



Installation and setting instructions

ULS60 HS

Publication Number: II117/1206

Part Number: 002069-000117

Important

These instructions must remain with the product to ensure correct installation. If extra copies are required please contact your local sales office and quote the publication number.

If you have any installation problems or questions, please contact:

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Canada (Dupar)	519 624 2510
USA (The Fixture Company)	847 419 1419
Australia (Australian Lift Components)	+612 9603 0200
Australia (LiftMaterial)	+612 9310 4288

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INTRODUCTION

These instructions relate to Serial Input Position Indicator Units only used with CH024 and CH034 Encoders, Publication I1097.

The display units incorporate a 4 wire Serial Interface which may be directly connected to the above encoders. The encoders can accept either one per floor inputs or parallel encoded inputs directly from the lift controller using binary, grey code or equivalent.

For the full specification and other details refer to the publications detailed below.

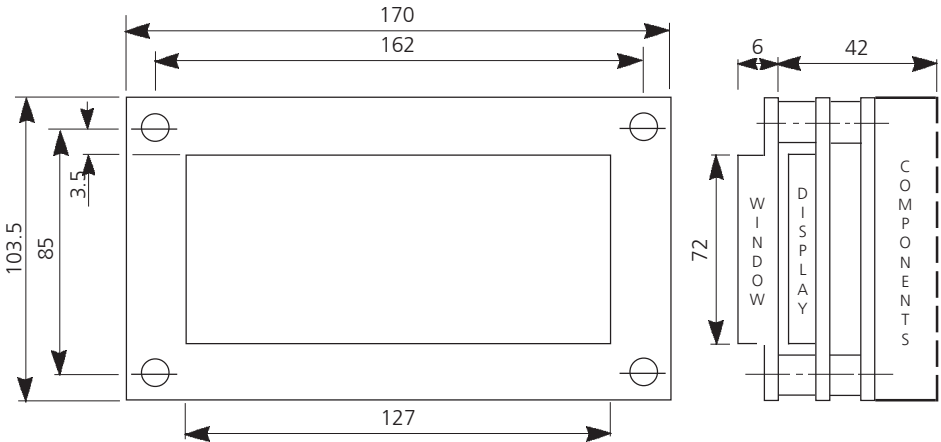
DISPLAY UNITS PUBLICATION NUMBER

ULS60	PB162
Cutout & Studding	PB130

ENCODERS

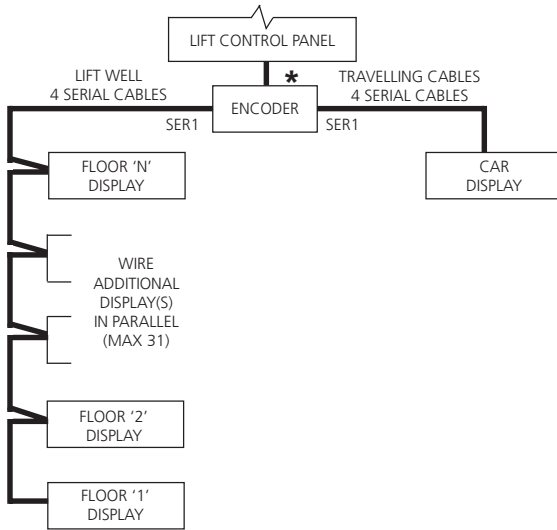
CH024	PB133
CH034	PB128

DIMENSIONAL DATA OF DISPLAY UNITS WITH SERIAL INPUTS



* Allow an additional 10mm minimum for wiring space

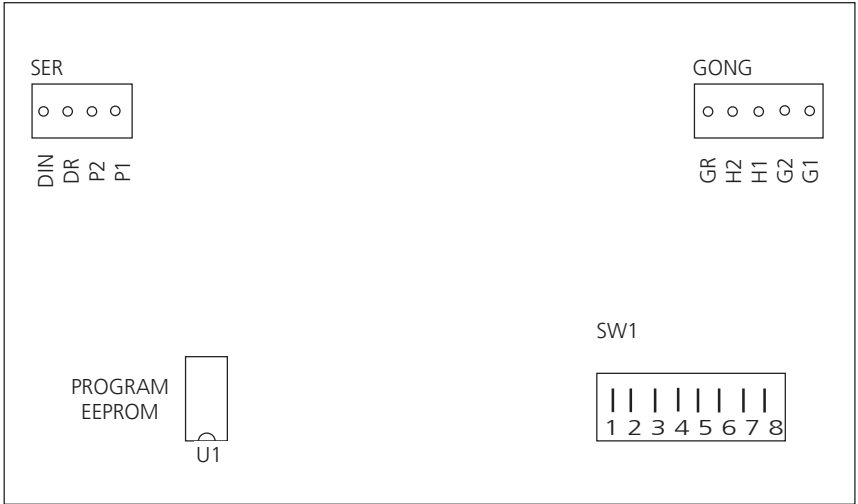
GENERIC WIRING OF DISPLAY UNITS WITH SERIAL INPUTS



* Encoder Input Wiring: See Installation Instruction II097

DESIGNATOR	LABEL	DESCRIPTION
SER	P1	Supply voltage a.c. or d.c.
SER	P2	Supply voltage a.c. or d.c.
SER	DR	Data Return
SER	DIIN	Data Input
GONG	G1	Gong for down direction
GONG	G2	Gong for up direction
GONG	H1	Lantern for down direction
GONG	H2	Lantern for up direction
GONG	GND	Ground return (for gong and lantern outputs)
SW1	1	Display Selectable Address (Binary, LSB)
SW1	2	Display Selectable Address
SW1	3	Display Selectable Address
SW1	4	Display Selectable Address
SW1	5	Display Selectable Address (Binary, MSB)
SW1	6	Reserved
SW1	7	
SW1	8	

Generic Wiring of Display Units with Serial Inputs



REAR VIEW
ULS60
DISPLAYS ONLY

SW1 SWITCH SETTINGS

If "Flashing Arrows" are specified, to simulate "Hall Lantern Indicators" when the lift car arrives at a landing entrance, it is necessary to set SW1 switch of the landing display to the encoded address of the floor legend for that floor.

The table defines normal binary and gray code formats.
The switch positions are defined as 0 = OFF and 1 = ON.

FLOOR NO. DECIMAL	BINARY		GRAY CODE	
	MSB	LSB	MSB	LSB
	5	4 3 2 1	5	4 3 2 1
Car Unit	0	00000	0	00000
1	0	00001	0	00001
2	0	00010	0	00011
3	0	00011	0	00010
4	0	00100	0	00110
5	0	00101	0	00111
6	0	00110	0	00101
7	0	00111	0	00100
8	0	10000	0	11000
9	0	10001	0	11001
10	0	10010	0	11111
11	0	10011	0	11110
12	0	10100	0	10101
13	0	10101	0	10101
14	0	10110	0	10001
15	0	10111	0	10000
16	1	10000	1	11000
17	1	10001	1	11001
18	1	10010	1	11011
19	1	10011	1	11010
20	1	10100	1	11110
21	1	10101	1	11111
22	1	10110	1	11101
23	1	10111	1	11100
24	1	11000	1	10100
25	1	11001	1	10101
26	1	11010	1	10111
27	1	11011	1	10110
28	1	11100	1	10010
29	1	11101	1	10011
30	1	11110	1	10001
31	1	11111	1	10000

If fitted, switch contacts 6, 7 and 8 are reserved for other uses

ENCODER CAPABILITIES

Features Available	Terminal Allocation	
	CH024 24 max	CH034 34 max
UP & DN Arrows	2	2
Scrolling Arrows	1	1
Flashing Arrows	1	1
Gong	2	2
Floors: Encoded	1-3	2
	1-7	3
	1-15	4
	1-31	5
One per floor	1-16	1 each
	1-31	-
		1 each
Message Triggers	1 each	1 each

Features Available	Terminal Allocation
Up and Down Arrows	UA, DA (PAR4)
Up and Down Gongs	UG, DG (PAR5)
Up and Down Lanterns	UL, DL (PAR6)
Slow Down/Door Open	SL (PAR7)
Door Close	DC (PAR7)
Door Open	DO (PAR7)

CHECKING PREPROGRAMMED MEMORY INTEGRATED CIRCUITS

The EEPROM Memory Integrated Circuits are preprogrammed by **Dewhurst/LiftStore** with the software required to drive the displays.

The EEPROM may be fitted in various locations, will be socketed, have the same number of pins and will be labelled in a similar manner to its new replacement.

It is important to carry out the following instructions carefully to ensure that components are not damaged.

SWITCH THE POWER OFF

Since the devices are sensitive to static electricity the pins should not be touched by hand. The EEPROMS must be inserted with correct orientation, represented by a small notch on one end of the device to match a similar notch on the socket.

INCORRECT INSERTION WILL INSTANTLY DESTROY THE EEPROM

Use an IC extraction tool (or small screwdriver if available). Carefully insert the tool between the EEPROM and its socket and remove the EEPROM. If using a screwdriver take care not to damage PCB tracks beneath and around the socket.

Check that the pins on the replacement EEPROM are in line, correct as necessary. Offer the EEPROM to the socket whilst checking orientation. Carefully align all pins along one side to the socket then align other side.

Check all pins are properly engaged then gently push the EEPROM into the socket. Check all pins are engaged correctly then push firmly to ensure full insertion. Finally recheck orientation and ensure all pins are fully inserted and undamaged.

TESTING THE DISPLAY UNIT

SWITCH THE POWER OFF

Carefully dismantle the faceplate to permit access to the display's field wiring terminals. Ensure all potentially live parts are temporarily insulated from earth.

SWITCH THE POWER ON

Never apply power directly to SER or Gong socket pins as they may be damaged. Always connect to the field wiring plugs or spare plugs which are easily replaceable.

Measure the applied power between AC-AC field terminals, using a digital multimeter or equal, set to an appropriate range. Check that the measurement meets the display unit specification.

Check the data input on SER field terminals using an oscilloscope. Do not use any other method of measurement. See below for power off checks.

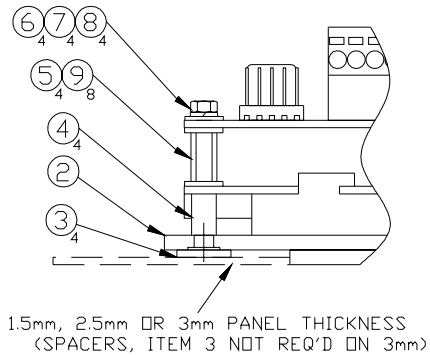
Check the gongs between G1-GND and G2-GND respectfully using a digital multimeter or equal, set to an appropriate range. Check that the arrows flash and the gong actuates when the floor number = installed floor only. Check SW1 switch setting if necessary.

SWITCH THE POWER OFF

If no displays are present check the serial cable on SER terminals. Temporarily remove the SER field wiring plug from the encoder on all car and landing displays. Using a low power ohmeter, check continuity of both serial wires and earth screen between the encoder plug and each display plug. Check for short-circuits between active wires, screen and earth at each plug. Check polarity of active wires.

If necessary remove, replace or reinstall display unit complete with field wiring. Refix all display and encoder plugs.

TYPICAL DISPLAY FACEPLATE ASSEMBLY



1. Carefully unplug the backlight connector from the backlight sub board. **Do not** pull the connector by the wires. The backlight sub board is located behind the "GONG" connector on the control board.
2. Remove window from display by removing the four temporary transit screws.
3. Carefully disassemble the ULS60 at each corner. Do not loose any of the parts.
4. If your faceplate is less than 3mm thick then fit the required size spacers to the studs (item 3). These spacers are supplied in a separate parts bag that came with your DDU. Use the thick ones for a 1.5mm thick faceplate or the thin ones for a 2.5mm thick faceplate.
5. Fit the window (item 2). Be sure that you have fitted it the correct way round.
6. Fit the four plastic spacers (item 4).
7. Fit the LCD display board. Be sure that you have fitted it the correct way round.
8. Fit four of the plastic washers that were originally fitted to the unit before disassembly (item 9).
9. Fit the four metal spacers (item 5). Do not over tighten.
10. Fit the remaining four plastic washers that were originally fitted to the unit (item 9).
11. Fit the control board. Be sure that you have fitted it the correct way round.
12. Fit the four plastic washes from the bag of parts (item 6).
13. Fit the four steel grover washers from the bag of parts (item 8).
14. Fit the four full nuts (item 7). Do not over tighten.
15. Check that the unit has been fitted correctly.
16. Plug the backlight connector back in to the backlight sub board.

MAINTAINING THE DISPLAY UNIT

SWITCH THE POWER OFF

Keep the display unit clean, dry and free of dust and other particulates.

Check that the EEPROM and microprocessor ICs are fully inserted in their sockets.

Check tightness of field wiring terminations and that associated plugs are secure.

Replace the faceplate assembly, switch the power ON. Actuate lift to ensure that all displays work correctly.

CAUTION

- 1. SWITCH OFF** the mains supply before any installation, maintenance or repair work is carried out.
- 2. DO NOT** work on live equipment unless it is essential to do so, in which case extreme care must be taken to avoid electrical shocks, including the use of rubber mats.
- 3.** Installation, maintenance or repair must only be carried out by a competent person who is trained on this equipment.
- 4.** Replace all covers on completion of work and ensure the unit is safe for installation and use.

EEC DIRECTIVES

These components comply with the relevant EEC Directives when used on lifts