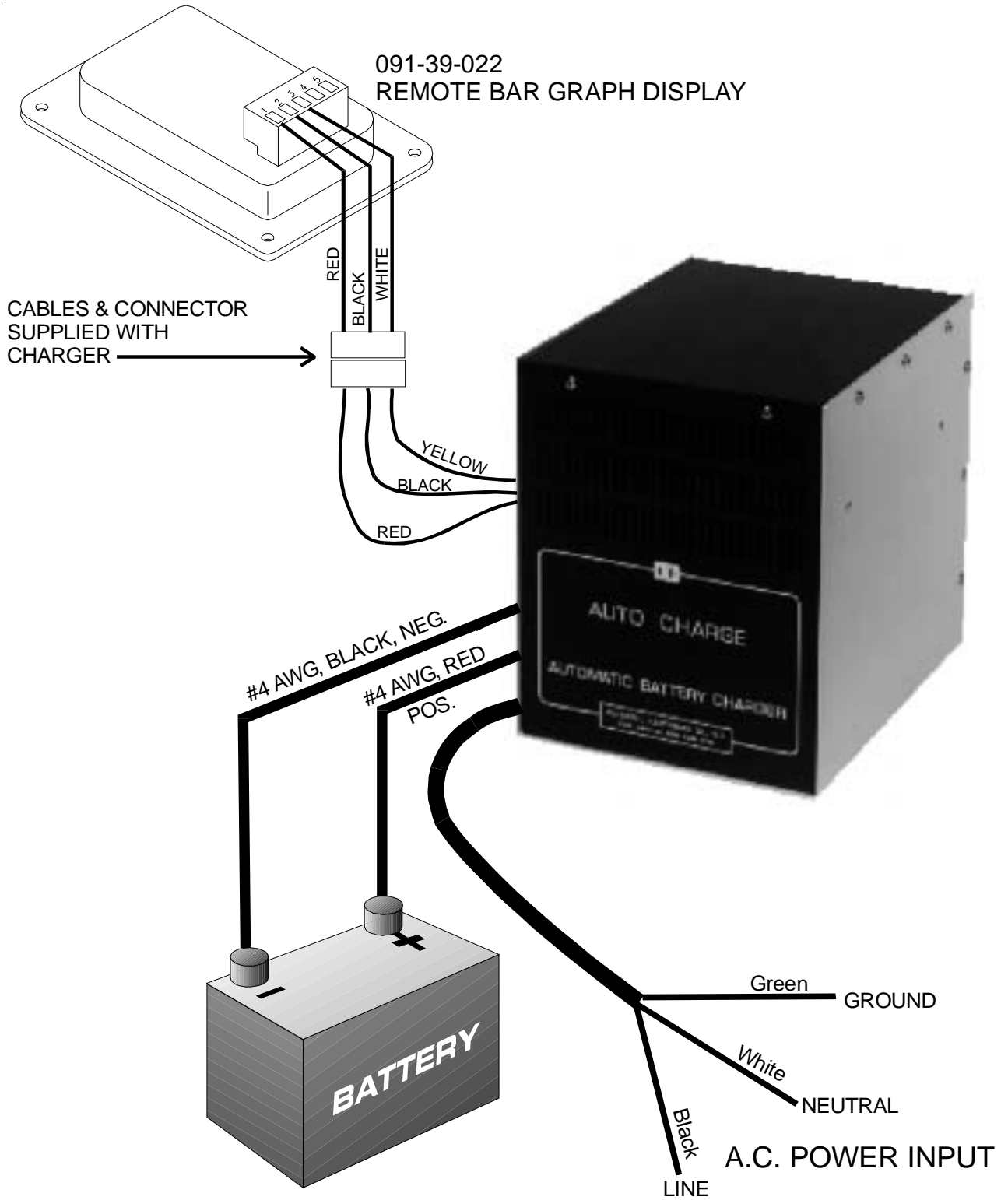


FIGURE 3
INSTALLATION WIRING

SPECIFICATION & OUTLINE

SPECIFICATIONS:

INPUT:			
VOLTS	FREQUENCY	AMPS	FUSE
120	50/60 Hz	17	20
230	50/60 Hz	9	12
277	50/60 Hz	8	10
all fuses are slo-blo			

Output: see chart

Output Current: see chart

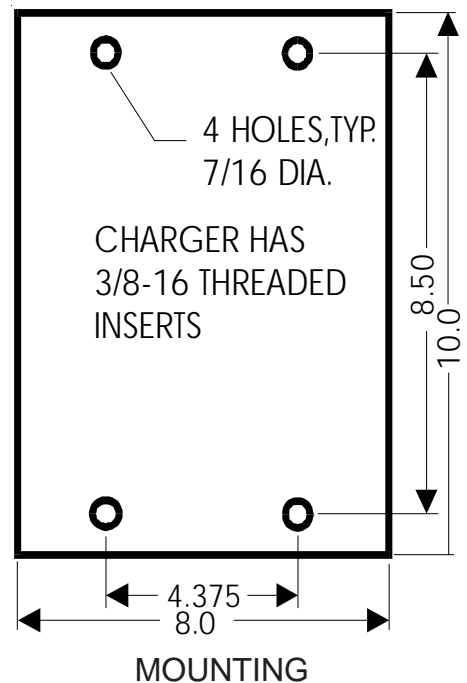
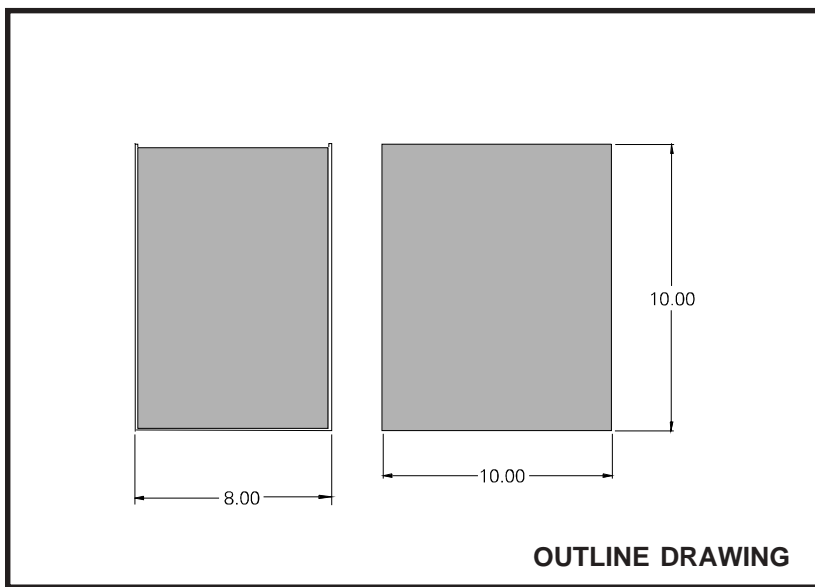
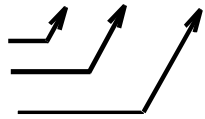
Weight: 65 lbs

SPECIFICATION CHART			
MODEL #	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT AMPS
091-149-12	120 A.C.	12 D.C.	75
091-149-24	120 A.C.	24 D.C.	40
091-149-32	120 A.C.	32 D.C.	30
091-149-36	120 A.C.	36 D.C.	27
091-149-48	120 A.C.	48 D.C.	25
091-149-72	120 A.C.	72 D.C.	15
091-149-96	120 A.C.	96 D.C.	12
091-149-120	120 A.C.	120 D.C.	10
091-149-12-230	230 A.C.	12 D.C.	75
091-149-24-230	230 A.C.	24 D.C.	40
091-149-32-230	230 A.C.	32 D.C.	30
091-149-36-230	230 A.C.	36 D.C.	27
091-149-48-230	230 A.C.	48 D.C.	25
091-149-72-230	230 A.C.	72 D.C.	15
091-149-96-230	230 A.C.	96 D.C.	12
091-149-120-230	230 A.C.	120 D.C.	10
091-149-48-277	277 A.C.	48 D.C.	25

Model Number Specification

091-149-XX-XXX

Basic Model
 D.C. Output Volts
 A.C. Input Volts
 (Only specify if other than 120V)



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.