



HD12-10-I Battery Charger Specification

POWER-ON SELF TEST

Ready (Green) Charge (Yellow) and AC Power (Red) LEDs show briefly in sequence to indicate processor self test at AC power on.

LED INDICATORS. (When on charge)

The Red "Power" LED indicates AC power is connected to the charger.

The Yellow "Charge" LED indicates that the battery is charging.

The Green "Ready" LED indicates the battery is fully charged and ready for use.

LED INDICATORS (When not on charge)

The Green "Full" LED indicates that the battery is normally charged and ready for use.

The Yellow "Low" LED indicates that the battery should be recharged soon.

The Red "Empty" LED indicates that the battery needs immediate charging.

CHARGE CONTROL SEQUENCE

The charge control is 3 stage CI-CV-Float with proportional timing and temperature compensation.

1) Constant Current at 10 Amps (Yellow LED ON) until Cyclic Voltage limit is reached.

2) Constant Voltage at Cyclic Voltage Limit with proportional timing ($t/2 + 1 \text{ Hour}$)

3) Constant Voltage Float/Standby at 13.8V (Green LED ON).

The Cyclic Voltage Limit is preset to 14.5V (Adjustable).

The Float Standby Voltage is preset to 13.8V (Adjustable).

There is no need to switch off or unplug the charger until the battery is required for use and for best results the battery should be left permanently on charge until required for use.

LOAD CONTROL SEQUENCE

When the charger is unplugged from the AC supply, the charge indicator LEDs will go OFF and the load indicator LEDs will display the battery status.

The Green LED marked FULL will show when the battery Voltage is normal (above 11.5V).

When the battery voltage drops to 11.5V the green LED will go off and the yellow LED marked "Low" will come on. This voltage is adjustable by preset marked THRESH over the range 8.6V to 12.9V and is preset to 11.5V.

When the battery Voltage drops below 10.5V an internal timer will start. If the battery voltage stay below 10.~V for longer than 10 seconds, the load disconnect relay will switch OFF and the red LED marked "Empty" will come ON. This load disconnect voltage is adjustable by preset marked CUTOFF over the range 7.6V to 11.2V and is preset to 10.50V.

At 10.9Vdc the unit will beep every two seconds to indicate that charging is required. The Red LED and Beep will stay on until the charger is connected to the AC supply. The Red LED and beep will stop immediately when the charger is connected to AC Power. The load disconnect Relay will reset to the ON state immediately when AC Power is connected.

The Main Output is protected by a 9 Amp Polyswitch auto-reset fuse.

The five AMP connector outputs are protected by a separate 9 Amp Polyswitch auto reset fuse. Top two fused, bottom 3 unfused.

All outputs are controlled by the load disconnect low voltage relay, all outputs are switched off when the red "Empty" LED is on.

Home Depot Charger HD12-10I (Front view)

