

MEFE
MITCHELL ENGINEERING
FOOD EQUIPMENT PTY LTD

Operation Manual



Singeing Conveyor

Dehairing Pork Snouts, Ears and Faces

CAT 152TX2000

Revision 2

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1. Before Use

Do not start the machine before reading this manual. This machine has been constructed for the purpose of singeing hair off meat – mainly used for Pork Ears, Faces and Snouts.

2. Installation

2.1 Location and Placement

1. Before installing the machine you must ensure the chosen location is adequate to support the correct use of the machine.
2. The location must support feeding water, gas, and electrical to the machine.
3. The room must have a smoke exit in the ceiling or walls to connect directly to the machine cover. If connecting to the side wall this must not interfere with passage.
4. The surface must be level and the four legs of machine must be supported to the ground and fixed with screws to prevent any movement.
5. The operator must be able to use the machine safely and requires approximately 1.5 meters of space either side of the band (product input/output).

2.2 Electrical and Gas Connections

1. You must request the connection of gas by a professional installer.
2. You must connect the machine verifying the consumption of the engine in relation to the electrical box.
3. You must verify the direction of rotation of the machine. The band must circulate from the later part of the machine (extreme opposed to the engine) towards the before part (extreme of the engine).
4. The variable speed of this machine has an oil level. You must verify that the machine has oil.

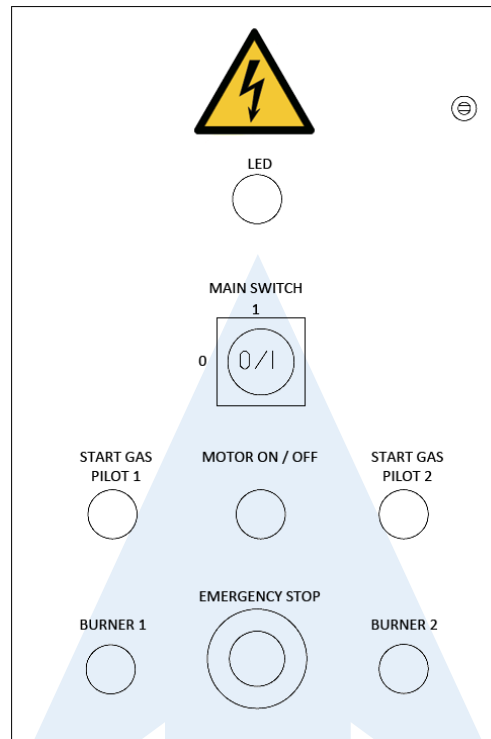
3. Operation

3.1 Instructions for Use

1. Open the main gas faucet.
2. Open the main electric switch.
3. Start the engine (green button) and water (manual faucet 1/2")
4. Push single button to start gas pilot.
5. Select the lower burner switch.
6. Select the top burner switch (optional).
7. Put the pig / product on the conveyor.
8. The burners will stop automatically if the photoelectric switch does not see anything on the conveyor.
9. When you are finished, stop the electric main switch and the gas main faucet and water faucet.

**IMPORTANT: NEVER START THE BIG BURNERS WITHOUT MOTOR ON.
NEVER WORK UP TO 1, 2 BAR GAS PRESSURE.**

3.2 Switch Diagram



3.3 Burner Operation

1. The burners can't operate if the engine is not running.
2. The burners are controlled by independent solenoids.
3. The solenoids can open and give way to the gas when the electric photocell detects some material on the conveyor belt.
4. When there is no product above the conveyor belt, the solenoids are closed automatically by an adjustable timer.
5. The lower burner must always be in operation and the top burner is optional.

4. Technical Specifications

4.1 Electrical Box

Place the electrical box near the machine and make sure it is water protected.

Plug in: 400V 3-phase. U, V, W

Plug out engine R, S, T

Solenoid 1	1-1
Solenoid 2	2-2
Solenoid 3	3-3
Emergency Stop	P-E (Optional)

4.2 Engine

0.25kW 240/400V 3-phase

The speed conveyor can be changed by a manual variable speed. That is, manipulated by turning the wheel that is situated between the engine and gear box.

4.3 Water

Connect the machine to the step water 1/2" connection located next to the electrical motor.

4.4 Gas

Natural, propane or butane

Gas Pressure	Max Pressure	Gas Connection
0,5-1,2 Bar	1,2 Bar	1/2"

4.5 Drain

Pipe D20 located underneath the water collection of refrigeration of the band.

4.6 Cover

You must put a chimney above the cover for collection of smoke to an exit. D200mm.

This cover is totally isolated with hydrofuge material.

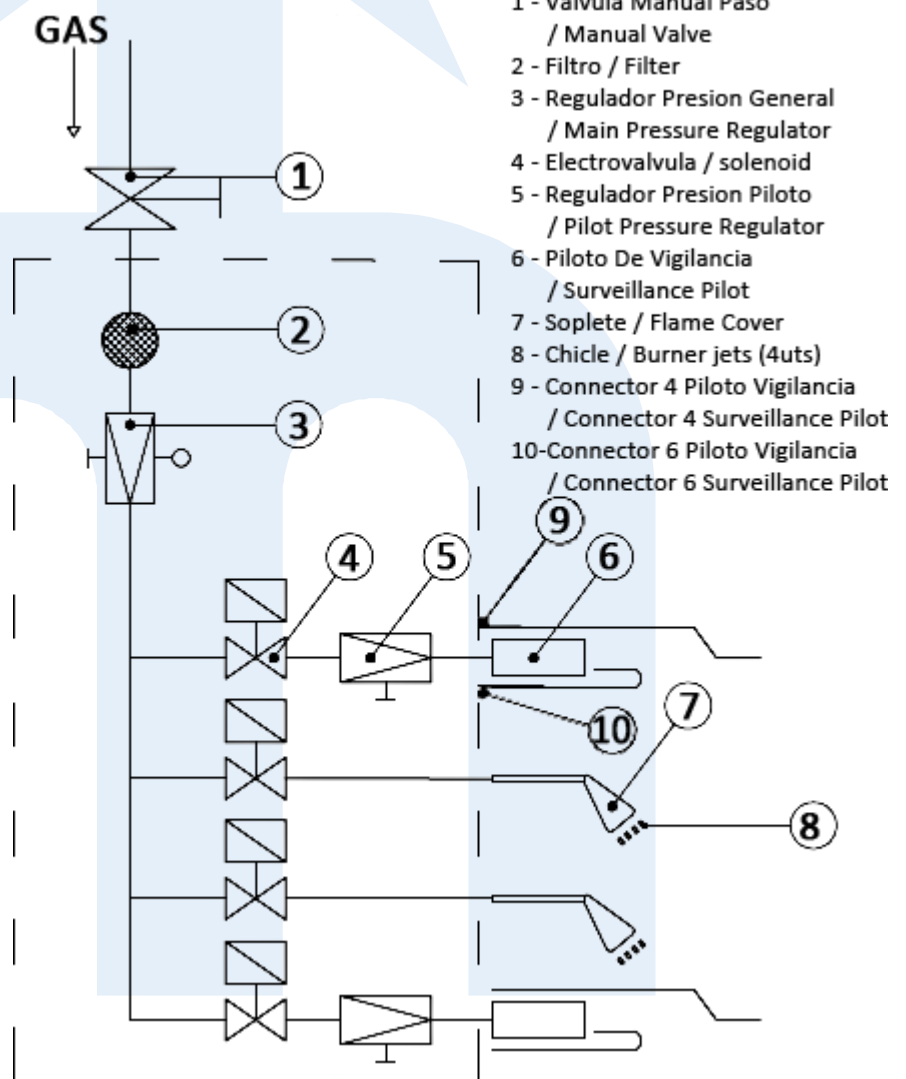
4.7 Direction of Rotation

When connecting the machine, you must verify that the band turns in the sense indicated in the own machine. The band must circulate from the later part of the machine (extreme opposed the engine) towards the before part (extreme of the engine).

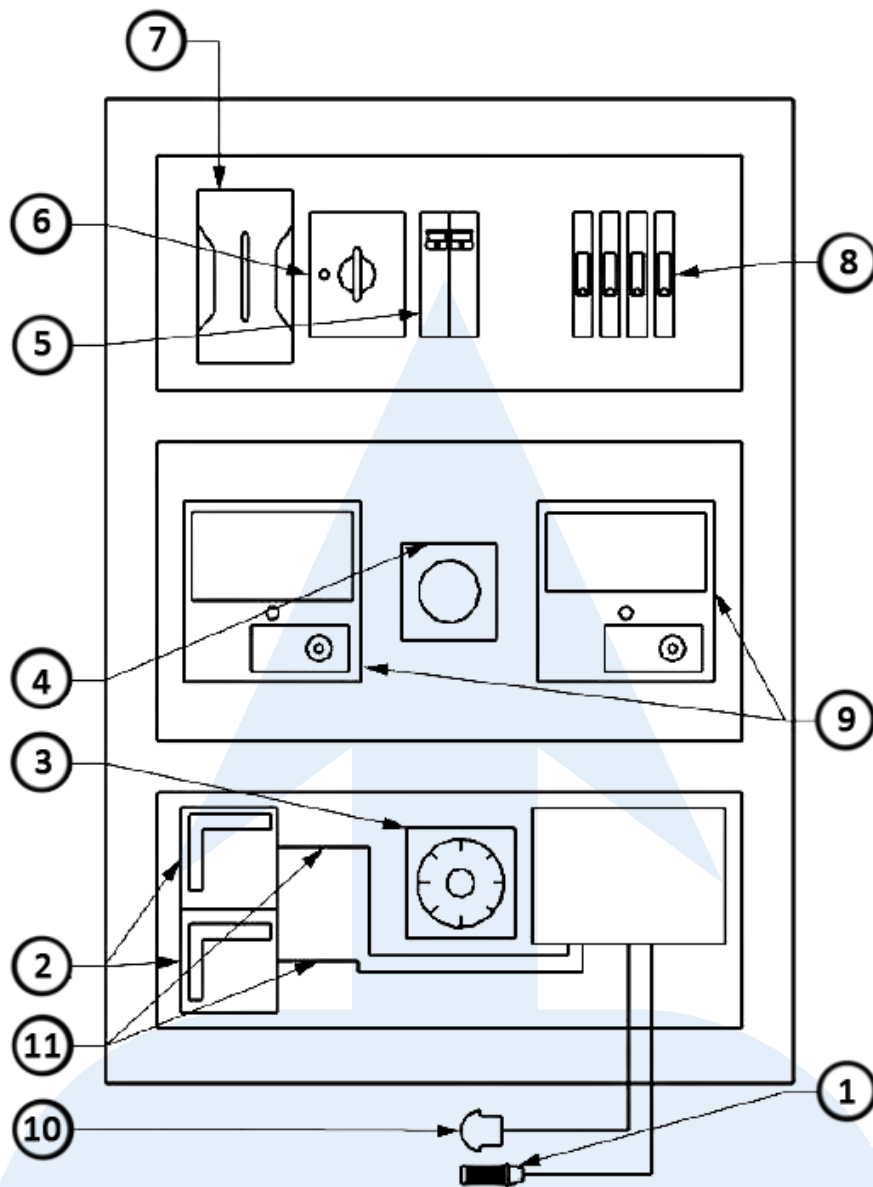
5. Element Symbols

Symbol	Part	Qty
	Photoelectric Cell	1
	Vigilance Solenoid	2
	Burner Solenoid	2
	Engine	1
	Water Solenoid	1
	Emergency Stop	1

6. Gas Diagram



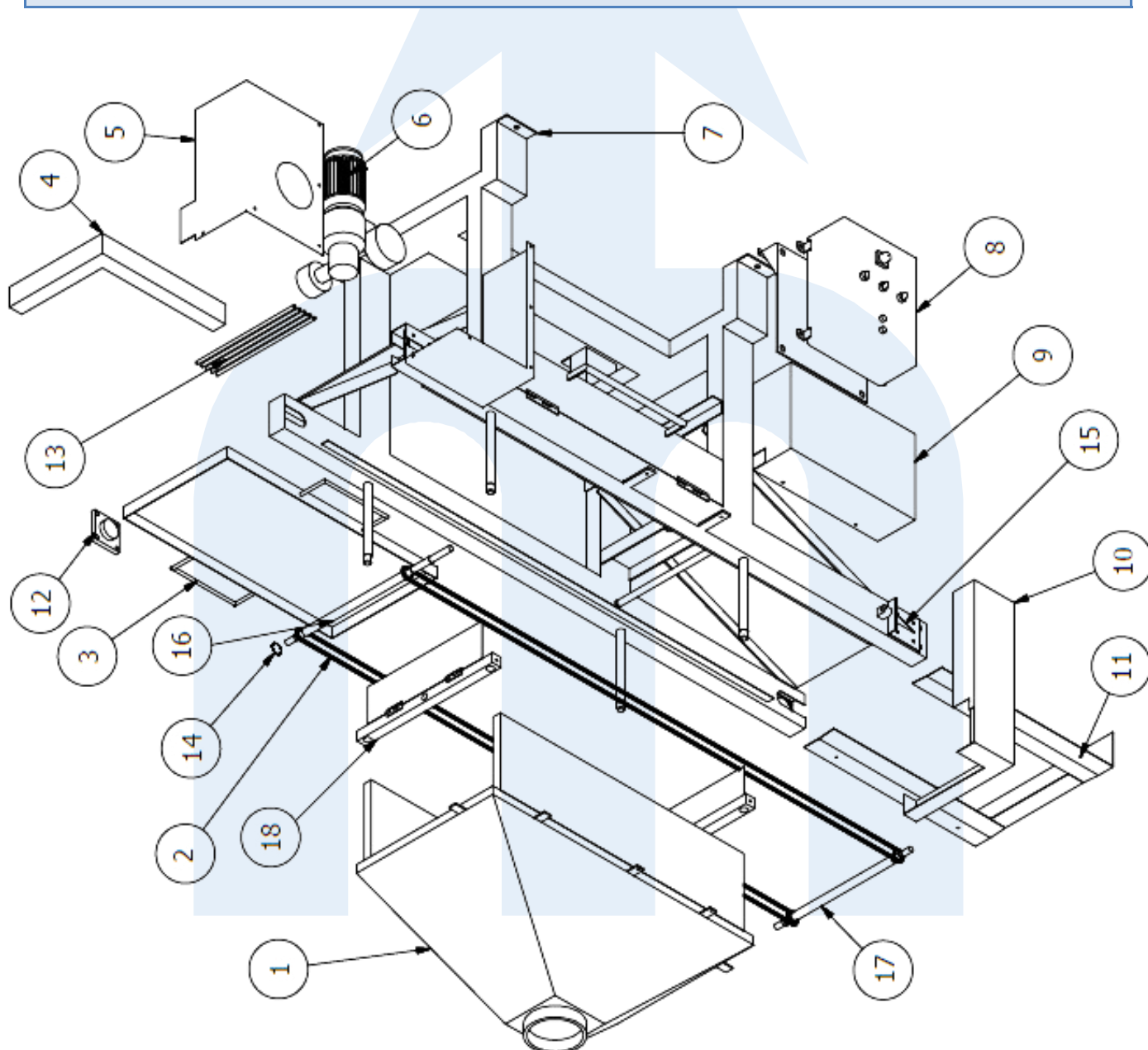
7. Electrical Panel



No.	Description
1	Photocell (REF: FARN/BP-OE)
2	Transformer ignition (REF: TRE820P)
3	Timer (REF: H3CR)
4	General switch TFE V02
5	Magnetothermal (REF: PLS6-C6/2)
6	Thermal relay (REF: PKZM0)
7	Source alimentation 24 DC (REF: S8VK-G12024)
8	Omron relay G2R2SNIBA DC
9	Flame safety relay (REF: IFW15)
10	Emergency stop
11	Silicone wire

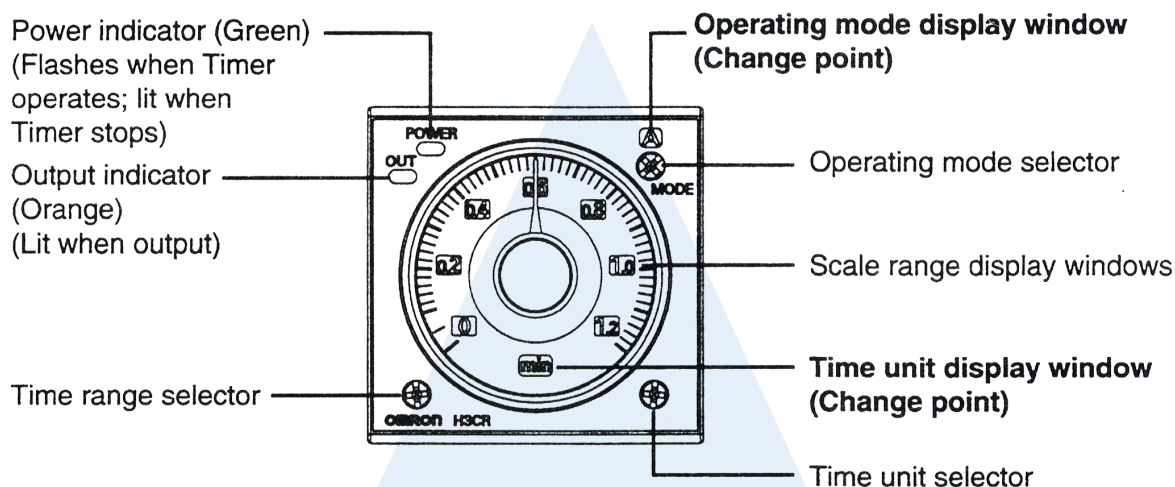
8. Exploded Diagram

No.	Description	Items	No.	Description	Items
1	Campana / Hood	1	10	Protección circuito gas 3 / Gas circuit protection 3	1
2	Cadena / Chain	2	11	Tapa transmisión / Transmission cover	1
3	Bandeja recogida / Collection tray	1	12	Rodamiento / Bearing	3
4	Protección circuito gas 2 / Gas circuit protection 2	1	13	Varilla cadena / Rebar chain	175
5	Tapa motor / Engine protection	1	14	Piñón / Sprocket	4
6	Motor reductor / Gear box with motor	1	15	Tensor rodamiento posterior / Bearing expander	2
7	Bancada / Frame	1	16	Eje tracción / Traction shaft	1
8	Caja eléctrica / Electrical box	1	17	Eje conducido / Driven shaft	1
9	Protección circuito gas 1 / Gas circuit protection 1	1	18	Soporte soplete / Burner holder	2



Changes of Operation Mode/Time Unit (Orders are subject to change after April 2013)

Intended model: H3CR-A, -AP, -AS

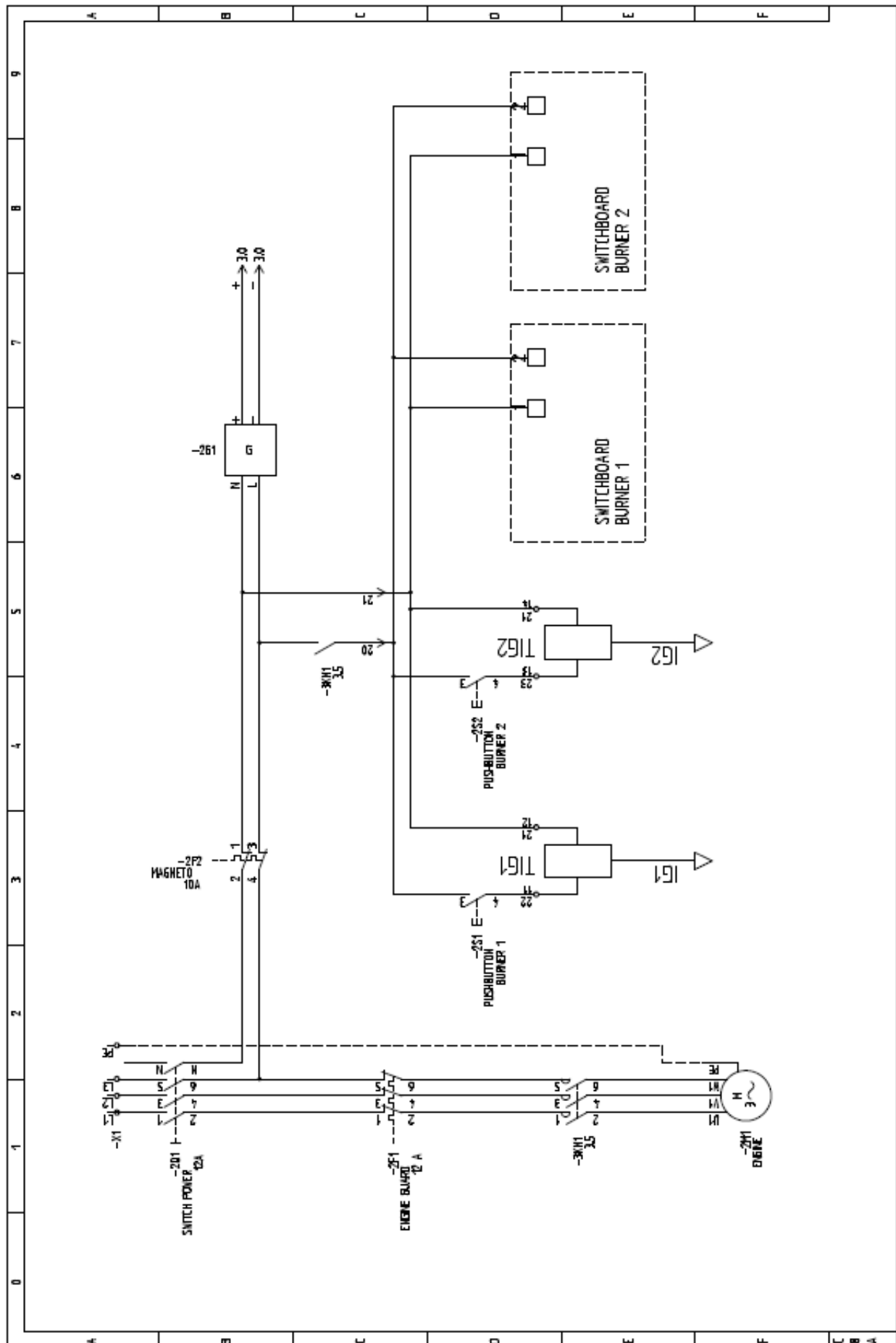


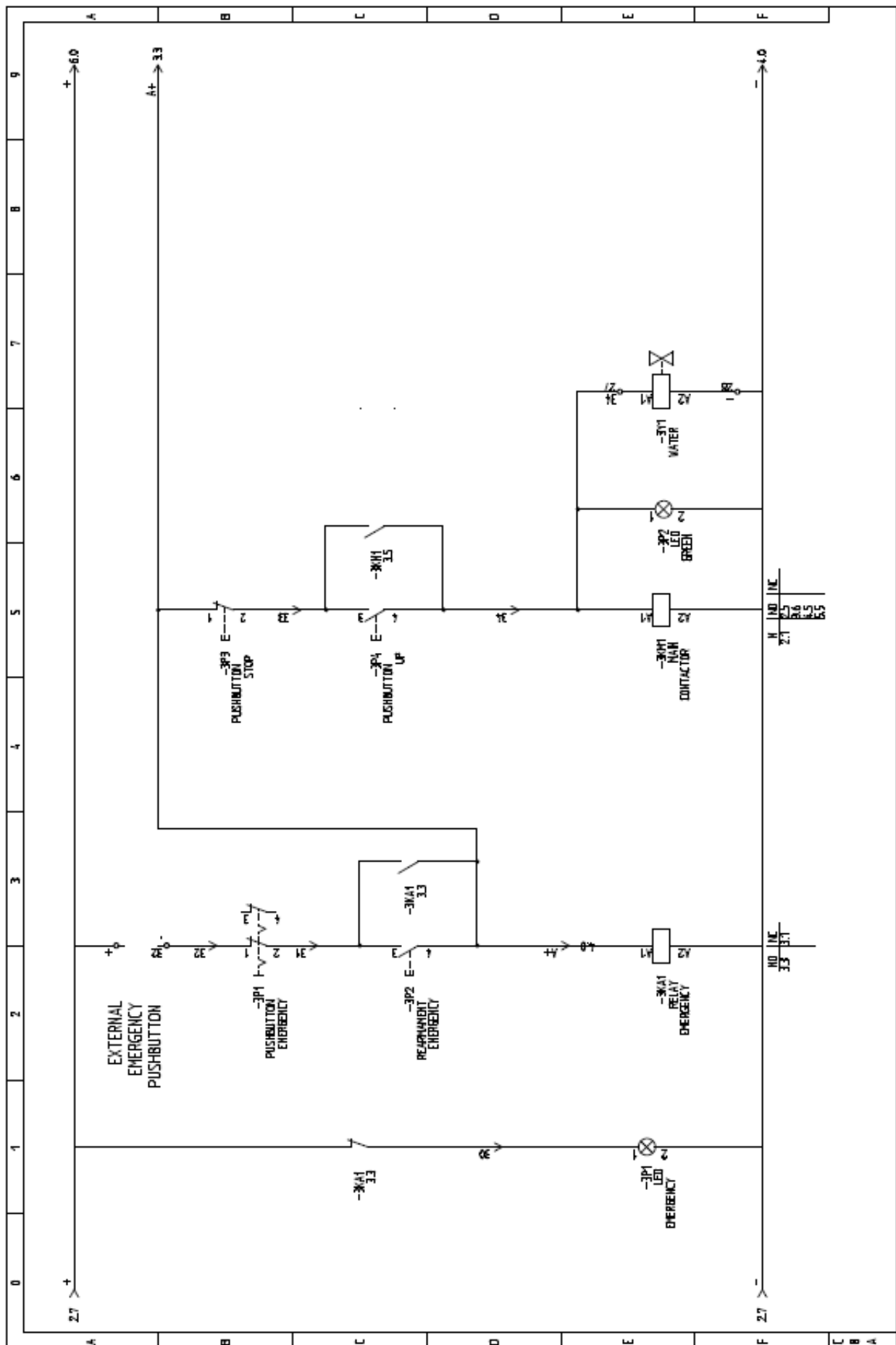
Before	After																																																																								
Operating Modes (6 modes switching)	Operating Modes (8 modes switching)																																																																								
A→B→B₂→C→D→E A→B→B₂→C→D→E A: ON-delay B: Flicker OFF start B₂: Flicker ON start C: Signal ON/OFF-delay D: Signal OFF-delay E: Interval	A→B→B₂→C→D→E→G→J A→B→B₂→C→D→E→G→J A: ON-delay B: Flicker OFF start B₂: Flicker ON start C: Signal ON/OFF-delay D: Signal OFF-delay E: Interval G: Signal ON/OFF-delay (New Mode) J: One-shot (New Mode)																																																																								
Time unit (4 scales switching)	Time unit (6 scales switching)																																																																								
min→hrs→x10h→sec min→hrs→x10h→sec <table><thead><tr><th>Time unit</th><th>s</th><th>min</th><th>h</th><th>x 10h</th></tr><tr><th>Scale range</th><th>(sec)</th><th>(min)</th><th>(hrs)</th><th>(hrs)</th></tr></thead><tbody><tr><td>1.2</td><td>0.05~1.2</td><td>0.12~1.2</td><td></td><td>1.2~12</td></tr><tr><td>3</td><td></td><td>0.3~3</td><td></td><td>3~30</td></tr><tr><td>12</td><td></td><td>1.2~12</td><td></td><td>12~120</td></tr><tr><td>30</td><td></td><td>3~30</td><td></td><td>30~300</td></tr></tbody></table>	Time unit	s	min	h	x 10h	Scale range	(sec)	(min)	(hrs)	(hrs)	1.2	0.05~1.2	0.12~1.2		1.2~12	3		0.3~3		3~30	12		1.2~12		12~120	30		3~30		30~300	min→x10m→hrs→x10h→sec→x10s min→x10m→hrs→x10h→sec→x10s <table><thead><tr><th>Time unit</th><th>s</th><th>x10s</th><th>min</th><th>x10m</th><th>h</th><th>x10 h</th></tr><tr><th>Scale range</th><th>(sec)</th><th>(sec)</th><th>(min)</th><th>(min)</th><th>(hrs)</th><th>(10 hrs)</th></tr></thead><tbody><tr><td>1.2</td><td>0.05~1.2</td><td>1.2~12</td><td>0.12~1.2</td><td>1.2~12</td><td>1.2~1.2</td><td>1.2~12</td></tr><tr><td>3</td><td>0.3~3</td><td>3~30</td><td>0.3~3</td><td>3~30</td><td>0.3~3</td><td>3~30</td></tr><tr><td>12</td><td>1.2~12</td><td>12~120</td><td>1.2~12</td><td>12~120</td><td>1.2~12</td><td>12~120</td></tr><tr><td>30</td><td>3~30</td><td>30~300</td><td>3~30</td><td>30~300</td><td>3~30</td><td>30~300</td></tr></tbody></table>	Time unit	s	x10s	min	x10m	h	x10 h	Scale range	(sec)	(sec)	(min)	(min)	(hrs)	(10 hrs)	1.2	0.05~1.2	1.2~12	0.12~1.2	1.2~12	1.2~1.2	1.2~12	3	0.3~3	3~30	0.3~3	3~30	0.3~3	3~30	12	1.2~12	12~120	1.2~12	12~120	1.2~12	12~120	30	3~30	30~300	3~30	30~300	3~30	30~300
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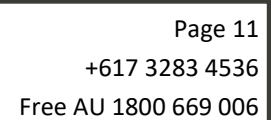
■ Indicates the factory default setting

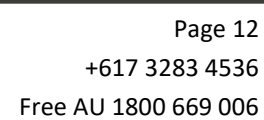
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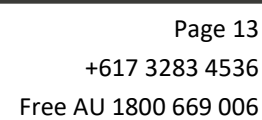
9. Schematics

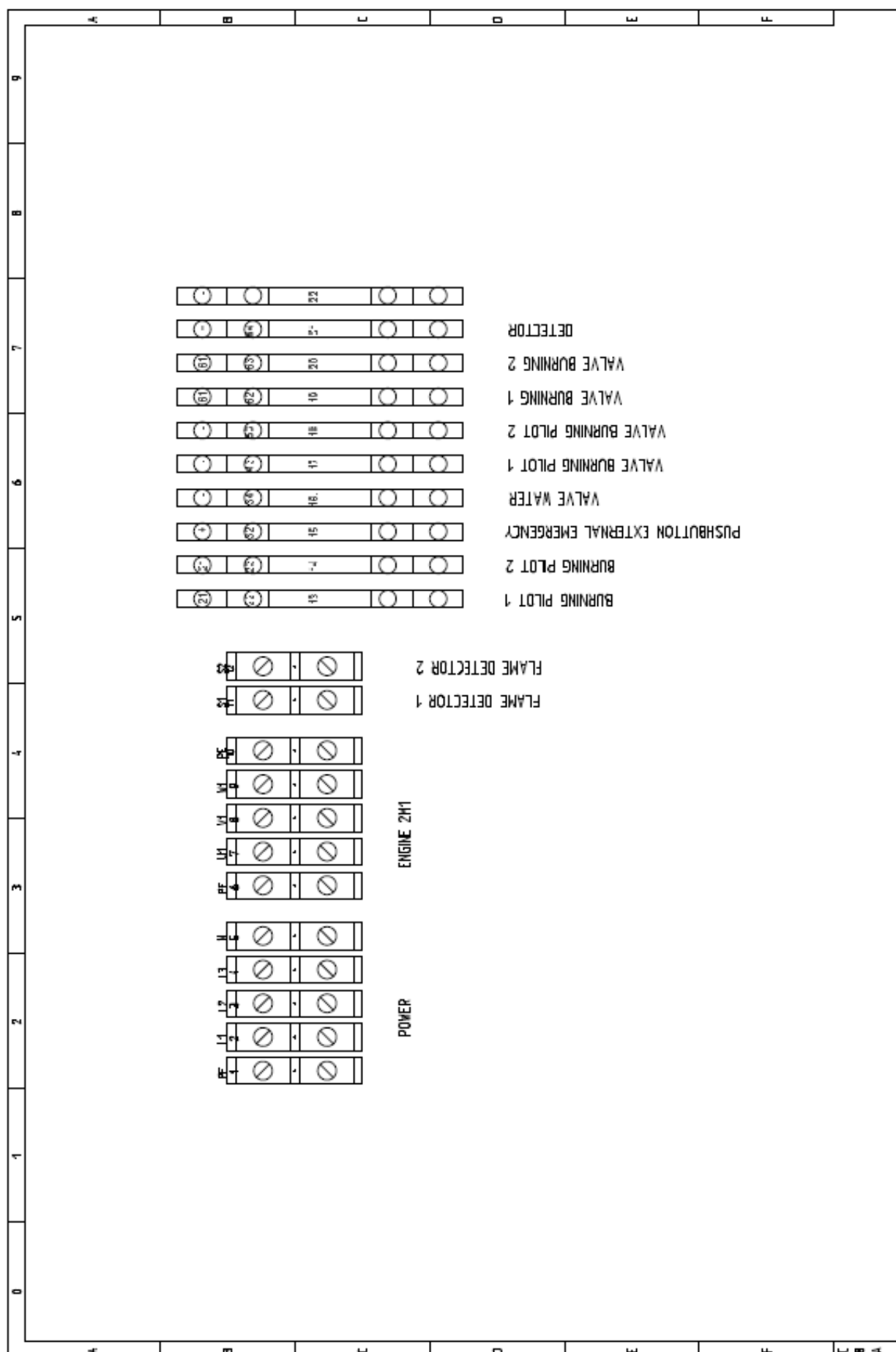












9.1 Reference List

P E	Paro Emergencia / Arret Urgence / Emergency Stop
P T	Piloto Indicativo Tension / Led Tension / Tension Light
KM1	Contactador Tensión 230V / Contacteur 230V / 230V Contactor
IFW1	Relé Control Llama Quemador 1/Relai cont.Veilleuse 1/Burner flame cont.relay 1
S1	Sonda Control Llama Quemador 1/Sonde Bruleur 1 / Burner flame control probe 1
P1/2	Pulsador Quem.1Camara 2/Poussoir Bruleur 1 Cam.2/Burner button 1 Chamber 2
KM2	Contactador Tension Motor / Contacteur Moteur / Motor Contactor
EVP1	Electrovalvula Piloto Quem.1 / EV. Veilleuse 1 / Burner Pilot Solenoid Valve 1
SE1	Selector Quemador 1 – Selecteur Bruleur 1 / Burner Selector 1
IFW2	Relé Control Llama Quemador 2/Relai cont.Veilleuse 2/Burner flame cont.relay 2
S2	Sonda Control Llama Quemador 2/Sonde Bruleur 2 / Burner flame control probe
EVP2	Electrovalvula Piloto Quem.2 / EV. Veilleuse 2 / Burner Pilot Solenoid Valve 2
SE2	Selector Quemador 2 – Selecteur Bruleur 2 / Burner Selector 2
AC/24V/DC	Puente Rectificador Alterna Continua 24V / Rectificateur DC/AC 24V /24V AC/DC
CFE	Fotocelula Réflex Polarizada / Photocellule Réflexe Polarisée / Polarized Reflex Photocell
T1	Temporizador Tiempo Focelula / Tempo Cellule Photoelec. / Photocell Timer
T	Conductor de Tierra / Terre / Ground
PPM	Pulsador Paro Motor / Pusseur Off Moteur / Engine Stop Button
V3 Y V4	EV Gas Quemadores 1 y 2 – EV Gaz Bruleur 1 et 2 / Burner Gas Solenoid 1 and 2
V5	EV Agua / EV Eau / Water Solenoid
R S T	Fases Linea 400V / Réseau 400V / 400 Line
N	Neutro / Neutre / Neutral
IG	Interruptor General / Interrupteur General / Main Switch
GV2	Guardamotor Sneider 1 a 1,4 / Protection Thermique / Overload
KM2	Contactador Potencia Motor / Contacteur Moteur / Motor Contactor
KM1	Contactador Linea 230V (transformador, relés de ignición, relés control llama IFW15) / Contacteur 230V / Line Contactor
T/400/24VAC	Transformador 400/24V AC / Transformateur 400/24V.AC /Transformer 400/24VAC
TIG1	Transfromador Ignición Quemador 1 / Allumeur Bruleur 1 / Ignition Transformer Burner 1
TIG2	Transfromador Ignición Quemador 2 / Allumeur Bruleur 2 / Ignition Transformer Burner 2
P1	Pulsador Ignición Quemador 1 / Poussoir Allumeur Bruleur 1/Burner Ignition Button 1
P2	Pulsador Ignición Quemador 2 / Poussoir Allumeur Bruleur 2/Burner Ignition Button 2
IFW1	Relé de Llama Quemador 1 (b.1 y 2 linea 230V) / Relai Veilleuse Bruleur 1/ Burner flame relay 1
IFW2	Relé de Llama Quemador 2 (b.1 y 2 linea 230V) / Relai Veilleuse Bruleur 2/ Burner flame relay 2
RST+N	Entrada Linea A 400V / Réseau 400V / Line 400V
UVW	Motor / Moteur / Engine
P	Pulsador Paro Emergencia / Poussoir Arret Urgence / Emergency Stop
E	Pulsador Paro Emergencia / Poussoir Arret Urgence / Emergency Sto
V5	Electrovalvula Entrada Agua / EV. Eau / Water Solenoid
S1	Sonda Control Quemador 1 / Sonde Bruleur 1 / Burner Control Probe
S2	Sonda Control Quemador 2 / Sonde Bruleur 2 / Burner Control Probe
V1	EV. Piloto Quemador 1 / EV. Veilleuse 1 / Burner Pilot Solenoid 1
V2	EV. Piloto Quemador 2 / EV. Veilleuse 2 / Burner Pilot Solenoid 2
V3	EV. Gas Quemador 1 / EV. Gaz Bruleur 1 / Burner Gas Solenoid 1
V4	EV. Gas Quemador 2 / EV. Gaz Bruleur 2 / Burner Gas Solenoid 2
9	Cable Marron Focelula / Cellule Photoelec. Marron / Brown Photocell Cable
10	Cable Azul Focelula / Cellule Photoelec. Bleu / Blue Photocell Cable
11	Cable Negro Focelula / Cellule Photoelec. Noir / Black Photocell Cable

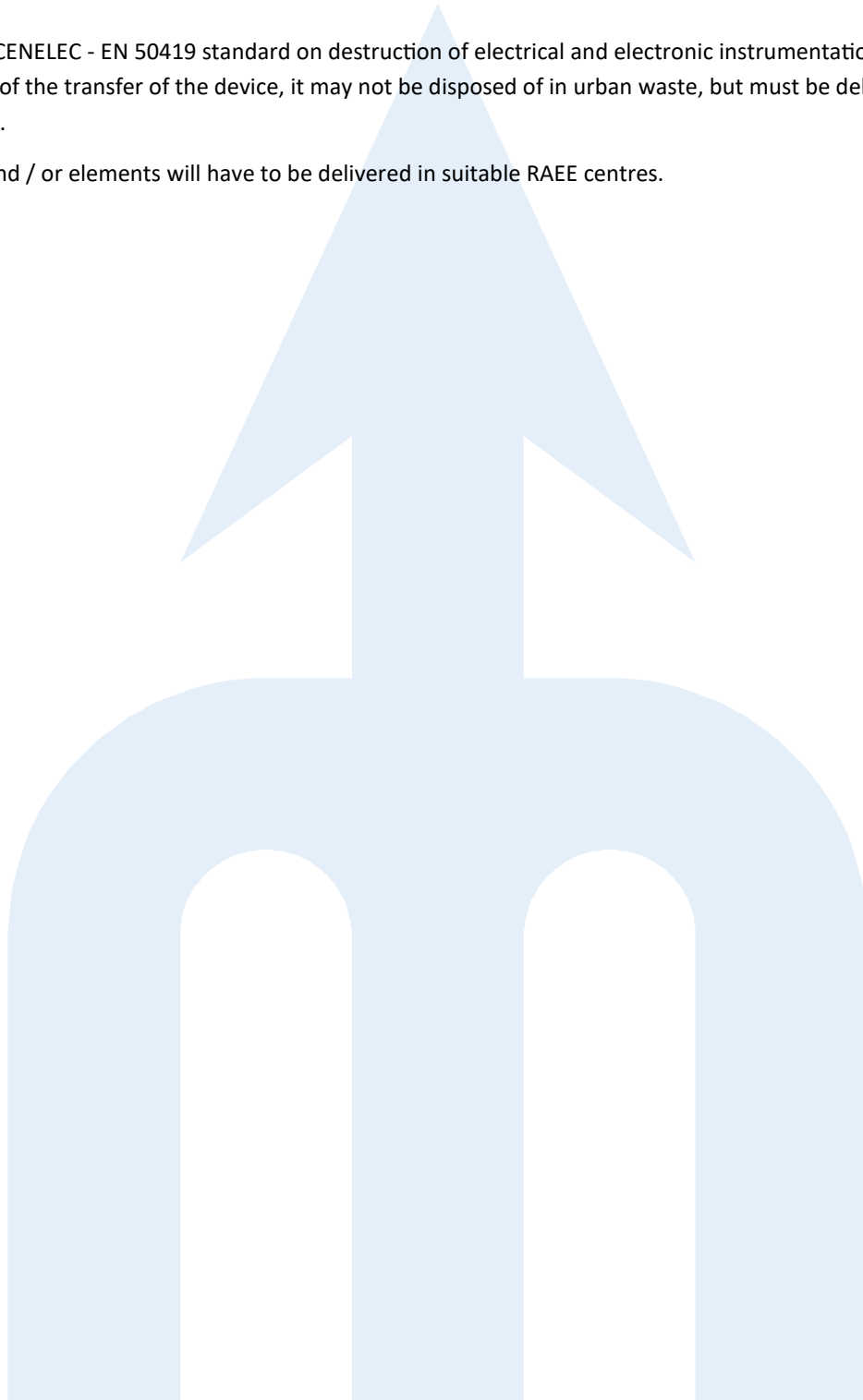
10. Correct Disposal of Machine

At the end of the operational life of the machine, it must be demolished.

To this end, we will have to separate the pieces according to the type of material; and then contact a certified company for the removal and receipt of scrapping materials, in accordance with current regulations on the liquidation of solid industrial products.

In reference to the CENELEC - EN 50419 standard on destruction of electrical and electronic instrumentation: RAEE, it is reported that, at the time of the transfer of the device, it may not be disposed of in urban waste, but must be delivered to a certified company to dispose.

Individual devices and / or elements will have to be delivered in suitable RAEE centres.



10.2 Certificate of Compliance/Material



CERTIFICATE OF COMPLIANCE/MATERIAL

We certify that the above listed part/materials were processed in full compliance with all drawing specifications and/or technical provisions described.

We hereby certify that the items referenced above conform to the requirements of the specific clauses in which we have entered data.

- Made in stainless steel A304.
- Regulation CE 10/2011.
- Regulation CE 1895/2005.
- Regulation CE 2023/2006 annex I.

Material Description:

Manufacturer: TORRAS PREMIUM SL

Model: TX2000

Serial Number: 3337

Signed: Xavier Torras
Manager

Date: June 2023



TORRAS PREMIUM SL
ESB02730869
08500 VIC (BARCELONA) - SPAIN

10.3 CE Conformity Declaration



CE CONFORMITY DECLARATION

TORRAS PREMIUM SL
CL. TARRAGONA, 28
08500 – VIC
SPAIN

State that the machine:

Trademark: TORRAS.

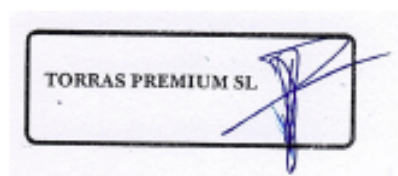
Type: TX2000

Serial N. 3337

Manufacturer's year: 2023

In Accordance with the enclosed documents, is conformity with European's instructions.

- 98/37/CE and modifications 2006/42/CE
- 73/23/CE and modifications 93/68/CE
- 89/336/CE and modifications 2004/108/CE, 92/31/CE, 93/68/CE and 98/13/CE
- 90/396/CE and modifications 93/68/CE
- 1935/2004/CE
- 2023/2006/CE



Vic, June 2023