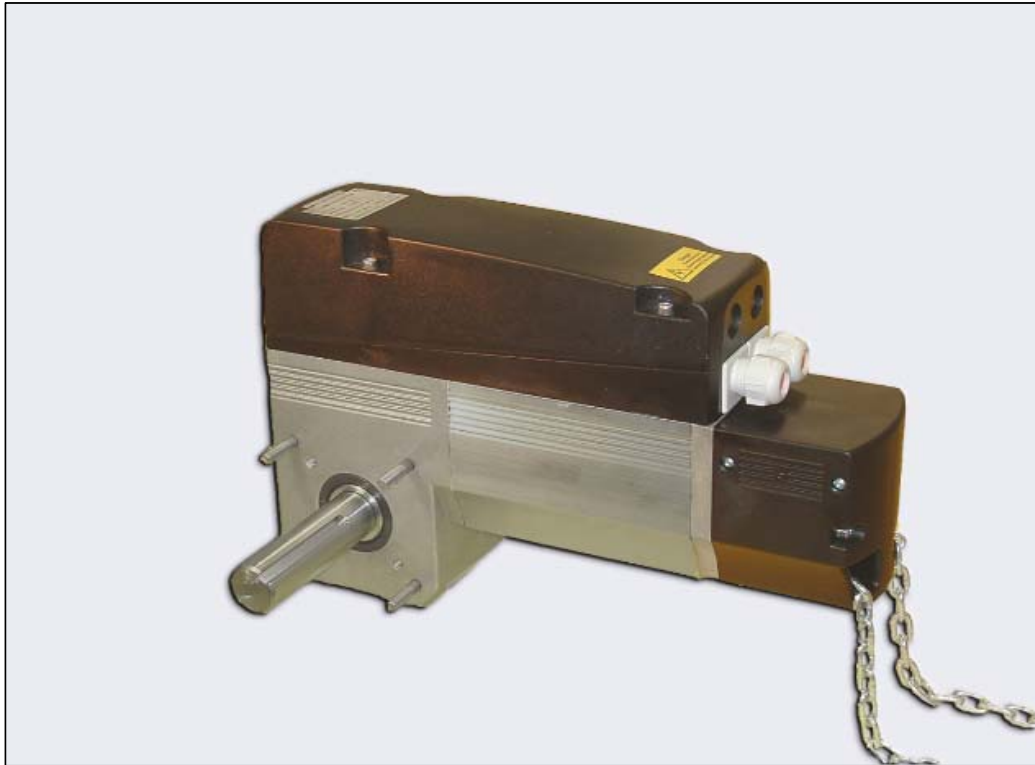


INSTALLATION INSTRUCTIONS

100 EV1 SERIES



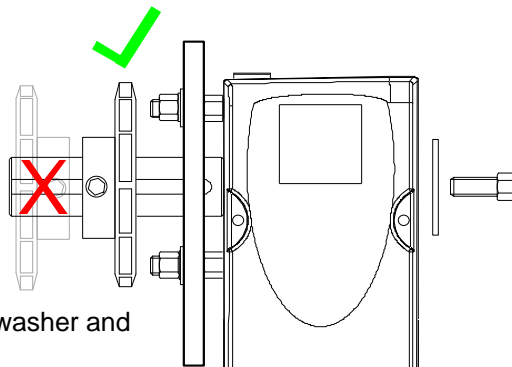
TECHNICAL SPECIFICATIONS		
POWER (kW)	0.55 @ 400V AC	
TORQUE (Nm)	100 @ 400V AC	
OUTPUT SPEED (RPM)	30	
NUMBER OF TURNS	33.5	
I.P. RATING	54	
MAX CURRENT (AMPS)	1.8	
POWER SUPPLY	400V / 50Hz / 3PHASE	
DRAWING :	LC-2041	
REVISION :	F	2008
LINK CONTROLS PTY. LTD.		

IMPORTANT!!!

THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD BEFORE INSTALLING THIS OPERATOR.

STANDARD INSTALLATION INSTRUCTIONS

1. Remove the plastic plugs from the hollow output shaft.
2. Fit the mounting plate using the 4 x m8 studs, spring washers and nuts supplied.
3. Fit the key into the shaft and install the shaft into the operator and secure With the m8 x 20 bolt, spring washer and flat washer.
4. Fit the key and drive sprocket to the output shaft, align and tighten.

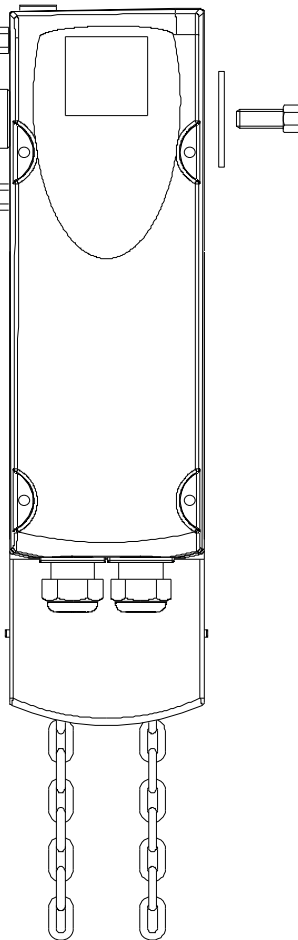


WARNING
FITTING THE DRIVE SPROCKET AT THE END OF THE OUTPUT SHAFT MAY CAUSE EXCESSIVE LOADING ON THE OPERATOR.

FLOOR LEVEL MECHANISM (FLM)

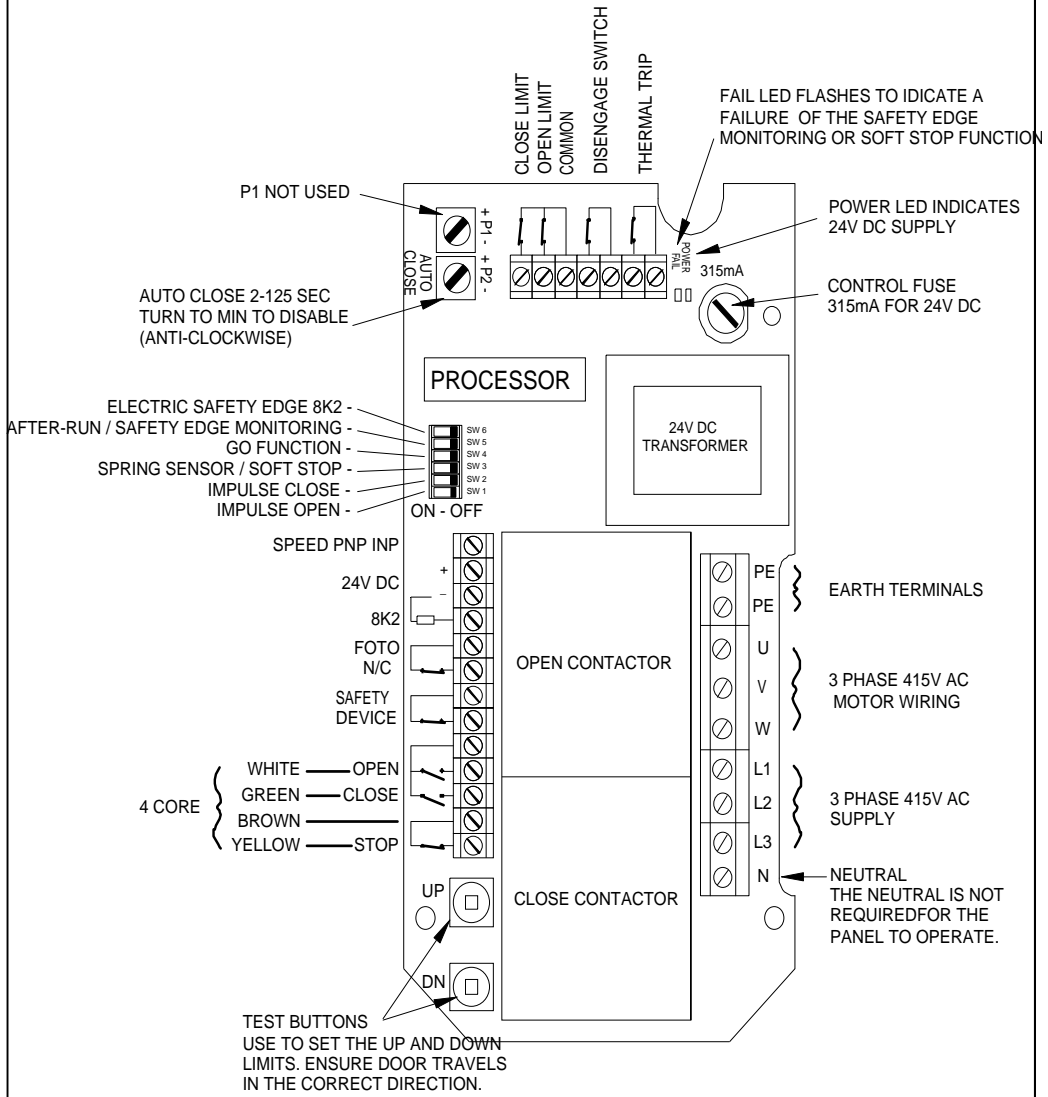
1. The unit must be mounted vertically.
2. Engage the floor level mechanism to raise or lower the door by pulling down on the hand chain. (interlock activates automatically).
3. When using the hand chain ensure that power to the door control is isolated.

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WARNING
DO NOT USE THE HAND CHAIN TO TENSION THE SPRINGS IN THE DOOR. SERIOUS DAMAGE TO THE CONTROLLER MAY OCCUR.

Rotech Door Automation EV1 CONTROL BOARD



LC-2041-E

WARNING!

ENSURE POWER TO THE OPERATOR IS **OFF**
BEFORE REMOVING TERMINAL BOX COVER.

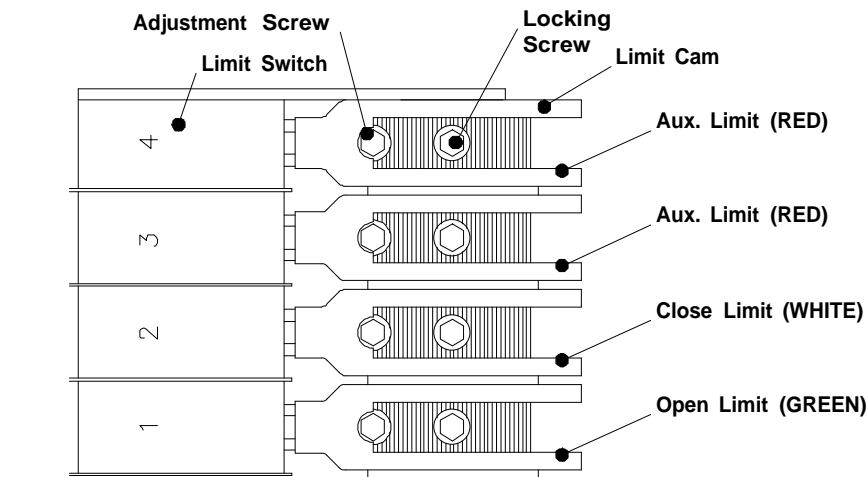
STANDARD INSTALLATION INSTRUCTIONS

1. Check that the power supply is suitable. 400v / 3ph / 50 Hz protected by a triple pole c type MCB rated at 2 amps or preferably a manual motor overload rated 1.6 - 2.4 amps.
2. Mount the operator on the door shaft and secure using the torque plate.
3. Set the limit switches.

HOW TO SET THE LIMIT SWITCHES

- a. Remove the terminal / limit box cover from the operator, the limit switches are supplied unset.
- b. The limit switches can easily be identified. "green" is for "open" and "white" is for "close".
- c. Manually wind the door in the close direction, noting the direction of travel of the white cam, until the desired closed position is reached.
- d. Loosen the locking screw on the limit cam and rotate the cam in the required direction. For fine adjustment use the adjustment screw. Secure in position by the locking screw.
- e. Repeat steps 3,4 and 5 for the open direction of travel.

LIMIT SWITCH ADJUSTMENT DIAGRAM



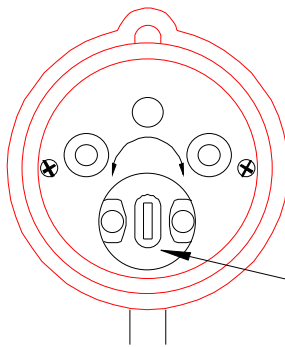
AUXILIARY LIMIT SWITCHES

Connections for these limit switches must be made directly into the required switch and terminated using an appropriate female red insulated spade crimp to suit 0.5 - 1.5mm cable. These limit switches may be wired n/o or n/c as required.

4. Manually operate the door to the mid position.
5. Apply power - if the door travels in the wrong direction, be prepared to press the stop button. Then interchange two of the incoming supply phases with each other, or if fitted see 3 ph red industrial socket instructions below.

3 PH RED INDUSTRIAL SOCKET (IF FITTED)

TO CHANGE THE ROTATION DIRECTION.



INSERT SCREWDRIVER BLADE HERE.

1. Remove the plug from the socket.
2. Place a large flat screwdriver into the slot provided.
3. Press down and rotate the pin through 180.
4. Plug the operator back into the socket.

6. Mount and connect the safety edge or P.E. beam.
7. Set the D.I.L. switches dependant of the safety equipment fitted.

D.I.L. SWITCH SETTINGS

NOTE: MOVE REQUIRED D.I.L. SWITCHES TO THE LEFT TO SET TO THE ENABLE POSITION.

- A. **IMPULSE OPEN:** when enabled it activates impulse open operation (press and release)
- B. **IMPULSE CLOSE:** when enabled it activates impulse close operation (press and release)
- C. **SOFT STOP:** activates the soft stop function, reverses a closing door and stops an opening door if an obstruction is detected. After initial tuning the soft stop system is constantly monitoring and tuning as required. (spring wear)

To set this function close the door fully on the limit.

Press and hold the down button for 10 seconds and release (this will reset the operator).

Press and hold the up button till the door is fully open and release.

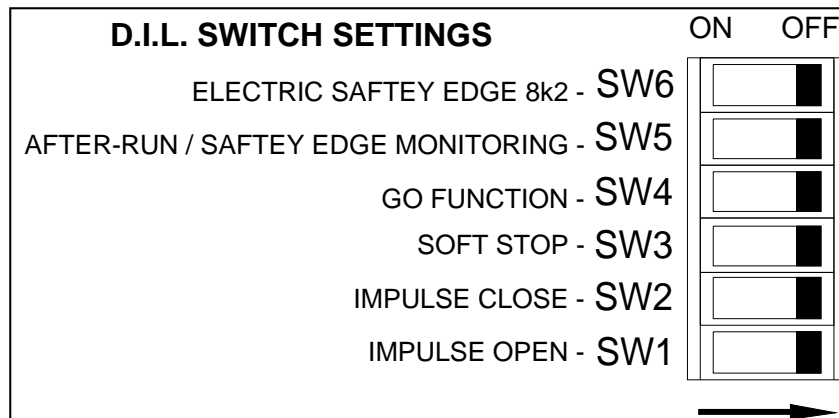
Press and hold the down button till the door is fully closed and release.

Repeat this procedure for 2 complete cycles (open, close, open, close).

If any of the buttons are released before the door reaches the limit then the above procedure will have to be repeated.

Manual retuning can be done at any time after initial set up, by driving the door fully closed and keeping the closed button pressed for more than 10 seconds.

- D. **GO FUNCTION:** when set to on it activates the open button as a go function. (opens a door, closes a fully open door, reverses a closing door.) use this function where a single button radio operation is required.
- E. **AFTER RUN / SAFETY EDGE MONITORING:** activates the after run function which uses the close limit (set 50mm from the floor) as a safety edge over ride limit. When the close limit is activated the operator electrically over runs this limit. (max 0.3 sec) until a signal from the safety edge is received. If no safety edge signal is received the fail led will flash and the door will fall to dead man mode. To reset simply close the door fully until a safety signal is received.
- F; **ELECTRIC EDGE 8K2:** activates input for electric edge and disables the pneumatic safety edge input.



SAFETY BEAM & NO SAFETY EDGE

Steps 1 - 7...as standard installation instructions.

8. Set D.I.L. Switches 1 & 2 to the on position to enable impulse operation.
(i.e. press and release) and D.I.L. Switch 3 on to enable the soft stop.

Note:- If a safety device is not fitted then D.I.L. Switch 2 must be left in the off position (deadman operation).

9. Open and close the door fully twice, this is to tune the soft stop function for the door.

The door will operate in deadman mode whilst tuning, regardless of the position of D.I.L. Switches 1 & 2.

The door must complete a full travel for each operation. (i.e. no stopping & starting mid travel).

When the door has completed 2 full operations (i.e. 2 open & 2 close) in deadman mode the controls will automatically change to impulse mode (if selected by D.I.L. Switches 1 & 2).

10. Set up is now complete.

PNEUMATIC SAFETY EDGE

Steps 1 - 7...As standard installation instructions, but set the close limit 50mm from the fully closed position.

Steps 8 - 9...As above.

10. Set D.I.L. Switch 5 to the on position to enable the after run / safety edge monitoring function.

The door will now electronically overrun the close limit and stop on the floor after receiving a signal from the safety edge. If the fail L.E.D. flashes either the safety edge is not working, or the close limit is set too high.

After receiving a healthy signal from the safety edge the door will open fractionally to relieve pressure from the safety edge (enables the operator to be disengaged manually if required).

11. Set up is now complete.

ELECTRIC SAFETY EDGE

Note:-

An 8k2 ohm resistor must be connected to terminals indicated if using electric safety edge.

Steps 1 - 7...As Standard installation instructions, but set the close limit 50mm from the fully closed position.

Steps 8 - 9...As above.

10. Set D.I.L. Switch 5 to the on position to enable the after run / safety edge monitoring function.

11. Set D.I.L. Switch 6 to the on position to enable the electric safety edge input function.

The door will now electronically overrun the close limit and stop on the floor after receiving a signal from the safety edge. If the fail led flashes either the safety edge is not working, or the close limit is set too high.

12. Set up is now complete.

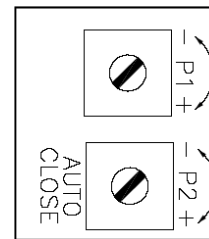
POTENTIOMETER SETTINGS

P1 - Not used
Reserved for future development

P2 - Adjustable auto close timer
Adjustable from 2 - 125 seconds. To disable turn fully anticlockwise

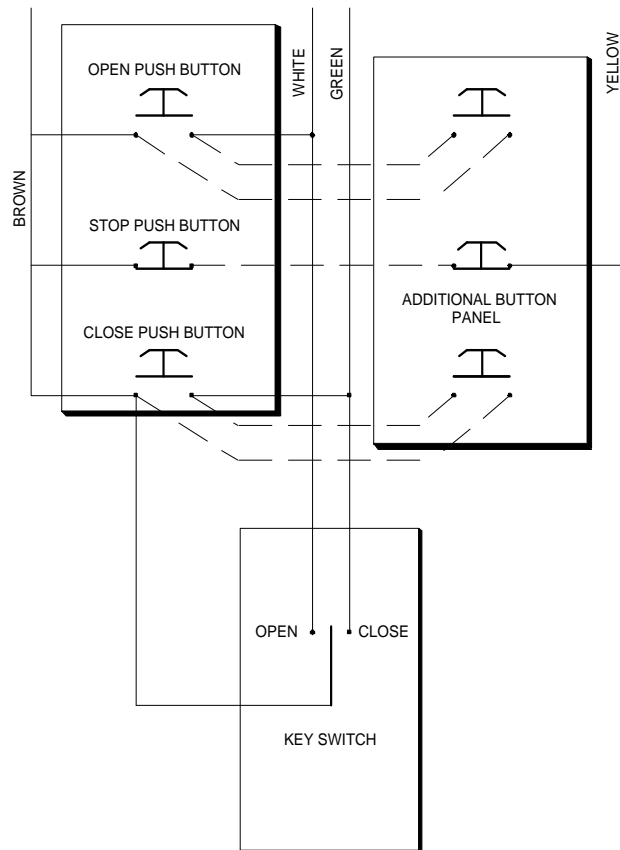
Note:- If the door is fully open and the stop circuit is activated for more than 5 function is disabled.

To reset simply give another close command or turn off the power.



sec's the auto-close

ADDITIONAL CONNECTIONS



INTEGRAL SAFETY CIRCUIT

THE SAFETY IRCUIT COMBINES THE THERMAL TRIP AND, FOR OPERATORS WITH MANUAL OVERRIDE, THE INTERLOCK SWITCH.

THERMAL TRIP

THE THERMAL TRIP IS A HEAT SENSITIVE SWITCH EMBEDDED INTO THE MOTOR WINDINGS, WHICH WILL OPERATE SHOULD THE MOTOR BE OVERLOADED.

NOTE : THIS SWITCH IS NOT A SUBSTITUTE FOR A SUITABLY RATED CIRCUIT BREAKER.

MANUAL OVERRIDE INTERLOCK SWITCH

THE MANUAL OVERRIDE INTERLOCK ISOLATES THE CONTROL CIRCUIT TO PREVENT ELECTRICAL OPERATION WHEN THE DOOR IS BEING USEDN MANUALLY