

Technical Article

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Emergency Lowering Board. P/N 100-145

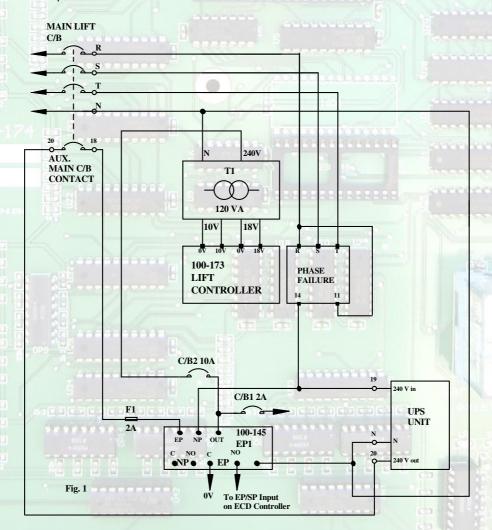
The **100-145 board** is used (in conjunction with a UPS) to monitor the loss of normal/mains power to the hydraulic elevator installation. On loss of normal power the 100-145 board switches the installation to the UPS power and signals the controller to commence the emergency lowering routine.

Under normal power conditions; See fig. 1

- NP and EP inputs are on
- NP Red LED and NP relay shall be on. Controller power is supplied from OUT terminal via the NP relay contacts.

When loss of power or phase occurs; See fig. 1

- NP input and NP Red LED switch off. 240VAC at terminal OUT switches off. Controller shuts down.
- EP input remains on, via the UPS.
- EP Yellow LED flashes. After approx 10 seconds, EP Yellow LED and EP relay turn on. Controller power is supplied from OUT terminal via the EP relay contacts. Controller powers up.
- EP relay contact signals the controller EP/SP input to commence the emergency lowering routine which lowers the elevator to the lowest landing and open the doors to release the passengers. The elevator then remains out of service until normal power is restored.



Emergency lowering upgrade for hydraulic elevators

The 100-170, 100-173 and 100-174 hydraulic controllers may be upgraded to incorporate the 100-145 emergency lowering control board.

Parts required for emergency lowering control, when ordered with an ECD controller, are as follows;

- 100-145 emergency lowering control board. (DIN rail mounted). P/N 100-145
- 650VA UPS. (emergency power supply, mounted externally). P/N UPS 650 1200VA UPS is also available if larger output required. P/N UPS 1200
- Auxiliary contact on lift main C/B to be supplied by the customer.

If emergency lowering control is requested on an existing ECD controller, ECD can supply an upgrade kit;

ECD part # "ELKUPS".

The kit includes a 100-145 board, 650VAUPS, terminals, fixtures, cable, fuse link, C/B, extra duct labels and circuit diagrams. Using this kit, circuit modifications must be done on site to the controller and main C/B.

Note

- UPS supplies 240VAC single phase power, therefore 3 phase door operators will not be compatible.
- Phase fail relay must be supplied directly from main C/B, with no circuit breakers or fuses in between. (See fig. 1).
- To prevent the elevator from traveling back to the bottom floor when the power is switched off via the main circuit breaker, the main C/B must have an auxiliary contact in series with EP input, (see fig 1) to be supplied by the customer.



100-145 EP1 Emergency lowering board

Dim. 114mm x 78mm