PHOBOS BT KIT UL
QUICK REFERENCE GUIDE

- Read and follow all instructions and safety procedures.
- Never let play on or walk in 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.
- All wiring should only be done by a qualified technician.
- Always make adjustments and connections with supply power turned “off”.
- This document does not supersede the full instruction manual included with each product.

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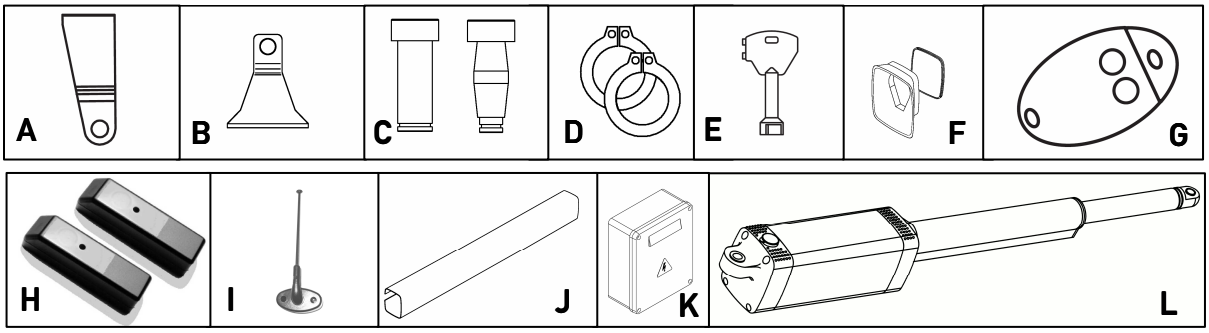
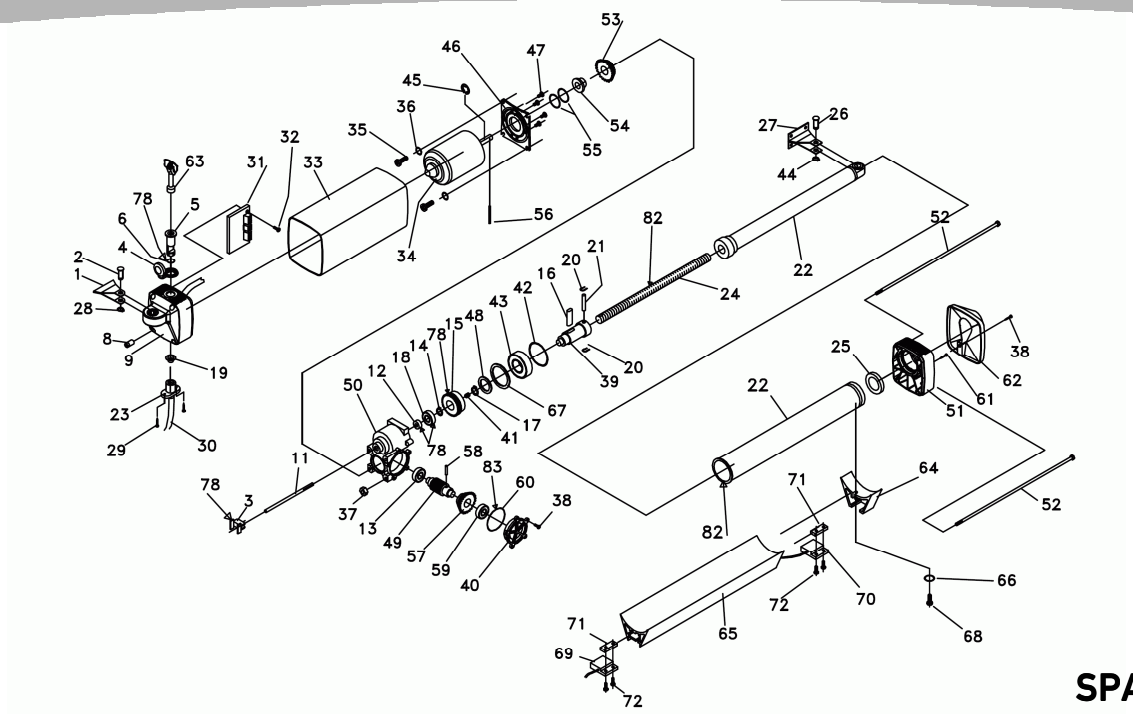
THE PHOBOS BT KITS CONTAIN THE FOLLOWING COMPONENTS



Components	Single Kit (Ref. # **R935246 00002**)	Dual Kit (Ref. # **R935246 00003**)
A. POST MOUNTING BRACKET	1	2
B. GATE MOUNTING BRACKET	1	2
C. BRACKET PIN	2	4
D. PIN RETAINER CLIP	2	4
E. MANUAL RELEASE KEY - CLS	1	2
F. SHAFT COVER ACCESSORIES	1	2
G. TRANSMITTER - MITTO 2	2	2
H. PHOTOCELLS - FL 130B	1	1
I. RECEIVER ANTENNA - AEL 133	1	1
J. SHAFT COVER - CPH	1	2
K. CONTROL BOARD - LIBRA UL R	1	1
L. OPERATOR - PHOBOS BT	1	2

Technical Specifications:

Power supply:	120 V ac ± 10% - 60 Hz
Working force:	450 lbs
Working stroke:	11"
Piston travel speed	0.55''/s
Limit switches	Incorporated (magnetic)
Manual operation:	Release key
Cycles per day:	60
Gate length:	6' - 10'
Gate weight:	550 lbs - 220 lbs



SPARE PARTS

1	I099806	13	I099804	28	I099806	41	I099821	55	I099819	68	I099826
2	I099806	14	I099805	29	I099822	42	I099805	55	I099824	69	I099825
3	I099821	15	I099804	30	I099817	42	I099819	56	I099824	70	I099825
4	I099815	16	I099821	31	I099823	43	I099805	57	I099804	71	I099825
4	I099821	17	I099805	32	I099823	44	I099806	58	I099804	72	I099825
5	I099821	18	I099805	33	I099820	45	I099824	59	I099804	78	I101116
6	I099819	19	I099822	34	D161511	46	I099824	60	I099804	82	I101111
6	I099821	20	I099821	35	I099824	47	I099824	60	I099819	83	I101115
7	I099821	21	I099821	36	I099824	48	I099805	61	I099820		
8	I099820	22	N733264	37	I099805	49	I099804	62	I099820		
9	D221830	23	I099822	38	I099804	50	I099805	63	I099821		
11	I099821	24	I099805	38	I099820	51	D221829	64	I099826		
12	I099805	25	I099819	39	I099821	52	I099820	65	I099826		
12	I099819	26	I099806	40	D221931	53	I099824	66	I099826		
13	I099804	27	I099806	41	I099805	54	I099824	67	I099805		

REPLACEMENT PARTS

Item	Ref. #
• OPERATOR – PHOBOS BT	P935069 00001
• CONTROL BOARD - LIBRA UL R	D113701 00001
• TRANSMITTER - MITTO 2	D111750
• PHOTOCELLS - FL 130B	P111043 00001
• RECEIVER ANTENNA - AEL 433	D113632
• MANUAL RELEASE KEY - CLS	D610180
• SHAFT COVER - CPH	P135004

OPTIONAL ACCESSORIES

Item	Ref. #
• ADJUSTABLE POST BRACKET - SFR	N733286
• BOLTABLE ANCHOR PLATE FOR POST BRACKET- PPE	D730567
• DIGITAL KEYPAD (external)- SELETTO E	P121013
• DIGITAL KEYPAD (flush)- SELETTO	P121012
• INTERFACE FOR SELETTO - SCS	P111323
• VERTICAL SOLENOID LOCK - ECB	D121018
• LEFT HAND SOLENOID LOCK - ECB SX	D121017
• RIGHT HAND SOLENOID LOCK - ECB DX	D121016
• ECB LOCK INTERFACE - ME BT	D111761
• 24 Vdc BATTERY BACKUP	P125005

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

STEP 1

Position the post mounting bracket **(A)** and gate mounting bracket **(B)** using the measurements of Fig. 1 for an open to inside 90° swing application and Fig. 2 for an open to inside 110° swing application. Secure by welding (or bolting if PPE or SFR used) (bracket A only).

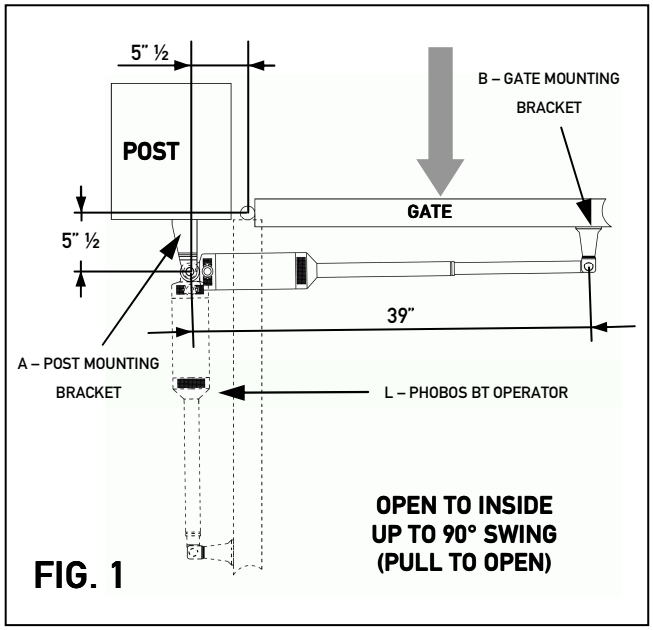


FIG. 1

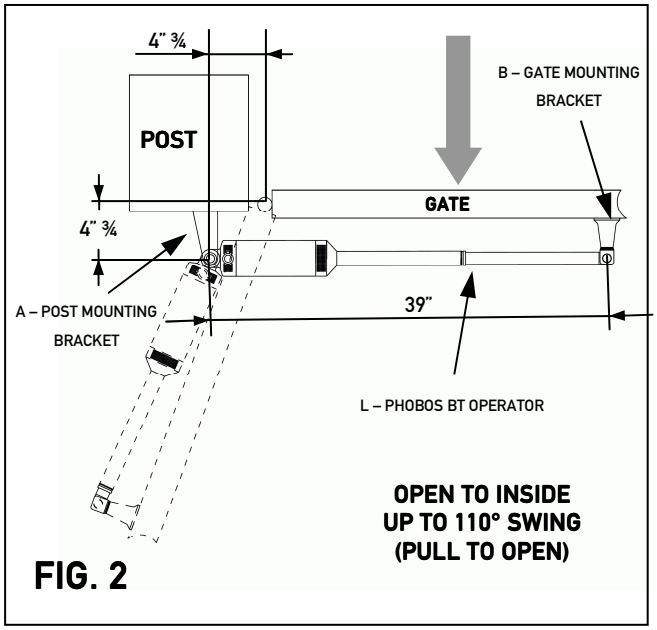


FIG. 2

STEP 2

Position the gate mounting bracket **(B)** so that the distance between the post and gate bracket rotation points is 39" (pull to open) with the gate closed. Secure by welding or bolting. **Note:** Do not mount bracket **(B)** on vertical pickets - weld a plate or bar horizontally across several pickets for reinforcement. Be sure to install brackets in a position to insure a level actuator arm.

STEP 3

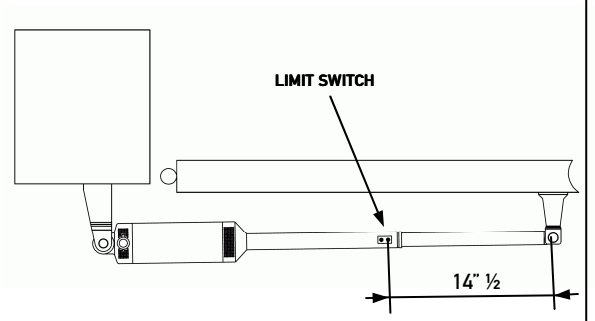
Install the PHOBOS BT operator **(L)** on the mounting brackets and secure with bracket pins **(C)** and pin retainer clips **(D)** provided.

STEP 4

Mount the LIBRA UL R control box in close proximity to the PHOBOS BT actuator arm in accordance with local electrical regulations.

FIG. 3

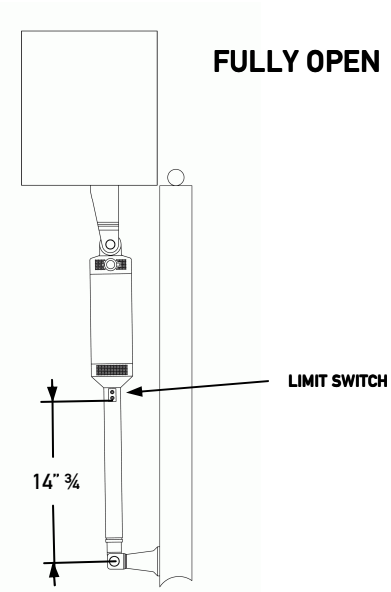
FULLY CLOSED



ADJUSTMENT OF THE EXTENDING LIMIT SENSOR

FIG. 4

FULLY OPEN



ADJUSTMENT OF THE RECTRACTING LIMIT SENSOR

- **Disengage operator with manual release key (E).**
- Position the gate in closed position as shown in Fig. 3.
- Locate the limit sensors located within the black track on the bottom of the PHOBOS BT arm as shown in Fig. 3 and 4.
- Loosen the screws on the limit sensor at the end of the arm, closest to the gate bracket **(B)**.
- Slide the limit sensor until the outside screw of the limit sensor is 14'' ½ from the center of the gate bracket as shown in Fig. 3. Tighten the screws on limit sensor.
- Move the gate to fully open position so the arm is retracted as shown in Fig. 4.
- Loosen the screws on the limit sensor closest to the motor.
- Slide the limit sensor nearest to the motor so the center of the gate mounting bracket **(B)** and nearest limit sensor adjustment screw equals 14" 3/4 as shown in Fig. 4. Tighten the screws on limit sensor.
- Push the gate to the closed position, assuring smooth and even operation.
- Re-engage the operator with the manual release key **(E).**

STEP 1

Position the post mounting bracket (not provided) and gate mounting bracket **(B)** using the measurements of Fig. 5 for a push to open 90° swing application and Fig. 6 for a push to open 110° swing application. Secure by welding or bolting.

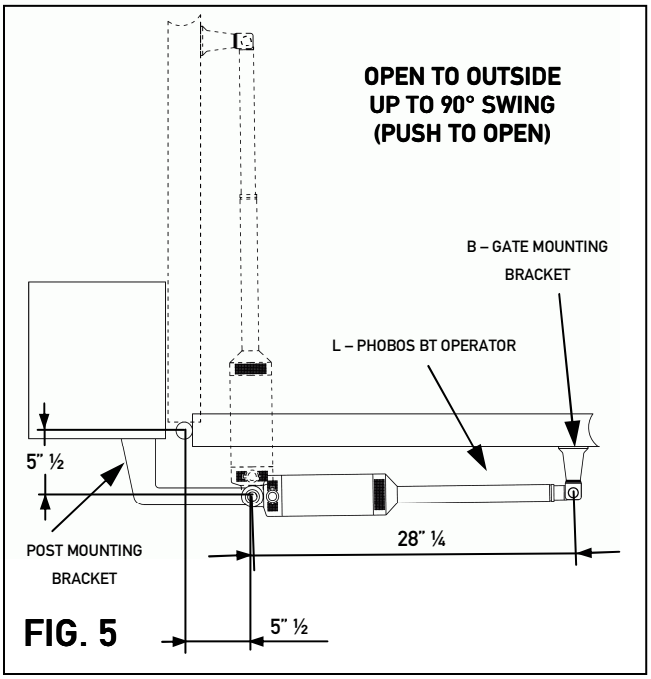


FIG. 5

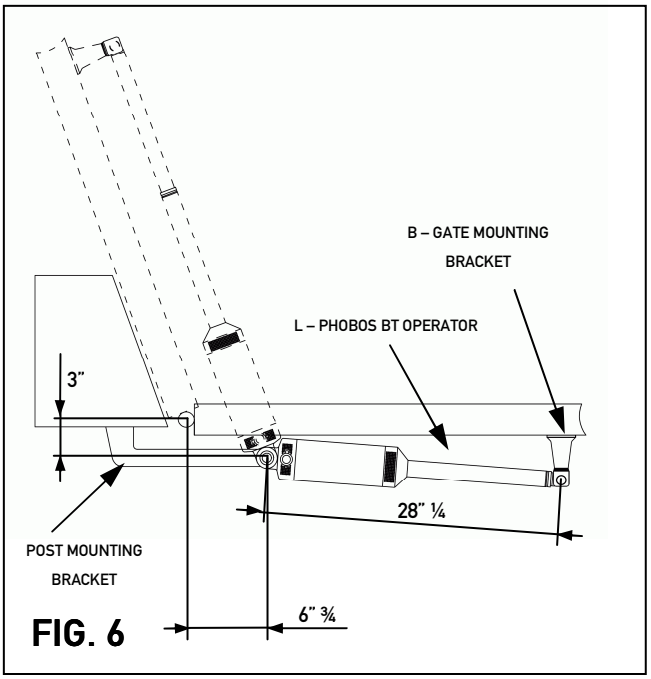


FIG. 6

STEP 2

Position the gate mounting bracket **(B)** so that the distance between the post and gate bracket rotation points is 28" ¼ (push to open) with the gate closed. Secure by welding or bolting. **Note:** Do not mount bracket on vertical pickets - weld a plate or bar horizontally across several pickets for reinforcement. Be sure to install brackets in a position to insure a level actuator arm.

STEP 3

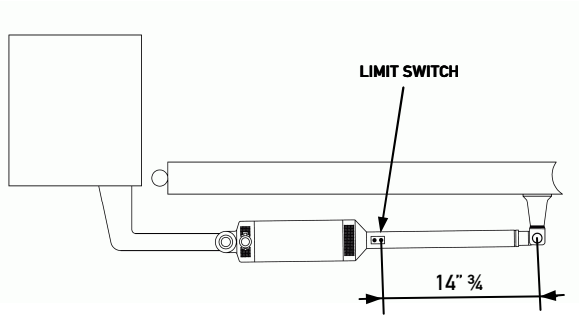
Install the PHOBOS BT operator **(L)** on the mounting brackets and secure with bracket pins **(C)** and pin retainer clips **(D)** provided.

STEP 4

Mount the LIBRA UL R control box in close proximity to the PHOBOS BT actuator arm in accordance with local electrical regulations.

FIG. 7

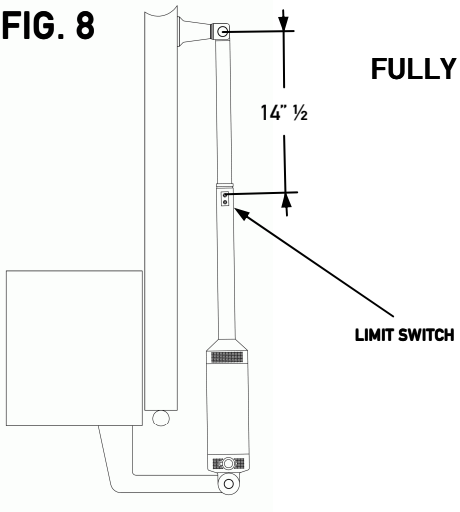
FULLY CLOSED



ADJUSTMENT OF THE EXTENDING LIMIT SENSOR

FIG. 8

FULLY OPEN



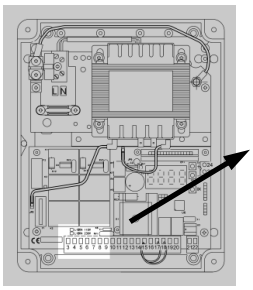
ADJUSTMENT OF THE RECTRACTING LIMIT SENSOR

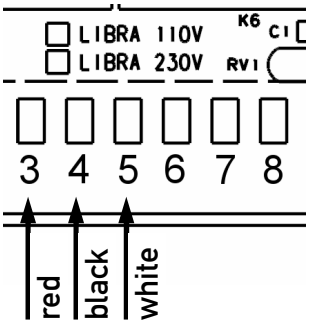
- **Disengage operator with the manual release key (E).**
- Position the gate in closed position as shown in Fig. 7.
- Locate the limit sensors located within the black track on the bottom of the PHOBOS BT arm as shown in Fig. 7 and 8.
- Loosen the screws on the limit sensor closest to motor.
- Slide the limit sensor nearest to the motor so the center of the gate mounting bracket **(B)** and nearest limit sensor adjustment screw equals 14 3/4" as shown in Fig. 7. Tighten screws on limit sensor.
- Move the gate to fully open position so the arm is extended as shown in Fig. 8.
- Loosen the screws on the limit sensor at the end of the arm, closest to gate bracket **(B)**.
- Slide the limit sensor until the outside screw of the limit sensor is 14''½ from the center of the gate bracket as shown in Fig. 8. Tighten the screws on limit sensor.
- Push the gate to the closed position, assuring smooth & even operation.
- Re-engage operator with manual release key **(E)**.

SINGLE OPERATOR INSTALLATION:

PULL TO OPEN

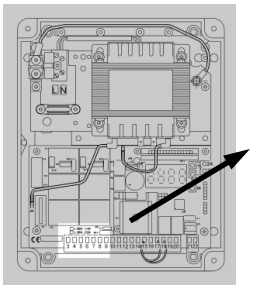
- Connect the **red** (+) wire of the Phobos actuator arm to **terminal 3** of the Libra control board.
- Connect the **black** (-) wire of the Phobos actuator arm to **terminal 4** of the Libra control board.
- Connect the **white** (FC) wire of the Phobos actuator arm to **terminal 5** of the Libra control board.

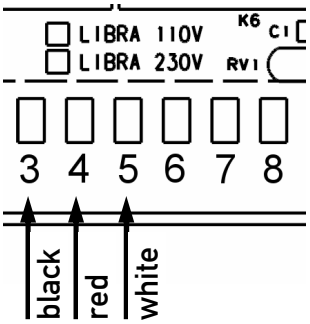




PUSH TO OPEN

- Connect the **red** (+) wire of the Phobos actuator arm to **terminal 4** of the Libra control board.
- Connect the **black** (-) wire of the Phobos actuator arm to **terminal 3** of the Libra control board.
- Connect the **white** (FC) wire of the Phobos actuator arm to **terminal 5** of the Libra control board.

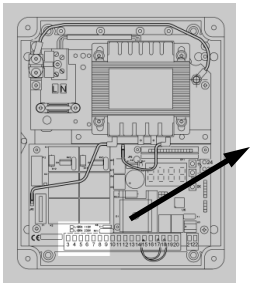


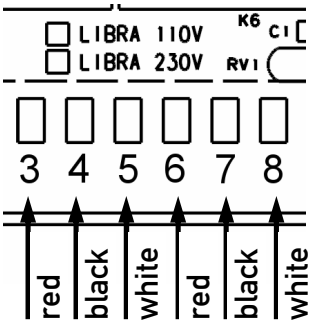


DUAL OPERATOR INSTALLATION:

PULL TO OPEN

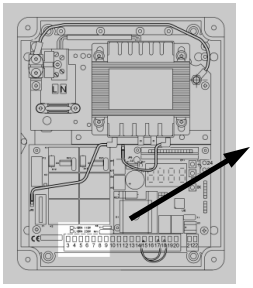
- Connect the **red** (+) wire of the Phobos actuator arm to **terminal 6** of the Libra control board.
- Connect the **black** (-) wire of the Phobos actuator arm to **terminal 7** of the Libra control board.
- Connect the **white** (FC) wire of the Phobos actuator arm to **terminal 8** of the Libra control board.

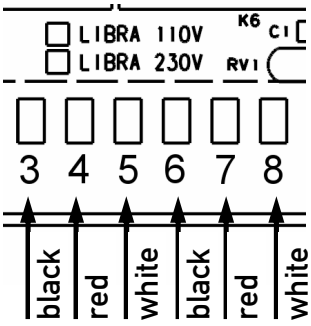




PUSH TO OPEN

- Connect the **red** (+) wire of the Phobos actuator arm to **terminal 7** of the Libra control board.
- Connect the **black** (-) wire of the Phobos actuator arm to **terminal 6** of the Libra control board.
- Connect the **white** (FC) wire of the Phobos actuator arm to **terminal 8** of the Libra control board.

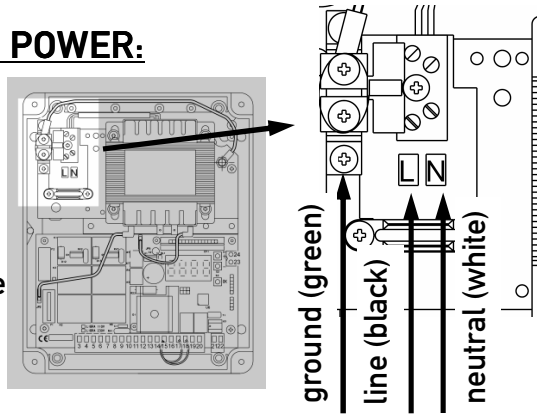




CONNECTING THE POWER:

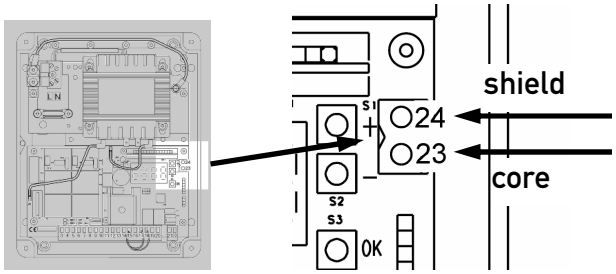
- Connect the **line wire** of the 110 volt power source to **terminal L** of the Libra control board.
- Connect the **neutral wire** of the 110 volt power source to **terminal N** of the Libra control board.
- Connect the **ground wire** of the 110 volt power source to **ground terminal** of the Libra control board.

Wire not supplied

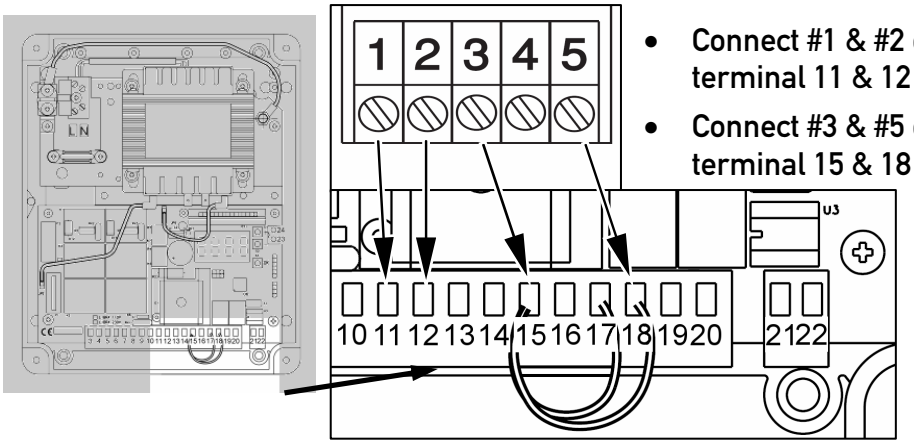


CONNECTING THE ANTENNA:

- Connect the antenna cable to the Libra circuit board. Strip cable and connect the core wire to terminal 23 and the shield wire to terminal 24.



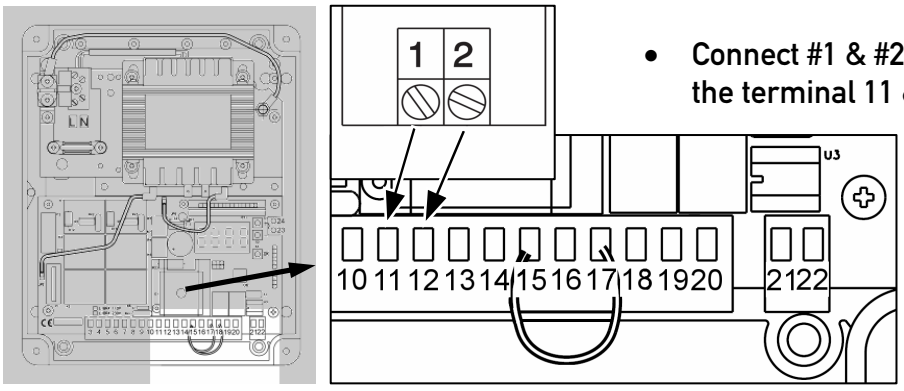
CONNECTING THE PHOTOEYE (THROUGH BEAM):



- Connect #1 & #2 of the photoeye receiver to the terminal 11 & 12 of the Libra control board.
- Connect #3 & #5 of the photoeye receiver to the terminal 15 & 18 of the Libra control board.

Remove jumper wire.

Wires not supplied.

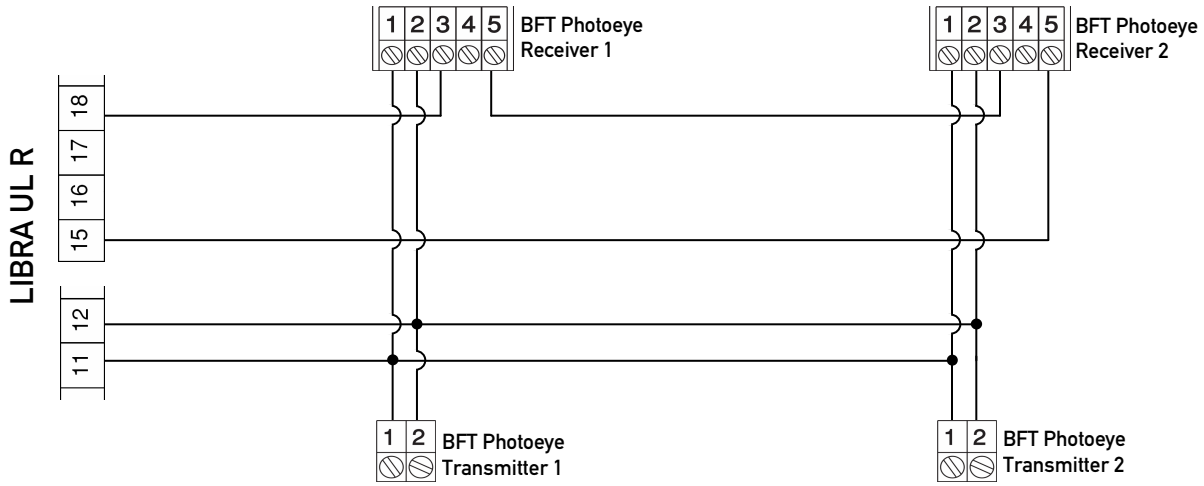


- Connect #1 & #2 of the photocell transmitter to the terminal 11 & 12 of the Libra control board.

Wires not supplied.

- Note: on BFT control boards safety contacts are always N.C., multiple safety devices connected to the same contact have to be connected in series.
  Command contacts are always N.O.; multiple command devices connected to the same contact have to be connected in parallel.
  CAUTION: *All command and safety contacts are dry contacts, giving tension to these contacts will damage the board.*

- In case more than one photoeye is required, photoeyes have to be connected in series (NC contact). Follow the diagram (install receivers to avoid cross talking):



CONNECTING THE SAFETY LOOPS:

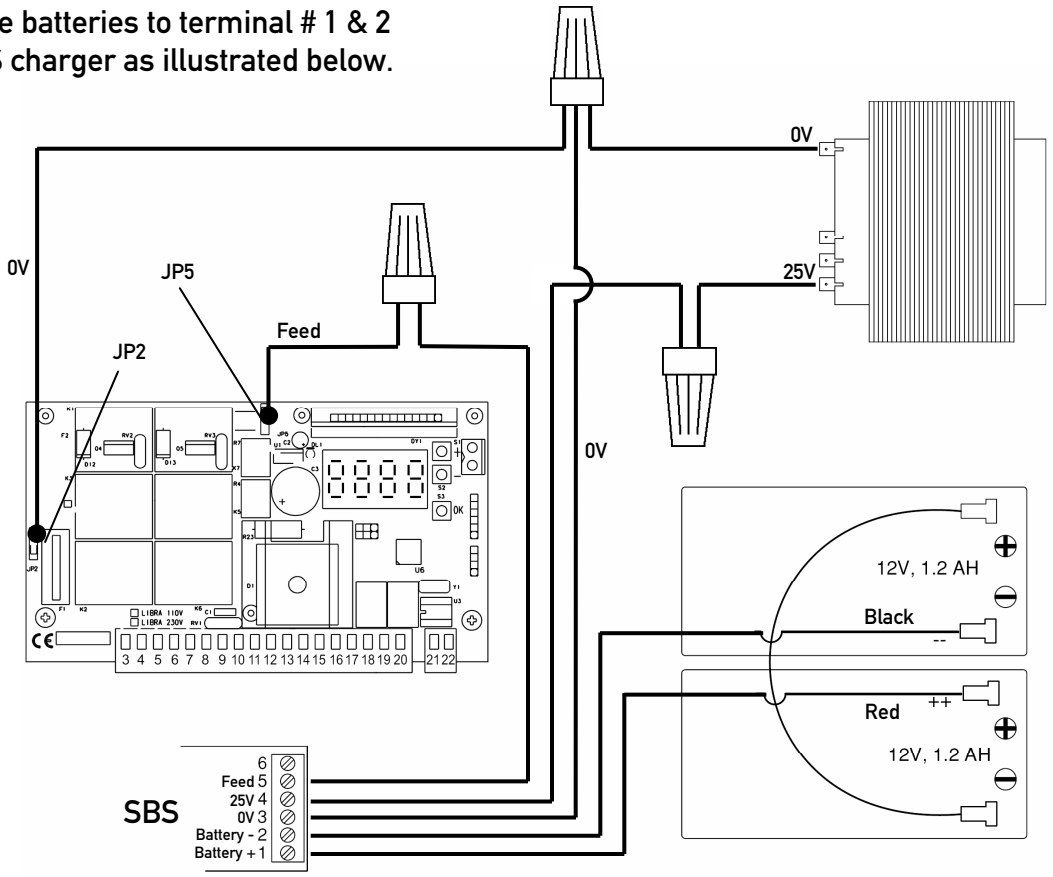
- Safety loops detectors have to be connected as photoeyes, as they use the same PHOT contact (15 – 18). Every device connected to PHOT contact, including the safety loops, has to be a N.C. contact and will be connected in series.

CONNECTING OTHER ACCESSORIES:

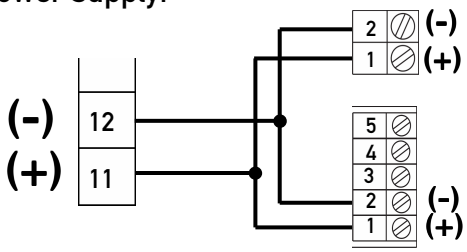
- Accessories such as telephone entry systems and free exit loops will be connected to the OPEN contact (15 – 20). Every device connected to OPEN contact has to be a N.O. contact and will be connected in parallel.

- Accessories such as Single Button Control or external receiver contact will be connected to the START contact (15 – 16).
  The button will command the gate to:
  OPEN/STOP/CLOSE in sequence (3 step logic ON)
  OPEN/STOP/CLOSE/STOP in sequence (3 step logic OFF)
  Note: START-CLOSE logic has to be set to OFF for the Single Button Control to work correctly.
  For further details on programming the control board, refer to “Finalizing the installation” chapter at page 13.

- Unplug the power.
- Cut wire going from JP2 connector on the board to 0V connector on the transformer. Strip resulting ends. Cut wire going from JP5 connector to 25V connector on the transformer. Strip resulting ends.
- Using a wire nut (not supplied) connect JP2, 0V and an additional wire (not supplied) together. Connect other end of this additional wire on terminal # 3 on the SBS charger board.
- Using a wire nut (not supplied), connect together transformer 25V wire and an additional wire (not supplied). Connect other end of this additional wire to terminal # 4 on the SBS charger.
- Using a wire nut (not supplied), connect together JP5 wire and an additional wire (not supplied). Connect other end of this additional wire to terminal # 5 on the SBS charger.
- Connect the batteries to terminal # 1 & 2 on the SBS charger as illustrated below.

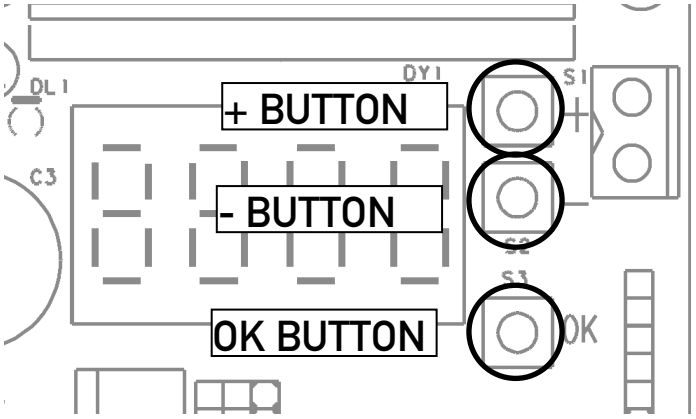


- Check that polarity is respected with photocells and accessory power supply: When in battery mode #11 is + (positive), #12 is – (negative).
- On BFT photocells #1 is + (positive), #2 is – (negative):



- Check other accessories polarity according to the manufacturer's installation manual.

NAVIGATING THROUGH THE MENUS:



- The "**OK**" button is used for: switching on the display, confirming changes to the programming, entering the menus.
- The "**+**" button is used for: scrolling up the menus (go up in the menus as shown at page 15), increasing values.
- The "**-**" button is used for: scrolling down the menus (go down in the menus as shown at page 15), decreasing values.
- The "**+**" and "**-**" buttons pushed at the same time are used for: getting back one level in the menus, discarding changes to programming, exiting from the programming mode (turning off the display).

FINALIZING THE INSTALLATION:

- Turn the power off to the control board.
- Connect any external control device according to wiring diagram on page 17.
- Turn on power to control board. Check red power light on Libra control board.

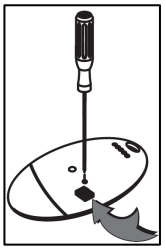


FIG. 9

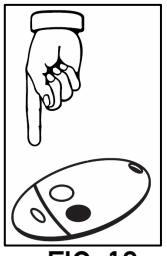


FIG. 10

ADDING TRASMITTERS TO THE RECEIVER

1. Turn on the display (by pressing twice the "**OK**" button).
2. Scroll down ("**-**" button) to "**Radio**" menu and press "**OK**".
3. The display will show "**Add Start**". Press "**OK**".
4. The display will show "**Hidden button**". Press the hidden button of the transmitter you want to store as shown in Fig. 9.
5. The display will show "**Desired button**". Press the button you want to activate the gate with as shown in Fig. 10.
6. The display will show "**Add Start**", repeat the procedure from step # 3 to install other transmitters.
7. Switch off the display by pressing "**+**" and "**-**" buttons at the same time twice.

SINGLE OPERATOR SETTING

Only when installing a single actuator (skip in case of dual operator installation):

1. Turn on the display (by pressing twice the "**OK**" button).
2. Scroll down ("**-**" button) to "**Logic**" menu and press "**OK**".
3. The display will show "**Tca**". Scroll down to "**1 Mot on**". Press "**OK**".
4. The display will show "**Off**". Press "**+**".
5. The display will show "**On**". Press "**OK**" .
6. Switch of the display.

Warning: when installing a single operator, a wrong setting in this logic will lead to wrong function of auto-close feature.

SETTING THE FORCE

1. Turn on the display (by pressing twice the "**OK**" button).
2. Scroll down ("**-**" button) to "**Autoset**" menu.

The Autoset feature will automatically let the control board learn torques required to correctly operate the gate.

⚠ **WARNING:** *Once "OK" button is pressed the gate will start to move, obstruction detection is disabled during Autoset. Be sure that no obstacle is within the working range of the gate while Autoset is being performed.*

NOTE: *the Autoset must be launched from a fully closed position. Autoset run from a different position may lead to improper control board setting.*

3. Press "**OK**". The gate will open and close automatically.
4. Once the gate is closed the display will show "**OK**" (Autoset successful) press "**OK**" (if "**KO**" is displayed, the Autoset failed, usually the cause of it is an improper setting for single operator installation).
5. Turn off the display.

COMMON SETTINGS

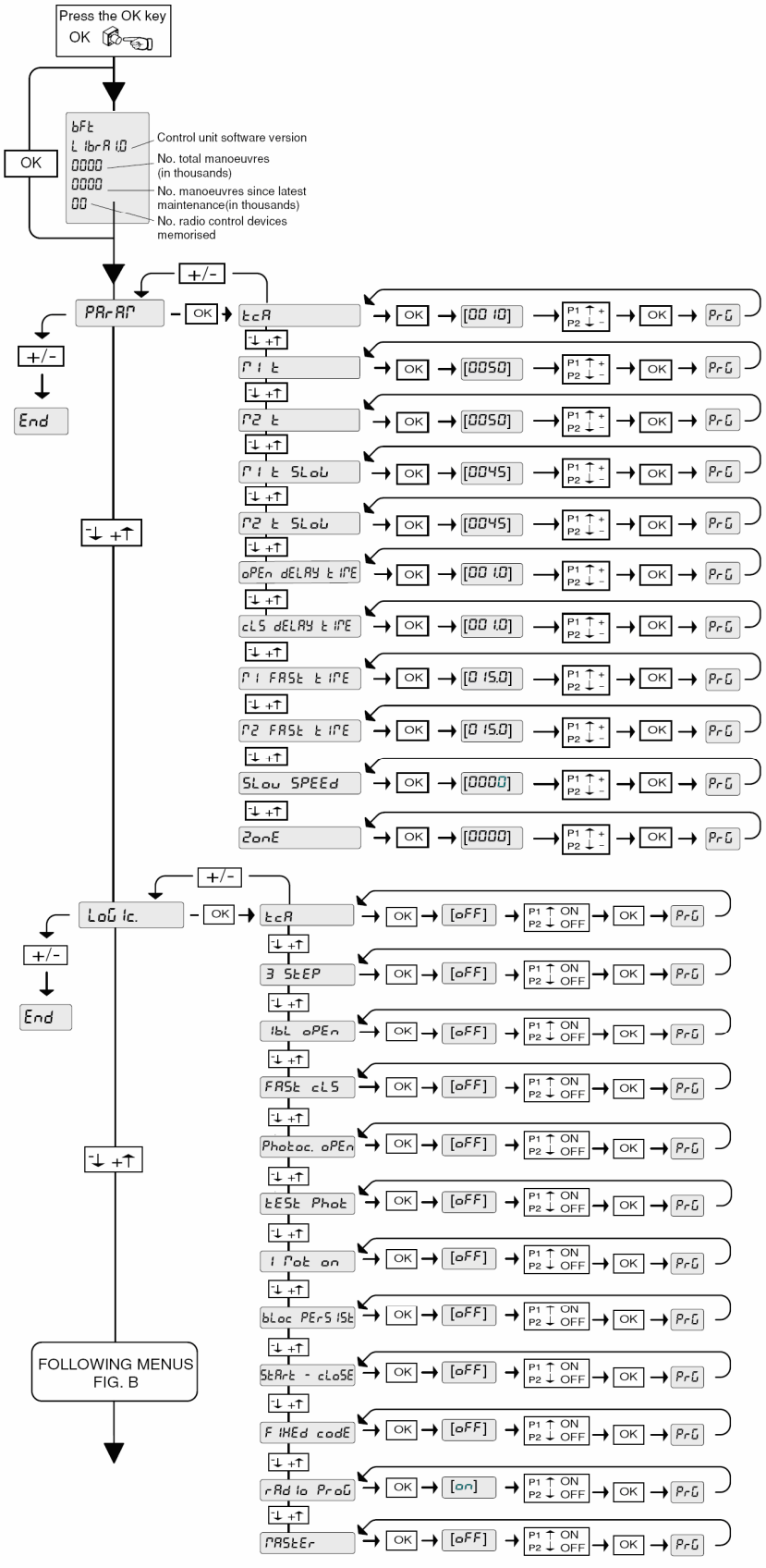
Parameters:

TCA:	**Timer to close (sec.).**
M1 fast time:	**Working time (sec) at full speed (motor 1) after this time motor 1 will proceed at slow down speed).**
M2 fast time:	**Working time (sec) at full speed (motor 2) after this time motor 2 will proceed at slow down speed.**
Slow speed:	**Slow down speed: 3 (25% of full speed)**

WARNING! after changing the above parameters (except TCA) an Autoset is required.

Logics:

TCA:	**Auto close enabled (ON)**
3 step:	**3 step logic (ON)**
Ibl open:	**Commands during opening ignored (ON).**
Photoc. Open:	**Photocells will be ignored while the gate is opening (ON)**
1 mot on:	**Dual operator installation (OFF), single operator installation (ON).**



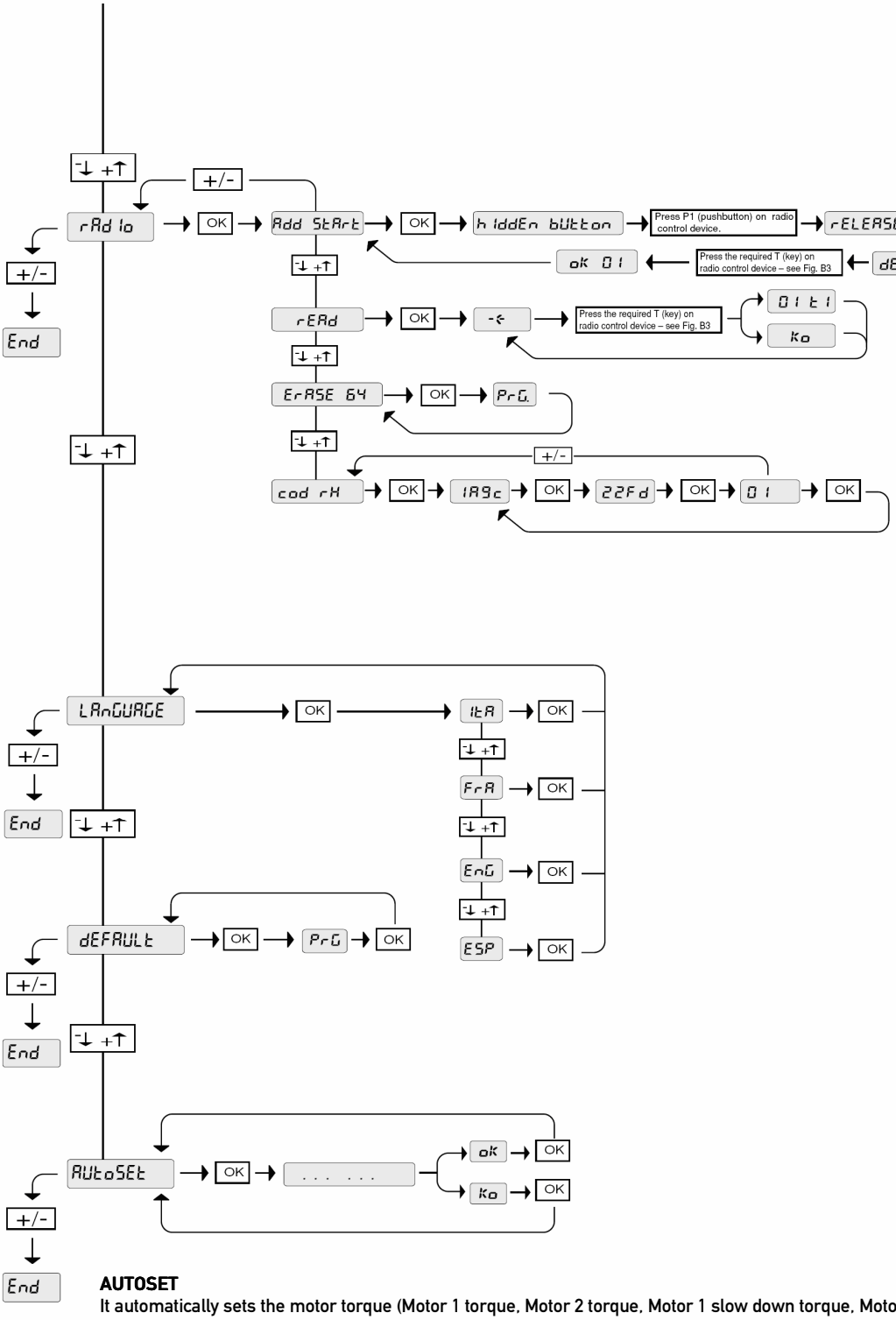
PARAMETER MENU

TCA (timer to close) [sec.]
(default 10 sec., min 3 sec., max 60 sec.)
Motor 1 torque [%]
(default 50%, min 1%, max 99%)
Motor 2 torque [%]
(default 50%. min 1%, max 99%)
Motor 1 torque slow-down [%]
(default 5%, min 1%, max 99%)
Motor 2 torque slow-down [%]
(default 5%, min 1%, max 99%)
Opening delay time [tenths of a sec.]
default 10 = 1 sec., min 10 = 1 sec., max 100 = 10 sec.)
Closing delay time [tenths of a sec.]
(default 10 = 1 sec., min 10 = 1 sec., max 100 = 10 sec.)
Motor 1 normal speed time [sec.]
(default 15 sec., min 1sec., max 30 sec.)
Motor 2 normal speed time [sec.]
(default 15 sec., min 1sec., max 30 sec.)
Slow-down speed
0= Slow-down disabled
1 = 50% of normal speed
2= 33% of normal speed
3= 25% of normal speed
Zone (serial connection – requires SCS card)
(default 0, min 0, max 127)

LOGIC MENU

TCA (automatic closing)
Default: OFF, Enabled: ON, Disabled: OFF
3 STEP (3 step/4 step)
Default: OFF, 3 step: ON, 4 step: OFF
IBL OPEN (commands ignored on opening)
Default: OFF, Enabled: ON, Disabled: OFF
FAST CLS (closing on photoeye disengage)
Default: OFF, Enabled: ON, Disabled: OFF
PHOTOC. OPEN (photoeye ignored on opening)
Default: OFF, Enabled: ON, Disabled: OFF
TEST PHOT (photocell test – requires different wiring if ON, see instruction manual for further details)
Default: OFF, Enabled: ON, Disabled: OFF
1 MOT ON (single operator installation)
Default: OFF, Single op. install.: ON, Dual op. inst.: OFF
BLOC PERSIST (lock hold - **use only if positive stops installed**)
Default: OFF, Enabled: ON, Disabled: OFF
START-CLOSE (terminal 16 as CLOSE)
Default: OFF, Term. 16: CLOSE: ON, Term. 16 START: OFF
FIXED CODE (fixed/rolling code receiver)
Default:ON, Fixed code: ON, Rolling code: OFF
RADIO PROG. (radio learn)
Default: ON, Enabled: ON, Disabled: OFF
MASTER (the board is a "master board" – requires SCS card)
Default: OFF, Master board: ON, Slave board: OFF

Warning: the logic MASTER has no relation to single/dual operator installation, it is used only if serial connection with multiple boards is required.

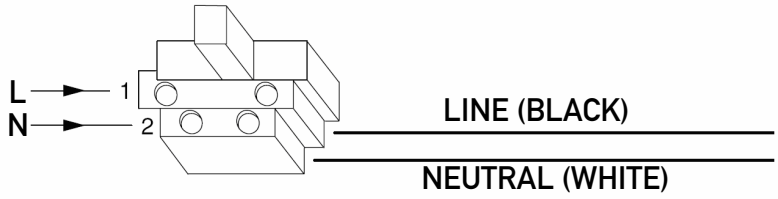


RADIO MENU
ADD START
(Program a button of a remote to activate the gate)
ADD 2CH
(No effect)
READ
(Check if a remote is I the memory of the receiver and display button #)
EX:
02 t1 (remote #2, button #1)
ko (remote not in the memory)
ERASE 64
WARNING!
Removes all remotes devices from the receiver memory.
COD RX
Displays the receiver code (required only if cloning remotes is needed)

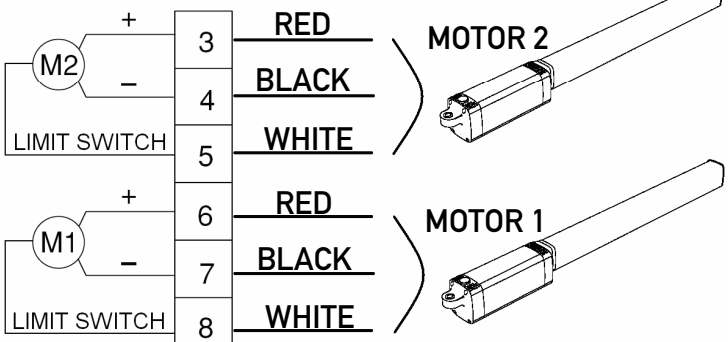
AUTOSET
It automatically sets the motor torque (Motor 1 torque, Motor 2 torque, Motor 1 slow down torque, Motor 2 slow down torque).

Note: *If slow down is disabled or not reached slow down torque will not be set. After slow down adjustment Autoset has to be carried out gain.*

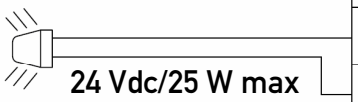
WARNING! *obstruction detection is disabled during Autoset. Be sure that no obstacle is within the working range of the gate while Autoset is being performed.*



Single operator or operator that moves first on opening.



Operator that moves second on opening.



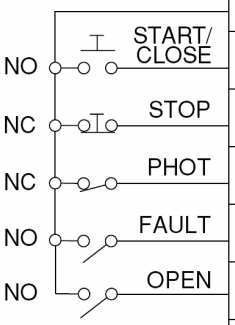
STROBE LIGHT CONNECTION

24 Vac OUT (180 mA max) { 11, 12

24 Vac power supply to accessories

24 Vac Vsafe OUT (180 mA max) { 13, 14

24 Vac power supply to fail safe accessories ***(requires different wiring – see instruction manual for further details)***



COMMON TEMINAL

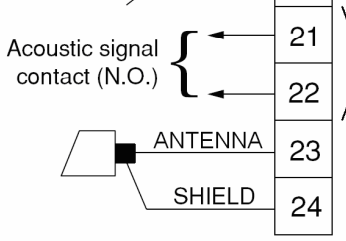
START/CLOSE TEMINAL: opens-closes-stops (START) or always closes (CLOSE) the gate depending on the logic setting (default is START)

STOP & RESET TERMINAL: stops the gate and UL ALARM when opened

PHOTOEYE TERMINAL: stops the gate when opened, when closed back continues opening (if gate opening) or reverses (if gate closing)

PHOTOEYE SELF TEST TERMINAL: failure check terminal for PHOTOEYE terminal ***(requires different wiring – see instruction manual for***

OPEN TERMINAL: opens the gate when closed (e.g. free exit or telephone entry contact)



UL ALARM: the contact closes after 2 consecutive obstruction detections with no limit switch activation. Can be reset by opening the stop contact or switching off the power supply.

Note: *while the alarm is active the gate is stopped. Reset the control board before re-activating the gate.*

FAULT	DIAGNOSTIC	POSSIBLE CAUSE	FIX
The red LED on the left of the display is OFF		Power or transformer connection is loose.	Check power and transformer connections.
		Main fuse (next to transformer primary) is blown.	Replace fuse.
		Bad control board.	Replace control board.
OPERATOR DOES NOT RUN remote or single button control (terminal 15-16) not working. **No relay clicking audible.**	STOP	STOP contact is open (15 – 17).	Check STOP contact connections.
	PHOT	PHOT contact is open (15 – 18).	Check PHOT connections or photoeye obstructed. Check proper functioning of connected devices.
	Display blank and STRT displayed when hitting the button	UL ALARM activated (21 – 22 contact closed).	Reset the board (open and close STOP contact (15 - 17) or switch off and back on the power.
	STRT not displayed when hitting the button	Remote not programmed.	Program remote (see remote programming at page 13).
		Remote battery out of charge (LED off on the remote when pressing button).	Replace battery.
		Motor fuse blown.	Replace fuse
		Bad control board.	Replace control board.
OPERATOR DOES NOT RUN **Relay clicking audible**	STRT displayed when giving the command	Wrong connection of the motor wires.	Check that the white wire is connected to terminals # 5 (motor 2) and 8 (motor 1).
		Bad control board.	Replace control board.
		Bad motor.	Replace motor.
GATE OPENS BUT DOESN'T CLOSE	OPEN	OPEN contact (15-20) continuously closed (ex. open button stuck).	Open the OPEN contact.
	PHOT	PHOT contact is open (15 – 18). The gate opens because photoeye is ignored on opening in the logic setting.	Check PHOT connections or photoeye obstructed. Check proper functioning of connected devices.
GATE STOPS AND REVERSES AFTER STRTING TO MOVE	AMP displayed when starting reversing	Torque setting too low.	Increase manually the torque (Motor 1 torque, Motor 2 torque, Motor 1 torque slow-down, Motor 2 torque slow-down in parameters section) or un another Autoset.
		Obstruction present.	Remove obstructions.
GATE DOES NOT CLOSE AUTOMATICALLY		Automatic closing is disabled.	Set automatic closing (TCA in logics section) to ON.
	00.XX	In a single operator installation, dual operator installation has been set.	Set single operator installation (1 MOT ON in logics section) to ON.
	OPEN	OPEN contact (15-20) continuously closed (ex. open button stuck).	Open the OPEN contact.
	PHOT	PHOT contact is open (15 – 18). The gate opens because photoeye is ignored on opening in the logic setting.	Check PHOT connections or photoeye obstructed. Check proper functioning of connected devices.
GATE RUNS TOO SLOW		Working time at normal speed is set too low.	Increase working time at normal speed (Motor 1 normal speed time, Motor 2 normal speed time in parameters section) to desired value.
GATE DOES NOT SLOW DOWN		Slow down is disabled.	Activate slow down (Slow-down speed in parameters section).
		Working time at normal speed is higher than the time required getting to the full opening/closing position.	Decrease working time at normal speed (Motor 1 normal speed time, Motor 2 normal speed time in parameters section) to desired value.

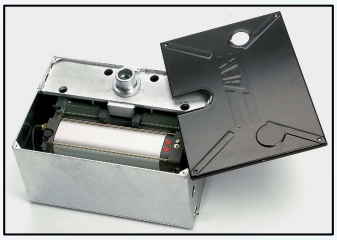
NOTES

PHOBOS BT

- UL 325 approved by CSA
- LCD display programming for maximum installation speed and flexibility
- Exhaustive diagnostic messages by the display
- Built-in rolling code receiver
- Quick install, only 3 wires from the operator housing to the control board (the only UL approved motor with this feature)
- The most energy efficient motor at only 40 W (1.6 amps)
- Autoset feature to quickly and simply adjust torque level on the gate
- Dual and single installation with the same control board
- Opening angle up to 120°
- Adjustable slow down, 3 different slowdown speeds
- Battery backup available, batteries are engaged only when main power is out
- Easy manual release through triangular key
- Inherent obstruction detection system for maximum safety
- Overlapping gates management

Also available from BFT


Road barriers


Hydraulic underground operators


Hydraulic arm operators


Rack and pinion sliding gate operators


Accessories

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