



**Skyline Gate Automation**  
Smart and Secure Access

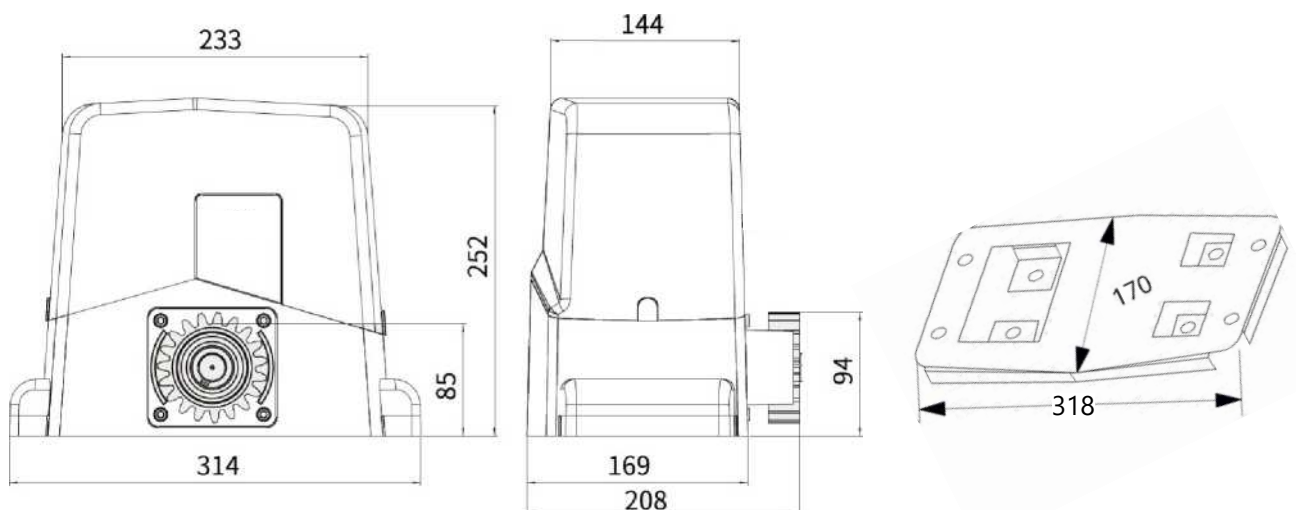
**User Manual (Quick Set-up)  
24V DC Sliding Gate Motor-V2  
(SGA-BISON1000-24V)**



## Specifications:

Operating Voltage	24V AC/ DC
Standby Consumption	~40mA
Battery Backup	Optional (2x 12V, 1.3Ah SLA Batteries)
Solar & External Transformer Compatibility	Yes
Motor Limit	Magnetic Switch
Torque	27 NM
Duty Cycle	90%
Light Output	12V DC, Courtesy Light Relay 1A Max / Traffic Light Relay 3A Max
Accessories Voltage/ Ampere	12V DC (250mA)
Safety Inputs	PE Sensor, Safety Edge and Detectors
Motor Speed/ Gate Speed	1400 RPM/ 12m/ min
Gate Weight	1000 Kg Max

## Dimensions (mm):



### Manual Override:



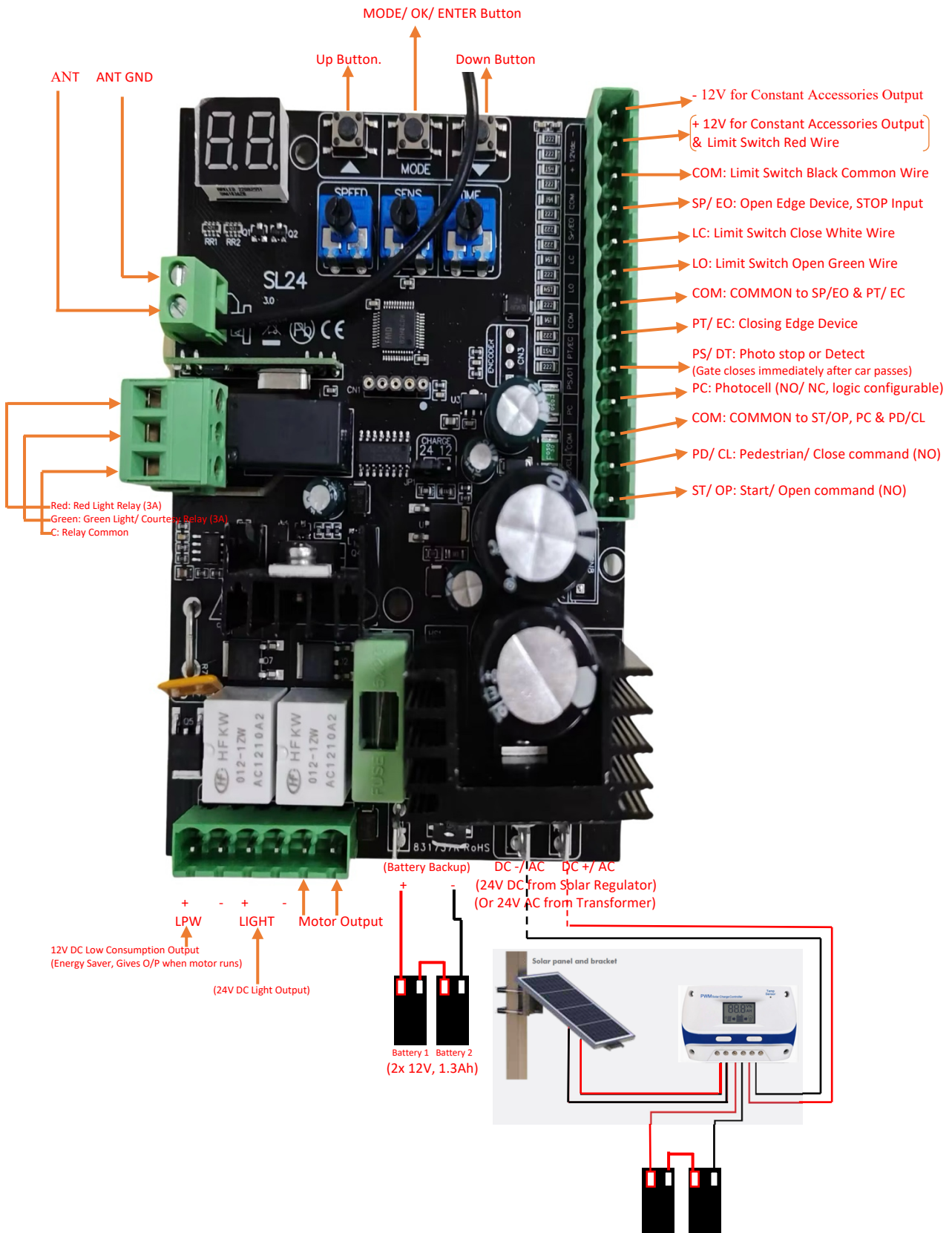
#### **Clutch Disengage (Manual Operation):**

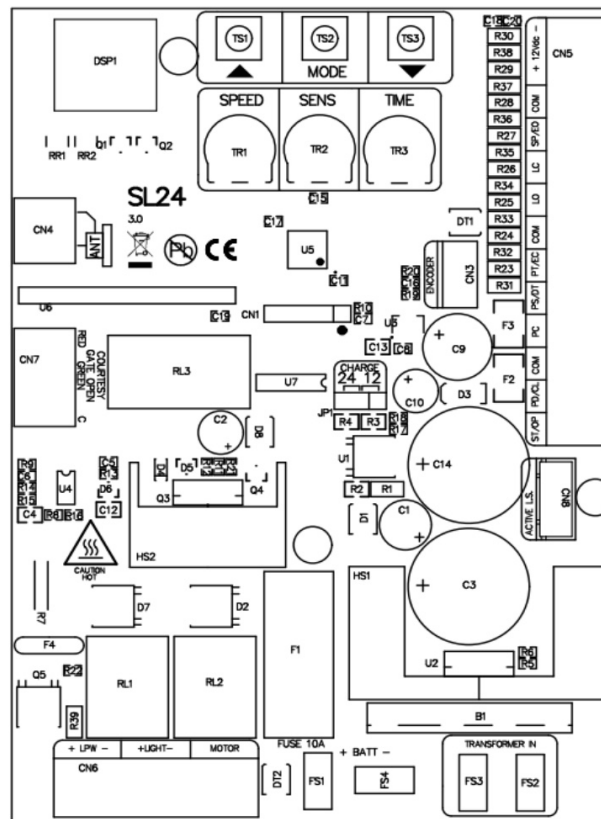
1. Slide the key lid Up.
2. Insert the key into the key cylinder (Key can fit just one way) and turn the key clockwise.
3. Then turn the knob clockwise, one full turn 360°.
4. Now the gate can be opened or closed by hand.

#### **Clutch Engage (Automated Operation):**

1. Turn the knob Anti-clockwise, one full turn 360°
2. Insert the key into the key cylinder (Key can fit just one way) and turn the key Anti-clockwise.
3. Slide the key lid Down.
4. Now the gate can't be opened or closed by hand and is ready for the automated operation.

## Control Board Terminals:





+ BATT -	Battery connector
Transf	Input Transformer 24V secondary winding
ANT	Antenna 1.shield 2. Antenna
ST/OP	Start or Open command (NO)
PD/CL	Pedestrian or Close command (NO)
PC	Photocell (NO/NC, see advanced settings)
PS/DT	Photostop or Detect input (close immediately after car passes)
EC	Safety edge for close
LO	Limit switch open (NO/NC, see advanced settings)
LC	Limit switch close (NO/NC, see advanced settings)
SP/EO	Stop or safety edge for open
COM	COM
12Vdc output	12Vdc output
LPW	Low consumption 12Vdc output only has power when motor work
BLK	24Vdc blinker output
Motor	Motor output 24Vdc
CN7	Dry contact output

## Control Board Specifications:

Power Supply	230Vac – 50Hz (with external transformer 230/24Vac)
Max. Current out (+12V)	250mA
Max motor power	200W
Max blinker power (resistive load)	25W
Operating temperature range	-10 +80°C

### Input status

When the control unit is in standby, you can read input status on display:

- : No inputs active.
- op : Open input active.
- CL : close input active.
- 5T : Start input active.
- PD : Pedestrian active (by Remote).
- dt : Detect input active.
- pc : Photocells input active
- 5p : Stop input active.
- FO : Limit switch open active.
- FC : Limit switch close active.

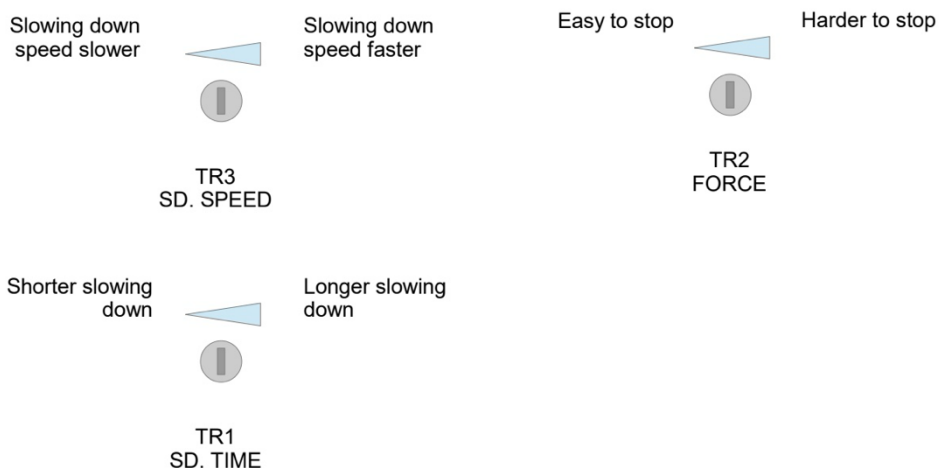
During pause, the display show the seconds countdown to closing.

### Trimmer regulations

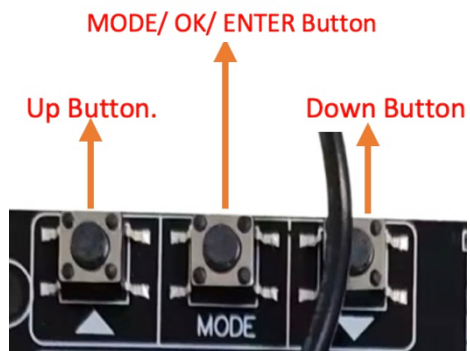
“SD. Speed” Speed regulation trimmer regulates the speed of the motor in slowingdown speed.

“FORCE” Obstacle sensibility trimmer fine tunes the obstacle detection level. In order to quickly find a regulation, let the gate start a cycle and slowly turn the trimmer unclockwise up to the motor doesn't invert the direction (Obstacle Detection). After turn the trimmer clockwise 1/8 and test if OD is reliable. You can change the sensivity in each moment.

“SD.TIME” Slowing down lasting regulation trimmer regulates the lasting of slowing down from 0 to 10 seconds



## Control Board Programming:



\*During parameter adjustments  
If you want to cancel or go back  
to previous level then press  
UP & DOWN buttons together  
and momentarily.

### Main Menu

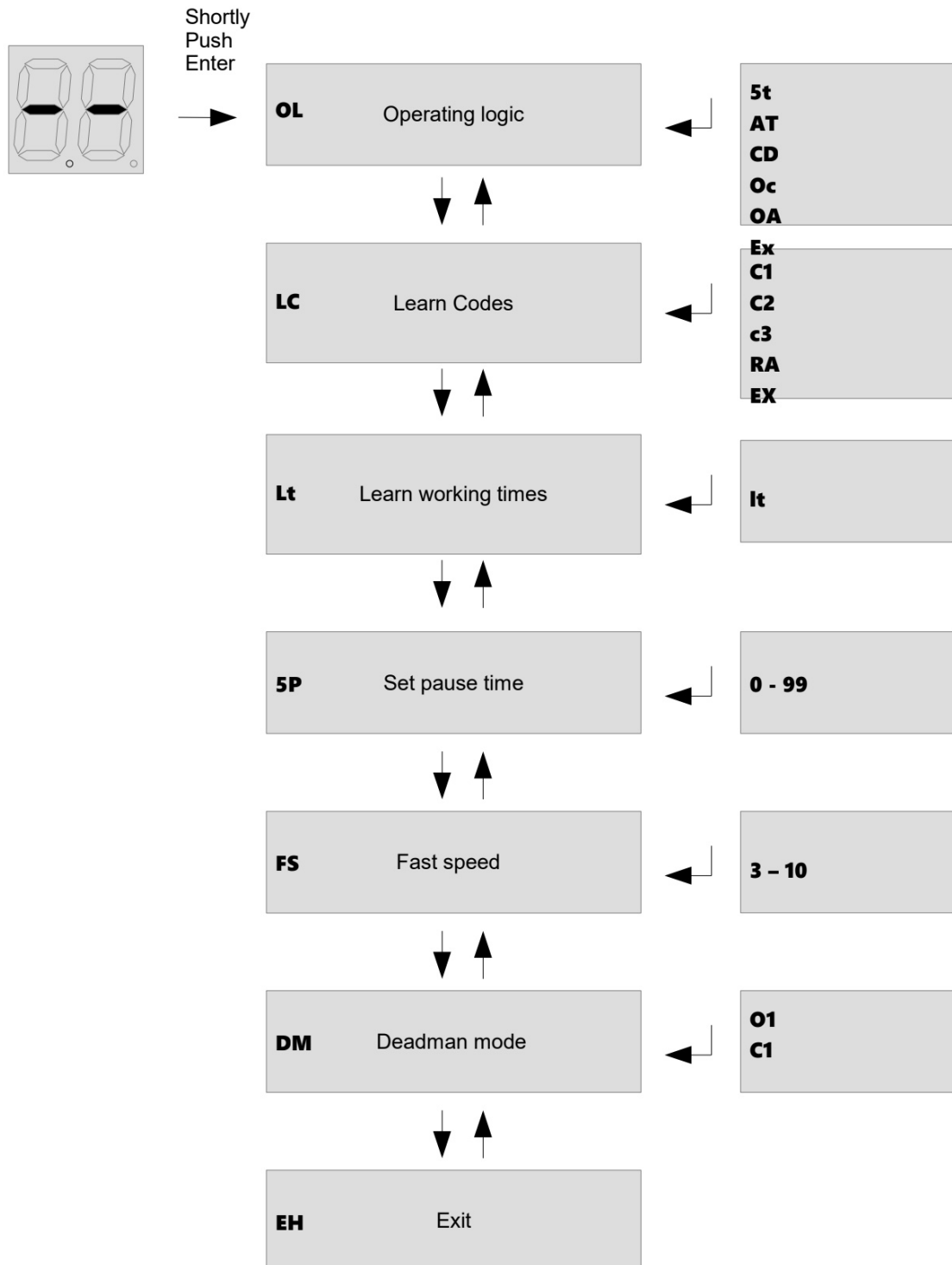
Push *enter* button shortly to enter base menu.

**OL** is displayed, with *up/down* it's possible to select other functions of this menu.

To exit this menu select **EH** or push *up* and *down* together.

After 20 seconds without actions, control unit exits itself from this menu.

### Main menu map





## Main Menu Abbreviations:

### oL: Operation Logic

- **St**: Standard, Triggering inputs ST/ OP & PD/ CL works as ST (Start) & PD (Pedestrian) commands.
- **At**: Standard with Automatic Closing, (Set auto close time in **SP**, Set pause time (0-99 seconds))  
(Remotes & other wired or wireless devices can override the auto close timer for early closing).
- **cd**: Complex mode with Automatic Closing, (Set auto close time in **SP**, Set pause time (0-99 seconds))  
(Closing by auto close timer **SP** ONLY).
- **oc**: Open/ Close, Triggering inputs ST/ OP & PD/ CL works as OP (Open) & CL (Close) commands.
- **oA**: Open/ Close with Automatic Closing, (Set auto close time in **SP**, Set pause time (0-99 seconds))  
(Remotes & other wired or wireless devices can override the auto close timer for early closing).
- **EH**: Exit this Sub Menu or Push UP & DOWN together momentarily

Press & Hold MODE/ ENTER Button for 1 second to go to **oL** (Operation Logic) then scroll to sub menu and press MODE button to choose the parameter that you want to select. Then use UP/ DOWN buttons to modify the value and press MODE button to confirm. **EH** to Exit this Sub Menu.

### Lc: Learning/ Deleting Code for Remotes

- **c1**: Learns a Remote, Scroll to **c1** and then press a remote button desired for Start/ Open command.
- **c2**: Learns a Remote, Scroll to **c2** and then press a remote button desired for Pedestrian/ Close command.
- **c3**: Learns a Remote, Scroll to **c3** and then press a remote button desired for Courtesy Light command.
- **c4**: Learns a Remote, Scroll to **c4** and then press a remote button desired for STOP command.
- **rt**: Deletes a Remote (Using Remote), Scroll to **rt** and then press a remote button desired to be removed.
- **rn**: Deletes a Remote (Using Memory Location, Scroll to **rn**, go to the remote's memory location desired to be removed and press MODE Button.
- **rA**: Deletes all Remotes, Scroll to **rA**, go to **yS** and press MODE button to confirm deleting all remotes  
(Scroll to **nt** to cancel).
- **EH**: Exit this Sub Menu or Push UP & DOWN together momentarily

Press & Hold MODE/ ENTER Button for 1 second to go to **oL** (Operation Logic) then scroll with UP/ DOWN buttons to sub menu and press MODE button to choose the parameter that you want to select. **EH** to Exit this Sub Menu.

### Lt: Learn Working Times (The automatic learning of motor)

First of all set the gate to fully closed position by following steps 1 to 4 if you are not sure about the gate direction

1. -- From the standby screen, press MODE/ ENTER button once to go to **oL** (Operation Logic).
2. Scroll to **dn** (Deadman Mode) and press MODE button.
3. Scroll to **c1** then press and hold MODE button until the gate is fully closed (the gate will keep closing until the close magnet comes in front of the magnetic limit sensor installed at motor).
4. Scroll to **EH** to exit.
5. Press & Hold MODE/ ENTER Button for 1 second to go to **oL** (Operation Logic) then scroll with UP/ DOWN buttons to go to **Lt** then press MODE button for automatic learning of motor (Now the gate will open fully by itself until the open limit magnet is reached and then will close to the close limit magnet by itself).

**SP:** Set Pause Time (Automatic Closing Time, Default is 10 Seconds)

Applicable when **oL**: Operation Logic is set to Automatic Closing (**At** or **cd** or **oA**)

1. -- From the standby screen, press MODE/ ENTER button once to go to **oL** (Operation Logic).
2. Scroll to **SP** then use UP/ DOWN buttons to set automatic closing time from 1 to 299 seconds.

**FS:** Set Motor Fast Speed (Default is 10 (100%))

NOT Applicable for Slow Down Speed, USE SPEED & TIME Trim Pots for Slow Down Speed

1. -- From the standby screen, press MODE/ ENTER button once to go to **oL** (Operation Logic).
2. Scroll to **FS** then use UP/ DOWN buttons to set the speed from 3 to 10.
3. Press MODE button to confirm.  
(3: Minimum Speed (30%) and 10: Maximum Speed (100%))

**dn:** Deadman Mode (Gate can be opened or closed manually)

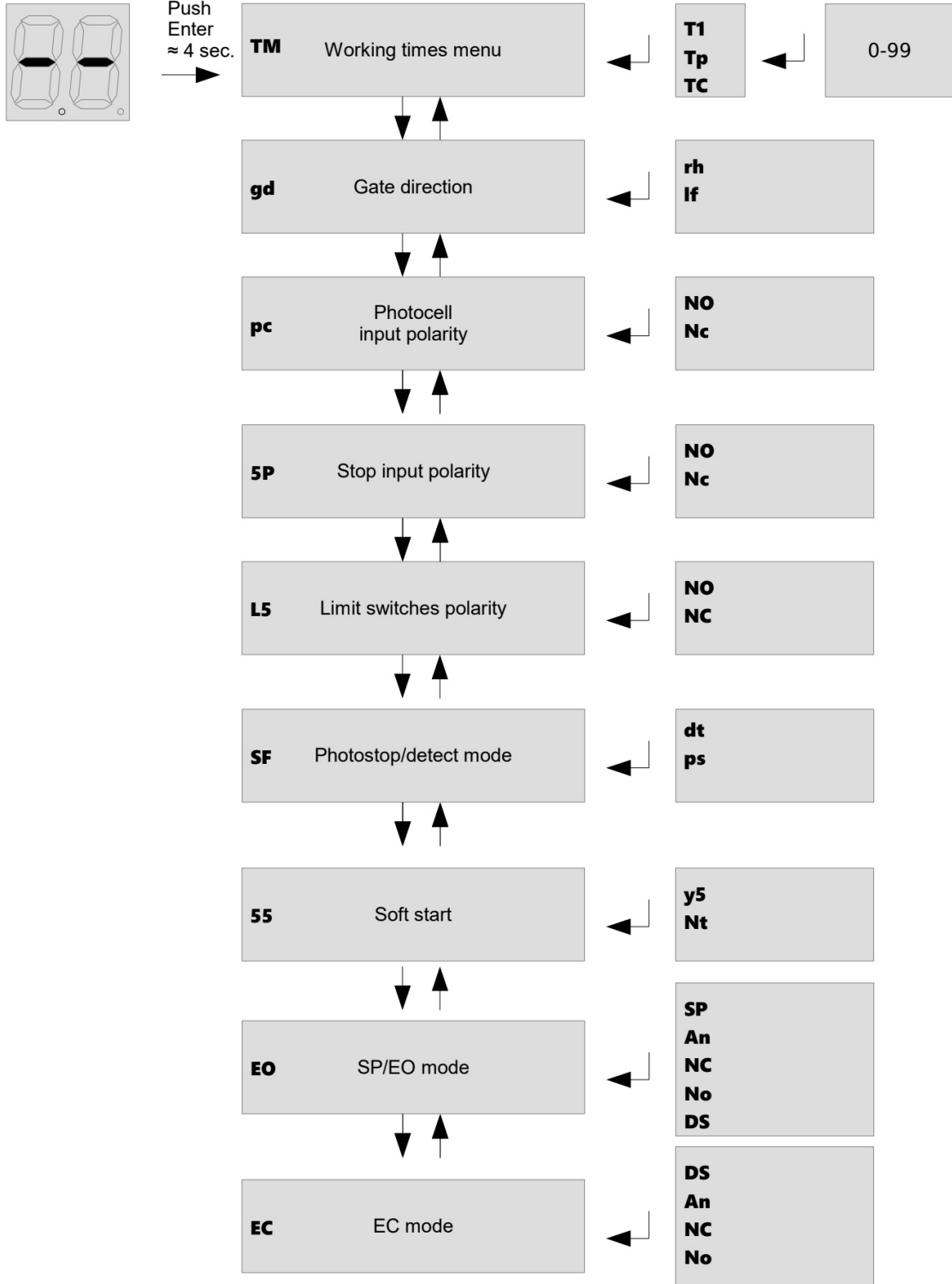
1. -- From the standby screen, press MODE/ ENTER button once to go to **oL** (Operation Logic).
2. Scroll to **dn** then press MODE button.
3. Scroll to **o1** then press & hold MODE button if you want to open the gate.  
OR  
Scroll to **c1** then press & hold MODE button if you want to close the gate.
4. Scroll to **EH** to exit the menu.

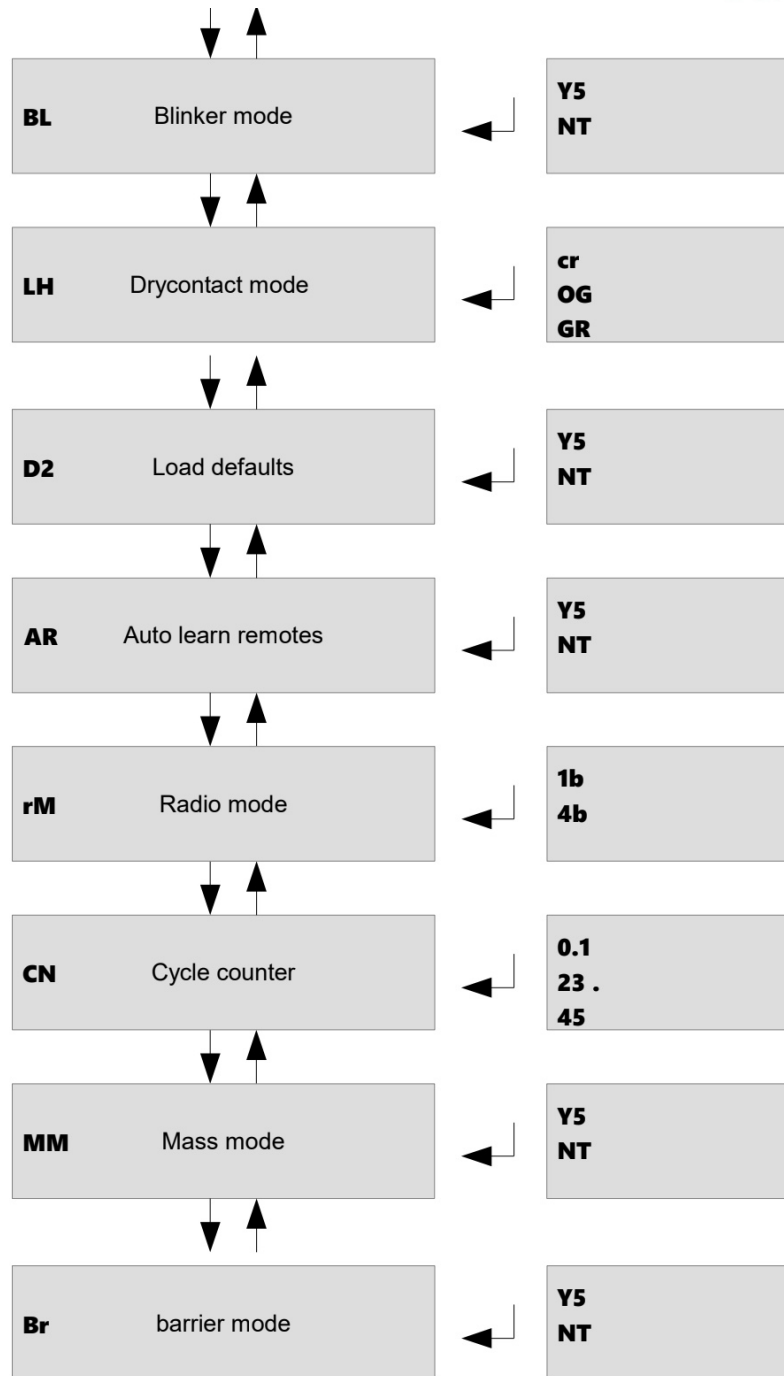
### Advanced Menu

Keep enter button pushed till on the display is shown **TM** (almost 4 seconds). With up/down it's possible to select all items in this menu.

To exit this menu select **EH** or push *up/down* together.

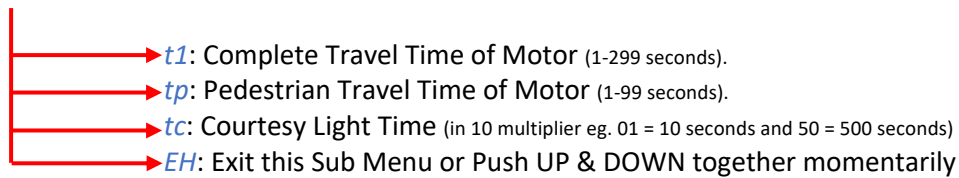
After 20 seconds without actions, control unit exits itself from this menu.





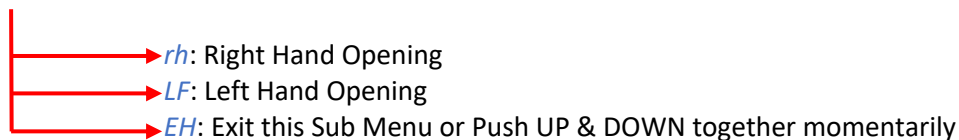
## Advanced Menu Abbreviations:

*tn*: Working Time Menu (Manual Adjustments for Fine Tuning of Parameters)



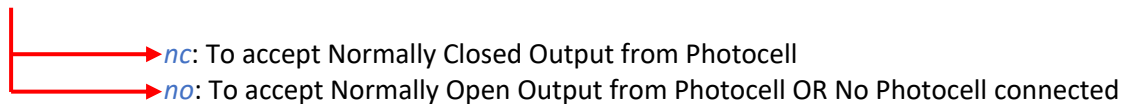
Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu) then scroll with UP/ DOWN buttons to sub menu and press MODE button to choose the time parameter that you want to fine tune. Then again use UP/ DOWN buttons to modify the value and press MODE button to confirm. *EH*: to Exit this Sub Menu.

*Gd*: Gate Direction (Default is *rh* Right Hand Opening)



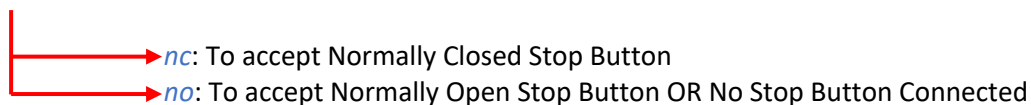
Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu) then scroll with UP/ DOWN buttons to sub menu and choose the direction and press MODE button to confirm. *EH*: to Exit this Sub Menu.

*Pc*: Photocell Input Polarity (Default is *no*)



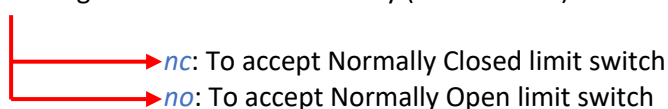
Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu) then scroll with UP/ DOWN buttons to sub menu and choose the PC polarity and press MODE button to confirm.

*SP*: Stop Input Polarity (Default is *no*)



Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu) then scroll with UP/ DOWN buttons to sub menu and choose the stop command polarity and press MODE button to confirm.

*LS*: Magnetic Limit Switch Polarity (Default is *nc*)



Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the magnetic limit polarity and press MODE button to confirm.

**LS:** Special Detector Mode (Default is *dt*)

- **dt:** Detector Mode (normally open) OR No sensor connected  
 Detector mode works as:
  1. *If gate is opening and detect signal is received by the control board then gate will finish the opening and auto close after 2 seconds.*
  2. *If gate is closing and detect signal is received by the control board then gate will open fully and auto close after 2 seconds.*
  3. *If gate is fully open and detect signal is received by the control board then gate will auto close after 2 seconds.*
- **PS:** Photostop Mode (normally closed)  
 Photostop mode works as:
  1. *If gate is opening and photostop signal is received by the control board then gate will pause until its clear.*
  2. *If gate is closing and photostop signal is received by the control board then gate will stop and open fully.*
  3. *If motor is set to auto close and photostop signal is received by the control board then auto close timer will restart.*
  4. *If gate is fully closed and photostop signal is received by the control board then gate will not open until its clear.*

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the special detector mode and press MODE button to confirm.

**SS:** Soft Start (Default is *ys*)

- **ys:** Soft start feature is active. Motor starts at slow speed and then ramps up to full speed
- **nt:** Soft start feature is inactive

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the soft start function yes or no and press MODE button to confirm.

**Eo:** Opening Safety Edge Input (Default is *dS*)

- **SP:** Stop Button Input (Set Stop button input NO or NC in *SP* menu, Stop Input Polarity).
- **dS:** Feature Disabled
- **nc:** Normally Closed circuit
- **no:** Normally Open circuit
- **An:** Analog Edge input with 8K2 resistance
- **EH:** To exit the Menu

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the opening safety edge input and press MODE button to confirm. *EH:* To exit the Menu

**Ec:** Closing Safety Edge Input (Default is *dS*)

- *dS*: Feature Disabled
- *nc*: Normally Closed circuit
- *no*: Normally Open circuit
- *An*: Analog Edge input with 8K2 resistance
- *EH*: To exit the Menu

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the closing safety edge input and press MODE button to confirm. *EH*: To exit the Menu

**bl:** Blinker Mode (Light Output Mode)

- *YS*: Blinking illumination (Flashing) during the travel time
- *no*: Static illumination during the travel time

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the blinker mode and press MODE button to confirm.

**LH:** Auxiliary Light Mode

- *cr*: Courtesy Light (Green and Common terminals of control board)
- *oG*: Warning Light, Always ON except when gate is fully closed (Green and Common terminals)
- *Gr*: Traffic Light, Green Light On when gate is fully open (Green and Common terminals) and Red Light On rest of the time (Red and Common terminals)

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the auxiliary light mode and press MODE button to confirm.

**d2:** Load Default Settings

- *YS*: Restore to factory default settings
- *no*: No change in settings

Press & Hold MODE/ ENTER Button for 4 seconds to go to *tn* (Working Time Menu then scroll with UP/ DOWN buttons to sub menu and choose the load default settings yes or no and press MODE button to confirm.