



Charger / Trickle Charger DC – CTC 24



An innovative way of charging, ensures an optimal charging procedure out of each state of charge up to the maximum capacity and maintenance of charge. The uncomplicated construction without setting the voltage or the current makes it easy for everybody, even if not very familiar with the handling of technical equipments. The battery has only to be connected by adapter to the electronic part.



Description: charging-trickle charging

The charging current is interrupted by discharge pulses and phases of measurement. The cells are measured permanently until they have received their maximum voltage (ΔU Charging process). The charging current will be switched off and the cells have a resting phase of 12 – 20 hours. After that, a new phase of charging will be made. Through the charging current, oxygen bubbles at the electrodes are generated, which will be dissolved and re-combined through the discharge pulses. The formation of macro-grained crystals will be avoided through this chemical active substance. The cells keep their capacity and the internal resistance of cells does not rise. A pre-discharging is not necessary with this charging process. The memory effect will not become possible and the cells will not be overcharged.

Description of device

The electronic part for charging and trickle charging (for 1 to 24 cells) is programmed on an Eurocard. The Eurocard is fitted with a power-supply transformer and designed as a tray, suitable for a 19" housing. Inside of a 19" housing there can be installed up to 6 electronic trays. The battery-cells or packs with several cells are connected through an adapter to the device. In the plug of the connecting cable, the charging current is adjusted through bridges. The actual operation-status is shown by the respective LED's.

Installation and operation of the device

The device is designed for the operation in dry rooms only. It should be protected from direct sunlight and high temperatures. For a ventilation to cool the electronic part, the louvers must be kept free. The device is to be connected according to the instructions on the type label.



Operating Manual

The Charging, - Trickle charging device is to be connected with the cable of main-power-supply to a 230V protection contact plug. If the switch of the device on the back is ON all LED's above are lighting up in ON – green.

The device is ready for operation.

The adapter units are to be connected to the plug sockets and the quick disconnect (System Renk) has to be locked.

If a battery is connected to the adapter unit,

LED – ON and LED – Accu Operate Step = orange

LED – ON is lighting up in orange as long as a battery is connected

LED – Accu Operate Step is blinking orange – dark during the pulse of discharge and the phase of measuring. Is the charging phase terminated, the

LED – Accu Operate Step is permanently green.

If a battery is connected with inverse polarity

LED – ON = is green and

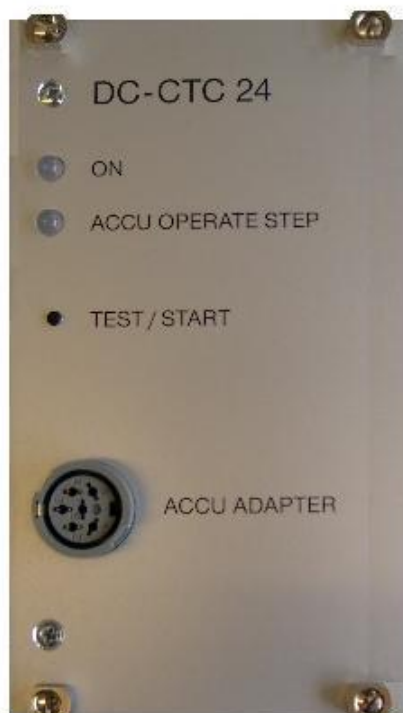
LED – Accu Operate Step = is red

No charging current is circulating.

The battery is to be connected in correct polarity.

If a battery is set to be charged with a voltage less than 1V, the electronic part cannot identify this value and the battery has to be connected in correct polarity.

By pushing the button TEST / Start the first pulse of charging will be started and the battery will be charged.





Maintenance and Function-Test

It's not possible to calibrate the charging electronics, because the current is controlled by a special CPU. Only a yearly function-test is recommended.

For a simple function test, in order to assure the correct operation, only a battery-pack and an ampere-meter are required. The ampere-meter has to be connected in series with the battery-pack to the charging electronics. The displayed current values will oscillate during the measurement since being a pulsed charging current. The value of charge current drops also down during the progress of charging due to the decreasing internal resistance of the battery pack.

For a complete function test, during which all functions of the charging device will be checked, the optionally available test box P/N: DC-CTC24-TB is necessary.



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