



# **IRONING MACHINE**

# **USER MANUAL**



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## COMPUTER

There are totally 100 programs in the computer all arrangeable as requested . You can program these programs according to the type of your washing articles inside your laundry.

Switching off the energy or energy interruption while your computer is in programming status may result that all or a part of the present data are lost. Do not allow change of these programs by unqualified persons. The machine may not function or malfunction.

The computer on your machine gives always warnings against problems. If a problem has occurred it will give you're a warning on the screen. The computer keeps also reports regarding the occurred defects and errors.

Entire software of the control panel available on the machine and R&D studies are developed by the Electric – Electronic R&D Team at the R&D Center within the structure of Tolkar Makine Sanayi ve Ticaret Anonim Sirketi. Therefore in case of panel replacement, the software of the program, which shall be downloaded to the panel and operated, is only provided by that R&D team. Therefore, definitely avoid downloading any software program to the panel, which are obtained from third parties other than Tolkar's authorized personnel.



Energy Supply Socket

Communication Socket

USB Socket







# SCREEN IMAGES AND UTILIZATION

## **PASSWORD SCREEN**

The control system has a password system in order to enable the user to protect the programs and parameters on the panel. When accessing areas, which require authorization, you need to be authorized. Sometimes you may need to enter also a password for the intended process. Failure to enter the correct password will prevent access to the screen or the relevant transaction will not be performed and your entrance will be prevented. The password assigned here by the fabric is "999999" for the operator and "101010" for the authorized. It is suggested to change these passwords after the machine installation. Otherwise processes to be performed by unauthorized and unqualified persons will result in malfunction of your machine or your machine will operated with low performance.

		14:05 08/04/2020
Ecolo	Jser Select	G IN Password Entrance
F OT	09-OPERATOR 10-TECHNICAL 11-TOLKAR SERVIS	****
		Close
		www.tolkar.com.tr

#### **ENTER PASSWORD**

Password consists of 6 digits and can include only numeric characters. After the user is selected touch the password section and ensure opening of the numeric screen. After completion of the password entrance finish the password entrance process using the button "ONAYLA" (CONFIRM). If the entered password complies with the authorization level of the screen, the screen will open. Authorization levels of the fields are shown in below table.







### ADD USER

After entering as authorized 8 difference users can be assigned for the personnel, who shall work with the machine. Assigned users select their own accounts and enter the password and the listings of the programs operated on the program are recorded to that accounts. Thus it is possible to observe how much work is done on the machine by which personnel.

In order to add a user, change the on/off option on the left section of the screen. Thus the user will become active.

Use	er Password Setti	ng	
No	Passive/Active	User Name	Password
1	OFF		
2	OFF		
3	OFF		
4	OFF		
5	OFF		
6	OFF		
7	OFF		
8	OFF		
	ADMIN	www.	tolkar.com.tr

After the user is activated, the username section needs to be completed and the password of that user needs to be entered to the password section.





Use	r Password Setti	ng	
No	Passive/Active	User Name	Password
1	ON		*****
2	OFF		
3	OFF		
4	OFF		
5	OFF		
6	OFF		
7	OFF		
8	OFF		
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Use	r Password Setti	ng	
No	Passive/Active	User Name	Password
1	ON C	USER1	*****
2	OFF		
3	OFF		
4	OFF		
5	OFF		
6	OFF		
7	OFF		
8	OFF		
	ADMIN	www.	tolkar.com.ti





Use	r Password Setti	ing	
No	Passive/Active	User Name	Password
1	ON	USER1	*****
2	ON	USER2	*****
3	OFF		
4	OFF		
5	OFF		
6	OFF		
7	OFF		
8	OFF		
	ADMIN	www.	tolkar.com.tr

## **EDIT PASSWORD**

The control system has a password system in order to ensure the protection of the programs and parameters of the users on the panel. . The password assigned here by the fabric is "999999" for the operator and "101010" for the authorized. It is suggested to change these passwords after the machine installation. Otherwise processes to be performed by unauthorized and unqualified persons will result in malfunction of your machine or your machine will operated with low performance. Press "DEGISTIR" (CHANGE) button in the section you want to change the password. Enter your password on the opening numeric screen and confirm. Your password will have been changed.

After necessary amendments are performed, press the arrow button at the right upper edge of the screen to return to the page of settings.

Password Entrance			
Operator Password	*****	Change	
Authorized Password	*****	Change	
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AUTHORIZATION LEVELS	Minimum Authorization Level
Area Name	
Start Program	Operator
Write Program	Operator
Copy Program	Operator
Program Reports	Operator
Parameters	Authorized
System Test	Authorized
Factory Settings	Authorized
Parameter Transfer	Authorized
Password Settings	Authorized
Date/Time Settings	Authorized
Network Settings	Authorized
Version Update	Tolkar Service
Maintenance	Tolkar Service
Language Selection	Authorized
Total Power Consumption Data Resetting	Authorized
Periodic Power Consumption Data Resetting	Authorized
Total Steam Consumption Data Resetting	Authorized
Periodic Steam Consumption Data Resetting	Authorized
Total Gas Consumption Data Resetting	Authorized
Periodic Gas Consumption Data Resetting	Authorized
Resetting Data of Number of Total Operating Programs	Tolkar Service
Resetting Data of Number of Periodic Operating Programs	Authorized
Total Weight	Tolkar Service
Periodic Weight	Authorized
Total Operation Time	Tolkar Service
Periodic Operation Time	Authorized
Total Standby Time	Tolkar Service
Periodic Standby Time	Authorized
Time Remaining to Maintenance	Authorized





## **START**

It is the first screen shown when power is supplied to the machine. This screen contains address and phone information. You can skip to the menu page if touching any place on the screen while being on this page.

TOLKAR
MAKİNA SANAYİ VE TİCARET A.Ş.
FLATWORK IRONER MACHINES CONTROL SYSTEM 2019
YERLİ ÜRETİM
ATATÜRK ORGANIZE SANAYİ BÖLGESİ 10036 SOKAK NO:4-6 ÇİĞLİ İZMİR - TURKEY +90 232 376 85 00 www.tolkar.com.tr
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The screen shown after the opening page includes warning for correct and relevant utilization of the machine. For the soundness and performance of the machine it is important to comply with these warnings. You can skip to the main page by means of the button "ONAYLA" (CONFIRM) on the right lower edge of the screen.







## **MAIN MENU**

After the opening screen the menu will be shown on the screen. Over the menu you can access to all screens and sub-screens. On the right upper section of the screen the date and time data is shown, and on the left lower section the password is entered and the name of the active user appears.

Touch the appropriate button on the screen for the intended process.



## **START PROGRAM**

It is the screen where the programs are operated, which shall conduct the ironing process. On the left section of the screen are the programs listed, which are loaded at the factory. On this screen select the program to be operated. After the selection is made the line with the program name turns into blue color. If you cannot see the program to be operated, you can move the list with the scroll bars at the side of the program list, which moves the list up and down.

After the program to be operated is selected, press the button "DEVAM" (CONTINUE) at the right lower section of the screen.





001-PROGRAM 001         002-PROGRAM 002         003-         004-         005-         006-         007-         008-         009-         010-         011-	PROGRAM SELECT	
002-PROGRAM 002 003- 004- 005- 006- 007- 008- 009- 010- 011-	001-PROGRAM 001	
003- 004- 005- 006- 007- 008- 009- 010- 011-	002-PROGRAM 002	
004- 005- 006- 007- 008- 009- 010- 011-	003-	
005- 006- 007- 008- 009- 010- 011-	004-	
006- 007- 008- 009- 010- 011-	005-	
007- 008- 009- 010- 011-	006-	
008- 009- 010- 011-	007-	
009- 010- 011-	008-	
010- 011-	009-	
011-	010-	Continuation
	011-	-
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The control panel has a reporting system, which records the operated programs, date and time of their operation, total operation time, stand-by time, operating user, consumed power, steam or gas amounts.

After the data are entered press the button "DEVAM" (CONTINUE) on the right lower section of the screen. The machine becomes ready to operate according to the data entered in the program selected by you, and the work page opens. Over the opened page the heating, cooling, forward or backward operations can be selected, and the intended program can be operated.

### **WORK PAGE**

After the program is started, the control system starts to perform continuously measuring on the machine. The values on the screen have following meanings.

- 1. The area where the operating program name is displayed.
- 2. The area, where the symbol of the step applied by the machine in that moment is displayed. The area where the read cylinder cycle is displayed.
- 3. The area where the machines instant cylinder temperature is displayed.
- 4. The area where the process is written, which is realized by the machine.
- 5. The area where the required temperature value of the machine in the operated program is displayed.
- 6. Button of skipping to the page where machine's operation curve is displayed.
- 7. Time display area.
- 8. Area where the size of the clothes is displayed, which is passing through the front supplying cylinder of the machine.
- 9. Button for finishing the program and leaving the page.



SMART

- 10. Area displaying the movement of the machine cylinder.
- 11. Button ensuring that the machine switches to the heating phase.
- 12. Area showing which user is operating the machine entering its password.
- 13. Area showing the instant cylinder velocity.
- 14. Button ensuring that the machine switches to the cooling phase.
- 15. Button ensuring the machine rotates the cylinder in backward direction.
- 16. Area showing the required cylinder velocity of the machine.
- 17. Button ensuring the machine rotates the cylinder in forward direction.
- 18. Button ensuring that the machine reduces the required cylinder velocity.
- 19. Button ensuring that the machine increases the required cylinder velocity.
- 20. Button ensuring that the machine activates and deactivates the folding function.
- 21. Button ensuring that the machine reduces the required cylinder temperature.
- 22. Button ensuring that the machine increases the required cylinder temperature.

## MANUAL CONTROL

The cylinder cycle and operation temperature can be changed during the program operation in the content of the written program. Changes in this section are applied without being recorded to the program. After the program is finished the changed value returns to its former value.





**In order to change the cylinder cycle;** touch the area "İSTENİLEN SİLİNDİR DEVRİ" (REQUESTED CYLINDER CYCLE) shown in below picture with number 1. Enter on the opening numeric screen the appropriate value and confirm. Touching the areas no.3 and 6 simultaneously you can ensure a change of 0,5 units value.

In order to change the requested temperature; touch the area "ISTENILEN SILINDIR SICAKLIGI" (REQUESTED CYLINDER TEMPERATURE) shown in below picture with number 4. Enter on the opening numeric screen the appropriate value and confirm. Touching the areas no.2 and 5 simultaneously you can ensure a change of 5 units value.



When the finish button is pressed in the operating program, below warning screen will be displayed. Touch the appropriate box and ensure either finishing or continuance of the program.







If it is desired to stop the program while operating, below warning sign will appear on the screen, when the machine temperature has not the appropriate value. Touching the appropriate option you can switch the machine to the cooling step or finish the program.

ILOI		08:38
	Haating	
Machine There Is A Fire	Temp. Is Higher Then Cool Risk, So Please Unload Pr Or Start Cooldown Ste	down Temp. !!! oducts From Machine ap
	Please Select A Butto	on.
Cooldow	n Program Finish	Cancel
	9 🗸	
	10	www.tolkar.com

After the operating program is finished a program related report is created by the control panel. Further this report is recorded to the program report section. The power, gas and steam consumptions mentioned in the report are the calculated consumption and may differ from the actual values.

## WRITE / EDIT PROGRAM

It is the screen where the programs, which shall perform the ironing process, are written and edited. On the left section of the screen are 10 ready programs listed, which are load to the machine at the factory. On this screen the written program can be edited pressing the button "PROGRAM DÜZENLE" (EDIT PROGRAM), and an empty program can be selected scrolling the list in the program list down by means of the up- and down buttons, and proceeded; the selected program can be copied to another program, these programs can be saved on a USB memory.





Program Write / Edit	
001-TOWELS 002-SHEETS 003-PIQUES 004-UNDERWEAR 005-COATS 006-TABLECLOTH 007-NAPKINS 008-WOOLLENS 009-DELICATE 010-BLANKETS 011-	Program Edit Delete Program Copy
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Pressing the button "PROGRAM DÜZENLE" (EDIT PROGRAM) on this screen, displays the the content of the selected program. This page contains the parameters to be applied by the machine when operating in heating phase.

In order to name a program or to change an existing program name; first touch the area at the upper section of the screen, where the program name is written. Thereafter a keyboard will appear. Enter by means of the appeared keyboard the name you want to assign to the program. After the program name is entered press the button "ENTER" to confirm the name.

Program BLANKETS	
BLANKETS	
1 2 3 4 5 6 7 8 9 0 [BackSpace] ' Q W E R T Y U I O P [ ] [Esc] A S D F G H J K L [Enter] [CapsLk] Z X C V B N M , . / \ [Clear] [Space] + - *	
ADMIN www.tolkar.com	.tr

## **HEATING SETTINGS**

After the program name is assigned, touch the value on the screen will enable you to change the value or to exit the numeric screen and to enter a value. After the entire value is entered press the button "CIK" (EXIT) at the right upper corner of the screen and finish the program writing.





The explanations of the values here and program labels are as follows.

#### Ironing Temperature

The value indicating the temperature at which the clothes shall be dried.

#### Ironing Velocity

The value indicating the cylinder rotation cycle of the machine in the heating phase. This may need to be changed depending on the property, tissue and humidity of the clothes.

Program	PROGRAM 001			EXIT
Ironing	Temperature 150 °C	Irc	oning Spe 5.00	ed mt/min
Length	oFF			
	I		www.to	lkar.com.tr

After the appropriate values are entered on the program writing page press the "CIK" (EXIT) button at the right upper corner of the screen. Saving status of the program written on the screen appears. By means of the option "KAYDET" (SAVE) the changes you made will be saved on the program and the screen returns to the write/edit page. If the option "KAYDETME" (DO NOT SAVE) is selected, the performed changes will not be saved and the screen returns to the write/edit page. Selecting the option "IPTAL" (CANCEL) the question page will close and performing changes on the program will be enabled. Selecting the option "DEFAULT" the performed changes will be saved by the screen and if a new program shall be written, the values in the opening program will be opened as the values of that written program. This situation may save you time when writing a similar program.







## **DELETE PROGRAM**

In order to delete a program from the program list, touch on that program. The line of the selected program will turn into blue color. After the program is selected press the button "PROGRAM SIL" (DELETE PROGRAM). A warning page appears on the screen. Confirming the appeared warning by pressing the button "EVET" (YES) will delete the program. Pressing the button "HAYIR" (NO) it is possible to cancel the process.

Program Write	/ Edit	
001-TOWELS		
002-SHEETS		
003-PIQUES	Selected Program Will Be Deleted	
004-UNDERWEA		
005-COATS	Are You Sure?	
006-TABLECLOT		
007-NAPKINS	Yes No	
	Delete	Program
	Program	Сору
010-BEANICE 13		
	·	
	w	ww.tolkar.com.tr

Program Write / Edit		
001- 002-SHEETS 003-PIQUES 004-UNDERWEAR 005-COATS 006-TABLECLOTH 007-NAPKINS 008-WOOLLENS 009-DELICATE 010-BLANKETS 011-	▲ New Program	
	www.tolkar	.com.tr

After the program deletion is realized, the name of the deleted program will look empty.





## **COPY PROGRAM**

To copy a program from the program list to another program, touch on that program. The line of the selected program will turn into blue color. After the program is selected press the button "PROGRAM KOPYALAMA" (COPY PROGRAM). A warning page appears on the screen. On the appearing page it is mentioned on which program the selected program shall be copied. Touch the area with the program number and display the numeric screen and confirm entering the number of the program you want to copy. Thereafter the process is confirmed by pressing the button "EVET" (YES) the program will be copied on the selected program. Pressing the button "HAYIR" (NO) the process can be cancelled.

Program Write	/ Edit	
001-TOWELS 002-SHEETS 003-PIQUES 004-UNDERWEA 005-COATS 006-TABLECLOT 007-NAPKINS 008-WOOLLENS 009-DELICATE 010-BLANKETS 011-	1 Program No 1 Program No Will Copy to Are You Sure? Yes No Program	Program Copy
	W	ww.tolkar.com.tr







## COPYING A PROGRAM FROM AN USB DEVICE OR TO AN USB DEVICE

If an USB device is plugged in to the panel, this will be detected by the panel and activate some functions. When an USB device is plugged in, panel programs are listed on the left section of the screen, and on the right section the programs available on the USB device. If previously a program transfer is made into that USB memory these will be listed on the right of the screen.

Panel Programs			USB PROGRAMS	
001-TOWELS			TOWELS	
002-SHEETS		From Panel To USB		
003-PIQUES		10 000		
004-UNDERWEAR				
005-COATS		From USB		
006-TABLECLOTH		To Panel		
007-NAPKINS		-		
008-WOOLLENS				
009-DELICATE		USB Format		
010-BLANKETS	-			

#### Copying from the Panel to an USB Device

In order to copay a program from the program list to an USB device, touch on that program. The line of the selected program will turn into blue color. After the program is selected press the button "PANEL'DEN USB'YE" (FROM PANEL TO USB). A copying warning page appears on the screen and the program will be copied to the USB device.

Program USB Copy Panel Programs			
001-TOWELS 002-SHEETS 003-PIQUES	▲ 	From Panel To USB	
004-UNDERWEAR 005-COATS			
006-TABLECLOTH 007-NAPKINS			
008-WOOLLENS 009-DELICATE		USB Format	
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#### Copying from an USB Device to the Panel

In order to copay a program from an USB device to the panel, touch on that program. The line of the selected program will turn into blue color. After the program on the USB device is selected, select the number of the program on the panel to which the selected program shall be copied. After the selection is made, press the button "USB'DEN PANEL'E" (FROM USB TO PANEL). A copying warning page appears on the screen and the program will be copied from the USB device to the panel.



## **REPORTS**





Consuumption	Report		
	Periodic Consumptions	Total Consumptions	TempHum. Graphic Reports
			4-11
ADMIN		WW	w.tolkar.com.tr

## **PROGRAM REPORTS**

The control system has a reporting system, which saves the operation status. This reporting includes the data related every program operated. These data can be copied plugging in an USB device to the control panel and evaluated as excel format. These data are following.

#### <u>User</u>

Indicates the name of the operator assigned selecting the user and entering the password.

#### Program Name

Indicates the name of a selected program.

#### **Starting Time**

Indicates the date and time showing when the program is operated by the program operating user.

#### Total Time

Indicates the total operation time of the program.

#### Fan – Motor Power Consumption

Indicates the power consumption spend by the fan and cylinder motors when operating the program.

#### **Steam Consumption**

Indicates the steam consumption spend when operating the program.

#### **Resistor Power Consumption**

Indicates the steam consumption spend by the resistors when operating the program.

#### **Gas Consumption**

Indicates the gas consumption spend by the gas system when operating the program.

#### **Total Power Consumption**

Indicates the power consumption when operating the program.

In order to see the values not shown on the page use the scroll bars at the right under the report page.





Further you can see older records from the date tab at the right section of the screen.

NO 1	User	Program Name	Start Time	Total		
	1	1	1		÷	Copy to

## **PERIODIC CONSUMPTIONS**

In this section of the control system are the general totals of the data from the reporting page during the operation of the machine available. These data can be deleted by the authorized pressing the button "RESET" next to the value. These data are following.

# Number Total Operated Programs

Indicates the number of operated programs.

### <u>Total Operation Time</u> Indicates machine's total operation time.

#### <u>Total Standby Time</u>

Indicates machine's total standby time.

#### **Total Power Consumption for Motion**

Indicates the total power consumption spend by the fan and cylinder motors of the machine.

#### **Total Power Consumption for Heating**

Indicates the total power consumption spend by the resistors of the machine.





#### **Total Steam Consumption for Heating**

Indicates the total steam consumption spend by the machine.

#### **Total Gas Consumption for Heating**

Indicates the total gas consumption spend by the gas system of the machine.

#### **General Total Power Consumption**

Indicates the total power consumption of the machine.

#### Maintenance Time Interval

Indicates the time remaining until the machine maintenance.

PERIODICAL CONSUMPTION	s 🥎
Total Activated Program Number	0 Times Reset
Total Working Time	0 hour Reset
Total Electric Consumption For Movement	0.000 kW Reset
General Total Electric Consumption	0.000 kW Reset
Total Folding	0 Pieces Reset
Maintenance Time Difference	0 / 200 hour
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#### TOTAL CONSUMPTIONS

In this section of the control system are the general totals of the data from the reporting page as of initial installation of the machine available. These data can be delete by an authorized pressing the button "RESET". These are following.

#### Number of Totally Operated Programs

Indicates the number of operated programs.

#### **Total Operation Time**

Indicates the total operation time of the machine.

#### **Total Standby Time**

Indicates the total standby time of the machine.

#### **Total Power Consumption for Motion**

Indicates the total power consumption spend by the fan and cylinder motors of the machine.

#### **Total Power Consumption for Heating**

Indicates the total power consumption spend by the resistors of the machine.

#### Total Steam Consumption for Heating





Indicates the total steam consumption of the machine.

#### Total Gas Consumption for Heating

Indicates the total gas consumption spend by the gas system of the machine.

#### **General Total Power Consumption**

Indicates the total power consumption of the machine.

#### Maintenance Time Interval

Indicates the time remaining until machine's maintenance.

Total Activated Program Number	0 Times Reset
Total Working Time	0 hour Reset
Total Electric Consumption For Movement	0.000 kW Reset
General Total Electric Consumption	0.000 kW Reset
Total Folding	0 Pieces Reset
Maintenance Time Difference	0 / 200 hour Reset

## **TEMPERATURE – VELOCITY GRAPHIC SCREEN**

Every time a program is operated, the control system on the machine saves automatically every 10 seconds the date and time data, the temperature and velocity values read from the machine. By means of these records the temperature – velocity graphic is created. By means of this graphic the status of the machine cylinder can be monitored. These data can be copied plugging in an USB device to the control panel and evaluated in excel format. In order to display this graphic press the graphic button at the right upper corner of the screen on the work page. The graphic appears on the screen. On the vertical axis is the temperature displayed, and on the horizontal axis the time is displayed. The red value indicated on the graphic is the temperature value, the blue one is the cylinder velocity and the black one is the value indicating the heater status.

On the left upper section of the screen are the instantly read values displayed. When touching any point on the graphic, the values pertaining to the touched time will appear in the area at the right upper section of the graphic.





Actual	Cylinde Cylinde	er Tempe er Speed	erature 0.00	0°C ∫mt/min	Selecte Point	ed Cylind Cylind	ler Temp ler Spee	erature d 0.0	0°C 0 mt/min	1
09:32										50
160										40
120										30
80										20
40										10
19:31	09:38	09:46	09:53	10:01	10:08	10:16	10:23	10:31	10:38	10:4
• •										<u> </u>
👤 A	DMIN						\	www.te	olkar.c	om

## **INVERTER MONITORING**

The control system receives via communication information from the inverter controlling the cylinder motor in the machine and gives commands. This feature gives the opportunity to monitor the inverter online. In order to monitor the inverter values during the operation, press long on the cycle value read from the work page during the operation. The inverter monitoring screen appears. Following values are available on this screen.

#### **Target Frequency**

It is the value indicating the frequency submitted by the control panel to the inverter and required to be applied by the machine to the cylinder motor.

#### **Output Frequency**

It is the value indicating the frequency applied by the inverter to the cylinder motor of the machine.

#### <u>DC Bar</u>

It is the value indicating the DC bar voltage of the inverter.

#### **Output Power**

It is the value indicating the power applied by the inverter to the cylinder motor of the machine.

#### **Output Voltage**

It is the value indicating the voltage applied by the inverter to the cylinder motor of the machine.

#### **Output Current**

It is the value indicating the current applied by the inverter to the cylinder motor of the machine.

#### Inverter Al Ch 0

It is the value indicating as analog the temperature value received by the inverter from the first temperature card of the machine.

#### Inverter Al Ch 1

It is the value indicating as analog the temperature value received by the inverter from the second temperature card of the machine.





HAVLULAR				20:35		
Bekleme Durumu						
Hedef Frekans	54.50	Hz	Çıkış Voltajı	380	V (	
Çıkış Frekansı	54.50	Hz	Çıkış Akımı	1.12	A	
DC Bara	535	v	Inverter AI Ch 0	2.31	v	
Çıkış Gücü	0.68	kW	Inverter AI Ch 1	4.70	v	
BEKLET	ISITMA		SOĞUTMA		BİTİR	
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## **TEST PAGE**

The control system has a test page showing the sensor and switch systems (inputs) and receivers (outputs) in the machine. The inputs are the ones shown here in the upper section in green color, and the outputs are shown in red color. On each of these are their numbers in the PLC system and their meanings written. Further these numbers are showing the cable numbers on the electric control board. On this page it is possible to control the operation status of the systems. The active section will change color.







## **TEMPERATURE CALIBRATION**

The control panel of the machine has a sensor calibration page purposing to ensure the accuracy of the values measured by the temperature sensors available on the machine. Deviations originating from the sensors and electronic components available on the machine may occur. Calibration is required in order to prevent mismeasurements, which may be caused by these tolerances. Calibration is required after replacement of machine equipment i.e. inverter, sensor or sensor card. Otherwise your clothes or your machine could be damaged caused by mismeasurements.

To skip to the sensor calibration page press long on the temperature value read while being on the work page. There are calibration parameters for the temperature sensor on the left section on this page. Follow below instructions for temperature calibration.

#### **Temperature Calibration**

Make sure that the value of the "OLCULEN ANALOG" (MEASURED ANALOG) on the upper section is between zero and 1000. If not, check the sensor, sensor card and sensor connections.

Take any clothes out of the machine, if any. Turn the machine into cooling function and operate until the operating ambient temperature is reached. First perform measurements from the machined cylinder by means of a temperature measuring device of which you are sure that it is calibrated and is making accurate measurements. Enter the value read from the measuring device on the numeric screen, which appears after touching the area "S 1" on the screen, and press button "KALIBRASYON" (CALIBRATION) next to the value. The value in the measured analog section is written in area "A 1".

Thereafter switch the machine to the heating function in a manner that its operates at maximum temperature, and start the machine. The value in the measure analog section will increase along the increasing temperature. If not, check the sensor, sensor card and sensor connections. Perform measurements from machine's cylinder using a temperature measuring device of which you are sure you are sure that it is calibrated and is making accurate measurements. Enter the value read from the measuring device on the numeric screen, which appears after touching the area "S 2" on the screen, and press button "KALIBRASYON" (CALIBRATION) next to the value.





After values complying with the "S 1" and "S 2" values on the sceen are entered press the button "HESAPLA" (CALCULATE). In the "SONUC" (RESULT) section the calibrated value will be shown, which is calculated by the control panel.



## WARNING and ALARMS

The control panel on the machine warns the user against errors and warnings occurred during the operation of the machine. These are two types as warning and malfunction status.

## **Warning Status**

In such a case the machine will continue to operate, however the heating system will be deactivated. On the screen the reason of the warning status will appear. After the reason of the warning status is eliminated, the machine switches over into "BEKLEME DURUMU" (STANDBY STATUS) or continuous to operate. Warnings statuses are following.

#### High Machine Temperature

Indicates, that the cylinder motion is stopped, while the cylinder temperature of the machine is higher than the cooling temperature. In such a case the machine has to be switched to the cooling step and rotated. Otherwise the ironing belts on the machine will be damaged and the ironing quality will reduce.

#### Hand Protection System Activated

Indicates, that the hand protection system, which is located on the front supplying system of the machine from where the clothes are supplied and which protects hands from squeezing, is activated and has stopped the machine.

#### **Gas Ignition Failure**

Indicates, that ignition is re-tried in the number mentioned in the system settings, due to failure of a correct ignition in the gas control system of the machine, however that these attempts were unsuccessful. Check the gas pressure, ventilation system and cleanness of the filter system.





#### High Funnel Temperature

Indicates, that the temperature of the funnel connected to the gas burning system of the machine is higher than the required value. Check whether the ignition is correct and that the funnel system is not blocked, and check also the compliance of the gas utilization with the machine capacity.

## **Alarm Status**

In such a case the machine will stop and the program will be terminated. All outlets will be closed. A malfunction icon will appear on the screen. Touching this icon will display the malfunction page. On the appeared page the reason of the malfunction status will be mentioned. Touching on the mentioned malfunction will display an information page showing the reason of the malfunction and troubleshooting way. After the here mentioned procedures are performed and malfunction is eliminated you can close this page pressing the button "KAPAT" (CLOSE). Further, touching the date section on this page a list of malfunctions occurred on the machine at the selected date appears. Malfunction statuses are following.









#### Check the Phase Order

A phase order alteration at the power inlet of the machine or voltage fluctuations occurred. Check the power inlet of the machine and the phase order.

#### Emergency Stop Button Pressed

The red colored EMERGENCY STOP button on yellow ground available on the machine is pressed. Turn the red colored cork button on yellow ground to the right and open it.

#### **Motor Thermal Protection**

Indicates that the motor protection thermic switch of the machine has disconnected the circuit. Perform necessary voltage and current controls. After having performed the controls, re-press the cocking button on the thermic switch and set the system.

#### Left Door Open

Indicates that the safety door of the drive group consisting of machine's motor, drum and gears is open. Perform the controls and then close the door.

#### Right Door Open

Indicates, that the safety door of the section of machine's electric equipment is open. Perform the controls and then close the door.

#### Upper Door Open

Indicates, that the upper safety door, where machines first inlet cylinder is located, is open. Perform the controls and then close the door.

#### Gas Control System

Indicates, that machine's gas control system failed ignition despite to many attempts. Check the gas pressure, perform the funnel control and ventilation installation controls and then re-start the machine.

#### **Rotation Data Reading Failure**

Indicates, that the encoder measuring system, which receives the rotation data of the machine, is out of order and is not measuring. Control over the system settings the compliance of the parameters and then make sure that the encoder device is moving simultaneously with the cylinder and that the encoder is functioning.

#### **Heating Failure**

Indicates that the targeted temperature increase does not happen a certain time after machine's heaters have stepped in. According to the type of machine's heating system; check if he resistor fuses are open and the resistors are functioning, and that the steam pressure and steam trap is appropriate and functioning, and that the gas pressure is appropriate and burning is sound.

#### Heater Temperature Limit is Exceeded

Indicates, that the surface temperature of the heater system on the upper section of the machine has increased and that the limit thermostat switch has disconnected the circuit. – Check the fan, filter system, funnel exhaust system and cleanness of the air inlet points on the heater system and that the air ways are open.





#### Maintenance Time Warning

Indicates, that it is time for machine's maintenance. Perform the controls as mentioned in the user manual and lubricate the required points with the suggested lubricant. After the maintenance process is finished, reset the maintenance time from the settings section.

#### Hmi - Plc Communication Failure

Indicates, that the machine screen is not communicating with the PLC control unit. Check if the 9-pin communication socket plugged in to the communication section of machine's screen is plugged. Check if the 9-pin communication socket plugged in to the communication section of the PLC control unit is plugged.

#### Inverter - Plc Communication Failure

Indicates, that machine's inverter is not communicating with the PLC control unit. Check the communication cable plugged in to the communication section of the inverter unit. Check if the cable plugged in to the communication section of the PLC control unit is plugged in.

#### **Uncontrolled Temperature Increase**

Indicates, that the machine temperature is increasing despite to that the heating system within machine's structure has reached the set temperature of the machine. Check if the valve, reel, contactor system, which controls the heater system, is functioning properly. Check the accuracy of the temperature measured by the machine.

#### **Inverter Motor Protection Status**

Indicates that machine's motor control device (inverter) has disconnected the circuit in order to prevent damaging of the motor. Perform required voltage, current and cylinder load controls. After having performed the controls press the RESET button on the inverter and set the system. Record the error code on the screen in order to assist the technical team.

#### **Plc Critical Battery Level**

Indicates, that the battery level on the PLC control unit of the machine is under the required level. Replace the battery on the PLC without turning off machine's power.

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