

## WARNING!

Please start by reading the safety instructions

# BLACKeDITION

garage door operator

## Installation Guide



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# Please start by reading the safety instructions

Before you begin installing the door operator, please read thoroughly these instructions, keep the manual for future reference or pass it on to the subsequent owner of the door.

The door operator has been designed for safe use in operation but safety can only be assured if the safety instructions are strictly adhered to during the installation and during use.

- The door should be balanced and any obstacles removed. Springs, guides and other moving parts should be in good condition.
- Do not wear jewellery or loose clothing during the installation.
- During electrical connection, local building and electrical regulations should be adhered to, this device complies with protection class 2 and does not require earthing.
- Once installed the auto reverse system should undergo a test, upon contact with a 50mm solid object from the ground, the garage door should stop and then re-open.
- Warning signs should be used to warn of door opening and closing.
- Do not allow children or untrained users access to the controls including radio controls.
- Always watch a moving door keeping people away from the door until fully open or closed.
- Frequently examine all moving parts paying particular attention to the cables, springs, mountings looking for wear and tear.
- Do not use if any fault or mechanical damage is evident as this may cause injury.
- Garage door openers should only be installed by fully trained installers.
- Service and repairs should only be carried out by fully trained installers.
- The courtesy light and external light (if connected) will illuminate on every open or close operation.

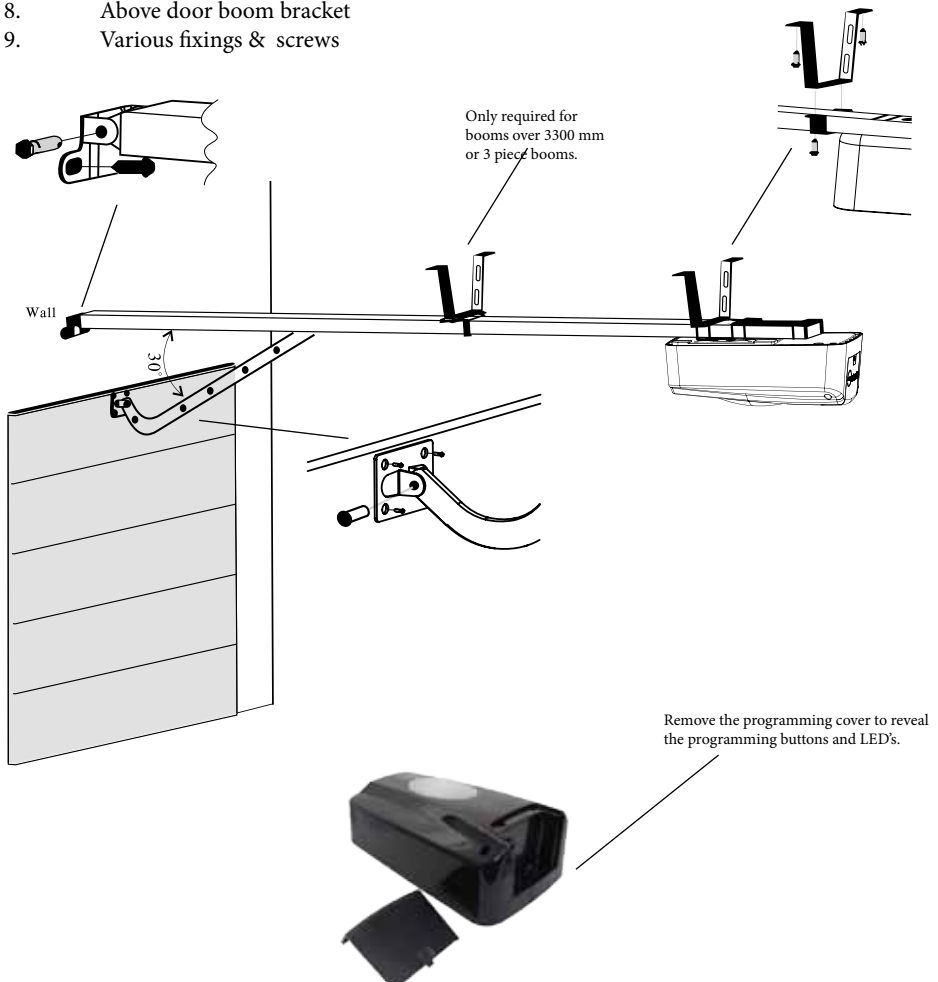
# Parts Lists

## Door Operator Package

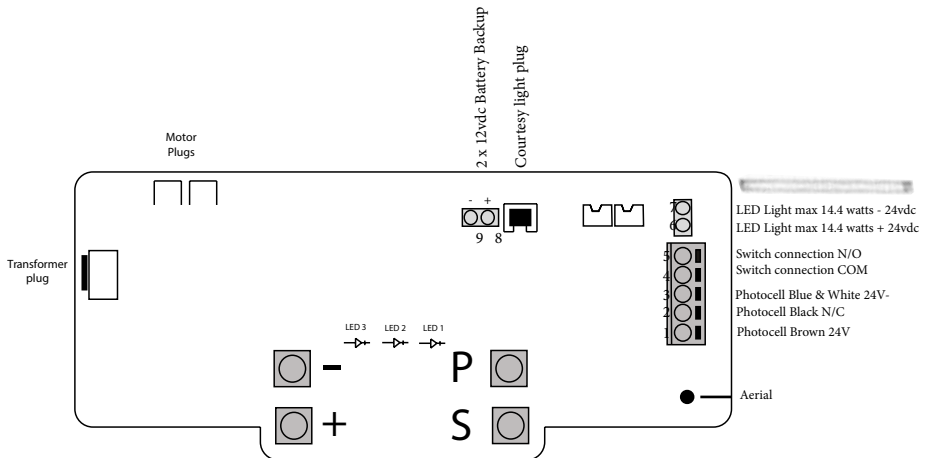
1. Garage door opener
2. Two transmitters
3. Installation manual
4. Curved door arm
5. Two metal fixing bars
6. Two U brackets
7. Door arm fixing bracket
8. Above door boom bracket
9. Various fixings & screws

## Boom Package

1. One piece or three piece boom
2. Carrier with cord release
3. Motor drive adapter
4. Two slide over brackets (3 piece boom only)



# Control Board Wiring

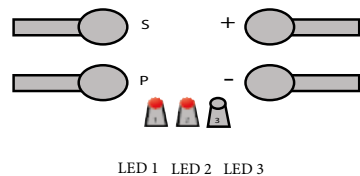


- LED light connections: The Nrg Automation 1 mtr light strip can be connected to the terminals. 6 (+ 24vdc) & 7 (- 24vdc). The LED will illuminate as a courtesy light and can also be turned on or off using the mode 3 function on the transmitter.
- Our battery backup can be connected to the two battery terminals. The number of operations depends on the size of the batteries.
- The batteries are trickle charged during normal use.

## Terminal Wiring

1. Photocell 24V+ (Brown)
2. Photocell Black (N/C)
3. Photocell 24V- (Blue & White)
4. Switch connection COM
5. Switch Connection N/O
6. LED light strip 24vdc +
7. LED light strip 24vdc -
8. Battery backup 24vdc +
9. Battery backup 24vdc -

## Programming Buttons / LED's



# Installing the Boom

## **Warning: incorrect installation could lead to severe injury.**

Before installing the boom and GDO ensure the door is in good working order and correctly balanced.

After installation ensure the door automatically reverses when it makes contact with an object placed on the floor at a level of 50mm.

Ensure parts of the door do not extend over public footpaths or roads during operation

## **Connecting the boom**

1. Connect the boom bracket above the door and secure.
2. Offer the boom up to the boom bracket and secure using the 80mm screw (with HEX head)
3. Using the metal mounting strap and support bracket secure the boom to the ceiling at the mid point (only for booms longer than 3300mm) or 3 piece booms
4. Using the metal mounting strap and U-bracket secure the boom to the ceiling at the motor end.

## **Attaching the Motor to Boom:**

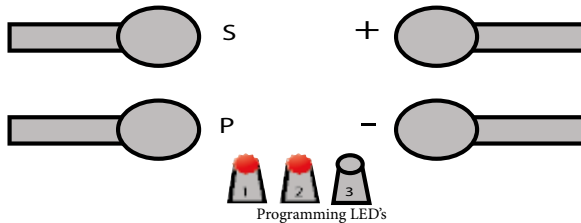
1. Insert the splined BRASS expander joint into the carrier drive system (may be installed already to the boom carrier).
2. Offer the motor to the Boom inserting the drive into the BRASS expander drive joint.
3. Using the two U-type brackets and 6 x 15mm screws, secure the motor to the boom.

## **Connecting the Boom to the Door**

1. Install the door arm fixing bracket to the top of the door.
2. Connect the straight arm of the boom to the curved arm and insert into the door arm bracket (see image on page 3)
3. Secure using the 8 x 25mm drive pin and clip.
4. Ensure the angle between the Boom and the drive arm is 30 degrees when the door is fully closed.

# Programming Motor Limits & Force

**Remove the end programming cap with the NRG Automation label to reveal the programming panel.**



## **Programming the OPEN and CLOSE limits and FORCE learning.**

### **Step 1. Open Limit:**

1. Press P button for 5 seconds until all 3 LED's illuminate, then release the P button
2. Then press + button once. LED1 will start to flash
3. To set the TOP limit press and hold + button until the desired OPEN position is reached before releasing the + button
4. Fine adjustment is made using the + and - buttons.

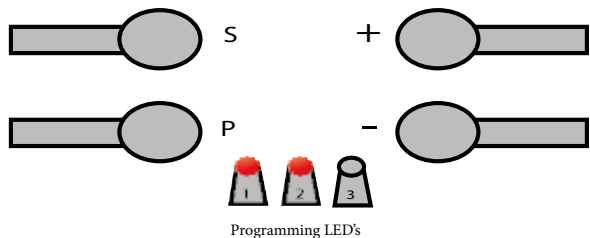
### **Step 2. Close Limit:**

1. Once you have the top limit, press P button to confirm - LED 2 will start to flash
2. To set the bottom limit press and hold the - button until you reached your desired position
3. Press P button to save the DOWN limit position, LED 3 will flash to enter FORCE learning program.

### **Step 3. Force Learning**

1. Press + button and the door will open automatically to the OPEN limit.
2. Press - button and the door will close to the CLOSE limit position.
3. Press P button to save this setting, LED 3 will go out, courtesy light will come on. The reversing force is automatically set.

# Programming Auto Closing & Alarm



## Automatic Closing (Default off)

1. Press P button for 5 seconds, LED's 1, 2& 3 will illuminate.
2. Press + button twice, LED 1& 2 will flash to enter programming mode.
3. Press + or - button to select auto close time in accordance with the chart below.
4. Press P button to confirm auto close time.

### LED Status

LED 1, 2 & 3 Flash  
LED1 flashes once every 3 seconds  
LED 1 Flashes twice every 3 seconds  
LED 1 Flashes 3 times every 3 seconds  
LED 1 Flashes 4 times every 3 seconds  
LED 1 Flashes 5 times every 3 seconds  
LED 1 Flashes 6 times every 3 seconds  
LED 1 Flashes 7 times every 3 seconds  
LED 1 Flashes 8 times every 3 seconds

### Closing Time in Seconds

Not active  
30 seconds  
60 seconds  
90 seconds  
120 seconds  
150 seconds  
180 seconds  
210 seconds  
240 seconds

If auto time close is selected, before the door starts to close the courtesy light will flash and the alarm sound for 20 seconds. When the door starts to close, the courtesy light remains on for 3 minutes.

## Alarm Programming:

1. Press P button for 5 seconds, LED's 1,2 & 3 illuminate
2. Press + button 3 times, LED 2 & 3 flash
3. Press + to check the status of the Alarm i.e on or off.
4. Press + or - to toggle between alarm on or alarm off.
5. Press P button to confirm.

### LED Display Status

LED 1 Flashes once per 3 seconds  
LED 1 Flashes twice every 3 seconds

### Function

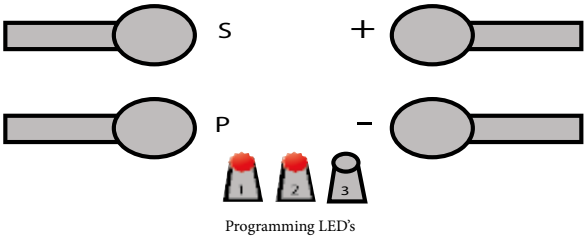
Alarm ON  
Alarm OFF

If the alarm is ON and auto time close function is OFF, the alarm will sound when the door has been left in the fully open position for more than 10 minutes.

It will then beep for 30 seconds every 10 minutes until the door is closed.



# Programming Reversing Force



## Force Reverse Programming (default set to level 2)

1. Press P for 5 seconds, LED 1, 2 & 3 will illuminate, courtesy light goes out
2. Press + 4 times, LED 1 & 3 will flash
3. Press + to check the current force setting level.
4. Press + or - to toggle up and down between force level 1 and 2.
5. Press P to save the force level setting (courtesy light will illuminate)

LED Status	Meaning
LED 1 Flashes once every 3 seconds	Level 1 More sensitive
LED 1 Flashes twice every 3 seconds	Level 2 More powerful

Note: Both these two forces meet the very latest EU norms for Force. After setting the force, the door should be operated for one full cycle open and close before testing.

## **WARNING: This menu should only be used by trained professional Installers** **Force reversing Programming (Professional installers ONLY).**

If the garage door will not fully close and the operator requires more force, at level 2 above, press and hold + for 2 seconds to achieve level 3, at level 3 press and hold + for level 4 and so on to the max force level 6 which is indicated by 6 LED1 flashes at 3 second intervals.

After force setting the door must complete a fully open and close cycle.

We advise that **ONLY** professional installers adjust the force level setting.

If a level above 2 is required we advise safety devices are fitted and that force level testing is carried out after the force is set.

# Programming 2000 Cycles Counter Alarm

## 2000 Cycles Maintenance Counter - Alarm (Default off)

Once the operator has reached 2,000 cycles, the built in alarm will sound and the courtesy light will flash. The alarm and lights will continue to flash until cancelled. This serves as a reminder to the user to carry out the annual maintenance inspection and service.

### To cancel the alarm do one of the following:

- 1. Press any button on the transmitter for 3 seconds
- 2. Press P button for 5 seconds (installer only)
- 3. Power operator off, then on.

### To activate or de-activate the cycle alarm:

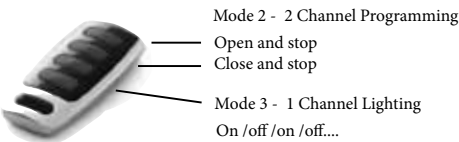
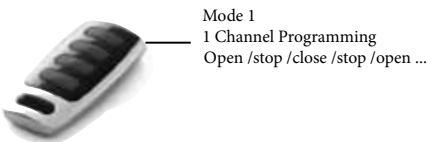
- 1. Press P button for 5 seconds, LED 1,2 & 3 are illuminated
- 2. Press + five times, LED 1, 2 & 3 flash
- 3. Press + to check the status of the alarm setting
- 4. Press + or - to toggle between alarm on or off.
- 5. Press P button to save the setting (courtesy light will illuminate)

LED Status	Meaning
LED1 Flashes once every 3 seconds	Alarm ON
LED 1 Flashes twice every 3 seconds	Alarm OFF

# Programming Transmitters - Max 40

Transmitters can be programmed to work the following way:

- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. Dynamic Mode - using 1 button | Open/Stop/Close/Stop/Open..... |
| 2. Open & Close Mode - 2 buttons | Open & Close                   |
| 3. Courtesy Light                | Light ON & OFF                 |



## Programming Transmitters...cont'd

### **Dynamic Mode: - Only 1 button can be programmed this way**

1. Hold S button for 2 seconds, LED1 illuminates
2. Press TWICE slowly the top or top left button on the transmitter, LED1 turns off and a beep is heard from the controller.

### **Open Mode:**

1. Hold S button for 2 seconds, LED1 illuminates
2. Press S button again, LED 2 illuminates
3. Press the button on your transmitter TWICE slowly LED2 turns off, beep from controller (this programmes the open button)

### **Close Mode:**

1. Hold S button for 2 seconds, LED1 illuminates
2. Press S button TWICE, LED 3 illuminates
3. Press the down button on your transmitter TWICE slowly LED 3 turns off, beep from controller (this programmes the close button)

### **Courtesy Light: Lights On and Off using a spare channel:**

1. Hold S button until LED 1 illuminates
2. Then press 3 more times the S button, LED1, 2 & 3 illuminate
3. Press the spare channel on the transmitter TWICE slowly, LED's turn off, beep from controller

**To exit programming mode, hold S button for 2 seconds, then press S button 4 times. Alternatively, leave for 10 seconds.**

## Deleting Transmitters

### **Deleting a single transmitters or ALL transmitters**

#### **How to delete ALL programmed transmitters**

1. Press & hold 'S' button for 8 seconds, the illuminated LED 1 turns off.

#### **How to delete a SINGLE programmed transmitter**

1. Press & hold S and P buttons together, LED's 3 will turn ON
2. Press any button on the programmed transmitter, LED 3 will turn OFF.
3. Release S and P buttons, the transmitter should be deleted.

# Notes

Terminals for the  
keyswitch are 4/5  
this is sequential  
operation