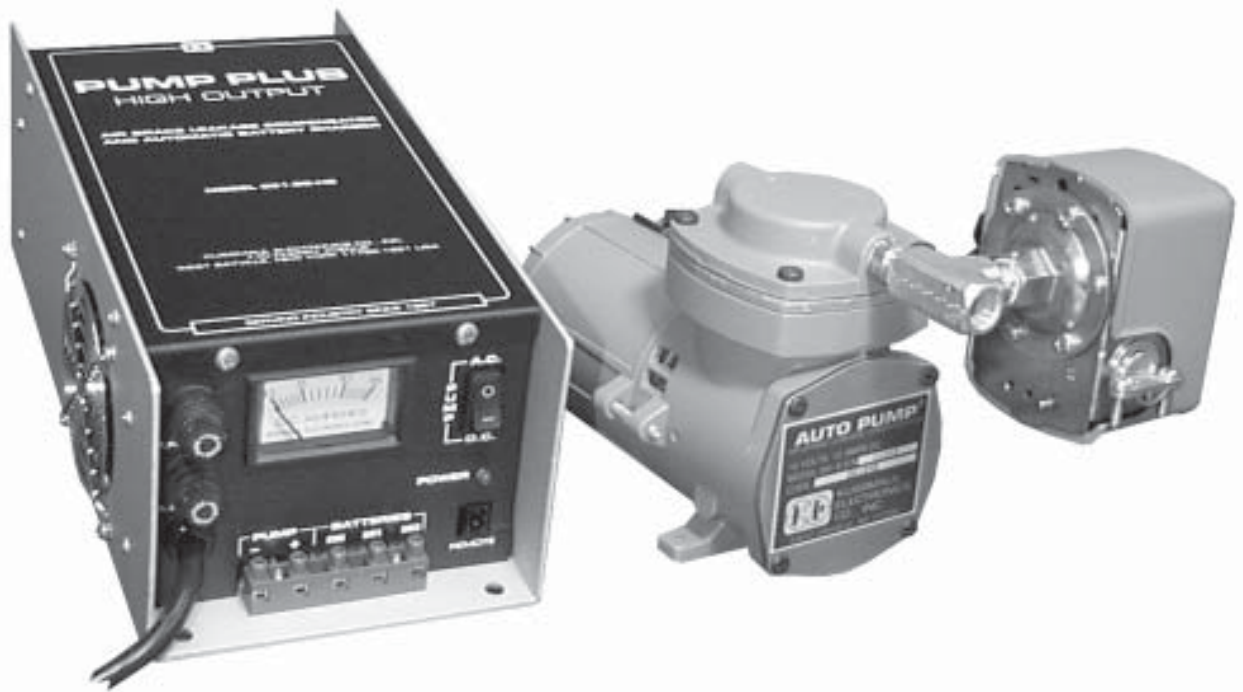


INSTRUCTION MANUAL

PUMP-PLUS HO
HIGH OUTPUT
AIR COMPRESSOR / BATTERY CHARGER
MODEL # 091-9C-HO



NOTE :
This charger is designed for
vehicles with dual batteries
and negative ground.

INPUT :120 volt, 50/60 Hz

OUTPUT: 13.25 VOLTS, 11 AMPERES

3 YEAR WARRANTY



KUSSMAUL ELECTRONICS CO., INC.
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INTRODUCTION

The Pump Plus HO Automatic Battery Charger is a compact, completely automatic, dual channel battery charger designed for vehicles with a two battery system. The charger is ruggedized to withstand the shock and vibration encountered by vehicle mounted equipment.

Battery Charger Features:

- Independent charge controls for each battery
- Automatic current limiting
- Optional dual battery charge/condition indicator
- Power "ON" LED indicator

DESCRIPTION

Independent Charge Controls

The Pump Plus HO contains two independent charge controls, one for each battery. This allows each battery to be independently charged while maintaining battery isolation. Each battery is individually sensed, eliminating the need for sense wires. Each of the charge controls is completely automatic and stops charging the battery when it is fully charged. There is no trickle charge and therefore no danger of overcharging and water boil-off.

Automatic Current Limiting

When batteries are severely discharged, some battery chargers can be overloaded due to the high charging current required. The Pump Plus HO contains an automatic current limit. This circuit limits the output current to the rated 11 amperes when charging a deeply discharged battery or if the starter cranks the engine while starting. The current limiter thus eliminates the need for an ignition interlock circuit.

SPECIFICATION

Input: 120 volts A.C., 50/60 Hz., 3 amperes

Input Fuse: 5 amperes, fast acting

Pump Fuse: 15 amperes, slow blow

Output Volts: 13.25 volts, nominal

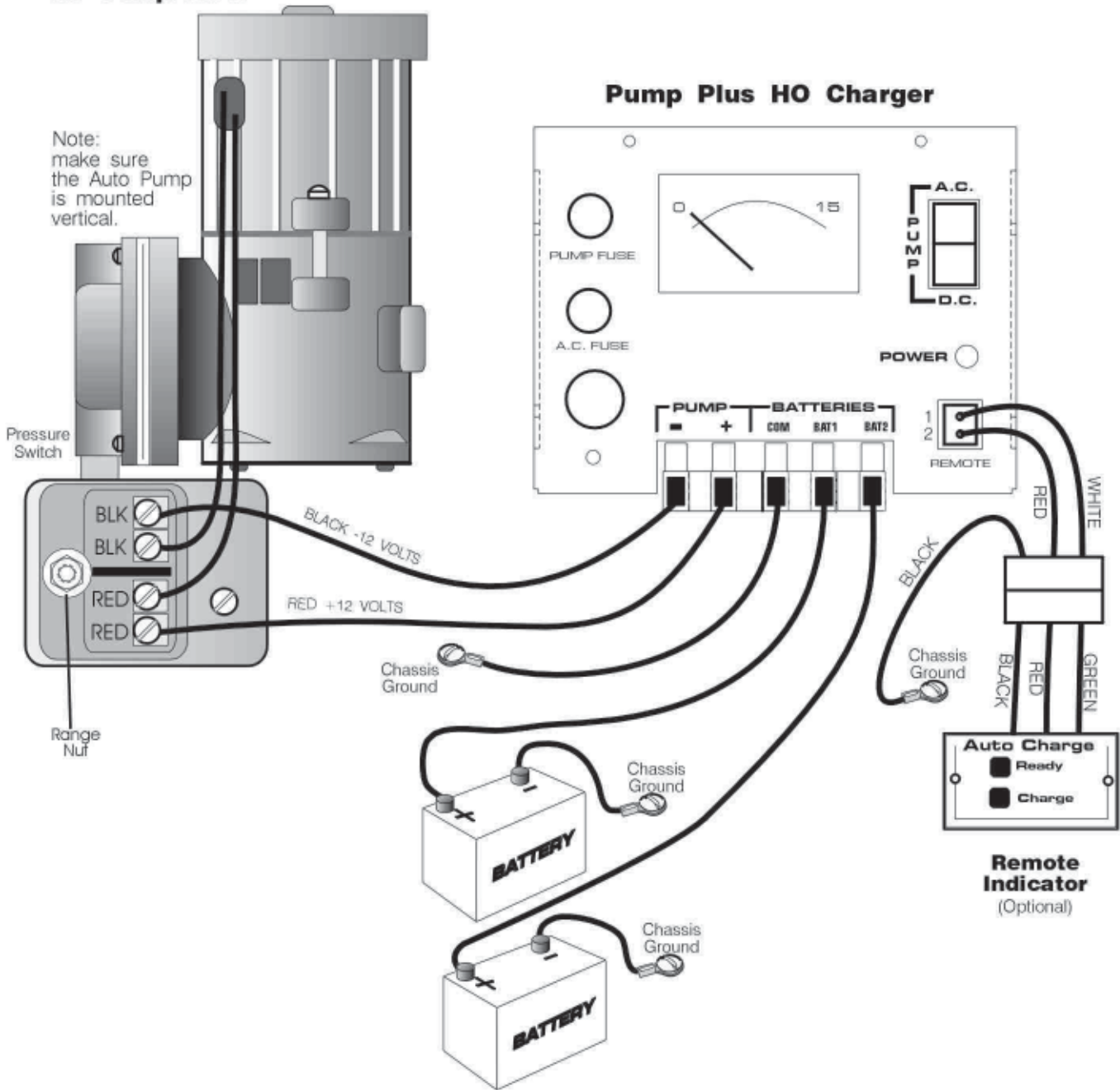
Output Current: 0 to 11 amperes, D.C., output determined by the state of charge of the batteries

Remote Charge Indicator: Red Led indicates charging current
Green Led indicates batteries are fully charged

Weight: 12 lb.

Auto Pump Air Compressor

Note:
make sure
the Auto Pump
is mounted
vertical.



Note: All wire is 14 gauge, larger wire is required if length exceeds 10 feet.

Wiring Diagram Pump Plus HO

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.

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 others.