



Automating Gates? Read this

Existing manual gates can be automated but there are a few points you should note:

The mounting position for any gate operator is determined by the position of the hinge (i.e. the point around which the gate rotates). Mounting dimensions supplied with all gate operators will give the position at which the operator must be fitted in direct relation to the hinge.

Since most existing gates were not hung with automation in mind it is not unusual to find that the required dimensions for mounting some operators are not achievable without modification to the hinge position, the gate position or fabrication of a bracket to suit a specific application.

Post mounted gate operators with a telescopic action* have mounting dimensions which are related to the length of the working stroke of the ram. (See Mounting Dimensions diagram) This type of operator will generally fit to gate posts of 100 – 200mm square (4 – 8") if a bracket is made to suit the hinge position. On wider gate posts and brick piers it may be necessary to either cut a niche in the pier to accommodate the operator, move the gates back on the post or choose another type of operator.

*PHOBOS, ORO, LUX.

Underground gate operators** generally specify that the operator drive shaft should be aligned with the top hinge of the gate in order that the shaft and the hinge are plumb and rotate through the same axis. This means that the centre of the existing gate hinge must stand clear of the face of the post by 60 or 70mm dependent on which type of underground motor is selected. (See Mounting Dimensions diagram) If alignment can not be achieved some underground operators can be fitted outside the hinge axis by up to 200mm by utilising off axis arms which use a roller and channel. (BSC)

** ELI 250, SUB.

Operators with an articulated action (BFT Model IGEA and VIRGO) have more flexible mounting dimensions. These motors will fit directly to the rear of small and large gate posts up to a maximum distance of 300mm behind the gate hinge position. You should check that there is room behind the gate in the open position to accommodate the articulated arm. (See Mounting Dimensions diagram)

Automating new gates

When automating new gates exactly the same rules apply as detailed for existing gates above, but with one major benefit:

You can hang the gates to suit any operator type for a neat and quick installation. Select the gate operators required by: Size and type of gate, Duty required, Aesthetics required (Call us for advice). Then position the hinges and hang the gates to easily achieve the specified mounting dimensions.

Gates Systems can provide a range of ornamental ironwork gates and gate posts (pictured right) ready made to suit both post mounted and underground operating systems. Our post kits have all brackets pre-fitted and geometry calculated for the neatest and most trouble free installation. (See Gates and Kits)

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Selecting the right operator

The selection of gate operators detailed in this catalogue have been designed to suit various applications and budgets. The specification for each operator gives information referring to the size and weight of a single gate leaf. The type of gate and the use it will get should also be taken in to consideration.

WIND EFFECT: A closed panel gate will be affected significantly by the wind, whereas an open pattern gate will offer little wind resistance. Imagine trying to hold on to a 6ft square panel in gusty conditions! This sail effect warrants an upgrade in equipment specified and may require the addition of an electronic lock. (i.e. V90 VIRO mechanical lock)

DUTY: Will the gate open 10 times a day or 300 times a day? Take note that gate operators are built to suit different duty cycles.

POSITION: A gate at the end of a cul-de-sac in a quite residential area is going to get a more protected life than a gate on a main road next to a school or a pub. Gates exposed to the public sector or in multi-user situations (apartments, etc) should be fitted with electronic locks to protect the operating system from damage.

Access control system

Consider who needs to get in and out of the entrance.

Once the gates are automated they will be permanently closed.

What about: Visitors, Deliveries, The Postman?

Do you need an intercom or a digital entry pad or both.

All these accessories are detailed in the online catalogue and we shall be pleased to give advice on suitable equipment.

Swing gate motors

Electro-Mechanical equipment is generally designed for the domestic user and has a duty cycle which suits family residences and entrances that are not busy throughout the day.

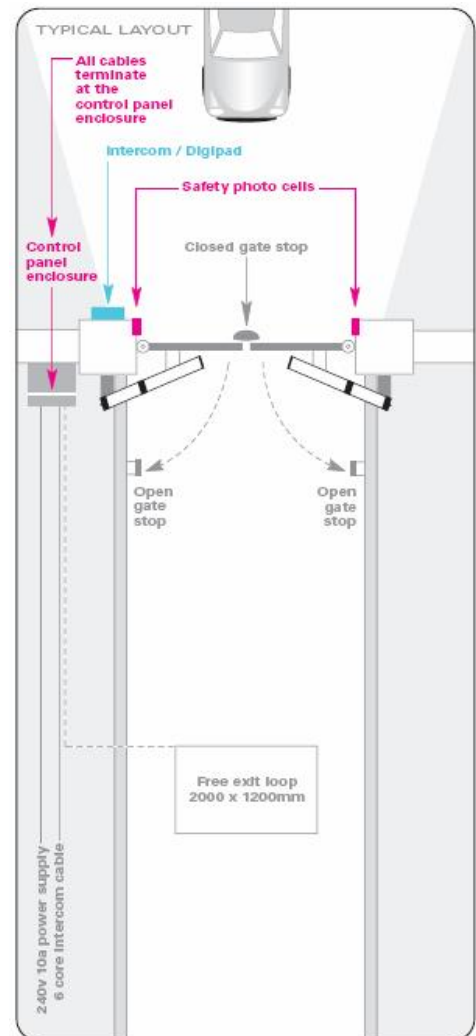
Electro-hydraulic equipment is generally designed for a higher duty cycle and is suitable for busy entrances and prestige gates. Our hydraulic gate operators are fully serviceable and, if properly maintained, will give many years of reliable service.

Post mounted operators (Mechanical or Hydraulic) are fixed to the gate post and a sturdy cross member on the gate. It is important that they are fitted to specific measurements in relation to the gate hinge. Please refer to the Mounting Dimensions diagram, shown below, to check suitability.

Underground operators (Mechanical or Hydraulic) fit below ground level and it is important that the operator driveshaft aligns with the gate hinge.

Please refer to the Mounting Dimensions diagram, shown below, to check suitability.

If you cannot decide which system suits your application best, please call us: 01932 344 434



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BFT Operator Mounting Dimensions

MODEL	A	B	C
PHOBOS	140	140	983
PHOBOS L	180	180	800
ORO	120	120	890
LUX 2B	135	135	985
LUX 2B FC	140	140	1130
LUX GV	195	195	1240
P SERIES (4.5 & 7)	195	195	1335

Mounting dimensions shown give the optimum position for an even speed over 90 degrees. (Long stroke rams can be used for opening in excess of 90 degrees)

Dimension C is measured between the gate and gate post mounting pins with the gate firmly closed against the stop. (This is a maximum)

It is Important that all dimensions; A, B & C are accurately achieved.

A = Measurement from hinge centre to face of gate post

SUB MOTOR	A = 65mm Minimum
ELI MOTOR	A = 70mm Minimum

If not achievable use off axis arms – Call for details

NB: Important Information

All operators with a telescopic action require accurate mounting dimensions to be achieved in relation to the gate hinge. (i.e. the axis on which the gate rotates) These dimensions depend upon the length of the operating stroke of the ram. When installing telescopic action operators to existing gates some modifications may be required to the gate hinge position or to the gate post. As many existing gates are hung in a non specific manner, it may be necessary to fabricate a tailor made bracket in order to mount the operator in the correct position.

N.B:

Failure to observe correct dimensions will result in poor performance, reduce the life of the operator and affect the warranty of the unit. Most operators run on a timed sequence (set at the system control panel) and gate stops are required in the open and closed position of the gate.

Detailed installation instructions are supplied with the operator. Please call us on: 01932 344 434 for assistance.

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Preparation Guide

In preparation for automation of your gates you will need. . .

BASIC CABLING:

- 240v 10a power supply to one side of the entrance. (with isolator and suitable RCD)
- 50mm Duct across the entrance, surfacing behind each gate post.
- Suitable cables for gate operators and accessories. Conduit, glands, clips and junction boxes.
- Control cable for intercom (if selected) between the entrance and the phone hand set in the house.
- A control panel enclosure large enough to accommodate all control equipment selected.

PHYSICAL REQUIREMENTS:

- A level driveway beneath the swing of the gates. (If possible)
- Gate stops in the open and closed position of the gates.
- Free swinging gates with good hinges. No play and no tight spots.
- You must accurately achieve the gate operator mounting dimensions in relation to gate hinges.
- See required dimensions for model of gate operator selected (ie; SUB, LUX, etc.) These dimensions are fixed and may require modification to gate posts or hinge positions. It may be necessary to fabricate a tailor made bracket to mount the gate operators to existing gates correctly.
- You will need suitable fasteners to mount the gate operators to your gate posts. These fasteners will be under continual stress and must be suitably fitted to a solid mounting point.