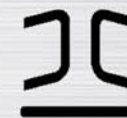


# Swing Gates

Your Complete Help Guide

**BENINCA**<sup>®</sup>  
TECHNOLOGY TO OPEN



2 Year Warranty

Local Technical Support

Italian Manufactured

Domestic & Commercial Models

*Automate Your Gate*

Proudly Supplied By



[www.aap.co.nz](http://www.aap.co.nz)



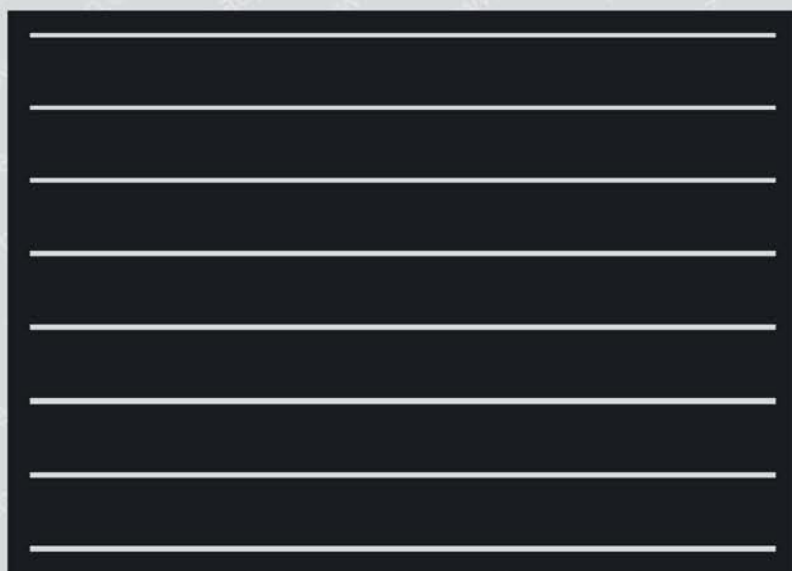


There are several things to consider when choosing the right swing gate motor for your specific gate (detailed below):

- How long is each gate or gates?
- Is the gate for domestic or commercial use?
- Does the gate have **closed panelling (table 1)** or **open bars (table 2)**? For example: **Open bar** gates may only require a smaller motor as there is not as much wind resistance
- What is the measurement from the motor side of the post to where the hinge is mounted (**table 3**)? **This is very important in choosing the correct motor for the gate**
- Is the gate standard swinging or rising hinge? For example: The motor will have to pull the gate up hill in rising hinge applications, therefore will require a more powerful motor

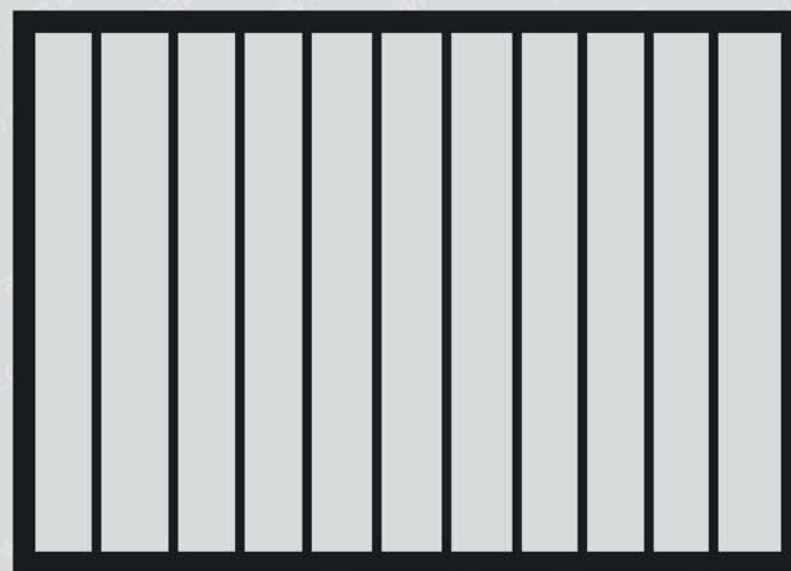
**Swing gate with closed panels (table 1)**

Requires uprated motor, while also considering gate length



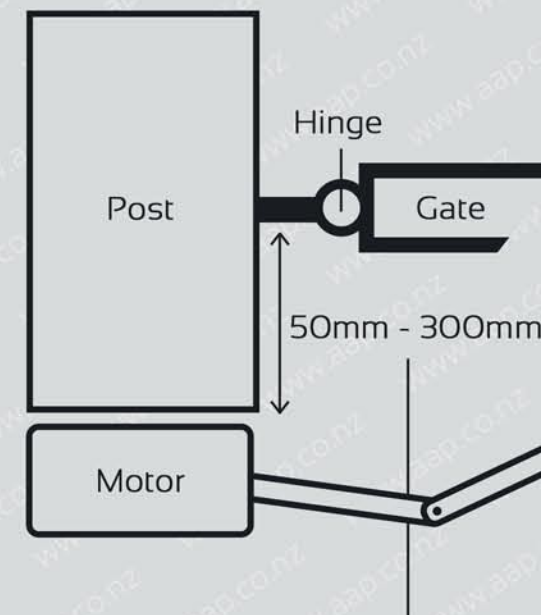
**Swing gate with open bars (table 2)**

Requires standard motor to suit gate length

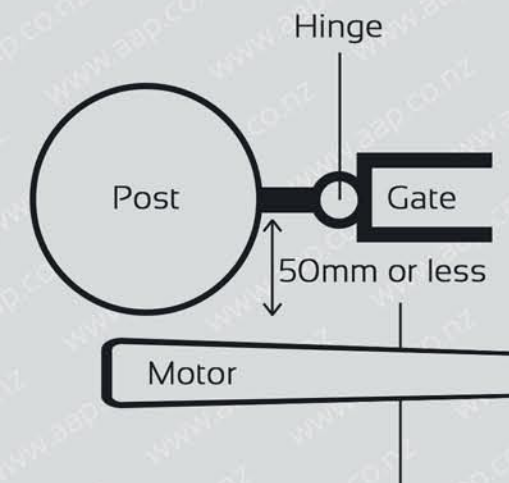


**Gate post - Birds eye view (table 3)**

This measurement will determine which type of motor needs to be used



This application requires an articulated arm actuator  
**B-PR45E24 Series**



This application requires a standard actuator  
**B-BOB Series**

After these questions are answered, see next page for further details on selecting the correct actuator

Optional Extras

A-PROBE KIT



Vehicle Detection Device

PW KEYPAD-XKI



Access Control Keypad

CPT KIT A8-W



Colour Video Intercom

DB-D10IS



IP Intercom

DB-D210IKV



IP Intercom With Keypad







**BOB Series - Open Bar Gates (low wind resistance)**



Gate Maximum Weight

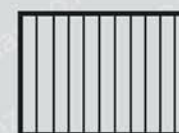
Gate Length	200 kg	250 kg	300 kg	350 kg	400 kg	450 kg	500 kg	600 kg	700 kg	800 kg
1,5 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M
1,8 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M
2,1 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M
2,5 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M
3 m	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	
3,5 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	B-BOB50M			
4 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	B-BOB50M				
4,5 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	B-BOB50M					
5 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	B-BOB50M						



BOB Series

See accessories on page 3 for bolt on brackets

**B-PR45E24 Series - Open Bar Gates (low wind resistance)**



Gate Maximum Weight

Gate Length	150 kg	200 kg	250 kg	280 kg	300 kg	350 kg	400 kg	500 kg	600 kg
1 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24
1,5 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24
1,8 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24
2,1 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	
2,5 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24		
3 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24			
3,5 m									
4 m									



B-PR45E24

Note: Articulated arm sold separately - Part number: B-DU.E2

**BOB & HD Series - Closed Panel Gates (high wind resistance)**



Gate Maximum Weight

Gate Length	200 kg	250 kg	300 kg	350 kg	400 kg	450 kg	500 kg	600 kg	700 kg	800 kg
1,5 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M
1,8 m	B-BOB3024 B-BOB30M	B-BOB3024 B-BOB30M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M
2,1 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M
2,5 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC
3 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M B-HD30AC	B-HD35AC B-BOB50M	B-HD35AC B-BOB50M	B-HD35AC	B-HD35AC	
3,5 m	B-BOB5024 B-BOB50M	B-BOB5024 B-BOB50M	B-BOB50M	B-BOB50M B-HD50AC	B-BOB50M B-HD50AC	B-BOB50M B-HD50AC	B-HD50AC			
4 m	B-BOB5024 B-BOB50M	B-BOB50M B-HD50AC	B-BOB50M B-HD50AC	B-BOB50M B-HD50AC	B-HD50AC	B-HD50AC				
4,5 m	B-BOB50M B-HD50AC	B-HD50AC	B-HD50AC	B-HD50AC	B-HD50AC					
5 m	B-HD50AC	B-HD50AC	B-HD50AC	B-HD50AC	B-HD50AC					



BOB Series

See accessories on page 3 for bolt on brackets



HD Series

**B-PR45E24 Series - Closed Panel Gates (high wind resistance)**



Gate Maximum Weight

Gate Length	150 kg	200 kg	250 kg	280 kg	300 kg	350 kg	400 kg	500 kg	600 kg
1 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24
1,5 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	
1,8 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24		
2,1 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24			
2,5 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24				
3 m	B-PR45E24	B-PR45E24	B-PR45E24	B-PR45E24					
3,5 m									
4 m									



B-PR45E24

Note: Articulated arm sold separately - Part number: B-DU.E2





**2 or 4 button remote for Beninca receivers**

B-TO.GO2VA or B-TO.GO4VA



**Car visor clip or wall mount for Beninca remotes**

B-TO.CLIP or B-SMART



**Safety beam set for swing or sliding gates**

B-PUPILLA.T



**Extension antenna for Beninca receivers**

B-ANT433



**Bolt on bracket for B-BOB30M or B-BOB3024**

B-BSR



**Bolt on bracket for B-BOB50M or B-BOB5024**

B-BSR50



**Universal hinge for driveway swing gates**

B-417.20



**Wireless access keypad for Beninca receivers**

B-BE.CODE



**Bolt down centre stop for double swing gates**

B-535.0



**Cement in centre stop for double swing gates**

B-530.0



**Bolt down open stop for swing or sliding gates**

B-247.2



**Standalone Beninca receiver. Allows you to use the same remote for your gate & garage door**

B-ONE.2WB



A-PROBE KIT



Vehicle Detection Device

PW KEYPAD-XKI



Access Control Keypad

CPT KIT A8-W



Colour Video Intercom

DB-D10IS



IP Intercom

DB-D210IKV



IP Intercom With Keypad





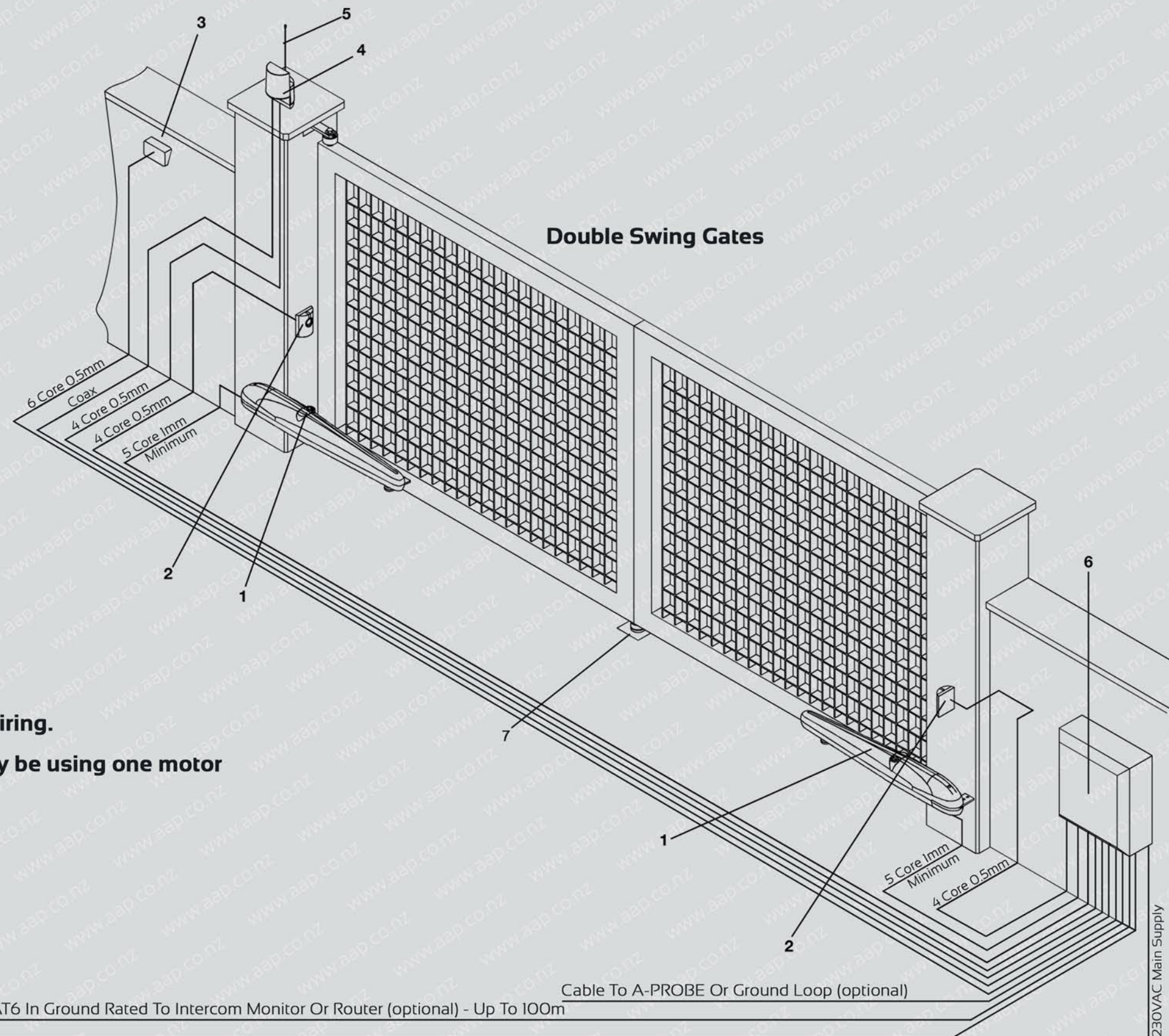


**Cable Schematic**

- 1 - Motors - **B-BOB3024** or **B-BOB5024** or **B-PR45E24**
- 2 - Safety Beams - **B-PUPILLA.T**  
Recommended height 600-700mm
- 3 - Access Control Keypad - **CPT-DHI6A-IOT (optional)**  
Recommended height 1500mm
- 4 - Flashing Light - **B-IRI.LAMP (optional)**
- 5 - Extension Antenna - **B-ANT433 (optional)**
- 6 - Control Box - **B-BRAINY24**
- 7 - Centre Stop - **B-535.O** or **B-530.O**

**Note:**

**Single swing gates use the exact same hardware and wiring.**  
**The controller stays the same, even though you will only be using one motor**



CAT6 In Ground Rated To Alarm Panel For Control & Monitoring (optional)

CAT6 In Ground Rated To Intercom Monitor Or Router (optional) - Up To 100m

Cable To A-PROBE Or Ground Loop (optional)

230VAC Main Supply

- We recommend using gel filled or direct burial cable for all gate & intercom applications, even when installed in conduit

- Motor geometry is very important with swing gates. Make sure you have the right motor for the application before mounting. See the following pages for detailed mounting specifications

- An extension antenna is not normally required, however if your motor is mounted behind concrete, stone or steel it will drastically increase range. Also use if the site has frequency interference

- The B-ONE.2WB stand alone receiver can be added to the automatic garage door. This will allow control of the gate & garage door from one remote







**Cable Schematic**

- 1 - Motors - **B-BOB30M** or **B-BOB50M** or **B-HD35AC** or **B-HD50AC**
- 2 - Safety Beams - **B-PUPILLA.T**  
Recommended height 600-700mm
- 3 - Access Control Keypad - **CPT-DHI6A-IOT (optional)**  
Recommended height 1500mm
- 4 - Flashing Light - **B-IRI.LAMP (optional)**
- 5 - Extension Antenna - **B-ANT433 (optional)**
- 6 - Control Box - **B-BRAINY230** or **B-HEADY**
- 7 - Centre Stop - **B-535.0** or **B-530.0**

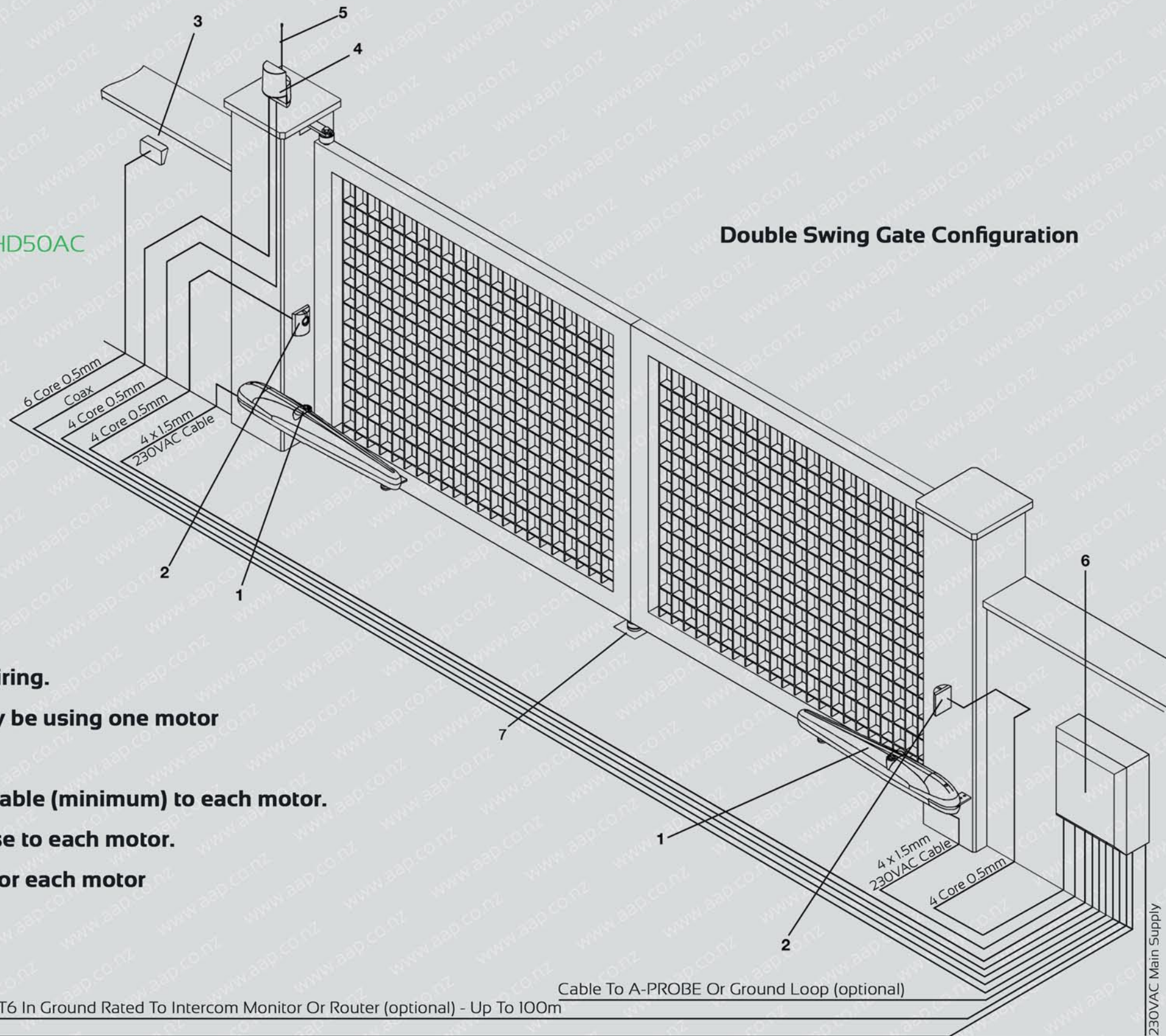
**Note:**

**Single swing gates use the exact same hardware and wiring.**  
**The controller stays the same, even though you will only be using one motor**

**230VAC motors require a 4 core 1.5mm 230VAC rated cable (minimum) to each motor.**

**This is for 'Earth', 'Common', 'Phase open' & 'Phase close to each motor.**

**The start capacitor wires between the two phase wires for each motor**



**Double Swing Gate Configuration**

- We recommend using gel filled or direct burial cable for all gate & intercom applications, even when installed in conduit

- Motor geometry is very important with swing gates. Make sure you have the right motor for the application before mounting. See the following pages for detailed mounting specifications

- An extension antenna is not normally required, however if your motor is mounted behind concrete, stone or steel it will drastically increase range. Also use if the site has frequency interference

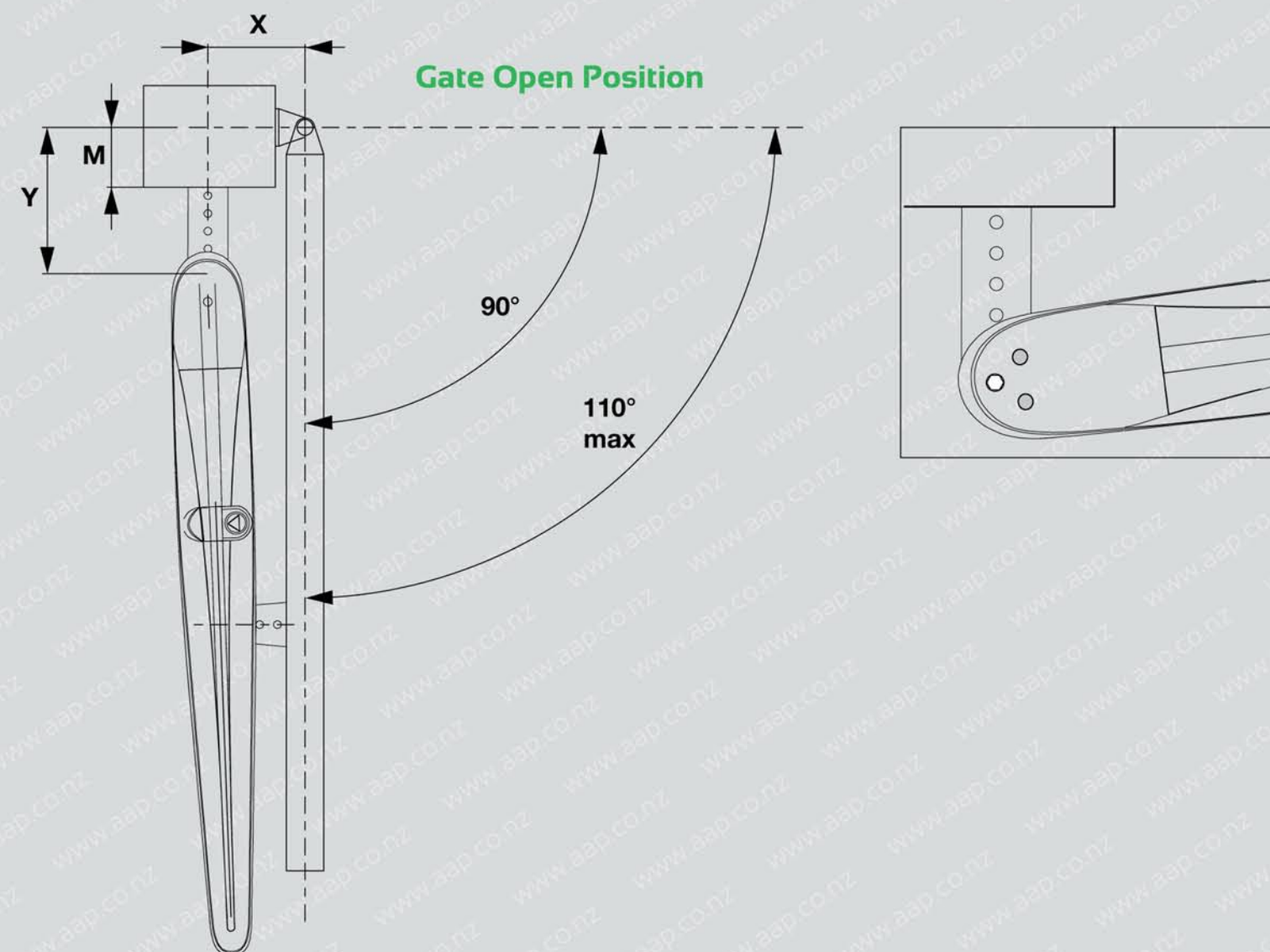
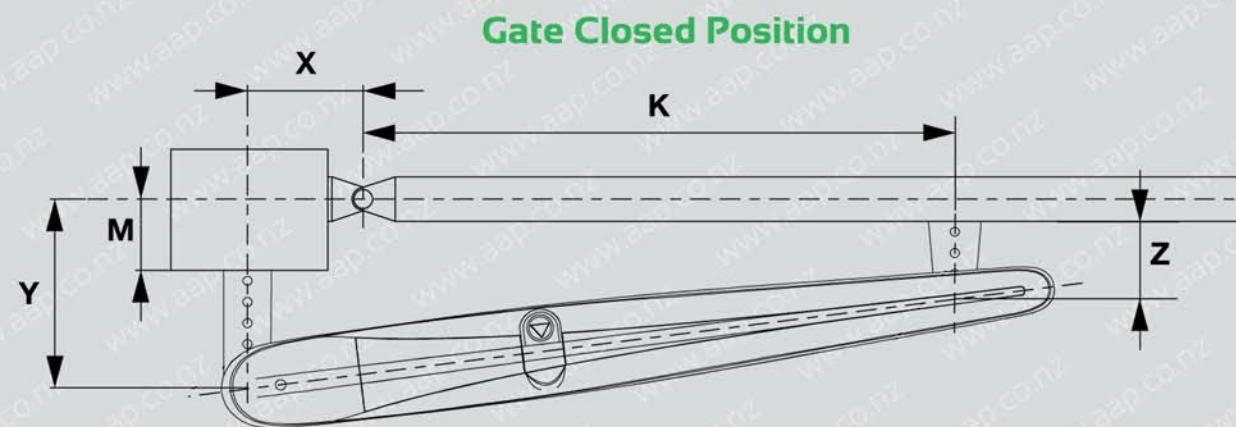
- The B-ONE.2WB stand alone receiver can be added to the automatic garage door. This will allow control of the gate & garage door from one remote





**Motor Mounting Geometry Table:**

Opening degree using the relative X, Y, Z, K, M measurements	X	Y	Z	K	M* max.	Opening time to 90° using the relative X, Y, Z, K, M measurements
110°	115	105	80	545	50	13 <sub>sec</sub>
100°	120	120	80	540	70	14 <sub>sec</sub>
90°	135	135	80	525	80	19 <sub>sec</sub>



See diagram (right of page) and reference from this table for accurate mounting geometry.

Because every application is different, you will need to choose the degree of opening that best suits your post diameter and hinge mounting position

- Motor geometry is very important with swing gates. Before mounting, make sure you have the right motor for the application by checking the 'Motor Mounting Geometry Table' above

- We recommend mounting the back bracket to the post first (as per the X, Y measurements). We then recommend fixing the front bracket with a 'G Clamp', unlocking the motor gear box, then opening and closing the gate. This will let you know if the geometry is going to work before you make holes in the gate.

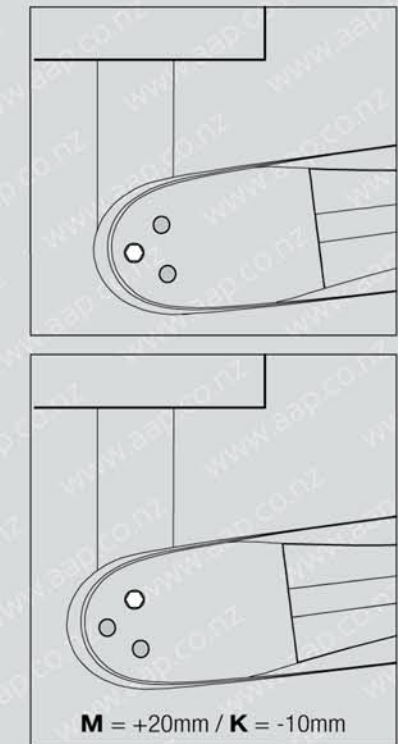
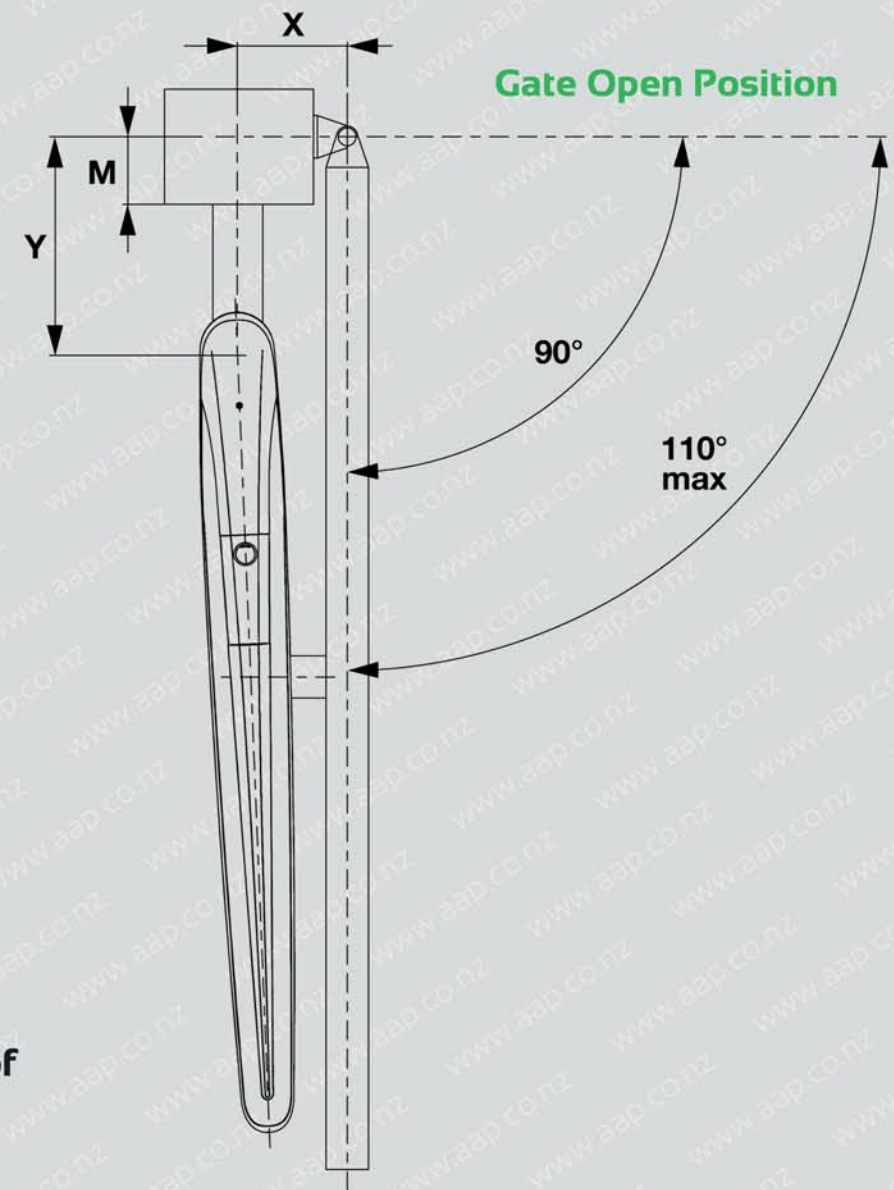
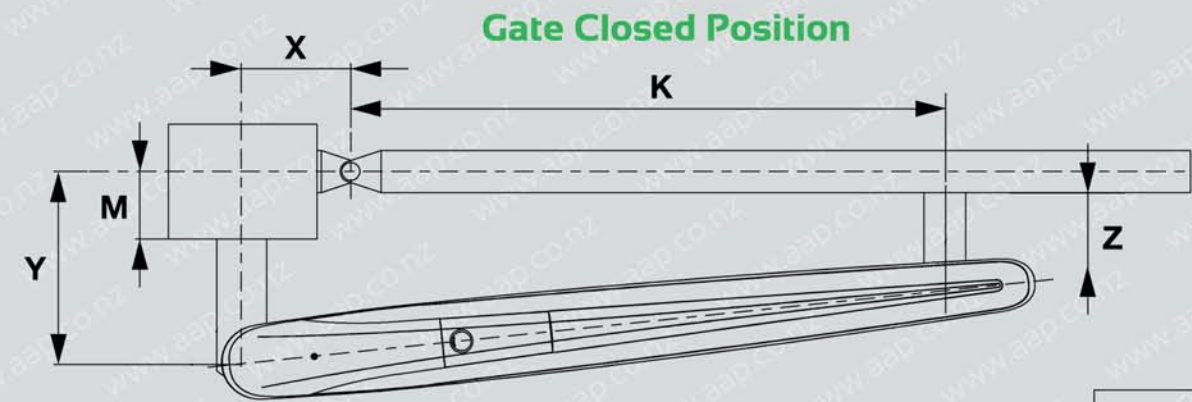
If the geometry is wrong you will get binding, or the gate will not open or close to the required degree





**Motor Mounting Geometry Table:**

Opening degree using the relative X, Y, Z, K, M measurements	X	Y	Z	K	M* max.	Opening time to 90° using the relative X, Y, Z, K, M measurements
90°	150	150	75	695	90	25 <sub>sec</sub>
90°	225	225	130	625	155	38 <sub>sec</sub>
100°	200	200	110	650	130	34 <sub>sec</sub>
110°	175	175	90	680	110	30 <sub>sec</sub>



See diagram (right of page) and reference from this table for accurate mounting geometry.

Because every application is different, you will need to choose the degree of opening that best suits your post diameter and hinge mounting position

- Motor geometry is very important with swing gates. Before mounting, make sure you have the right motor for the application by checking the 'Motor Mounting Geometry Table' above

- We recommend mounting the back bracket to the post first (as per the X, Y measurements). We then recommend fixing the front bracket with a 'G Clamp', unlocking the motor gear box, then opening and closing the gate. This will let you know if the geometry is going to work before you make holes in the gate.

If the geometry is wrong you will get binding, or the gate will not open or close to the required degree

\* Consigliabile l'utilizzo di elettroserratura  
\* Wir empfehlen den Einsatz eines Elektroschlosses  
\* Aconsejado el empleo de la cerradura eléctrica  
\* Zaleca się zainstalowanie zamka elektrycznego



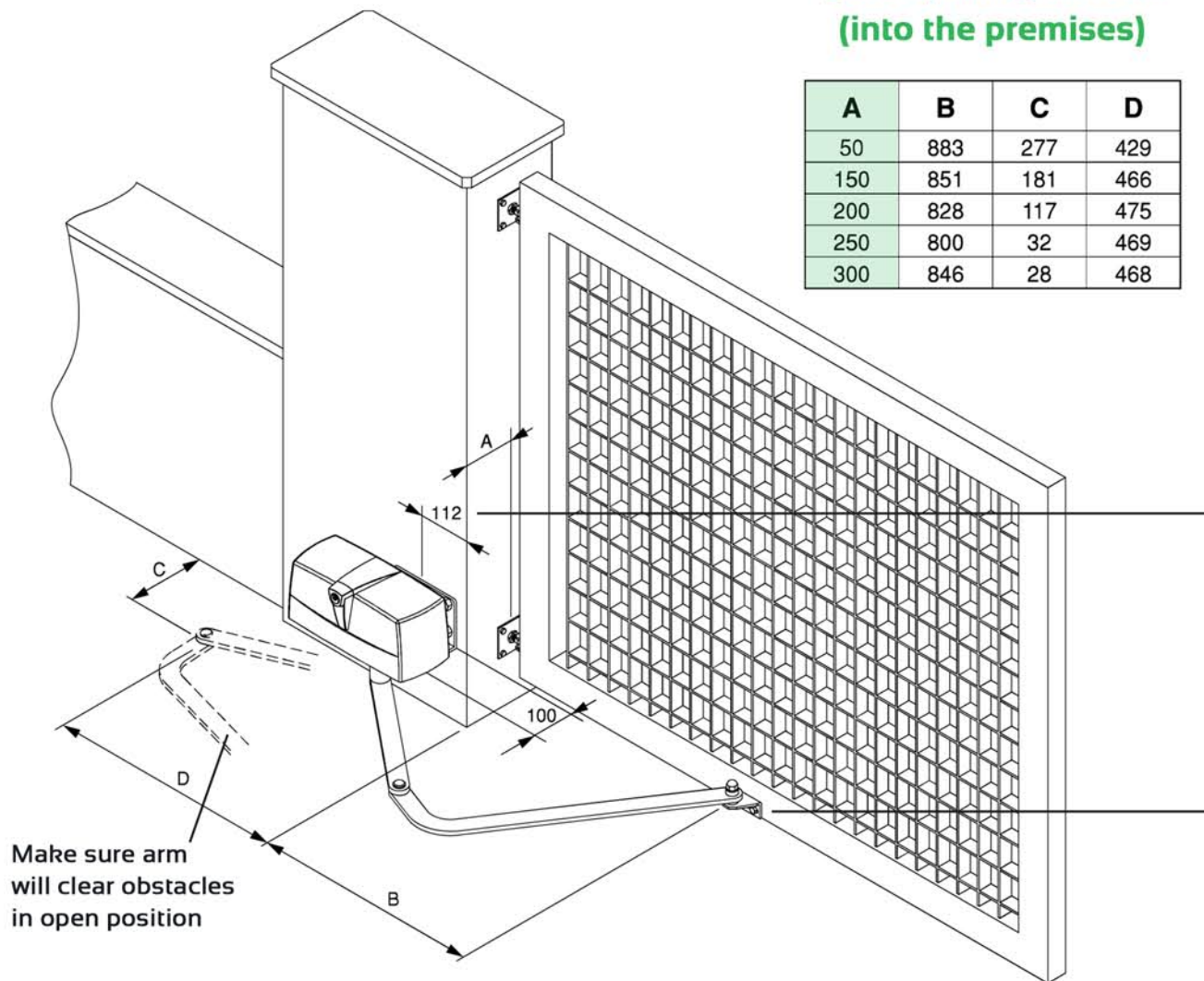


### Motor Mounting Geometry

Mount the motor and arm as per the A, B, C, D measurements from the diagrams below. The 'A' measurement (hinge mounting position) will determine the B, C, D measurements you will be required to use

**Measurements & diagram for gate opening inward (into the premises)**

A	B	C	D
50	883	277	429
150	851	181	466
200	828	117	475
250	800	32	469
300	846	28	468



**Measurements & diagram for gate opening outward (towards the street)**

A	B	C	D
50	688	390	154
100	651	453	137
150	606	503	135
200	550	553	138

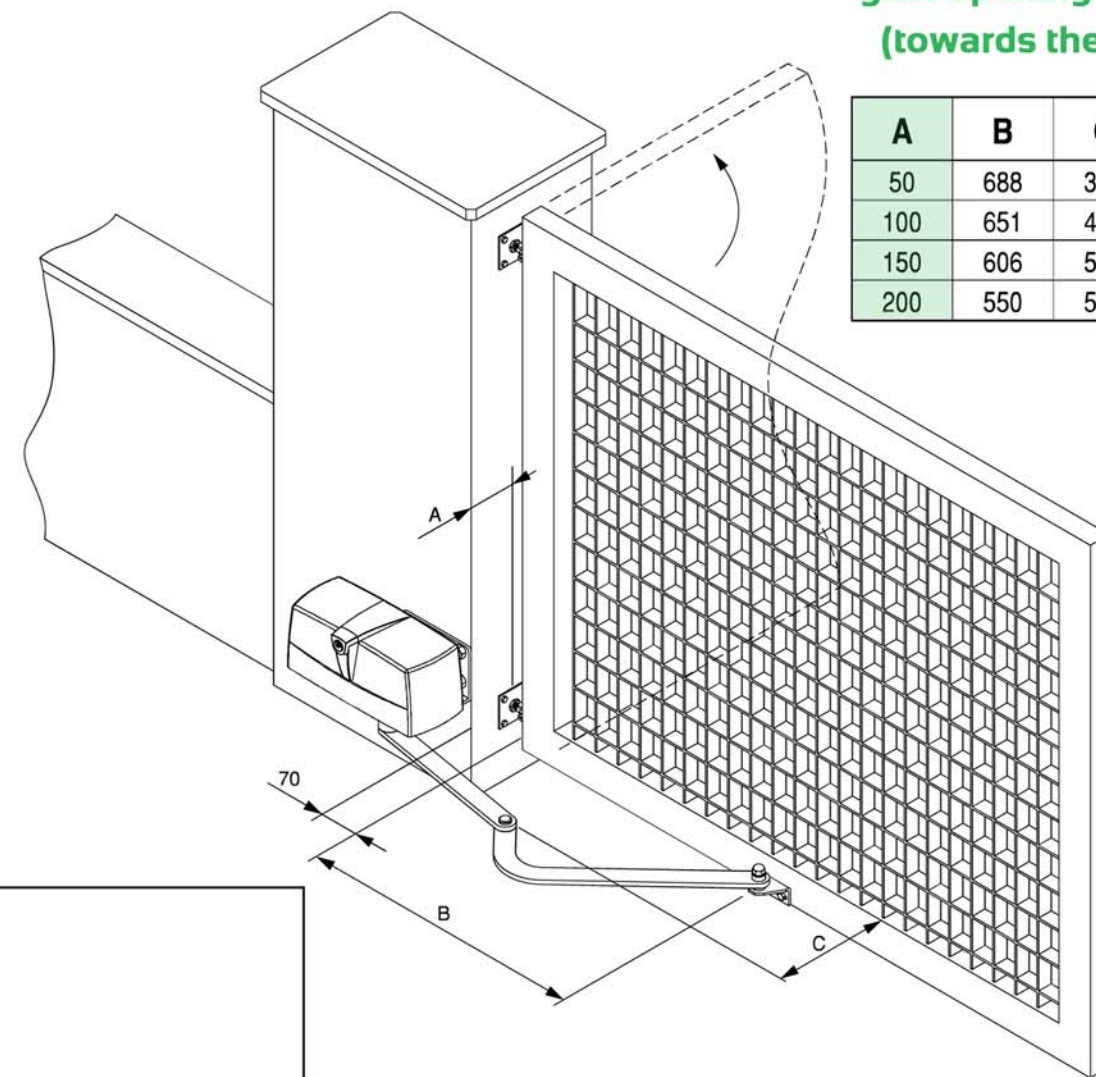


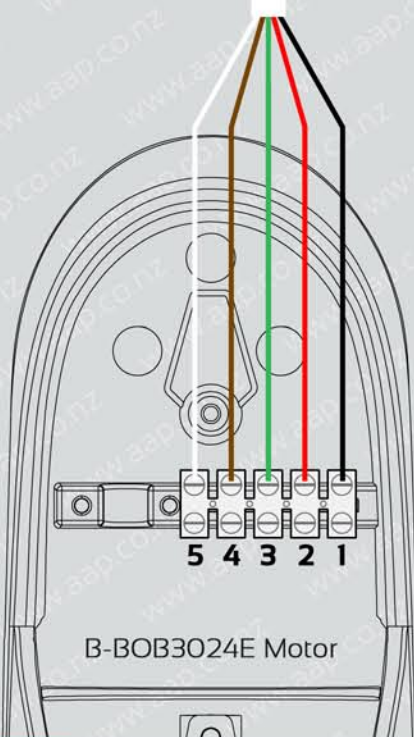
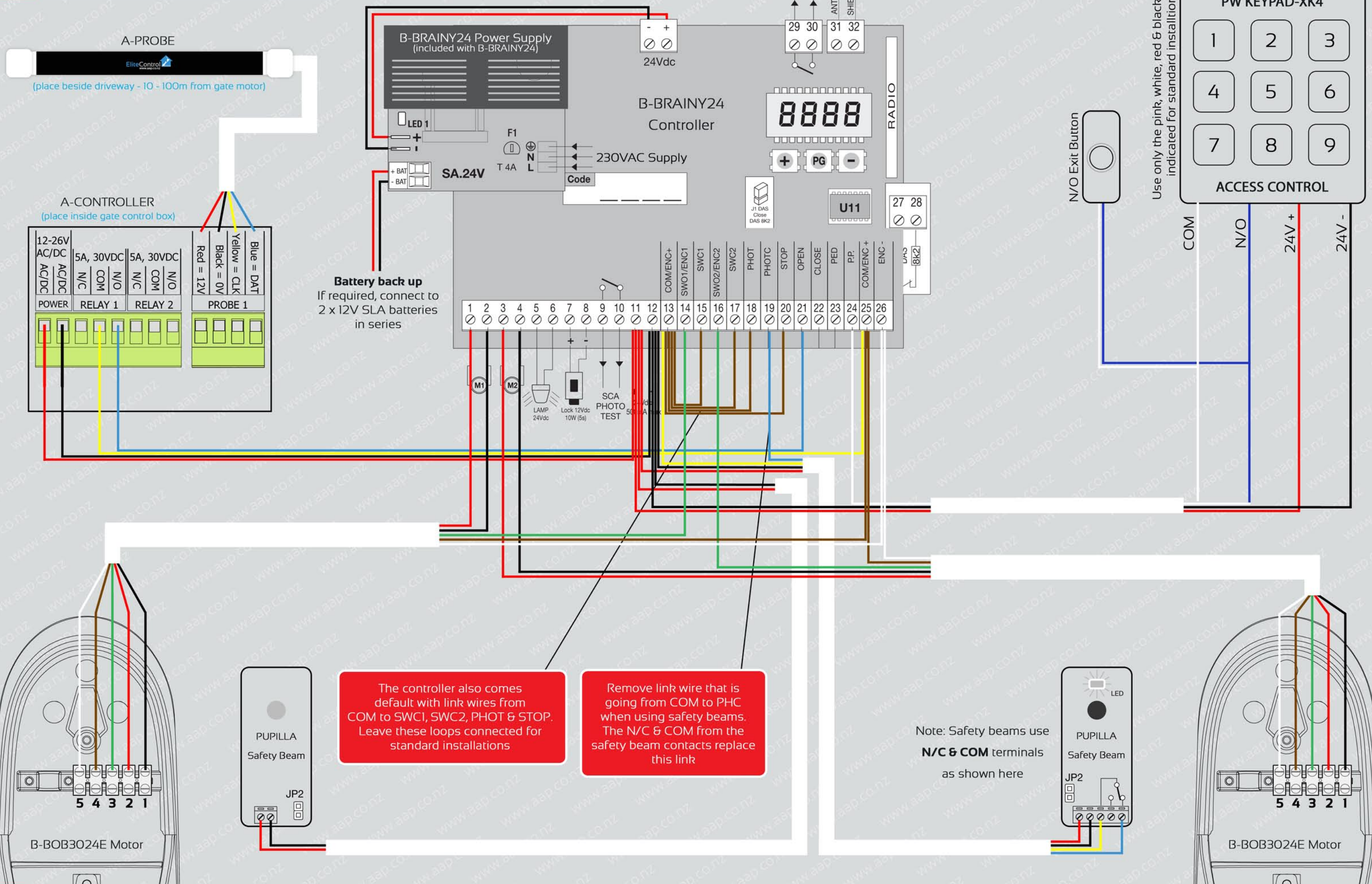
Fig.7

- Articulated arm motors are the least fussy when it comes to geometry, however you still need to make sure you have the right motor for the application by checking the geometry table above

- We recommend mounting the motor bracket to the post first (as per the 112mm measurement and at the correct height so the arm lines up with the middle of your bottom gate rail).

We then recommend fixing the arm to the gate with a 'G Clamp', unlocking the motor gear box, then opening and closing the gate. This will let you know if the geometry is going to work before you make holes in the gate.



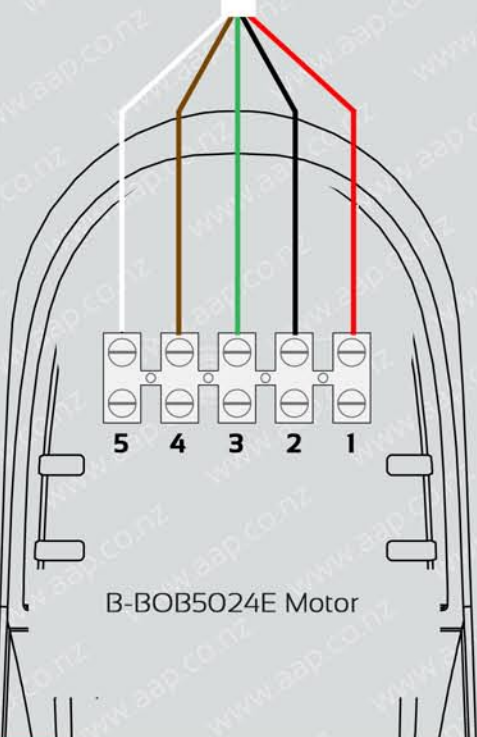
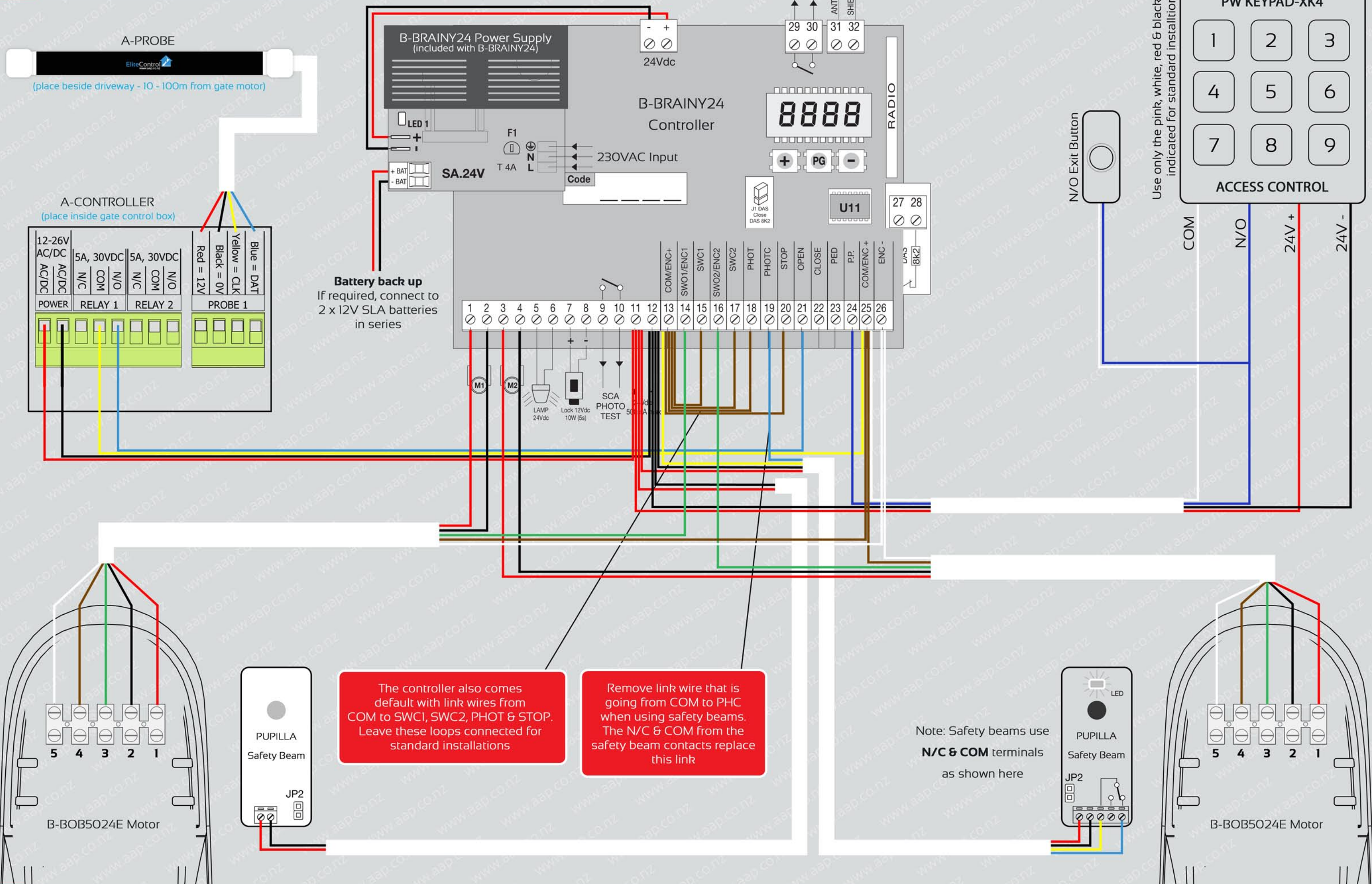


The controller also comes default with link wires from COM to SWC1, SWC2, PHOT & STOP. Leave these loops connected for standard installations

Remove link wire that is going from COM to PHC when using safety beams. The N/C & COM from the safety beam contacts replace this link







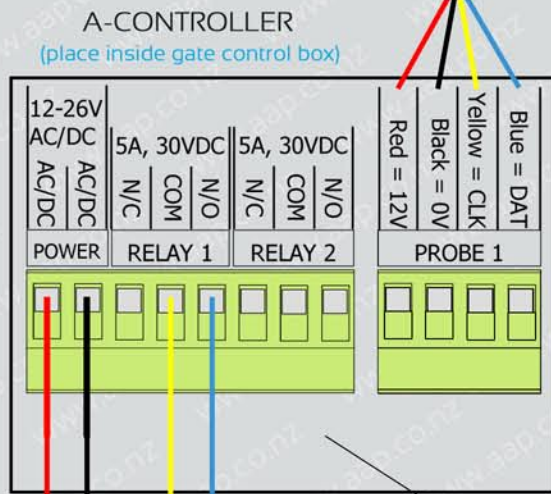
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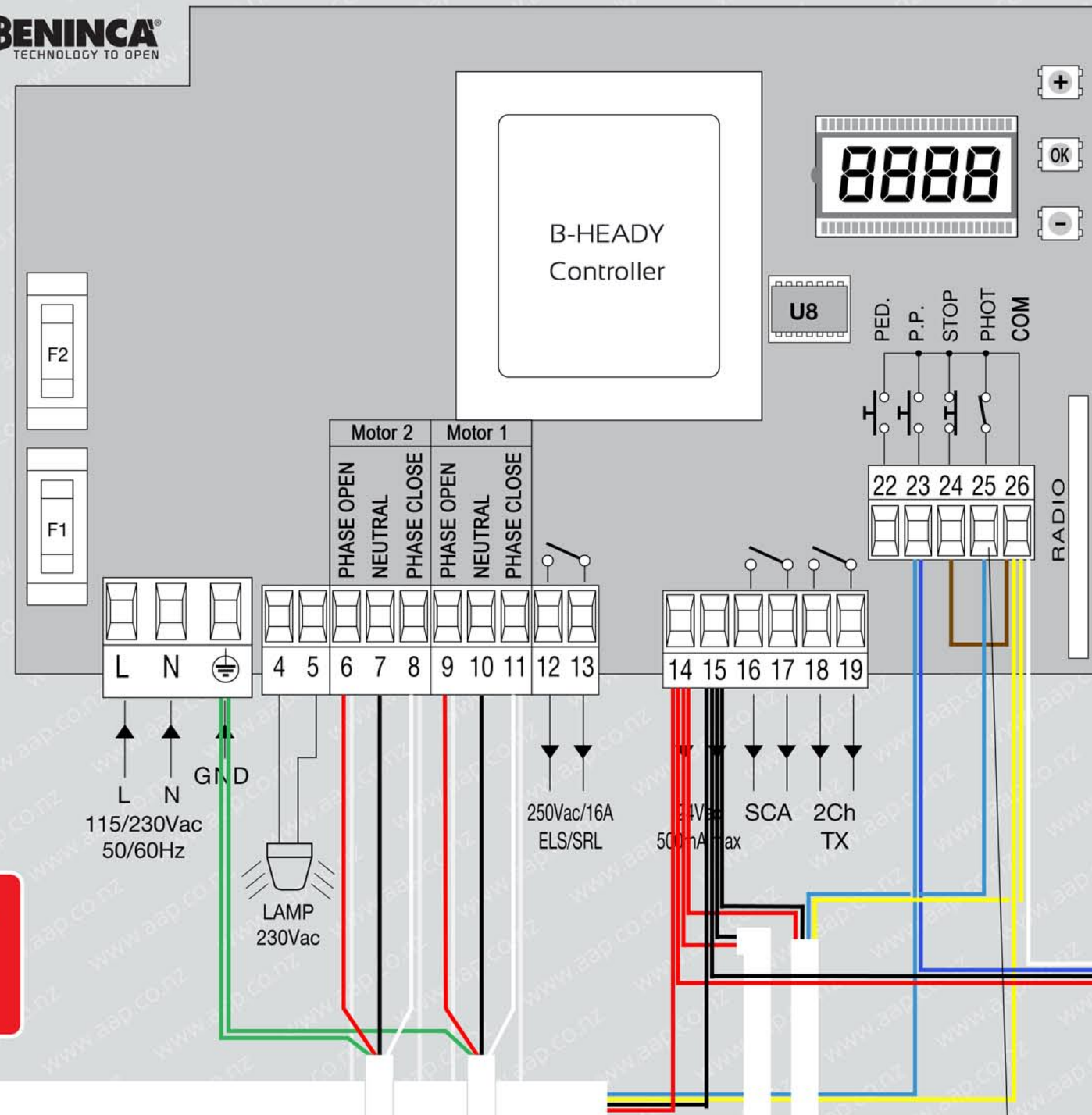


Note: Safety beams use **N/C & COM** terminals as shown here

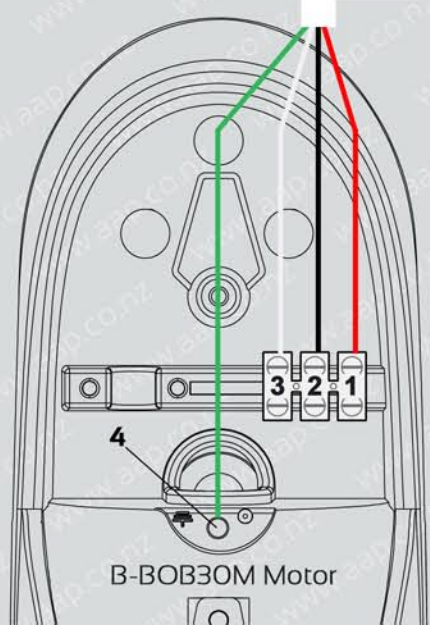
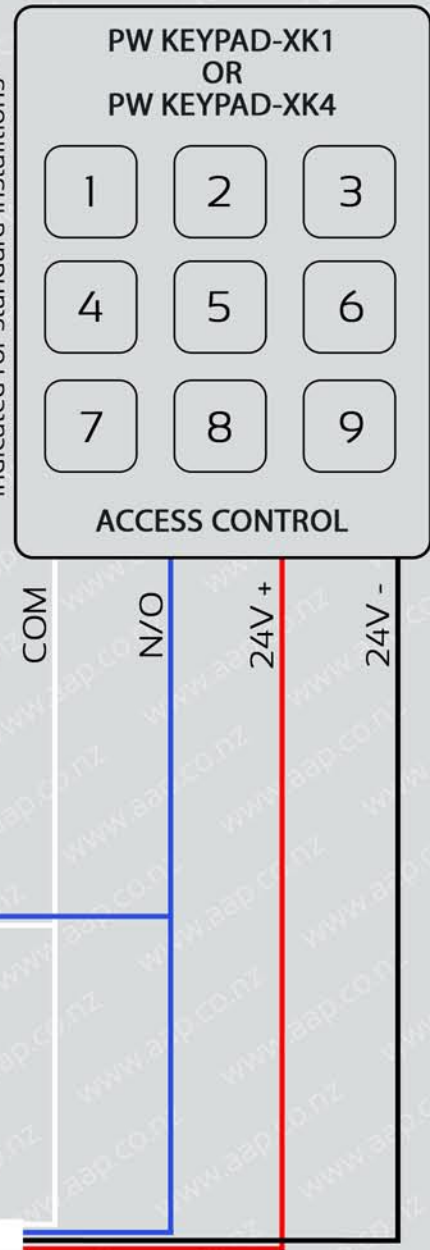




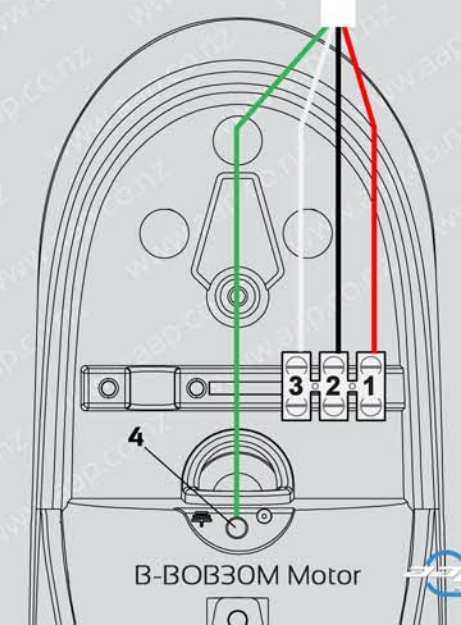
If you are using a probe or exit loop you will need to change the P.P input to an OPEN input in programming. See page ?



Use only the pink, white, red & black wires indicated for standard installations

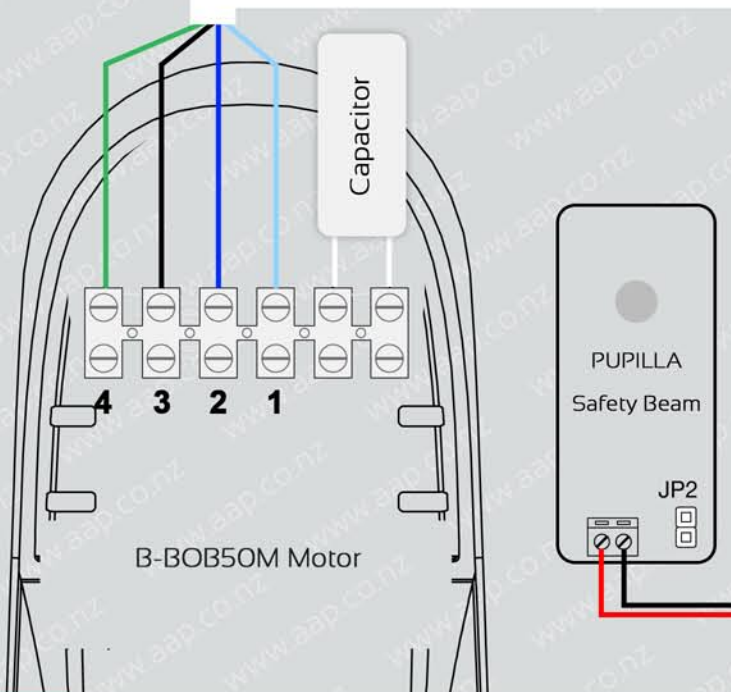
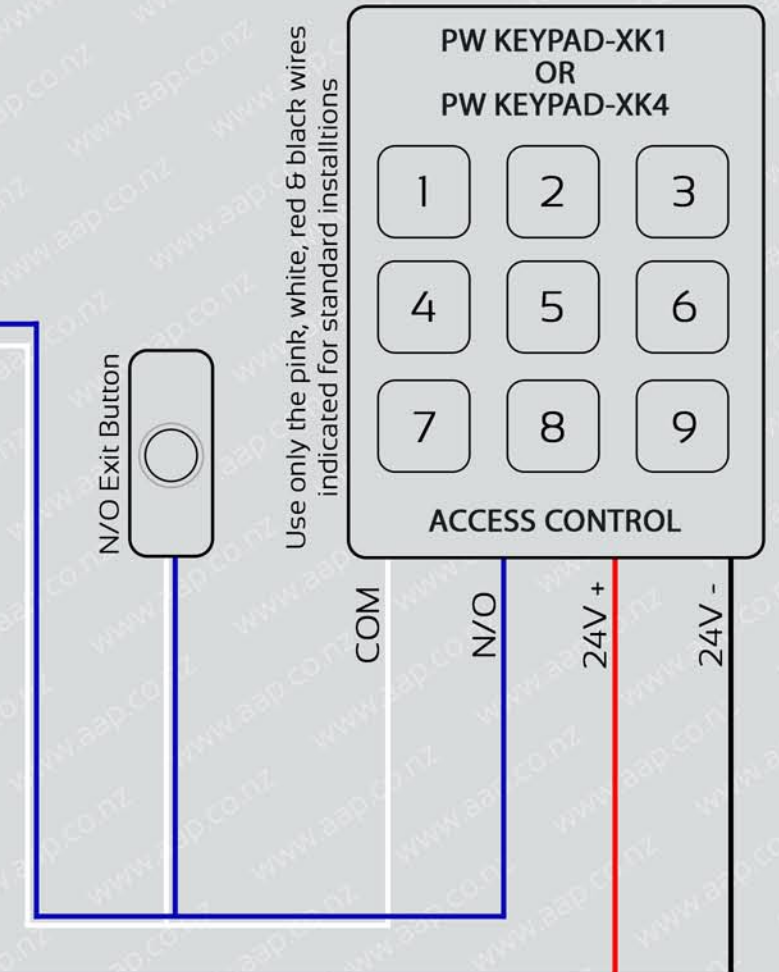
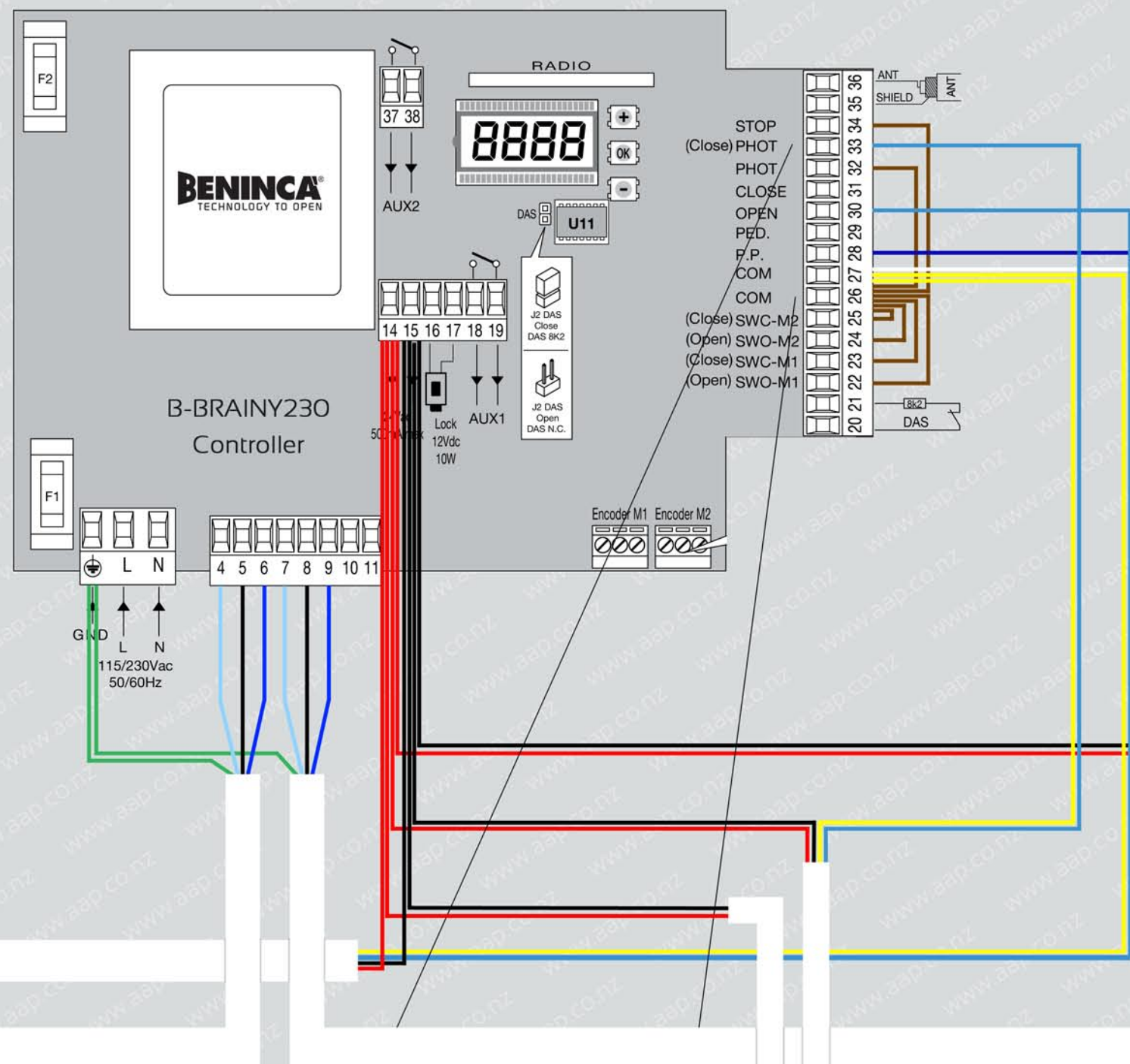
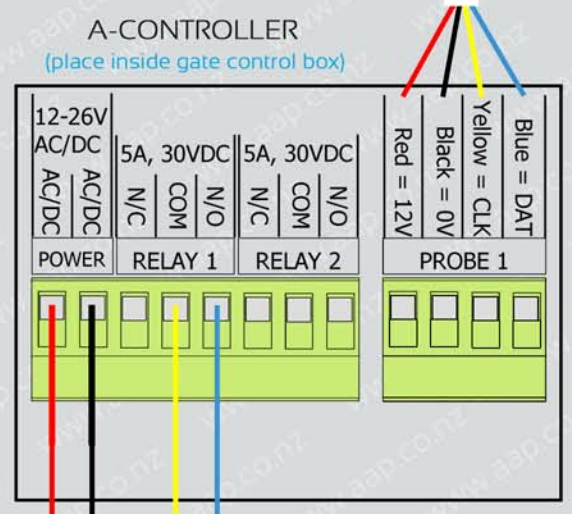


Remove link wire that is going from COM to PHOT when using safety beams. The N/C & COM from the safety beam contacts replace this link



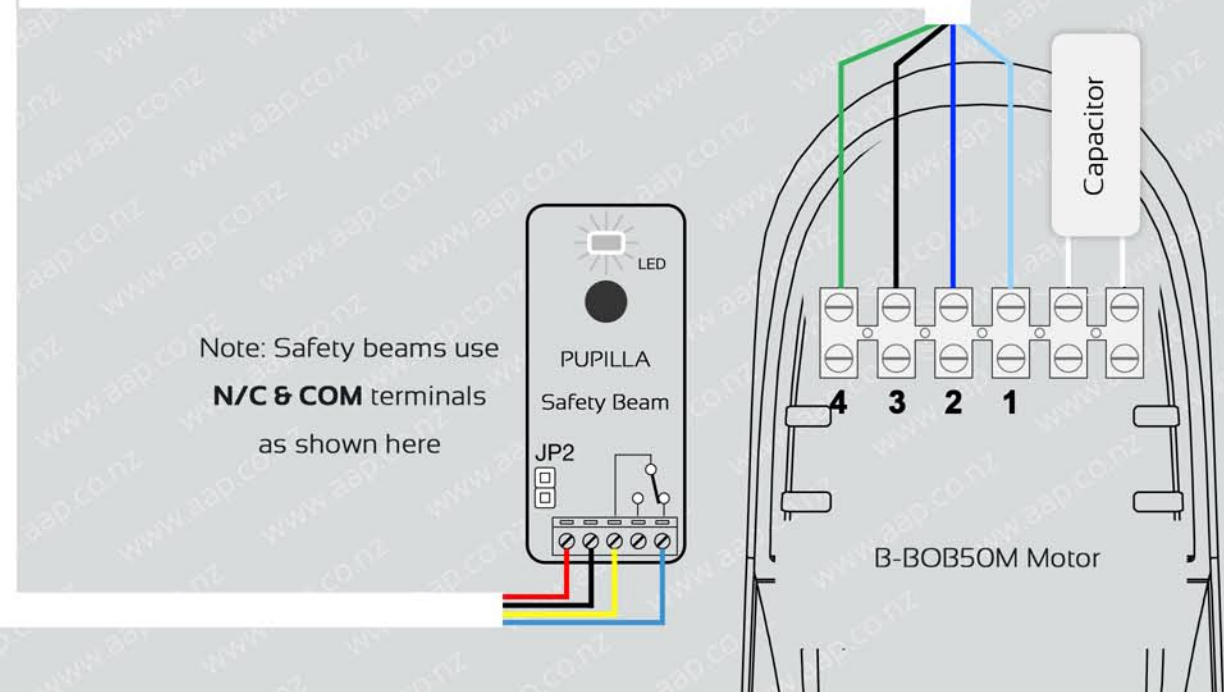
Note: Safety beams use N/C & COM terminals as shown here





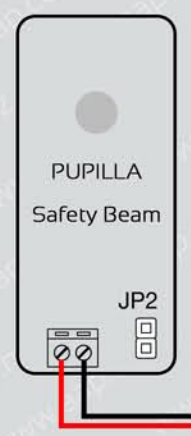
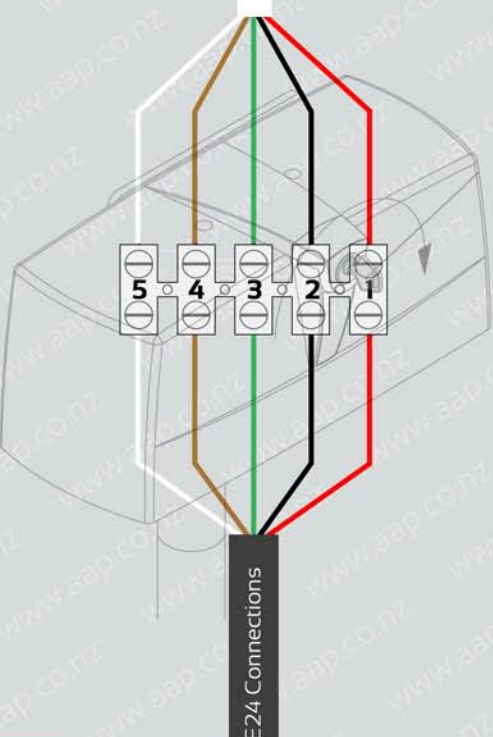
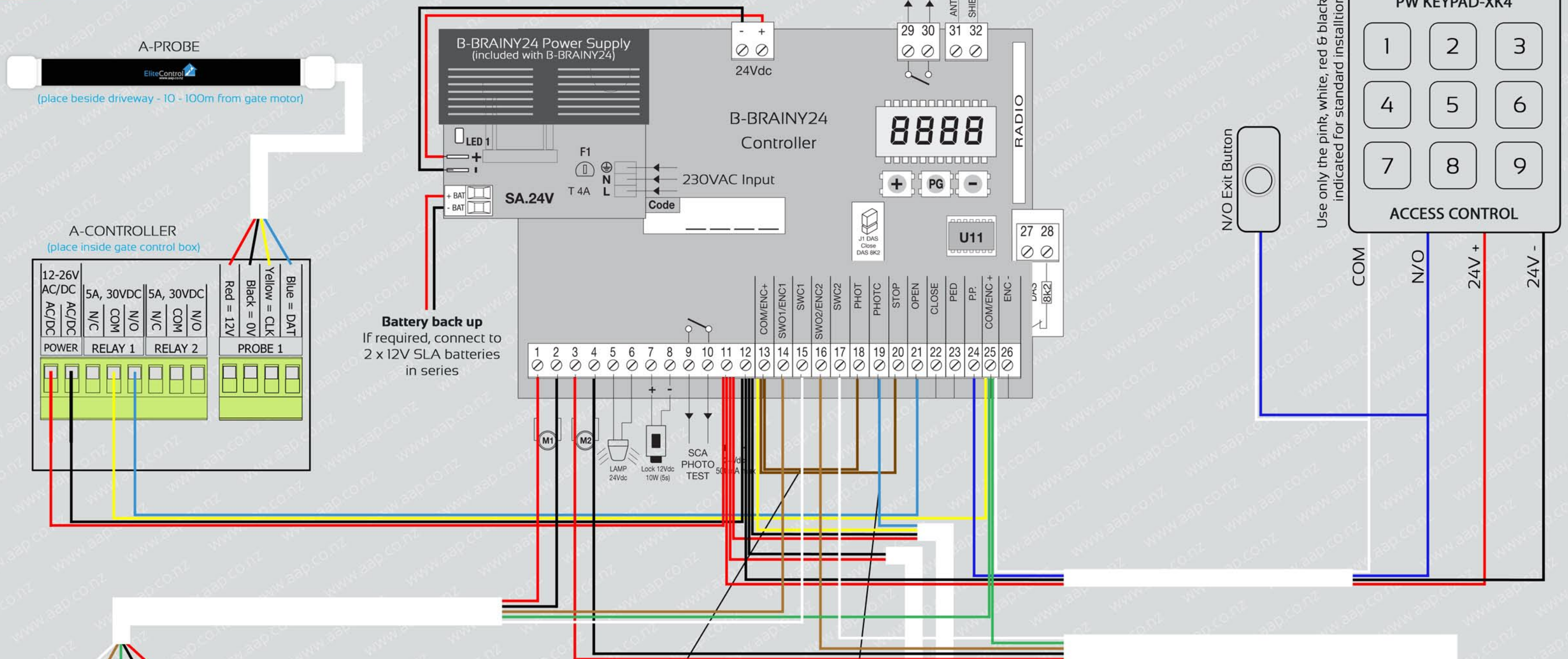
Remove link wire that is going from COM to PHC when using safety beams. The N/C & COM from the safety beam contacts replace this link

The controller also comes default with link wires from COM to SWO, SWC, PHOT & STOP. Leave these loops connected for standard installations



**Helpful Hint:** A red LED on one of the safety beams will be constantly on if powered & aligned correctly. Once the beam is broken the red LED should turn off

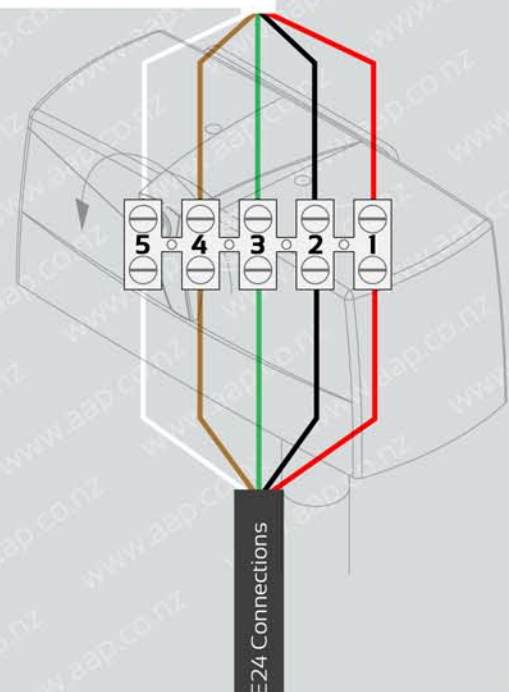
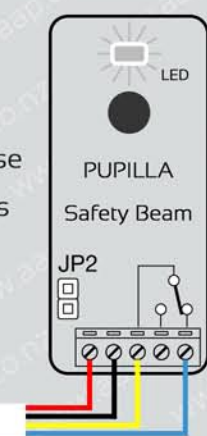




The controller also comes default with link wires from COM to PHOT & STOP. Leave these loops connected for standard installations

Remove link wire that is going from COM to PHC when using safety beams. The N/C & COM from the safety beam contacts replace this link

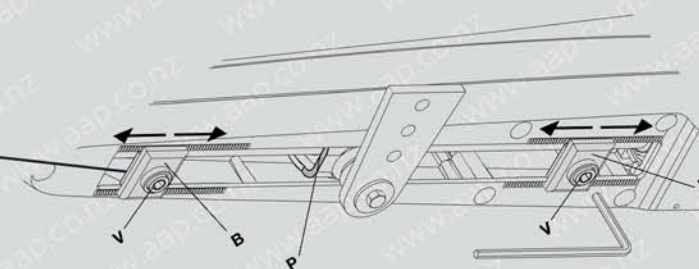
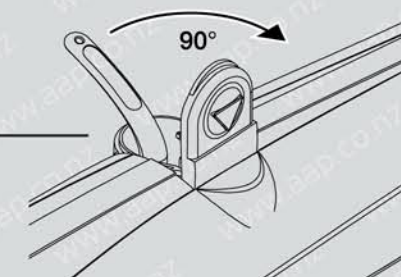
Note: Safety beams use **N/C & COM** terminals as shown here





## Pre Programming Hardware Set Up

- Before you start programming it is best to unlock the motor gear box and push the gate/gates through their full stroke. There should be little to no jerking or binding if the geometry is set correctly as per page 6 of the complete help guide. Unlock lever shown here: \_\_\_\_\_
- Use an allen key to adjust the mechanical stops on the bottom of the motor to suit the maximum open & close positions. See 'V' & 'B' here: \_\_\_\_\_



## Fault finding before you program (See more ERROR messages in full manual on page 16)

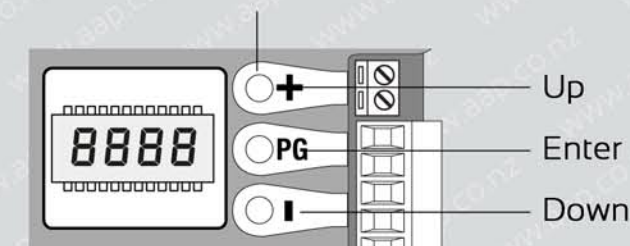
- The controller display is designed to tell you what is wrong if something hasn't been wired correctly. You should have no vertical or horizontal 'dashes' on the display before you start programming. If there are dashes present, make sure your connections have a closed circuit to common relating to the vertical dashes and an open circuit relating to any of the horizontal dashes shown here:



**Remember:** Leave the brown link wires connected unless you are using the input for a device. I.e. Safety beam, keypad etc

All **Beninca** products stocked by **Arrowhead Alarm Products** contain a digital display for simple programming

- There are three main menus which are accessed using the +, -, and 'PG' buttons. PG is used as an 'Enter' button, + & - are used for scrolling through the menus shown here:
- Press the + & - together at the same time to take you back to the previous menu and repeat to return to the home screen or 'operating screen'



## The main programming categories are as follows:

- **PAR** - Adjusting automatic closing time, motor operating time & torque
- **LOG** - Turning functions on/off, changing between 1 motor or 2 motor operation & changing controller input functions
- **RADI** - Learning wireless remotes &/or keypads
- **RES** - Restoring factory defaults. Note: This will not delete remotes from the system. To delete remotes, enter the RADI menu, scroll to cLr (to delete one remote) or rtr (to clear everything in the receiver) and push the PG button twice. See RADI section in the full manual for full details on how to delete remotes

**You are now ready to program, see next page for instructions**



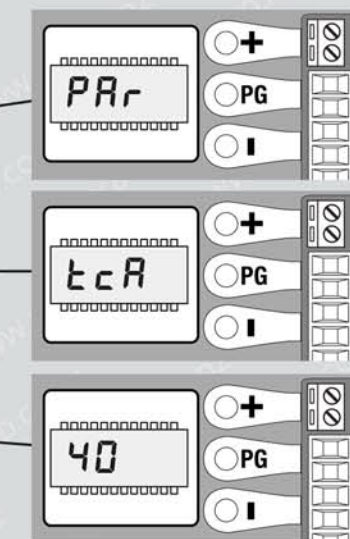
### Motor Operating Time

The operating time of the motor/motors relates to the geometry you have chosen in the geometry table on page 6 of the complete help guide (13sec, 14sec or 19sec) You are required to set the motor operating time to be around 2-4 seconds more than the time it takes for the gate to open or close. The motors will stall on the mechanical stops but still appear to be running. This is normal & opening/closing times will vary between gates so adjust accordingly

- Set the gate/gates to their closed position using the mechanical override shown on the previous page before you move to the next step
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr. Press the PG button again to enter the PAr menu and scroll using the + or - button until the display reads tN1. Press the PG button again to enter the motor 1 time parameter (tN1), adjust accordingly and press the PG button to confirm. Repeat using tN2 if you are using 2 motors

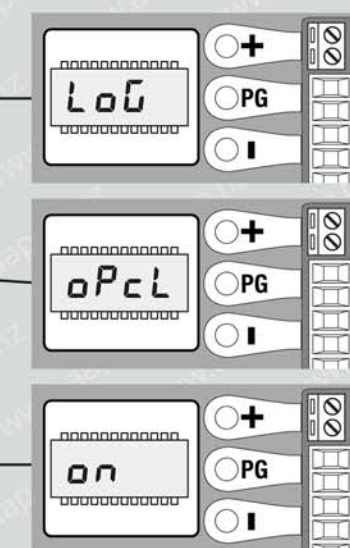
### Changing Auto Close Time (By default autoclose is set to on and 40 seconds) Turning autoclose off is found in the LOG menu under tcA

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr
- Press the PG button again to enter the PAr menu and the display should read tcA (this is the parameter for auto close time)
- Press the PG button again to enter the tcA menu and the display should read the tcA time (default 40 seconds). Now press the + or - button to change auto close to the desired time, followed by the PG button to confirm. Press the + & - together several times to return to the home screen



### Changing P.P Input To Open Input - This is required when using loop detectors or exit probes to automatically open the gate when a vehicle is exiting the premises

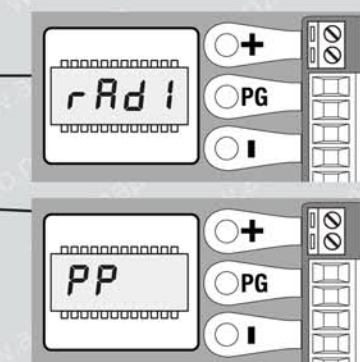
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads LoG as follows:
- Press the PG button to enter the LoG menu, then use the + or - buttons to scroll to oPcL. This is where the P.P input is changed to open & PED input is changed to closed
- Press the PG button again to enter the oPcL menu and use the + or - button to turn this function ON or OFF. On means the P.P input is a dedicated open and OFF is the standard setting, similar to garage door functionality. Press the PG button to confirm your selection, then press the + or - buttons together several times to return to the home screen





### Learning Remotes

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads rAd l
- Press the PG button to enter the rAd l menu and the display should read PP
- Push the PG button again and the display should read PUSH. Now push the remote button you wish to learn and the display should read OK. Repeat to learn more remotes or press the + & - together several times to return to the home screen



### Remote Protocols

AAP mostly only stock the green/yellow button remotes shown here:



B-TO.GO2VA or B-TO.GO4VA

These remotes can be changed between multiple protocols. The receiver can only learn one of these protocols at a time. I.e. All remotes in the receiver have to be the same protocol.

The receiver learns the protocol of the first remote that is learnt and all others that follow must be the same protocol

To view the protocol of the remotes simply hold down 2 buttons at the same time and keep holding. The red LED will flash 2, 3, or 4 times to indicate which protocol the remote is currently in

To change the protocol, keep holding the 2 buttons together until the red LED becomes constant and then release the buttons

Hold down 2 buttons again to view the new protocol & repeat this process on all remotes until they all have the same amount of flashes.

### Clearing The Receiver

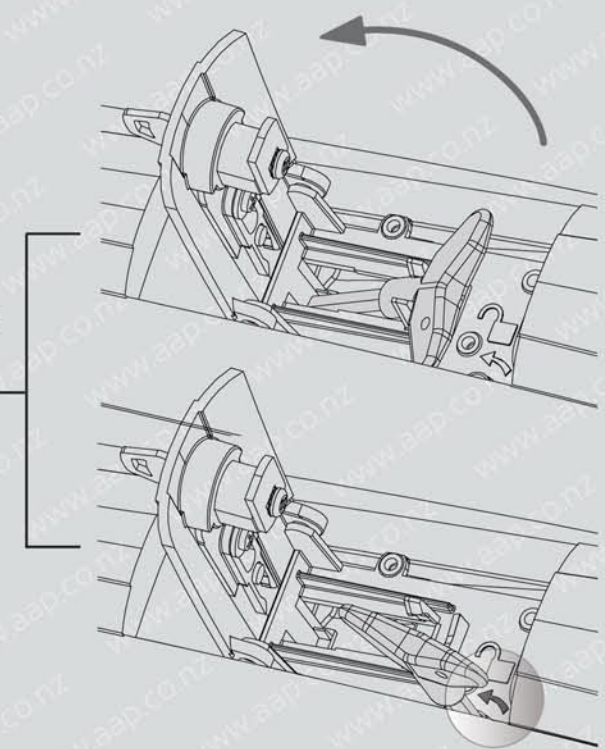
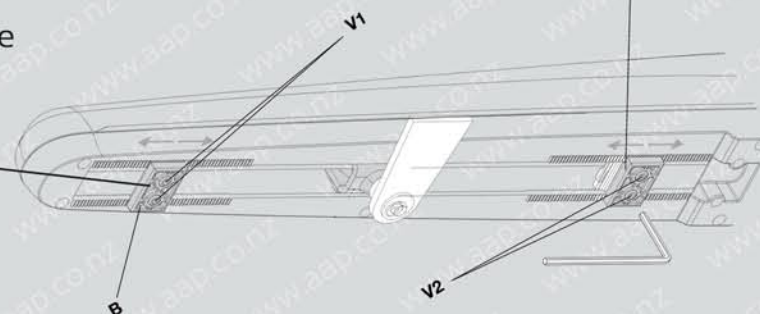
- From the home screen press the PG button then scroll using the + or - button until the display reads rAdl. Press the PG button to enter the rAdl menu, then scroll using the + or - button until the display reads rtr.
- Now press the PG button twice and the receiver memory is erased
- Press the + or - buttons together at the same time multiple times to return to the home or operating screen

**The HEADY controller comes with the full manual. Follow the same procedure as detailed above to change any of the functions and features the product has to offer. Don't be afraid of making a mistake as you can always use the rES (reset) option in the first menu to return the system to default settings**



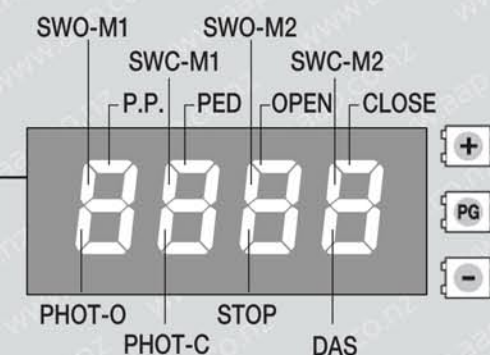
**Pre Programming Hardware Set Up**

- Before you start programming it is best to unlock the motor gear box and push the gate/gates through their full stroke. There should be little to no jerking or binding if the geometry is set correctly as per page 7 of the complete help guide. Unlock lever shown here:
- Use an allen key to adjust the mechanical stops on the bottom of the motor to suit the maximum open & close positions. See 'V' & 'B' here:



**Fault finding before you program (See more ERROR messages in full manual on page 19)**

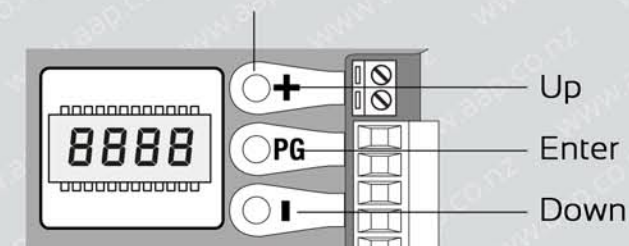
- The controller display is designed to tell you what is wrong if something hasn't been wired correctly. You should have no vertical or horizontal 'dashes' on the display before you start programming. If there are dashes present, make sure your connections have a closed circuit to common relating to the vertical dashes and an open circuit relating to any of the horizontal dashes shown here:



**Remember:** Leave the brown link wires connected unless you are using the input for a device. I.e. Safety beam, keypad, limit switch etc

All **Beninca** products stocked by **Arrowhead Alarm Products** contain a digital display for simple programming

- There are three main menus which are accessed using the +, -, and 'PG' buttons. PG is used as an 'Enter' button, + & - are used for scrolling through the menus shown here:
- Press the + & - together at the same time to take you back to the previous menu and repeat to return to the home screen or 'operating screen'



**The main programming categories are as follows:**

- **PAR** - Adjusting automatic closing time, motor operating time & torque
- **LOG** - Turning functions on/off, changing between 1 motor or 2 motor operation & changing controller input functions
- **RADI** - Learning wireless remotes &/or keypads
- **RES** - Restoring factory defaults. Note: This will not delete remotes from the system. To delete remotes, enter the RADI menu, scroll to cLr (to delete one remote) or rtr (to clear everything in the receiver) and push the PG button twice. See RADI section in the full manual for full details on how to delete remotes

**You are now ready to program, see next page for instructions**



### Motor Operating Time

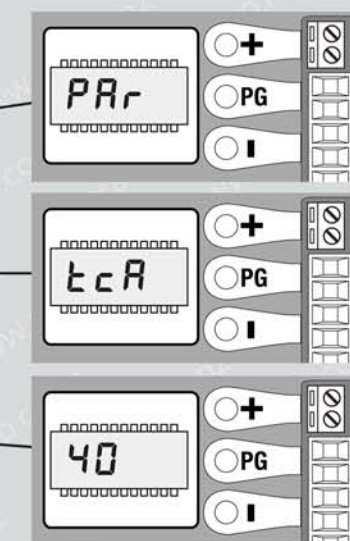
The operating time of the motor/motors relates to the geometry you have chosen in the geometry table on page 7 of the complete help guide (25sec, 30sec, 34sec or 38sec)

You are required to set the motor operating time to be around 2-4 seconds more than the time it takes for the gate to open or close. The BOB50M motors have built in 230V limit switches, so will stop themselves when they reach the end of their stroke.

- Set the gate/gates to their closed position using the mechanical override before you move to the next step
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr. Press the PG button again to enter the PAr menu and scroll using the + or - button until the display reads tNI. Press the PG button again to enter the motor 1 time parameter (tNI), adjust accordingly and press the PG button to confirm. Repeat using tN2 if you are using 2 motors

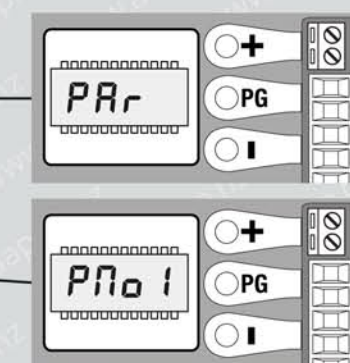
### Changing Auto Close Time (make sure autoclose (tcA) is on as per tcA in the LOG menu. tcA is on by default)

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr
- Press the PG button again to enter the PAr menu and the display should read tcA (this is the parameter for auto close time)
- Press the PG button again to enter the tcA menu and the display should read the tcA time (default 40 seconds). Now press the + or - button to change auto close to the desired time, followed by the PG button to confirm. Press the + & - together several times to return to the home screen



### Changing Motor Torque - BOB50M motors are normally used for heavy/long 'large domestic' or 'light commercial' gates. Raising the torque can be useful in these situations

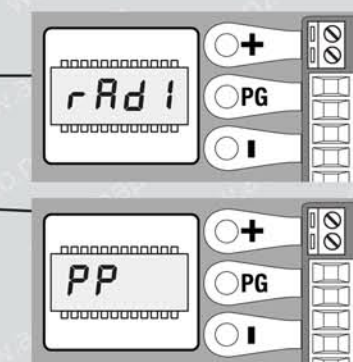
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr as follows:
- Press the PG button to enter the PAr menu, then use the + or - buttons to scroll to PNo 1. This is where the torque is changed for motor 1 in the opening phase
- Press the PG button again to enter the PNo1 menu and use the + or - button to raise or lower the torque from 1 to 100 percent, then press the PG button to confirm
- Repeat this process using PNc1 (motor 1 closing phase torque), PNo2 (motor 2 opening phase torque) & PNc2 (motor 2 closing phase torque) as required





### Learning Remotes

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads rAd l
- Press the PG button to enter the rAd l menu and the display should read PP
- Push the PG button again and the display should read PUSH. Now push the remote button you wish to learn and the display should read OK. Repeat to learn more remotes or press the + & - together several times to return to the home screen



### Remote Protocols

AAP mostly only stock the green/yellow button remotes shown here:



B-TO.GO2VA or B-TO.GO4VA

These remotes can be changed between multiple protocols. The receiver can only learn one of these protocols at a time. I.e. All remotes in the receiver have to be the same protocol.

The receiver learns the protocol of the first remote that is learnt and all others that follow must be the same protocol

To view the protocol of the remotes simply hold down 2 buttons at the same time and keep holding. The red LED will flash 2, 3, or 4 times to indicate which protocol the remote is currently in

To change the protocol, keep holding the 2 buttons together until the red LED becomes constant and then release the buttons

Hold down 2 buttons again to view the new protocol & repeat this process on all remotes until they all have the same amount of flashes.

### Clearing The Receiver

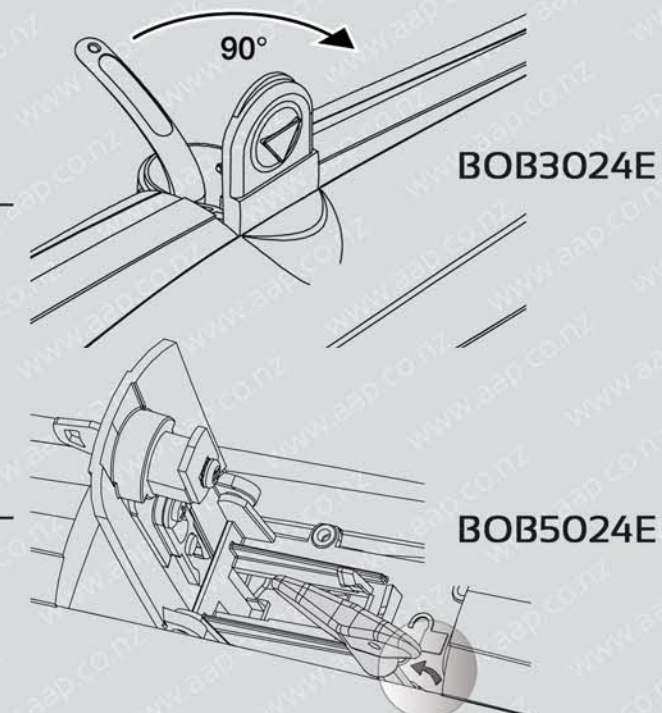
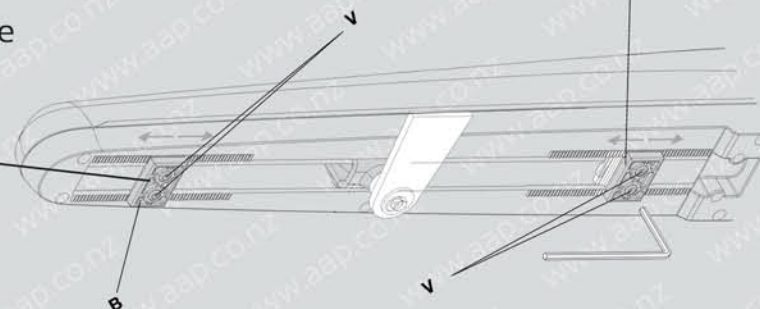
- Press PG button then scroll using the + or - button until the display reads rAdl. Press the PG button to enter the rAdl menu, then scroll using the + or - button until the display reads rtr.
- Now press the PG button twice and the receiver memory is erased
- Press the + or - buttons together at the same time multiple times to return to the home or operating screen

**The BRAINY230 controller comes with the full manual. Follow the same procedure as detailed above to change any of the functions and features the product has to offer. Don't be afraid of making a mistake as you can always use the rES (reset) option in the first menu to return the system to default settings**



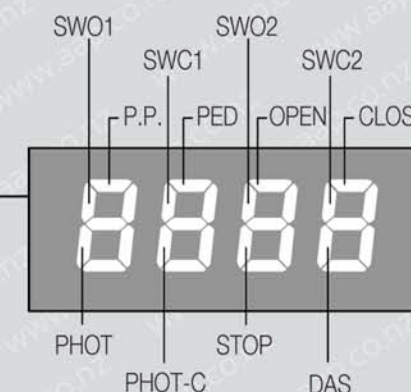
### Pre Programming Hardware Set Up

- Before you start programming it is best to unlock the motor gear box and push the gate/gates through their full stroke. There should be little to no jerking or binding if the geometry is set correctly as per page 6 & 7 of the complete help guide. Unlock lever shown here:
- Use an allen key to adjust the mechanical stops on the bottom of the motor to suit the maximum open & close positions. See 'V' & 'B' here:



### Fault finding before you program (See more ERROR messages in full manual on page 22)

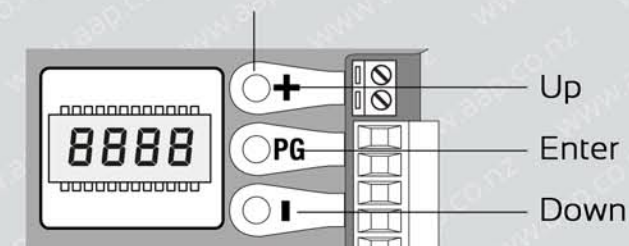
- The controller display is designed to tell you what is wrong if something hasn't been wired correctly. You should have no vertical or horizontal 'dashes' on the display before you start programming. If there are dashes present, make sure your connections have a closed circuit to common relating to the vertical dashes and an open circuit relating to any of the horizontal dashes shown here:



**Remember:** Leave the brown link wires connected unless you are using the input for a device. I.e. Safety beam, keypad, limit switch etc

All **Beninca** products stocked by **Arrowhead Alarm Products** contain a digital display for simple programming

- There are three main menus which are accessed using the +, -, and 'PG' buttons. PG is used as an 'Enter' button, + & - are used for scrolling through the menus shown here:
- Press the + & - together at the same time to take you back to the previous menu and repeat to return to the home screen or 'operating screen'



### The main programming categories are as follows:

- **PAR** - Adjusting automatic closing time, motor operating time & torque
- **LOG** - Turning functions on/off, changing between 1 motor or 2 motor operation & changing controller input functions
- **RADI** - Learning wireless remotes &/or keypads
- **AUTO** - Automatic set up of stroke, current sensing and more
- **RES** - Restoring factory defaults. Note: This will not delete remotes from the system. To delete remotes, enter the RADI menu, scroll to cLr (to delete one remote) or rtr (to clear everything in the receiver) and push the PG button twice. See RADI section in the full manual for full details on how to delete remotes



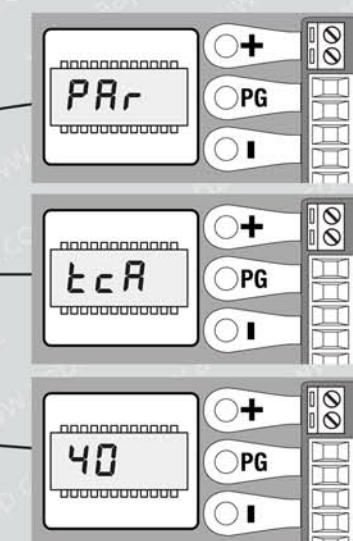
**Autoset Programming** (Default is for 2 motors. If you have only one motor see **'Single Motor Operation'** on the following page)

The BOB3024E & BOB5024E are equipped with a built in encoder. This is what allows an autoset up which is quick, easy and recommended

- Set the gate/gates to be in the middle of their stroke using the mechanical override lever shown on the previous page. I.e. Not in the open position and not in the closed position
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads 'Auto'. Press the PG button again to enter the 'Auto' menu and scroll using the + or - button until the display reads 'Enc'. Press the PG button again to start the auto learn process.
- Motor 1 will open, then motor 2 will open, followed by motor 1 closing and then motor 2 closing. When the auto learn is complete the controller will display 'OK'
- If the system does not complete the auto learn function correctly the controller will display a fault code shown on page 23 of the full manual

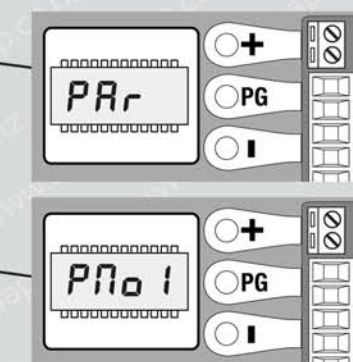
**Changing Auto Close Time** - (By default autoclose is set to on and 40 seconds) Turning autoclose off is found in the LOG menu under tcA

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr
- Press the PG button again to enter the PAr menu and the display should read tcA (this is the parameter for auto close time)
- Press the PG button again to enter the tcA menu and the display should read the tcA time (default 40 seconds). Now press the + or - button to change auto close to the desired time, followed by the PG button to confirm. Press the + & - together several times to return to the home screen



**Changing Amperometric Sensor (Anti Crash)** - This is useful if your gate has closed panelling or is in a windy area. In this case these parameters will need to be turned up

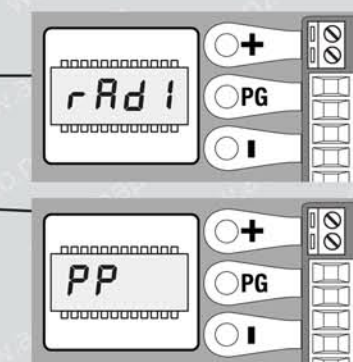
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr as follows:
- Press the PG button to enter the PAr menu, then use the + or - buttons to scroll to PNo 1. This is where the anti crash sensor is adjusted for motor 1 in the opening phase at normal speed
- Press the PG button again to enter the PNo1 menu and use the + or - button to raise or lower the anti crash sensor from 1 to 100 percent, then press the PG button to confirm
- Repeat this process using PNc1 (motor 1 closing phase), PNo2 (motor 2 opening phase) & PNc2 (motor 2 closing phase) as required
- Also repeat this process to adjust the anti crash sensor in the slow down phase. Use parameters PSo1, PSc1, PSo2 & PSc2 as required
- Press the + & - together several times to return to the home screen





### Learning Remotes

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads rAd I
- Press the PG button to enter the rAd I menu and the display should read PP
- Push the PG button again and the display should read PUSH. Now push the remote button you wish to learn and the display should read OK. Repeat to learn more remotes or press the + & - together several times to return to the home screen



### Remote Protocols

AAP mostly only stock the green/yellow button remotes shown here:



B-TO.GO2VA or B-TO.GO4VA

These remotes can be changed between multiple protocols. The receiver can only learn one of these protocols at a time. I.e. All remotes in the receiver have to be the same protocol.

The receiver learns the protocol of the first remote that is learnt and all others that follow must be the same protocol

To view the protocol of the remotes simply hold down 2 buttons at the same time and keep holding. The red LED will flash 2, 3, or 4 times to indicate which protocol the remote is currently in

To change the protocol, keep holding the 2 buttons together until the red LED becomes constant and then release the buttons

Hold down 2 buttons again to view the new protocol & repeat this process on all remotes until they all have the same amount of flashes.

### Clearing The Receiver

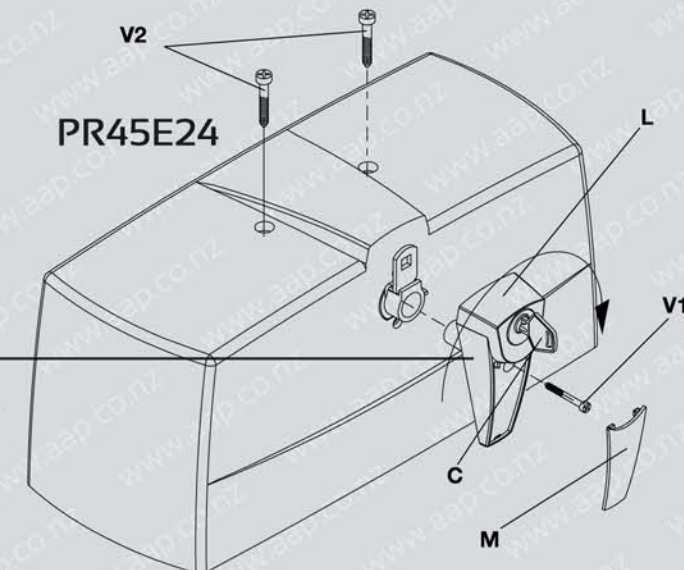
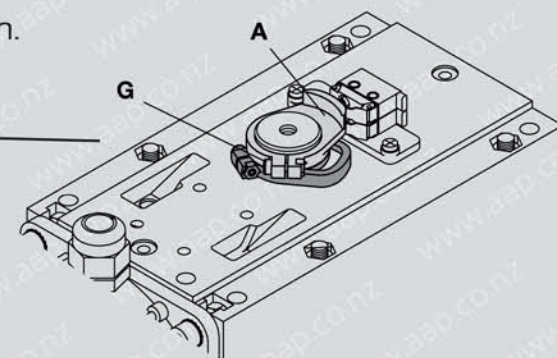
- Press PG button then scroll using the + or - button until the display reads rAdI. Press the PG button to enter the rAdI menu, then scroll using the + or - button until the display reads rtr.
- Now press the PG button twice and the receiver memory is erased
- Press the + or - buttons together at the same time multiple times to return to the home or operating screen

**The BRAINY24 controller comes with the full manual. Follow the same procedure as detailed above to change any of the functions and features the product has to offer. Don't be afraid of making a mistake as you can always use the rES (reset) option in the first menu to return the system to default settings**



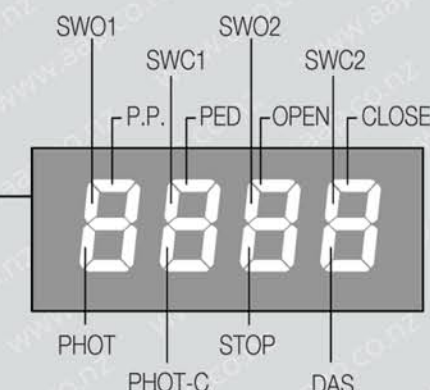
### Pre Programming Hardware Set Up

- Before you start programming it is best to unlock the motor gear box and push the gate/gates through their full stroke. There should be little to no jerking or binding if the geometry is set correctly as per page 8 of the complete help guide. Unlock lever shown here:
  - Use an allen key to adjust the motor limit switches to suit the gate/gates maximum open & close position.
- See 'G' & 'A' here:



### Fault finding before you program (See more ERROR messages in full manual on page 22)

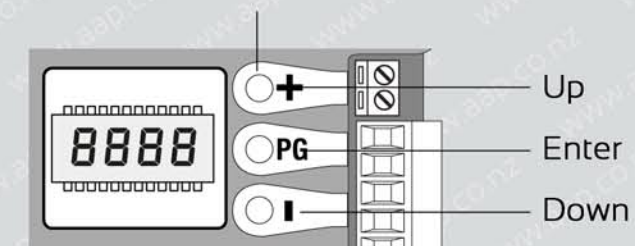
- The controller display is designed to tell you what is wrong if something hasn't been wired correctly. You should have no vertical or horizontal 'dashes' on the display before you start programming. If there are dashes present, make sure your connections have a closed circuit to common relating to the vertical dashes and an open circuit relating to any of the horizontal dashes shown here:



**Remember:** Leave the brown link wires connected unless you are using the input for a device. I.e. Safety beam, keypad, limit switch etc

All **Beninca** products stocked by **Arrowhead Alarm Products** contain a digital display for simple programming

- There are three main menus which are accessed using the +, -, and 'PG' buttons. PG is used as an 'Enter' button, + & - are used for scrolling through the menus shown here:
- Press the + & - together at the same time to take you back to the previous menu and repeat to return to the home screen or 'operating screen'



### The main programming categories are as follows:

- **PAR** - Adjusting automatic closing time, motor operating time & torque
- **LOG** - Turning functions on/off, changing between 1 motor or 2 motor operation & changing controller input functions
- **RADI** - Learning wireless remotes &/or keypads
- **AUTO** - Automatic set up of stroke, current sensing and more
- **RES** - Restoring factory defaults. Note: This will not delete remotes from the system. To delete remotes, enter the RADI menu, scroll to cLr (to delete one remote) or rtr (to clear everything in the receiver) and push the PG button twice. See RADI section in the full manual for full details on how to delete remotes



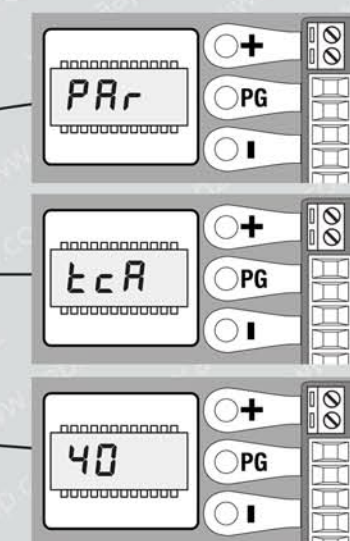
**Autoset Programming** (Default is for 2 motors. If you have only one motor see **'Single Motor Operation'** on the following page)

The PR45E24 is equipt with limit switches. This is what allows an autoset up which is quick, easy and recommended

- Set the gate/gates to be in the middle of their stroke using the mechanical override lever shown on the previous page. I.e. Not in the open position and not in the closed position
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads 'Auto'. Press the PG button again to enter the 'Auto' menu and scroll using the + or - button until the display reads 'LSu'. Press the PG button again to start the auto learn process.
- Motor 1 will open, then motor 2 will open, followed by motor 1 closing and then motor 2 closing. When the auto learn if complete the controller will display 'OK'
- If the system does not complete the auto learn function correctly the controller will display a fault code shown on page 23 of the full manual

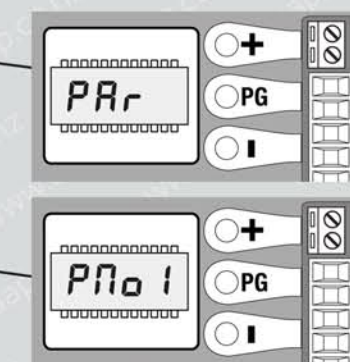
**Changing Auto Close Time** - (By default autoclose is set to on and 40 seconds) Turning autoclose off is found in the LOG menu under tcA

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr
- Press the PG button again to enter the PAr menu and the display should read tcA (this is the parameter for auto close time)
- Press the PG button again to enter the tcA menu and the display should read the tcA time (default 40 seconds). Now press the + or - button to change auto close to the desired time, followed by the PG button to confirm. Press the + & - together several times to return to the home screen



**Changing Amperometric Sensor (Anti Crash)** - This is useful if your gate has closed panelling or is in a windy area. In this case these parameters will need to be turned up

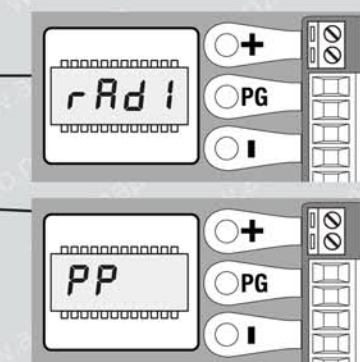
- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads PAr as follows:
- Press the PG button to enter the PAr menu, then use the + or - buttons to scroll to PNo 1. This is where the anti crash sensor is adjusted for motor 1 in the opening phase at normal speed
- Press the PG button again to enter the PNo1 menu and use the + or - button to raise or lower the anti crash sensor from 1 to 100 percent, then press the PG button to confirm
- Repeat this process using PNc1 (motor 1 closing phase), PNo2 (motor 2 opening phase) & PNc2 (motor 2 closing phase) as required
- Also repeat this process to adjust the anti crash sensor in the slow down phase. Use parameters PSo1, PSc1, PSo2 & PSc2 as required
- Press the + & - together several times to return to the home screen





### Learning Remotes

- From the home screen press the PG button to enter the first menu. Use the + or - button to scroll until the display reads rAd l
- Press the PG button to enter the rAd l menu and the display should read PP
- Push the PG button again and the display should read PUSH. Now push the remote button you wish to learn and the display should read OK. Repeat to learn more remotes or press the + & - together several times to return to the home screen



### Remote Protocols

AAP mostly only stock the green/yellow button remotes shown here:



B-TO.GO2VA or B-TO.GO4VA

These remotes can be changed between multiple protocols. The receiver can only learn one of these protocols at a time. I.e. All remotes in the receiver have to be the same protocol.

The receiver learns the protocol of the first remote that is learnt and all others that follow must be the same protocol

To view the protocol of the remotes simply hold down 2 buttons at the same time and keep holding. The red LED will flash 2, 3, or 4 times to indicate which protocol the remote is currently in

To change the protocol, keep holding the 2 buttons together until the red LED becomes constant and then release the buttons

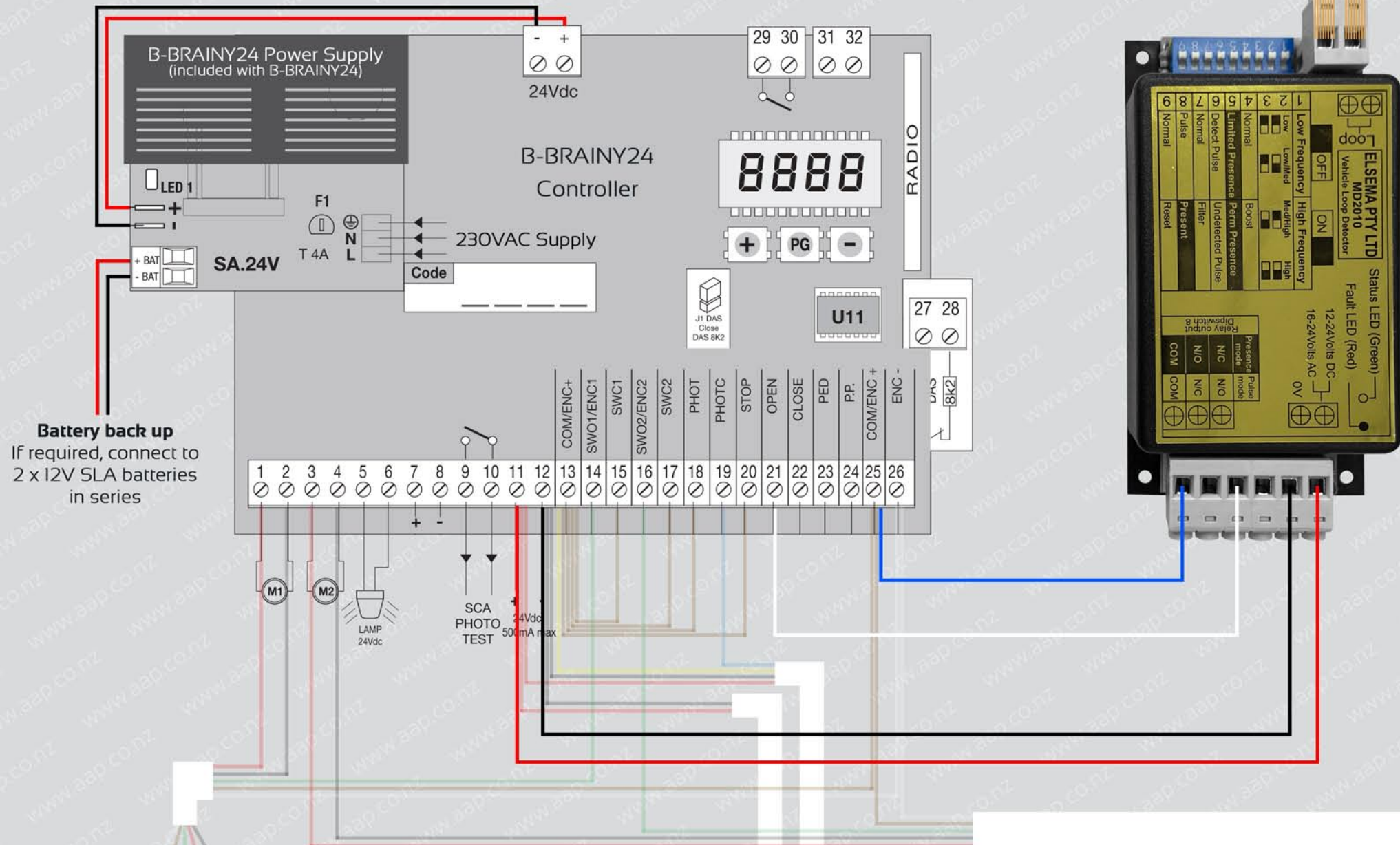
Hold down 2 buttons again to view the new protocol & repeat this process on all remotes until they all have the same amount of flashes.

### Clearing The Receiver

- Press PG button then scroll using the + or - button until the display reads rAdl. Press the PG button to enter the rAdl menu, then scroll using the + or - button until the display reads rtr.
- Now press the PG button twice and the receiver memory is erased
- Press the + or - buttons together at the same time multiple times to return to the home or operating screen

**The BRAINY24 controller comes with the full manual. Follow the same procedure as detailed above to change any of the functions and features the product has to offer. Don't be afraid of making a mistake as you can always use the rES (reset) option in the first menu to return the system to default settings**





**Battery back up**  
If required, connect to  
2 x 12V SLA batteries  
in series

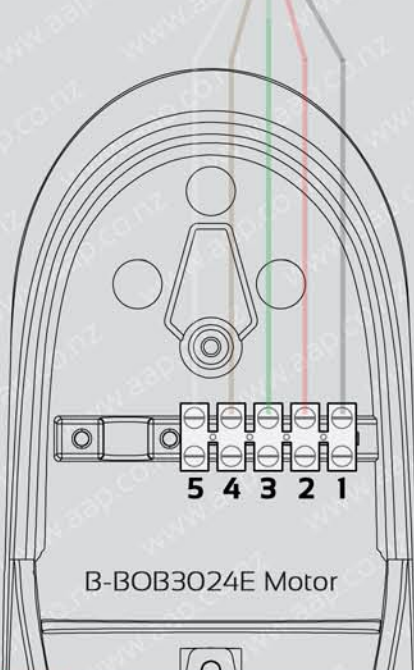


Diagram shows direct  
burial CAT6 coming from the  
MD2010 loop detector, going 3  
times around inside a 25mm  
conduit (in a continuous loop),  
then back to the  
MD2010 controller

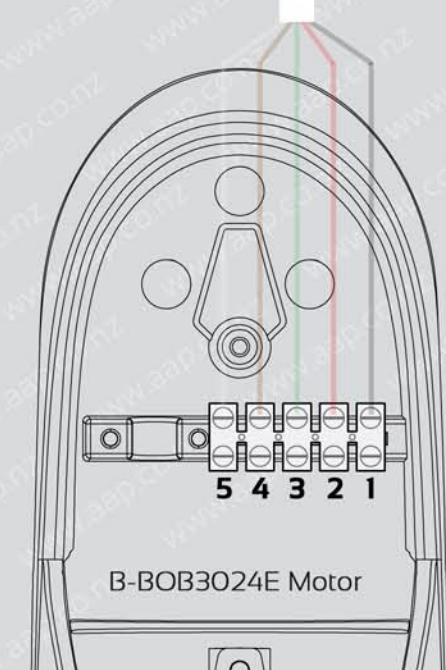
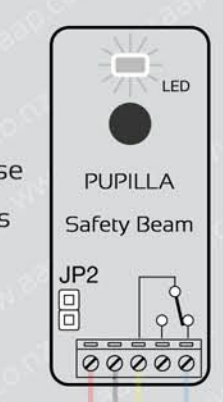
Do not exceed 20m between  
MD2010 & loop

Minimum loop size 1.2 x 2.4m

Twist all 8 cores together from  
each CAT6 & terminate in each  
loop terminal



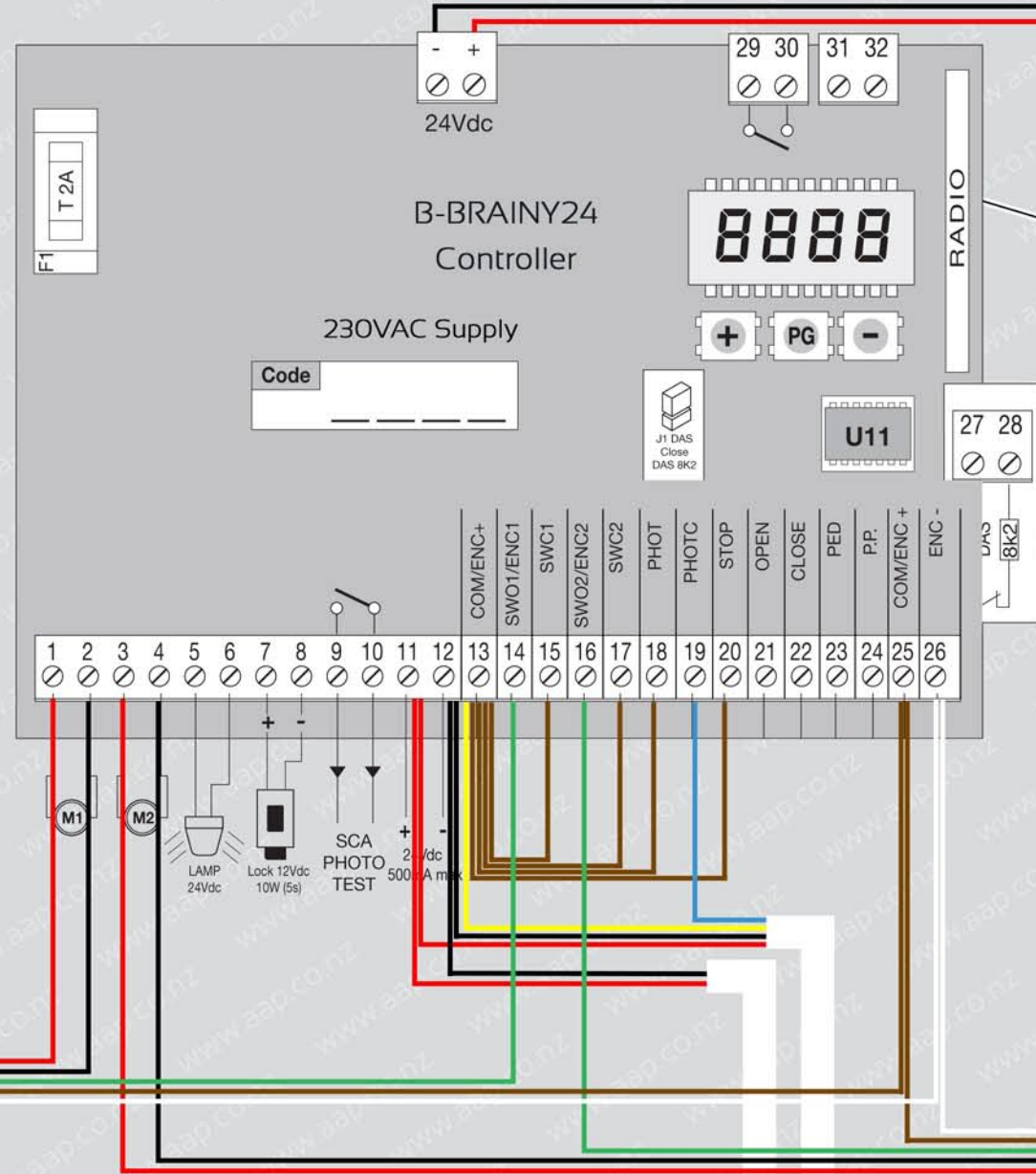
Note: Safety beams use  
**N/C & COM** terminals  
as shown here







← Maximum 30m between BRAINY24 controller & BRAINY24 power supply →

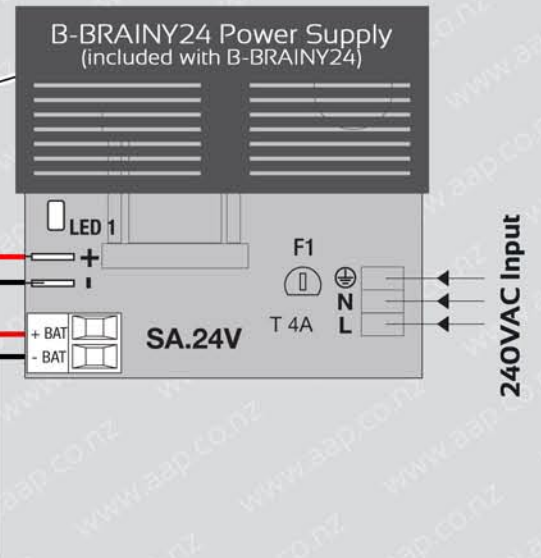


**Instructions for remote power supply installations:**

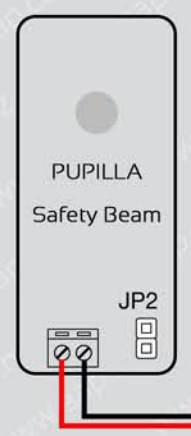
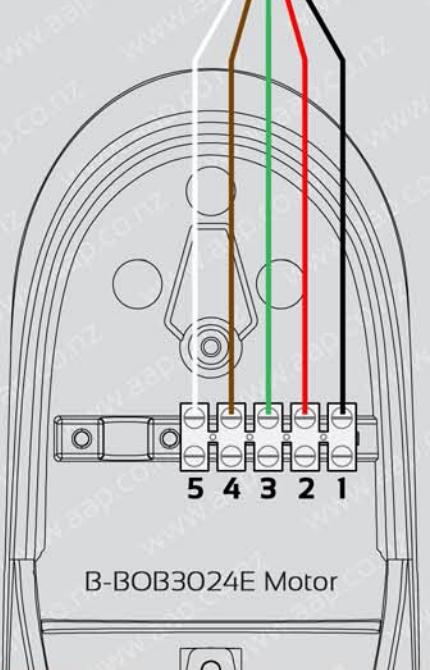
**Recommended Cable: 4mm 2 core cable - Up to 30m**

Separate the 'B-BRAINY24 Power Supply' from the main brainy circuit board & mount remotely in a suitable enclosure

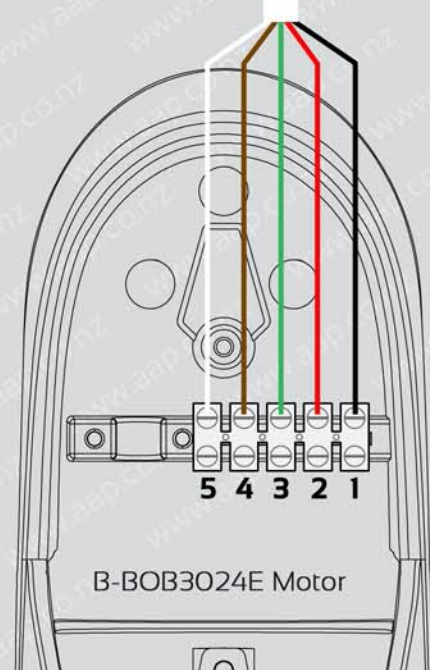
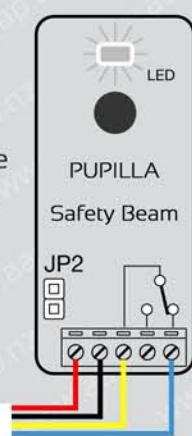
Once commissioned, measure the voltage at the brainy control board and make sure this is above 27VDC to avoid issues caused by voltage drop



**Battery back up**  
If required, connect to 2 x 12V SLA batteries in series



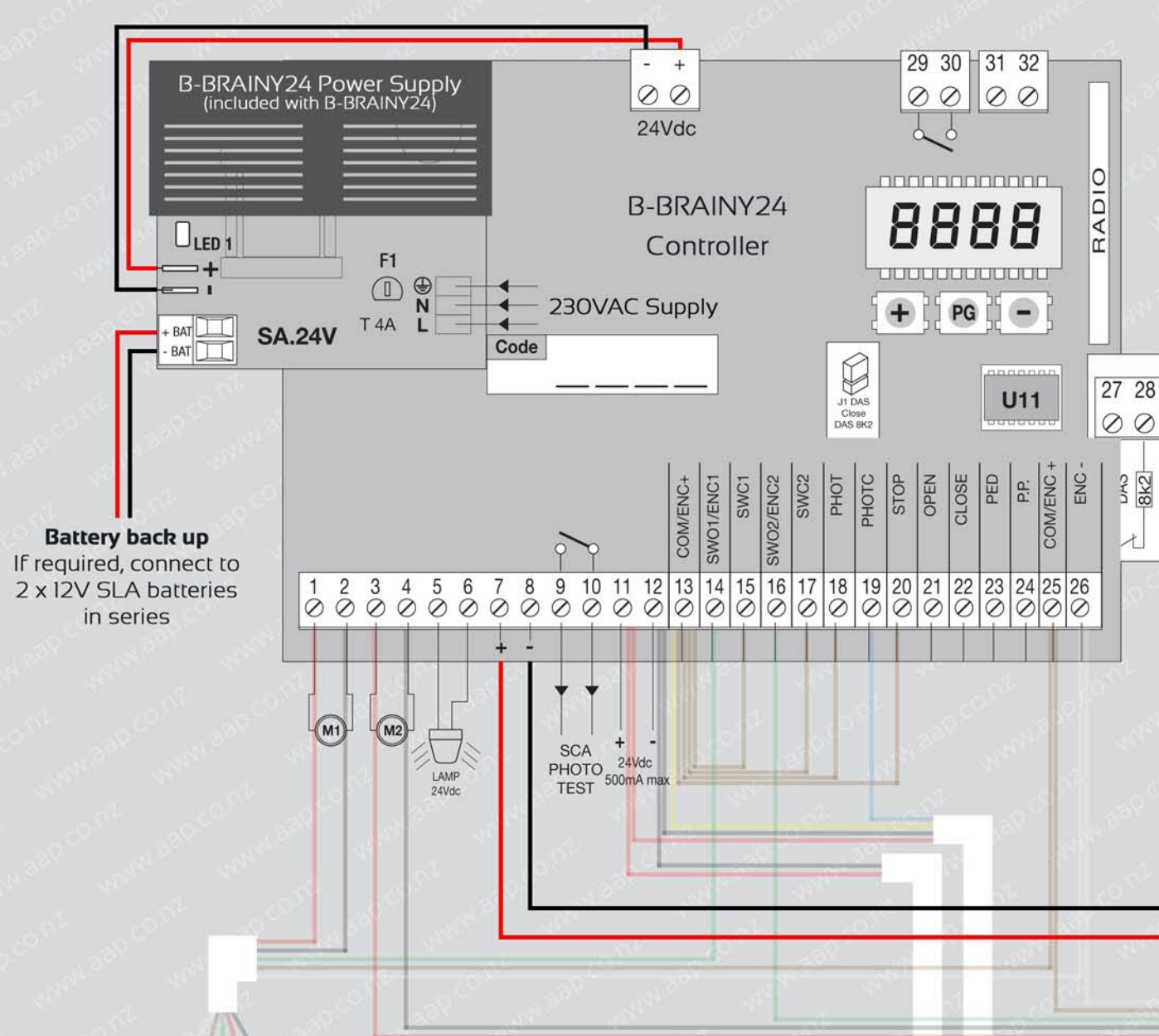
Note: Safety beams use **N/C & COM** terminals as shown here



**Helpful Hint:** A red LED on one of the safety beams will be constantly on if powered & aligned correctly. Once the beam is broken the red LED should turn off





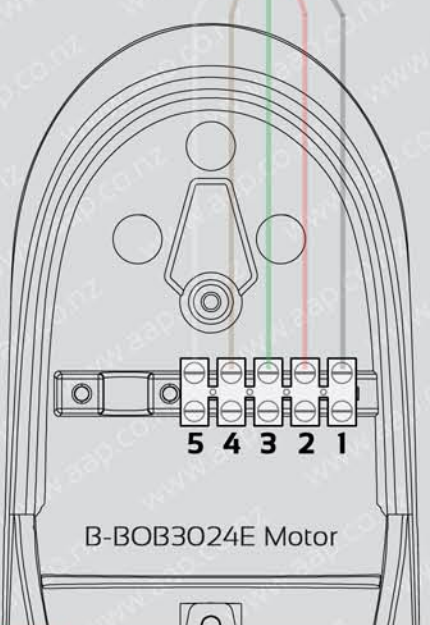


Back EMF diode must be fitted to electric strike with silver stripe connected to positive



12VDC Power Supply  
1.5A Minimum  
*(sold separately)*

Extra relay & supply is required as BRAINY24 can only supply up to 800mA from lock output



Note: Safety beams use N/C & COM terminals as shown here

