

TM3006 Technical Manual

Revision: 7.95rev.3

TABLE OF CONTENTS

Table of Contents	1
Important notes	2
1 Transient Protection.....	2
2 Power Current Connections	2
3 Sensor Connections.....	2
4 The Print	3
5 Connecting the TM3006	4

Important notes

This documentation has been made solely to serve as an aid to the stoker producer to describe his product. Techno-Matic A/S does not issue any warranty that this documentation fulfils or satisfies the national or international demands for documenting the product since this is the duty of the individual stoker producer. However, Techno-Matic A/S will be thankful for any comment or advice that may help to improve this manual.

Please note: You must always turn off the power supply before actually touching anything in the system in order to avoid dangerous situations. Only persons with permission from the stoker producer and with an authorization in accordance with the national legislation must carry out any interventions/repairs in the installations.

1 TRANSIENT PROTECTION

In order to secure the controller against interference, relays and solenoid valves should be transient protected. (DC relays and solenoid valves with diodes and AC relays and solenoid valves with RC filter).

2 POWER CURRENT CONNECTIONS

IMPORTANT:

Always prefuse the system with maximum 10A prefuses.

Always make sure not to exceed the maximum limit of the total load on the outputs.

Unused cable glands must be filled out and all cable glands must be tighten with an open ring wrench.

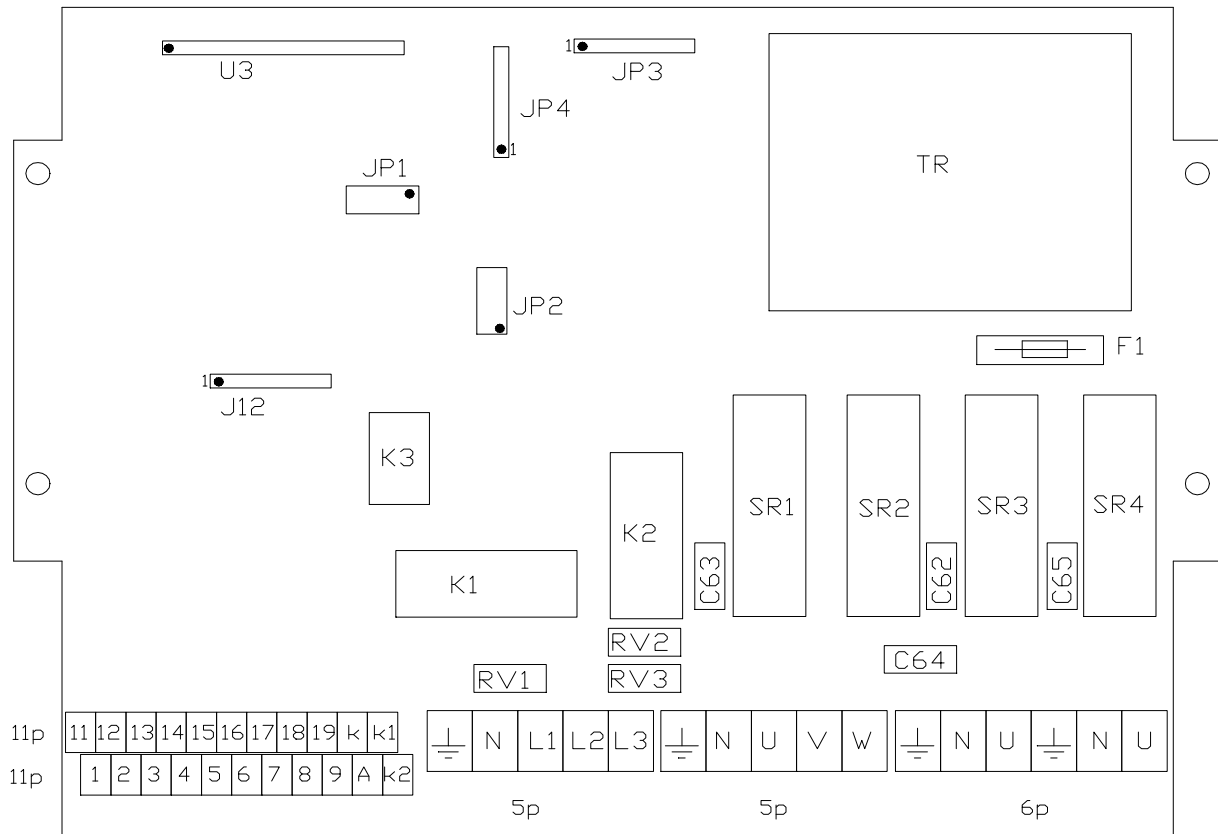
The main supply cords must not exceed 1,5 mm²

Supply		
Terminal Main supply	N L3 L2 L1	Supply for system 230VAC (L1) or 400VAC. Remember ALWAYS to connect N. Maximum prefuse 10A
Power Current Output		Maximum total load on all outputs 2000W
Terminal Stoker	N U V W	Connecting the Stoker Motor 230VAC (U) Maximum load 550W Or 400VAC. Maximum load 3*550W
Terminal Blower	N U	Connecting the Blower Motor 230VAC. Maximum load 550W
Terminal Ignition /Motor 2	N U	Connecting the Ignition Unit/ Motor 2 230VAC. Maximum load 550W

3 SENSOR CONNECTIONS

Digital Inputs		
Terminals 1 & 11	Function input	On/off switch
Terminals 2 & 12	Function input	On/off switch
Terminals 3 & 13	Function input	On/off switch
Terminals 4 & 14	Hot boiler Thermostat	
Analogue Inputs		
Terminals 5 & 15	Boiler Temperature Sensor	NTC thermistor (12kOhm at 25 °C)
Terminals 6 & 16	Stoker Tube Temperature Sensor	NTC thermistor (12kOhm at 25 °C)
Terminals 7 & 17	Photo Sensor Exhaust Gas Temperature Sensor	Danfoss LDS PT1000 (6 mW)
Terminals 8 & 18	Oxygen Sensor	Lambda probe
Supply oxygen sensor		
Terminals 9 & 19	Oxygen Sensor Heating Element	12VAC for Heating Element. Please Note: During the heating of the oxygen sensor, the supply for the computer will be gone for about 3 minutes!
Photo Sensor		
Terminals K & A	Photo Sensor Transmitter	K = 0V. DC. A = 5 V. DC.
Alarm Output		
Terminals k1 & k2	Alarm Output	Potential free output: Max. 1A. Max. 30 V. DC.

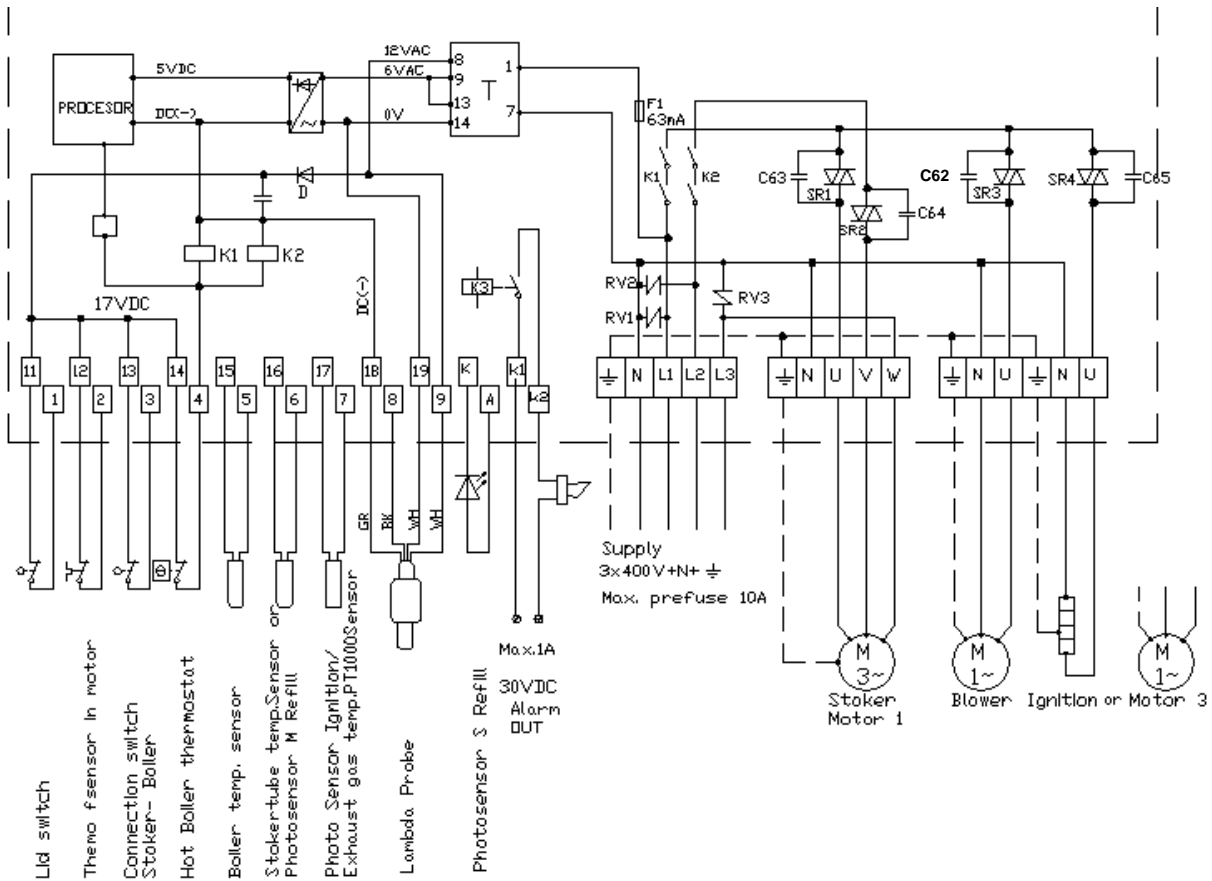
4 THE PRINT



Besides the terminals at the bottom of the print there are the following components/sockets:

F1	Fuse 63mA	Fuse on primary side of transformer
JP1	10-pol socket	Program Updating Connection
JP2	10-pol socket	RS232 Connection
JP3	4-pol socket	Optional connector (Not in use)
JP4	4-pol socket	Optional connector (Not in use)
J12	8-pol socket	Keyboard (foil)
K1	Relay	Hot Boiler Relay
K2	Relay	Hot Boiler Relay
K3	Relay	Alarm relay
SR1	Solid State Relay	Stoker
SR2	Solid State Relay	Stoker
SR3	Solid State Relay	Blower
SR4	Solid State Relay	Ignition/Motor 2
TR	230V/12V	Transformer
U3	16-pol socket	Display

5 CONNECTING THE TM3006 BY 400 VAC



6 CONNECTING THE TM3006 BY 230 VAC

