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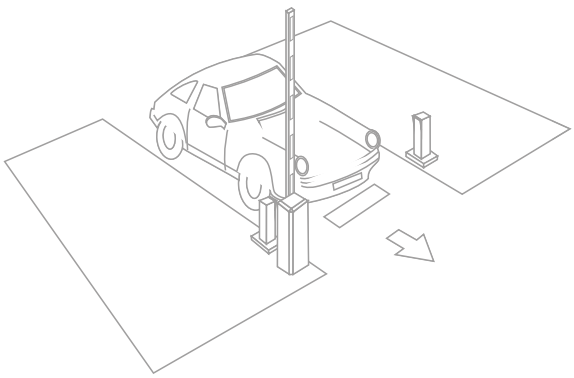
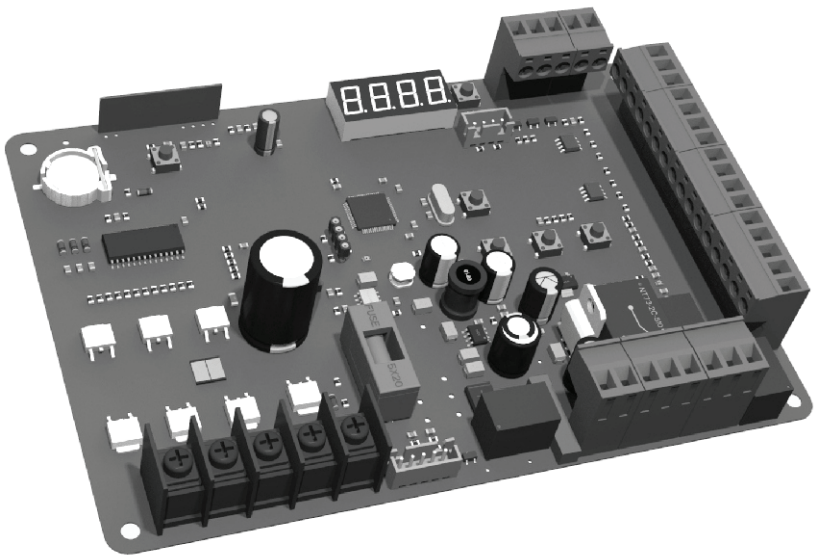
# INSTALLATION MANUAL & USER GUIDE

Please read carefully before installing and use

# BG100-BDC BoomController

36V DC Brushless Barrier Control Box





# WARNING

⚠ AUTOMATIC BARRIES ARE NOT FOR PEDESTRIAN!

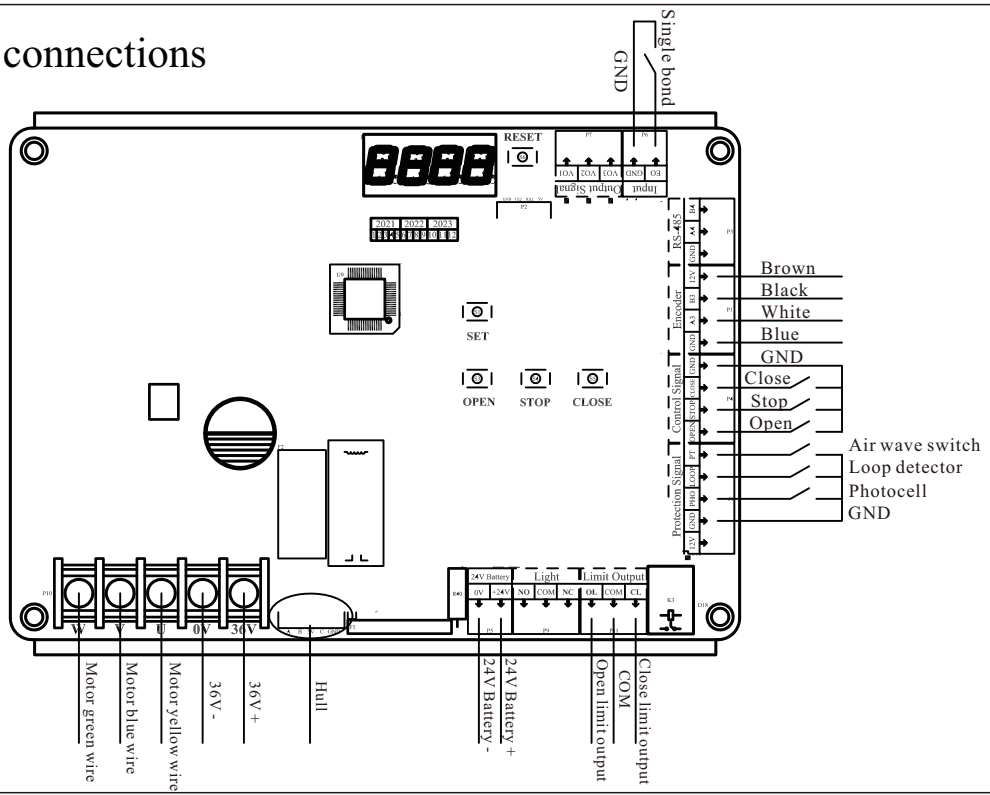
To reduce the risk of INJURY or DEATH, read and follow all instructions

- NEVER let children operate or play with barrier control .controller MUST be installer at least 1.5m above the ground.
- PEDESTRIANS SHOULD NOT CROSS THE PATH OF THE MOVING BARRIER.
- Automatic boom barrier is designed for vehicles ONLY. Pedestrians MUST use separate entrance.
- Installation and maintenance MUST be executed by qualified service person. Keep boom barriers properly maintained.
- Ground wire and current breaker MUST be connected.
- Power MUST be cut off when performing installation or maintenance.
- When power outage, power MUST be cut off before using the manual release under the motor to open the barrier.
- ONLY operate when the boom barrier is in sight.
- NEVER perform operating or setting without the boom installed. This WILL result in severe injury.
- NEVER dismount the boom when barrier is at close status with spring attached. This WILL result in sever injury, even death.
- DO NOT replace the original wire.

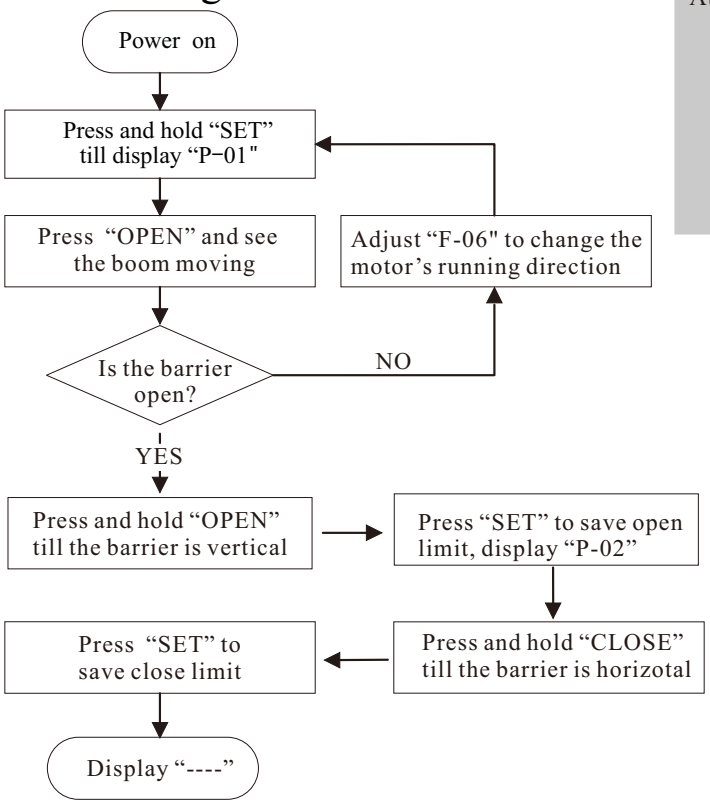
## ● SAVE THESE INSTRUCTIONS.

# 1、Controller

## 1.Electrical connections




## 2.Limits Setting




Attention: Limits are set well in factory
any change made on length, or
maintain and change controller.
please follow steps below.
Before power on, manually adjust
boom to middle position<45° >.

# 2. Transmitter ( Remote control ) setting

## 2.1 Transmitter's code setting

Press "LEARN BUTTON", the "LEARN LED" light on, then, press and hold the button which you choose on the transmitter till the "LEARN LED" flashes and goes out, now, the transmitter is code. Other transmitter can be coded as this way.

## 2.2 Erasing the transmitter's code

Press "LEARN BUTTON" and hold on to make the "LEARN LED" light on and till go out. Now, all codes of transmitters which had been learnt are cleared.

# 3. Error Codes

## 1.Error Codes

| Code | Meaning | Solution |
|---|---|---|
| ER00 | Over voltage | Check the voltage of input power |
| ER01 | Under voltage | |
| ER02 | Over current | Check the current |
| ER03 | Running overtime | Check the mechanical system |
| ER04 | Encoder communication is abnormal | Check the encoder wires and connection |
| ER05 | Hall sensor is abnormal | Check hall terminal and wires connection |
| ER06 | Motor locked Rotor | Check the Mechanical system<br>Check the motor wires connectors |
| ER07 | Air wave sensor is triggered | Remove the object that block the air wave |
| ER08 | Loop detector is triggered | Remove the object that block the Loop detector |
| ER09 | Photocell is triggered | Remove the object that block the photo beam |
| ER10 | Limit is invalid | Reset "P--1" & "P--2" |
| ER11 | Abnormal position of boom | Press button or manually adjust boom to normal position |

## 2.Trouble Shooting

| Trouble | Possible Reason | Solution |
|---|---|---|
| power on , no display | No input power | Check power supply |
| | Power cable connection is incorrect | Check the terminals and connect correctly |
| | Fuse blowout | Change a new fuse |
| Display Error code | Refer to Error Codes List | Refer to Error Codes List |
| Operate transmitter but no neaution | No battery | Change batteries |
| | Weak signal | Avoid obstacle or Interference source |
| | The remote control is flooded or damaged | Change a new transmitter |
| Motor doesn't work | Motor wire broken or damaged | Check the wire connection or change motor |
| The boom runs in the opposite direction of the button command | Motor running direction is incorrectly | Adjust the parameter F−06 to set the running direction of motor |

### 1)Boom doesn't reach correct position when opening and closing

Possible Reason:

1.Incorrect Linkage adjustment

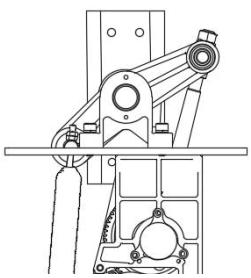
2.Incorrect Limits setting

Solution:

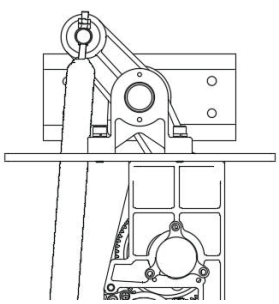
1.Open the chassis door and cover. A. when the active connecting rod and the middle connecting rod coincide, whether the brake rod is in the opening position; B: when the active connecting rod is in line with the middle connecting rod, whether the brake rod is in the closing position; If the above state can't be achieved by adjust the screw sleeve adjustment, so that the two connecting rods coincide when the brake rod is in the vertical(open) position, two brake rod into a straight line when the brake rod is in the level(close) position.

2.Reset the limit position through the controller

Open Position



Close Position



2)Boom shakes at open limit and close limit:

Possible Reason:
1.Incorrect Linkage adjustment
2.The lock flat key between boom main shaft

Solution:
1.Follow the steps above
2.Change the lock flat key

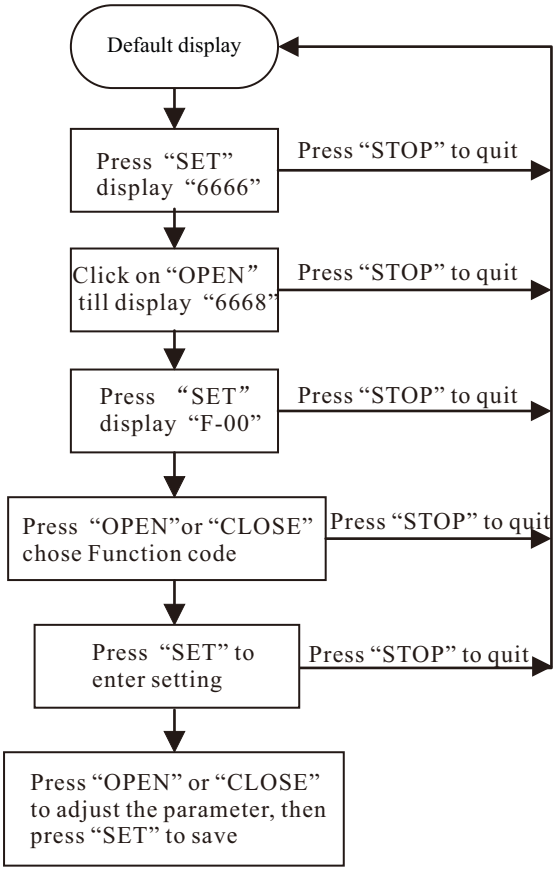
# 4.Appendix

## 1.Function Parameters

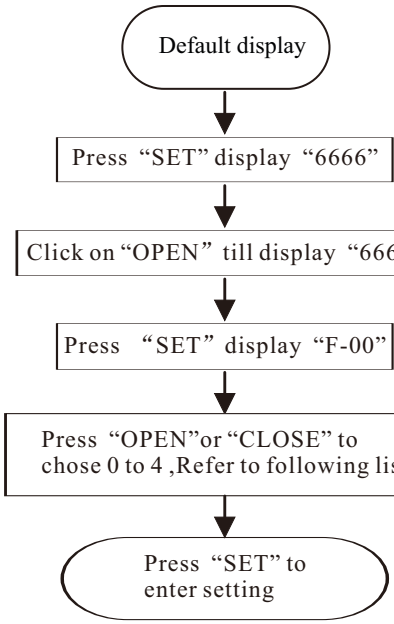
| Function code | Meaning | Description |
|---|---|---|
| F-00 | Boom type option | Refer to Appendix 3 |
| F-01 | Open speed grade | Ranges from 1to10,with higher numbers faster |
| F-02 | Open speed grade | Ranges from 1to10,with higher numbers faster |
| F-03 | Auto-close timer (s) | Default is 0 means auto close, function is invalid<br>Increase the value, the value means the auto close time |
| F-04 | Open resistance sensitivity | Default:40 The smaller , the more sensitive |
| F-05 | Close resistance sensitivity | Default:30 The smaller , the more sensitive |
| F-06 | Motor's running direction | 0: Turing(default) 1: Reverse |
| F-07 | Protection signal input mode | 0: N.O. (default) 1: N.C. |
| F-08 | Light mode | 0: Red and green light (default) 1: Alarm |
| F-09 | Test mode | 0: Disable (default) 1: Valid |
| F-10 | Factory setting | 10:Caution! refer to Appendix 5 |
| F-11 | Transmitter type option | 0: Transmitter control is invalid 26:T26 Transmitter<br>23:T23 Transmitter (default) 28:T28 Transmitter |
| F-12 | Auto open when power on | 0: Disable (default) 1: Valid |
| F-13 | Auto close when power off | 0: Disable (default) 1: Valid |
| F-14 | Shielded angle | 0~100% |
| F-15 | Loop detector count mode | 0: Disable (default) 1: Valid |
| F-16 | Stay open mode | 0: Disable (default) 1: Valid |

| Function code | Meaning | Description |
|---|---|---|
| P-01 | Open limit | The value of position when boom is rertical |
| P-02 | Close limit | The value of position when boom is horizontal |
| P-03 | Erase limit setting | 0: no action (default) 1: Erase limit setting |

## Appendix2：Funtion Parameter Setting

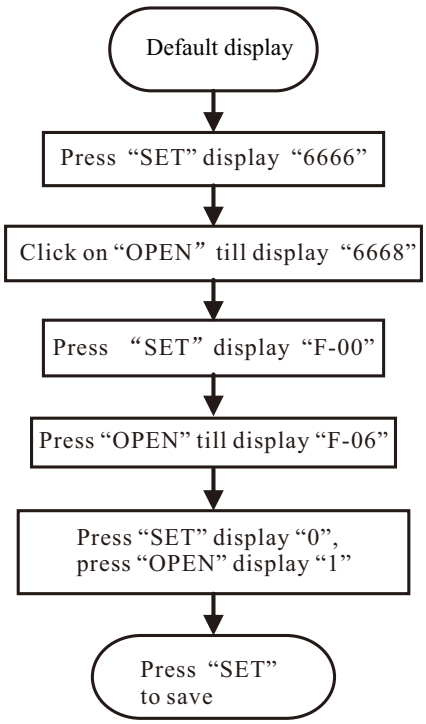



## Appendix3：Boom Type Option

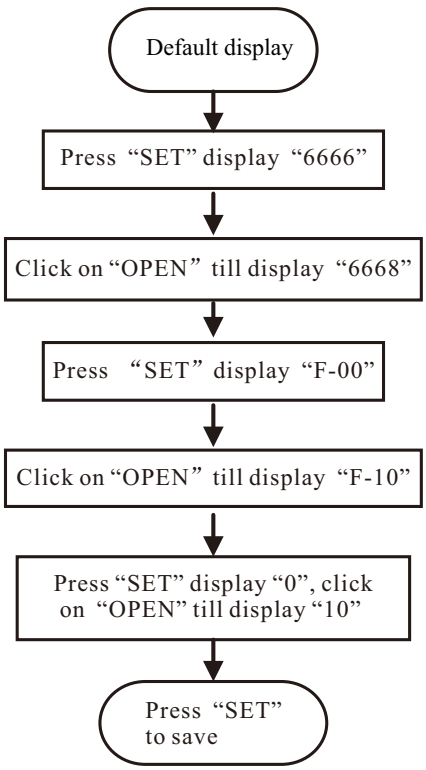



| Boom Type code | Meaning |
|---|---|
| 0 | Octagonal straight boom |
| 1 | Single fence boom |
| 2 | Foam round boom |
| 3 | Single rubber straight boom |
| 4 | Articular boom |

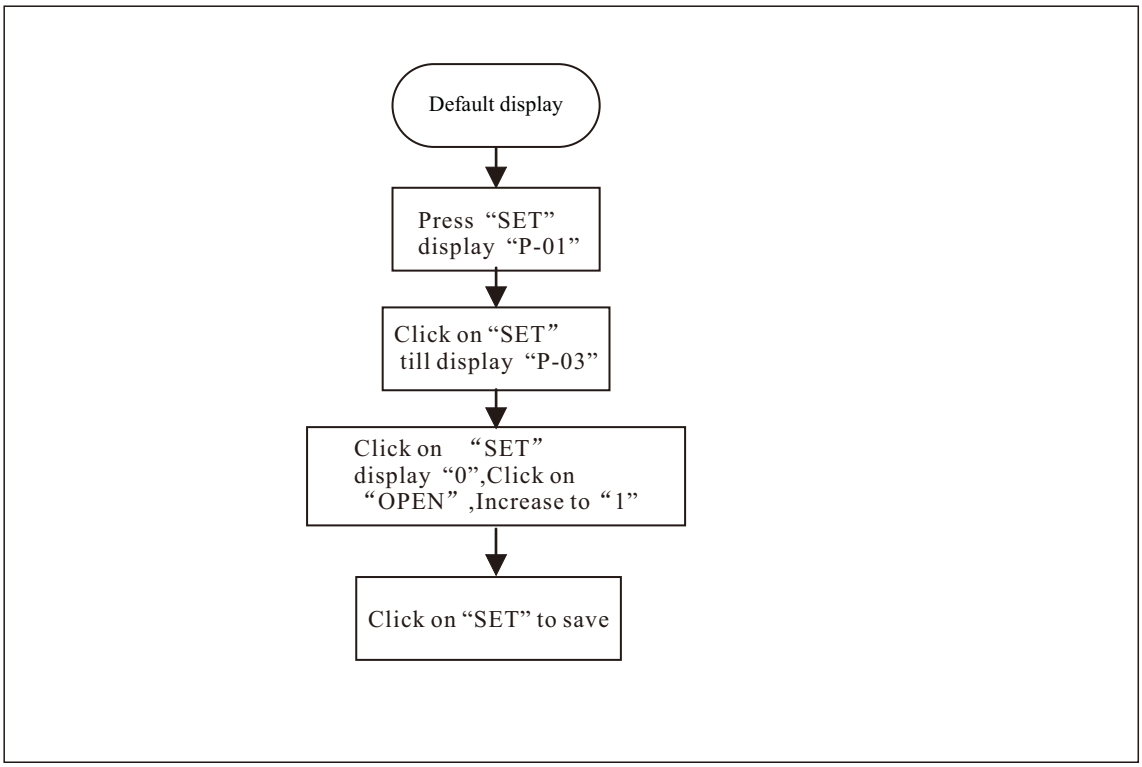
## Appendix4:Change the motor's running direction




## Appendix5: Reset factory setting



## Appendix6：Erasing the limit switch Setting



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