Getting Started

Connections - single/output with breakers

CONNECT RS-485 MODBUS OR J1939 NETWORK CABLE TO RJ-45 CONNECTOR (see user manual for connector pinout, RJ-45 to terminal block adapter p/n 208026 available from SENS)

*CONNECT TCP/IP MODBUS NETWORK CABLE TO RJ-45 CONNECTOR (optional feature)

CONNECT AC WIRES AT BREAKER TERMINALS
100-240VAC, 50/60HZ

DO NOT CONNECT AT TERMINAL BLOCK WHEN BREAKER PRESENT

CONNECT GROUND WIRE
REMOTE BATTERY TEMPERATURE SENSOR (connect at leftmost terminal block)

REMOVE PLUGGABLE ALARM TERMINAL BLOCK TO INSTALL ALARM WIRES
SEE INSIDE COVER LABEL FOR FACTORY ALARM ASSIGNMENTS

CONNECT SENS SETUP UTILITY TO USB WHEN OPTIONAL TCP/IP MODBUS PCA INCLUDED

CONNECT DC WIRES AT BREAKER TERMINALS
SEE INSIDE COVER LABEL FOR FACTORY OUTPUT CONFIGURATION

DO NOT CONNECT AT TERMINAL BLOCK WHEN BREAKER PRESENT

SENSbus - CHARGER LOAD SHARING, REMOTE ACCESSORIES OR SENS SETUP UTILITY
(do not connect J1939, TCP/IP or RS-485 here)

REMOTE BATTERY TEMPERATURE SENSOR
(connect at leftmost terminal block)

Connections - single/multiple output, no breakers

CONNECT RS-485 MODBUS OR J1939 NETWORK CABLE TO RJ-45 CONNECTOR (see user manual for connector pinout, RJ-45 to terminal block adapter p/n 208026 available from SENS)

*CONNECT TCP/IP MODBUS NETWORK CABLE TO RJ-45 CONNECTOR (optional feature)

CONNECT AC WIRES AT TERMINAL BLOCKS
100-240VAC, 50/60HZ

CONNECT GROUND WIRE
REMOTE BATTERY TEMPERATURE SENSORS (optional, one per output)

REMOVE PLUGGABLE ALARM TERMINAL BLOCK TO INSTALL ALARM WIRES
SEE INSIDE COVER LABEL FOR FACTORY ALARM ASSIGNMENTS

CONNECT SENS SETUP UTILITY TO USB WHEN OPTIONAL TCP/IP MODBUS PCA INCLUDED

MULTIPLE OUTPUTS OPTIONAL
(outputs share common negative connection)

CONNECT DC WIRES AT TERMINAL BLOCKS (multiple outputs optional)
SEE INSIDE COVER LABEL FOR FACTORY OUTPUT CONFIGURATION

SENSbus - CHARGER LOAD SHARING, REMOTE ACCESSORIES OR SENS SETUP UTILITY
(do not connect J1939, TCP/IP or RS-485 here)

*See user manual for details regarding J1939 and TCP/IP Modbus configuration

Need Help?
REFER TO THE USER MANUAL OR CONTACT SENS CUSTOMER SERVICE:
800-742-2326 / 303-678-7500 / service@sens-usa.com
USE YOUR SMART PHONE QR CODE READER TO ACCESS USER MANUAL

PATENTED US 9,270,140; 9,385,556; 9,413,186; 9,509,164; 9,466,995; 9,948,125
IMPORTANT SAFETY INSTRUCTIONS

1. SAVE THESE INSTRUCTIONS - This guide contains important safety and operating instructions for MicroGenius® S4 battery chargers.

2. Do not expose charger to rain or snow.

3. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.

4. This charger is intended for commercial and industrial use. ONLY TRAINED AND QUALIFIED PERSONNEL MAY INSTALL AND SERVICE THIS UNIT.

5. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. If you drop the charger, let qualified personnel inspect it before operation.

6. To reduce risk of electric shock, disconnect branch circuit feeding charger before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

7. WARNING – RISK OF EXPLOSIVE GASES

7.1 Working in vicinity of a lead-acid or nickel-cadmium battery is dangerous. Storage batteries generate explosive gases during normal battery operation. For this reason, it is of utmost importance that you read this document and follow the instructions each time you use the charger.

7.2 To reduce the risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of a battery. Review cautionary markings on these products and on engine.

8. PERSONAL PRECAUTIONS

8.1 Someone should be within range of your voice or close enough to come to your aid when you work near a storage battery.

8.2 Have plenty of fresh water and soap nearby in case battery electrolyte contacts skin, clothing, or eyes.

8.3 Wear complete eye protection and clothing protection. Avoid touching eyes while working near a storage battery.

8.4 If battery electrolyte contacts skin or clothing, wash immediately with soap and water. If electrolyte enters eye, immediately flush the eye with running cold water for at least 10 minutes and get medical attention immediately.

8.5 NEVER smoke or allow a spark or flame in vicinity of battery or engine.

8.6 Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short circuit battery or other electrical part that may cause explosion. Using insulated tools reduces this risk, but will not eliminate it.

8.7 Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a storage battery. A storage battery can produce a short circuit current high enough to weld a ring or the like to metal, causing a severe burn.

8.8 When charging batteries, charge 6 and 12 cell LEAD-ACID or 12 and 20 cell LIQUID ELECTROLYTE NICKEL-Cadmium batteries only, with rated capacity of 30 to 1100 Ampere hours. Certified for fire pump and emergency generator applications. For a 24 hour recharge time do not exceed 220 Ampere hours of capacity per 12A charger output current. Do not use this battery charger to supply power to an extra-low voltage electrical system or to charge any type of non-rechargeable, dry cell, alkaline, lithium, nickel-metal-hydride, or sealed nickel-cadmium batteries that are commonly used with home appliances. These batteries may burst and cause injuries to persons and damage to property.

8.9 NEVER charge a frozen battery.

8.10 The charger contains a DC output fuse for internal fault protection, but this will not protect property.

9. PREPARING BATTERY FOR CHARGE

9.1 Be sure area around battery is well ventilated while battery is being charged.

9.2 Ensure battery terminals are clean and properly tightened. Be careful to keep corrosion from coming in contact with eyes.

9.3 Add distilled water in each cell until battery acid reaches level specified by battery manufacturer. Do not overfill. For a battery without removable cell caps, such as valve regulated lead acid batteries, carefully follow manufacturer’s recharging instructions.

9.4 Study all battery manufacturer specific precautions such as removing or not removing cell caps while charging and recommended rate of charge.

10. CHARGER LOCATION

10.1 Locate the charger as far away from the battery as DC cables permit.

10.2 Never place charger directly above or below battery being charged; gases from battery will corrode and damage charger.

10.3 Never allow battery acid to drip on charger when reading electrolyte specific gravity or filling battery.

10.4 Do not operate charger in a closed-in area or restrict ventilation in any way.

10.5 Do not set anything on top of the charger.

Power On - Connect battery then energize AC power

SEE APPLICATION NOTE 26 TO COMMISSION NICD BATTERIES

Note - Chargers configured to boost may be in boost for up to 24 hours at start-up if battery voltage is low.