

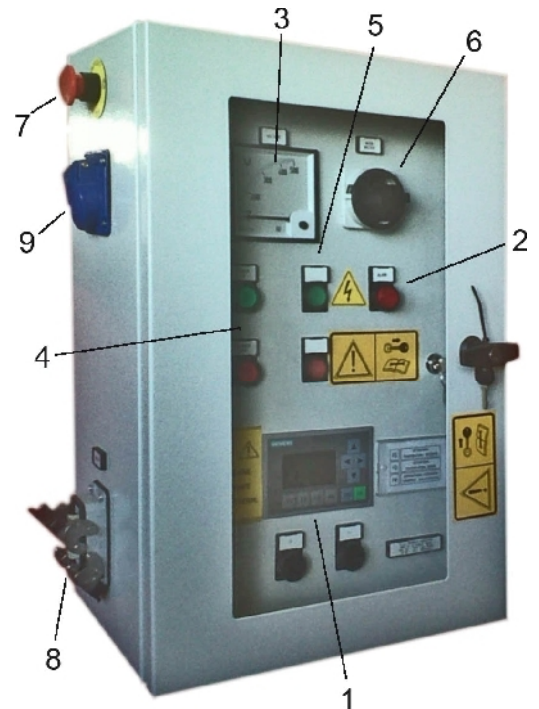


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## PEDROTTI GRAIN DRIERS "PTO Drive with Generator 380 Volts" 2012

The PTO Drive with Generator 380 Volts "PEDROTTI" Driers come originally fitted with a new electric control panel which ensures a better setting of all the controls and drying parameters (see sketch 0).



Sketch 0

The items of the control panel to provide all the controls are the following:

- 1 **Display of PLC unit "LOGO Siemens"** which offers the basic software of controls. The unit is completed by its setting buttons "+" and "-" (see sketch 0).
- 2 **Red Light "ALARM"**: when the light is on it means that the drier is in alarm (see sketch 0). On the Display you can read the message with the alarm on (see Item 8 – Alarm Messages)
- 3 **Voltmeter 500 Volts**: to read in every moment of the batch the tension supplied by the Generator. When the tension is 380/400 volts you can switch on the Burner (see sketch 0).
- 4 **Green and Red Buttons "Burner ON/OFF"**: use this button to switch on/off the burner (see sketch 0).
- 5 **Green and Red Buttons "Dust Extractor ON/OFF"**: use this button to switch on/off the Dust Extractor (see sketch 0).

6 **Main General Switch:** use this switch to give power to the Control Panel or to switch it off (see sketch 0).



7 **Emergency Stop Button:** press it to switch off the main control panel immediately in case of any emergency when the machine is working (see sketch 0). To reset turn the button and sblock it, open the panel and switch on the contactor IB inside.



8 **Multiplug Burner Connector:** use it to connect the Burner to main Control Panel (see sketch 0).



9 Plug 220 Volts: use it to take power 220 (max 16 Amp) Volts from Control Panel (see sketch 0).

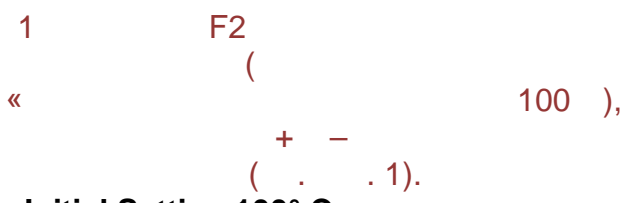


**1 Fixing of Drying Air Temperature (Menu F1)**

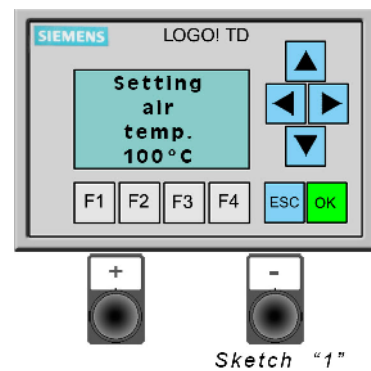
( F1 )

To fix the drying air temperature into the air plenum chamber, proceed in the following way:

- Press one time the button F2 to modify the Air Temperature (now on the Display you will read the Message "Setting Air Temperature 100° C"), than use the buttons + and - to reach the right temperature (see sketch 1)



– Factory Initial Setting 100° C.



Sketch "1"

When you have completed the setting with function F1 and want to go back to starting menu press one time the button F1 or wait 7 seconds and the PLC will go back automatically to the starting message.



**N.B.** - It is possible to modify the Menu F1 in every moment of working process of drier.

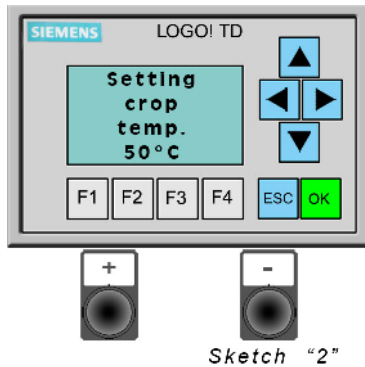
**N.B.** - The Digits “ESC” and “OK” never require to be used.

!  
!  
“ESC” and “OK”

## 2 Fixing of the Crop Temperature (Menu F2)

( F2)

To fix the crop temperature at which you want to stop the burner, proceed in the following way:



- Press again the button F2 to modify the Crop Temperature (on the Display you will read “**Setting Crop Temperature 50° C**”) than use the buttons + or – to modify the parameters and obtain the right ones (see sketch 2)

2 F2  
« ( 50 ),  
+ -

. 2).

**Factory Initial Setting 50° C.**

50

When you have completed the setting with function F2 and want to go back to starting menu press one time the button F2 or wait 7 seconds and the PLC will go back automatically to the starting message.

**N.B.** It is possible to modify the Menu F2 in every moment of working process of drier.

**N.B.** The Digits “ESC” and “OK” never require to be used.

F1 7

!  
!  
“ESC” and “OK”

If the machine is fitted with the Automatic Lubrication System:

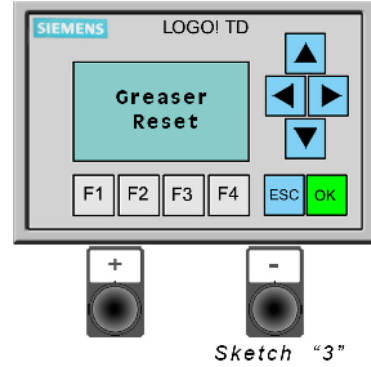
## 3 Grease Pump Alarm By-Pass and Manual Greasing (Menu F3)

( F3)

Use this function to Reset the Grease Pump (starting of Manual Greasing) or to by-pass and silence the Alarm of the Grease Pump and proceed as follow:

( : ) /

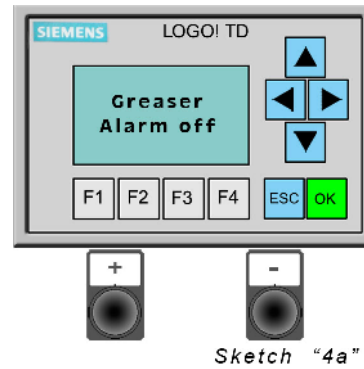
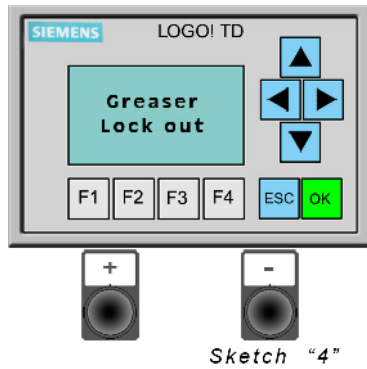
- a) Press one time the Button F2 to reset the grease pump and start manually a greasing cycle: on the Display you will read the message **"GREASER RESET"** (see sketch 3).



) 1 F2  
:  
« » ( . . 3)

- b) When the Grease Pump Alarm is on and on the Display you can read the message **"GREASER LOCK OUT"** (see sketch 4) if you want to bypass and silence the Greaser Alarm press the button **F3** for 10 seconds: now the Alarm is bypassed and silenced and on the Display will appear the Message **"GREASER ALARM OFF"** (see sketch 4 and 4a).

)  
« » ( . . 4) ,  
F3  
10 «  
» ( . . 4 )



**ATTENTION! The Machine is working with the Central Lubrication System OFF**

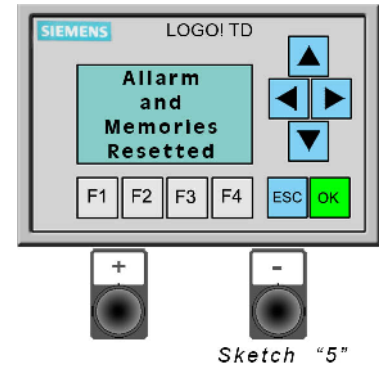
**N.B. When the crop reach the drying temperature the Alarm State comes on again.**

## 4 Functions F4 – Reset of memories and Alarms –

### F4 –

Use this Function to Reset all the Memories: press the button F4, all the Alarm and Memories will be reset. On the display, you will read the message:

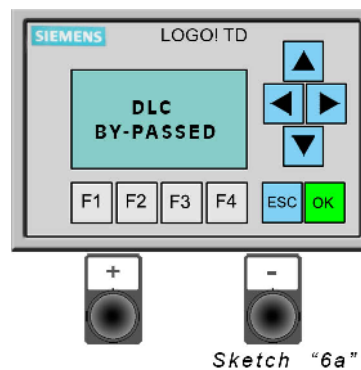
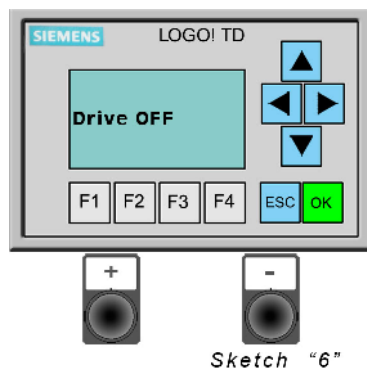
**“ALARMS AND MEMORIES RESETTED”** (see sketch 5).



## 5 DLC Alarm's Bypass and Silence

When the DLC Alarm is on and on the Display you can read the message **“DRIVE OFF”** (see sketch 6) if you want to bypass and silence the DLC Alarm press the button + for 10 seconds: now the Alarm is bypassed and silenced. (on the Display you will read the message **“DLC BY-PASSED”** (see sketch 6a).

« ( . . 6). »  
 +. ( « ») ( . . 6 ). 10



**ATTENTION!!! The Machine is working without the safety System DLC.**


**N.B. When you restart the Burner with the green button on Control Panel (Burner ON) and the Alarm State is still on you will read again on the Display the Alarm Message and hear the Acoustic Alarm.**

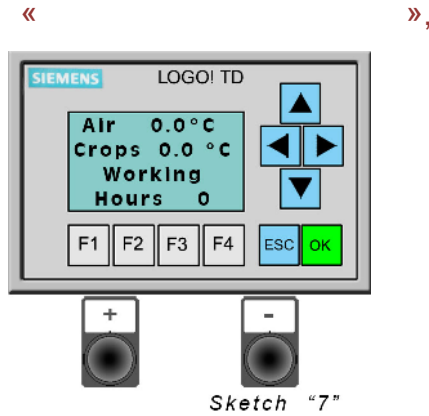
## 6 Remaining Functions

- a. When the machine is not working Press the Button   to check the working hours of the machine and the temperatures: you will read on the Display **“Working Hours 0 – Air 0,0 °C – Crop 0,0 °C** (see sketch 7)

0,0 - 0,0 » ( . .7)

« 0 -

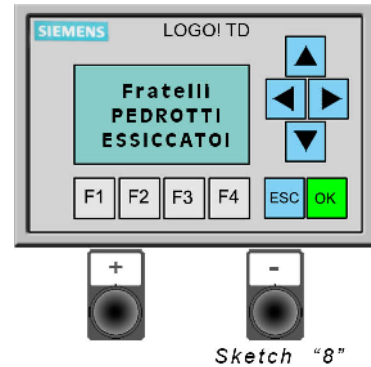
- b. Press the Button  to go back to starting message which is “**Pedrotti Grain-Driers**” if the machine is not working.



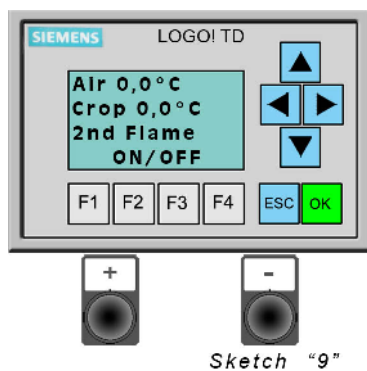
## 7 Working Messages

The working messages you can read in every moment on the Display of the PLC housed in main control panel indicate which is the working phase of the machine and are resumed following in sequence:

- a. When the PLC Unit is powered by the Selector on Control Panel, on the Display appears the Starting Message “**Fratelli Pedrotti Essiccatoi**” (see sketch 8)



» ( . .8)



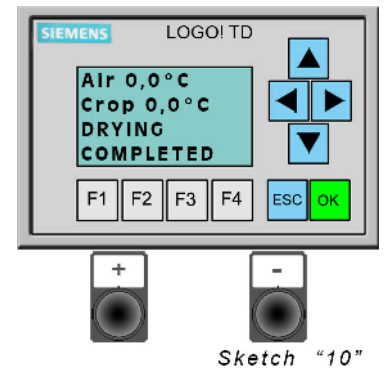
- b. When the Machine is working and the Burner is on you can read on the Display the message reporting the status of the 2<sup>nd</sup> Flame gauge, the Air or Crop Temperature (see sketch 9).

2

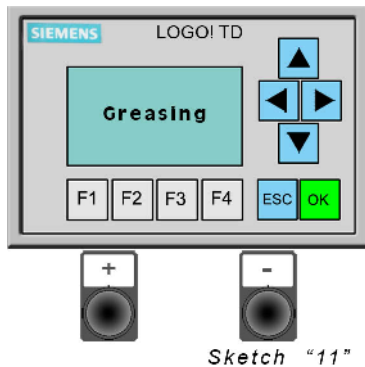
.( . .9)

- c. When the machine has completed the batch successfully and the crop is dried you can read on the Display the Message “**Drying Complete – Air 0,00°C – Crop 0,00°C**” (see sketch 10).

0,0 – 0,0 » ( . . 10)



If the Machine is fitted with the Option of the Automatic Lubrication System



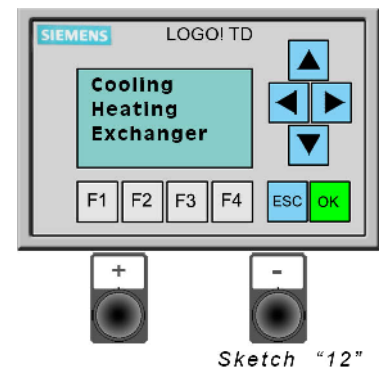
- d. When the Automatic Lubrication System is greasing and the Pump is working you can read on the Display the flashing Message “**GREASING**” (see sketch 11).

« » ( . . 11)

If the Machine is fitted with the Option of the Heating Exchanger:

- e. If the main fan of the machine is switched off before 10 minutes since when the main burner has been switched off, automatically starts the fuel pump motor and the burner fan, on the Display we will read the Message: “**Cooling Heating Exchanger**”. (See sketch 12).

10  
« » ( . . 12)



## 8 Alarm Messages

- i **Drive Off:** the DLC System (Driving Line Control) which is monitoring all the mechanical components driving the centre auger and inside agitator arms has found

a failure causing driving interruption and switched off the burner.

ï **Proximity Failure:** the proximity which “reads” the revs on main shaft is not working (*Red Light on Main Control Panel*).

ï **Overheating:** the Air Temperature has exceeded the set value of ten degrees, the burner switched off and will restart only pressing its button on main control panel.

ï **Burner Lock Out:** the Burner is lock out and can't work (*Red Light on in Main Control Panel*) and red button on burner.

- 1) Press F4
- 2) Switch on the burner
- 3) To reset you have 30 seconds to press the red button on Burner.

- 1) F4
- 2)
- 3)

ï **Air Probe Failure:** the Air Probe PT100 housed into Air Plenum Chamber is OFF or some of its connections must be checked.

ï **Crop Probe Failure:** the Crop Probe PT100 housed into the Machine is OFF or some of its connections must be checked.

ï **Inspection Door Open:** the guard on the inspection door is off or badly fixed. The acoustic alarm rings.

ï **Blind Switch:** the safety switch of the fan cover is on and the burner can't start (*Red Light on in Main Control Panel*).

ï **Low Grease Level:** the grease in the reservoir is finished or the Minimum Level of the Pump is locked out (*Red Light on in Main Control Panel*).



- i **Greaser Lock Out:** the Grease Pump has not completed the greasing cycle (*Red Light on in Main Control Panel*).