

INSTRUCTION MANUAL

AUTO CHARGE 12VHO AUTOMATIC BATTERY CHARGER

MODEL # 091-12VHO-XX



NOTE :
This charger is designed for
vehicles with a single
battery system

3 YEAR WARRANTY



KUSSMAUL ELECTRONICS CO., INC.
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INTRODUCTION

The Auto Charge 12VHO is Battery Charger is a compact completely automatic charger designed for installation on vehicles with a single battery system. Remote sensing permits long lines between the charger and the batteries by compensating for the voltage drop in the charging wires. An ammeter provides continuous indication of the charger output.

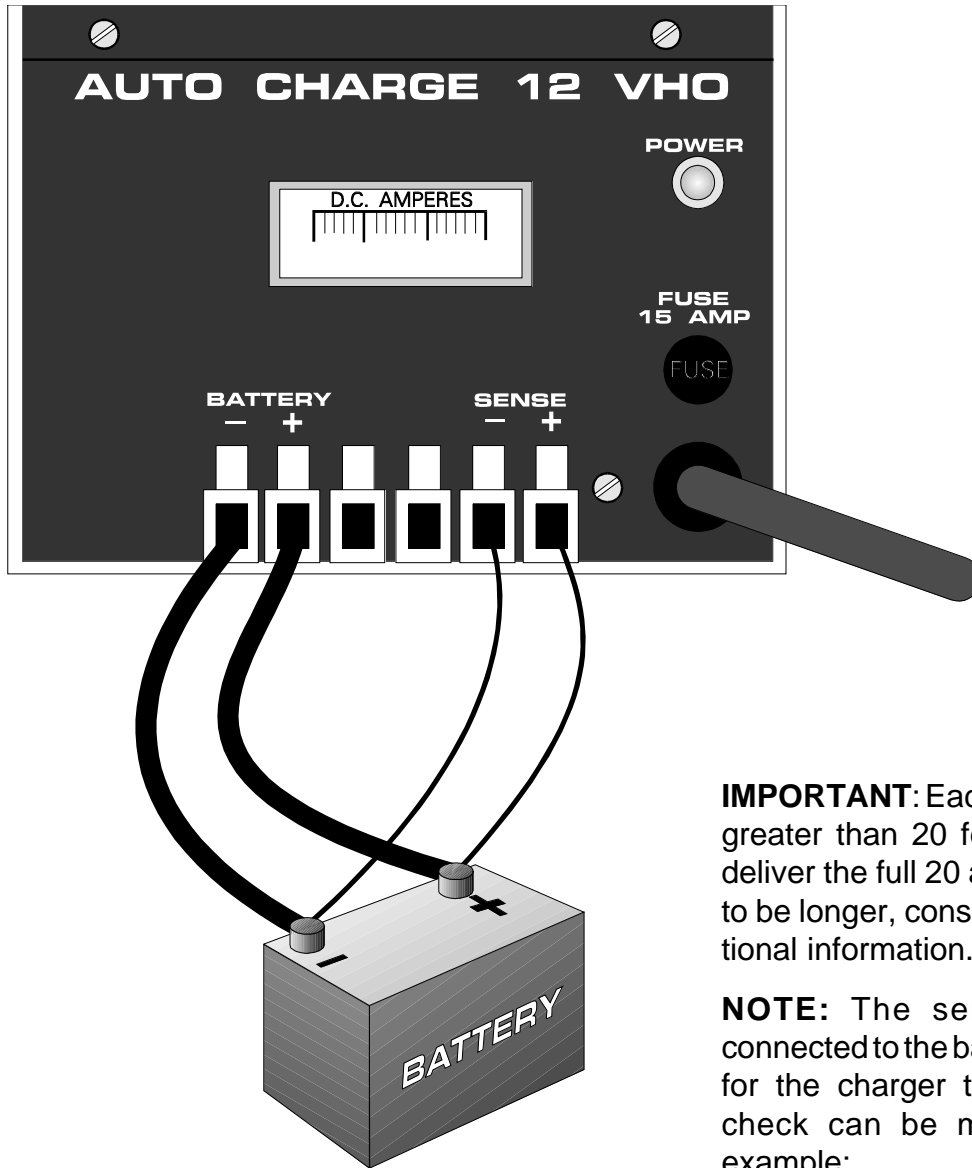
Construction of the Auto Charge 12VHO is extremely rugged to withstand the shock and vibration normally encountered by vehicle mounted equipment. The unit operates completely automatically and stops charging the batteries when they are fully charged. There is no trickle charge and therefore no danger of overcharging and water boil-off. Any parasitic loads on the battery such as radio, lights, etc., are automatically supplied with current by the charger.

INSTALLATION

The Auto Charge 12VHO Automatic Battery Charger should be installed in an area with adequate ventilation. A power cord is supplied for connection to A.C..

1. Mount the charger using the four holes provided for this.
2. Connect the wiring from the battery to the Output Terminal Strip. Strip the wire insulation approximately 3/8".
3. Double check all wiring before proceeding.
5. Wire the A.C. power.
6. Pilot light will light to show that the charger has power.

INSTALLATION WIRING DIAGRAM



IMPORTANT: Each lead wire shall not be greater than 20 feet for the charger to deliver the full 20 amp output. If wiring is to be longer, consult the factory for additional information.

NOTE: The sense leads must be connected to the battery system as shown for the charger to operate. A simple check can be made as follows see example:

WIRE SIZE CHART

CONNECTION	ITEM	DEFINITION	WIRE SIZE
BAT-	BATTERY NEGATIVE	NEGATIVE CHARGING LEAD FOR BATTERIES	10 AWG
BAT+	BATTERY POSITIVE	POSITIVE CHARGING LEAD FOR BATTERY # 1	10 AWG
SENSE -	NEGATIVE SENSE	NEGATIVE VOLTAGE SENSE LEAD. DETECTS VOLTAGE	16 AWG
SENSE +	POSITIVE SENSE	POSITIVE VOLTAGE SENSE LEAD. DETECTS VOLTAGE	16 AWG

EXAMPLE: Assuming a 24 VDC battery system, the positive sense lead must read approximately +24 VDC with respect to the negative sense lead at the charger. The battery "+" terminal must read approximately +24 VDC with respect to the battery "-" terminal at the charger. These measurements shall be made before the AC power to the charger is applied.

SPECIFICATION & OUTLINE

SPECIFICATIONS:

Input: See Chart

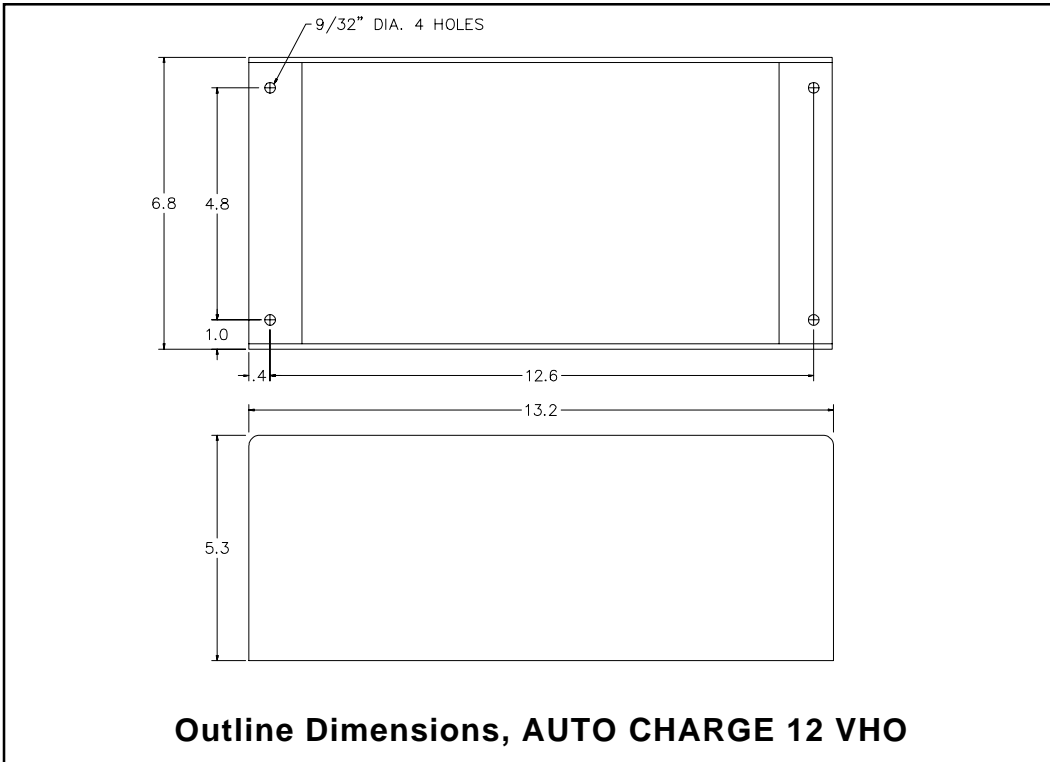
Output: See Chart

Output Current: See Chart

Charge Indicator: D.C. Ammeter

Weight: 22 lbs

MODEL	AMPS	VOLTAGE	INPUT
091-12VHO-24	20	24 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-32	15	32 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-36	13.3	36 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-48	10	48 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-64	7.5	64 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-72	6.6	72 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-84	5	84 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-96	5	96 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-120	4	120 volts	120 Volt, 60 Hz, 10 Amps
091-12VHO-24-230	20	24 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-32-230	15	32 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-36-230	13.3	36 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-48-230	10	48 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-64-230	7.5	64 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-72-230	6.6	72 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-84-230	5	84 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-96-230	5	96 volts	230 Volt, 60 Hz., 4 Amps
091-12VHO-120-230	4	120 volts	230 Volt, 60 Hz., 4 Amps



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.