



WARNING

1. This door machine must be installed and debugged by professional installer.
2. Corresponding installation and wiring shall be in accordance with the Construction Criteria, and wires diameter $\geq 1.5 \text{ mm}^2$. Ensure the power source has sound earth grinding, and the grinding wire shall tightly connect into grounding plate. Cutting away the grinding lead wire is prohibited. Earth leakage protection device fulfilling corresponding national criteria shall be firmly set at the front end of the inlet power source.
3. This Industrial Door Machine is only applicable for door with sound balance and Spring-Balanced, or the Machine would likely be destroyed by overloading.
4. The door shall run freely and without any seizure wear. Each end of the door rail shall have one restrictor or a buffer booster to avoid the door slipping from the guide rail.
5. Control box shall be installed on wall or volume from where the door's operation condition can be visually observed, and with at least 1.4 meters distance above floor level so that children could no longer touch it. For the sake of children's safety, remoter shall be kept away from kids. Operating the door remoter at a place invisible of the door's running condition is prohibited.
6. Electricity supply system of both door-opening machine and control box shall be cut off if maintenance and removal required. Door shall be checked before maintenance and removal to ensure it is in lock-up condition and there is no any sign of falling risk.
7. No any entrance or stay is allowed once the door is running.
8. Pulling the hand chain of this machine is prohibited when the door machine is in operation, since it will easily damage the door.
9. For equipment with shift clutches, pulling ropes of the shift clutches is prohibited unless otherwise the door is in definite close status; and no any other conditions are allowed for rope drawing.
10. For the sake of safety of people and cars passing by, infrared safeguard device and gasbag preventative devices shall be available.

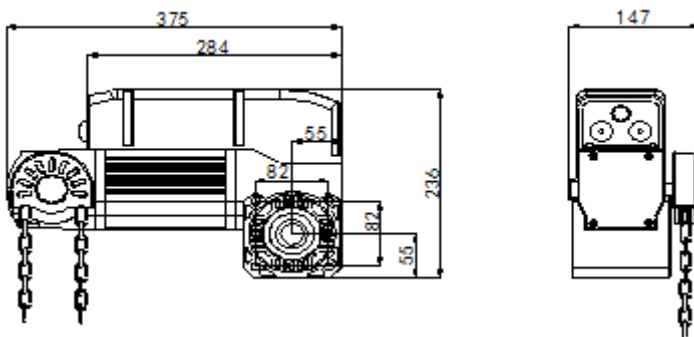
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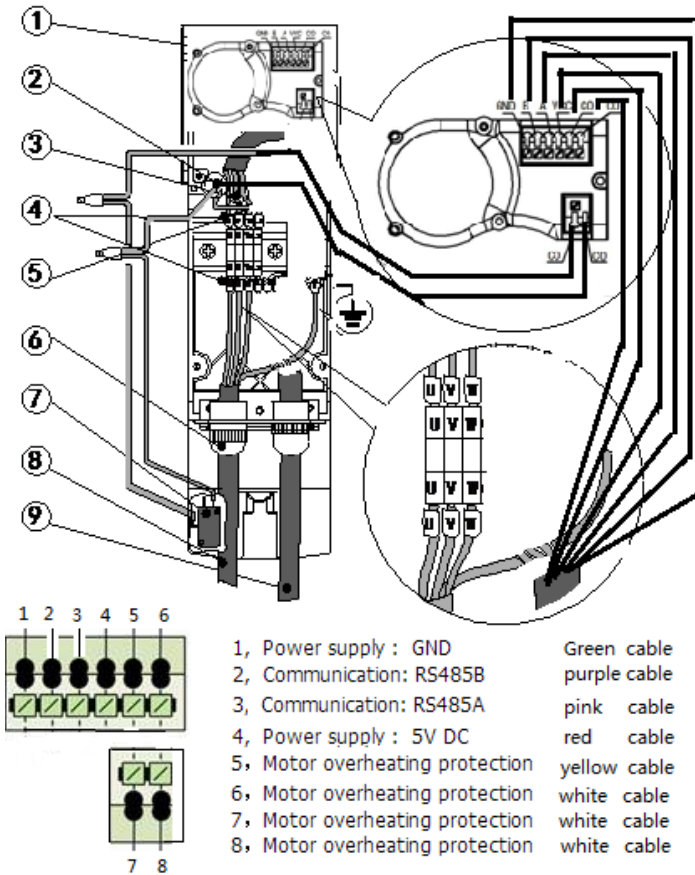
parameter table

Type (3*AC220V)	GYM100S-3
Rated Power	550W
Starting Torque	60N. m
Reduction ratio	1: 43
No-Load Rotating Speed	32r/min
Type of Lubricate	Oil Immersed
Noise	≤60dB
Maxi Limiting Distance	Using the absolute value encoder electronics limited, output shaft to turn 20 laps
output shaft diameter	Φ 25. 4mm
Use Environment	-20℃ ~+45℃
Duty Cycle	S3
Protection Classification	IP54

Operator size

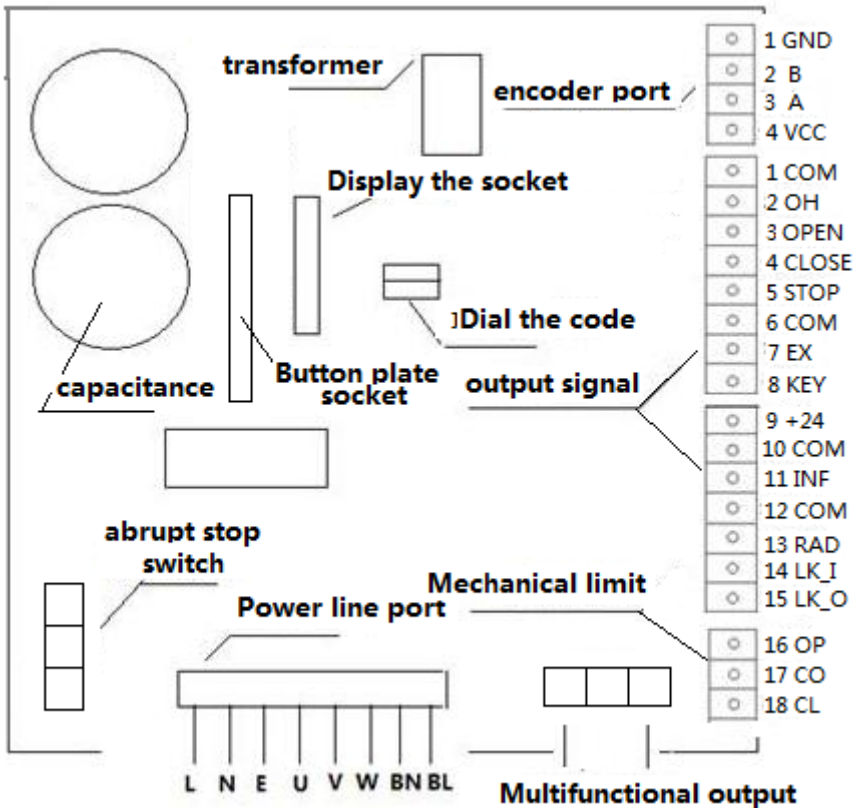


Motor wiring diagram



- ① encoder ② motor thermal protection line ③ Motor lead wire
 ④ Number tube ⑤ terminal ⑥ Waterproof connectors
 ⑦ chain protection switch ⑧ Motor and control line
 ⑨ encoder line

Circuit board structure: (GYK-93S-1)



Motor connection port:

- 1, L N : 220 V power supply into line,
- 2, PE: Grounding.
- 3, U V W: Motor line, U (blue), V (brown), W (black) and motor terminals U, V, W corresponding connection.
- 4, BN BL: Runtime output 220 v port, Warning lights.

Dial the code switch Settings:

	Rapid door model motor thermal protection effective
	Rapid door model motor thermal protection invalid
	Slippery rise door model motor thermal protection effective
	Slippery rise door model motor thermal protection effective

Electronic limit connection:

○	1 GND	cathode encoder power	green cable
○	2 B	RS485B	Purple cable
○	3 A	RS485A	Pink cable
○	4 VCC	anode encoder power	red cable

Mechanical limit connection:

○	16 OP	Mechanical limit open the door limit (green cables)
○	17 CO	Mechanical limit public end (white cables)
○	18 CL	Mechanical limit close the door limit (red cables)

Control signal Control signal port:

○	1	COM	public port
○	2	OH	Motor overheating and manual chain protection
○	3	OPEN	rising
○	4	CLOSE	DOWN
○	5	STOP	STOP
○	6	COM	public port
○	7	EX	Middle limit
○	8	KEY	Step and step
○	9	+24V	power output
○	10	COM	public port
○	11	INF	Infra
○	12	COM	public port
○	13	RAD	Radar
○	14	LK_I	Interlock input
○	15	LK_O	Interlock output

Multi-functional port wiring instructions:

1, Motor overheating protection:

Will lead to motor CO, CO symbols of two wires access control box 1 (COM) and 2 (OH) port. When the motor temperature above 120 degrees, motor automatic stop working opportunity.

2, External three button function: Three button to switch to an external access port 3 (OPEN), 4 (CLOSE), 5 (STOP) and 6 (COM) port, switch state requirements for NO;

3, Middle limit function:

The external single push button switch two wires access 7 (EX) and 6 (COM). Press the switch, the gate will automatically open to, set in the middle of the limit position. Can be external fire signal, if any signal input, doors automatically open to limit position in the middle.

4, Step and step function:

The external single push button switch two wires access 8 (KEY) and 6 (COM). Can achieve a single bond, open, stop, close, stop cycle operation function.

5, DC24 v power supply output function:

Ports 9 and 10 to DC24 v power supply output port;

6, Infrared protection function:

The infrared signal equipment, access to 11 (INF) and 12 (COM), 24 v power cord access 9 (+ 24) and 10 (COM).. Enter the input signal is NO, NC can be set up through parameter P2-09..

7, Air switch protection function:

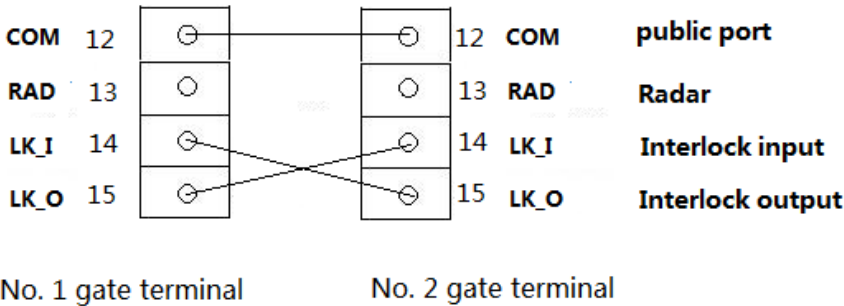
Air switch signal equipment, access to 11 (INF) and 12 (COM), 24 v power cord access 9 (+ 24) and 10 (COM).. Enter the input signal is NO, NC can be set up through parameter P2-09..

8, Little door switch protection function:

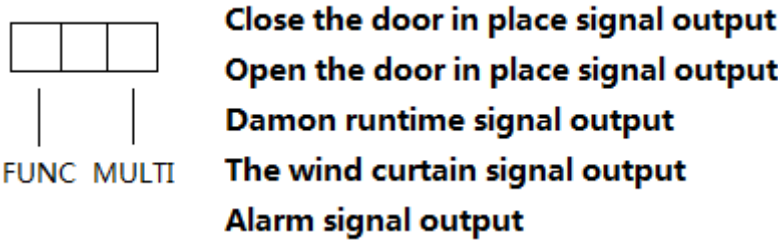
Factory state, the two ports is to use short jumper wire connection good, such as need little door protection, please remove the short jumper, and to access the door switch line 13 (RAD) and 12 (COM) port . Normally open, normally closed state can be set through the P2-10.At this point, when the door open, switch button without action;

9, Interlock function:

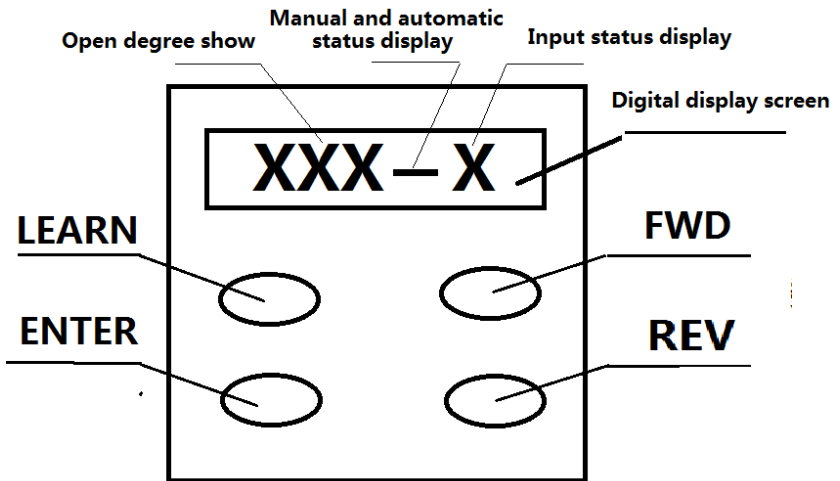
Port 14 (LK_I) and 15 (LK_O), for the interlock input and interlock of the output signal interface, use the function of the interlock function of P1-03 parameter must be set to open. Interlock is the meaning of after putting in place a door closed, another door to work



Multi-functional port wiring instructions:



Circuit board set



- 1, LEARN: Learn key or shift key
- 2, ENTER: Confirm key or function into the key
- 3, FWD: Rise key or increase key
- 4, REV : Down key 、 Reduce key or transformation key

Normal working state, the screen will display open degree, manual and automatic closed state, state of input. This state is called: "main menu"

1, opening degree, according to screen data as the gates open degree, data change between 0-100.

2, manual and automatic status display: (press REV more than 3 seconds, manual and automatic mode)

XXX-X

Manual State

XXX=X

Automatic shutdown state

3, Input status will display the current input signal digital code.

4 , Input signal status code:

Input state	
Number	instructions
1	stop
2	open
3	close
4	infra
5	radar
6	One key
7	Middle limit
8	interlock

Limit the debugging and parameter Settings:

1. Limit to learn

1) Long press LEARN more than 3 seconds,,L0 reads on LED,

2) press ENTER key, data feedback by the encoder can be read;

3 then keep holding down the FWD key (UP) until the door reaches the desired location,

4) press ENTER key to save the settings. At this time, limit to learn is over;

5) when LED display reads L1 (that is the lower limit)

6) press the ENTER key to access the data feedback by the encoder,

7) keep holding down the REV key (falling) until the door falls to the desired location.

8) and then press ENTER to save the settings;

9) Symbol "L2" appears on the screen at the same time, can press FWD set limit, if you don't need to set up the middle spacing, according to LEARN key to return to the main menu.

10) At this time, limit to learn is over.

2, P1 parameter Settings:

1), under the main menu, press ENTER more than 3 seconds, the display shows P1,

2), and then press ENTER, the display digital box, ENTER the password 1588. Now LEARN key for shift key (at this time, LEARN to digital shift keys, mobile digital cursor to Single digits, ten digits, the digits, thousand digits, and then with the FWD key respectively, REV adjust up and down all the data on the digits)

3), press ENTER, show P1-01; (at this point by FWD key or REV key can choose need to adjust the parameters of the up and down)

4), continue to press the ENTER key, ENTER the corresponding parameter setting.

At this time more than hundred digit data adjustment need LEARN shift key,;

More than ten digits data adjustment need only, long press FWD or REV, data automatically rapid adjustment, loosen and then stop;

Bits of data adjustment, only need single press FWD or REV adjust up and down.

5), other parameters adjustment method and so on, pay attention to, after the completion of each parameter is set to press ENTER to save, the press LEARN step by step after exit to the main menu, can start to work normally.

Frequency conversion Industrial door operator operation instruction

6) , P1 parameter name, scope, and the default value:

P1 parameter: password 1588			
number	instructions	Parameter range	default value
P1—01	Open frequency	10—99Hz	50
P1—02	Close frequency	10—99Hz	50
P1—03	Buffer coefficient	2---10	2
P1—04	Closing time delay	1----600	10
P1—05	Torque increase	0-15	10
P1—06	speed up time	5—20	10
P1—07	Deceleration time	5----10	5
P1—08	Multifunctional output	0=shut; 1=close; 2=open; 3=running; 4=wind curtain ; 5=alarm	0=shut
P1—09	Open Point move /continuous move	0= continuous move; 1= Point move	0
P1—10	Close Point move /continuous move	0= continuous move; 1= Point move	0
P1—11	Interlock function	0=shut; 1=open	0
P1—12	Limit up query	Limit up setting data	read-only
P1—13	Limit down query	Limit down setting data)	read-only
P1—14	Middle limit query	Middle limit setting data	read-only
P1—15	Point move frequency	10—50Hz	35
P1—16	P1 parameter default recovery	1=restore	0

3, P2 parameter Settings:

- 1), under the main menu, press ENTER more than 3 seconds, the display shows P1,
- 2), And then press "FWD" key or "REV", (display data can switch between P1, P2, P3).
- 3), Switch to the P2 parameters, and then press ENTER, the display digital box, ENTER the password 1588. Now LEARN key for shift key (at this time, LEARN to digital shift keys, mobile digital cursor to Single digits, ten digits, the digits, thousand digits, and then with the FWD key respectively, REV adjust up and down all the data on the digits)
- 4), press ENTER, show P1-01; (at this point by FWD key or REV key can choose need to adjust the parameters of the up and down)
- 5), continue to press the ENTER key, ENTER the corresponding parameter setting.

At this time more than hundred digit data adjustment need LEARN shift key,;

More than ten digits data adjustment need only, long press FWD or REV, data automatically rapid adjustment, loosen and then stop;

Bits of data adjustment, only need single press FWD or REV adjust up and down.

6), other parameters adjustment method and so on, pay attention to, after the completion of each parameter is set to press ENTER to save, the press LEARN step by step after exit to the main menu, can start to work normally.

7),P2 parameter name, scope, and the default value:

P2 parameter: password 8851			
number	instructions	Parameter range	default value
P2—01	Limit mode	0=encoder; 1=mechanical	0= encoder
P2—02	Up limit advance	0—50	5
P2—03	Down limit advance	0—50	10
P2—04	Open Overshoot alarm	10—100	50
P2—05	close Overshoot alarm	10—100	50
P2—06	Infrared distance	1—800	500
P2—07	current coefficient	50%—110%	100%
P2—08	brake frequency	15-35	30
P2—09	Locked-rotor time	10-70	70
P2—10	Locked-rotor function	0=shut 1=open	1
P2—11	Mechanical limit buffer time	5—15	5
P2—12	Mechanical limit level	0=(NO); 1=(NC)	0=(NO)
P2—13	Stop level	0=(NO); 1=(NC)	0=(NO)
P2—14	Infra level	0=(NO); 1=(NC)	0=(NO)
P2—15	Radar level	0=(NO); 1=(NC)	0=(NO)
P2—16	P2 parameter default recovery	1=restore	0

4, P3 parameter Settings:

- 1), under the main menu, press ENTER more than 3 seconds, the display shows P1,
- 2), And then press "FWD" key or "REV", (display data can switch between P1, P2, P3).
- 3), Switch to the P3 parameters, and then press ENTER, the display digital box, ENTER the password 00000. Now LEARN key for shift key (at this time, LEARN to digital shift keys, mobile digital cursor to Single digits, ten digits, the digits, thousand digits, and then with the FWD key respectively, REV adjust up and down all the data on the digits)
- 4), press ENTER, show P3-01;(at this point by FWD key or REV key can choose need to adjust the parameters of the up and down)
- 5), continue to press the ENTER key, ENTER the corresponding parameter setting.

At this time more than hundred digit data adjustment need LEARN shift key,;

More than ten digits data adjustment need only, long press FWD or REV, data automatically rapid adjustment, loosen and then stop;
Bits of data adjustment, only need single press FWD or REV adjust up and down.

6), other parameters adjustment method and so on, pay attention to, after the completion of each parameter is set to press ENTER to save, the press LEARN step by step after exit to the main menu, can start to work normally.

Frequency conversion Industrial door operator operation instruction

7) , P3 parameter name, scope, and the default value: :

P3 parameter: password 00000			
number	instructions	Parameter range	default value
P3—01	Change password	0—99999	00000
P3—02	Run time Settings(days)	0—99999	99999
P3—03	Run number Settings(number)	0—99999	99999
P3—04	View the total elapsed time (days)	0—99999	current time)
P3—05	View the running number	0—99999	Current number
P3—06	View the running number (the number of more than ten thousand shows)	0—99999	Current number

4, the function of remote control Settings

Remote control receiving plate, installed on the screen of the socket on the back of the circuit board, can plug, pay attention to the direction of the insert, when installation should pay attention to in rectangle area specified by the circuit board.

step1: after electrify hold the remote control receiver plate on white button until the red light is extinguished, to remove the original password;

step2: to press the white key learning, found that loosen the red indicator into the learning state;

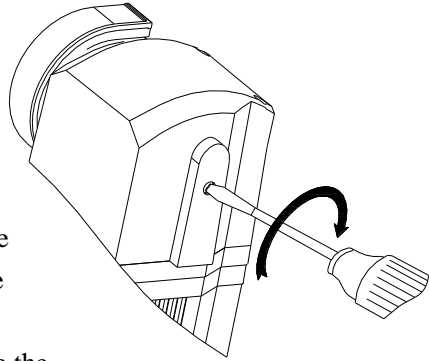
Step 3: Press any one transmitter, found that the red light is put out after two flashes, end of the learning process

Circuit Board fault code the reason and solution

error code	instructions	The reason for the error analysis
ERR01	power supply lacks	Three-phase 380 v lack of L2 phase
ERR02	encoder not connected	encoder cables
ERR03	Limit anomaly	Limit not set or limit beyond the set value
ERR04	Electrical short circuit	Motor cables short circuit or power up too much
ERR05	Motor overload	Motor current is more than set value
ERR06	More than life	Reset run times or run number
ERR07	Motor blocked	Lack of motor torque (press ENTER reset)
ERR09	Motor heat protection	Waiting for the motor cooling
ERR10	Small door abnormal	Check the wiring or Replace the switch
ERR11	Frequency conversion board overheating	Inverter overheating protection

Manual chain using method

When it is necessary to operate the door machine manually, the loop chain will be used. It is advisable to operate the chains with even and continuous force. Sudden jerk of the chain shall be avoided to avoid the damage to the manual mechanism. Pull the chain to realize the opening and closing of the door. During the pull, the protective switches located in the manual chain mechanism automatically cuts off the power to avoid accidents. Once the chain is released, the manual chain mechanism will automatically restore to its original position and the industrial door machine is restored to the normal power-driven status. When the loop chains are not in use, please secure the chains on the wall as per the following picture.



Accessories list

Electric control list

Number	Name	Quantity	note
1	Electric control	1	standard
2.	Remote control	2	optional
3.	Waterproof connectors	2	standard

Motor list

number	name	quantity	note
1	Motor	1	standard
2	Install the plate	1	standard
3	fixed ring	2	standard
4	key	1	standard
5	Hex bolt M10*20	4	standard
6	Cable	1	standard 4*0.75*4m
7	Cable	1	standard 6*0.3*4m