DESCRIPTION AND INSTALLATION INSTRUCTIONS FOR CRISTEC CHARGERS

YELLOW MOLDED CASE VERSION

INSTRUCTIONS :

CRISTEC range of Automatic Battery Chargers are unique in that they offer constant current charging, automatic current regulation circuit protection and multiple outlets.

By using the constant current principle the batteries are charged in the shortest possible time whilst preserving the lifetime of the battery.

The automatic current regulation ensures that when the battery is fully charged, the electronic voltage regulator reduces the current to a stabilized self-discharge level. From this moment the battery remains fully charged, and as the battery discharges current so the automatic current regulation monitors the output from the battery and supplies the input level required by the battery. This maintains the battery in a fully charged condition, especially useful with maintenance free batteries.

CRISTEC chargers also have incorporated in their solid state circuitry a safety feature so that in the case of a sudden surge in the DC circuit, the charger will not race or overheat but remain at its nominal current.

Input voltage : Nominal 220 V or 110/220 V

Case Size : 190 mm x 275 mm x 190 mm

Description : The charger is housed in a molded yellow case and supplied complete with mains lead, ammeter, mains indicator and charge indicator.

INSTALLATION :

The charger can be mounted on a vertical or horizontal surface. A space of 20 cm should be left around the case in order to ensure good ventilation of charger.

If the charger is placed in a locker, ventilation should be provided to allow good air circulation.

In order to fix the charger to a vertical surface, remove the rubber bands. This will allow access to holes in the rear of the case which can be used to secure the charger to the vertical bulkhead.

.../...

CONNECTION :

. FIG.3 - One-output battery charger :
How to connect it to one battery

Connect the black wire of the charger on the (-) terminal of the battery
Connect the red wire of the charger on the (+) terminal of the battery
Connect the purple wire (IR) on the (+) terminal of the battery.

NB. For the chargers with screw terminals, please read the instructions "Charger for two batteries" for choosing the connection wires and the connection process.

. FIG.4 - One-output battery charger :
How to connect it to two batteries, using a separate isolator

Connect the red wire of the charger on the "in" of the isolator.

Connect first terminal of the isolator to (+) terminal of the most used battery.

Connect second terminal of the isolator to (+) terminal of the second battery

Connect the black wire of the charger on the (-) terminals of batteries 1 and 2

Connect the purple wire (IR) on the (+) terminal of the most used battery.

. FIG.5 - Two-outputs battery charger :
How to connect it to two batteries

Connect the + BAT 1 terminal of the charger to the (+) terminal of the most used battery

Connect the + BAT 2 terminal of the charger to the (+) terminal of the second battery

Connect the - BAT of the charger to the (-) terminals of the batteries 1 and 2.

. Diameter of the connection wire (length not over 5 m)

- 10 A charger : wire diameter = 2.5 mm^2
- 17 A charger : " " 4 mm^2
- 28 A charger : " " 4 mm^2

.../...

The charger is delivered with a connection kit including crimping tags, flat washers and nuts.

Crimp tags to the connection wires with an appropriate tool, assemble the parts on the terminal of the charger following this sequence : flat washer, tag, flat washer, nut.

Following above instructions (wire diameters, crimping, setting the components and tightening the nuts) will ensure correct operation of your charger.

FAILURE TO ENSURE GOOD CONNECTION COULD LEAD TO TERMINALS OVERHEATING AND DAMAGE TO BATTERY CHARGER AND VESSEL.

. Charger for two batteries, used with one battery only

Connect the BAT 1 and BAT 2 terminals of the charger to the (+) terminal of the battery

Connect the - BAT terminal to the (-) terminal of the battery.

FIG.3

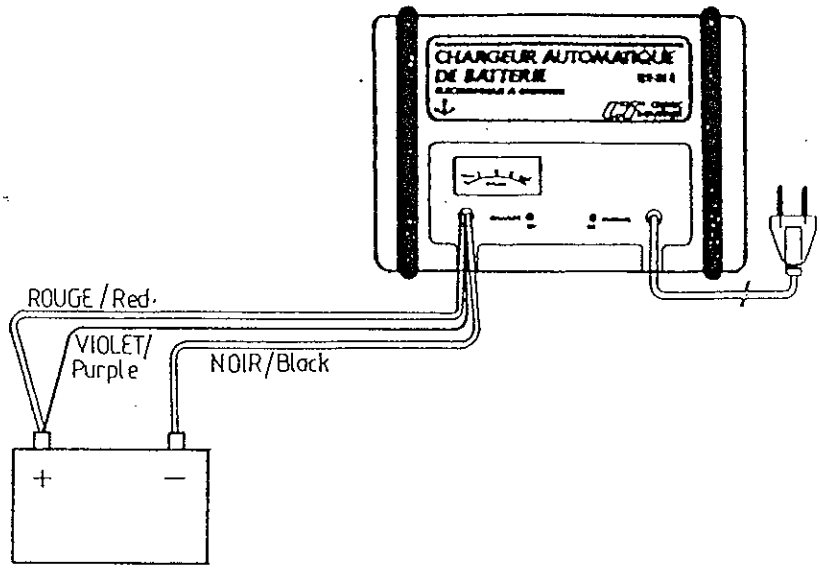
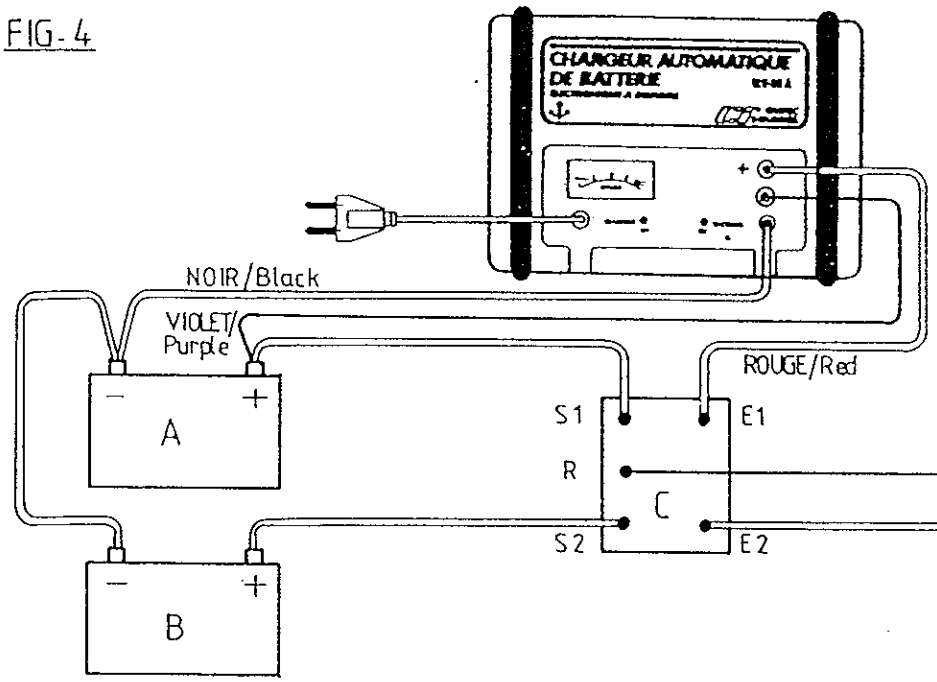


FIG.4



A : BATTERIE DE SERVICE
Domestic battery

B : 2eme BATTERIE
2nd battery

C : REPARTITEUR
Isolateur

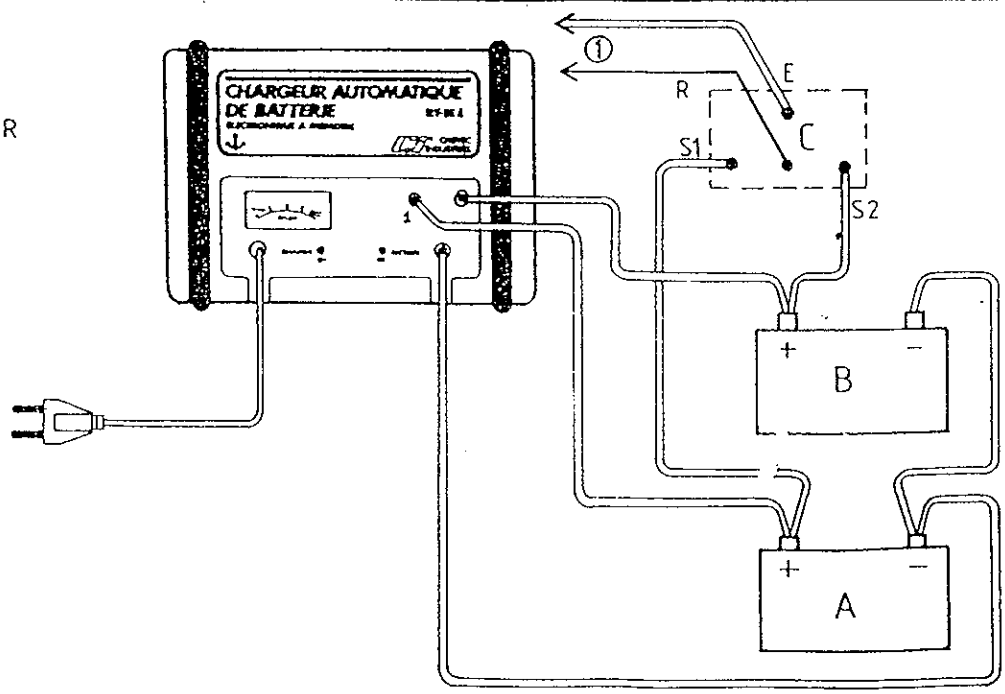
E1, E2 : ENTREES
Inputs

S1, S2 : SORTIES
Outputs

R : SORTIE REGULATEUR ALTERNAT.
Alternator regulator output

FIG.5

① + ALTERNATEUR
+ Alternator



CRISTEC

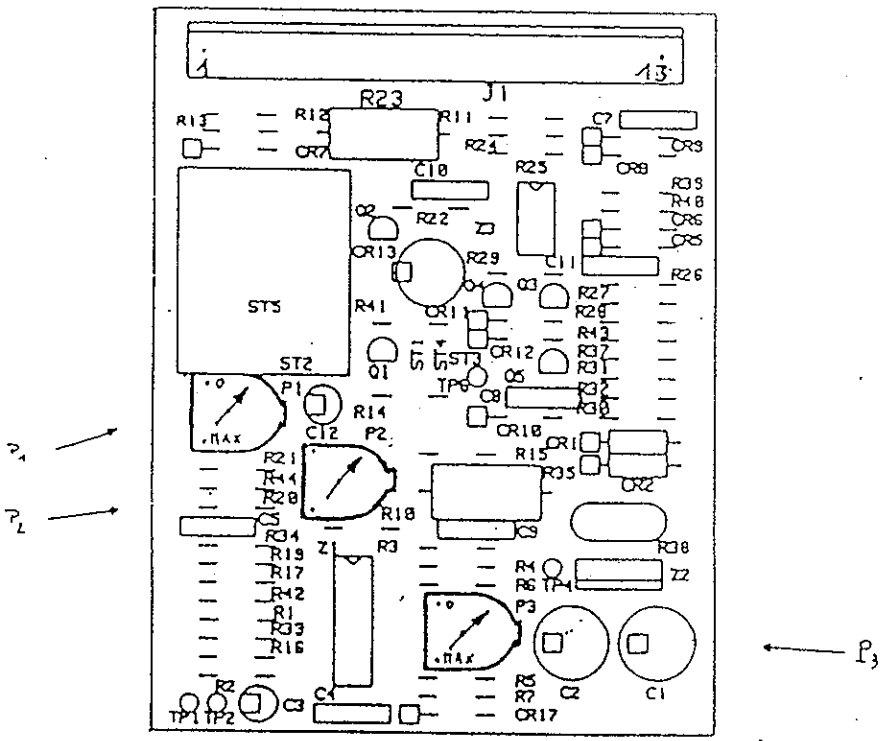
Cristec Industries SA
Electronique de contrôle

DT 1043

ELECTRONIC CIRCUIT BOARD ADJUSTMENT

. Open the charger to reach the electronic circuit board. This board has 3 potentiometers : P1, P2 and P3 :

- P1 adjustment : charging current limitation
- P2 adjustment : ammeter end of scale
- P3 adjustment : end of charge voltage



RÈGLAGE DE LA CARTE ELECTRONIQUE

. Ouvrir le chargeur pour atteindre la carte électronique. Cette carte a 3 potentiomètres : P1, P2 et P3 :

- Réglage de P1 : limitation du courant de charge
- Réglage de P2 : calibrage de l'ampèremètre de charge.
- Réglage de P3 : réglage de la tension de fin de charge batterie