SL-PRO
montage team

Length of operators.
Phobos BT is 32.48 inches and Phobos BT NL is 37.12 inches.

PHOBOS BT N AND BT NL KITS QUICK REFERENCE GUIDE

- Products should be installed by a professional installer and all devices which are part of the UL325 certification must be included.
- Automation should be installed on a gate which is moving freely. Any issue with the smooth opening of closing of a gate will not be corrected by adding automation.
- All wiring should be done by a qualified electrician.
- Read and follow all instructions and safety procedures.
- Always make adjustments and connections with power supply turned off.
- Never let anyone play on or walk within the automatic gate area.
- Keep all gate controls out of the reach of children.
- Stand clear of a moving gate and never cross the path of a moving gate.
- BFT products carry a 30 month (2 1/2 years) limited warranty from date of manufacturing when professionally installed. Conditions apply (see terms and condition of sales of BFT US, Inc.)

Important Note: This Quick Reference Guide is a complement to the official manual (L from component list on page 3) part of the kit and in no circumstances supersedes it.

Proud Members of the Following Associations:

C US

AFA American Fence Association

NOMMA

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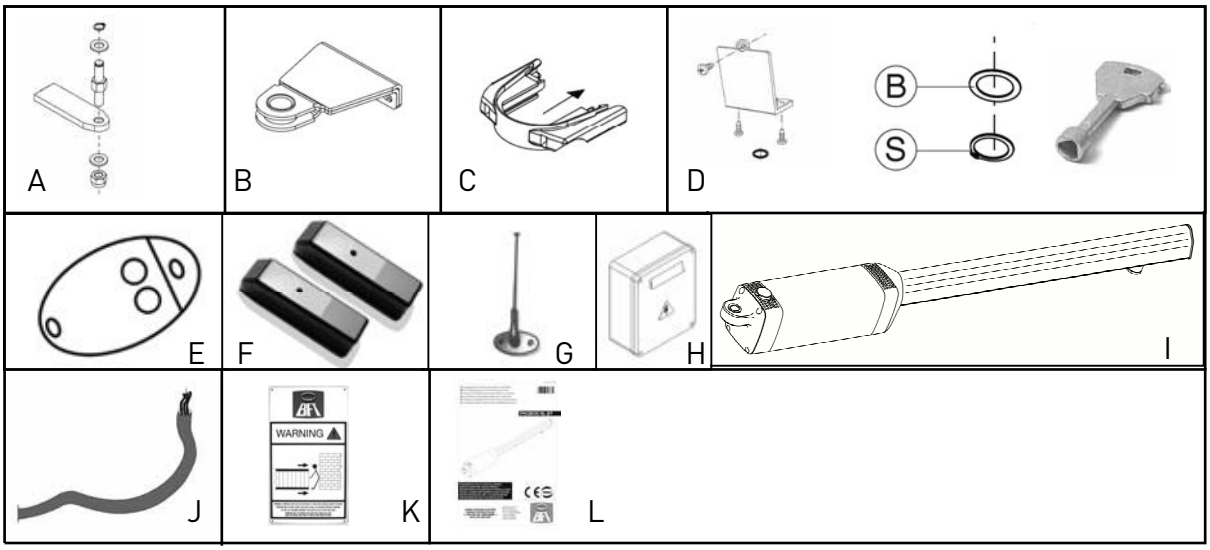
PHOBOS BT N & BT NL COMPONENT LIST AND SPECIFICATIONS



Components	Single Kits	Dual Kit s
Phobos BT N **Phobos BT NL**	**(Ref. # R935246 00002)** **(Ref. # R935245 00001)**	**(Ref. # R935246 00003)** **(Ref. # R935245 00001)**
A: Post Mounting Bracket	1	2
B: Gate Mounting Bracket	1	2
C: Mounting Bracket Magnet Holder & Magnets	1	2
D: Kit Including: 1 Cover, 3 Screws, 1 Rubber Grommet, 1 Snap Ring, 1 Washer, 1 Release Key	1	2
E: Transmitter – Mitto 2	2	2
F: Pair Of Photocells – Fl 130B	1	1
G: Receiver Antenna – AEL 133	1	1
H: Control Board – Libra UL R	1	1
I: Operator – Phobos BT N Or Phobos BT NL	1	2
J: Cable – 3.3' 3X16 AGW Cables For Operators	1	2
K: Warning Signs	2	4
L: Official Instruction Manual	1	1

Technical Specifications:

	PHOBOS BT N	PHOBOS BT N L
Power Supply:	120V AC ± 10% - 60Hz	120V AC ± 10% - 60Hz
Working Force:	450 Lbs	450 Lbs
Working Stroke:	11.6"	18.5"
Maximum Opening Angle:	120º	128º
Full Opening Time (At 90º):	15 Seconds	23.5 Seconds
Limit Switch:	Incorporated (Adjustble Magnetic)	Incorporated (Adjustble Magnetic)
Manual Operation:	Release Key	Release Key
Optimum Number Of Cycles Per Day:	60	60
Gate Length:	Up To 10'	Up To 16.6'
Gate Weight:	Up To 550 Lbs	Up To 550 Lbs

DISENGAGING THE OPERATOR:
During the installation it is sometimes necessary to disengage the operator using the provided CLS release key included in kit (D from component list on page 3). Please refer to drawing below.

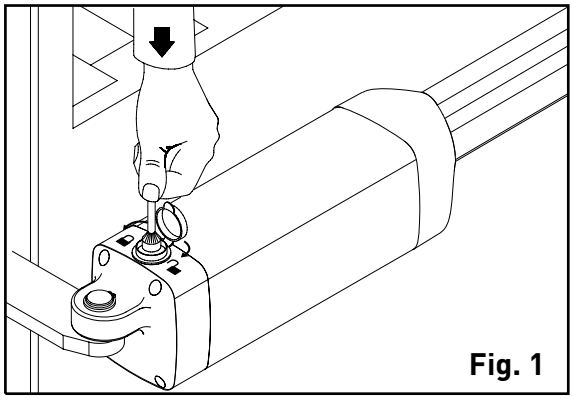
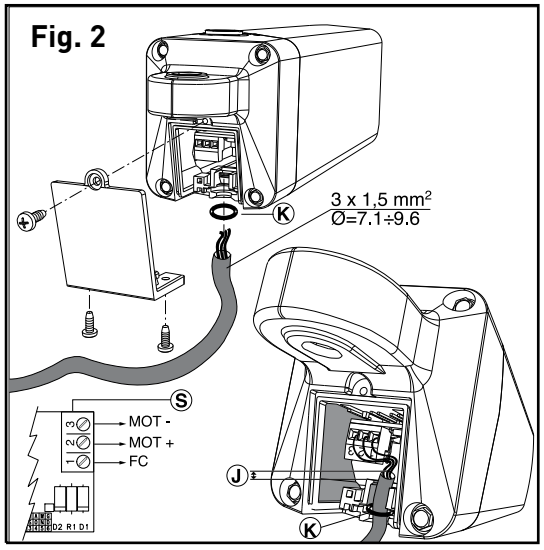


Fig. 1

CONNECTING CABLES TO THE OPERATOR:
In order to provide flexibility and avoid the use of junction boxes (please check with local electrical requirements if this is allowed) the Phobos BT N and BT NL operators are not delivered with mounted cables. The kit includes 1 or 2 cables (J from component list on page 3) of 3.3' each with the following specifications:

3 X 16 AWG stranded wires (E172693) in a weather resistant insulation (J from component list on page 3).

Note: the cables come with a red sleeve on the green wire on one side. This side is to be connected to the control board.
Wiring:
1- FC: Connect the white wire for limit switches
2- Motor +: Connect the green wire for operator opening (pull to open)
3- Motor -: Connect the black wire for operator closing (pull to open)



Note: the connectors on the operator must be closed and sealed with parts contained in included kit (D from component list on page 3).

BRACKETS INSTALLATION (PULL TO OPEN)

- Inspect all gate components to insure proper operation.
- Gate must swing freely throughout its travel.

STEP 1

Position the post mounting bracket (A from component list on page 3) and gate mounting bracket (B from component list on page 3) using the dimensions in the table depending upon the operator used (Phobos BT N or Phobos BT NL) and depending upon the desired opening angle (90 degrees or 110 degrees). Secure post bracket (A from component list on page 3) by welding or bolting.

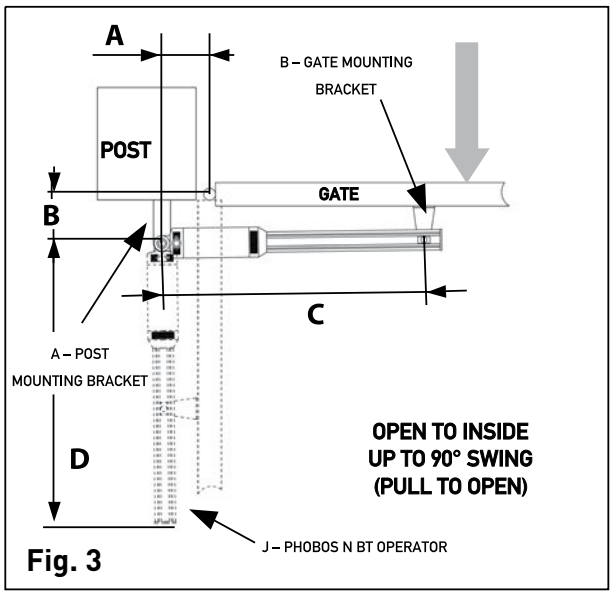


Fig. 3

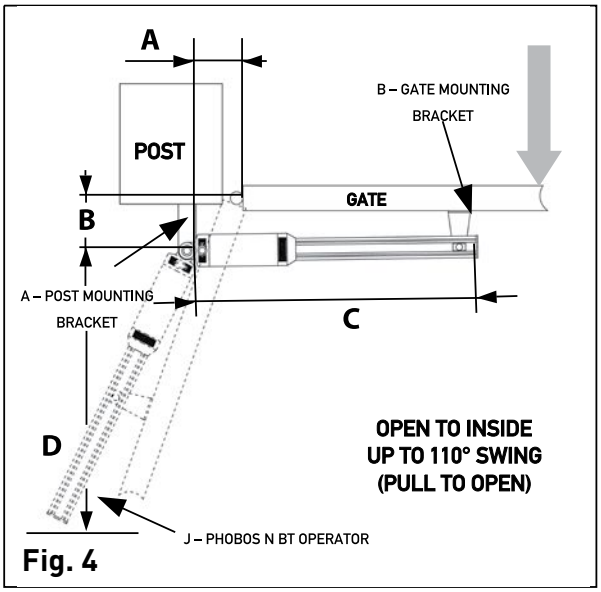


Fig. 4

For opening of 90 degrees	Phobos BT N	Phobos BT NL
A	5 1/2″	7 1/2″
B	5 1/2″	7 1/2″
C	27 3/4″	32 1/2″
D	31 3/4″	36 1/2″

For opening of 110 degrees	Phobos BT N	Phobos BT NL
A	5″	5 1/4″
B	5″	5 1/2″
C	27 3/4″	32 1/2″
D	31 3/4″	36 1/2″

STEP 2

Position the gate mounting bracket (B from component list on page 3) so that the distance between the post and gate bracket rotation points is 27 3/4 ″ for Phobos BT N and 32 ½″ for Phobos BT NL (pull to open) with the gate fully closed. Secure gate bracket (B from component list on page 3) by welding or bolting.

Note: Do not mount gate bracket (B from component list on page 3) on vertical pickets. Instead, weld a plate or a bar horizontally across several pickets for reinforcement. Install both the gate and post brackets in a position to ensure that the actuator is level.

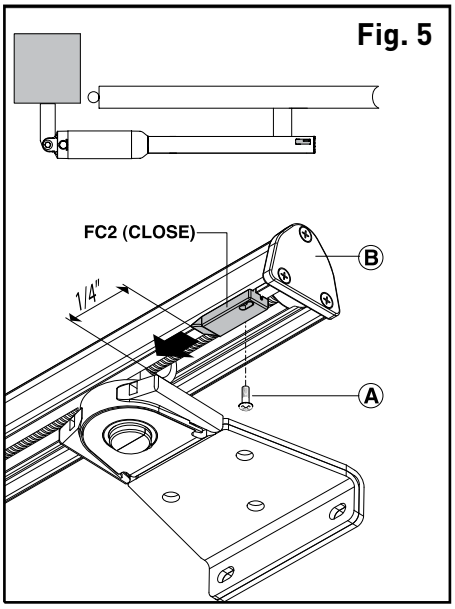
STEP 3

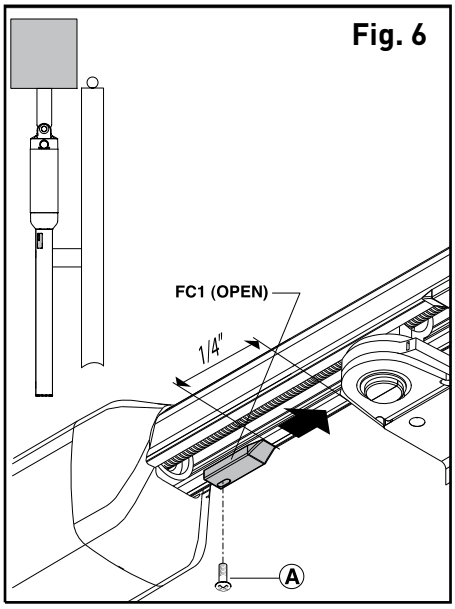
Install the Phobos BT N or BT NL on the mounting brackets and secure with retainer C clips provided in the kit.

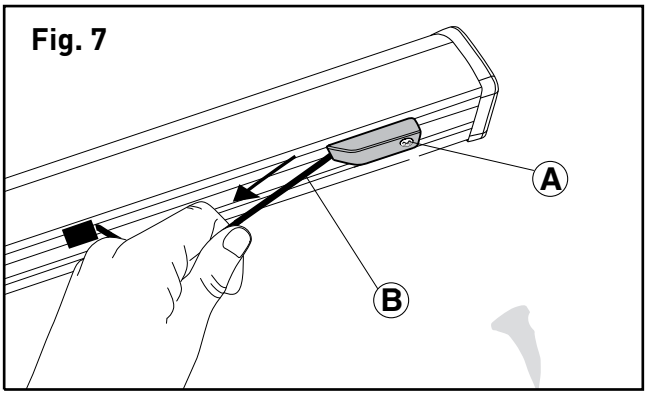
STEP 4

Mount the Libra UL R or large enclosure box in close proximity to the Phobos BT N or BT NL in accordance with local electrical regulation.

LIMIT SWITCH SETTING (PULL TO OPEN)







- **Disengage operator with manual release key (D from component list on page 3).**
- Locate the limit sensors located under the worm drive cover as shown in above Fig. 5 & 6.
- Position the gate in closed position (as shown on top of Fig. 5).
- Loosen the screw on the limit sensor at the end of the arm (as shown in Fig. 7), closest to the gate bracket (B from component list on page 3).
- Slide the limit sensor at the end of the arm until you hear a faint "click" of the magnet catching and then tighten the screw on the limit sensor.
- Loosen the screw of the limit sensor close to the main body of the operator and slide it all the way backwards (against the main body).
- Manually move the gate to its fully open position (as shown on top of Fig. 6) in a slow and even motion.
- Slide the limit sensor nearest to the motor until you hear a faint "click" of the magnet catching and then tighten the screw on the limit sensor.
- Manually move the gate to its fully closed position (as shown on top of Fig. 5) in a slow and even motion.
- **Reengage the operator with the provided manual release key (part of Kit D from component list on page 3).**

BRACKETS INSTALLATION (PUSH TO OPEN)

- Inspect all gate components to insure proper operation.
- Gate must swing freely throughout its travel.

STEP 1

Position the post mounting bracket (not provided by BFT) and gate mounting bracket (B from component list on page 3) using the dimensions in the table depending upon the operator used (Phobos BT N or Phobos BT NL) and depending upon the desired opening angle (90 degrees or 110 degrees). Secure bracket by welding or bolting.

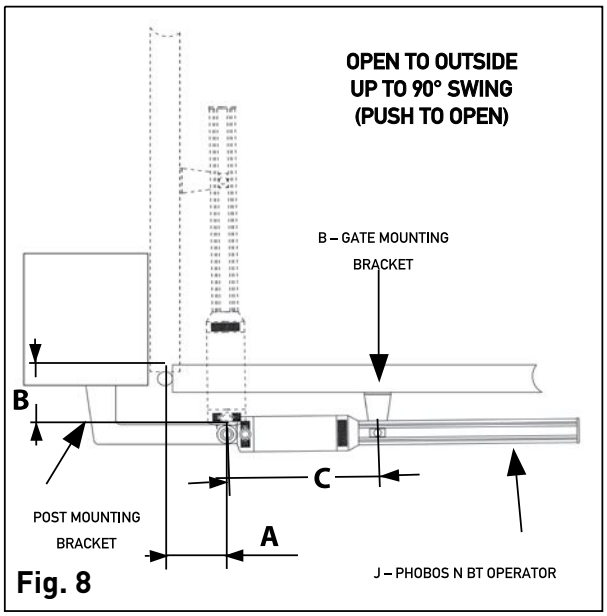


Fig. 8

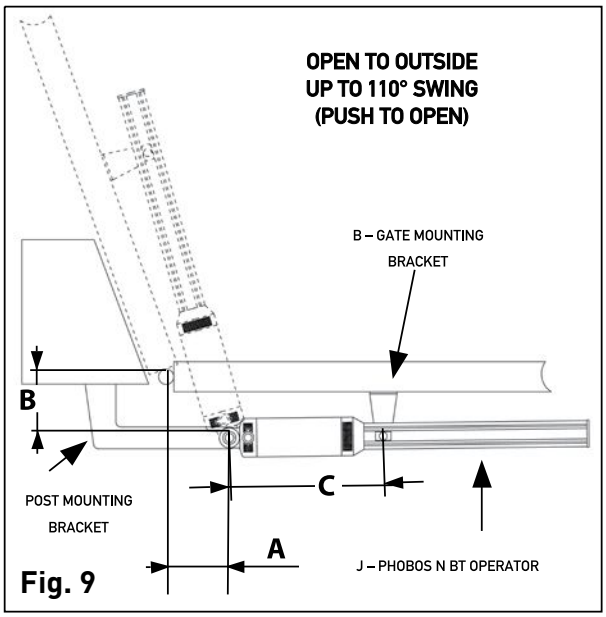


Fig. 9

For opening of 90 degrees	Phobos BT N	Phobos BT NL
A	5 1/2″	7 1/2″
B	5 1/2″	7 3/4″
C	16 1/4″	16 1/3″

For opening of 110 degrees	Phobos BT N	Phobos BT NL
A	5″	5 1/4″
B	5″	5 1/2″
C	16 1/4″	16 1/3″

STEP 2

Position the gate mounting bracket (B from component list on page 3) so that the distance between the post and gate bracket rotation points is 16 1/4" for both Phobos BT N and Phobos BT NL (pull to open) with the gate fully closed. The closing limit switch must be pulled all the way against the motor. Secure gate bracket (B from component list on page 3) by welding or bolting.

Note: Do not mount gate bracket (B from component list on page 3) on vertical pickets. Instead, weld a plate or a bar horizontally across several pickets for reinforcement. Install both the gate and post brackets in a position to ensure that the actuator is level.

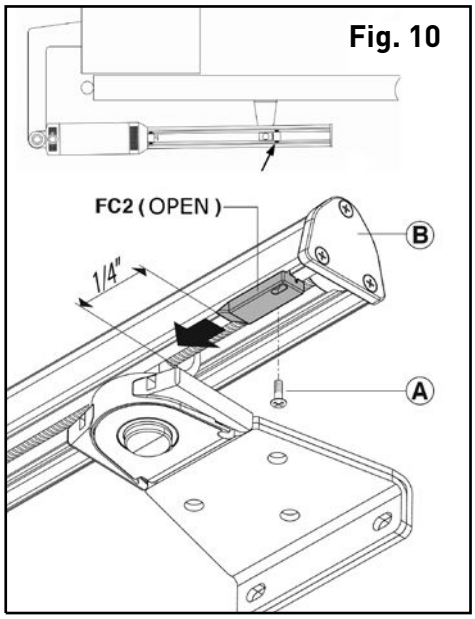
STEP 3

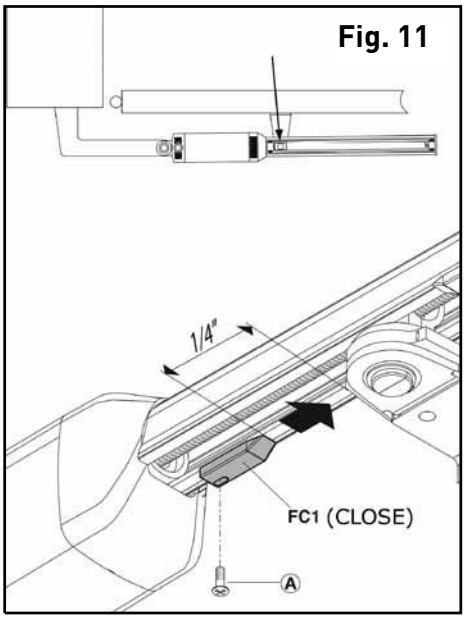
Install the Phobos BT N or BT NL on the mounting brackets and secure with retainer C clips provided in the kit.

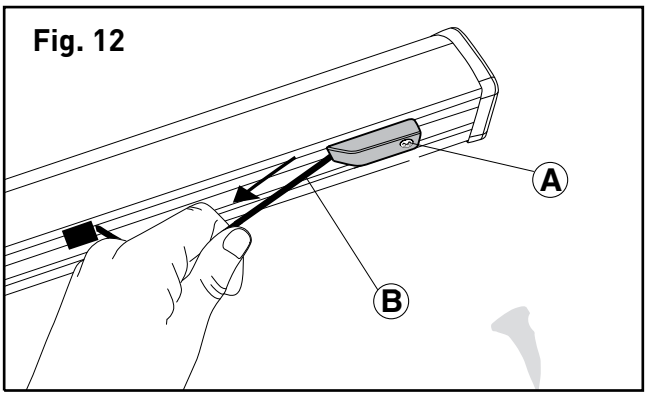
STEP 4

Mount the Libra UL R or large enclosure box in close proximity to the Phobos BT N or BT NL in accordance with local electrical regulation.

LIMIT SWITCH SETTING (PUSH TO OPEN)







- **Disengage operator with manual release key (D from component list on page 3).**
- Locate the limit sensors under the worm drive cover as shown in above Fig. 10 & 11.
- Position the gate in closed position (as shown on top of Fig. 11).
- Loosen the screw of the limit sensor close to the main body of the operator and slide it all the way backwards (against the main body).
- Slide the limit sensor nearest to the motor until you hear a faint "click" of the magnet catching and then tighten the screw on the limit sensor.
- Loosen the screw on the limit sensor at the end of the arm (as shown in Fig. 12), closest to the gate bracket (B from component list on page 3).
- Manually move the gate to its fully open position (as shown on top of Fig. 10) in a slow and even motion.
- Slide the limit sensor at the end of the arm until you hear a faint "click" of the magnet catching and then tighten the screw on the limit sensor.
- Manually move the gate to its fully closed position (as shown on top of Fig. 11) in a slow and even motion.
- **Reengage the operator with the provided manual release key (part of Kit D from component list on page 3).**