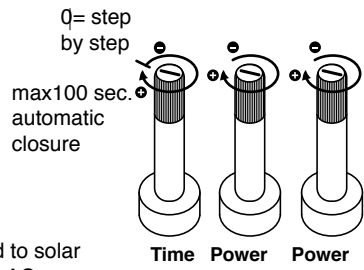


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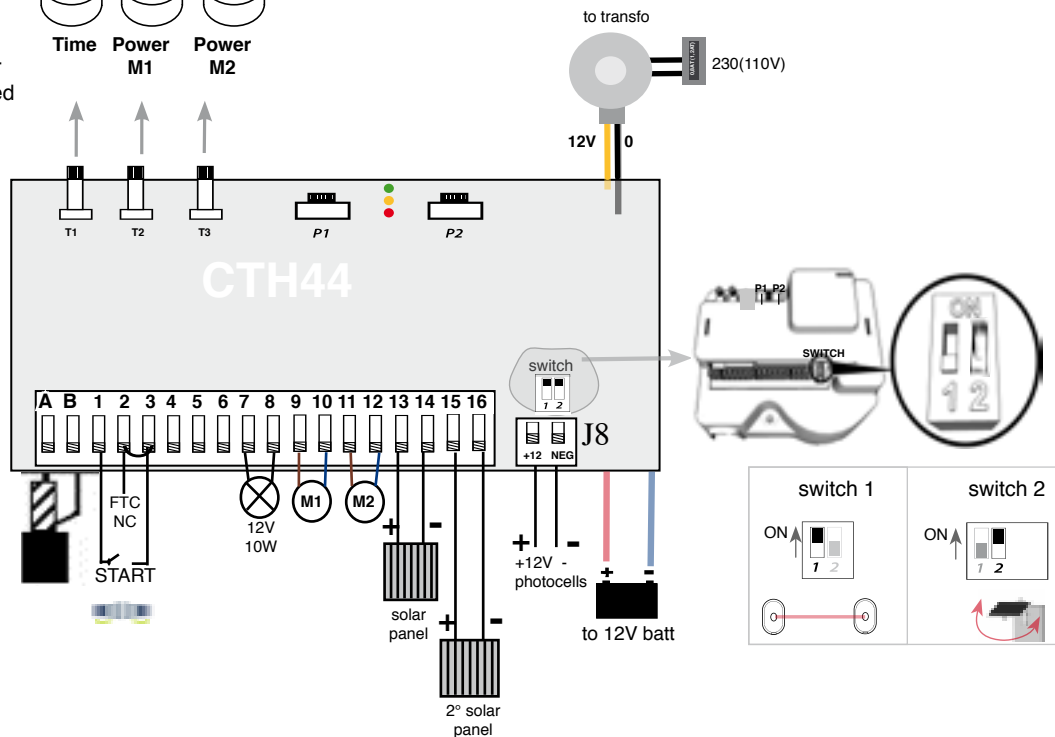


### FULLSOL SYSTEM

Operators specifically dedicated to solar panel power supply (230V main AC power supply is possible by maintaining connected the battery)



Low consumption technology  
**0,007A**  
stand-by consumption



TECHNNICAL DATA	CTH44
Power supply (on demand)	230V ( 110V) + 12V battery / solar panel + battery
Solar panel power supply	√
Use on 1 or 2 wings gate	√
Protection fuse	√
Transformer protection fuse	√ 0,8AT (1,2AT)
Toroidal transformer's Watt	105W
Output services	12V
Power consumption in stand-by	10,6mA
Radio receiver (channel)	2 channels
Remote control storage capacity	10
Radio transmission protocol	DUCATI rolling code 433MHz
Remote control automatic learning	√
On board Antenna	√
External antenna input	√
Automatic close function (timerized)	√
Anti-pressure safety system	√
Motor power adjustment	√
Safety beam/ Photocells input	√ mod 7120
Full cycle START (NO contact)	√
Flashing light output	12V 10W
Battery output with on board battery charge management	√
Low battery charge status indication by flashing light	√
Solar panel input with on board management	√
Low battery charge status indication by LED light	√
Gear anti-pressure system	√
LED indication of Power supply	√
LED segnalazione stato batteria	√
Acoustic signal + LED indication of ideal solar panel position	√
Acoustic signal + LED indication of correct photocells alignment	√

## Connections and adjustments:

**ATTENTION ! all settings have to be made with gate in closed position**

**ATTENTION ! in case of use use with power from photovoltaic panel use low consumption photocells mod. 7120 only!**

**WARNING:** it is mandatory to have the battery full charged before to power the electronic board. Charge the battery before use. To charge the battery:

- Use the supplied 12V transformer, connect it to the board ( yellow-black cables), connect the battery to the board first (respect polarity red cable= + positive / black or blue cable= -negative), connect a electric wire min.0,75mmq to the terminals downstream of the transformer. Plug the electric wire to a power outlet.
  - Use a battery charger with charge control (ex. our optional battery charger MPBAT). respect polarity. wait until the battery is fully charged ( green LED on MPBAT is steady on).
- You must check the battery charge status by the control board:see herunder P2 procedure

## CONNECTORS:

A/B antenna / sock

1/3 START contact NO full opening cycle

2 FTC photocells NC contact (to be connected to terminal 3 of low consumption photocell model RX 7120)

7/8 12V 10W max. blinking light

9 M1 actuator brown cable (note: M1 is the motore installed on the wing that opens first)

10 M1 actuator blue cable

11 M2 actuator brown cable

12 M2 actuator blue cable

13 + 12V solar panel positive

14 - 12V solar panel negative

15 + 2° solar panel positive ( the use of a 2° 12V solar panel is not mandatory)

16 - 2° solar panel negative

J8: +12 + power photocell positive

NEG - power photocell negative

Connectors (BAT+/-) to battery 12V

Warning: It is possible to power the board by 230V/110V (through the transformer) instead of by solar panel, but the battery must be always kept connected to the board.

The phase shift between gate wings is automatically set. M2 follows M1 in opening after about 3 sec. and vice versa during closing.

**Warning: Photocells bridge:** between connectors 2/3.

Remove the bridge only when connecting the photocells.

● **Green LED** = indicates the battery is fully charged

● **Red LED** = indicates: -full cycle remote control storage procedure/ the battery is out of charge/  
● blinking while the gate is open indicates the automatic closure working mode is settled.

● **Yellow LED** = indicates:

- pedestrian opening cycle remote control storage procedure
- battery is almost discharged

**SWITCH 1** = switch it ON ( upper position) activates the ACOUSTIC and LED GUIDED PHOTOCELLS ALIGNMENT SYSTEM

Connect the low consumption 7120 photocells to the electronic board. Put the photocell's alignment switch (No. 1) in the up position. Try to align the photocell receiver to the photocell transmitter following the acoustic and LED signals until you obtain a perfect alignment.

Long "BEEP" = CORRECT ALIGNMENT = on the board the green LED is ON intermittent "BEEP-BEEP-BEEP" = NOT ALIGNED = on the board red or yellow LED is ON. When the alignment procedure is finished, put the alignment switch (1) back to the down position; otherwise the system will not operate.

**SWITCH 2 \*** = switch it ON ( upper position) activates the **check for better solar panel positioning**

REMEMBER: Perform this operation between noon and 2:00 p.m.

warning: switch 1 must be OFF ( lower position)

To find the better solar panel alignment, check if the green LED on the control panel is on. Meanwhile, the acoustic signal must emit a continuous BEEP to show that the solar panel is in a good position. If the acoustic signal is intermittent and the red or yellow LED is on, it means that in this position exposure is inadequate for charging. In this case, move the panel into other attachment positions until you find a good one. Solar panel must always be positioned toward south. Once finished the procedure, put the switch 1 OFF ( lower position)

## PUSH BUTTONS P1; P2;

**P1 = FULL CYCLE** push button to store or cancel the radio transmitters codes on the electronic board.

This button is used to set complete opening cycles. Red LED visual indicator.

**P1 + P2 = PEDESTRIAN ACCESS** push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set pedestrian opening cycles (partially activates only the door corresponding to the motor M1 only ) to memorize a remote control push button to command the pedestrian opening cycle: press P1, hold P1 pressed, press P2. release P1 and P2, then press the remote control push button and hold it pressed for about 4 seconds until the red LED confirm the remote control push button has been stored.

**P2 = BATTERY CHARGE STATUS CHECK** the battery must be connected to the board. ( **check the correct polarity**) Press and hold the P2 button to check the battery charge status, viewing the color of LED lights.

Make sure that green LED is on, otherwise proceed to a full battery charge. If the battery is discharged, the system goes into a protection state and will stop working. outcome of a new control tests. it will be necessary to repeat the checking procedure until the battery is checked to be fully charged ( green LED on) this way the board will be restored.

Red LED on +Sound Buzzer = Low battery: the voltage is lower than 11,2V

yellow LED ON = Battery partially discharged: the voltage is between 12.4 and 12.9V

Green LED on = Battery charged: the voltage is greater than 12.9V.

## HOW TO MEMORIZE/ DELETE REMOTE CONTROL CODE IN THE ELECTRONIC BOARD ( see also remote control chapter)

**Remote controls setting:** to synchronize a remote control channel:

On the main board Press P1 to memorize a remote control Channel for complete opening cycle.

Release P1. As the red LED turns on, push the selected radio remote control button. After the red LED blinks, wait until the red LED turns off. Operation completed. Maximal storage capacity: 10 channels

To delete the stored channels press P1 for about 30 sec. until the red LED turns off.

All remote control codes will be deleted.

## POTENTIOMETERS

**TIME** = potentiometer to set the "step by step" mode of use or automatic closure

The potentiometer completely turned counterclockwise( position = 0 ) to use the standard setting "step by step" mode of use. with this setting a pulse controls the opening and a second impulse closes the gate. By rotating the potentiometer clockwise, you will set the automatic closure function. Turning the knob increases the time. Maximum pause time = 100 seconds with potentiometer fully clockwise.

**POWER M1:** actuator M1 power /obstacle detection sensitivity adjustment

**POWER M2:** actuator M2 power /obstacle detection sensitivity adjustment

Turn the potentiometer clockwise to increase power and reduce obstacle detection sensitivity

**Use on single wing gate:** connect motor M1 only.