

## INSTRUCTION MANUAL

---

# AUTO CHARGE 20 AUTOMATIC BATTERY CHARGER



**MODEL #091-10-XX**

**NOTE :**

**This charger is designed for vehicles with  
3 batteries and negative ground.**

**3 YEAR WARRANTY**

---

**KUSSMAUL ELECTRONICS CO., INC.**

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

1

# **INTRODUCTION**

---

The Auto Charge 20 Battery Charger is a compact completely automatic charger designed for installation on vehicles with three batteries. Three individual chargers are provided to charge the three batteries. Voltage is sensed separately for each battery so that each battery is charged according to its requirements. The total output to the three batteries is 20 amperes. An ammeter provides continuous indication of the charger output.

Construction of the Auto Charge 20 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.

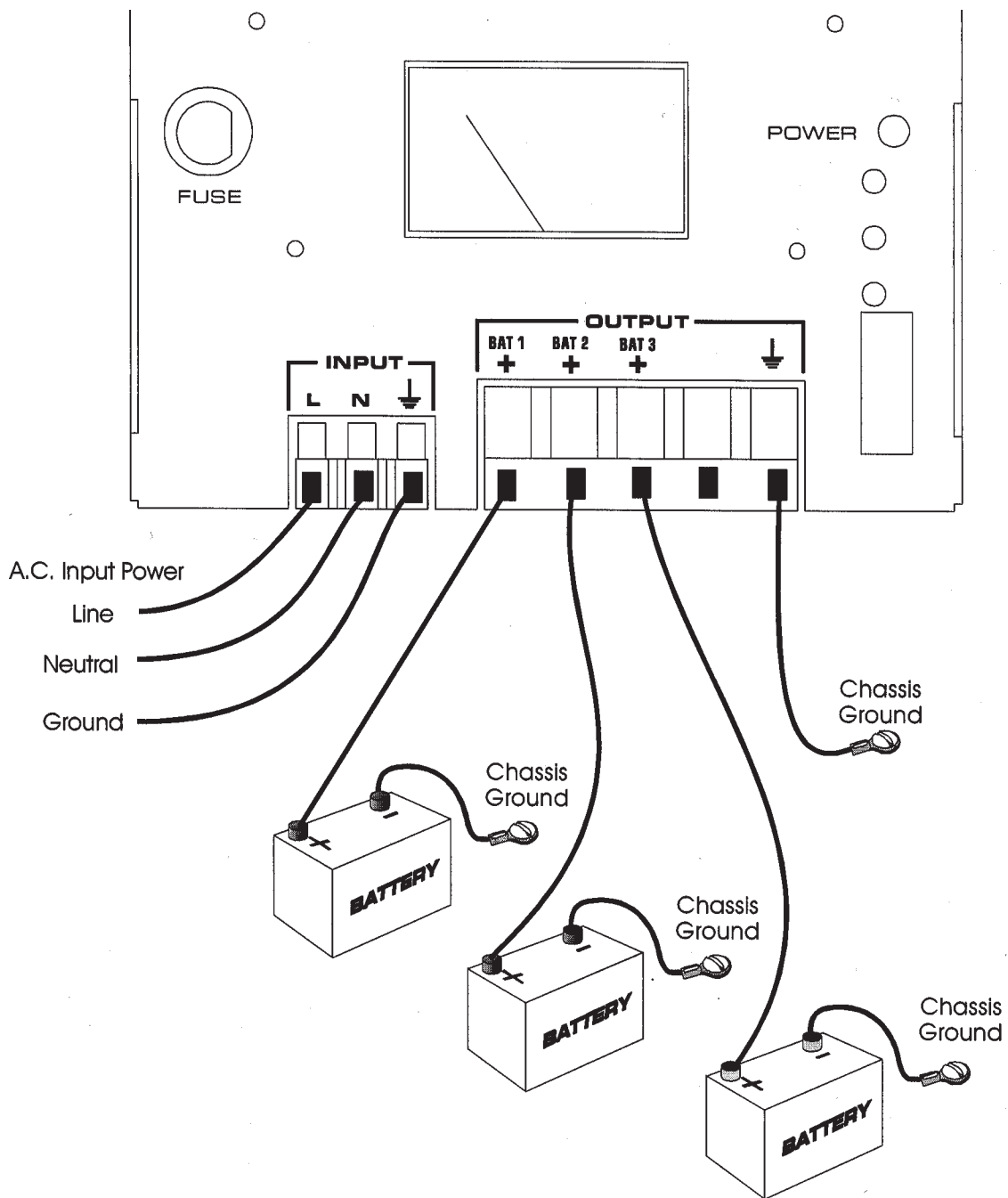
# **INSTALLATION**

---

The Auto Charge 20 Automatic Battery Charger should be installed in an area with adequate ventilation.

1. Mount the charger using the four holes provided for this.
2. Connect the wiring from the batteries to the Output Terminal Strip.
3. Connect the wiring to the batteries. Ring lugs that have been securely crimped, or soldered, should be used.
4. Double check all wiring before proceeding.
5. Wire the A.C. power to power input terminal strip.
6. Pilot light will light to show that the charger has power.

# INSTALLATION WIRING DIAGRAM



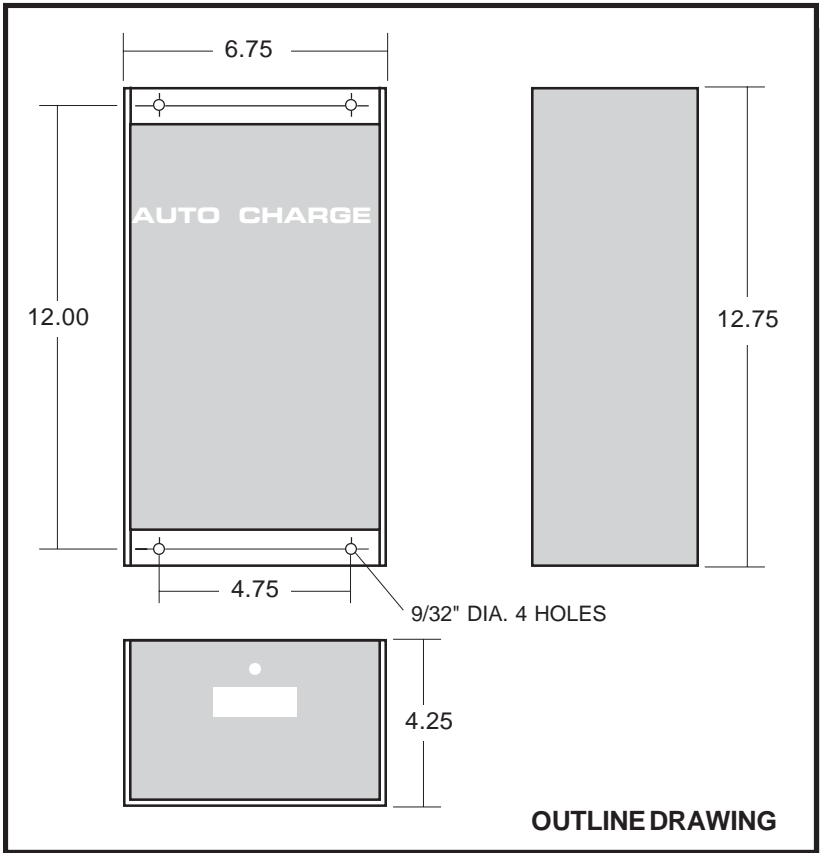
**IMPORTANT:** Charger output wire size is 12 awg. Wire size is for a maximum length of 20 feet. If wiring is to be longer, larger wiring is required. Additional information is available on request.

# SPECIFICATION & OUTLINE

**SPECIFICATIONS:**

- Input:** see chart
- Output:** see chart
- Output Current:** see chart
- Charge Indicator:** 0-20 amps 5%
- Weight:** 2 2 lbs

Model #	Output Current	Output Voltage	Input Voltage	Input Current
091-10-6	20 Amps	6	120, 50/60 Hz	4.7 Amps
091-10-12	20 Amps	12	120, 50/60 Hz	4.7 Amps
091-10-24	10 Amps	24	120, 50/60 Hz	4.7 Amps
091-10-6-230	20 Amps	6	230, 50/60 Hz	2.4 Amps
091-10-12-230	20 Amps	12	230, 50/60 Hz	2.4 Amps
091-10-24-230	10 Amps	24	230, 50/60 Hz	2.4 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.