

GatekeeperLtd.
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YG101 SWING GATE OPENER
OWNER'S MANUAL

IMPORTANT SAFETY INFORMATION



Installing the YG101 Gate Opener requires wiring of standard 110V electrical lines. This should only be performed by a trained technician. Mis-wiring could cause personal injury or DEATH. To prevent the risk of electrocution, be sure to turn off all power to the YG101 until installation is complete.

- The YG101 model gate opener is for a double-sided gate. The length of each section of the gate can be no greater than 6.5 feet for this opener to operate properly. Do not attempt to use this gate opener with a gate length greater than 6.5 feet (2 meters).
- The maximum force that the gate opener can provide is 1500N.
- An electric lock is provided for installation for gate lengths greater than 5 feet (1.5 meters).
- In the event of power failure, an emergency release key allows you to operate the gate manually (for gate lengths greater than 5 feet [1.5 meters], it is recommended that you unlock the electric lock).
- The gate can be opened or closed in manual mode.

ADDITIONAL FEATURES

- An interface for an optional keypad is available on the control board.
- User may add additional remote controllers to operate the gate opener.
- This gate opener includes emergency stop and reverse functions if it senses an obstruction. This feature **MUST** be tuned prior to operation. Be sure to follow the directions in the section on *Tuning the Auto Reverse* prior to operational use.

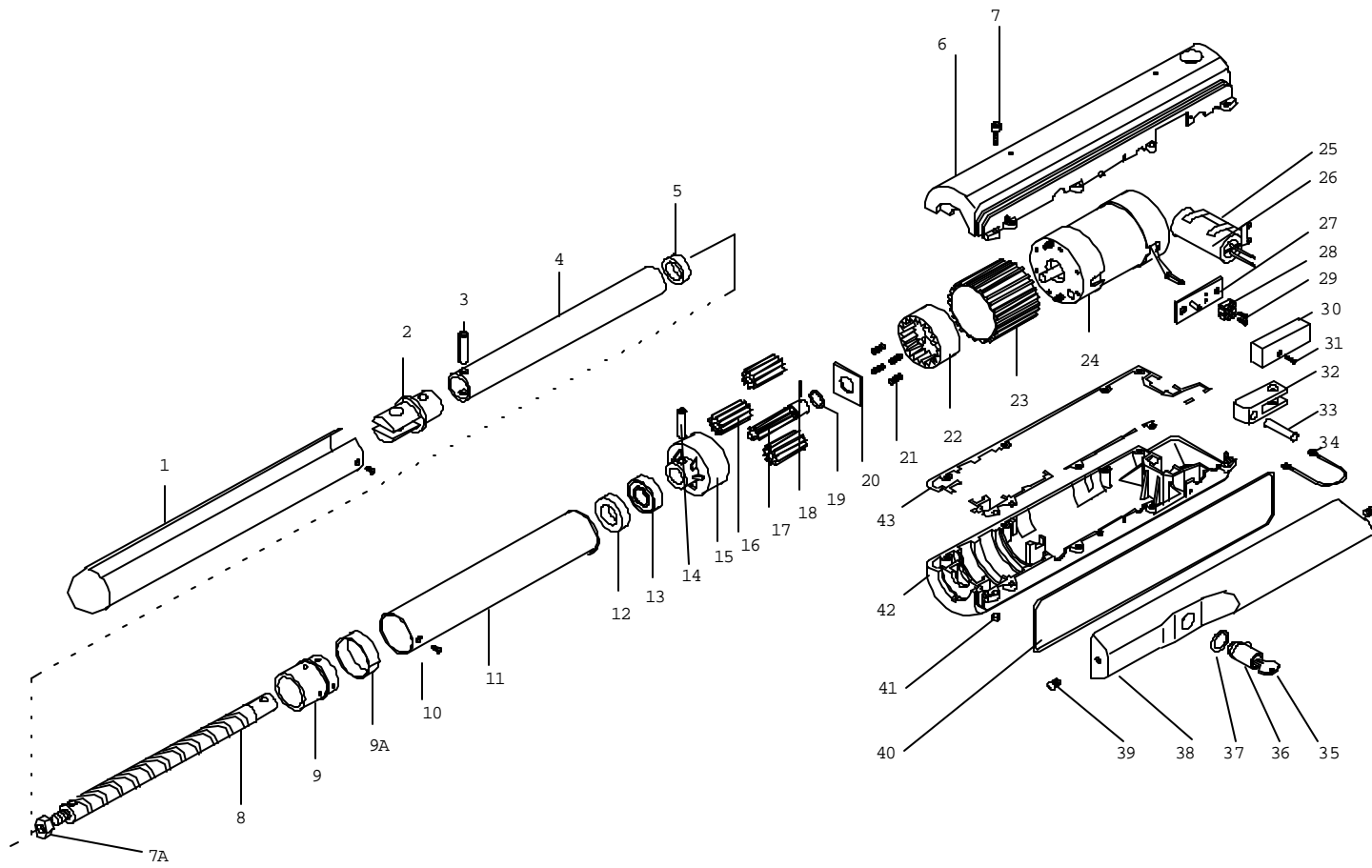
Specifications

Power Supply	AC 110V±10%V, 60Hz
Motor Speed	1680 rpm
Motor Output	100W
Opening Time	<26 seconds
Working Angle of Gate	90° or 105°
Max. Gate Section Weight	330 lbs. (150kg)
Max. Gate Section Width	6.5 feet (2 meters)
Duty Cycle	25%
Noise	<65dB(A)
Emergency Release Key in Case of Power Failure	

Parts List

1	Hood pipe	22	24T ring gear
2	End joint	23	Locating shield
3	Pin 10x40	24	Motor
4	Steel tube	25	Capacitor bracket
5	Small support ring	26	Capacitor
6	Right housing	27	Wiring base
7	Screw M5x20	28	Wiring terminal
7A	Locknut	29	Screw M4x8
8	Screw shaft	30	Wiring cover
9	Connect socket	31	Tapping screw
9A	Split ring	32	Joint block
10	Tapping screw	33	Axle pin
11	Outer tube	34	Earth wire
12	Large support ring	35	Release key
13	Bearing 6004	36	Lock
14	Pin 8x35	37	Seal 17X2.65
15	27T ring gear	38	Upper cover
16	Planetary gear	39	Screw 4.2x9.5
17	Central gear	40	Waterproof seal
18	Pin 4x20	41	Hexagonal nut
19	Seal 13.2x2.65	42	Light housing
20	Square gasket	43	Waterproof seal
21	Spring		

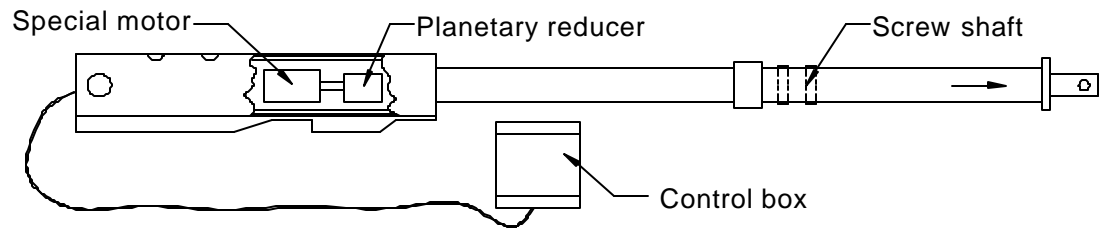
Parts Diagram



Installation

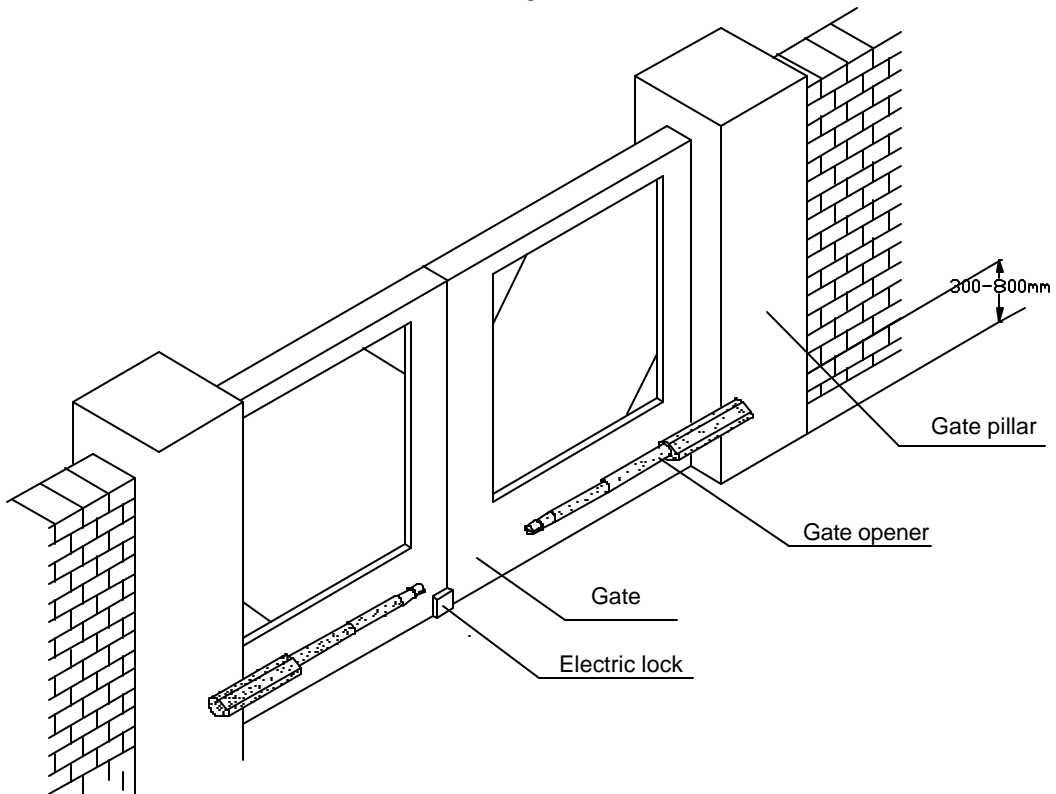
Main Structure

Fig.1



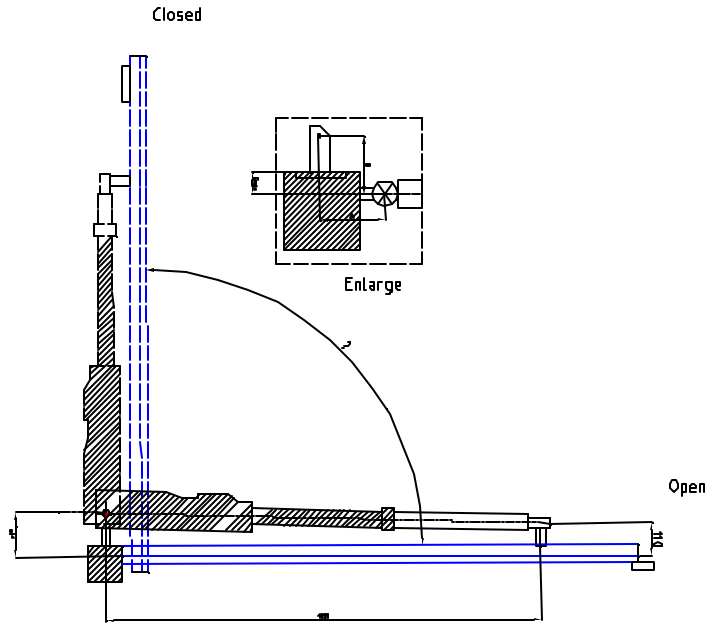
The installation height range is 1.18 – 3.15 inches (300 – 800mm). See Fig. 2

Fig.2

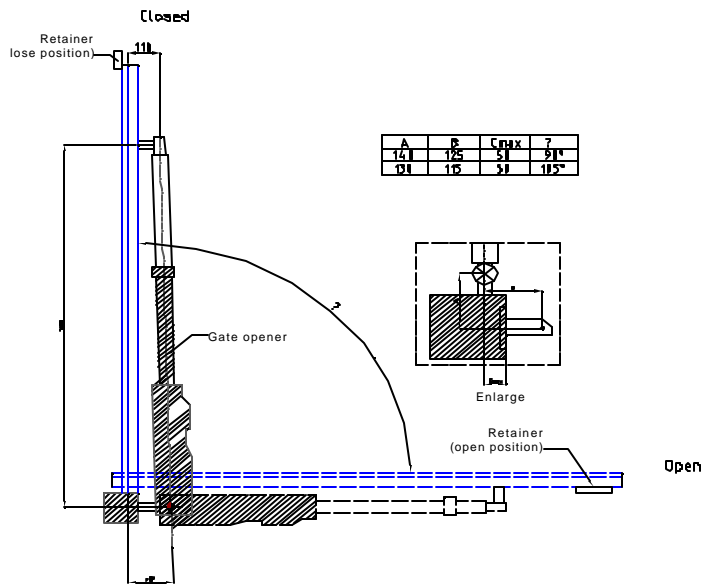


One of the first decisions that should be made is if this installation is a “push to open” or a “pull to open.” In either configuration, the gate is mounted on one face of the mounting post, and the opener is mounted on face 90 degrees from it. Below are schematics of both “push to open” and “pull to open” configurations.

Push to Open

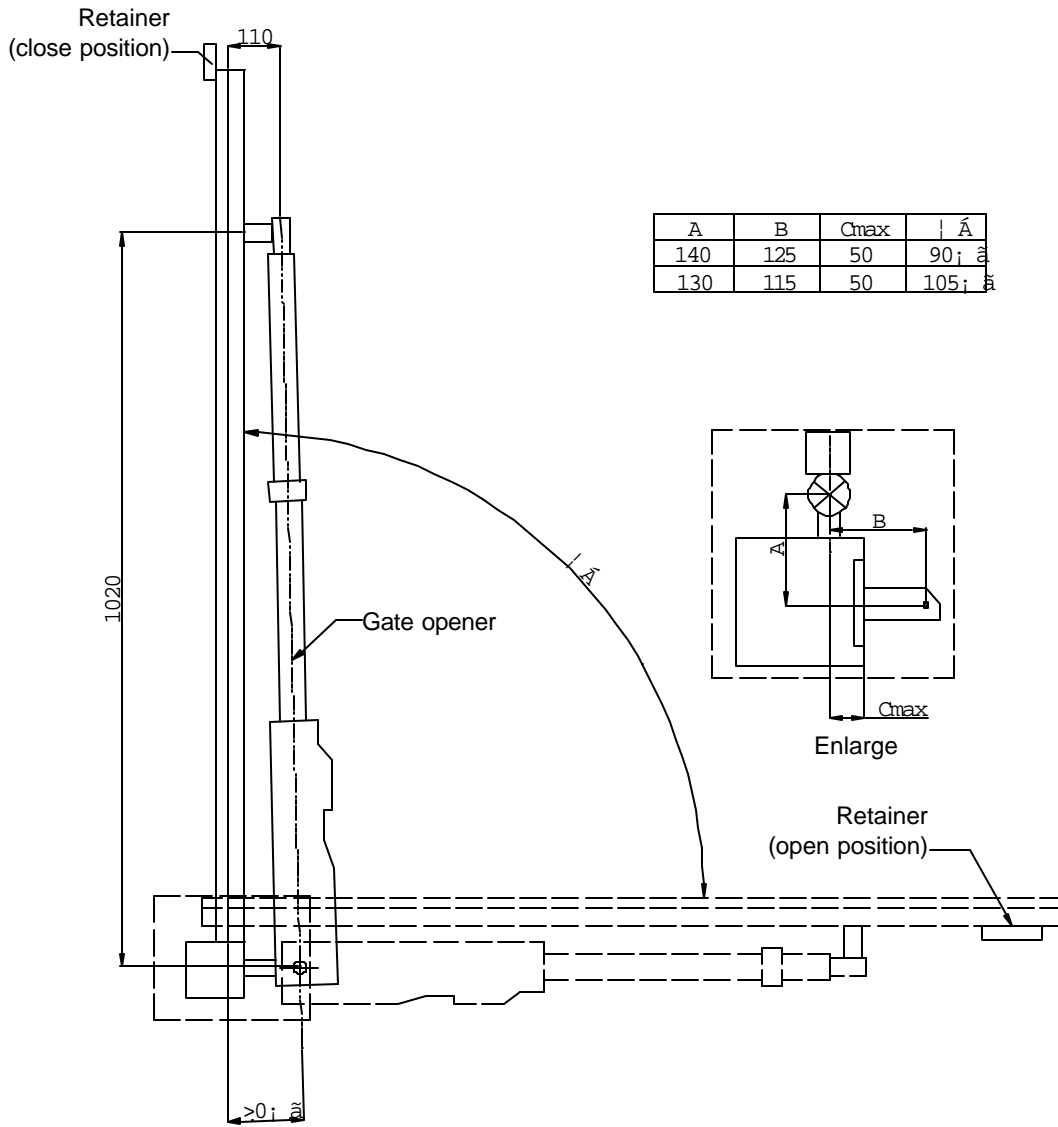


Pull to Open



When the opener is installed, the installation angle should be $>0^\circ$. See Fig. 3.
 The baseboard should be fixed to the pillar of the building. See Fig. 3
 Enlarge.

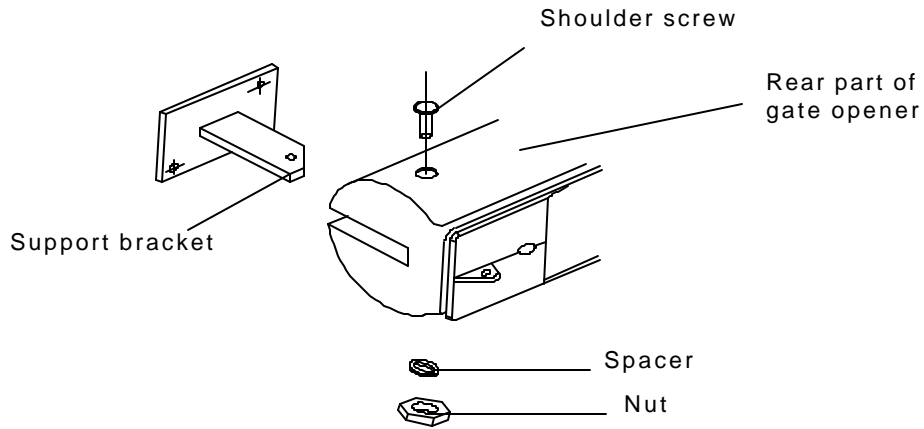
Fig. 3



Front and Rear Parts of Gate Opener

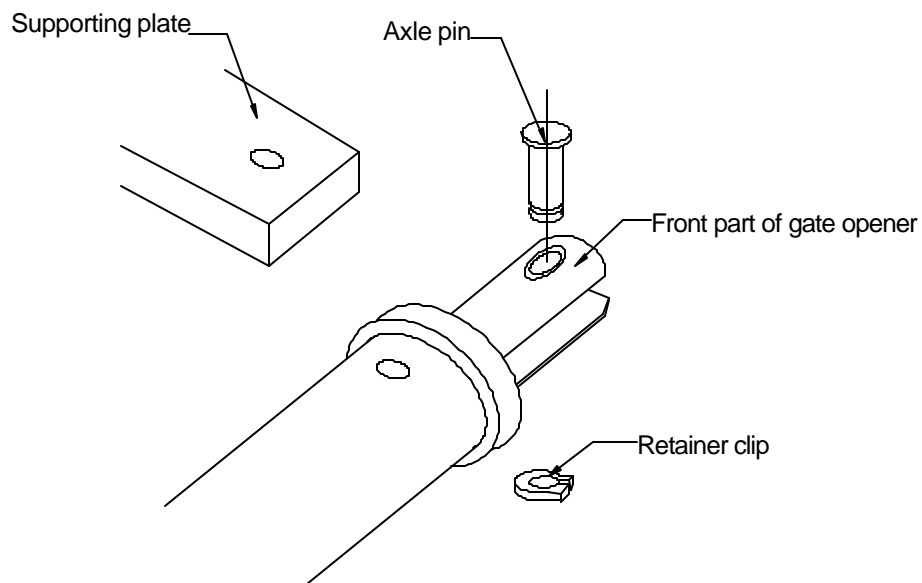
To install the rear part of the gate opener, insert shoulder screw and spacer, then tighten with the nut. See Fig. 4.

Fig. 4



To install the front part, fit the hole in the front part with the hole in the supporting plate, and push the axle pin into the holes (using hands or a hammer), and finally fit the retainer clip. See Fig.5.

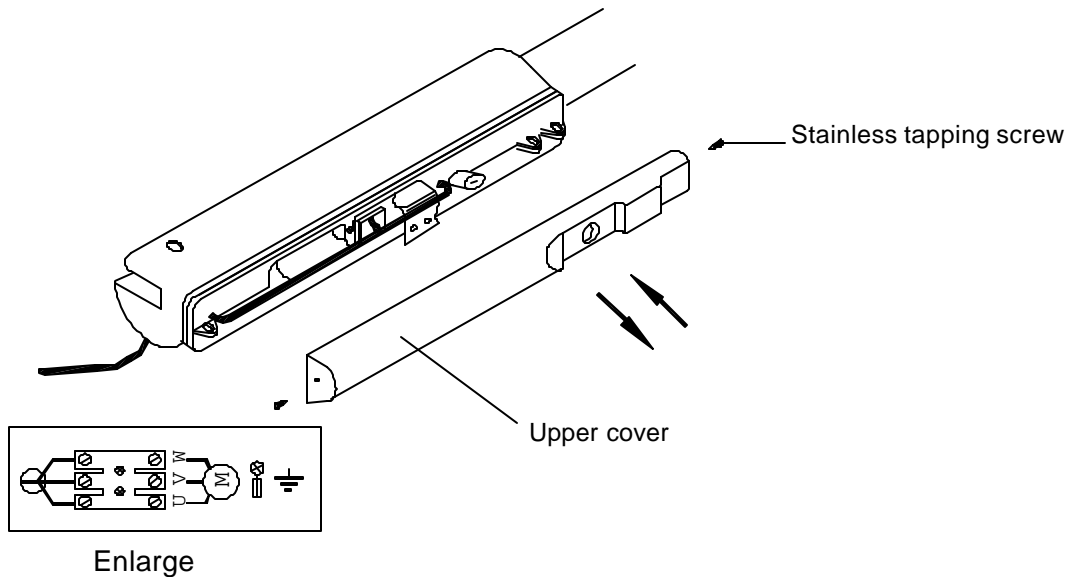
Fig. 5



Wiring

Screw off the two stainless tapping screws, then remove the cover and wiring as shown in Fig. 6. **WARNING: Follow the wiring diagram precisely. Failure to do so could cause damage to the gate opener controller.**

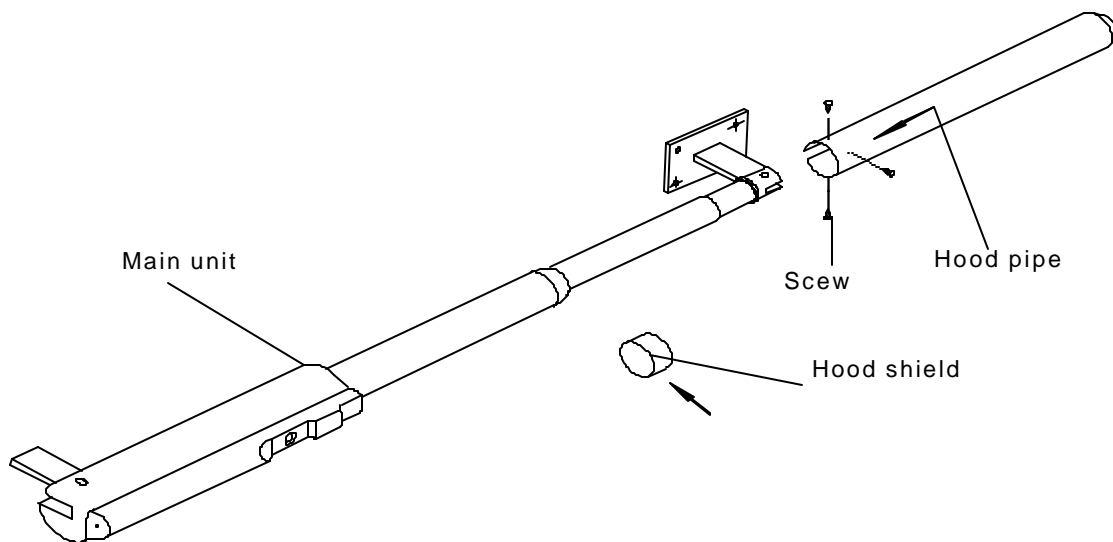
Fig. 6



Hood Shield

Install the hood pipe, tighten the screws into the opener and cover the hood shield over the joint. See Fig. 7.

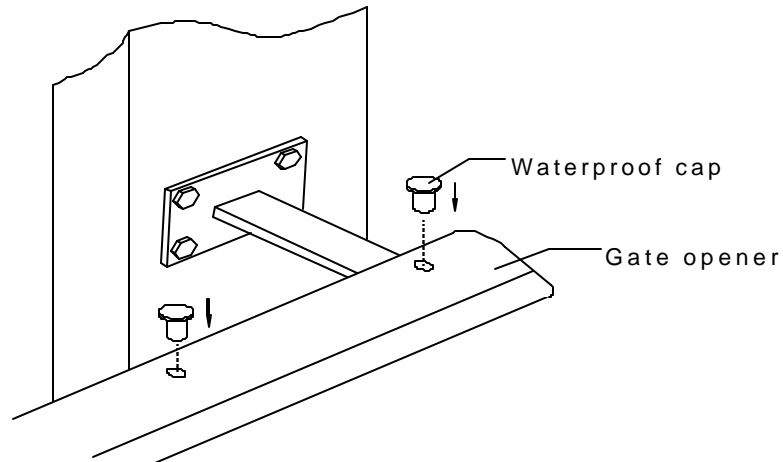
Fig. 7



Waterproof caps

There are 8 caps in total – 4 to be used and 4 spares. When the gate opener is installed, the caps are used to cover the upper holes of the unit to avoid leakage. See Fig. 8.

Fig. 8



Retainer – Closed and Opened Positions

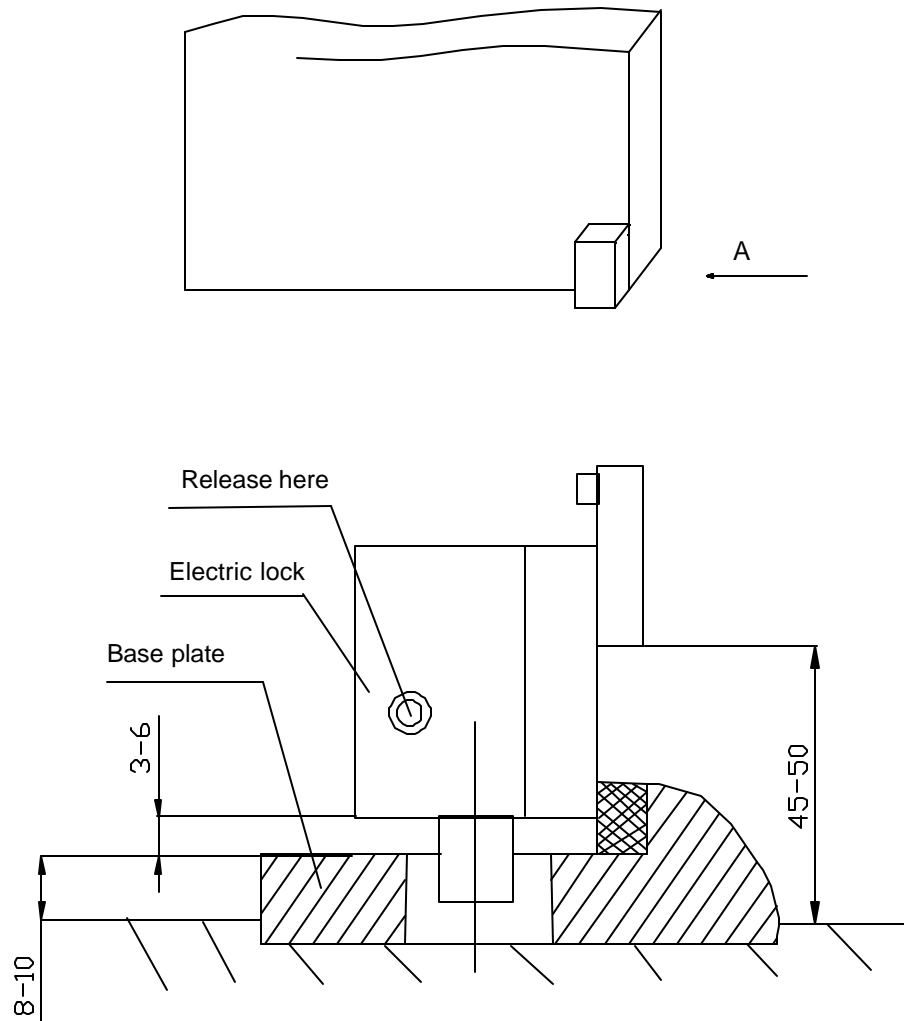
Close the gate section to its fully closed position, fix the retainer according to the position of the gate section. NOTE: Each section is completed separately. See Fig. 3.

If the maximum angle for installing is 105° , the retainer should be installed on the ground at approx. 100° . If the installing angle is 90° , the retainer should be installed at 90° . See Fig. 3.

Electric Lock

If the gate section is >5 feet (1.5 meters), it is recommended that you install the electric lock. Weld the steel plate of the lock to the gate, and then fix the lock. See Fig. 9 to determine height of the plate.

Fig. 9



To install the base plate of the lock, fix the plate to the ground with 3 screws and make sure that the lockpin can fit tightly in the hole in the plate.

Adjustment

The pair of gate sections will not start simultaneously. The gate section without the lock will start earlier than the other gate section, so that both sections can be locked properly.

Maintenance and Electrical

- Check the screw lubricant and add 1# grease regularly.
- Keep opener clean at all times.
- The XF24B control box is designed for the YG101 Swing Gate Opener. Its main technical parameters are as follow:

- Power Supply: AC 110V
 - Environmental Temperature: 14°F ~ 104°F (-10°C ~ +40°C)
 - Motor: AC 110V, max. power 735W
 - Electronic Lock: DC 12V 2A
 - Operating Time: 20 seconds ~ 100 seconds
 - Relay Coil Voltage: DC 12V, SCM power supply: DC 5V
 - Weight of Control Box: 4.4. lbs. (2Kg)
- Main Function
 - Radio control, the receiver can receive hopping code (frequency: 433.92MHz).
 - The gate will auto-reverse when it contacts obstruction.
 - Auto-close function can be selected to close the gate automatically after delay time.
 - It can control single-gate or dual-gate.
- Safety Instructions
 - The gate opener should be installed by a qualified technician; otherwise, serious personal injury or property damage may occur.
 - Before installation, all the locks of the gate should be removed or unlocked.
 - The auto-reverse function must be checked during installation to ensure that the gate can auto-reverse in the event of obstruction.
 - This auto-reverse function should be regularly inspected and adjusted, if necessary.
 - When opening or closing the gate, DO NOT attempt to walk or drive through the gate.
 - DO NOT touch the gate while it is in operation.
 - The opener should be switched off before repairing it or opening its cover.
 - Please erase and reset the code after installing the opener.
- Installation
 - Remove the cover of the control box, remove the control board and fix the control box on the wall, perform the wiring and cover again. Connect “L” to power line, “N” to neutral, and “E” to earth wire.
- Adjustment of the Auto-Reverse Function
 - Tuning the auto-reverse safety function: Rotate the “Force Adj.” Knob with a screwdriver. The resistance may be increased or decreased by rotating clockwise or counterclockwise. If the gate can be removed freely, the adjustment of obstruction force is completed.
NOTE: If the gate fails to reverse in the event of obstruction. Then, the opening force or closing force should be checked for conformity with requirements, and adjusted, if necessary. The gate will reverse if obstructed when closing and will stop if jammed when opening.
- Learn/Erase Remote Controls
 - Press red “learn” button on the control board, then the “LED” will turn on. It will turn off when you press any button on the transmitter. Press

the same button and the “LED” will flash at 2Hz frequency. If it fails to learn, the “LED” will turn off automatically after flashing for 1 second.

- To erase all remote controls, press and hold the red button on the control board until the “LED” stops flashing. After 1 second, it will flash again. This indicates that the remote controls have been erased completely.

- Install the External Keypad/Button Switch (See Table 3)

- The port “GND” is the common port, the port “K” is used to open the gate, “G” is used to close the gate, and “T” is used to stop the gate.

Note : If the gate running direction is not correct, please change wires “V1 and W1”or “V2 and W2”. If the wiring between two gates is wrong and the gates cannot work, please check the wiring between “U1, V1, W1”and “U2, V2, W2”.

Fig. 10
Control Board

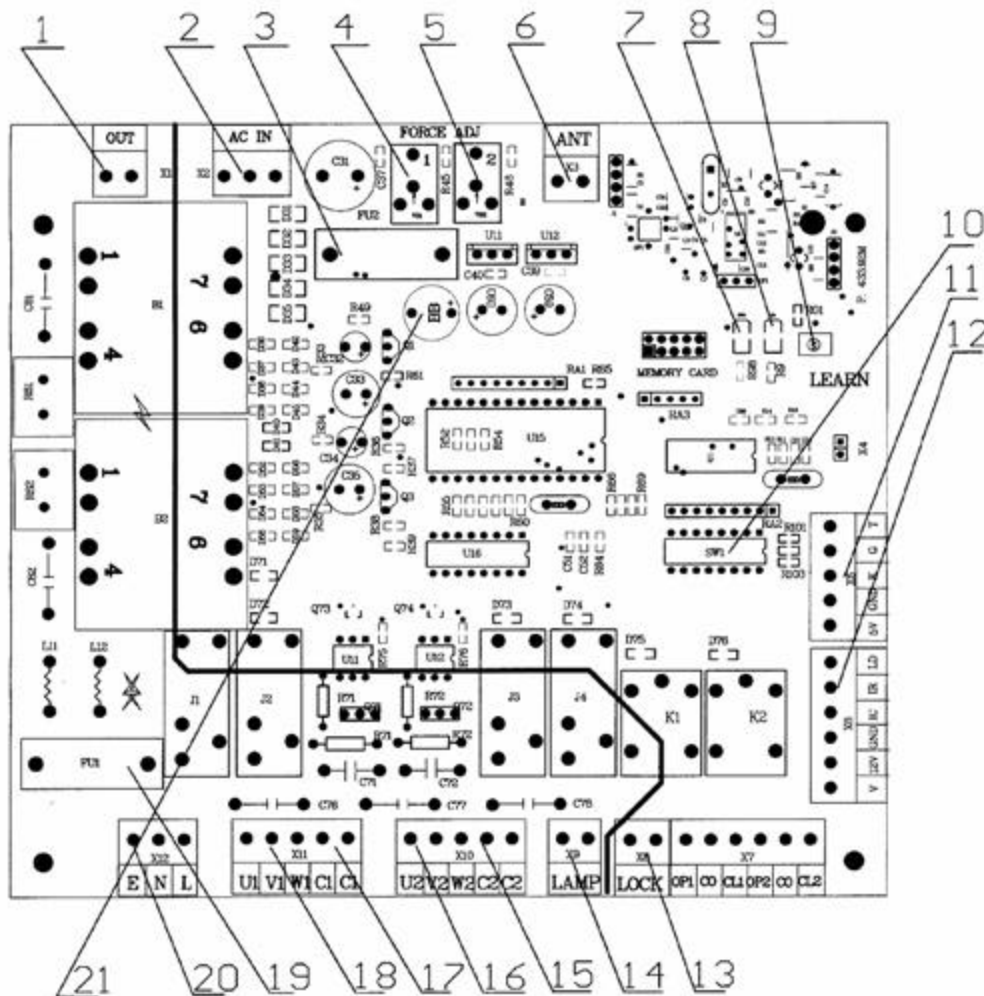


Table1: Wring Notes of Control Board

No.	Interface function	Remark
1	Transformer output	AC12V
2	Transformer input	AC110V
3	Fuse	520 2A
4	Adjusting knob (for No.1 gate which has electrical lock)	The resistance may be increased or decreased by rotating clockwise or anticlockwise.
5	Adjusting knob (for No.2 gate)	The resistance may be increased or decreased by rotating clockwise or anticlockwise.
6	Antenna	Impedance: 50O
7	Power indicator light	1206
8	Indicator light	1206
9	Learn button	66
10	Mode switch	See table 2
11	External button interface	See table 3
12	External device interface	See table 3
13	Electrical lock interface	DC12V
14	Alarm lamp interface	AC110V
15	Capacitance interface of No 2 motor	Suitable for No 2 motor
16	No 2 motor interface	See table 4
17	Capacitance interface of No 1 motor	Suitable for No 1 motor
18	No 1 motor interface	See table 4
19	Fuse	520 10A
20	Power supply	AC110V
21	Buzzer	It will ring if the gate is jammed.

Table2: Mode S witch

No.	Position	Remark
1	ON	Single- gate
	OFF	Dual - gate
2	ON	Single- gate: for No.1 gate
	OFF	Single -gate: for No.2 gate
3	ON	Dual - gate: first open last close
	OFF	Dual - gate: two gates open or close at the same time
4	ON	Enables auto-close
	OFF	Disables auto-close
5	ON	For swing gate
	OFF	For sliding gate
6	ON	Working time is 60s
	OFF	Working time is 90s
7	ON	Single button
	OFF	Three buttons for remote controller
8	ON	
	OFF	

NOTE: Be sure the factory preset of bit 3 and bit 5 of the mode switch is “ON”, please DO NOT adjust it.

Table 3: Wiring terminal for external button / external device

No.	Tag	Remark
1	12V	Output +12V 100mA
2	GND	Ground
3	IC	N.O.
4	IR	Infrared N.C.
5	LD	Loop-detector interface
6	5V	Output +5V 100mA
7	K	External button: Open
8	G	External button: Close
9	T	External button: Stop

Table 4: Connection between control board and operator

No.	Tag	Remark
1	U1	No.1 motor: COM/U
2	V1	No.1 motor: V
3	W1	No.1 motor: W
4	U2	No.2 motor: COM/U
5	V2	No.2 motor: V
6	W2	No.2 motor: W

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