Tumble-Dryers

Full Control

Refer to Page 6 for Model Identification

Programming

Original Instructions
Keep These Instructions for Future Reference.
CAUTION: Read the instructions before using the machine.
(If this machine changes ownership, this manual must accompany machine.)

Alliance™ Laundry Systems

www.alliancelaundry.com

Part No. D1707ENR6
May 2023

Table of Contents

Safety Information

Important Safety Instructions

WARNING

Before operating a machine controlled by an electronic programmer, read this manual. Incorrect use can result in serious injuries or damage to the machine controls. Ignoring instructions can cause an incorrect machine function, which may result in injuries or machine and/or linen damages.

C001

- This English version is the original version of this manual. Without this version, the instructions are incomplete. Before installation, operating and maintenance of the machine, read complete instructions thoroughly. Refer to the Installation/ Operation/Maintenance manual for further important instructions, as well. Follow these and keep the manuals accessible for later use.
- A machine must be installed by following the Installation/ Operation/Maintenance manual. Before the first machine start, it must be initialized and tested by a qualified technician.
- The electric service line must not be affected by other electrical loading. A nominal voltage, if loaded or not must work in the range ±10% with a maximum permanent frequency deviation of 1% or a short-time one at 2% of a given frequency.

  NOTE: Connecting or starting the machine at an incorrect voltage can damage the programmer.
- The machine must not be exposed to high humidity or extreme high and low temperatures.
- Do not tamper with the controls.

  IMPORTANT: Instructions in this manual do not cover all dangerous situations. It is up to the user to handle the machine carefully.
- The manufacturer has the right to change specifications in this manual without prior notice. All the stated information is only for informative purpose and must be considered as general. It is not possible to present all the specific data of the device.

NOTE:

Every circuit board has a serial number and the code of the board (Refer to *Figure 4*).

On the EPROM memory chip on the circuit board is a label specifying the software number and version and/or the date of the software. (Refer to *Figure 4*).

These data, as well as the model and serial number of the machine, must be mentioned in all correspondence or inquiries addressed to the distributor or manufacturer.

NOTE:

The FULL CONTROL computer uses "machine type" codes to select the different programmable machine versions.

Introduction

Model Identification

Information in this manual is applicable to these models:

LC190EF	LU250SF	PC530TF	PU285FF
LC190FF	LU250WF	PC530WF	PU285MF
LC190LF	LU285EF	PC680EF	PU285SF
LC190MF	LU285FF	PC680LF	PU285WF
LC190NF	LU285MF	PC680MF	PU345EF
LC190TF	LU285SF	PC680NF	PU345MF
LC250EF	LU285WF	PC680SF	PU345SF
LC250FF	LU345EF	PC680TF	PU345WF
LC250LF	LU345MF	PC680WF	PU530EF
LC250MF	LU345SF	PCD28EF	PU530MF
LC250NF	LU345WF	PCD28LF	PU530SF
LC250SF	LU530EF	PCD28NF	PU530WF
LC250TF	LU530MF	PCD28SF	PU680EF
LC250WF	LU530SF	PCD28TF	PU680MF
LC285EF	LU530WF	PCD28WF	PU680SF
LC285FF	LU680EF	PCS28EF	PU680WF
LC285LF	LU680MF	PCS28LF	PUAE285F
LC285MF	LU680SF	PCS28NF	PUAG285F
LC285NF	LU680WF	PCS28TF	PUAL285F
LC285SF	LUD26EF	PGAE285F	PUAS285F
LC285TF	LUD28EF	PGAG285F	PUD28EF
LC285WF	LUD28LF	PGAL285F	PUD28SF
LC345EF	LUD28SF	PGAS285F	PUD28WF
LC345LF	LUD28WF	PGDE190F	PUDE190F
LC345MF	LUS28EF	PGDE250F	PUDE250F
LC345NF	LX190EF	PGDE285F	PUDE285F
LC345SF	LX190FF	PGDE345F	PUDE345F
LC345TF	LX190LF	PGDE530F	PUDE530F
LC345WF	LX190MF	PGDE680F	PUDE680F
LC530EF	LX190NF	PGDG190F	PUDG190F

Table continues...

LC530LF	LX190TF	PGDG250F	PUDG250F
LC530MF	LX250EF	PGDG285F	PUDG285F
LC530NF	LX250FF	PGDG345F	PUDG345F
LC530SF	LX250LF	PGDG530F	PUDG530F
LC530TF	LX250MF	PGDG680F	PUDG680F
LC530WF	LX250NF	PGDL190F	PUDL190F
LC680EF	LX250SF	PGDL250F	PUDL250F
LC680LF	LX250TF	PGDL285F	PUDL285F
LC680MF	LX250WF	PGDL345F	PUDL345F
LC680NF	LX285EF	PGDL530F	PUDL530F
LC680SF	LX285FF	PGDL680F	PUDL680F
LC680TF	LX285LF	PGDS250F	PUDS250F
LC680WF	LX285MF	PGDS285F	PUDS285F
LCD28EF	LX285NF	PGDS345F	PUDS345F
LCD28LF	LX285SF	PGDS530F	PUDS530F
LCD28NF	LX285TF	PGDS680F	PUDS680F
LCD28SF	LX285WF	PGSE285F	PUS28EF
LCD28TF	LX345EF	PGSG285F	PUSE285F
LCD28WF	LX345LF	PGSL285F	PUSG285F
LCS28EF	LX345MF	PGSS285F	PUSL285F
LCS28LF	LX345NF	PH190EF	PUSS285F
LCS28NF	LX345SF	PH190FF	PX190EF
LCS28TF	LX345TF	PH190LF	PX190FF
LH190EF	LX345WF	PH190MF	PX190LF
LH190FF	LX530EF	PH190NF	PX190MF
LH190LF	LX530LF	PH190TF	PX190NF
LH190MF	LX530MF	PH250EF	PX190TF
LH190NF	LX530NF	PH250FF	PX250EF
LH190TF	LX530SF	PH250LF	PX250FF
LH250EF	LX530TF	PH250MF	PX250LF
LH250FF	LX530WF	PH250NF	PX250MF
LH250LF	LX680EF	PH250SF	PX250NF
LH250MF	LX680LF	PH250TF	PX250SF
LH250NF	LX680MF	PH250WF	PX250TF

Table continues...

LH250SF	LX680NF	PH285EF	PX250WF
LH250TF	LX680SF	PH285FF	PX285EF
LH250WF	LX680TF	PH285LF	PX285FF
LH285EF	LX680WF	PH285MF	PX285LF
LH285FF	LXD28EF	PH285NF	PX285MF
LH285LF	LXD28LF	PH285SF	PX285NF
LH285MF	LXD28NF	PH285TF	PX285SF
LH285NF	LXD28SF	PH285WF	PX285TF
LH285SF	LXD28TF	PH345EF	PX285WF
LH285TF	LXD28WF	PH345LF	PX345EF
LH285WF	LXS28EF	PH345MF	PX345LF
LH345EF	LXS28LF	PH345NF	PX345MF
LH345LF	LXS28NF	PH345SF	PX345NF
LH345MF	LXS28TF	PH345TF	PX345SF
LH345NF	PC190EF	PH345WF	PX345TF
LH345SF	PC190FF	PH530EF	PX345WF
LH345TF	PC190LF	PH530LF	PX530EF
LH345WF	PC190MF	PH530MF	PX530LF
LH530EF	PC190NF	PH530NF	PX530MF
LH530LF	PC190TF	PH530SF	PX530NF
LH530MF	PC250EF	PH530TF	PX530SF
LH530NF	PC250FE	PH530WF	PX530TF
LH530SF	PC250FF	PH680EF	PX530WF
LH530TF	PC250LF	PH680LF	PX680EF
LH530WF	PC250MF	PH680MF	PX680LF
LH680EF	PC250NF	PH680NF	PX680MF
LH680LF	PC250SF	PH680SF	PX680NF
LH680MF	PC250TF	PH680TF	PX680SF
LH680NF	PC250WF	PH680WF	PX680TF
LH680SF	PC285EF	PHD28EF	PX680WF
LH680TF	PC285FF	PHD28LF	PXD28EF
LH680WF	PC285LF	PHD28NF	PXD28LF
LHD28EF	PC285MF	PHD28SF	PXD28NF
LHD28LF	PC285NF	PHD28TF	PXD28SF

Table continues...

LHD28NF	PC285SF	PHD28WF	PXD28TF
LHD28SF	PC285TF	PHS28EF	PXD28WF
LHD28TF	PC285WF	PHS28LF	PXS28EF
LHD28WF	PC345EF	PHS28NF	PXS28LF
LHS28EF	PC345LF	PHS28TF	PXS28NF
LHS28LF	PC345MF	PU190EF	PXS28TF
LHS28NF	PC345NF	PU190FF	T11
LHS28TF	PC345SF	PU190MF	T13
LU190EF	PC345TF	PU250EF	T13/13
LU190FF	PC345WF	PU250FF	T16
LU190LF	PC530EF	PU250MF	T24
LU190MF	PC530LF	PU250SF	T35
LU250EF	PC530MF	PU250WF	T9
LU250FF	PC530NF	PU285EF	TAMS13
LU250MF	PC530SF		

e.g.: ** can be character IC, SU, PU, UC, IH…etc.

**190EF	**190FF	**190LF	**190MF	**190NF	**190TF
IDR190	SDR190	UDR190			
**250EF	**250LF	**250MF	**250NF	**250SF	**250TF
**250WF	IDR250	SDR250	UDR250		
**285EF	**285FF	**285LF	**285MF	**285NF	**285SF
**285TF	**285WF	IDR285	SDR285	UDR285	
**D28EF	**D28LF	**D28NF	**D28SF	**D28TF	**D28WF
IDD285	SDD285	UDD285			
**345EF	**345LF	**345MF	**345NF	**345SF	**345TF
**345WF	IDR345	SDR345	UDR345		
**530EF	**530LF	**530MF	**530NF	**530SF	**530TF
**530WF	IDR530	SDR530	UDR530		
**680EF	**680LF	**680MF	**680NF	**680SF	**680TF

Table continues...

**680WF	IDR680	SDR680	UDR680		

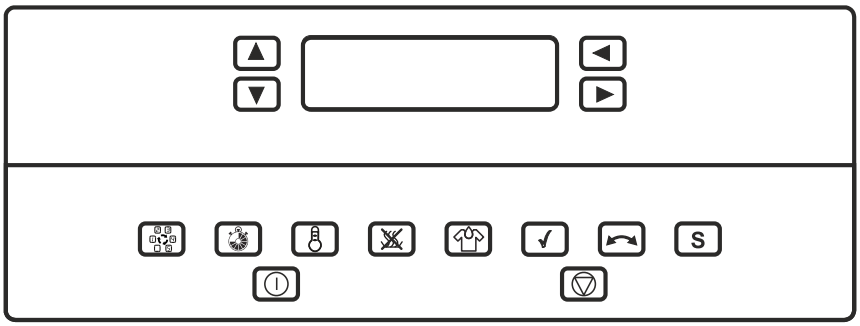
Machine Type Selection

9 kg / 20 lb / 190 L	T9
	LS195
	T9E
	T9VP
11 kg / 24 lb / 250 L	T11
	LS250
	T11E
	T11VP
13 kg / 27 lb / 285 L	T13
	LS300
	T13E
	T13VP
	TAMS13
	LSMS13
13/13 kg / 27/27 lb / 285/285 L	T13/13
	LSD300
16 kg / 35 lb / 345 L	T16
	LS350
	T16E
	T16VP
24 kg / 53 lb / 530 L	T24
	LS530
35 kg / 77 lb / 680 L	T35
	LS680

Control Identification

Symbols Used

Buttons



TMB1559R

Figure 1

Description of Buttons	
TMB1560R **START** - Starting up a program - Continue an interrupted program - Advancing the program step by step	TMB1567R **REVERSE** - Switch On/Off Reverse function
TMB1477R **STOP** - Interrupting a program - Finishing a program	TMB1568R **SERVICE** - shows the states and the total number of cycles of the machine
CFD1307R_SVG **CONFIRM THE SELECTION**	TMB1580R **DRYING TIME** - Setting for drying time
CFD1309R_SVG or TMB1561R **ARROW UP** - Increasing a value - Selecting the next element of an item list	TMB1570R **PROGRAM SELECTION** - Selecting a program number

Table 1 *continues...*

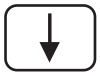
Description of Buttons	
  CFD1310R_SVG or TMB1562R **ARROW DOWN** - Decreasing a value - Selecting the previous element of an item list	 TMB1571R **DRYING TEMPERATURE** - Setting for temperature
  TMB1563R or TMB1564R **ARROW LEFT** - Selecting the previous menu item	 TMB1572R **COOLDOWN TIME** - Setting for cool down time
  TMB1565R or TMB1566R **ARROW RIGHT** - Selecting the next menu item	 TMB1573R **MOISTURE LEVEL** - Setting for residual moisture level

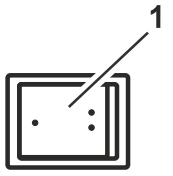
Table 1

PROGRAMMING SWITCH

Programming switch is located inside the machine behind the control panel.

To access the programming switch:

- Machines 9 kg / 20 lb / 190 L – remove top cover.
- Machines 11 kg / 24 lb / 250 L, 13 kg / 27 lb / 285 L, 13 kg / 27 lb / 285 L - Top Pocked Tumbler, Stacked Tumbler, 16 kg / 35 lb / 345 L, 24 kg / 53 lb / 530 L, 35 kg / 77 lb / 680 L - the control panel must be unlocked



CZT7R

1. Programming switch

Figure 2

●

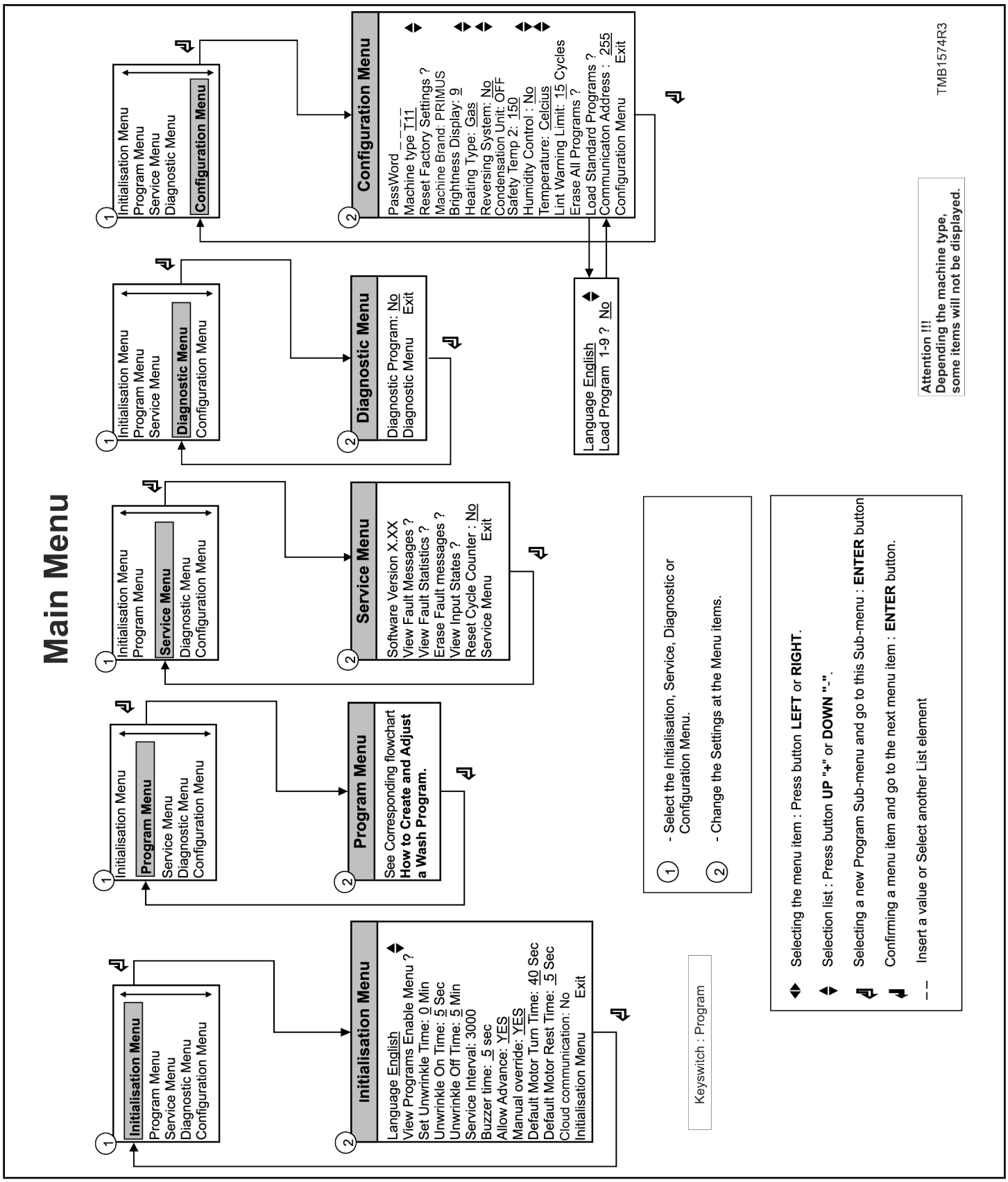
●

Run Mode: This is the Normal Dryer operation.

●

Program Mode: Only for changing the Dryer programs and machine settings.

Main Menu



Basic Description of Controls

General

The Control Offers

- 20 programmable programs (including 9 pre-programmed ones) kept in memory
- Each Program can be build in 5 steps
- Setting the machine options and configuration
- Multiple languages can be selected (one at a time)

In Operation the Following Data is Displayed:

- The selected program
- The active step
- The remaining program time
- The sequence function
- Indication of wait
- The temperature can be viewed
- Diagnostic messages

The Operation Menu:

- A program can be manually Shortened, Extended, Stopped.
- Service information
- Special function buttons to create simple dryer program

The Hardware and Software of the FULL CONTROL Dryer Computer:

- Easy operation by a comprehensive keypad
- The hardware contains 1 electronic board
- The FULL CONTROL board with Alphanumerical LCD display
- The dryer control software is implemented in a Flash Memory that can be easily replaced
- The Dryer Programs are kept in EEPROM memory (non-volatile memory)

Specific Information

The PROGRAM Menu is designated for :

- The creation and implementation of a new dryer program step by step.
- Editing a dryer program step by step.
- Adding, inserting and deleting steps in the dryer program.
- Copying a dryer program.
- Inspecting the dryer program by the view function.

The CONFIGURATION Menu is designated for :

- The selection of the machine type.
- Loading the default factory settings for the CONFIGURATION and INITIALIZATION menu.
- Erasing all the programmed dryer programs (reset Dryer program EEPROM memory).
- Loading the standard dryer programs.
- The selection if the temperature must be displayed in degrees Celsius or degrees Fahrenheit.
- The selection of the Brightness of the display.

The INITIALIZATION Menu is designated for :

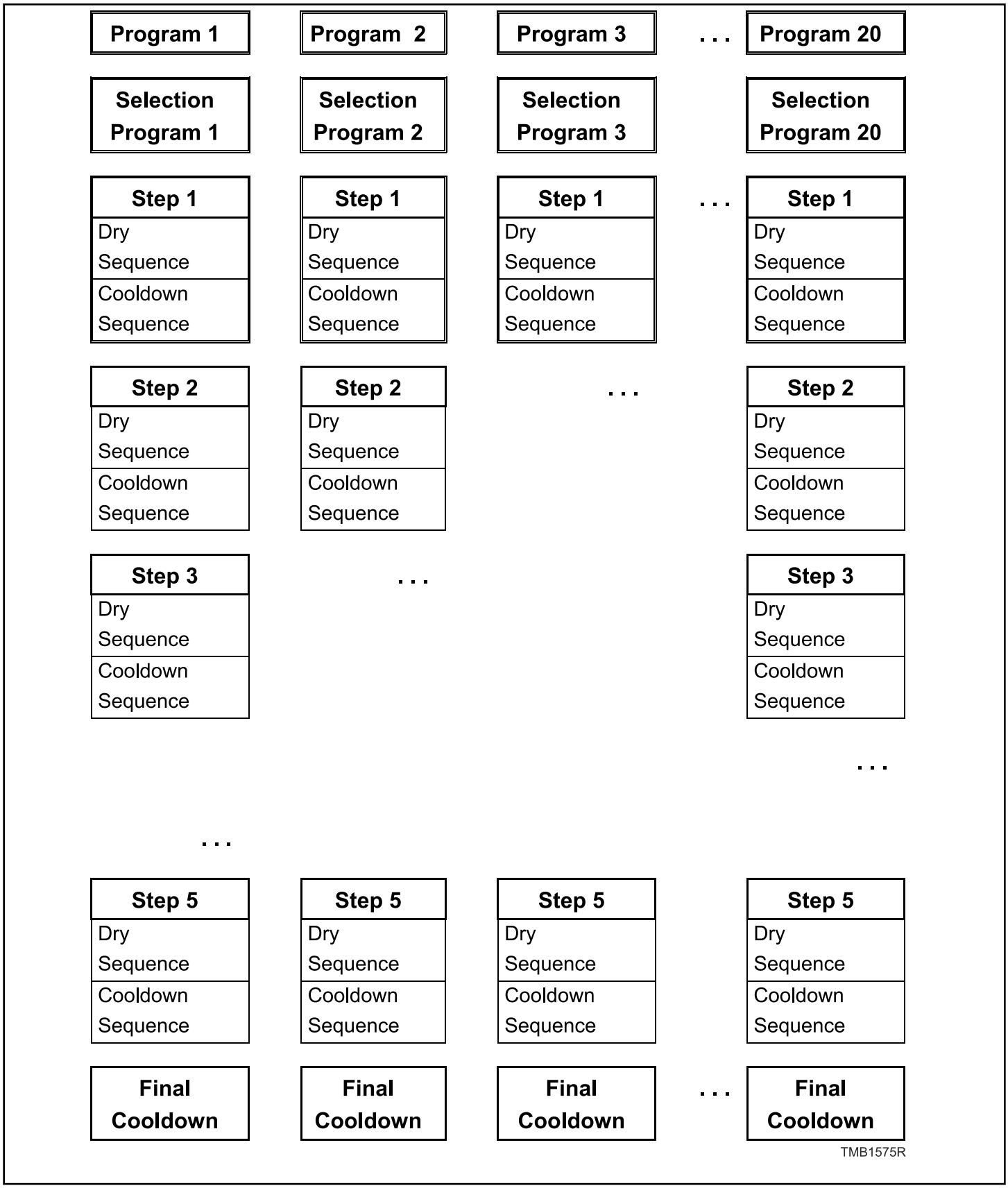
- The selection of the displayed Language.
- Programming the Service due value.
- The selection of the Buzzer time interval.
- The selection of the Advance function.
- Programming the Default Motor On and Off times for reversing motor action.

T he SERVICE Menu is designated for :

- The inspection of the error messages log register and the list with statistics.
- The inspection of the functionality of the electric input signals.
- Resetting the cycle counter.

The DIAGNOSTIC Menu is designated for starting up a diagnostic program.

20 Dryer Programs - 5 Steps



The Creation of a Dryer Program

- A Dryer Program is built up step by step.
- Each step always consists of a Dry sequence and a Cooldown sequence.
- You will notice that each step has default settings. This feature is very helpful as most of the newly created programs will not require changes to be made to the suggested values.

Programming the Dryer sequence :

- First set the target temperature.
- Then set the Dry time or Humidity (only applies to machines fitted with a humidity sensor).

Programming the Cooldown sequence :

- After programming the Dry sequence, next program the Cooldown sequence.
- Set the parameter to stop the Cooldown sequence: Time or Temperature
- As you will notice it's also possible to skip a sequence between two other sequences by programming a time value = 0.)

The Anti-Wrinkle sequence :

- To avoid Wrinkling, its recommended that the linen is reversed each 2 to 10 minutes once the drying cycle has finished and the machine is not unloaded. A beep signal warns the operator that the cycle has been finished.

WARNING

A MORE DETAILED EXPLANATION FOR THE SPECIFIC SEQUENCES CAN BE FOUND IN CHAPTER PROGRAMMING.

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The Final Cooldown sequence :

- To avoid that the linen stays in the dryer with a too high temperature, for safety purposes, a Final Cooldown sequence is added at the end of the program.
- The Final Cooldown sequence takes 3 minutes if the temperature is above 122°F [50 °C] , then the program is finished.
- **The Final Cooldown sequence cannot be changed.**

Programming the Functions

Limits:

- To ensure the correct functionality of the dryer you have to program values within certain limits.
- If you program a value that falls below the minimal or above the maximal programmable limit then the new value will not be accepted and the previous value stays valid.

Programming the Dry Temperature

- Limits:
  - Dry Temperature : 33.8°F [1°C] - 158°F [70 °C]
- T24 & T35 GAS AND ELECTRICAL HEATING ONLY
  - Dry Temperature : 33.8°F [1°C] - 179.6°F [82 °C]

Programming the Dry Time

- Limits:
  - Dry Time : 0 – 120 Minutes

Programming the Cooldown Time

- Limits:
  - Cooldown Time : 0 – 120 Minutes

Programming the Cooldown Temperature

- Limits:
  - Cooldown Temperature : 33.8°F [1°C] - 158°F [70°C]

Programming the Motor On and Off times for Reversing

- The standard Reversing Motor On and Off times are 40 Seconds On and 5 Seconds Off.
- Limits:
  - Reversing motor on Off times : 3 – 300 Seconds

Programming the anti-wrinkle sequence

- The drum is turning each 2 to 10 minutes for 5 seconds for a max programmable time of 3 hours.
- A buzzer is beeping when the drum turns.
- Limits:
  - Action time Drum : 3 – 180 seconds
  - Interval time Drum at rest: 1 – 15 minutes
  - Anti-wrinkle time : 15 – 180 minutes

Initializing the machine

Initializing the machine goes in four steps:

1. Install the machine mechanically. (refer to Installation Manual)

FULL CONTROL :

2. Select the machine specific settings in the Configuration Menu.
3. Select the operator specific settings in the Initialization Menu.
4. Adjust standard Programs or create new Programs at the Program Menu.

WARNING

The initialization should be performed by qualified personnel only. An incorrect initialization may cause serious injuries and serious damage to the machine!

C026

WARNING

Before making changes in the configuration and initialization menu read this manual carefully.

C027

Changes you have made will influence the dryer program processes. We recommend before making changes to carefully write down what the previous settings were.

As the control dryer computer is used for a whole range of dryers, after the installation of a new control dryer computer, you need to program machine specific settings into the configuration menu. Refer to *Configuration Menu*.

At the installation of new software, after loading the factory settings (refer to *Configuration Menu*) you need to check the default settings one by one to find out if they correspond with the setup as you prefer.

The configuration and initialization of the dryer has been done at the factory. For the creation of new programs, no changes have to be made in the Initialization or Configuration menus.

Initialization Menu

HOW TO GET INTO THE INITIALIZATION MENU

The initialization menu can only be accessed when the machine is in standby (the power is switched on, but no program is started).

- SELECT PROCESS_ _ is displayed.
- Switch the programming switch Program Mode.
- The Main menu is now available.
- The Initialization Menu is the first Menu and is displayed immediately.

Main Menu Initialization

- Press the ENTER button to make your selection.
- Now you will see the first menu item.
- By pressing the ARROW RIGHT or LEFT button you can see the menu items one by one.

I:Language: English	• Select the preferred Language from the list by pressing the ARROW UP or DOWN button. • English is the default setting. • Press the ENTER button to confirm.

- **English**
- Dutch
- Czech

I:View Programs: Enable Menu ? I:Enable Program X ? Yes/No	• The 20 programs can be enabled or disabled in the View Programs Enable Menu. • If you don‘t want to select the programs, press the ARROW RIGHT button. • If you want to select the programs, press the ENTER button. • Press the YES or NO button to Enable / Disable programs. • Yes is the default value. • Yes : the Program is enabled. No : the Program is disabled. • Press the ENTER button to confirm.

I:Set Unwrinkle Time : _ _ _ Min	• The Unwrinkle function avoids that the linen is wrinkled at the end of the dry cycle when the operator has no time to Unload the machine immediately. • The unwrinkle time is the time that the machine will reverse the fabrics for a long intermedium time interval. • The function is switched OFF for a time setting = 0 minutes. • Programmable in steps of 5 minutes. • Limites : 0 – 180 minutes. • 180 Minutes is the default value. • Adjust the value with the ARROW UP or ARROW DOWN button and Press the ENTER button to confirm. • The buzzer will function each time the mechanical action is restarted to warn the operator that the drying cycle has terminated.

I:Unwrinkle On Time : _ _ Sec
I:Unwrinkle Off Time : _ _ Min
	• Set the Unwrinkle On and Off Time.
	• Limits :
	  • On Time : 3-99 seconds
	  • Off Time : 1-15 minutes
	• Default value : - On Time :
	  • 5 seconds
	  • Off Time : 5 minutes
	• Adjust the programmed time with the ARROW UP and DOWN buttons.
	• Press the ENTER button to confirm.

I:Service Intervall : 3000	• Insert the number of cycles at which a maintenance is required. Refer to Installation and maintenance manual. • the default setting is : • 3000 • Press the ENTER button to confirm.
I:Buzzer Time : 5 Sec	• Insert the buzzer time. At the End of the Dryer cycle, when the message Unload is displayed, the buzzer will function for the programmed time. • 5 Seconds is the default value. • Press the ENTER button to confirm. • The buzzer will function each time when operator's attention is needed. • The programmable Buzzer time interval is not applicable in the case of error messages.

I:Allow Advance : Yes	• With the Advance function you can Skip a Sequence or extend & decrease the time of a Sequence. • Yes is the default value. • Yes : the Advance function is enabled. No : the Advance function is disabled. • Press the ENTER button to confirm.

I:Manual Override :	• With the Manual Override function you can adjust drying time and temperature with the special function buttons when a dry sequence is running. • Yes is the default value. • Yes : the Manual Override function is enabled. No : the Manual Override function is disabled. • Press the ENTER button to confirm.

I:Default Motor Turn Time : _ _ Sec I:Default Motor Rest Time : _ _ Sec	• For programming the ON-OFF reversing time, the default values are 40 Sec ON and 5 Sec OFF. Programmable between 3 and 99 sec. • The purpose of these two items is to suggest the values to avoid that the operator has to insert over and over again the ON-OFF reversing times while programming new dryer programs. • Press the ENTER button to confirm.

I:Cloud communication: No	• If machine is prepared (equipped with Wifi kit) for communicatiob with cloud application through Wifi then item must be set to YES, otherwise set NO. • Press the ENTER button to confirm.

I:Initialization Menu Exit	• You can leave the Initialization Menu by pressing ENTER button. **NOTE:** **With the ARROW LEFT button you can go back to a previous menu item.**

Configuration Menu

This electronic managing system has been specially constructed for a wide range of dryers. For that reason it must be individually set up with important parameters for various machine types. Basic machine adjusting is made in the factory.

WARNING

Only a qualified technician should change the configuration set up. An incorrect configuration can cause injuries and serious machine damage.

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HOW TO GET INTO THE CONFIGURATION MENU

The configuration menu can only be accessed when the machine is in standby (the power is switched on, but no program is started).

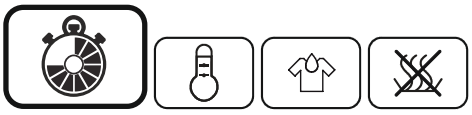
- SELECT Process_ _ is displayed.
- Switch the programming switch to Program Mode.
- The Main menu is now available.
- Press the ARROW RIGHT button to select the Configuration Menu.

Main Menu Configuration

- Press the ENTER button to make your selection.
- For the Configuration Menu a Pass-Word is required.

Pass Word _ _ _ _

- Press the 4 function buttons one by one inside the rectangle and press the ENTER button.



- Now you will see the first menu item.
- By pressing the ARROW RIGHT or LEFT button you can see the menu items one by one.

C:Machine type T11	• By pressing the ARROW UP or ARROW DOWN button you can select the machine type. • Check the Machine data plate at the rear side of the dryer machine. • Press ENTER button to confirm. • As a result you will be asked if you are sure about your selection. C: Change Machine type ? No • Press YES and ENTER button to confirm once more.

- T9
- T11
- T13
- T13/13
- TAMS13
- T16
- T24
- T35

WARNING

BE SURE THAT YOU WANT TO ERASE THE OLD SETTINGS, AS THEY CAN'T BE RECAPTURED. CHANGING THE MACHINE TYPE SHOULD ONLY OCCUR WHEN A NEW CONTROL DRYER COMPUTER IS INSTALLED.

C111

WARNING

BE SURE THAT YOU HAVE SELECTED THE CORRECT MACHINE TYPE, OTHERWISE THE MACHINE WILL NOT FUNCTION PROPERLY.

C112

WARNING

BY CHANGING THE MACHINE TYPE THE DRYER PROGRAMS KEPT IN THE EEPROM MEMORY ARE NOT CHANGED. AFTER CHANGING THE DRYER MACHINE TYPE IT'S RECOMMENDED TO ERASE THE PROGRAM MEMORY AND LOAD THE STANDARD DRYER PROGRAMS AGAIN. THE DRYER PROGRAM SETTINGS DIFFER FOR EACH MACHINE TYPE.

C113

WARNING

SELECTING RESET FACTORY IS RECOMMENDED IF A NEW MACHINE TYPE HAS BEEN SELECTED. THIS WILL ENSURE THAT ALL THE DEFAULT SETTINGS OF THE NEW MACHINE TYPE ARE LOADED.

C114

C:Machine Brand: PRIMUS	• Brand Selection
	• Select brand of machine:
	  • Primus (Default)
	  • IPSO
	  • Speed Queen
	  • UniMac
	  • ALS Generic
	• Press the ENTER button to confirm

C:Reset Factory Settings?	• All the Initialization and Configuration Menu settings will be cleared and the default Factory settings will be re-installed. • This function should only be used at the initialization of a new FULL CONTROL Dryer Computer. • Select Yes or No and confirm by pressing the ENTER button. • By selecting YES , a new request for confirmation is displayed C: Delete old settings ? No • Press the YES and ENTER button to confirm once more.

C:Brightness Display : 9	• You can control the brightness of the display or the angle at which you have an optimal contrast by programming a value between 1 and 20. • The default value is 9. • By pressing the ARROW UP or DOWN button, you can adjust the value.

C:Heating Type
Type : Gas
	• Select the machine heating system from the list by pressing ARROW UP or DOWN button.
	  • Gas heating
	  • Electrical heating
	  • Steam heating
	  • Heat pump (HP)
	• The default value is Gas.
	• Press the ENTER button to confirm.

C:Heating Booster: No	• Only for Heat Pump machines • By selecting YES, additional electrical preheat system is activated • Press the ENTER button to confirm.

C:Reversing System : No	• Set the Reversing function Yes if the machine type is executed with Reversing. • No is the default value. • Yes : the Reverse function is enabled. No : the Reverse function is disabled. • Press the ENTER button to confirm.

C:Safety Temp 2 : 150	ONLY FOR GAS AND ELECTRICAL HEATING • At the heating system there is located a second Temperature sensor. It is used to protect heating system against overheating. • If value is "0" then Second Temperature Sensor is switched OFF.

- The default value is (Temperature values in °F [°C]) :

Temperature values °F [°C]							
	T9	T11	T13	T13/13	T16	T24	T35
Gas Heated	356 [180]	356 [180]	392 [200]	338 [170]	392 [200]	392 [200]	392 [200]
Electrical Heated	392 [200]	302 [150]	302 [150]	302 [150]	302 [150]	392 [200]	392 [200]

Table 2

- By pressing the ARROW UP or DOWN button, you can adjust the value.

C:Humidity Control System : No	• Set the Humidity Control function Yes if the machine type is executed with Humidity Control. • No is the default value. • Yes : the Humidity Control function is enabled. No : the Humidity Control function is disabled. • Press the ENTER button to confirm.

C:Temperature: Celcius	• Press the ARROW UP or DOWN button to select Celsius or Fahrenheit, depending if you prefer that the temperature is displayed in degrees Celsius or degrees Fahrenheit. • Confirm by pressing the ENTER button.

C:Lint Warning Limit : 15	• The Lint Filter must be cleaned every day. Depending the kind of Fabrics there will be more or less lint. • As memory support, a warning will be displayed at the end of the drying cycle if the machine exceeds the programmed number of cycles. • The default value is 15. • A value between 5 and 20 can be programmed. • Depending the amount of lint, you can reduce or increase the number of cycles for which the Alarm must occur. • Confirm by pressing the ENTER button. **NOTE:** **By opening the lint door the „Lint Door Cycle Counter“ will be reset.** **By opening the dryer door the Warning will be erased from the display but will not reset the Lint Door Cycle Counter.** **If the „Lint Door Cycle Counter“ has not been reset for 40 cycles, an Error message will be displayed and the machine can’t be started anymore until the error message is reset by the programming switch.**

C:Erase All Programs?	• You can erase all the dryer programs at once. • This function should only be used at the installation of a new FULL CONTROL Dryer Computer and if you want to ensure that no old programs stay in the memory of the computer. • For all 20 programs default values will be loaded. • Select Yes or No and you have to confirm by pressing the ENTER button. • By selecting YES , a new request for confirmation is displayed. C: Delete all Programs ? No • Press YES and ENTER button to confirm once more.

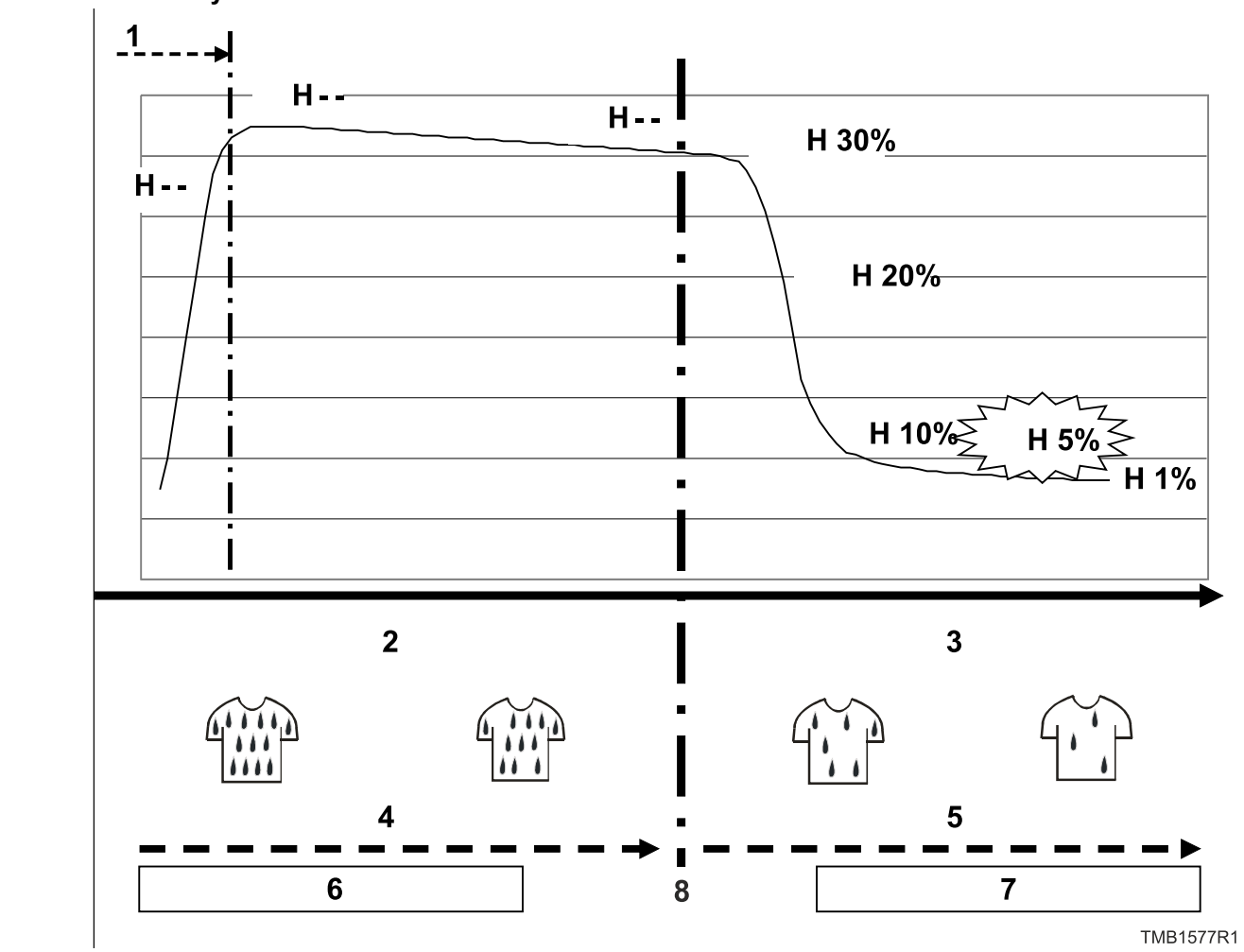
C:Load Standard Programs? C:Language: English	• If you want to make use of the 9 Standard Dryer programs, these standard programs must be loaded into the Dryer Program Memory of the FULL CONTROL Computer. • Press the ENTER button if you want to Load the Standard programs. • Then a Confirmation is asked before the First 9 dryer program's will be loaded. • By pressing Yes and ENTER button, 9 Standard program's will be loaded at the Program numbers 1 to 9. • The Standard dryer program‘s can be found in this manual in chapter 7. • Then you can Select the language of the Dryer Program name. • By the Dry Program Name the operator knows which kind of dry process the program corresponds with. • You can select the Language from a list by pressing the ARROW UP „+“ or DOWN „-“ buttons and you have to confirm with the ENTER button.
C: Communication Address : XXX	• Each dryer machine in the RS485 laundry machine network must have a unique Communication Address. • 255 is the default value. • Enter a unique number between 1 and 255. • Confirm by pressing the ENTER button. Remark • If 2 or more machines have the same Communication Address then the network will not function properly.
C: Configuration Menu Exit	• You can leave the Configuration Menu by pressing the ENTER button. **NOTE: With the ARROW LEFT button you can go back to a previous menu item.**

Activation of Wifi connection

Before connection to cloud (gateway), Wifi support must be activated in machine. Wifi kit must be installed in machine first.

1. In Intialization menu, item Cloud communication set Yes
2. In Configuration menu, item Cloud communication Address set 241
3. Wait 30 seconds
4. Reset machine power (off/on)
5. In Configuration menu, item Communication Address set to machine identification number (machine room number)

Humidity Control



1. Heating up
2. Linen is wet
3. Linen is dry
4. Part 1: RH > 30%
5. Part 2: RH < 30%
6. H -- shown on display
7. H XX shown on display
8. Dry cycle time

Figure 3

At the drying process with humidity control, the air humidity is measured by an absolute air humidity sensor. The graph shows the absolute air humidity in function of time. When a drying cycle is started, the air humidity will go up quickly as the heating system starts up, then the air humidity will decrease bit by bit. The dryer computer humidity sensor measures this value and calculates the corresponding residual humidity of the linen. The residual humidity is the remaining amount of water in wet linen compared with it's dry equivalent. When the linen is taken out a washing machine:

- A high extraction speed results in about 50 % residual humidity
- A low extraction speed results in about 70 % residual humidity

At the drying cycle (humidity control) the display shows :

- H - - : The residual humidity is above 30 % (the linen is wet)

- H XX : The residual humidity value is below 30% (the linen gets dry)

Above 30% residual humdity, the linen is so wet that there is no accurate measurement. For this reason there is not shown a value on the display, just two dashes. It can take 10 to 40 minutes, depending the amount of load and how wet the linen is, before the Residual Humidity Value is shown on the display.

The default programmed value for residual humidity of linen is 5%.

IMPORTANT: While the dryer is running, do not open and close the door, it disturbs the humidity control measurement.

WARNING

CERTAIN FABRICS CAN GET DAMAGED WHEN DRYED UNTIL A RESIDUAL HUMIDITY OF 0%. (BONE DRY). CERTAIN FABRICS GET ELECTRO-STATIC CHARGED FOR A RESIDUAL HUMIDITY BE-LOW 5% (WHICH SHOULD BE AVOIDED).

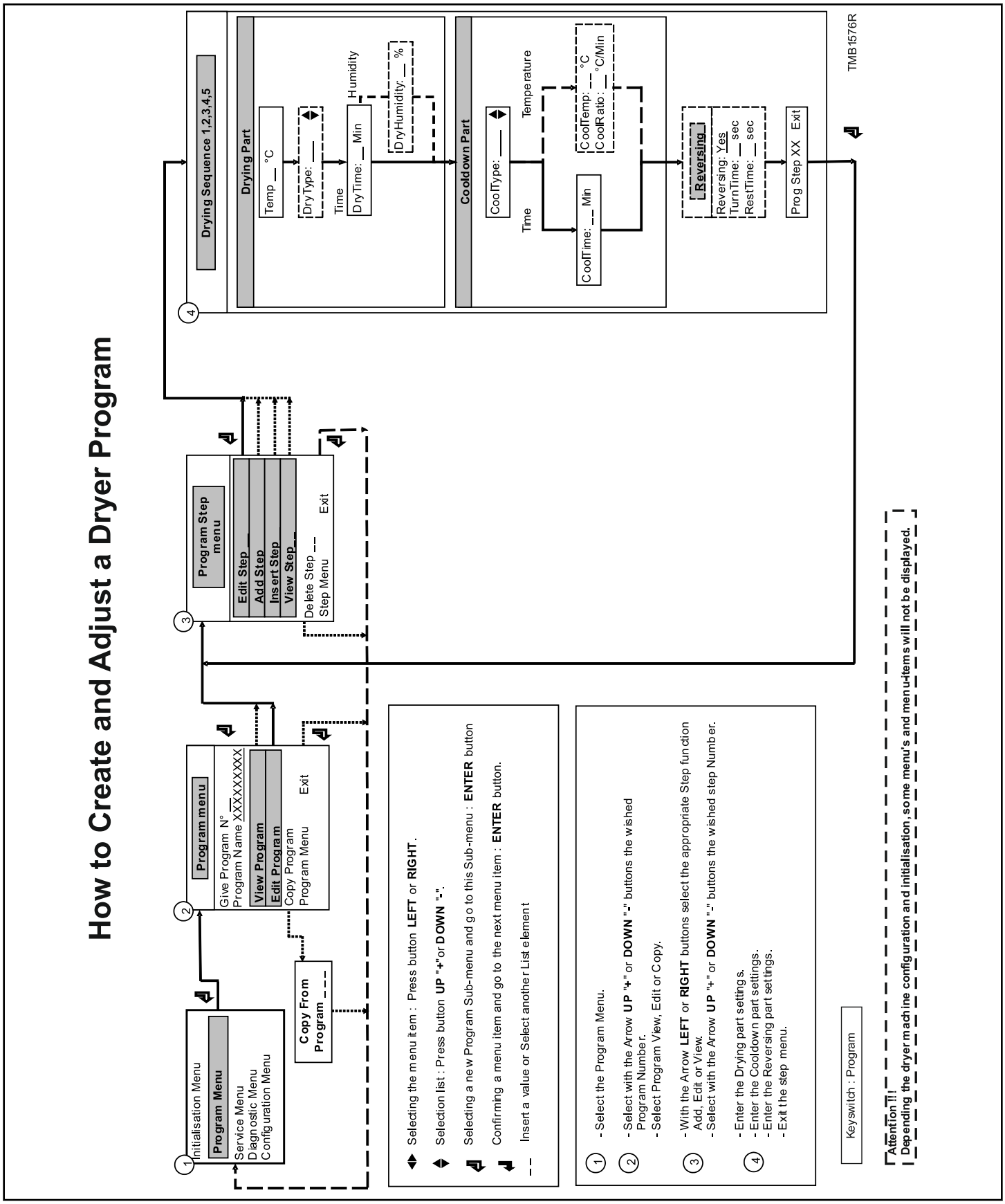
C132

WARNING

THE HUMIDITY CONTROL SYSTEM IS NOT MADE TO RUN WITHOUT LOAD OR WITH A VERY SMALL LOAD. THE SYSTEM CAN ONLY FUNCTION IN A NORMAL WAY WHEN THERE IS SUFFICIANT EVAP-ORATION TO BE MEASURED BY THE AIR HUMIDITY SENSOR.

C133

How to Create and Adjust a Dryer Program



Programming

General

Specific functions have been implemented in the FULL CONTROL dryer computer to allow a detailed programming.

Functions for the complete program.

- Program Number : Selecting the dryer Program
- Program Name : Creating the Program Name
- View : Inspecting the Program settings without making changes
- Edit : Adjusting a Program
- Copy : Making a Copy of an existing Program
- Exit : Leave the Program Menu

Functions for the program steps.

- Step Number : Selecting the Program Step
- Edit : Adjusting the Program Step
- Add : Adding a Program Step at the end of the program
- Insert : Inserting a Program step in between other Program Steps
- View : Inspecting the Step settings without making changes
- Delete : Deleting a Step
- Exit : Leave the Program Step Menu

Follow the flowchart step by step.

Step 1: Program Menu

HOW TO GET INTO THE PROGRAM MENU

The initialization menu can only be accessed when the machine is in standby (the machine is powered up but no program is started).

- SELECT Process_ _ is displayed.
- Switch the programming switch to Program Mode.
- The Main menu is now available.
- Press the ARROW RIGHT button to select the Program Menu.

Main Menu PROGRAM

- Press the ENTER button to confirm your selection.
- Goto *Step 2: Program Functions* »

Step 2: Program Functions

SELECT THE PROGRAM NUMBER

P:Give Program Number : _ _	• Select the desired program number by pressing the ARROW UP or DOWN button. • Program 1 to 20 can be selected. • Press the ENTER button as a confirmation.

VIEW A PROGRAM

P: Program N°XX View	• In Program View you can look to the Program Settings, without making changes. • Press the ARROW RIGHT button if you don‘t want to see the program Over-View. • Press the ENTER button if you want to see the program Over-View. **NOTE: In the program Over-View Menu, at the end of a Dryer Program Step, Press the ENTER button to see the next step. Refer to also *Step 3: Program Step Functions* »**

EDIT A PROGRAM

P: Program N°XX Edit	• Editing a program is changing the program by selecting a new element from a list or by changing values in an existing program. You can also add, or delete steps in an existing program. • Press the ARROW RIGHT button if you don‘t want to Edit the program. • Press the ENTER button if you want to Edit the program. Goto *Step 3: Program Step Functions* »

COPYING A PROGRAM

P: Program N°XX Copy	• If you want to adjust a new program, sometimes it's easier to make a copy of an existing program and to make some small changes to your new copy. • Press ARROW RIGHT button if you don't want to Copy a program. • Press the ENTER button if you want to make a copy from another program. • A confirmation is asked to delete the old program. P: Delete Old Program? No • Press the ENTER button if you don't agree to copy the old program. Goto *Step 1: Program Menu* » • Press YES and ENTER button to confirm if you want to implement a new program.
P: Copy from Program N° _ _ _	• Insert the desired program number from which you want to copy the program. • Press the ENTER button as a confirmation. Goto *Step 1: Program Menu* »

EXIT THE PROGRAM MENU

P: Program Menu Exit	• Press the ENTER button if you want to leave the PROGRAM Menu. **NOTE: With the ARROW LEFT button you can go back to a previous menu item.**

Step 3: Program Step Functions

EDIT A STEP

P:Edit Step : _ _	• If you edit a step, you will change values or list elements from an existing step. • Press the ARROW RIGHT button if you don't want to Edit a step. • Select the Step number. If the number is not accepted, this means that the step is not available. • Press the ENTER button to confirm your selection. Goto *Step 4: Programming the Drying Part* »

ADDING A STEP AT THE END OF THE PROGRAM

P:Add Step	• Default programs have only 1 step. For more complicated programs, you can add 4 extra steps. New steps are added at the end of the program. • Press the ARROW RIGHT button if you don't want to Add a new step. • Press the ENTER button if you want to add a new step. Goto *Step 4: Programming the Drying Part* »

INSERTING A STEP BETWEEN EXISTING STEPS

P:Insert Step : _ _	• Default programs have only 1 step. For more complicated programs, you can add 4 extra steps. Steps are inserted in between other steps. The steps with the same or higher number will be increased with 1. • Press the ARROW RIGHT button if you don't want to Insert a new step. • Press the ENTER button if you want to Insert a new step. Goto *Step 4: Programming the Drying Part* »

VIEW A STEP

P:View Step : _ _	• Before making changes in a dryer program, it‘s recommended to have a look at the actual settings by the view function. • Press the ARROW RIGHT button if you don‘t want to View a step. • Select the Step number. If the number is not accepted, this means that the step is not available. • Press the ENTER button to confirm your selection. Goto *Step 4: Programming the Drying Part* »

DELETE A STEP

P:Delete Step : _ _	**NOTE: Step 1 can not be deleted.** • If you delete a step, an existing step in the program will disappear. • Press the ARROW RIGHT button if you don‘t want to DELETE a step. • Select the Step number. • Press the ENTER button to confirm your selection. If the number is not accepted, this means that the step is not available. • A confirmation is asked to delete the old step. P: Delete Old Step? No • Press the ENTER button if you do NOT want to delete the old step. • Press YES and ENTER button to confirm if you want to delete a step. Goto *Step 3: Program Step Functions* »

EXIT STEP MENU

P:Step Menu Exit	• Press the ENTER button if you want to leave the PROGRAM STEP Menu. **NOTE: With the ARROW LEFT button you can go back to a previous menu item.**

Step 4: Programming the Drying Part

This paragraph gives a detailed explanation about programming the Dryer Sequences.

- Each program step contains a drying part and a cooldown part.
- First the dryer part must be selected, item by item can be programmed.
- Next the cooldown part must be selected, item by item can be programmed. Refer to *Cool-Down Function* ».
- Without making changes you can watch item by item, by pressing the ARROW RIGHT or LEFT button.
- If you want to make changes :
  - Adjust a value by pressing the ARROW UP „+“ or DOWN „-“ button
  - Enable or disable a Setting by pressing the ARROW UP „Yes“ or DOWN „No“ button.
  - Select a list element by pressing the ARROW UP „Next“ or DOWN „Previous“ button.
- Each time you add a new step, default values have been preprogrammed. So with less effort, complete programs can be programmed. Refer to also chapter Basic description of controls for a general explanation concerning the creation of dryer programs.
- You can recognise a list element by the „ARROW UP & DOWN“ symbol at the right side on the display.
- Press the ARROW RIGHT button to go to the last Menu Item : EXIT.

THE DRY SEQUENCE

P:Pr XX Step XX Temp : 45 °C	°C : degrees Celsius °F : degrees Fahrenheit • The temperature can be programmed between 33.8°F [1°C] and 158°F [70°C] . • T24 & T35 GAS AND ELECTRICAL HEATING ONLY • Dry Temperature : 33.8°F [1°C] - 179.6°F [82°C] • 113°F [45°C] is the suggested default value. • Adjust the desired temperature. Press the ENTER button for confirmation.

P:Pr XX Step XX
DryType : Time
	• 2 types of dry sequence can be selected.
	  1. Time controlled sequence: The dry sequence will stop after the specified period of time.
	  2. Sequence controlled by time and residual moisture (only applies to machines fitted with a humidity sensor): The dry sequence will stop after the specified period of time or after the specified laundry residual moisture has been reached.
	• By the ARROW UP and DOWN button you can select the required setting. Press the ENTER button for confirmation.

P:Pr XX Step XX DryTime : _ _	• The Dry Time is the programmed time that the linen is dried by forced heating. • The default value is 30 minutes. • The value is programmable between 0 and 120 minutes. • Adjust the desired Drytime. Press the ENTER button for confirmation.
P:Pr XX Step XX DryHumidity : _ _ %	• The DryHumidity value is the programmed value for which the dry process is stopped when the target residual moisture in the linen has been reached. (Dried by forced heating.) • The default value is 5 %. • The value is programmable between 0 and 30 %. (50-70% is the residual moisture level after extraction in washing machine.) • Adjust the desired Humidity level. Press the ENTER button for confirmation.

P:Pr XX Step XX
CoolType : Time
	• 2 types of CoolDown sequence can be selected. The Cooldown sequence will be stopped at :
	  • a preset Cooldown time.
	  • a preset Temperature value
	• By the ARROW UP and DOWN button you can select the required setting. Press the ENTER button for confirmation.

P:Pr XX Step XX CoolTime : _ _ Min	• The Cooldown Time is the programmed time for which the dryer is cooling the fabrics. (Heating is switched Off). • The default value is 5 minutes. • The value is programmable between 0 and 120 minutes. • Adjust the desired Cooldown Time. Press the ENTER button for confirmation.
P:Pr XX Step XX CoolTemp : _ _ °C	• The Cooldown Temperature is the programmed temperature for which the dryer is cooling the fabrics. (Heating is switched Off) • The default value is 104°F [40°C] . • The value is programmable between 32°F [0°C] and 158°F [70°C] . • Adjust the desired Cooldown Temperature. Press the ENTER button for confirmation.
P:Pr XX Step XX CoolRatio : _ _	• For special applications, a controlled cooldown sequence is required. • The temperature will decrease in small steps in relation to the time. The ratio for the cooldown sequence is the temperature in function of time. • The default value is 32°F [0°C] /Min. • The value is programmable between 32°F [0°C] and 41°F [5°C] /Min. • Adjust the desired Cooldown Ratio. Press the ENTER button FOR CONFIRMATION.

P:Pr XX Step XX Reversing : Yes	Only for machines executed with reversing. • Reversing can be switched Off and On. • The default value is Yes. • By the ARROW UP and DOWN button you can select the required setting. Press the ENTER button for confirmation

P:Pr XX Step XX
TurnTime : _ _ sec
P:Pr XX Step XX
RestTime : _ _ sec
	Only for machines executed with reversing.
	Settings are applicable for the DRY and COOLDOWN part of the Step.
	• A reversing Motor On/Off time can be programmed.
	• Depending the kind of fabrics, a short or long reverse time is applicable.
	• Default values: 40 sec On and 5 sec Off time.
	• Programming limits:
	  • On: 3 - 120 sec
	  • Off: 1 - 15 sec
	• Adjust the desired Motor On and Off times. Press the ENTER button for confirmation.

P: Program Step XX Exit	• You can always return to a previous menu item by pressing the ARROW LEFT button. • By pressing the ENTER button you will leave the current Step. Goto *Step 3: Program Step Functions* »

Operation menu

Start Up

WARNING

BEFORE STARTING UP THE FIRST TIME, BE SURE THAT THE MACHINE IS WELL INSTALLED. SEE INSTALLATION AND MAINTENANCE MANUAL. MAKE SURE THAT THE CONFIGURATION AND INITIALIZATION MENU HAVE THE RIGHT SETTINGS. SEE CHAPTER INITIALIZING THE MACHINE.

C129

WARNING

DRY CYCLES CAN ONLY BE STARTED WHEN THE PROGRAMMING SWITCH IS IN RUN MODE.

C130

Switch On the Power

The display lights up when the power is turned on.

- If the program is ready to be started, Select Process _ _ is displayed.

Load the Dryer

1. Open the door
2. Load laundry into the drum
3. When the drum is loaded, close the door

Start a Dryer Program

1. Create a simple program by the special function buttons on the keypad.
2. Press the ARROW UP and DOWN buttons to adjust the corresponding values.
3. Or Select the program number by the PROGRAM SELECT button.
4. Up to 20 programs can be selected. The first 9 are the standard Drying programs you can find in this manual.
5. Press the „START“ button.

The Active Program

- The cycle time will decrease minute by minute and gives you an indication how long it will take before the cycle is finished.
- For each Dryer program Step :
  - first you will see the Dryer Sequence
  - then you will see the Cooldown Sequence
- A row of bars, shows you if the Sequence has just been started or if ¼, ½ or ¾ of the Sequence time is over.

PrXX StYY ZZ.Z Min

Dry ■■□□

PrXX : The selected program number.

StYY : The selected program Step.

ZZ.Zmin or ZZ.Z H : The remaining program time in 1/10 of Minutes or 1/10 of Hours.

■■□□ : A row of bars appears as a function of the remaining sequence time.

Dry : The executed Sequence. (example, Dry)

Advancing a Dryer Program

1. Press the ARROW UP button to increase the dry-cooldown sequence time.
2. Press the ARROW DOWN button to decrease the dry-cooldown sequence time.
3. Press the START button to skip the current step. >> >> is displayed instead of the remaining time at the moment that the step is skipped.

WARNING

Even if the advance function has been switched off in the initialization menu, the advance function will work if the programming switch is turned into program mode.

C066

Drying Time

Once the program has been started, the remaining dry time is displayed in minutes.

Program End

1. The "0" on the display will be erased and the machine is ready to start a new program.
2. Once the program cycle is finished, UNLOAD is displayed.
3. Open the door and unload the machine.
   - The Message UNLOAD will be erased and the machine is ready to start a new program.

- SELECT PROCESS _ _ is displayed.

Cool-Down Function

- For Safety purposes the machine will always execute a cool-down sequence at the end of the drying cycle. (Programmed dry temperature > 122°F [50°C]). Even if the cooldown time has been put on 0 minutes in the program menu.

Stop

- By pressing the STOP button the program is interrupted.
- First the machine will go over to a safe state.
- Then the message CONTINUE ? is displayed.

» STOP : the program is stopped.

» START : the program goes on with the rest of the cycle.

Wait State

Normal machine operation can be interrupted. You have to wait until the FULL CONTROL Dryer Computer allows you to go on.

You can recognize the wait state by a display that shows WAIT and a decreasing counter.

This will occur when the power has been switched off and on at a running dry cycle.

A delay time is respected before the machine can be restarted.

How to Handle Failure Messages

NOTE: For more information about error messages refer to *How to Handle Fault Messages* .

- When a failure has been detected by the FULL CONTROL Dryer Computer, a failure message is generated, to inform the operator about the problem.

PrAA StBB Unload !
EXXX:YYYYYYYYYYY

AA : The Program number

BB : The Step number

Unload ! : If it is allowed to open the door, the message Unload is displayed

E XXX : The error number

YYYYYYYY : The name of the error message

- At the upper left corner, the program number and step number of the interrupted program are displayed.
- The message UNLOAD ! will inform you if it‘s allowed to open the door.

Safety conditions

- If the actual temperature is too high the message „TOO HOT“ will be displayed together with the actual temperature.

WARNING

Go to the chapter Troubleshooting to find out more about error handling.

C070

How to Handle Power Interruptions

When a power interruption occurs while the machine is in standby mode, and no program cycle was started, the machine will stay in standby mode.

When a power interruption occurs while the dry or cooldown sequence is busy, after the power interruption, the message Continue ? will be displayed.

» STOP : the program is stopped.

» START : the program goes on with the last active step until the end of the program.

Service-State Button

- The Service button is dedicated to supply the operator with more information about the dryer machine functions.

» Press the SERVICE-STATE button if you want to inspect the actual temperature and humidity level.

- At the Service - State menu, you can inspect :
  - the dryer temperature and humidity level
  - the number of cycles that have been accumulated (service due)
  - the actual dryer machine states at the running dry cycle
- By switching the programming switch to Program Mode, the Service-State menu will not disappear after 1 minute.
- By pressing the ARROW RIGHT button you will see all the menu items.
- You can leave the Service - State menu by pressing the SERVICE-STATE button again.

Pre-programmed programs

General

The FULL CONTROL Dryer Computer contains 9 pre-programmed Standard Dryer Programs.

WARNING

THE PRE-PROGRAMMED PROCESSES ARE GIVEN AS AN EXAMPLE ONLY. FOR THE CREATION OF YOUR OWN PROGRAMS, CHECK THE PROPERTIES OF THE FABRICS AND THE RESIDUAL MOISTURE AFTER THE DRYING PROCESS.

C134

Drying Programs

Program 1: COLD 20 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	-	-	A = 40
	Cooldown	-	20	R = 5

Table 3

Program 2: LOW 86°F [30°C] 20 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	86°F [30°C]	20	A = 40
	Cooldown	-	3	R = 5

Table 4

Program 3: LOW 95°F [35°C] 30 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	95°F [35°C]	30	A = 40
	Cooldown	-	3	R = 5

Table 5

Program 4: MEDIUM 104°F [40°C] 40 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)

Table 6 *continues...*

Program 4: MEDIUM 104°F [40°C] 40 MIN				
Step 1	Drying	104°F [40°C]	40	A = 40
	Cooldown	-	4	R = 5

Table 6

Program 5: MEDIUM 113°F [45°C] 30 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	113°F [45°C]	30	A = 40
	Cooldown	-	4	R = 5

Program 6: MEDIUM 122°F [50°C] 40 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	122°F [50°C]	40	A = 40
	Cooldown	-	5	R = 5

Table 7

Program 7: HOT 140°F [60°C] 30 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	140°F [60°C]	30	A = 40
	Cooldown	-	5	R = 5

Table 8

Program 8: HOT 149°F [65°C] 40 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	149°F [65°C]	40	A = 40
	Cooldown	-	5	R = 5

Table 9

Program 9: HOT 158°F [70°C] 30 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)

Table 10 *continues...*

Program 9: HOT 158°F [70°C] 30 MIN				
Step 1	Drying	158°F [70°C]	30	A = 40
	Cooldown	-	5	R = 5

Table 10

Program 10: HOT X °F [°C] MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	X °F [°C]	30	A = 40
	Cooldown	-	5	R = 5

Table 11

T24 & T35 electrical heating only: X = 176°F [80°C]

T24 & T35 gas heating only X = 167F° [75°C]

T24 & T35 steam heating only X = 158°F [70°C]

T9, 11, 13, 13/13, 16: X = 158°F [70°C]

Program 11: HOT X °F [°C] 30 MIN				
	Sequence	Temperature.	Time (minutes)	Reversation (seconds)
Step 1	Drying	X °F [°C]	30	A = 40
	Cooldown	-	5	R = 5

Table 12

T24 & T35 electrical and gas heating only: X = 179.6°F [82°C]

T24 & T35 steam heating only: X = 158°F [70°C]

T9, 11, 13, 13/13, 16: X = 158°F [70°C]

- A = 40 seconds = 40 Seconds Action (Drum Turns)
- R = 5 seconds = 5 Seconds Rest (Drum is at Standstill)

REVERSATION

Program 12: Wool					
	Sequence	**Temperature**	**Humidity (%)**	**Time (minutes)**	**Reversation (seconds)**
Step 1	Drying	107.6°F [42°C]	20	-	-
	Cool Down	-	-	-	-
Step 2	Drying	105.8°F [41°C]	4	-	-
	Cool Down	-	-	-	-
Step 3	Drying	104°F [40°C]	-	15	-
	Cool Down	-	-	-	-

Table 13

Program 13: Silk					
	Sequence	**Temperature**	**Humidity (%)**	**Time (minutes)**	**Reversation (seconds)**
Step 1	Drying	104°F [40°C]	25	-	-
	Cool Down	-	-	-	-
Step 2	Drying	102.2°F [39°C]	5	-	-
	Cool Down	-	-	-	-
Step 3	Drying	96.8°F [36°C]	-	6	-
	Cool Down	-	-	-	-

Table 14

Program 14: All In One					
	Sequence	**Temperature**	**Humidity (%)**	**Time (minutes)**	**Reversation (seconds)**
Step 1	Drying	109.4°F [43°C]	20	-	-
	Cool Down	-	-	-	-
Step 2	Drying	107.6°F [42°C]	4	-	-
	Cool Down	-	-	-	-
Step 3	Drying	105.8°F [41°C]	-	15	-
	Cool Down	-	-	-	-

Table 15

Program 15: Delicate Items					
	Sequence	**Temperature**	**Humidity (%)**	**Time (minutes)**	**Reversation (seconds)**
Step 1	Drying	100.4°F [38°C]	20	-	-
	Cool Down	-	-	-	-
Step 2	Drying	96.8°F [36°C]	10	-	-
	Cool Down	-	-	-	-
Step 3	Drying	105.8°F [41°C]	-	15	-
	Cool Down	-	-	-	-

Table 16

Program 16: No Heating					
	Sequence	**Temperature**	**Humidity (%)**	**Time (minutes)**	**Reversation (seconds)**
Step 1	Drying	95°F [35°C]	-	10	-
	Cool Down	-	-	-	-

Table 17

Troubleshooting

Display Messages

- Various messages may appear on the display at the start, during or at the end of a drying cycle.
- In some specific cases, an acoustic signal will alert the operator.
- When an error occurs the machine will automatically go over to a safe state.

Fault Messages

- If a failure occurs, the computer will display a diagnostic error message.
- The program number and step at which the interruption has occurred are displayed.
- The fault message itself contains a number and a corresponding text label by which it's easy to find the related information in the manual.
- If Unload ! is displayed, it's allowed to open the door.

PrXX StYY Unload !
EZZZ: Fault message

XX : the program number

YY : the program step number

Unload ! : open the door if Unload ! is displayed

EZZZ : the number of the occurred error

Fault message : the text label of the error message

How to Handle Fault Messages

WARNING

Check in the manual to see what problem the error message corresponds with. Ask the assistance of an experienced technician to solve the problem. All the safety precautions must be followed before each intervention.

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- You can overrule and erase fault messages by:
  - Pressing the STOP or ENTER button (programming switch in program mode)
  - Switching the power off/on
  - Opening the door (Ignition Error, Air Flow Switch)
- Each time at the end of the cycle, the FULL CONTROL Dryer computer will fulfil a cooldown sequence
  - (Actual temperature > 122°F [50°C]).
- If at the end of the cycle the safety conditions are not fulfilled (Temperature > 122°F [50°C]), the message TOO HOT will be displayed. (TOO HOT MESSAGE IS ERASED BY OPENING THE DOOR, A NEW SEQUENCE CAN BE STARTED)

TOO HOT
XX °C

- If the problem disappears, (the temperature has dropped below 122°F [50°C]) the Error message TOO HOT will disappear automatically.

WARNING

IT'S UP TO THE OPERATOR TO TAKE THE NECESSARY PRECAUTIONS FOR HIGH TEMPERATURES OF FABRICS AND TUB WHEN THE DRYER DOOR IS OPENED. ON THE DISPLAY THE ACTUAL TEMPERATURE IS DISPLAYED. BEFORE ALL INTERVENTIONS, TO PREVENT BURNS WAIT UNTIL THE HOT PARTS HAVE COOLED.

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WARNING

THE ERROR MESSAGE TOO HOT CAN ALSO APPEAR AT THE END OF A CYCLE EVEN IF NO FAILURE HAS OCCURED AS AN EXAMPLE, DRYING CYCLE WITH A SHORT COOLDOWN TIME. AT THE END OF SUCH A DRYING CYCLE, THE TEMPERATURE IN THE TUB WILL STAY HIGH FOR A WHILE IF THE COOLDOWN SEQUENCE WAS TOO SHORT. THE CONTROL DRYER COMPUTER WILL GIVE A WARNING THAT THE TEMPERATURE IS STILL HIGH.

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DEPENDING ON THE FAILURE TYPE THE FULL CONTROL COMPUTER WILL START A SPECIFIC PROCEDURE :

- WHEN SAFETY IS INVOLVED
  - Full stop : the program is stopped.
  - Full stop + cooldown : the program is stopped but a cooldown sequence is started.
  - Don't start : the program will not be started as long as the safety conditions are not fulfilled.
- WHEN SAFETY IS NOT INVOLVED
  - Full stop + request for continue : a request to Continue ? the program is displayed.

- Skip + continue : the actual cycle step is skipped and the program continues with the next step.
- Continue : the program continues.

SPECIAL CASES :

- For E19, 20: Defective Temperature sensor and E35: Wrong software version The Failure message can only be erased by switching the power off and back on.
- Fault 41: Service Due will occur over and over again until you have reset the cycle counter. Refer to Paragraph *Failure Message Overview* how to reset the cycle counter.

RESET KEY :

- When you have overruled an error message and opened the door, Reset Key will be displayed.
- This message warns the operator that the programming switch is still in Program mode.
- Before you can start a new program you have to switch the programming switch back to Run mode.

! ! Reset Key ! !

» Switch the programming switch to Run mode.

MESSAGE “CLOSE THE LINT FILTER DOOR”

- This message indicates that the lint filter door is open during machine operation.
- Close the lint filter.
- If the message keeps showing even after the door has been closed, check the power feed of the controller board and the fuses.

Clean Filter

UNLOAD CLEAN FILTER

- It’s a good attitude to clean the Lint Filter each day. (Refer to also Installation and maintenance manual).
- As safety is involved, when the Lint Filter has not been cleaned sooner then 15 succeeding cycles, a warning will be displayed at the end of the drying cycle. „CLEAN FILTER“
- As the amount of lint depends on the kind of fabrics it’s possible to adjust the number of cycles, for which the warning is generated, in the Configuration menu.
- Only by opening the lint door the Lint Filter Door Cycle Counter will be reset.
- By opening the Dryer Door the warning on the display is erased but the Lint Filter Door Cycle Counter is not reset.
- You can check the Lint Filter Door Cycle Counter at the Running State-Service Menu which is accessible by the special function button on the keypad. (Press ARROW RIGHT button to go to the next menu item.) (Only valid for machines executed with an electric contact at the Lint Door)

Failure Message Overview

N°	Failure Message	Failure	Action	Fault Occurrence
E1	Heating Safety 1	Heated air too hot	Heating Off, Full Stop at safe temperature	Whole cycle
E2	Heating Safety 2	Heater too hot	Heating Off, Full Stop at safe temperature	Whole cycle
E5	Motor Thermic	Motor Security Trips	Heating Off, Full Stop at safe temperature	Motor contactor on
E6	Fan Motor Thermic	Fan Motor Security Trips	Heating Off, Full Stop at safe temperature	Motor contactor on
E7	Drum Motor Thermic	Drum Motor Security Trips	Heating Off, Full Stop at safe temperature	Motor contactor on
E8	Airflow switch Open at Startup	Airflow switch at start-up	Heating Off Full Stop at safe temperature	At Start-up
E9	Airflow switch Open after Startup	Airflow switch after startup	Heating Off Full Stop at safe temperature	Whole Cycle after Start-up
E10	Airflow switch Closed	Airflow switch failure before start-up	Don’t start	At Start-up
E11	Fault Cool down	No temperature drop at cool down	Heating Off,	At Cool down sequence

Table continues...

N°	Failure Message	Failure	Action	Fault Occurrence
E12	No Reheating	Heating not restarted	Heating Off,	At Heating sequence
E13	No Heating	Heating failure	Heating Off,	At Heating sequence
E14	Heat Time	Heating time failure	Heating Off,	At Heating sequence
E15	Too Hot	Too Hot	Heating Off, Full Stop at safe temperature	At Heating sequence
E16	Coin Blocking 1	/	/	/
E17	Coin Blocking 2	/	/	/
E18	Too Hot Safety	Temp. too high (risk of burn!)	Heating Off, Full Stop at safe temperature Major Alarm	Before Start-up
E19	Defective Temperature sensor 1	Value out of range	Continue + Don’t start	Before Start-up
E20	Defective Temperature sensor 2	Value out of range	Continue + Don’t start	Before Start-up
E21	Heating element overheating	Safety Heating element trips	Heating Off, Full Stop at safe temperature	Whole cycle
E22	Ignition Error at Start-up	Ignition fails 3 times	Don’t start	At Start Up
E23	Ignition Error after Start-up	Ignition fails 3 times	Heating Off, Full Stop at safe temperature	Whole cycle
E24	Ignition Error Failure	Wrong Ignition Error Signal	Heating Off, Full Stop at safe temperature	No Heating
E25	No Humidity Sensor	Humidity Sensor not connected	Continue, for info only saved in Err log.	Whole cycle
E26	No Humidity Sensor Cap	Cap Humidity Sensor missing	Continue, for info only saved in Err log.	Whole cycle
E27	No Humidity Reduction	Time out no reduction humidity value	Heating Off, Full Stop at safe temperature	Whole cycle
E28	Lint Filter	Lint Filter has not been opened for 40 cycles	Don’t start	At Start Up
E29	TimeOut Cool	No Cool down	Heating Off, Full Stop at safe temperature	At Cool down
E31	Booster safety thermostat	Overheat of electrical booster system	Heating Off, Full Stop at safe temperature	Whole cycle
E35	Wrong Softw	Wrong software version	Don’t start	New software version
E37	Too Hot Safety	Temp. too high (risk of burn!)	Major Alarm + Extra Cool down Time	Whole cycle
E41	Service Due	Service Due Warning	For Info only Open door = reset	End cycle

Table continues...

N°	Failure Message	Failure	Action	Fault Occurrence
E42	Inverter Err	Error of frequency inverter	Drying Cycle Interrupted	Whole cycle
E50	Wifi Comm. Lost	Lost communication between machine control and with module	Continue, for info only saved in Err log.	Whole cycle
E150-E165	Memory Err	Memory Error	Full stop + safety time	Any time
E170-E199	Softw Err	Software Error	Full stop + safety time	Any time

Service Menu

In the Service menu you have some extra utilities:

- The Software Version Number
- An overview of the 8 last failure messages
- Statistics for general occurence of error messages
- An overview of the input states
- Reset Cycle Counter and Statistics Error Messages

HOW TO GET INTO THE SERVICE MENU

The SERVICE menu can only be accessed when the machine is in standby (the power is switched on, but no program is started).

- SELECT Process_ _ is displayed.
- Switch the programming switch to Program Mode.
- The Main menu is now available.
- Press the ARROW RIGHT button to select the SERVICE menu.

Main Menu Service

- Press the ENTER button to make your selection.
- Now you will see the first menu item.
- By pressing the ARROW LEFT or RIGHT button you can see the menu items one by one.

S:Software Version 1.00	• The Software Version number. • You can select the next menu item by pressing the ARROW RIGHT button.
S:View Fault Messages?	• If you don‘t want to see the Fault messages, press the ARROW RIGHT button. • If you want to see the Fault messages, press the ENTER button.

S:Fault N° 1 :
EXXX:YYYYYYYYYY
	• There are 8 Fault Messages kept in EEPROM memory.
	  • Fault N° 1 : the last occurred error message.
	  • Fault N° 2 : the last –1 occurred error message.
	  • …
	  • Fault N° 8 : the last – 7 occurred error message.
	• E XXX : The Error message number.
	• YYYYYYYYYY : The Error message name.
	• Press the ARROW RIGHT button to see message by message and to leave the Error message menu.
	• If no messages are displayed, this means that no Errors have occurred.

S:Erase Fault Messages? No	• If you don‘t want to erase the Fault messages, press the ARROW RIGHT button. • Press the YES and ENTER button if you want to erase the Error messages.

S:View Fault Statistics?	• If you don‘t want to see the Fault statistics, press the ARROW RIGHT button. • If you want to see the Fault statistics, press the ENTER button. • The Fault Statistics are an accumulation of Errors messages that have appeared over a long period. • The Statistics can be reset at the Service Menu, by a Reset of the Cycle counter. • With this information the technician has an indication on which parts an intervention will be needed.

S:Heating Safety 1 0 x	• The List with Statistics. • Heating Safety 1 : E1 • Heating Safety 2 : E2 • Motor Thermic : E5 + E6 + E7 • Air Flow Switch : E8 + E9 + E10 • Fault Cooldown : E11 • No Heating : E12 + E13 + E14 • Too Hot : E15 + E18 • Temperature Sensor : E19 + E20 • Gas Ignition Error Run : E23 • Gas Ignition Error Start : E22

S:View Input States ?	• If you don‘t want to see the Input States, press the ARROW RIGHT button. • If you want to see the Input States, press the ENTER button.

S:Input 1 Off/On	• Input 1 : the State that corresponds with Input 1. • Input 2 : the State that corresponds with Input 2. • … • Input 20 : the State that corresponds with Input 20. • Analog Input 1, 2, 3 : the value that corresponds with Analog Input 1, 2, 3. • The exact function of the inputs can be found on the electrical drawing of the FULL CONTROL Dryer. • If the Input state is Off, the Input signal is low. • If the Input state is On, the Input signal is high. • Press the ARROW RIGHT button to see message by message and to leave the Input state menu.

S:Reset Cycle Counter : No	• To avoid that No maintenance will be fulfilled when the machine has reached the number of cycles that corresponds with the „Service Interval _ _ _“ number at the Initialization menu, a warning will be generated over and over again at the end of each cycle until the Cycle Counter at the Service menu has been reset. • Also the Statistics for Error messages will be Reset by resetting the Cycle counter. • If you don‘t want to reset the Cycle Counter, press the ARROW RIGHT button. • Press the ARROW UP „Yes“ and ENTER button if you want to reset the Cycle Counter.

S: Service Menu Exit	• Press the ENTER button if you want to leave the SERVICE Menu. **NOTE: With the ARROW LEFT button you can go back to a previous menu item.**

Diagnostic Program

The purpose of the diagnostic program is to test the dryer machine functions one by one.

HOW TO GET INTO THE DIAGNOSTIC MENU

The Diagnostic menu can only be accessed when the machine is in standby (the power is switched on, but no program is started).

- Select Process_ _ is displayed.
- Switch the programming switch to Program Mode.
- The Main menu is now available.
- Press the ARROW RIGHT button to select the Diagnostic menu.

Main Menu Diagnostic	• Press the ENTER button to make your selection.
D:Diagnostic Program : No	• If you don't want to start a diagnostic program, you have to press the ARROW RIGHT button. • Press the YES and ENTER button if you want to start the diagnostic program.
S: Diagnostic Menu Exit	• Press the ENTER button if you want to leave the Diagnostic Menu. **NOTE: With the ARROW LEFT button you can go back to a previous menu item.**

TEST SEQUENCE

- Display test
- Sensor test
- Door test
- Motor test
- Heating test

Troubleshooting

Problem	Cause	Solving the problem
When the power is switched on : the display is not illuminated **IMPORTANT: The display must always light up when the power connector is connected to the power board (EPROM with software must be implemented)**	No external power	Switch on the external power supply verify the external power to the machine
	The emergency stop button is activated	Deactivate the emergency stop button
	The power connector is not connected on the board	Connect the power connector
	Check voltage on the power supply connector	Check fuses in the power supply circuits of the control board. Remove the fuses after the cause of the fault has been rectified (short circuit / faulty control board).
		If there is no EPROM implemented on the logic board, put the right EPROM with software into the socket
The display is illuminated, but it's difficult to read the text on the display	The brightness is not Ok	Change the value for Brightness in the Configuration Menu until you get a bright display.
The machine is not starting up	The programming switch stands in "Program mode"	Set the programming switch to "Run mode"
The machine is not responding on pressing the keyboard buttons	The programming switch is not functional	Check if the input connector "A" is well connected and check the wiring between the input connector and the programming switch
	The „START" button is not functional (the programming switch stands in Program mode)	set the programming switch to "Run mode"
	No button is functional and the programming switch is in the right position	Check if the connector "K" of the keyboard is well connected
	There is no beep signal when the buttons are pressed	
The machine is not behaving as expected	If the wrong machine type is selected the wrong outputs will be activated	Check if the right machine type is selected in the Configuration Menu.
A program is started, but the outputs are not activated	Check if connector "R" and "S" are connected	Connect the connector at the correct position Door must be closed Heating safety must be closed Motor safeties must be closed
Wait is displayed and a counter is counting down	This is a wait state caused by a power interruption or a safety sequence at the end of the process	Wait until the counter has reached 0 do not switch off/on the power again as you will restart the counter

Table continues...

Problem	Cause	Solving the problem
Unload is displayed and the Door is Open	Check if the „Door Switch“ is still closed	If the „Door Switch“ is broken, replace the Door Switch“
The drum is not turning (No error message will be generated if there is no rotation sensor)	Check if the belt is broken	Check the tension of the belt or replace the belt
	Check the applied motor voltage	Repair the motor power supply circuit
	Check if the motor is still functional	Change the motor if needed

Error Message Descriptions

Failure 1: Heating Safety 1

Failure 1 occurs when the electronic timer detects that the heating safety located at the air outlet has opened it’s NC contact.

(NC thermal contact) (failure 1 can only occur when the drying cycle is running).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 1	
1. Check the air outlet system.	If the airflow is not sufficient, adjust the air outlet system.
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the heating system.	If the heating system is broken repair, replace the heating system.
4. Check the heating contactor (valve).	If the heating contactor (valve) is not functional repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. If the heating safety is not closing within 15 minutes.	The heating safety is broken and must be replaced.
7. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
8. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 18

Failure 2: Heating Safety 2

Failure 2 occurs when the electronic timer detects that the heating safety located at the heater has opened it’s NC contact. (NC thermal contact) (failure 2 can only occur when the drying cycle is running).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 2	
1. Check the air outlet system.	If the airflow is not sufficient, adjust the air outlet system.
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the heating system.	If the heating system is broken repair, replace the heating system.
4. Check the heating contactor (valve).	If the heating contactor (valve) is not functional repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. If the heating safety is not closing within 15 minutes.	The heating safety is broken and must be replaced.
7. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
8. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 19

Failure 5: Motor Thermic

Failure 5 occurs when the motor temperature (overcurrent) security has tripped. The contact will be closed again automatically after some time. (Failure 5 occurs for 1 motor machines). (NC thermal contact).

A skilled and experienced technician must examine the motor-drive system before the machine is put in operation again.

Diagnosing Failure 5	
1. Check if the thermal security of the motor is open.	If the thermal security is open, within 15 minutes the security will close automatically. If a motor is defective, the security can go open again when you restart the dryer. If it was only a temperature problem, and the motor is not defective: the overload security will not trip again.
2. Check that the airflow, drum and ventilator rotation is not obstructed.	Solve the mechanical problem.
3. If the thermal motor security is not closing after 15 minutes.	The thermal motor security might be broken.
4. Check the continuity of the wiring.	If the wiring is not continuous: repair the wiring.
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 20

Failure 6: Fan Motor Thermic

Failure 6 occurs when the fan motor temperature (overcurrent) security has tripped. The contact will be closed again automatically after some time. (Failure 6 occurs only for 2 motor machines). (NC thermal contact).

A skilled and experienced technician must examine the motor-drive system before the machine is put in operation again.

Diagnosing Failure 6	
1. Check if the thermal security of the motor is open.	If the thermal security is open, within 15 minutes the security will close automatically. If a motor is defective, the security can go open again when you restart the dryer. If it was only a temperature problem and the motor is not defective: the overload security will not trip again.
2. Check that the airflow, drum and ventilator rotation is not obstructed.	Solve the mechanical problem.
3. If the thermal motor security is not closing after 15 minutes.	The thermal motor security might be broken.
4. Check the continuity of the wiring.	If the wiring is not continuous, repair the wiring.
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 21

Failure 7: Drum Motor Thermic

Failure 7 occurs when the motor temperature (overcurrent) security has tripped. The contact will be closed again automatically after some time. (Failure 7 occurs only for 2 motor machines) (NC thermal contact).

A skilled and experienced technician must examine the motor-drive system before the machine is put in operation again.

Diagnosing Failure 7	
1. Check if the thermal security of the motor is open.	If the thermal security is open, within 15 minutes the security will close automatically. If a motor is defective, the security can go open again when you restart the dryer. If it was only a temperature problem and the motor is not defective: the overload security will not trip again.

Table 22 *continues...*

Diagnosing Failure 7	
2. Check that the airflow, drum and ventilator rotation is not obstructed.	Solve the mechanical problem.
3. If the thermal motor security is not closing after 15 minutes.	The thermal motor security will be probably broken.
4. Check the continuity of the wiring.	If the wiring is not continuous, repair the wiring.
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 22

Failure 8: Airflow Switch Open at Start-up

Failure 8 occurs when there is not sufficient airflow when the ventilator is switched On. This security function prevents the heating is switched On when the ventilator is not functional or if the airflow is obstructed.

(Failure 8 occurs only at start-up) (NO contact).

The Airflow Switch has a safety function and it must not be obstructed.

A skilled and experienced technician must examine the dryer system before the machine is put in operation again.

WARNING

For new installations the air outlet tubes must have the right size for the air flow of the corresponding machine. Follow the instructions in the installation manual.

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Diagnosing Failure 8	
1. Check if the ventilator is functional.	If the ventilator is not functional, repair or replace the ventilator, belt, motor control system, wiring or the power supply circuit of the ventilator. In normal operation, the Ventilator is switched On immediately after pressing the START button. The ventilator must stay on for the entire drying cycle.
2. Check if there is sufficient airflow. Check if the Dryer is a closed box. (Lint filter Door, mechanical panels must be present and closed properly).	When the Dryer is not a closed box, air will escape and the airflow will not be sufficient to switch the Airflow Switch. Make sure that there is no loss of Airflow. Example : close the Lint Filter Door properly.
3. Check if the switch and metal plate and airflow detection system is still functional.	If the airflow detection system or the switch is out of order, it must be repaired or replaced.
4. Check the continuity of the wiring	If the wiring is not continuous: repair the wiring
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 23

Failure 9: Airflow Switch Open After Start-up

Failure 9 occurs when there is not sufficient airflow when the ventilator is turning. This security function makes the heating switch Off when the ventilator is suddenly Not functional anymore or if the airflow gets obstructed.

(Failure 9 occurs only after start-up) (NO contact).

The Airflow Switch has a safety function and it must not be obstructed.

A skilled and experienced technician must examine the dryer system before the machine is put in operation again.

Diagnosing Failure 9	
1. Check if the ventilator is functional.	If the ventilator is not functional, repair or replace the ventilator, belt, motor control system, wiring or the power supply circuit of the ventilator. In normal operation, the Ventilator is switched On immediately after pressing the START button. The ventilator must stay on for the complete time of the drying cycle.
2. Check if there is sufficient airflow. Check if the Dryer is a closed box. (Lint filter Door, mechanical panels must be present and closed properly).	When the Dryer is not a closed box, air will escape and the airflow will not be sufficient to switch the Airflow Switch. Make sure that there is no loss of Airflow. Example: close the Lint Filter Door properly.
3. Check if the switch and metal plate and airflow detection system is still functional.	If the airflow detection system or the switch is out of order, it must be repaired or replaced.
4. Check the continuity of the wiring	If the wiring is not continuous, repair the wiring.
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 24

Failure 10: Airflow Switch Closed

Failure 10 occurs at the start of the drying cycle. Before the ventilator is switched On, the Airflow switch must be open. If the flow detection system is out of order, and the switch is closed, an error message will be displayed.

(Failure 10 occurs only in standby mode) (NO contact).

The Airflow Switch has a safety function and it must not be obstructed.

A skilled and experienced technician must examine the dryer system before the machine is put in operation again.

Diagnosing Failure 10	
1. Check if the airflow detection system is still functional.	If the airflow detection system or the switch is out of order, it must be repaired or replaced.
2. Check if the ventilator is switched On immediately after pressing start.	Check the contactor, wiring and the ventilator command signal.
3. Check the continuity of the wiring.	If the wiring is not continuous, repair the wiring.
4. Check that the ventilator is switched Off at the end of the drying cycle.	If the contactor is not correctly functioning, replace the contactor.
5. Check the input signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 25

Failure 11: Fault Cool down

Failure 11 occurs when the temperature does not decrease when the Cooldown sequence is in progress. (No cooldown at all after 15 minutes at cool down sequence for temperature above 122°F [50°C]).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 11	
1. Check if the heating system is switched Off.	If no temperature ramp has been programmed for the cool down sequence, the heating system must be switched Off. Check the contactor (valve), wiring, and the ventilator command signal.
2. Check if the temperature sensor is functional.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the output relay that controls the heating system.	If the output relay is not functional, replace the programmer board.

Table 26

Failure 12: No Reheating

Failure 12 occurs at a heating (cooldown with ramp) sequence when the heating is not switched On again at the temperature

control process when the lowest temperature hysteresis value is reached.

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 12	
1. Check if there is no interruption of the electrical power, gas or steam heating power supply.	The machine will not heat when there is no energy supply for the heating system. Avoid interruptions of the energy supply.
2. Check if the heating system is functional.	If the heating system fails to work, repair or replace the heating system.
3. Check the heating contactor (valve).	If the heating contactor (valve) is not functional, repair or replace the component.
4. Check the continuity of the wiring.	If the wiring is not continuous: repair the wiring.
5. Check if the temperature sensor is functional.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.

Table 27

Failure 13: No Heating

Failure 13 occurs when the heating system is not functional at start up. (No temperature raise of 41°F [5°C] in 30 minutes after start drying cycle.)

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 13	
1. Check if there is no interruption of the electrical power, gas or steam heating power supply.	The machine will not heat when there is no energy supply for the heating system. Avoid interruptions of the energy supply.
2. Check if the heating system is functional.	If the heating system fails to work, repair or replace the heating system.
3. Check the heating contactor (valve).	If the heating contactor (valve) is not functional, repair or replace the component.

Table 28 *continues...*

Diagnosing Failure 13	
4. Check the continuity of the wiring.	If the wiring is not continuous, repair the wiring.
5. Check if the temperature sensor is functional.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.

Table 28

Failure 14: Heat time

Failure 14 occurs when after X minutes the target temperature is not reached.

The alarm time X can be set in the initialisation menu. (For setting 99, no Error message 14 will occur) The information serves as an indication of reduced heating power.

Diagnosing Failure 14	
1. Check if there is no interruption of the electrical power, gas or steam heating power supply	The machine will not heat when there is no energy supply for the heating system. Avoid interruptions of the energy supply.
2. Check the heating system.	If the heating system fails to work, repair or replace the heating system.
3. Check the heating contactor (valve)	If the heating contactor (valve) is not functional repair or replace the component.
4. Check the continuity of the wiring.	If the wiring is not continuous, repair the wiring
5. Check if the temperature sensor is functional.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.

Table 29

Failure 15: Too Hot

Failure 15 occurs when the actual heating temperature goes 59°F [15°C] above the target temperature at the drying process.

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 15	
1. Check the air outlet system.	If the airflow is not sufficient, adjust the air outlet system.
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the heating system.	If the heating system is broken, repair or replace the heating system.
4. Check the heating contactor (valve).	If the heating contactor (valve) is not functional, repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
7. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional, replace the control board.

Table 30

Failure 18: Too Hot Safety

Failure 18 occurs when the actual heating temperature rises above safety temperature 185°F [85°C] while the machine is waiting to be started (not running).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

WARNING

IF FAILURE 18 OCCURS WE CAN EXPECT THERE IS RISK OF BURN AND NECESSARY ACTIONS MUST BE TAKEN TO REDUCE TEMPERATURE.

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Diagnosing Failure 18	
1. Check the air outlet system.	If the airflow is not sufficient, adjust the air outlet system.
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.

Table 31 *continues...*

Diagnosing Failure 18	
3. Check the heating system.	If the heating system is broken, repair or replace the heating system.
4. Check the heating contactor (valve).	If the heating contactor (valve) is not functional, repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
7. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 31

Failure 19: Defective Temperature Sensor 1

Failure 19 occurs when the temperature sensor (located at the air outlet) is broken . The fault is only displayed when the machine is in standby mode and no program is active.

The fault can only be erased by switching off and on the power. If the fault is still present after switching on the power fault message 19 will be generated again.

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 19	
1. Check if the temperature sensor is connected on the PCB Board.	The Female connector must be connected with the Male connector T1 of the PCB board.
2. Check the temperature sensor.	If the temperature sensor is broken, replace the temperature sensor.
3. Measure the resistance of the sensor.	If the resistance is not OK, replace the temperature sensor.
4. Check if the earth wire is at the middle position of the connector.	If the earth wire is not at the middle position, put the earth wire in the middle position of connector T1.
5. If the fault is persistent.	Replace the electronic board. Be sure the problem is related to the electronic board and not to a defective temperature sensor.

Table 32

Failure 20: Defective Temperature Sensor 2

Failure 20 occurs when the temperature sensor (located at the heater) is broken. The fault is only displayed when the machine is in standby mode and no program is active.

The fault can only be erased by switching off and on the power. If the fault is still present after switching on the powe, fault message 20 will be generated again.

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 20	
1. Check if the temperature sensor is connected on the PCB Board.	The Female connector must be connected with the Male connector T2 of the PCB board.
2. Check the temperature sensor.	If the temperature sensor is broken, replace the temperature sensor.
3. Measure the resistance of the sensor.	If the resistance is not OK, replace the temperature sensor.
4. Check if the earth wire is at the middle position of the connector.	If the earth wire is not at the middle position, put the earth wire in the middle position of connector T2.
5. If the fault is persistent.	Replace the electronic board. Be sure the problem is related to the electronic board and not to a defective temperature sensor.

Table 33

Failure 22: Ignition Error at Start-up (GAS HEATING ONLY)

Failure 22 occurs when the heating system has a problem to switch on the fire at start up.

If the problem is still persistent after 3 automatic resets, error message 22 is generated.

The gas ignition system closes contactor KA3 (input 4 High) to inform the dryer computer that the gas ignition system failed to switch on the fire.

Then the ignition system is reset by the dryer computer by switching on the reset signal gas ignition system (contactor KA2).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 22	
1. Check the gas supply.	Without gas supply, the heater can not function. Right Gas supply and pressure must be available.
2. Check the heating system.	If the heating system is broken, repair replace the heating system.
3. Check the gas ignition system.	If the gas ignition system is not functional, replace the gas ignition system.
4. Check the heating contactor.	If a heating contactor is not functional, replace the component.
5. Check contactor KA3 (Ignition Error).	If the contactor KA3 is not functional, replace the component.
6. Check the wiring.	If the wiring is damaged, repair the wiring.
7. Check the output relays that control the heating system.	If an output relay is not functional, replace the control board.
8. Check the electrical Input Ignition Error at the control board.	If the input of the control board is not functional anymore, replace the control board.

Table 34

Failure 23: Ignition Error After Start-up (Run) (GAS HEATING ONLY)

Failure 23 occurs when the heating system has a problem to switch on the fire when the dryer tries to restart the gas heating system. (While the dry cycle is running).

If the problem continues after 3 automatic resets, the operator is invited to restart the system.

If the action of the operator is not successful, error message 23 is generated.

The gas ignition system closes contactor KA3 (input 4 High) to inform the dryer computer that the gas ignition system failed to switch on the fire.

Then the ignition system is reset by the dryer computer by switching on the reset signal gas ignition system (contactor KA2).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 23	
1. Check the gas supply.	Without gas supply, the heater can not function. Right Gas supply and pressure must be available.
2. Check the heating system.	If the heating system is broken, repair replace the heating system.
3. Check the gas ignition system.	If the gas ignition system is not functional, replace the gas ignition system.
4. Check the heating contactor.	If a heating contactor is not functional, replace the component.
5. Check contactor KA3 (Ignition Error).	If the contactor KA3 is not functional, replace the component.
6. Check the wiring.	If the wiring is damaged, repair the wiring.
7. Check the output relays that control the heating system.	If an output relay is not functional, replace the control board.
8. Check the electrical Input Ignition Error at the control board.	If the input of the control board is not functional, replace the control board.

Table 35

Failure 24: Ignition Error Failure (GAS HEATING ONLY)

Failure 24 occurs after 3 attempts when the Gas Ignition system fails to be reset.

Cause: Input Signal Ignition Error Failure stays high (Input 4) after 3 attempts of dryer computer to reset gas ignition system (contactor KA2). This is to be considered a major hardware failure.

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 24	
1. Check the gas ignition system.	If the gas ignition system is broken, replace the gas ignition system.
2. Check the wiring.	If the wiring is damaged, repair the wiring.

Table 36 *continues...*

Diagnosing Failure 24	
3. Check contactor KA3 (Ignition Error).	If the contactor KA3 is not functional, replace the component.
4. Check the electrical Input Ignition Error at the control board.	If the input of the control board is not functional, replace the control board.

Table 36

Failure 25: No Humidity Sensor (HUMIDITY CONTROL ONLY)

Failure 25 occurs when the humidity sensor does not give an analog electrical output signal to the dryer computer.

Example: connector not connected to dryer computer.

(At the “Configuration“ menu you can switch off/on the Humidity Control function).

NOTE: The humidity sensor needs 1 minute after switching on the power supply dryer to stabilize the analog output signal.

Failure 25 can occur when the dryer is running without linens inside. This should not be considered as a system failure. Check correct dryer operation with a normal amount of wet linen.

WARNING

THE HUMIDITY CONTROL SYSTEM IS NOT MADE TO RUN WITHOUT LOAD OR WITH A VERY SMALL LOAD. THE SYSTEM CAN ONLY FUNCTION IN A NORMAL WAY WHEN THERE IS SUFFICIANT EVAPORATION TO BE MEASURED BY THE AIR HUMIDITY SENSOR.

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Diagnosing Failure 25	
1. Check if the humidity sensor is connected to the dryer computer.	If the humidity sensor is not connected to the dryer computer, connect the sensor.
2. Check the wiring.	If the wiring is damaged, repair the wiring.
3. Check the supply voltage humidity sensor.	If there is no, or wrong supply voltage, replace the dryer computer.
4. Check the humidity sensor and amplifier.	If the humidity sensor or amplifier is damaged, replace the humidity sensor and amplifier.

Table 37 *continues...*

Diagnosing Failure 25	
5. Check the analog input signal. (Inputs can be checked, one by one, in the Service menu).	If for Analogue value 3, the value at the Analog input menu = “0“ then the analog input signal is missing. If the input of the controller board is not functional, replace the controller board. (first check previous items)

Table 37

Failure 26: No Humidity Sensor Cap (HUMIDITY CONTROL ONLY)

Failure 26 occurs when the dust cap at the humidity sensor is missing.

When the dust cap is missing, due to the influence of the air flow in the dryer, the sensor will measure a too big value which is out of range at normal operation.

(At the “Configuration“ menu you can switch off/on the Humidity Control function).

NOTE: The humidity sensor needs 1 minute after switching on the power supply dryer to stabilize the analog output signal.

WARNING

IF THE DRYER IS EXECUTED WITH AIR HUMIDITY SENSOR, THE DRYER CAN ONLY OPERATE CORRECTLY IF THE DUST CAP IS MOUNTED ON THE AIR HUMIDITY SENSOR.

C141

Failure 27: No Humidity Reduction

Failure 27 occurs when the humidity value does not decrease within 60 minutes when the drying sequence is in progress. (Maximum drying time by humidity control is set default on 60 minutes.)

Failure 28: Lint Filter

Failure 28 occurs when the Lint Filter Door has not been opened for 40 succeeding cycles.

Check value of the Lint Filter Door Cycle Counter at the Running State-Service menu. (Special function button)

Diagnosing Failure 28	
1. The Lint Filter must be cleaned every day.	If the Lint Filter has not been cleaned for 40 days, open the Lint Door and clean the Filter. Close the door again. The Lint Filter Door Cycle will be reset.
2. Check if the Lint Filter Door Cycle Counter is reset by opening the Lint Door.	If the Lint Filter Door Switch is broken, replace the Lint Filter Door Switch. (Normal Closed Contact.)
3. Check if the Lint Filter Door Cycle Counter is reset by opening the Lint Door.	If the wiring is broken, repair the wiring.
4. Check if the Lint Filter Door Cycle Counter is reset by opening the Lint Door.	If the input of the control board is not correctly functioning, replace the control board.

Table 38

Failure 29: Timeout Cooldown

Failure 29 occurs when the Cooldown temperature is not reached in max. allowed time (120 minutes) (Temperature selected at Cooldown sequence)

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

Diagnosing Failure 29	
1. Check the air outlet system.	If the air flow is not sufficient, adjust the air outlet system.
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the heating system.	If the heating system is broken, repair or replace the heating system.
4. Check the heating contactor (valve)	If the heating contactor (valve) is not functional repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
7. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional anymore, replace the control board.

Table 39

Failure 35: Wrong Software Version

When a total new software that isn't downward compatible with previous software versions is loaded, then the software will detect that the old and new softwares are not compatible.You have to reconfigure the FULL CONTROL Dryer Computer. Refer to Initializing the machine.

WARNING

ALL THE CUSTOM SETTINGS WILL BE ERASED IN THE CONTROL DRYER COMPUTER BY LOADING THE FACTORY SETTINGS.

C142

After reinitialization of the FULL CONTROL Dryer Computer, fault 35 can only be erased by switching the power Off/On.

Failure 37: Too Hot Safety

Failure 37 occurs when the actual heating temperature rises above safety temperature 185°F [85°C] while the machine is running.

(24kg / 53lb / 33 L & 35kg / 77lb / 46 L ELECTRICAL HEATING ONLY : 212°F [100°C])

If at the end of the drying cycle, the temperature is above 185°F [85°C] (212°F [100°C]), the dryer will go on with the cool down sequence for 30 minutes (or until temperature below 149°F [65°C] or until open door).

The display will show “Hot“, indicating something is wrong.

Check Safety Thermostats ST1 & ST2 as they should switch off the heating system and prevent high temperatures.

(Refer to Monitoring Temperature Values).

A skilled and experienced technician must examine the heating and air outlet system before the machine is put in operation again.

WARNING

IF FAILURE 37 OCCURS WE CAN EXPECT THERE IS RISK OF BURN AND NECESSARY ACTIONS MUST BE TAKEN TO REDUCE TEMPERATURE.

C143

Diagnosing Failure 37	
1. Check the air outlet system.	If the airflow is not sufficient, adjust the air outlet system.

Table 40 *continues...*

Diagnosing Failure 37	
2. Check the temperature sensor.	If the temperature sensor is not measuring correctly, replace the temperature sensor.
3. Check the heating system.	If the heating system is broken, repair or replace the heating system.
4. Check the heating contactor (valve).	If the heating contactor (valve) is not functional, repair or replace the component.
5. Check the wiring.	If the wiring is damaged, repair the wiring.
6. Check the Safety Thermostats ST1 & ST2.	The Safety Thermostats should go open before failure 37 is generated.
7. Check the output relay that controls the heating system.	If the output relay is not functional, replace the control board.
8. Check the input Signal by monitoring the state at the Service menu.	If the input is not functional, replace the control board.

Table 40

Failure 41: Service Due

Service Due Err message is an indication that there must be a maintenance intervention.

Consult the Installation - Maintenance manual about the kind of the intervention that is required.

Err message 41 is just for informational purposes and the machine can still be operated, but to get rid of the Err message, a reset of the cycle counter is required.

(At the Initialization menu, the Service Interval Count can be adjusted.)

» Go to the "Reset Cycle Counter" menu item in the Service Menu.

- Select Yes to reset the cycle counter.

» Press the SERVICE-STATE button and select the corresponding screen to inspect the number of cycles that have been accumulated (service due).

Failure 42: Inverter error

Failure occurs if safety output of frequency inverter get opened during cycle.

Diagnosing Failure 42	
1. Check wires connection to the inverter.	Repair wiring, if there is any issue.
2. Check inverter internal errors.	Follow inverter manual to check internal inverter errors.

Failure 50: Wifi communication lost

Failure occurs if communication between control unit and wifi module is not functional.

Diagnosing Failure 50	
1. Check that wifi module is installed in machine.	If not, then deactivate item CC in L-menu
2. Check wires and USB converter between control and wifi module	If the wiring is not continuous: repair the wiring...
3.Check that SD card is correctly installed in Wifi module	Insert CD card correctly
4. Check supply of wifi module. Green LED must be ON on wifi module.	If supply LED is not ON then replace supply or wifi module

Failure 95: Watch Dog

If the watch dog has been activated, message 95 is logged in the Error log register. If this occurs often, ask the help of a technician.

Failure 150-165: Memory Errors

If a memory error occurs, then something is wrong with the EEPROM.

Try to reload the Programs. Check for source of electrical “noise“.

Failure 170-199: Sofware Errors

Software errors must never occur, if a software error message occurs, inform the manufacturer.

Humidity Control - Troubleshooting

The analogue value humidity sensor can be watched while drying the linen. This can be helpful for diagnostic purposes.

While dryer is running, programming switch in Program mode, press Status Button and Humidity Button and the analogue value humidity sensor is shown.

WARNING

THE HUMIDITY CONTROL SYSTEM IS NOT MADE TO RUN WITHOUT LOAD OR WITH A VERY SMALL LOAD. THE SYSTEM CAN ONLY FUNCTION IN A NORMAL WAY WHEN THERE IS SUFFICIANT EVAPORATION TO BE MEASURED BY THE AIR HUMIDITY SENSOR.

C133

WARNING

CHECK CORRECT DRYER OPERATION WITH A NORMAL AMOUNT OF WET LINEN.

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Troubleshooting problems with Humidity Control:

Operation with a small load of laundry

The humidity control system is not designed for operation without any load, or with a very small load. It is advisable to set the maximum dry time after which the drying operation will be terminated

- (Refer to chapter Programming the drying part).

Check dust filter cap

When humidity control does not work, check if the dust filter cap is missing. The dust filter cap is a white cover that must not be removed from the sensor device. The dust filter cap allows air to pass.

Check door lock system

When the dryer door is not completely closed, air from the room is sucked in the dryer. This causes a wrong air humidity measurement. Make sure the dryer can only run when the door is in the closed (locked) position. (When door is still 10 mm open, it should not be possible to start a dryer program.)

Check heating and airflow

The air humidity measurement can only function when there is sufficient water evaporation from the linen. Evaporation can only happen when the, air and indirectly the linen is sufficiently heated. If the dryer has to run with reduced heating power, the airflow must be sufficiently reduced so there is still evaporation.

Example:

- There is in sufficient Electrical Current available at the building.
- The dryer works with only 50% of it's electrical heating power.
- The airflow must be sufficiently reduced so there is still enough evaporation inside the dryer to allow optimal humidity control.

Check final drying temperature

At a normal drying process, the outlet air temperature reaches the programmed target value when the linen gets dry. For a correct drying process: when humidity control stops the dryer, the dryer must have reached, before the end of the drying cycle, the programmed target temperature value. If this is not the case, probably there will not have occured sufficient evaporation at the drying process because of reduced heating power. And the air humidity measurement will not have been accurate to allow optimal humidity control.

Linen must be sorted

A mixture of linen in the dryer can not result in an equal drying result. It is a good practice that the same kind of linen is sorted and dryed together, (Coton, Synthetic). In case of Humidity Control, a mixture of all kinds of linen will not give a good overall drying result.

Thin - Thick Fabrics

Thick fabrics, like jeans or trousers, need a long drying time. Dryer program will stop when fabrics are mostly dry, but inside pockets will still feel damp. In case of thin fabrics, where the linen is sewed together there may be damp spots. Humidity Control stops the dryer when the linen is dry, based on the measured air humidity.

Correct Load in Drum

Some fabrics need more space in dryer than others. It is important to choose the right size of dryer to obtain a good airflow.

- If there is more linen in the drum, the airflow will be restricted and the linen will not be dried evenly.

Service information

General

WARNING

PROFESSIONAL REPAIRS IN ELECTRO INSTALLATION CAN BE CARRIED OUT ONLY BY SERVICE ORGANIZATION WITH PERMISSION GIVEN BY PRODUCER / SUPPLIER.

IN CASE OF ANY MAINTENANCE OR REPAIR DISCONNECT THE MACHINE FROM SOURCE OF ENERGY AND WAIT UNTIL THE MACHINE COOLS DOWN.

PLEASE FOLLOW ALL INSTRUCTIONS IN THE MANUALS AND THE LABELS AS WELL AS VALID BASIC SECURITY LAWS IN ORDER TO PREVENT BURNS AND SCALDS AND INJURIES CAUSED BY ELECTRICITY, HEATING POWER SUPPLY, MECHANICAL MOVING PARTS.

C145

Maintenance

Remove dirt from the keyboard by a damp cloth after disconnection from the power supply.

WARNING

Do not use aggresive soaps, caustic chemicals, gasoline or other petrochemical substances which can damage the keyboard.

C082

Follow the instructions from the installation-maintenance manual.

Information for Service

WARNING

Every circuit board has a sticker placed on the eprom, which specifies the version and the date of the software. This data along with the machine serial no., order code must be given in all correspondence or inquiries to the manufacturer.

C085

XXX-VVV

XXX = (Software for the FULL CONTROL dryer computer)

VVV = Version

Programmer Circuit Board

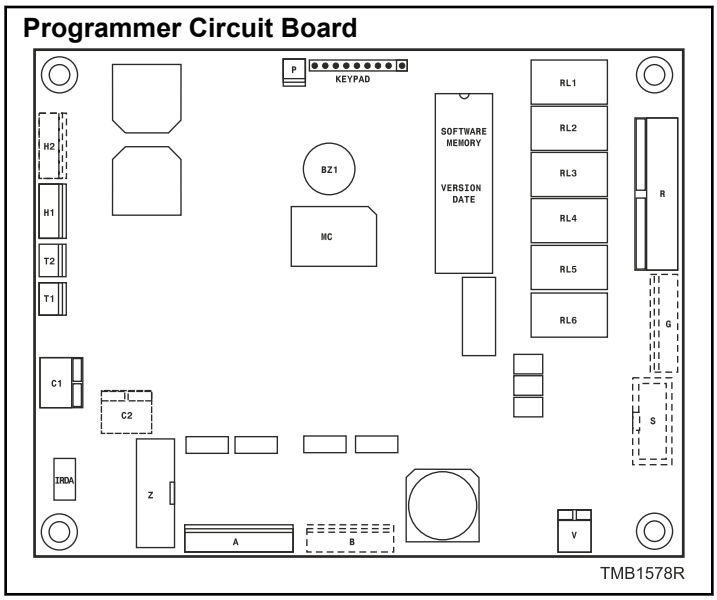


Figure 4

WARNING

Connection to the wrong voltage supply may cause serious bodily injury as well as damage to the electronic parts and to the wasching machine itself.

C083

- Voltage : 200-240 Vac, 50/60 Hz
- Power : max 16 VA
- Memory :
  - EPROM (contains the software)
  - EEPROM (contains the customized programs)
- Outputs : 6 relays
- Serial interface : RS485 (2 wire) networking between dryer computer and external device (PC Computer)
- Display : LCD display

Instructions for Replacing the Electronic Board and Keypad

- Switch off the main power supply.
- Open the front plate of the dryer.
- Turn the control board assembly holder to the front.
- Remove the connectors from the control board.
- Remove the combination keyboard - electronic timer by the rear side of the fascia panel.

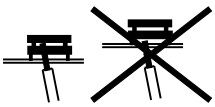
- Put the new combination keyboard – electronic timer into the machine and tighten the screws.
- Reconnect all the connectors.
- Turn the control board assembly holder back to its original position.
- Close the front plate of the dryer.
- Now you can Switch On the power supply.
- The display should illuminate.

WARNING

MAKE SURE THAT YOU DON'T DAMAGE THE FLEX CABLE OF THE KEYPAD WHEN YOU PUT THE CONTROL DRYER COMPUTER BACK INTO THE MACHINE.

C147

Instructions for Installing New Software



- Switch off the main power.
- Open the front plate of the dryer.
- Turn the control board assembly holder to the front until you have access to the control board.
- The EPROM with the implemented software is the only IC on the logic board that can be removed.
- Take the EPROM out of the IC-holder (by a dedicated tool) and replace it by a new one.
- Make sure that you put the new chip at the right position. See picture.
- Turn the control board assembly holder back to its original position.
- Close the cover plate of the dryer.
- Switch on the main power.
- The display should illuminate.
- If the software is compatible with the previous software: the new software can be used without reinitialization.
- You have to clear all the error messages in the Service-menu, if you want to make a correct inspection of the functioning of the new installed software.
- If the software is not 100% compatible with the previous software version:
  - The new software will generate a diagnostic message 35. When fault message 35 occurs, you have to reset the settings of the configuration and initialization menu.
  - This can be easily done by Selecting Reset Factory Settings in the Configuration Menu.
    - » This is explained in Chapter: Basic Description of Controls.
  - All the Custom Settings will be lost.
  - Go through the Menu items of the Configuration and Initialization Menu one by one to ensure that all the settings do correspond with the ones you prefer.
- Switch the power Off/On.
- Now the FULL CONTROL Dryer computer is ready to start a new cycle.