

Manual for charger interface type KM-RI for KraftMaster

SAFETY INSTRUCTION

The manual must be read **before** installation, usage or work in the product.



WARNING! Units using this product contains dangerous voltage that when touched can cause electrical chock, burn or death.

The power should always be disconnected in a safe way (both mains and battery) before any service/maintenance work begins. After switching off, always allow the capacitors 5 minutes to discharge. It is a good practise to check (with a voltage indicating instrument) that the discharge in fact is complete before work begins.

Service/maintenance work may only be performed by authorized service personnel.

All protective coverings and plates must be mounted during operation.

Check both before and after setting-up that the product does not have any mechanical damages.

The product must be installed by qualified personnel, that is personnel that has electrical education and adequate experience to avoid the dangers that electricity can cause.

DESCRIPTION

KM-RI provides an interface between the monitoring unit KM-BAS and a charger through the local bus, KraftNet. Its duty is to measure rectifier current, distribute charger alarms, set the temperature compensated charge voltage and select charge voltage level for float charge, battery test and equalizing charging. KM-RI is needed in UNIQ systems with chargers working in parallel and in KM-19" systems.

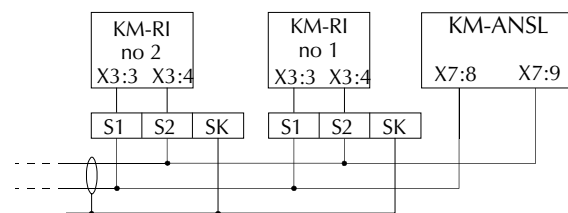
INSTALLATION INSTRUCTIONS

Normally, the KM-RI unit is already installed into a charger. Therefore, most of the installation procedure is already complete. The remaining procedures are to connect the local serial bus, KraftNet, to the monitoring unit and to set the appropriate address for KraftNet communication.

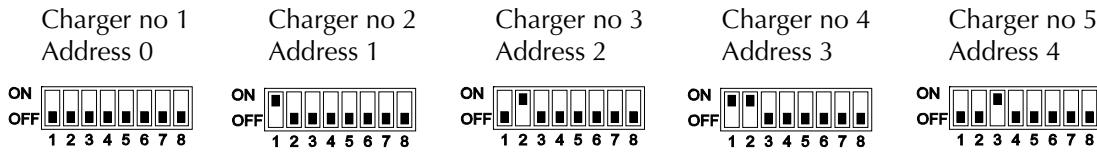
- 1) KraftNet is connected from terminal S1, S2 in the charger (that proceeds to X3:3-4 on the KM-RI unit) to terminal X7:8-9 on the connection board KM (see appendix *Component locations, connection board KM* in the manual for KraftMaster), no polarity demands. Shielded cable, for instance type LIYCY 2*0.25, must be used. Connect the shield to terminal SK in the charger and to terminal X7:14 on the connection board KM.

NOTE: The shield must be connected in both ends!

If the system has chargers working in parallel, that is more than one KM-RI unit is used, all the KraftNet connections should be connected in parallel, see figure.



- 2) To enable identification of each KM-RI unit on the KraftNet bus, each unit must have its own address. The address is set by an 8 pole DIP switch (S1) on the KM-RI unit. Set the DIP switch S1 like this:



...and so on, where the DIP switch is set as the binary address value.

In UNIQ systems, the KM-BAS is built into charger no 1, which therefore lacks a KM-RI unit. In that case, the charger no 1 automatically has address no 0.

STARTING UP

KM-RI is regarded as a part of the charger and has no need of a separate setting up procedure.

MAINTENANCE INSTRUCTIONS

To make sure that the charger will also function properly throughout the next 10-year period, it is recommended that the memory package is replaced. *This will also provide you with any modifications incorporated during the elapsed 10-year*

FAULT TRACING INSTRUCTIONS

No signs of contact between the monitoring unit and the charger

Cause: Communication between KM-RI and KM-BAS is broken.

- Action:
- 1) Check that both the yellow and the green LED are flashing on both the KM-BAS board and the KM-RI board.
 - 2) Not lit green LED on the KM-BAS board indicates a short circuit on the communication bus. Check the wires between the units.
 - 3) Not lit yellow LED on the KM-BAS board indicates a faulty board or an incorrect setting. Check that the monitoring unit settings concerning the charger are correct.
 - 4) If the monitoring unit shows the alarm "Unit x doesn't answer", the communication is broken but the KM-BAS is OK.
 - 5) Not lit green LED on the KM-RI indicates a faulty communication wiring.
 - 6) Not lit yellow LED on the KM-RI indicates a faulty board or an incorrect setting. Check that the DIP switch settings for the KM-RI address is correct.
 - 7) Replace the KM-BAS and/or the KM-RI board.

COMPONENT LOCATIONS

