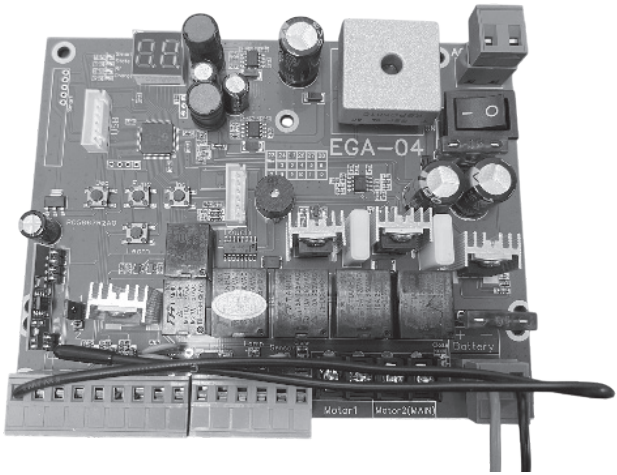
Installation &
User Manual

EGA-04 Controller
with ON/OFF Switch



Scan the QR Codes below for further assistance

Website
support page

Converting from
D1 to EGA Board

Auto Travel
Function video

IMPORTANT

If you are converting your D1 control board to the EGA control board
Please visit the link below for wiring instructions or scan the QR code above

https://bmgi.com.au/converting-d1-board-to-ega-version-2-board

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Setting Up Your Control Board

After installing the actuator arm/s and completing the wiring, have the gate/s in the open position.
If your unit is an ELECTRIC kit with a TRANSFORMER, turn your transformer on now. Once the transformer is on, ensure the On/Off Power Switch (on the control board) is turned on (switch will be flicked to the left/down). The control board will make a “BEEP” sound and then run through a start-up sequence which you will see on the digital display labelled MENU. Wait 10 seconds for the control board to finalise this step.

If your unit is a SOLAR POWERED kit, connect the SOLAR PANEL to your regulator and connect the battery up to the power cables. Now ensure the On/Off Power Switch (on the control board) is turned on (switch will be flicked to the left/down).The control board will make a “BEEP” sound and then run through a start-up sequence which you will see on the digital display labelled MENU. Wait 10 seconds for the control board to finalise this step.

If your control board came to you with compatible remotes, then they will already be tuned in.

If converting from the D1 board to the EGA then you will have wired in your existing receiver with the black remote and red/green buttons.
Below will not relate to you.

Compatible remotes for the EGA control board
For a dual swing gate, your remote buttons will be:

Button 1	Controls Dual gate open / close
Button 2	Spare button, not in use.
Button 3	Party mode, this feature overrides auto close. *Auto close is turned off, you will need to turn this on yourself if you would like this feature. Refer to Menu settings to set this up.
Button 4	Spare button, not in use.

For a single swing gate, your remote buttons will be:

Button 1	Controls Single gate open / close
Button 2	Spare button, not in use.
Button 3	Party mode, this feature overrides auto close. *Auto close is turned off, you will need to turn this on yourself if you would like this feature. Refer to Menu settings to set this up.
Button 4	Spare button, not in use.

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Auto Travel Function

<u>IMPORTANT</u> - Dual swing AUTO TRAVEL procedure:

SCAN ME

ENSURE THE GATE WAY ENTRANCE IS
CLEAR OR ANY OBSTRUCTIONS.

To perform the 'AUTO TRAVEL' function, you will need to activate your gate opener with a remote. Press Remote Button (or the remote you are using for this system) for 2 seconds or until the small LED light on the remote flickers, now release your remote button. You should observe "OP" appearing on the Digital Display "MENU".

For a dual swing gate, the display "MENU" will show OP to say the control board has put Motor 1 gate into an OPEN position, the "MENU" will then show SP to say the control board has turned Motor 1 off. The display "MENU" will repeat this sequence for Motor 2.

With the control board now knowing your gates are in the open position, you will need to press the DEC and INC buttons at the same time for 5 seconds or until one gate starts to close, now release INC and DEC buttons (you must press and hold in both buttons at the same time for this to work, pressing the buttons individually first will not allow the control board to run its 'AUTO TRAVEL' function.

The gate connected to Motor 1 will close first, the "MENU" will display CL (Close). Motor 2 will now close with the "MENU" displaying CL (Close).

1 second after Motor 2 has closed the gate it will activate again with the "MENU displaying OP (Open), after Motor 2 has opened the gate, the "MENU" will display SP (Stop). Motor 1 will now open the gate with the "MENU" displaying OP (Open), once the gate is open there will be one loud beep. Travel function completed.

Press remote trigger button on your remote to check the gate is running correctly. Check if your force settings need to be adjusted. If they require adjusting, please refer to the MENU settings to adjust P1 through to P4 as well as P5 and P6.
Majority of gates won't require any adjustments.

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Auto Travel Function

<u>IMPORTANT</u> - Single swing AUTO TRAVEL procedure:

SCAN ME

ENSURE THE GATE WAY ENTRANCE IS
CLEAR OR ANY OBSTRUCTIONS.

To perform the 'AUTO TRAVEL' function, you will need to activate your gate opener with a remote. Press Remote Button (or the remote you are using for this system) for 2 seconds or until the small LED light on the remote flickers, now release your remote button. You should observe "OP" appearing on the Digital Display "MENU".

For a Single swing gate, the display "MENU" will show OP to say the control board has put Motor 2 gate into an OPEN position, the "MENU" will then show SP to say the control board has turned Motor 2 off.

With the control board now knowing your gate is in the open position, you will need to press the DEC and INC buttons at the same time for 5 seconds or until one gate starts to close, now release INC and DEC buttons (you must press and hold in both buttons at the same time for this to work, pressing the buttons individually first will not allow the control board to run its 'AUTO TRAVEL' function).

The gate Motor 2 will now close with the display "MENU" displaying CL (Close), after Motor 2 has closed the gate, the "MENU" will display SP (Stop). 1 second after Motor 2 has closed the gate it will activate again with the "MENU displaying OP (Open), after Motor 2 has opened the gate, the "MENU" will display SP (Stop). Wait 10 seconds before operating the gate opener. Travel function now completed.

Press remote trigger button on your remote to check the gate is running correctly. Check if your force settings need to be adjusted. If they require adjusting, please refer to the MENU settings to adjust P3, P4 and P6. Majority of gates won't require any adjustments.

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Remotes

Remote Learning - compatible remotes with 1, 2, 3, 4 buttons with the Orange LED light - similar remotes with different colour light may not work.

To learn new remotes to your control board.
Press the Learn button once and then release. The RF blue LED light will come on. Now press button 1 on your remote once for 2 seconds or until LED light begins to flash, the control board will “BEEP” once and display the remote number you just learnt.
Remote 1 will show 01, remote 5 will show 05 etc.
The RF blue LED light will go off once remote is tuned in.

Button A and C will automatically be assigned functions.
These functions cannot be altered or removed.

Button 1	Full open / close for Dual swing gates and Single swing gates
Button 2	Empty
Button 3	Party mode function. Party mode is used to override auto close. It will override PA auto close functions. You must be within 1 metre of the gate to ensure you are within working range for the remote.
Button 4	Empty

Button 3 Party mode, this feature overrides auto close.

Auto close is turned off when you receive the kit, you will need to turn this on yourself if you would like this feature. Refer to Menu settings to set this up.

To disable auto close, press button 1 on your remote to open your gate, once the gate has reached the full open position, wait 2 seconds, now press button 3 on your remote for 2 seconds or until the orange LED light comes on for your remote.
You should be within 1 metre of the control box when activating this function to ensure the signal has been picked up by the control board.
Now wait for the auto close time to pass to ensure you have successfully bypassed the auto close function.
When you are ready to close the gate, press Button 1 on your remote or any triggering devices you might have e.g. push button or keypad. Your auto close function will be reactivated for the next time the gate is opened.

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Remotes

Full open and close for dual swing or single swing gates

Remote light must be orange - any other colour will unlikely tune to this board due to the custom code

Empty

Party Mode
Overrides auto close if set

Empty

Empty buttons can be used if you have a second gate on your property or if you add a long range receiver to the kit

Compatible Remote

Erasing Remotes

Press and hold the Learn button for 8 seconds, the buzzer will beep and the digital display will read 00. At this time, all the information stored in the on board receiver has been deleted, release the Learn button.

Remote distance – up to 30 metres. This distance will vary greatly due to site interference that may not be visible to the eye. Some sites will allow for greater range than 30 metres, some sites might only achieve 5 metres.

Remote frequency – Rolling code 433mhz
*Only genuine remotes will operate with the on board receiver. To ensure your remote is a genuine remote, you will notice the small LED light will flicker an ORANGE colour when you press one of the 4 buttons on your remote for 2 seconds or until the light starts to flicker.

Remote Storage – The on board receiver can store up to 120 remotes.

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Menu Settings

To enter the Menu settings, the gate/s must be in either the full Open or full Close position, the control board will not allow you to enter the Menu settings while the gate opener is operating.
Press and hold “FUN” button for 2 seconds or until the Digital Display shows P0. From here use “DEC” or “INC” buttons to go down or up the menu list, once you are on the menu setting you need, press “FUN” button once to enter the setting. Now use “DEC” or “INC” to decrease or increase the parameter number, once you have selected the parameter number you require, press the “FUN” button to confirm the new setting.
To exit the menu setting, press the “Learn” button once.
Now test your adjusted settings.

Menu	Main Feature	Parameter	Parameter Feature	Detailed Description
P0	Activates Single swing or Dual Swing mode	0	Double Swing gate	BMG will have the system set to match your unit when purchased with a gate opener kit.
		1	Single Swing gate (Default setting)	BMG will have the system set to match your unit when purchased with a gate opener kit.
P1	Motor 1 Fast speed force setting - Open direction	1	1 Low Force - Light weight / Short gate	Adjust from 1 to 12, the higher the number, the greater force required to stop the gate. For heavy gates or long gates, you may need to adjust this setting to a higher number. The lower the number the easier it is to stop the gate. For light weight gates or short gates, you may need to adjust this setting to a lower number. The current of the motor running in the 12V system is relatively large, it is recommended to set the value between 5-12 levels.
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	
P2	Motor 1 Fast speed force setting - Close direction	1	1 Low Force - Light weight / Short gate	
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	
P3	Motor 2 Fast speed force setting - Open direction	1	1 Low Force - Light weight / Short gate	
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	
P4	Motor 2 Fast speed force setting - Close direction	1	1 Low Force - Light weight / Short gate	
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	

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Menu	Main Feature	Parameter	Parameter Feature	Detailed Description
P5	Motor 1 Slow speed force setting - Both directions	1	1 Low Force - Light weight / Short gate	slow speed force adjustment
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	
P6	Motor 2 Slow speed force setting - Both directions	1	1 Low Force - Light weight / Short gate	slow speed force adjustment
		...	Factory set 5	
		12	12 High Force - Heavy Gate / Long gate	
P7	Ramp down distance open direction - Both Motors	0	No slow down	This adjusts the ramp down of the gate. The slow speed can be adjusted (0 not recommended as this puts extra stress on moving parts). For long gates we recommend the standard setting of 2.
		1	Shortest slow down	
		...	Factory Set 2	
		5	Longest slow down	
P8	Ramp down distance close direction - Both Motors	0	No slow down	This adjusts the ramp down of the gate. The slow speed can be adjusted (0 not recommended as this puts extra stress on moving parts). For long gates we recommend the standard setting of 2.
		1	Shortest slow down	
		...	Factory Set 2	
		5	Longest slow down	
P9	Close delay time between Motor 1 and Motor 2	0	No delay	This setting is for Dual Swing gates. You can adjust the closing delay between the two motors. This is required if you have an electric gate lock connected to the control board or if you require Motor 1 to close first. You can set this from 0 seconds (open and close at the same time) up to 8 seconds. Factory setting is 2 seconds and is recommended even if a gate lock is not installed.
		1	1 second	
		...	Factory Set 2	
		8	8 seconds	
PA	Auto Close Timer	0	Factory set	Auto close setting can be set from 0 seconds (factory setting) up to 99 seconds.
		1	1s	
		...	...	
		99	99s	

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Menu	Main Feature	Parameter	Parameter Feature	Detailed Description
PB	Gate Lock Output Timer	0	0 sec (factory set)	This setting allows you to adjust the output to your optional electric gate lock. Factory setting is 0 which is set for NO GATE LOCK. If you install a gate lock, it is recommended you set PB to level 3 (3 seconds). This may need to be adjusted depending on your gate setup. If lock output is set 1 to 6, the lock will activate first for 1 second before the gate starts, this is to allow time for the lock to activate.
		2	2 sec	
		....		
		6	6 sec	
PC	Lamp Mode	1-4	Mode 1 Factory	Set lamp work mode by menu PC , factory set mode 1 **1**: Lamp output on when motor operating, when motor stops lamp turns off **2**: Lamp output flash when motor operating, when motor stops lamp turns off **3**: Lamp output on when motor operating, after motor turns off 30 seconds later the lamp output turns off **4**: Lamp output flashing when motor operating, after motor turns off 30 sec
PD	Lock Reverse Time	0-1	Open (factory set) Close Reverse first	Factory setting Motor 2 will activate after 1 second to allow gate lock to release. Setting PD to 1 will make Motor 2 reverse (Close) for 0.5 seconds to help release pressure off the lock before allowing Motor 2 to activate.
PE	Safety Beam Mode	0-1	(factory set) NC mode	If you run safety beams, you will need to set PE to 1. Factory setting allows you to operate without safety beams
PF	Soft Start Time	1..2..3	1s 2s (factory set) 3s	You can adjust the soft start time of your gate. This may need to be adjusted for longer gates and heavy gates
PG	Remote mode Single Gate Two Gates	0	Single gate mode	If you have 2 gate opener kits on the one property and are within 100mtrs of each other, your control board will be set to 01. This will have your remote set to: Gate 1 Button A - Full open/close Button C - Party mode (auto close override) Gate 2 Buton B - Full open/close Button D - Party Mode (auto close override) Factory Set Mode 01
		1	Two gate mode (factory set)	
PH	Switch Motor outputs for single gate	0…1	Default 0	If unit is a single gate and Motor 2 (main) stops working, adjust to 01 to make Motor 1 the single gate output

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Menu	Main Feature	Parameter	Parameter Feature	Detailed Description
PI	Over current sensing time	1…4	Default 1	How quickly the motor will turn off once the gate reaches full open/close. Lower the number, the quicker the motor/s turn off. Higher the number, the longer the motors run for before turning off.
PJ	Fast speed / Slow speed settings			
	J1 - Fast speed Open direction setting	1…4	Default 4	Speed control for fast speed during open cycle. Lower number is slower, higher number is faster.
	J2 - Fast speed Close direction setting	1…4	Default 4	Speed control for fast speed during close cycle. Lower number is slower, higher number is faster.
	J3 - Slow speed Open direction setting	1…4	Default 2	Speed control for slow speed during open cycle. Lower number is slower, higher number is faster.
	J4 - Slow speed Open Direction setting	1…4	Default 2	Speed control for slow speed during close cycle. Lower number is slower, higher number is faster.
PL	Door Sensor Output	0…1	00 Sensor Off 01 Sensor On	This output can give feedback to BMGi's GSM device to let you know if your gate is open or closed.
PP	Factory Reset	0…10	05 Reset	This setting will put your control board back to factory settings and put your unit to single swing gate. This would then need to be adjusted to suit a double swing gate setup.

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Control Board Specifications and Details

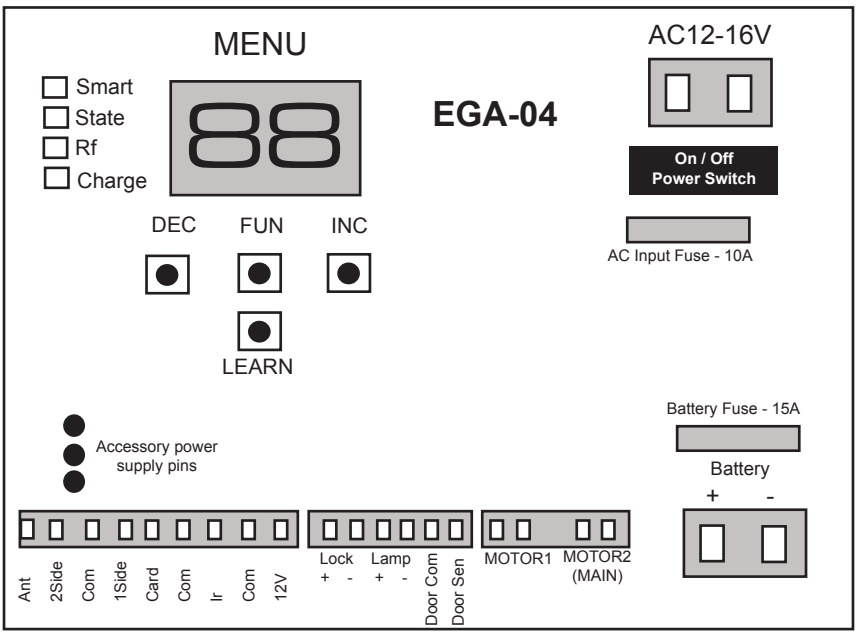
Power Supply

Power Supply	AC12 V – AC16 V
Fuse	10A
External Accessory Power Supply	No more than 300mA
Alarm Light Power Supply	No more than 500mA
Electric Lock Power Supply	No more than 2.5A

The EGA control board has been specifically designed for this kit and SHOULD NOT be used for any other setup

CONTROL BOARD

On/Off Power Switch
On = switch flicked to the left/down
Off = switch flicked to the right/down



Tip: Green & Brown connector blocks on the main control board can be removed to help with wiring in cables

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Control Board Specifications and Details

Control Board

Ant	Antenna for control board
2Side	Terminal for external device of controlling double gates
Com	Common for external device
1Side	Terminal for external device of controlling single gate (Motor2)
Card	Terminal for external device for double gates OPEN ONLY
Com	Common for external device
IR	Terminal for Photo beam sensor
Com	Common for Photo beam sensor
12V+	Power supply for external device
Bat	Terminal for 12V Battery
Lamp	Terminal for lamp
Lock	Terminal for lock
Door Sensor	Compatible with BMG's 4G GSM Gate Opener
Accessory Power Pins	Allows power through to the accessory terminals * Placing the jumper on the 2 top pins provides power from the transfomer * Placing the jumper on the 2 bottom pins provides power from the battery

Instructions for Indicator

State Indicator	Steady on: Indicating that the system is working normally Blinking at 1Hz: indicating that the system is in the mode of auto close or travel learning.
Charge Indicator	Light on indicates backup battery charging

Instructions for button

DEC	used for lowering values
FUNC	used for entering the menu and storing the settings
INC	used for increasing values
RF Learn	used for learning or removing remotes

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Installer & Owner Notes

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