

STP-16

Parallel LOP Connection Board

Manual



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Parallel LOP Connection Board STP-16 and Extension Board I/O-16

STP-16 is a LOP connection board that is connected to the LS-MAIN elevator controller board with a single cable and supports up-to 16 stops for single button LOP configurations or up-to 9 stops for double button LOP configurations. This can be extended by using the I/O-16 extension board. STP-16 + I/O-16 combination supports up-to 32 stops for single button LOP configurations or up-to 17 stops for double button LOP configurations.

All LiftOne parallel models (**LSEP-LIFTONE-xxx-xx-xxxxL100-xxP-xxxx**) comes with **STP16** board pre-installed. These models do not include I/O-16 extension board.

LiftOne serial models (**LSEP-LIFTONE-xxx-xx-xxxxL100-xxN-xxxx**) can be converted into parallel type by using Serial to Parallel LiftOne Conversion Kit (LSEP-LIFTONE-ACC-KIT-NTPC-0001). This kit includes:

- 1 x STP-16
- 1 x 4-pin CAN Bus cable to for LS-MAIN connection
- 6 x Installation Bracket

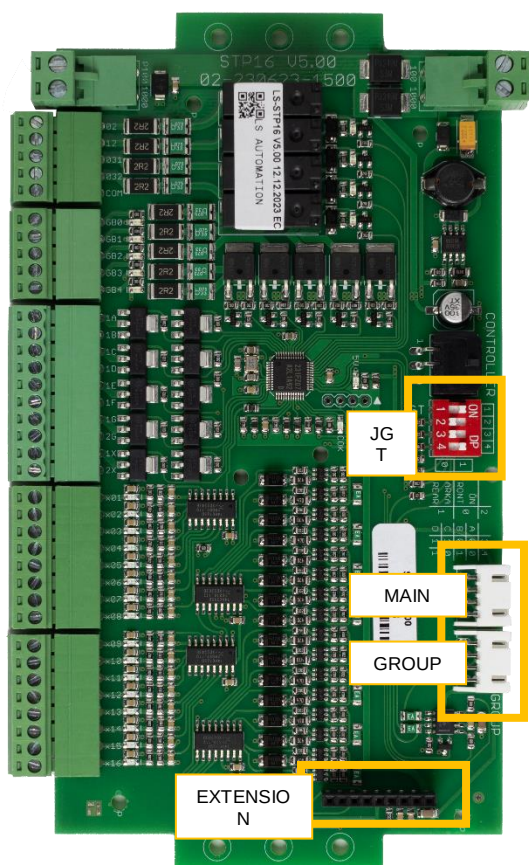
The connections, inputs and outputs on the STP-16 board are as follows:

- Car call button terminals for 16 buttons
(additional 16 terminals can be added by installing I/O-16)
- DIP switch for setting in different configurations (simplex & duplex)
- Gray/Binary outputs for floor displays
- 7-segment outputs for floor displays
- Up and down direction travel indication arrow signal outputs for floor displays
- Out-of-service signal output for floor displays
- Busy signal output for floor displays
- CAN Bus connector for LS-MAIN connection
- CAN Bus connector for Duplex configuration

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

1. Connectors and Terminals

Connectors and DIP switch located on STP-16 are explained below.



Connector	Type	Explanation
MAIN	4-pin	CAN Bus Connection for LS-MAIN
GROUP	4-pin	CAN Bus Connection for Duplex Systems
EXTENSION	9-pin	Installation connector for I/O-16

DIP Switch	Pin	Explanation
JGT	1	Terminating Resistor
	2	Door area (FRONT/REAR)
	3	Group Selection (A/B/C/D)

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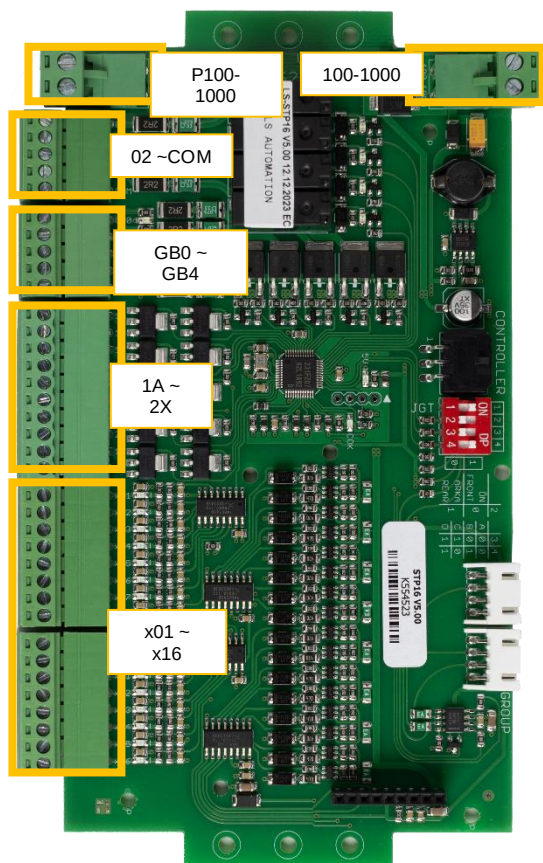
Switch	Position	Result
JGT 1	0	Terminating Resistor Disabled
	1	Terminating Resistor Enabled

Switch	Position	Result
JGT 2	0	Door Area: FRONT
	1	Door Area: REAR

SWITCH POSITION		Result
JGT 3	JGT 4	
0	0	GROUP A
0	1	GROUP B
1	0	GROUP C
1	1	GROUP D

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

Terminals located on STP-16 are explained below.



Terminal	Explanation
100	24 VDC supply input (+)
1000	24 VDC supply input (-)

Terminal	Explanation
P100	24 VDC supply output (+)
P1000	24 VDC supply output (-)

Terminal	Explanation
02	Out-of-service signal output
12	Busy signal output
031	Down direction travel arrow output
032	Up direction travel arrow output
COM	COM of signal output relays (MAX 5A, 30VDC, 250VAC)

Terminal	Explanation
GB0	Gray/Binary display outputs
GB1	
GB2	
GB3	
GB4	

Terminal	Explanation
1A	7-Segment display outputs
1B	
1C	
1D	
1E	
1F	
1G	
2G	
1X	
2X	

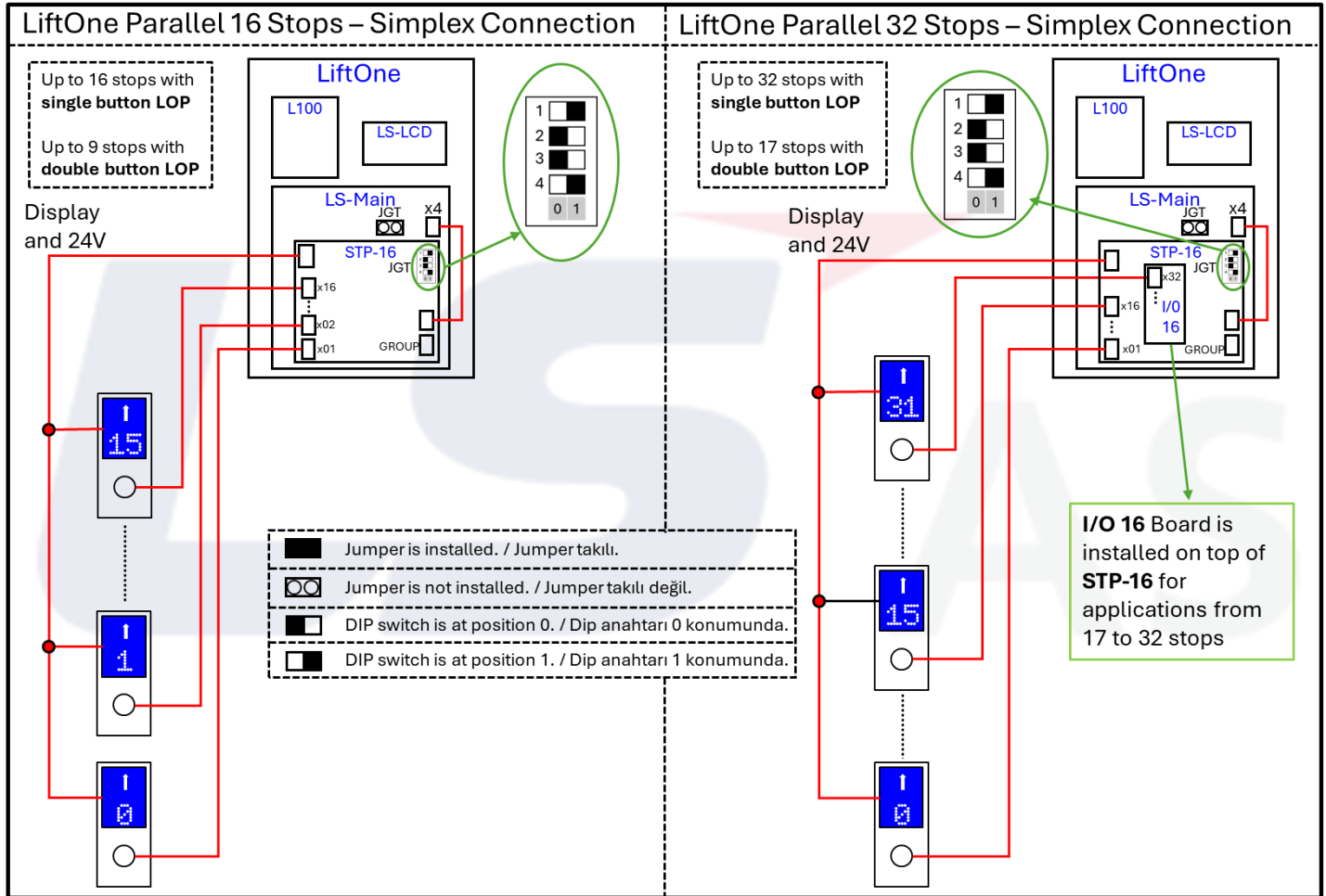
Terminal	Explanation
x01	LOP buttons and button lights output
x02	
x03	
x04	
x05	
x06	
x07	
x08	
x09	
x10	
x11	
x12	
x13	
x14	
x15	
x16	

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

2.Board Configurations

➤ 16 stops & 32 Stops Simplex Configurations

STP16 board and other related peripherals should be configured as below if the system is simplex (single car system). The layout on the left shows a system with 16 stops and single button LOPs. The layout on the right shows a system with 32 stops and single button LOPs.



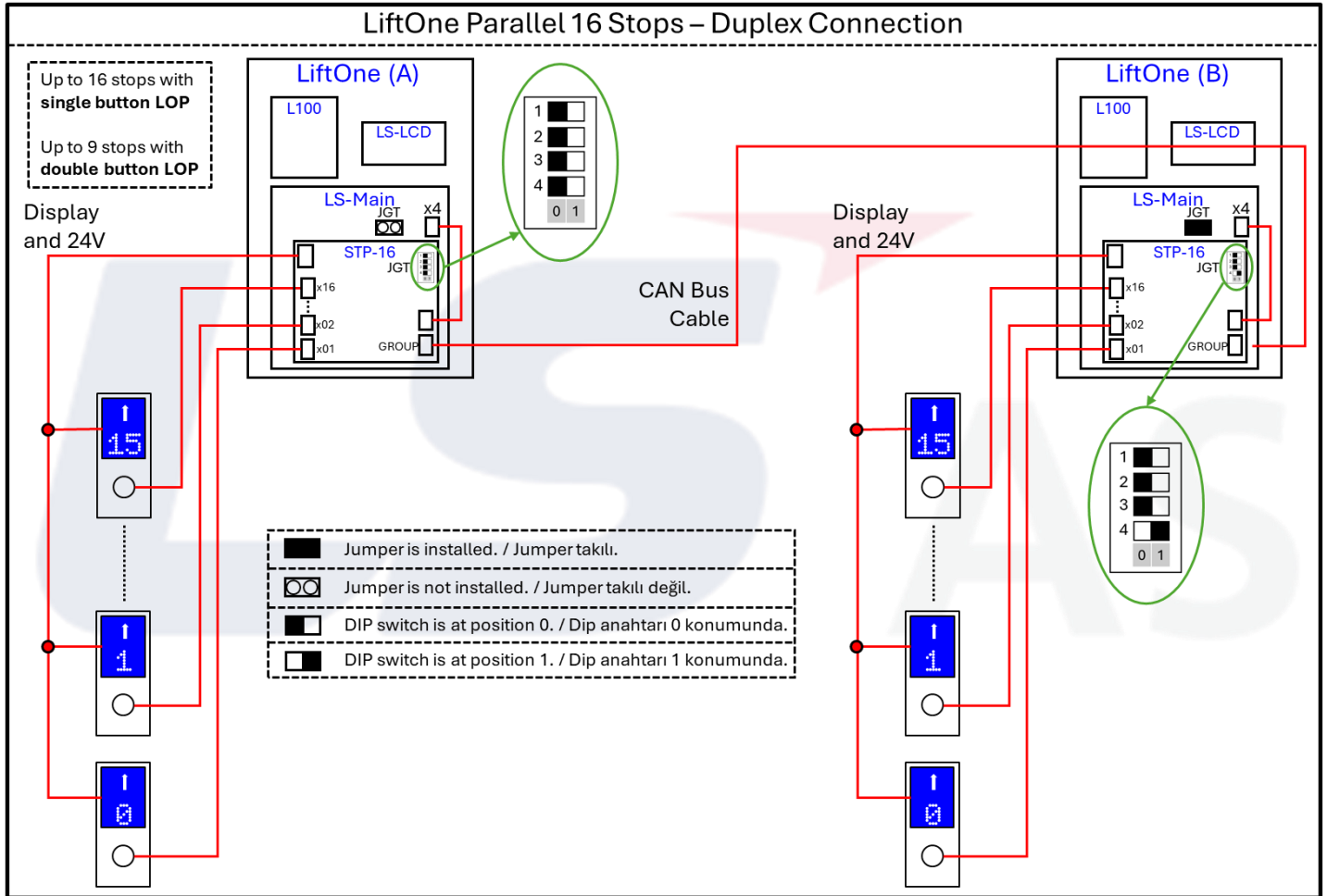
STP-16 Configuration for Simplex Systems – 16 Stops & 32 Stops

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

➤ 16 stops Duplex Configuration

STP16 board and other related peripherals should be configured as below if the system is duplex and:

- A. Up-to 16 stops and with single button LOPs
- or
- B. Up-to 9 stops and with double button LOPs



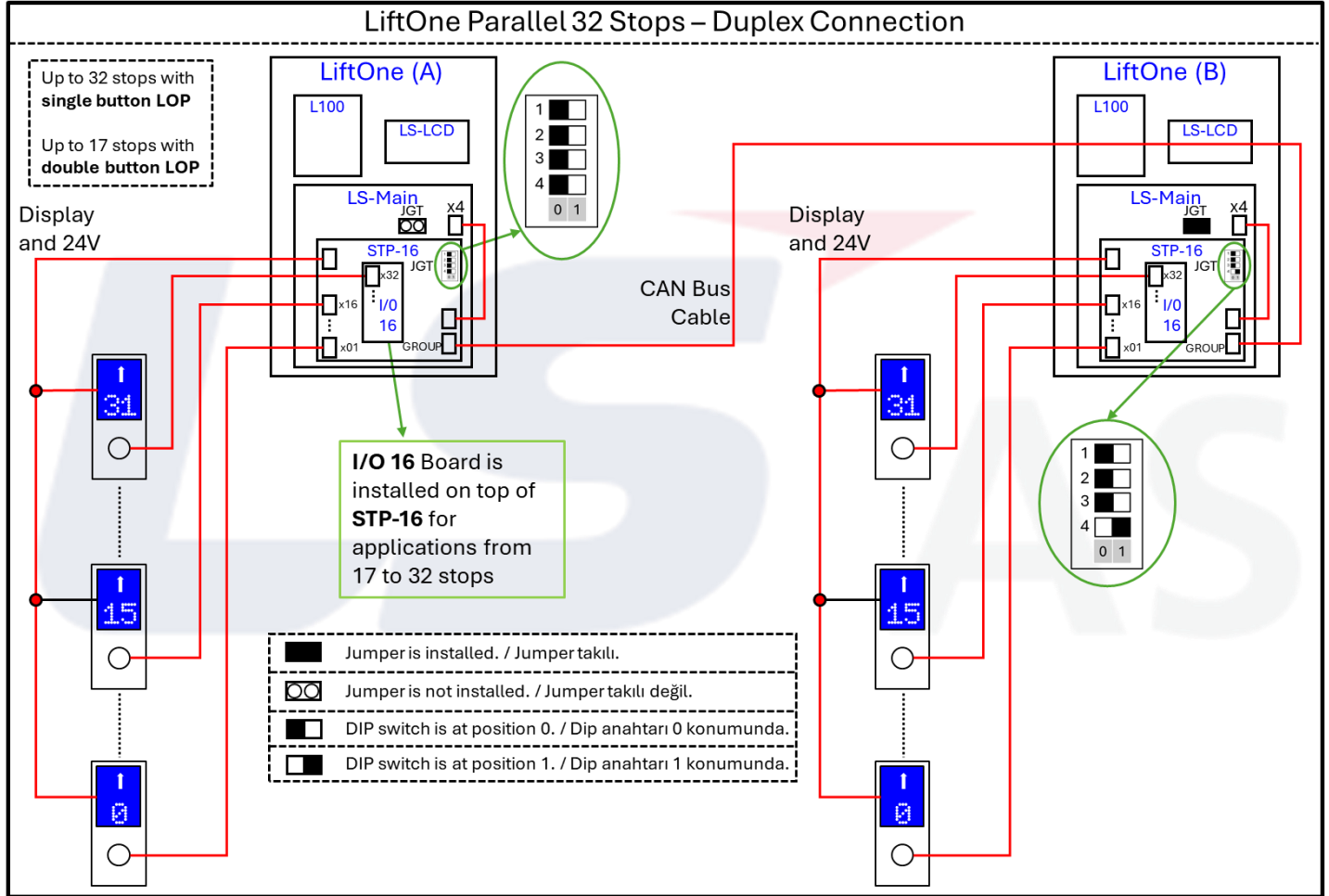
STP-16 Configuration for Duplex Systems – 16 Stops

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

➤ 32 Stops Duplex Configuration

STP16 board and other related peripherals should be configured as below if the system is duplex and:

- A. From 17 to 32 stops and with single button LOPs
- or
- B. From 10 to 17 stops and with double button LOPs

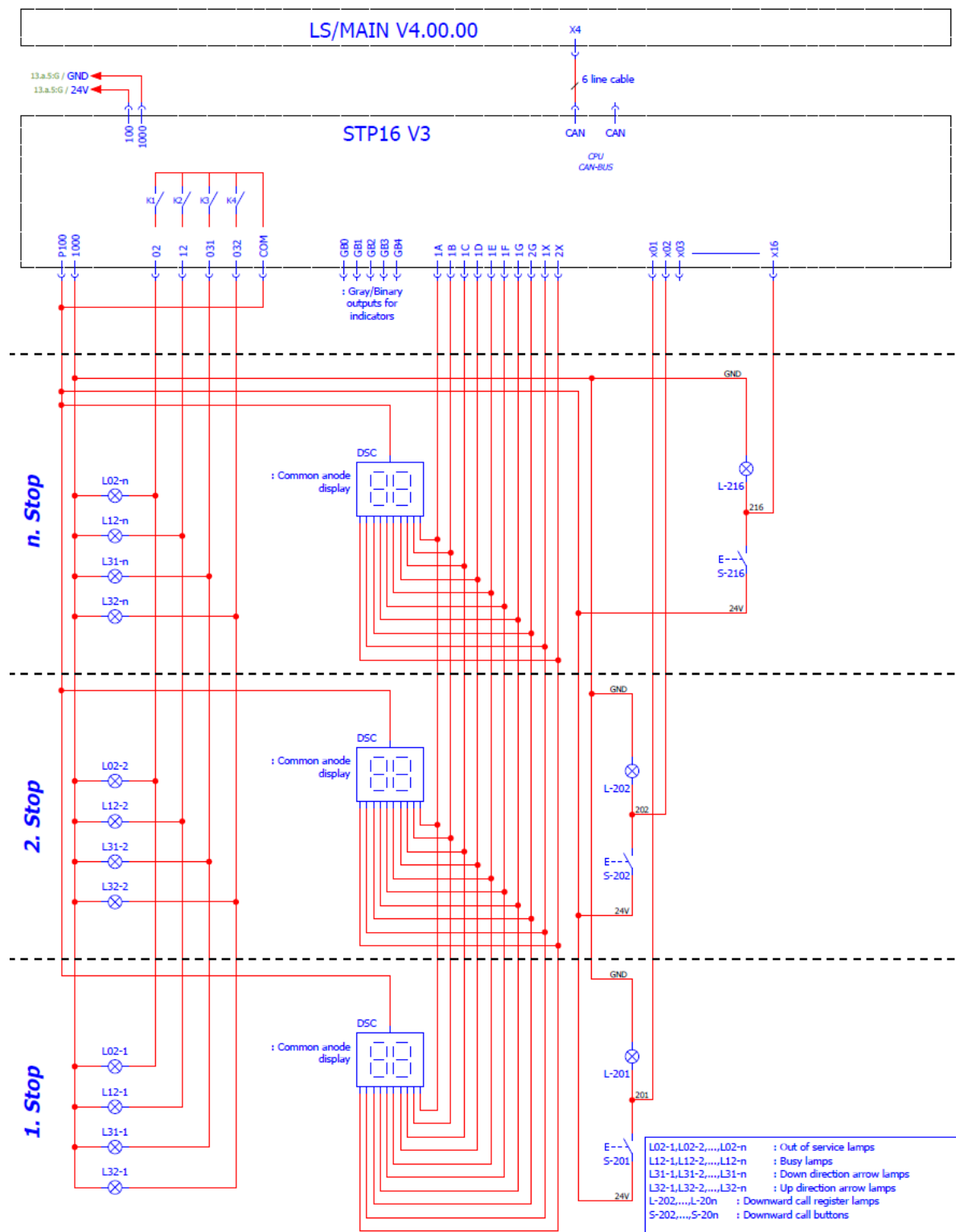


STP-16 Configuration for Duplex Systems – 32 Stops

Parallel LOP Connection Board STP-16 and Extension Board I/O-16

3. Board Connections

Electrical drawing for STP-16 is provided below.



Parallel LOP Connection Board STP-16 and Extension Board I/O-16

4. Board Dimensions

STP-16 board dimensions are provided below. All units are in mm.

