CHR-1445 / 2685

BATTERY CHARGER

TEL：886-4-2238-0698
FAX：886-4-2238-0891
Web Site：http://www.monicon.com.tw
E-mail：sales@monicon.com.tw

Copyright © 2007 Monicon Instruments Co., Ltd. All right reserved. Contents in this publication may not be reproduced in any form without the expressed written permission of Monicon Instruments Co., Ltd.

Precaution: This manual contains important instructions that should be followed during installation and maintenance of the generator and batteries.

Precaution: Read the following information carefully before attempting to install, operate or service this equipment. Also read the instructions and information on tags, decals, and labels that may be affixed to the transfer switch. Replace any decal or label that is no longer legible.

Warning: Connection of a generator to an electrical system normally supplied by an electric utility shall be by means of suitable transfer equipment so as to isolate the electric system from utility distribution system when the generator is operating. Failure to isolate electric system by these means may result in damage to generator and may result in injury or death to utility workers due to back feed of electrical energy.

Monicon Instrument Co., Ltd.., hereafter referred to as the "**manufacturer**", cannot anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and on tags and decals affixed to the unit are, therefore, not all-inclusive. If using a procedure, work method or operating technique the manufacturer did not specifically recommend, ensure that it is safe for others. Also make sure the procedure, operating method does not render the battery charger unsafe. Throughout this publication, and on tags and decals affixed to the battery charger, DANGER, WARNING, CAUTION and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:

Three commonly used safety symbols accompany the DANGER, WARNING and CAUTION blocks. The type of information each indicates follows:

Danger

After this heading, read instructions that, if not strictly complied with, will result will result in personal injury, including without limitation, death, or property damage.

Warning

After this heading, read instructions that, if no strictly complied with, may result in personal injury or property damage.

Caution

After this heading, read instructions that, if not strictly complied with, could result in damage to equipment and/or property.

NOTE:

After this heading, read explanatory statements that require special emphasis. These safety warnings cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the service are essential to preventing accidents.

GENERAL HAZARDS

- Improper or unauthorized installation, operation, service or repair of the equipment is extremely dangerous and may result in death, serious personal injury, or damage to equipment and/or personal property.

- Extremely high and dangerous power voltages are present inside an installed battery charger. Any contact with high voltage terminals, contacts or wires will result in extremely hazardous, and possibly LETHAL, electric shock. DO NOT WORK ON THE BATTERY CHARGER UNTIL ALL POWER VOLTAGE SUPPLIES TO THE SWITCH HAVE BEEN POSITIVELY TURNED OFF. **IMPORTANT SAFETY INSTRUCTIONS**

- Competent, qualified personnel should install, operate and service this equipment. Adhere strictly to local, state and national electrical and building codes. When using this equipment, comply with regulations the National Electrical Code (NEC), CSA Standard; C22.1 Canadian Electric Code and Occupational Safety and Health Administration (OSHA) have established.

- Never handle any kind of electrical device while standing in water, while barefoot, or while hands or feet are wet. DANGEROUS ELECTRICAL SHOCK MAY RESULT.

- Jewelry conducts electricity and wearing it may cause dangerous electrical shock. Remove all jewelry (such as rings, watches, bracelets, etc.) before working on this equipment.
- If work must be done on this equipment while standing on metal or concrete, place insulated mats over a dry wood platform. Work on this equipment only while standing on such insulated mats.

- Never work on this equipment while physically or mentally fatigued.

- Keep the battery charger enclosure closed and bolted at all times. Only qualified personnel should be permitted access to the charger interior.

- In case of an accident caused by electric shock, immediately shut down the source of electrical power. If this is not possible, attempt to free the victim from the live conductor but AVOID DIRECT CONTACT WITH THE VICTIM. Use a non-conducting implement, such as a dry rope or board, to free the victim from the live conductor. If the victim is unconscious, apply first aid and get immediate medical help.

- When a battery charger is installed for a standby generator set, the generator engine may crank and start at any time without warning. To avoid possible injury that might be caused by such sudden start-ups, the system's automatic start circuit must be disabled before working on or around the generator or battery charger. For that purpose, a SAFETY DISCONNECT is provided inside the controller panel. Always set that control panel to its OFF position before working on the equipment. Then place a "DO NOT OPERATE" tag on the battery charger and on the generator. Remove the Negative (Neg) or (–) battery cable.

Table of Content

1. Descriptions 5

2. Features 5

3. Specifications 5

4. Installation and Operation 6

5. Notes 6

6. Label Specification 6

7. Dimension 7

8. Safety Precautions 7

1. Descriptions

CHR-1445/2685, intelligence module, serves lead acid battery at full charging all the time. Short-circuit, Over load, and Over Voltage Protection prevent any damage from lead acid battery. Widely AC input voltage and adjustable DC output voltage realize the ideal of high flexibility. CHR-1285/2485 also in accordance with the principle of high Efficiency at the ratio: at Full Loaded >85% saving more energy due to the high- tech design. Easy operation reduces the time and cost for the client.

2. Features

-Short circuit protection, Overload protection, Boost charge input

-Float charging, system, Constant voltage output, Current limited

-Rugged design for industrial environments, wide operating voltage range

3. Specifications

AC Input Voltage:
Voltage 80~250VAC (110/220 VAC)
Frequency 50/60HZ

DC adjustable output voltage range:
CHR-1285 Voltage 12-14VDC
CHR-2485 Voltage 25-27VDC

Changing algorithm:
Constant voltage then constant current

Protection:
Over voltage, Over current, Short circuit protection

Efficiency:
at Full Loaded >85%

Working Temperature:
-40~70℃

Storage Temperature:
-40~85℃

Relative humidity:
Max. 90 %

Dimension:
147mmL*82mmW*43mmmH

Weight:
482.2g

Specifications subject to change without notice

4. Installation and Operation

4.1. Line on the L1 and L2 with AC power. Note: there is no AC volt output before line on with the battery.

4.2. Turn off the AC power then put the + and – pole of charger with the + and – pole of battery together then turn on the AC current.

4.3. Included Self-detected charging circuit that automatically shut down charging when battery is filled. Never turn off the power or line off with battery.

4.4. Build-in short circuit and reverse polarity protection.

5. Notes:

5.1. All the adjustment has regulated at factory before ex-work.

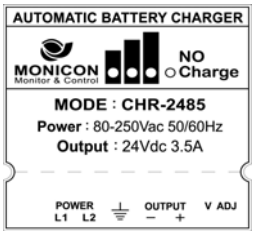
5.2. In charging state, because lead-acid batteries will gas, please located it on well- ventilated storage.

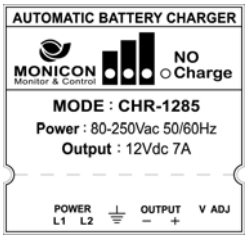
5.3. Avoiding the place of raining, exposing, non-neutralization or existing corrosive gas.

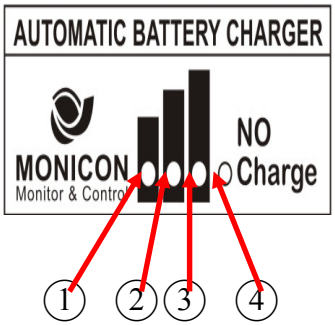
5.4. Battery detected voltage must over 10V(or 22V) otherwise the charger stop charging automatically.

5.5. Charger only for battery charging

6. Label Specification

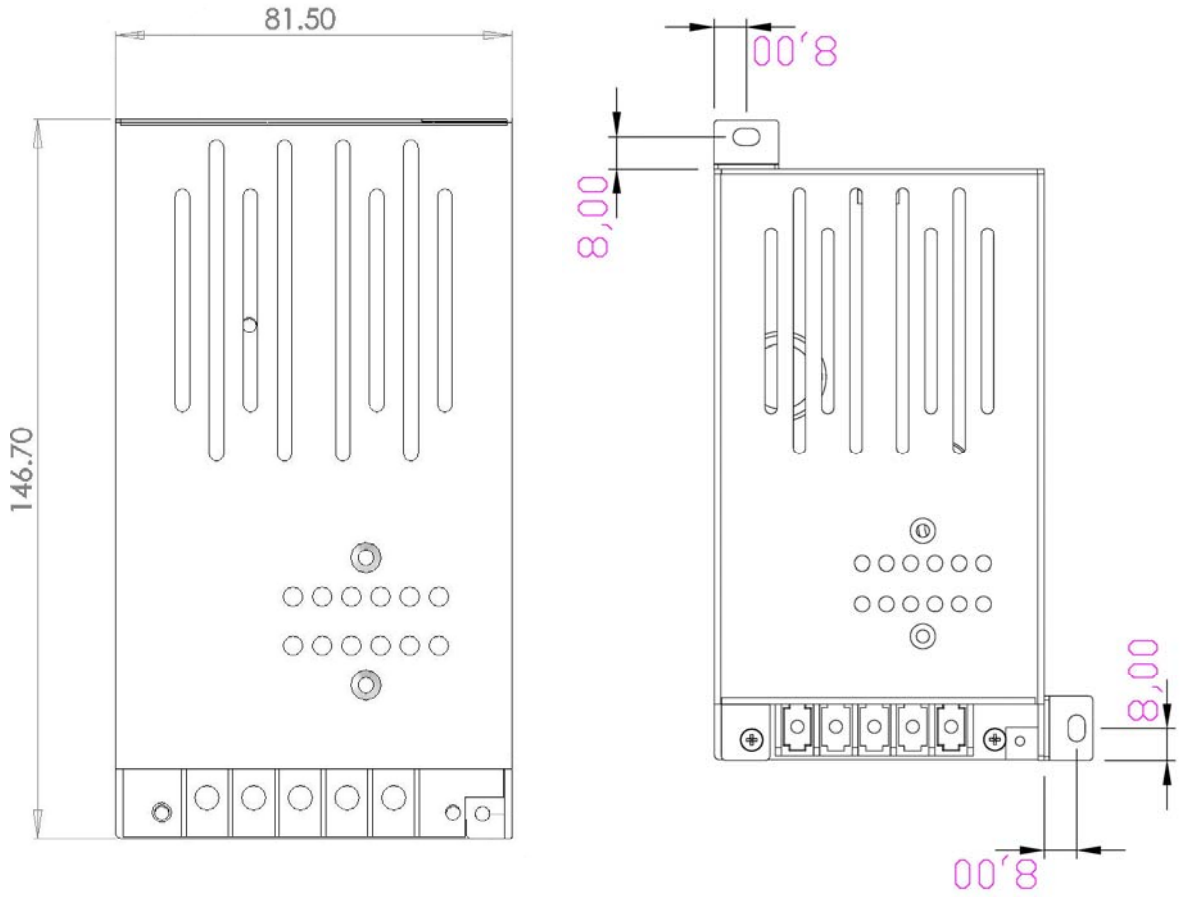






1. **Low output current,** when the battery is close to fully charged and switches to float charging system ,this light will be on.
2. **Moderate flow of current,** the current output flows according to the battery capacity and the charger at a standard ratio.
3. **Charging at full load,** when this light is on, it's indicating that the battery is flat. (Charging duration depended on the charger's spec)
4. **When the red light is on,** please check the following status,
   I. Has the battery voltage dropped below standard safety value (happens in old battery, died out battery, battery hasn't been serviced etc.)
   II. Input & output has been wrongly connected.
   III. Does the charger's output voltage meets the battery voltage.

7. Dimension



8. Safety Precautions

When operating your battery charger, basic safety precautions should always be followed to reduce the potential risk of fire, electric shock and/or injury to persons, including the following:

8.1 Read this owner's manual thoroughly before operating your battery charger.

8.2 Do not allow any objects or liquid into the openings of your battery charger.

8.3 Do not place any flammable materials such as gasoline near your battery charger.

8.4 Do not cover or obstruct ventilating opening of your battery charger. Overheating may result.

8.5 To reduce the risk of fire or electric shock, do not remove any service covers. No user's serviceable parts are inside. Repair should be done by your dealer's authorized personnel only.

8.6 If you have any questions or comments about this product, please contact your local dealer for assistance.

Caution

- To prevent fire, do not cover or obstruct ventilation openings. Do not mount in zero-clearance compartment.
- The protection of overload or any fault condition in each output circuit is operated by current fuse. These fuses of output circuit are located in the above printed wiring board.
- Disconnect supply before changing fuse.

Monicon Instrument Co. Ltd. reserves the right to change specification without prior notice.