



**WHITTAKER
PACKAGING
SOLUTIONS**

PALLET STRETCH WRAPPING

MACHINE MODEL: MB-1500

OPERATION MANUAL

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1. GENERAL INFORMATION

1.1 NOTE OF INSTALLATION

To make sure a safe and correct operation, please check below conditions before install the machine:

- 1) Power source capacity must be equal of the machine need.
- 2) Machine standard power is 110v/220v (+- 10%)
- 3) Machine standard power Hertz is 50/60 Hz. (+- 2%)
- 4) Machine is workable under the temperature between 0°C - 45°C
- 5) Make sure the wire is tidy on the ground.
- 6) There should not have vibration beside the machine during the installation,
and make sure the ground is flat.
- 7) Read and follow the instruction of the installation.

1.2 NOTICE OF OPERATION

To have good protection for the operator, please make sure the following conditions:

- 1) Before operating, please read the machine operational manual carefully.
- 2) Make sure there is no object put on the power cable.
- 3) Make sure there is no object put on the upper carriage unit.
- 4) Avoid any damp object or water around the electric parts.
- 5) Avoid film winded into the turntable.
- 6) Do not stand on or across the machine during operation.
- 7) When problem occurs, please check Section 5 Trouble Shooting

2. SPECIFICATION

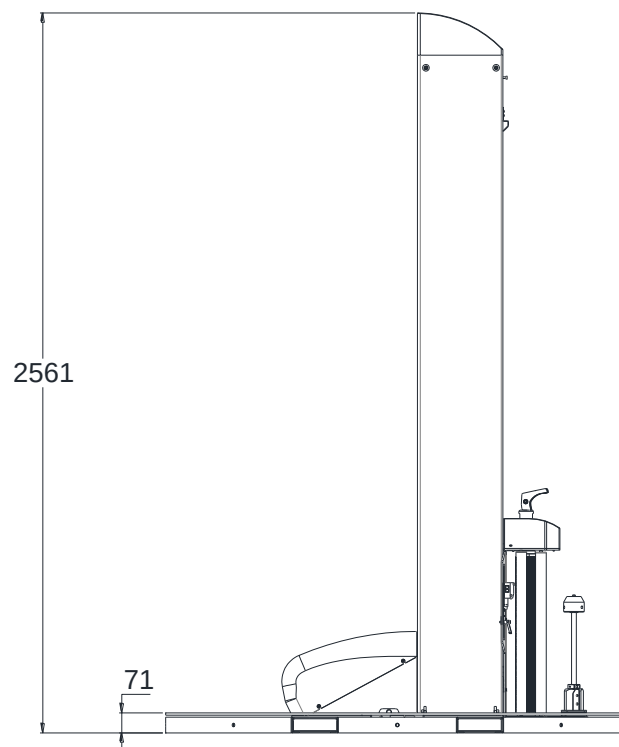
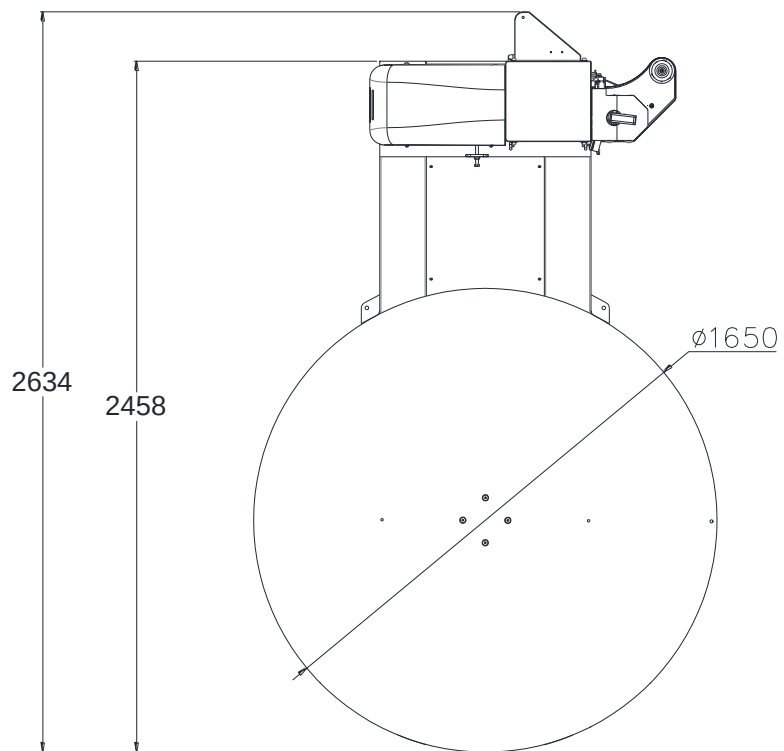
2.1 SPEC. TABLE

Model	MB-1500
Turntable Speed	Adjustable 2.5 ~ 10 RPM
Turntable Diameter	1500mm
Max. Wrapping Height	2200mm
Pallet Size	1050x1050mm
Max. Loading Weight	2200kgs
Film Stretch (%)	Manually Adjustable
Carriage Unit Speed	Fixed 3.3m/min
Max. Film Spec.	φ250x500mm
Turntable Height	71mm
Machine Size	2634x1650x2561mm
Machine Net Weight	458kg

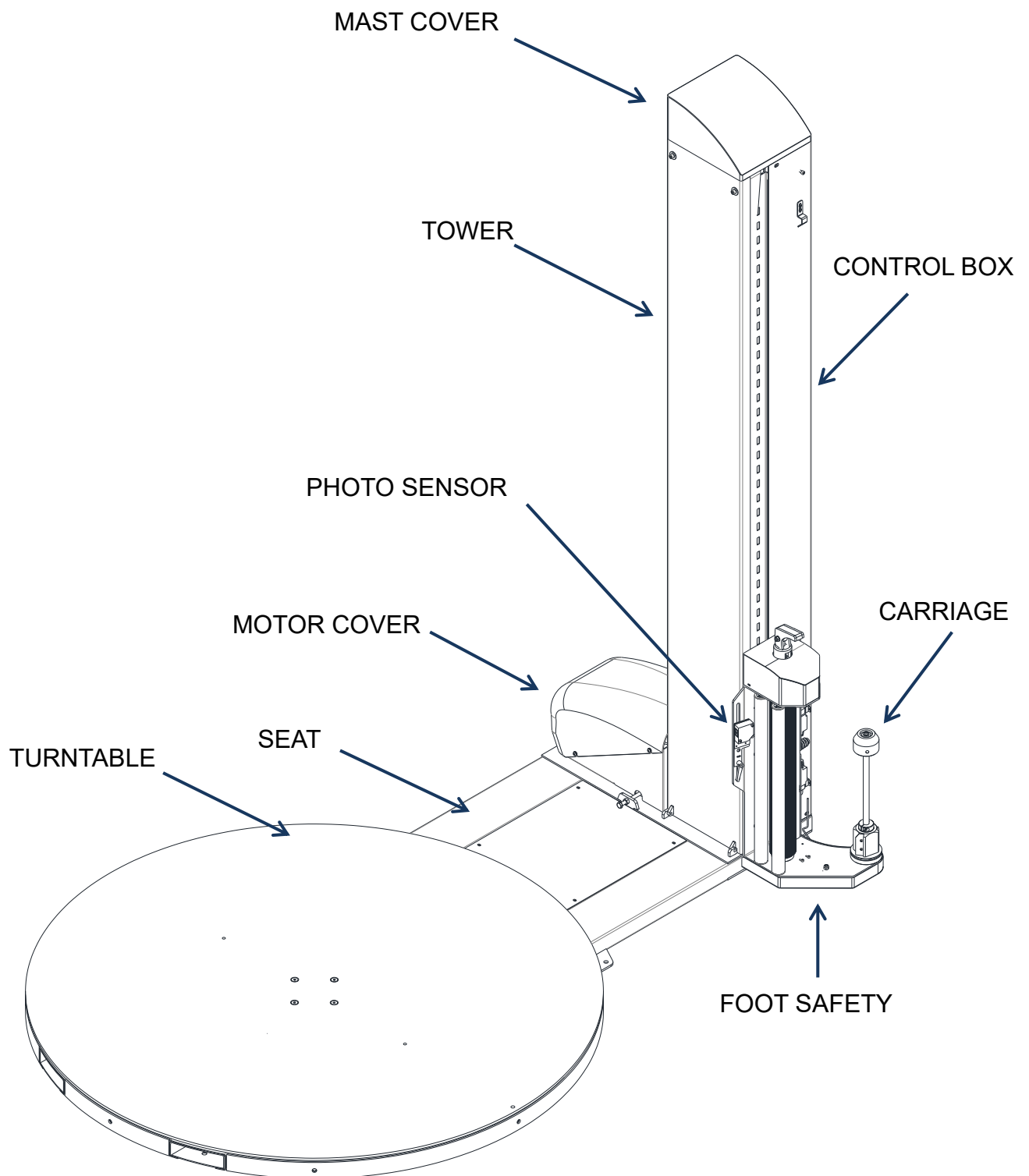
Standard option:

- ❖ 1.65 & 1.80 meters dia. Turntable.
- ❖ 2.6 & 3.0 meters wrapping height
- ❖ Ramp

2.2 MACHINE DIMENSION



2.3 MACHINE DESCRIPTION



3. OPERATION DESCRIPTION

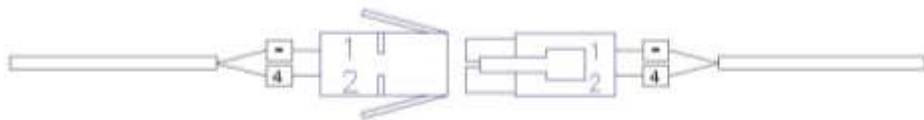
3.1 INSTALLATION

- 1) Take apart all wooden packaging. Avoid damaging the machine.
- 2) Move the machine to an installation position by fork lift.
- 3) Install master cover and tighten screws on both side.



- 4) Lift up the tower.
- 5) Fix and tighten the tower by M8 screws. Total 6 screws on each side.
- 6) Connect the sensor wires.

Proximity Switch: “—” & 4.



- 7) Install the motor cover and support brackets.

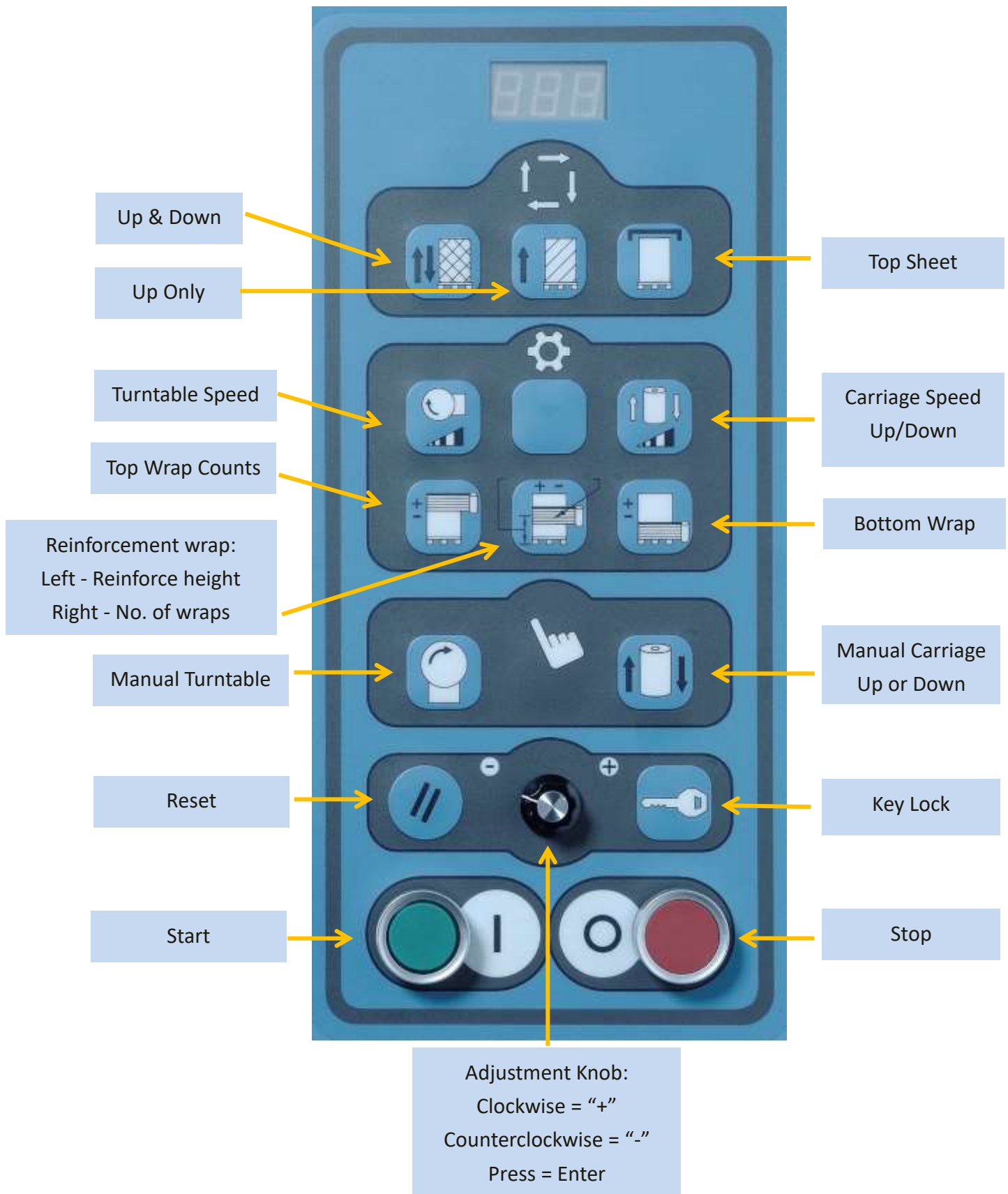


Total 4 screws required.

- 8) Connect the power cable with the socket by a 110V/230V power.

3.3 OPERATION OF CONTROL PANEL







START BUTTON

Press this button to start operation.

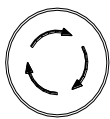
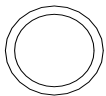


Note: After all of function been setting press this button to re start the program



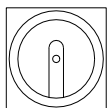
PAUSE BUTTON

Press the button; the machine will be stop whether it is under automatic or manual mode. Press the START button to complete the rest program.



EMG. STOP

Pressing this button to make emergency stop.



MAIN POWER

This is the main power cut switch.

3.2 REMINDER OF INSTALLATION

Tower Installation

Engineers must ensure all screws are properly installed underneath the tower, and evenly lay out.

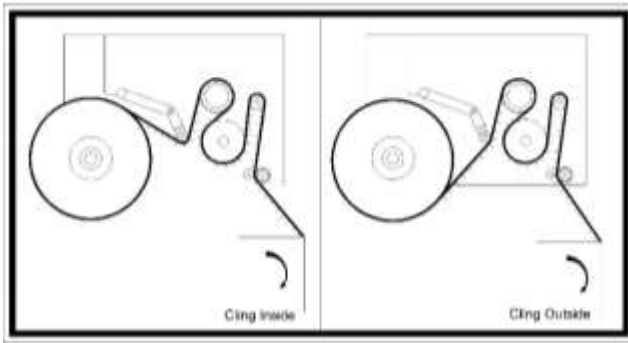
Control Panel Installation

Engineers must make sure the control panel is removed from supporting bracket, and is installed properly.

3.3 CARRIAGE UNIT

1) Illustration for film threading:

- (1) Open the carriage door
- (2) Follow the threading diagram below with the direction of cling inside or outside. Then close the carriage door

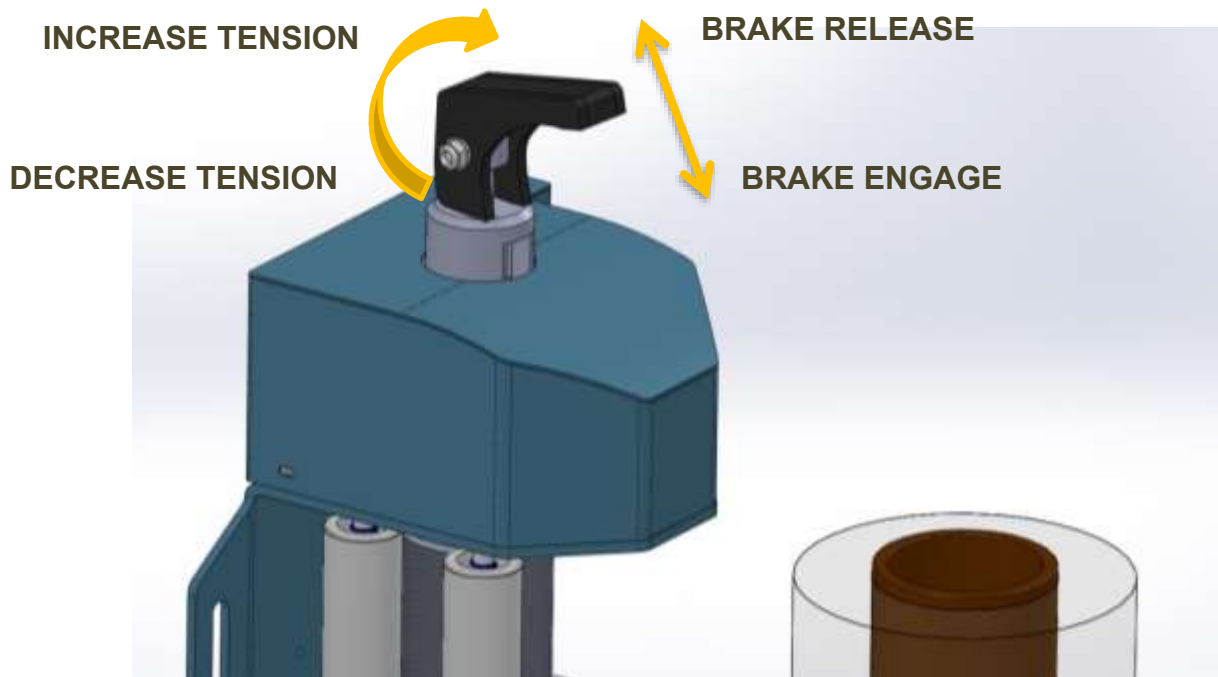


2) **Tension Quick Release bar:** Push the bar DOWN to engage stretch tension.

Pull the bar UP to release stretch tension.

3) **Stretch tension adjust knob:** Turn the knob Clockwise to increase the tension.

Turn Counter-clockwise to decrease the tension.



4. ELECTRICAL

4.1 ELECTRICAL CAPACITY

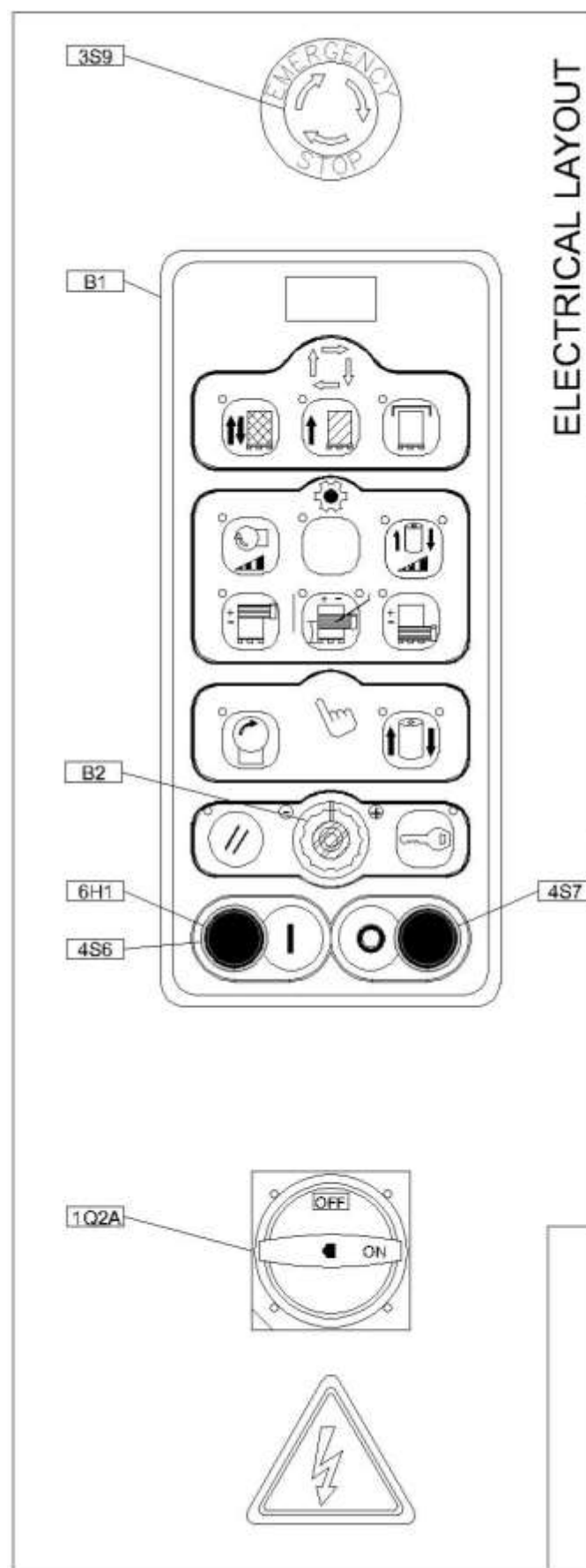
1) Power Consumption

Turntable Motor	0.55 KW
Carriage Motor	0.18 KW
Control & wiring box	DC 24V 50W
Machine Power Consumption	0.9 KW
Power Requirement	1.2 KW

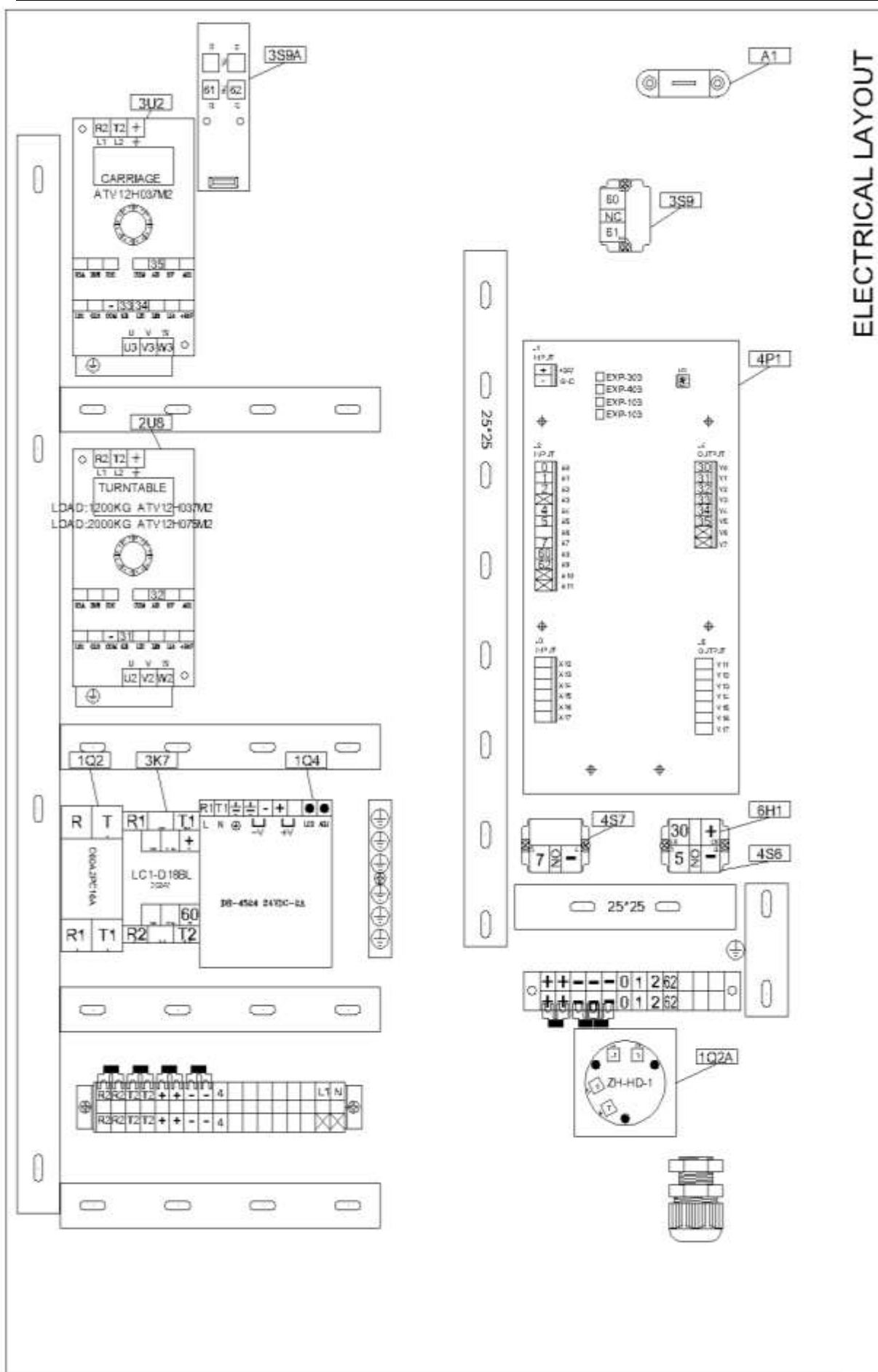
2) Power Cable ----- 1.25 mm²

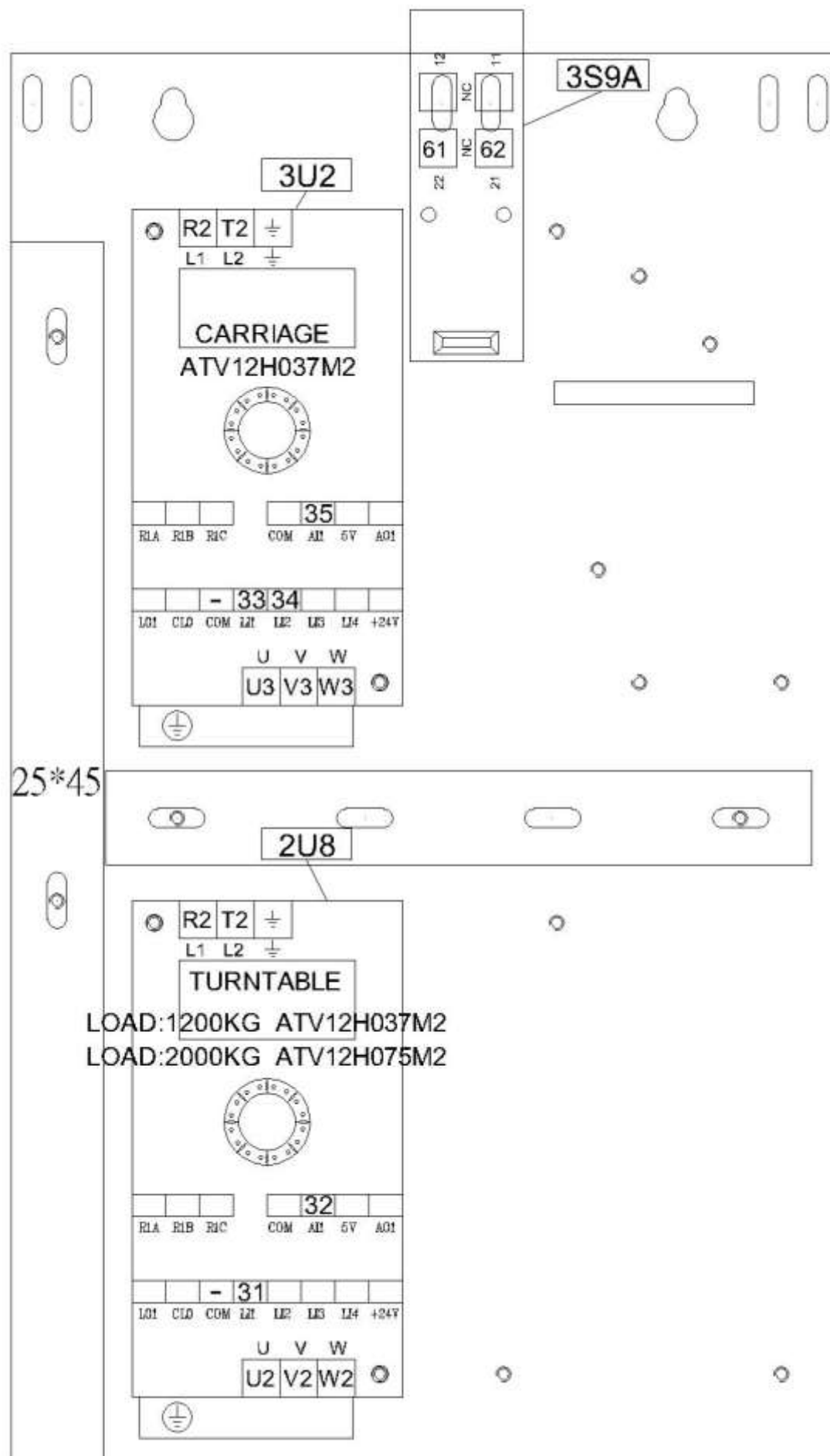
3) Machine input ----- 230V 1-PHASE

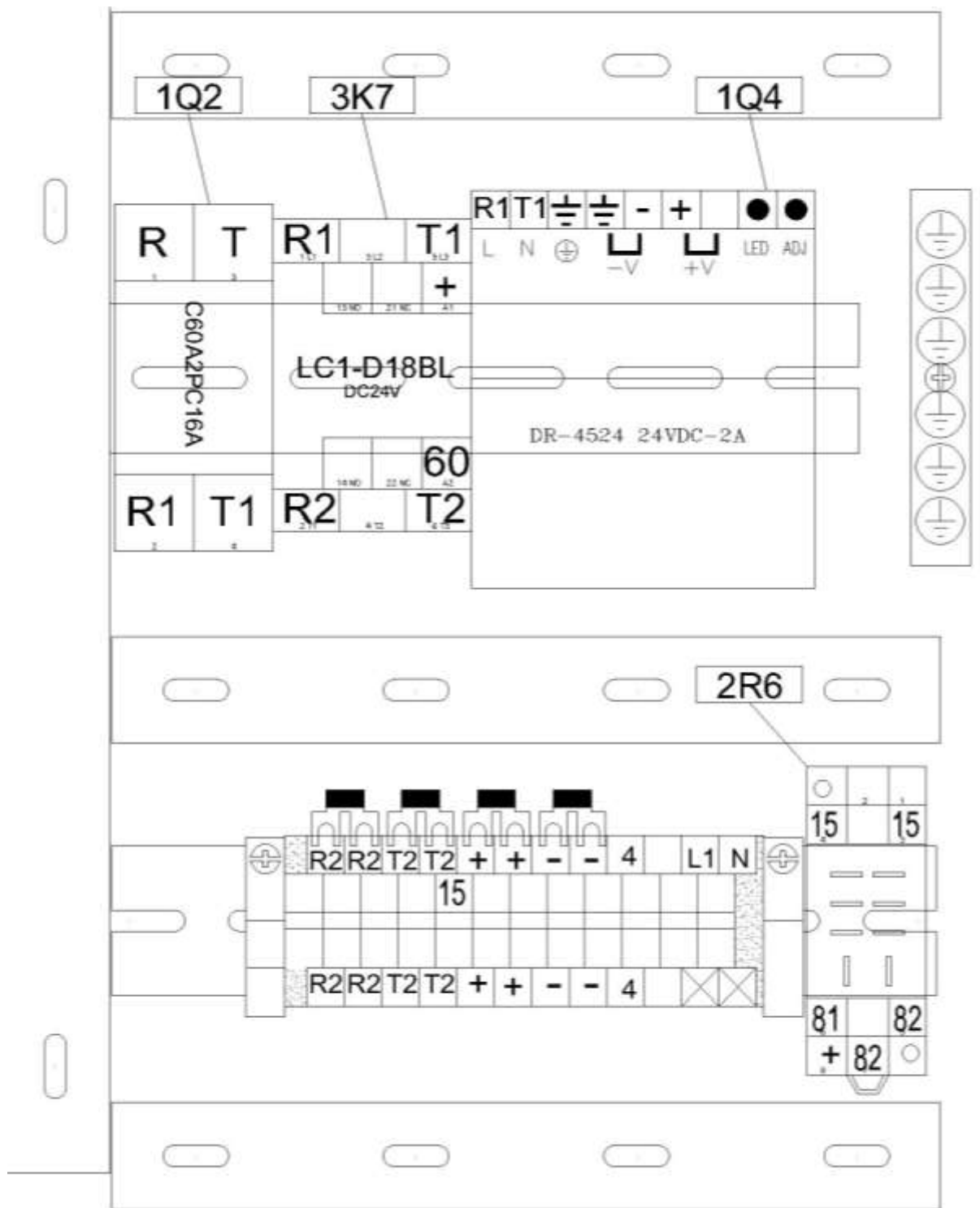
4.2 ELECTRICAL DIAGRAM

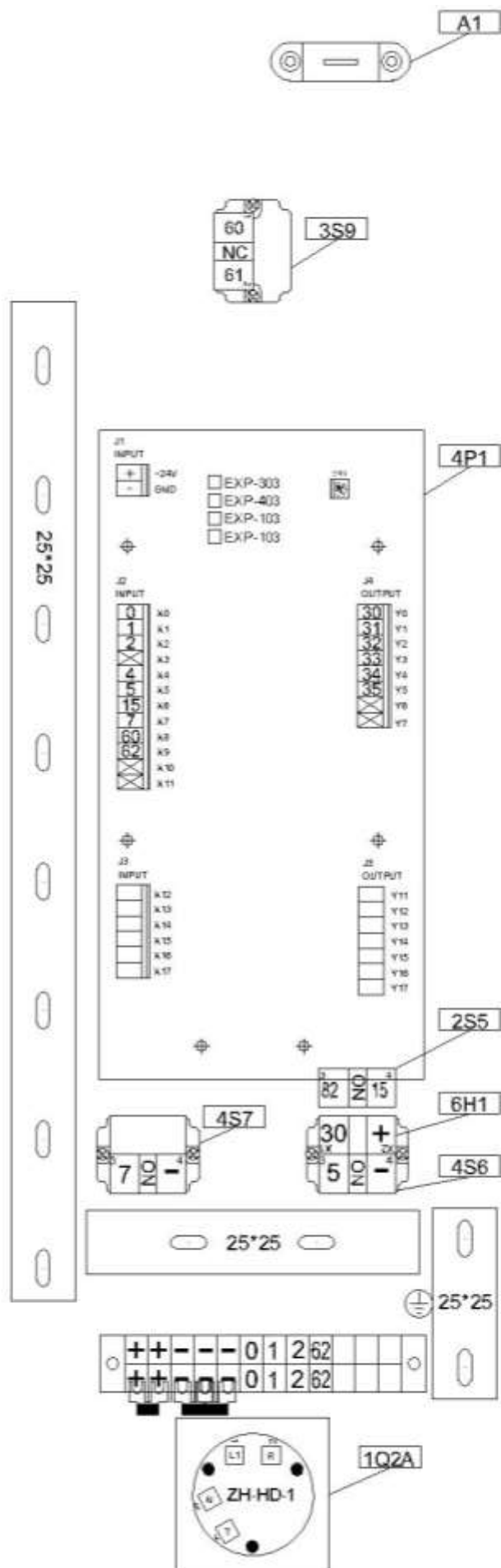


ELECTRICAL LAYOUT



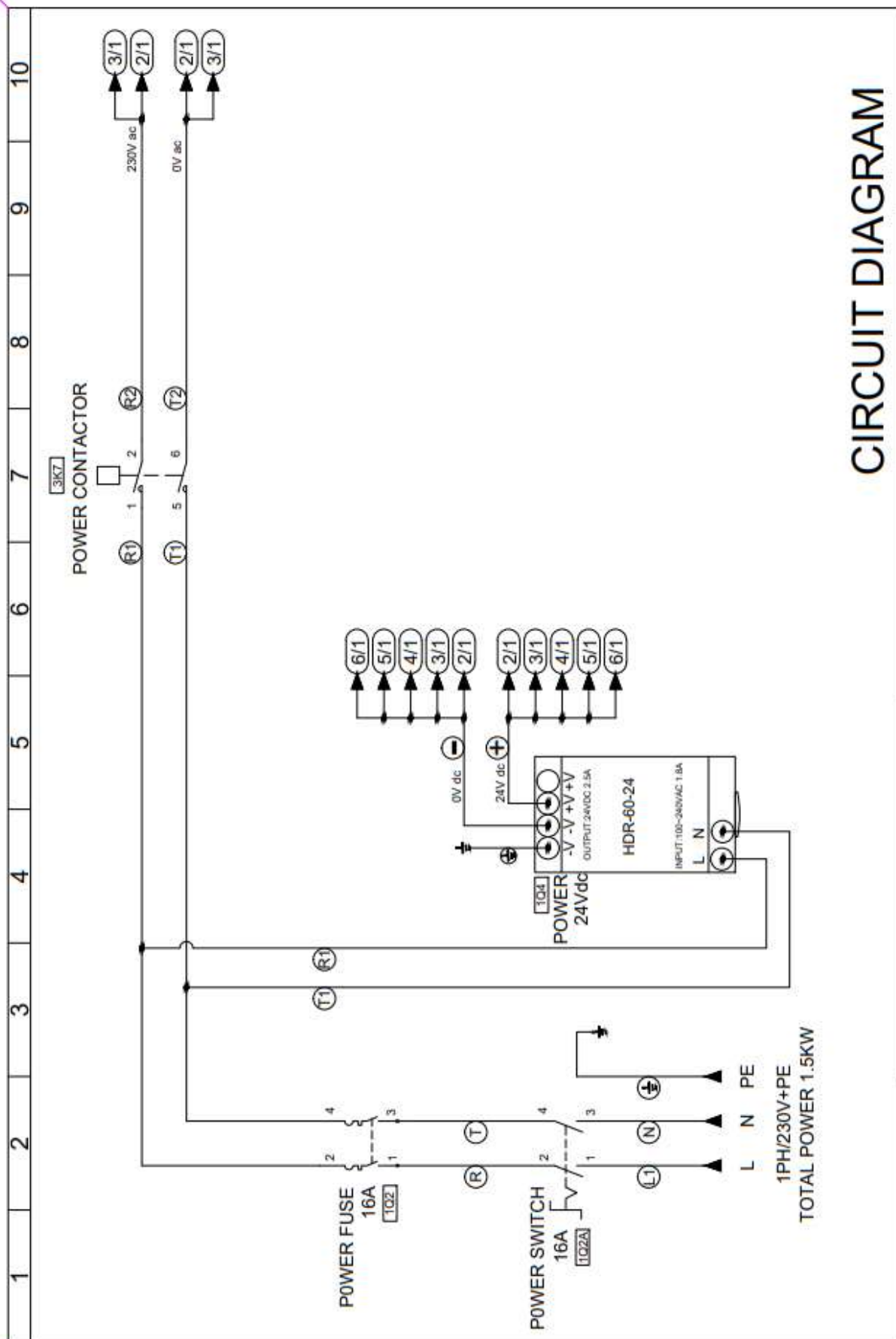


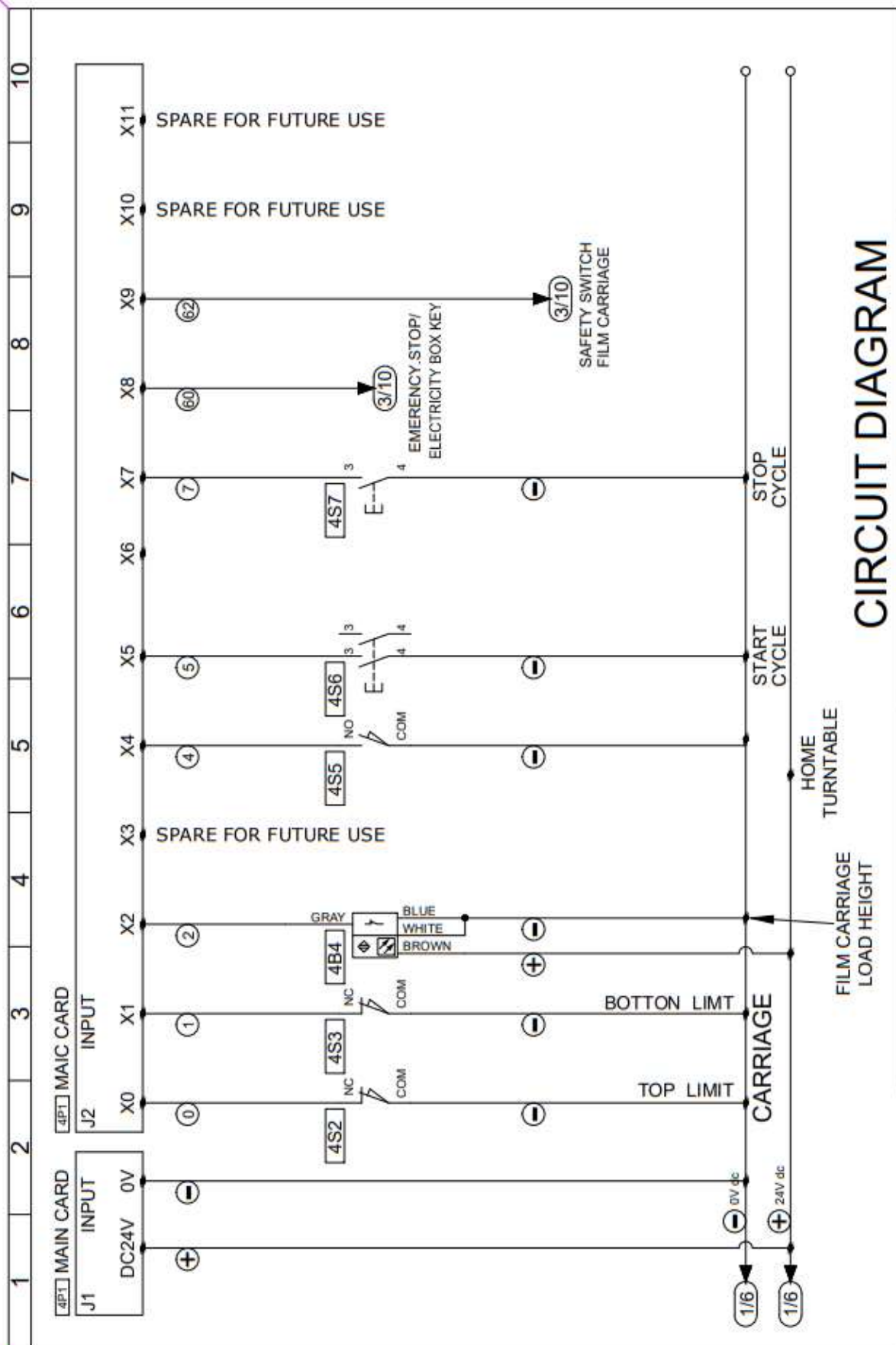


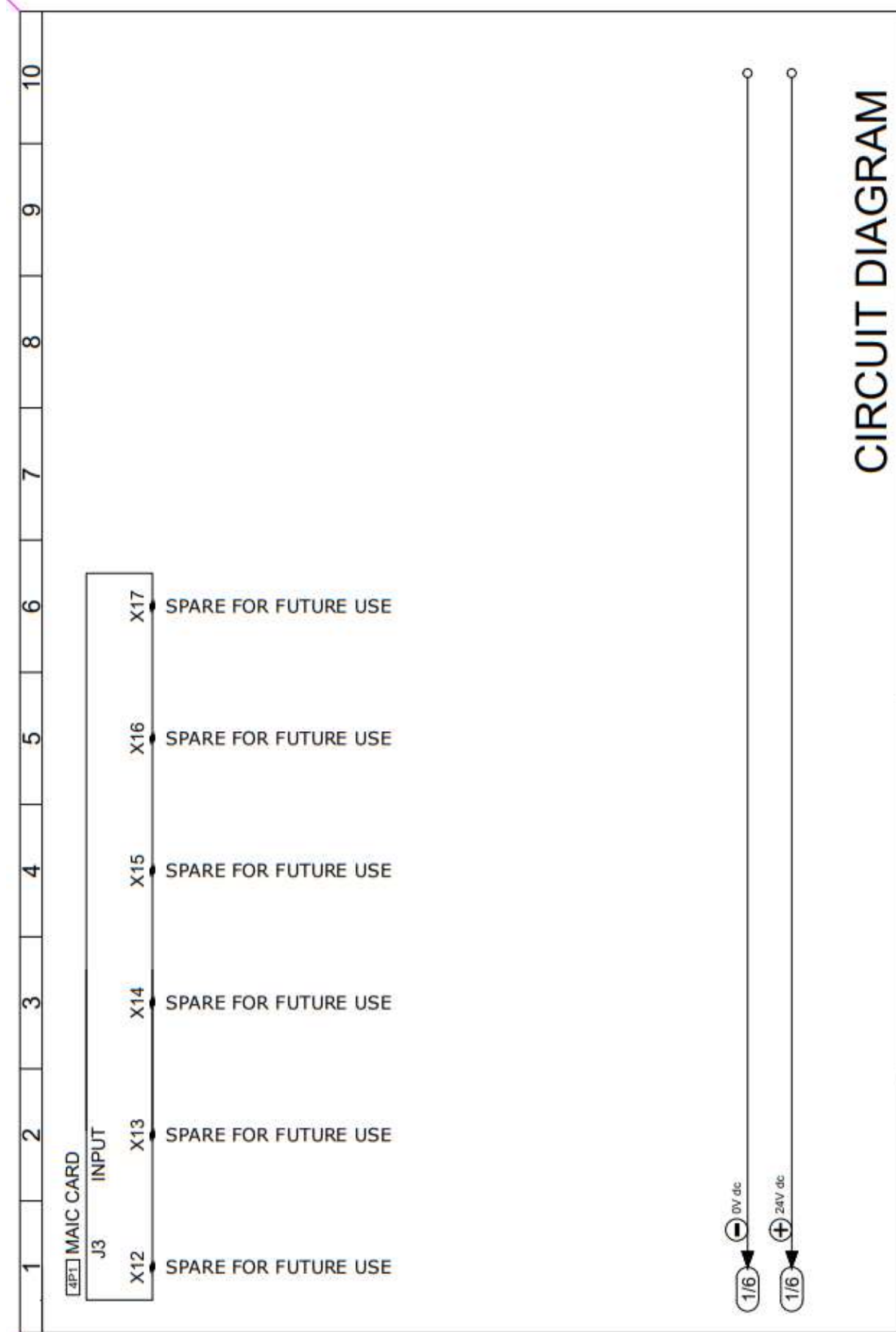


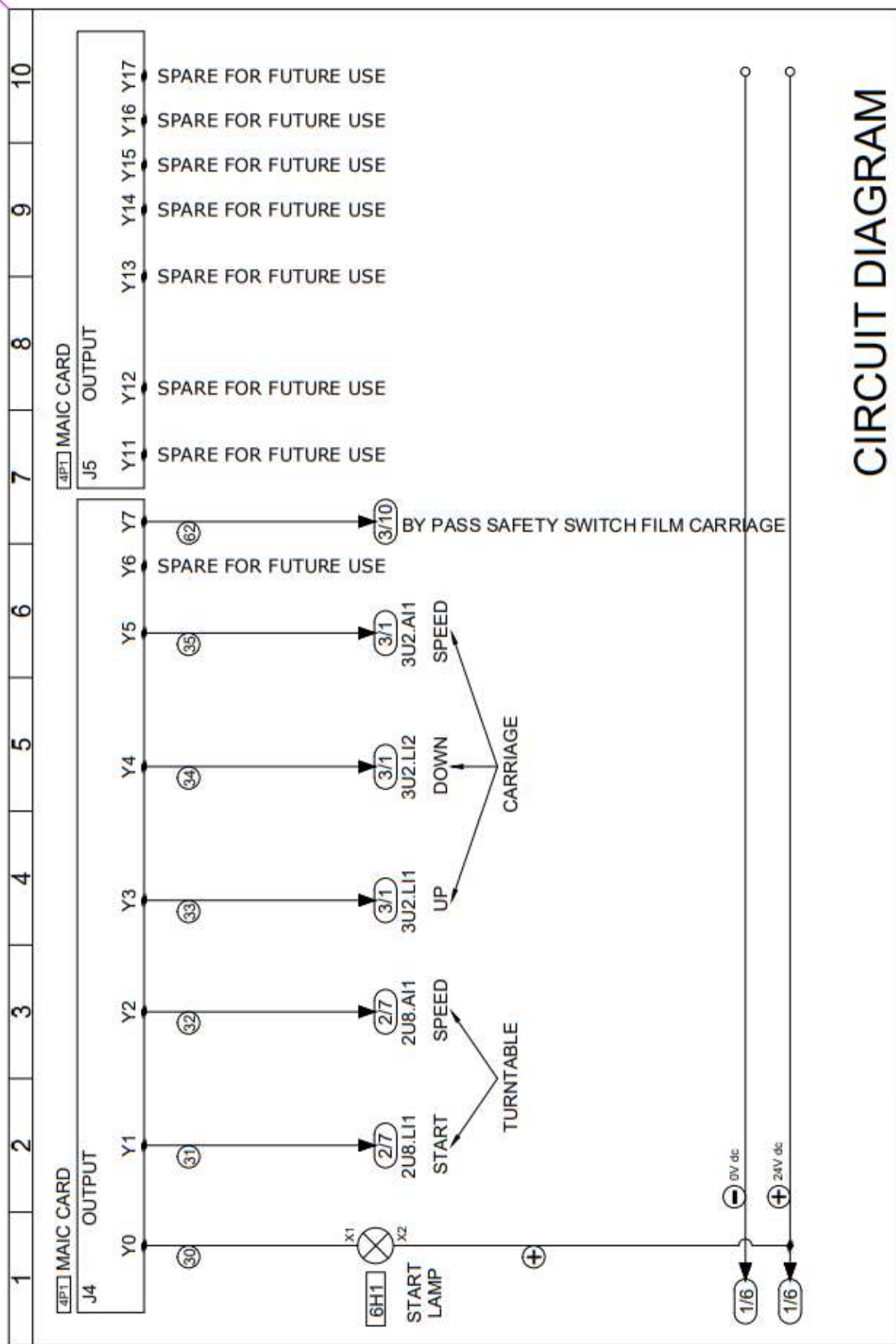
ELECTRICAL PARTS LIST

KEY NO	PART NO	DESCRIPTION	Q'TY
1Q2	P0305-010001200	POWER FUSE (IK60N2PC16A)	1
1Q2A	P0311-010002800	POWER SWITCH (ZH-HD-48-BY)	1
1Q4	P0307-010000400	POWER 24VDC (HDR-60-24 24Vdc-2.5A)	1
2U8	P0315-010000100	TURNTABLE INVERTER INVERTER, ATV12H075M2 1HP, 220V	1
	P0315-010002100	INVERTER, ATV12H075F1 1HP, 110V	1
3U2	P0315-010000300	CARRIAGE INVERTER INVERTER, ATV12H037M2 220V	1
	P0315-010000200	INVERTER, ATV12H037F1 1/2HP, 110V	1
3K7	P0306-010000400	POWER CONTACTOR (LC1D18BL,DC24V)	1
3S9	P0313-010006300	EMERGENCY STOP,(XA2ES542)	1
3S9A	P0311-020000100	CARRIAGE BOX DOOR SWITCH (TZ-93BPG)	1
4P1	P0309-010010400	MICROPROCESSOR CARD MB-1500	
4S6	P0313-010006400	START BUTTON (XA2EW33B1)	1
4S7	P0313-020002600	STOP BUTTON (SKB2EA41-1AR)	1
A1	P0311-030000100	CARRIAGE BOX DOOR KEY (TZ93-K3)	1
B1	P1002-0008200	PANEL LABEL	1
B2	P1113-000100A	KNOB	1









CIRCUIT DIAGRAM

5. TROUBLE SHOOTING

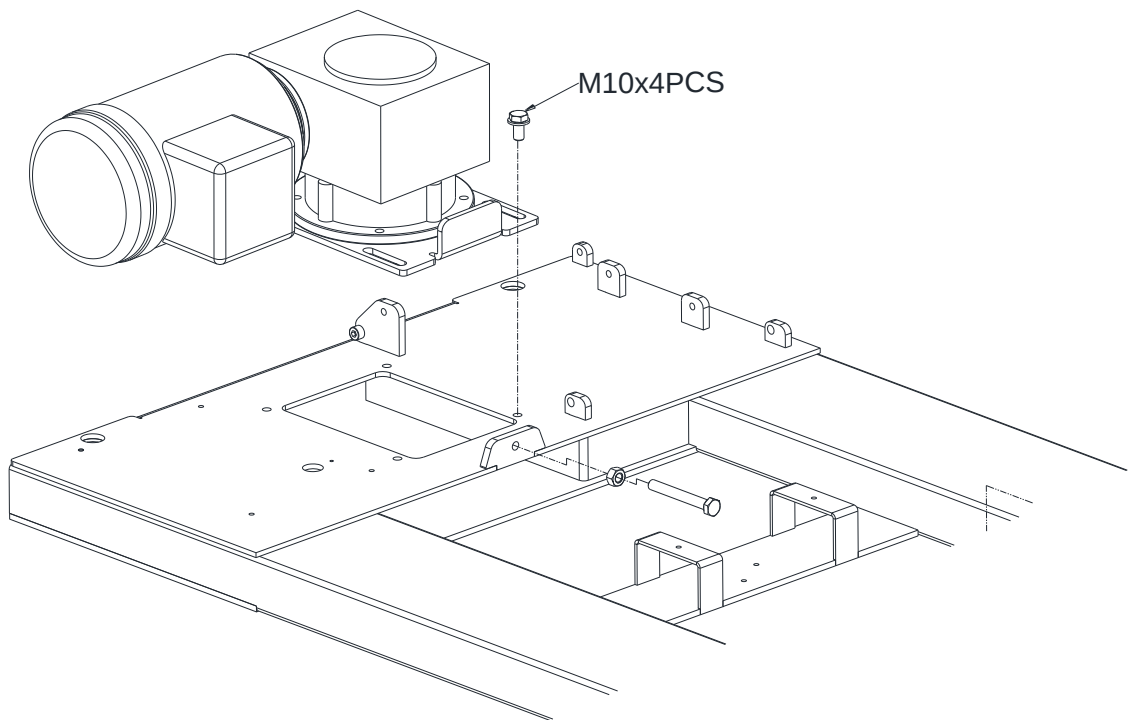
5.1 GENERAL ADJUSTMENT

1) Turntable belt adjust

Please see the illustration 5-1, and then loosen the motor seat M10 screw 4 pcs.

Turn the (M10) on the seat until enough tension.

Fasten the motor seat screw 4 pcs .

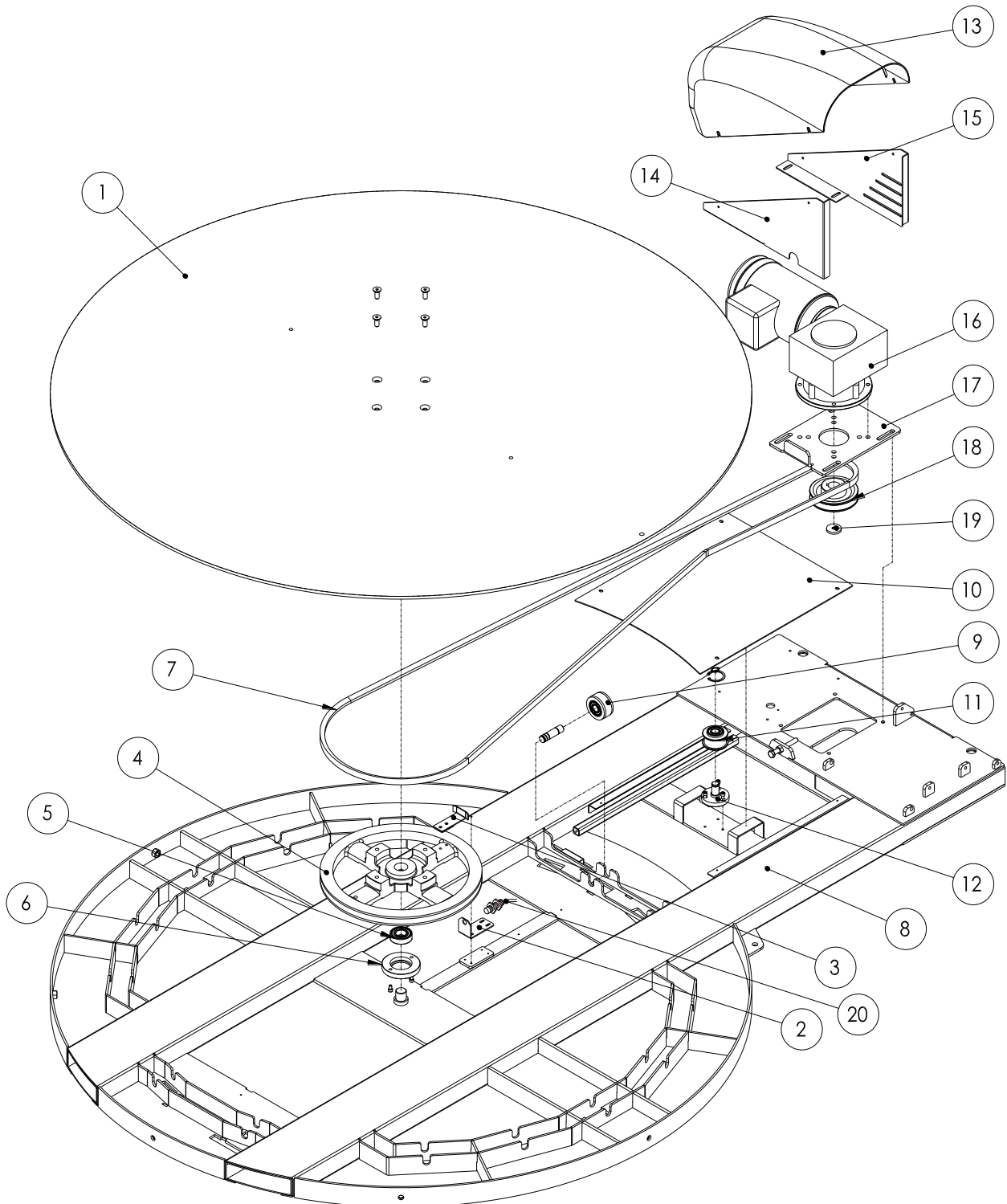


5.2 TROUBLE SHOOTING WITH MB-1500 MACHINE

Machine trouble	Cause	Description	Solution
Er0	X8=OFF X9=ON	1.EMG BUTTON 2.CONTROL BOX POWER CUT SWITCH	1. Exam if EMG Switch is locked. Release switch. 2. Check if EMG Switch is faulty. 3. Check if Control box Power Cut switch is faulty.
Er1	N/A		
Er3	N/A		
Er4	X9=OFF	CARRIAGE SAFETY PEDAL	1. Exam if Carriage foot pedal is blocked for foreign object. 2. Check if the safety pedal switch is faulty.
Er5	N/A		
Er7	X7=ON	STOP BUTTON	Check stop button.

6. PART LIST

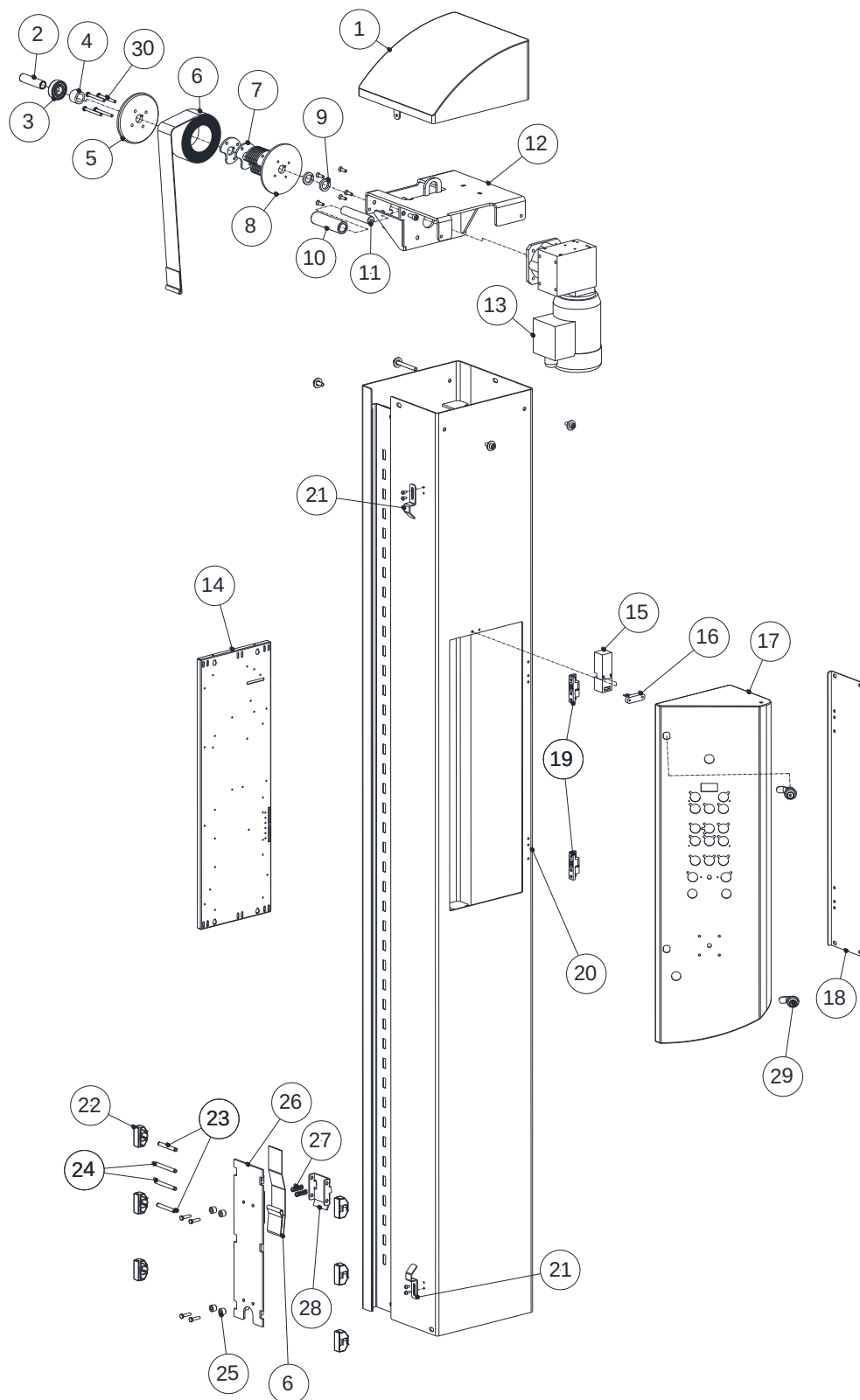
6.1 SEAT



SEAT PART LIST FOR MB-1500

KEY NO	PART NO	DESCRIPTION	Q'TY
1	P01-000081A	TURNTABLE 1.5M	1
	P01-000080A	TURNTABLE 1.65M	1
2	P01-046960A	SENSOR SEAT	1
3	P01-0469700	SENSOR PLATE	1
4	P0703-0001900	PULLEY	1
5	P1104-026205ZZ0	BEARING 6205ZZ(CWB)	1
6	P02-0050000	BEARING SEAT	1
7	P0902-0008300	BELT BX-139	1
	P0902-0007400	BELT BX-144	1
8	P01-045120B	TURNTABLE BASE 1.5M	1
	P01-044540A	TURNTABLE BASE 1.65M	1
9	P06-0003410	SUPPORTING WHEEL	13
	P02-000700A	SUPPORTING WHEEL SHAFT	
10	P01-045160A	COVER PLATE	1
11	P06-0028800	BELT BEARING PULLY SEAT	1
12	P02-0052400	BELT BEARING PULLY SHAFT	
13	P06-0048200	MOTOR COVER	1
14	P01-0448300	MOTOR COVER SUPPORT FRAME	1
15	P01-0448400	MOTOR COVER SUPPORT FRAME	1
16	P0503-0009300	MOTOR, 3/4HP 3-PH, 220V/380V(1.5M TT)	1
	P0503-0008800	MOTOR, 1HP 3-PH, 220V/380V(1.65M TT)	
17	P01-0445500	MOTOR BASE PLATE	1
18	P0703-0002000	MOTOR BELT PULLY	1
19	P01-0066100	WASHER M8	1
20	P0319-10P10316	PROX SWITCH PM12-04N	1

6.2 TOWER



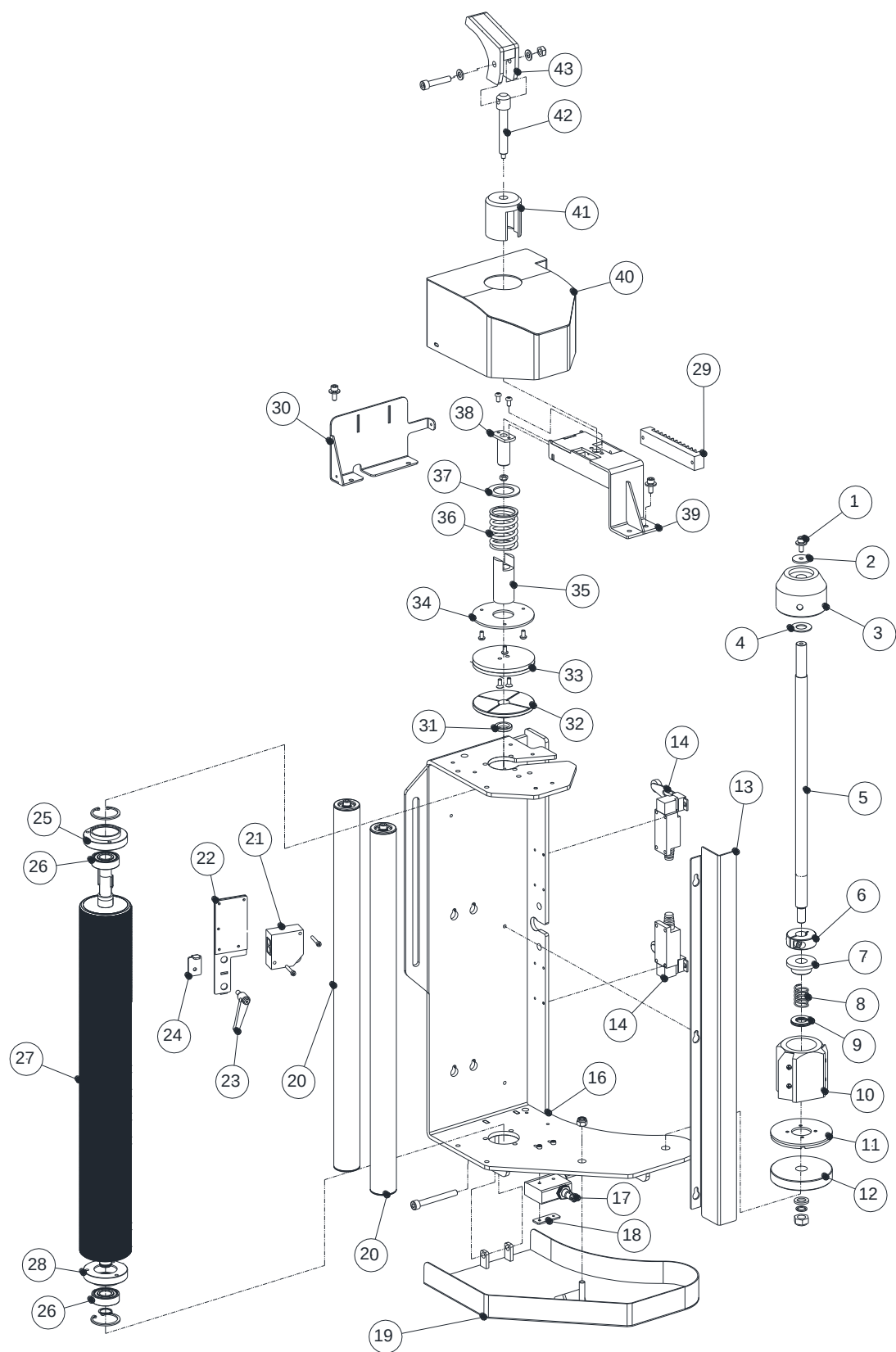
TOWER PART LIST FOR MB-1500

KEY NO	PART NO	DESCRIPTION	Q'TY
1	P01-0451800	MASTER COVER	1
2	P02-0277100	MOTOR SHAFT	1
3	P1104-026204ZZ0	BEARING 6204ZZ	1
4	P02-0291500	SHAFT BUSHING	1
5	P02-0278800	PULLEY PLATE	1
6	P0902-0006300	CARRIAGE BELT (2.2M WRAP H.)	1
	P0902-0007200	CARRIAGE BELT (2.6M WRAP H.)	1
	P0902-0007700	CARRIAGE BELT (3.0M WRAP H.)	1
7	P02-0279000	BELT PULLEY	11
8	P02-0278900	PULLEY PLATE	1
9	P02-0277600	SHAFT SLEVE	2
10	P02-027920A	BELT TURNING SHAFT	1
11	P02-027910A	BELT TURNING SHAFT	1
12	P01-0226200	MOTOR BASE SEAT	1
13	P0503-0009200	GEAR REDUCER MOTOR, 1/2HP 3-PH, 220V/380V	1
14	P01-0226600	WIRING PLATE	1
15	P0311-020000100	POWER SWITCH TZ-93BPG	1
16	P0311-030000100	KEY TZ93-K3	1
17	P01-044870D	CONTROL PANEL – MAIN FRAME	1
18	P01-0446700	CONTROL PANEL – SIDE FRAME	1
19	P1110-020000400	HINGE	2
20	P01-0451400	TOWER – 2.2M	1
	P01-0451300	TOWER – 2.6M	1
		TOWER – 3.0M	1
21	P01-0448500	LIMIT PLATE	2
22	P06-0047300	SLIDING BLOCK	6
23	P02-0289800	BELT FIXING SHAFT	2
24	P02-0289900	HOOK FIXING SHAFT	2
25	P02-0292400	BUSHING	4
26	P01-0446500	SLIDING CART	1
27	P1201-0008500	SPRING	2
28	P01-0446600	ANTI-FALLING HOOK	1

TOWER PART LIST FOR MB-1500

KEY NO	PART NO	DESCRIPTION	Q'TY
29	P1118-010000200	LOCK C-403*3/4"	2
	P1118-020000100	KEY	
	P1118-030000100	LOCK PLATE	
30	P1101-0506070AN	SCREW 6X70L	4

6.3 CARRIAGE



CARRIAGE PART LIST FOR MB-1500

KEY NO	PART NO	DESCRIPTION	Q'TY
1	P1101-0906016AN	SCREW M6*16L	1
2	P01-0003700	RING	1
3	P06-0000900	RING (UPPER)	1
4	P01-0005500	RING	1
5	P02-0002800	FILM SEAT SHAFT	1
6	P02-0015700	ADJUSTING RING	1
7	P06-0006100	RING (LOWER)	1
8	P1201-0000710	SPRING	1
9	P1104-19AS17301	BEARING NTB1730	1
10	P06-000600A	FILM FIX SEAT	1
11	P02-0014800	BRAKE DISC	1
12	P02-0003000	FRICTION SEAT	1
13	P01-0450100	CABLE COVER FRAME	1
14	P0311-060001300	LIMIT SWITCH VL-8104	2
16	P01-022700A	CARRIAGE FRAME – BASE	1
17	P0311-060001400	LIMIT SWITCH ML-7312	1
18	P01-0006700	FIXING PLATE	1
19	P01-0450200	CARRIAGE FRAME – SAFETY PEDAL	1
20	P08-0001000	ROLLER	2
21	P0302-020000200	PHOTO SENSOR A3R-2MX	1
22	P01-0226400	PHOTO SENSOR SEAT	1
23	P1112-0001100	QUICK RELEASE HANDLE KNOB	1
24	P01-0451500	FIXING PLATE	1
25	P02-0290000	BEARING SEAT	1
26	P1104-026203ZZ0	BEARING 6203ZZ(CWB)	2
27	P08-0000210	STRETCH ROLLER	1
28	P02-0001900	BEARING SEAT	1
29	P0304-010005600	CONNECTOR HOUSE 12P, 15A	1
30	P01-048560A	CARRIAGE FRAME – COVER BASE	1
31	P02-0002000	WASHER	1
32	P02-0305500	BRAKE PALTE	1

CARRIAGE PART LIST FOR MB-1500

KEY NO	PART NO	DESCRIPTION	Q'TY
33	P02-0305800	BRAKE PAD	1
34	P01-0486700	SEPARATE SEAT	1
35	P02-030530A	BRAKE SHAFT	1
36	P1201-0001700	PRE-STRETCH SPRING	1
37	P01-0485700	WASHER	1
38	P02-0305200	BRAKE SHAFT	1
39	P01-048550A	COMPRESS SEAT	1
40	P01-0485300	CARRIAGE COVER – FRAME	1
41	P02-0305100	COMPRESS COVER	1
42	P02-0305000	ADJUST SCREW	1
43	P01-0485400	HANDLE	1