WASHING MACHINE

USER MANUAL



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COMPUTER

There are totally 100 programs available in the computer of which 10 can be prepared as default. You can program these according to the laundry article type in your laundry.

Disconnecting or cutting the power while your computer is programming may cause that all or part of existing information are lost. Do not allow unqualified persons to change these programs. The machine may not function or malfunction.

The computer on the machine gives always warnings against problems. In case of occurrence of a problem a warning will be shown on the screen. Further the computer keeps reports related to occurred defects and errors.

Entire software of the control panel on the machine has been created by the Electric-Electronic R&G Team of the R&G Center within the structure of Tolkar Makine Sanayi ve Ticaret Anonim Sirket. Therefore, software of the program to be downloaded to the panel and operated in case of panel replacements is only provided by this R&G Team. Thus definitely do not download any software programs obtained from third parties, other than the ones from Tolkar's authorized personnel.



Energy Feeding Socket Communication Socket USB Socket



SCREENSHOTS AND UTILIZATION

PASSWORD SCREEN

The control system has a password system available to the user purposing to protect the programs and parameters on the panel. When entering areas requiring authorization, you need to be authorized. In some cases a password will be requested for the desired process. Failure to enter the correct password will prevent entering the screen or relevant process will not be executed and your entrance will be prevented. Passwords defined by the factory are “9999999” for the operator and “101010” when authorized. It is suggested to change these passwords after installation of the machine. Otherwise procedures to be performed by unauthorized and unqualified persons will cause malfunction of the machine or operation with low performance.



ENTER PASSWORD

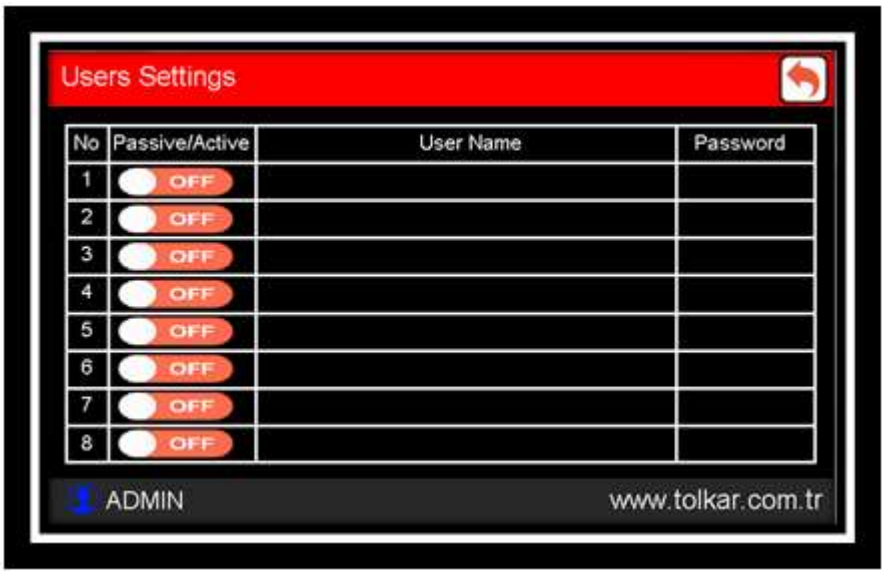
Password is constituted of 6 digits and can only include numeric characters. After user selection touch the password section and open the numeric screen. After the password is entered press button “ONAYLA” (CONFIRM) to complete the password entrance process. The screen will open if entered password complies with the authorization level of the screen. If the password is wrong or unauthorized for that screen, a message “SIFRE HATALI” (WRONG PASSWORD) will be shown at the lower part of the screen. Authorization levels of the areas are shown in below table.



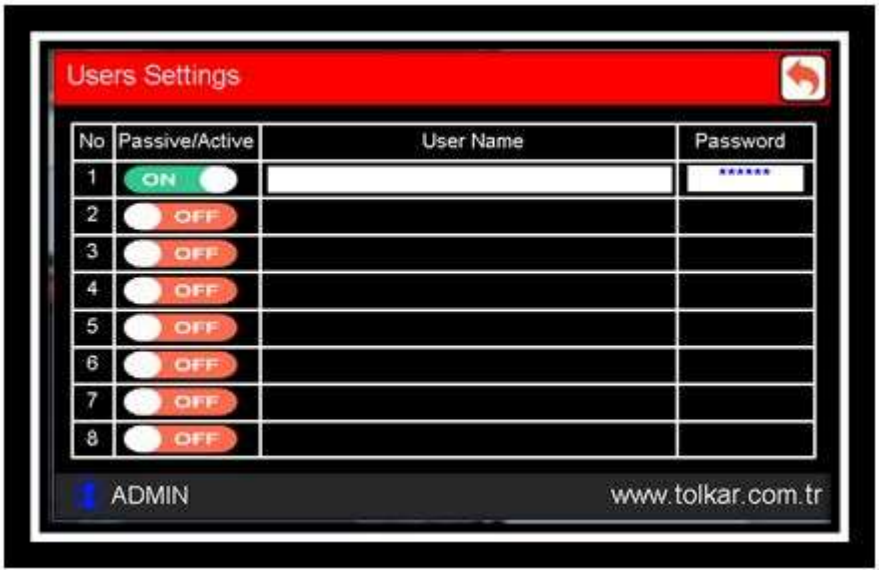
ADD USER

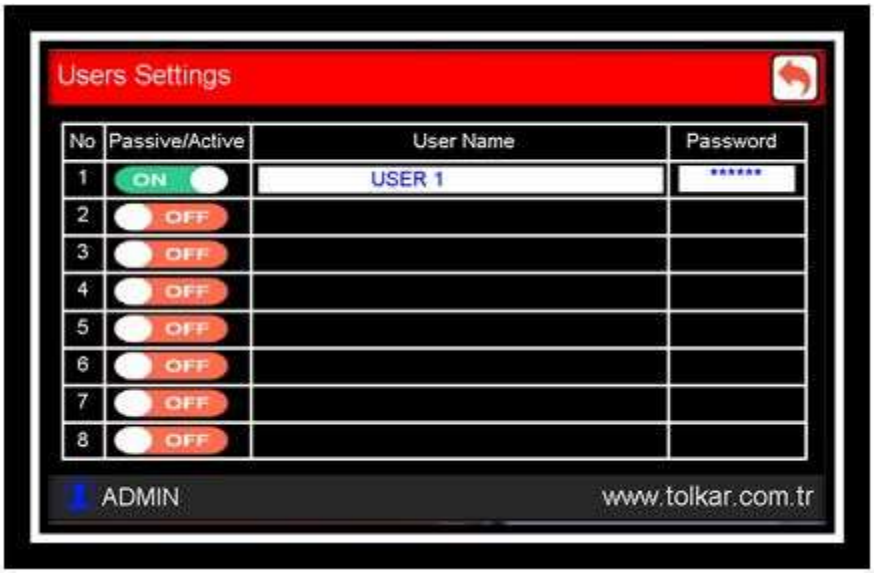
After entering as authorized, 8 different users are definable for the personnel, who shall operate the machine. After designated users have selected their own accounts and entered the password, listing of programs operated on the machine are recorded to that accounts. Thus it can be observed how much work is produced by which personnel on the machine.

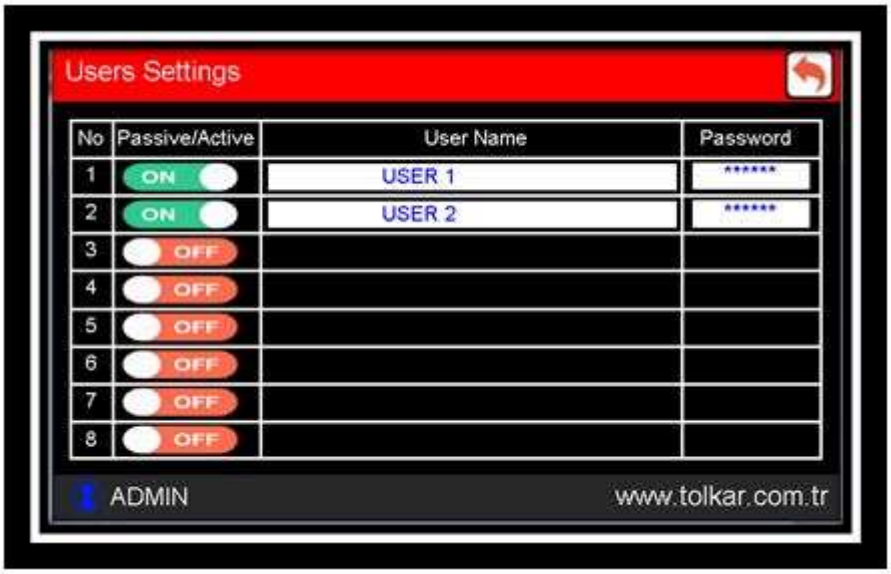
Change the option on/off at the left of the screen in order to add user. Thus the user is activated.



After activation of the user complete the user name section and enter the password of that user into the password section.


Users Settings
No
Passive/Active
User Name
Password
1 ON
2 OFF
3 OFF
4 OFF
5 OFF
6 OFF
7 OFF
8 OFF
ADMIN
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Users Settings
No
Passive/Active
User Name
Password
1 ON USER 1
2 OFF
3 OFF
4 OFF
5 OFF
6 OFF
7 OFF
8 OFF
ADMIN
www.tolkar.com.tr

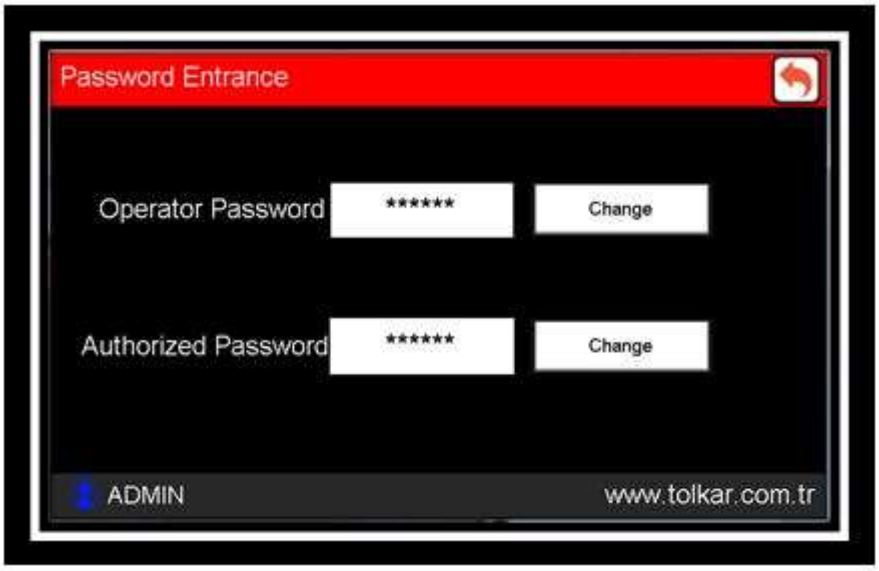

Users Settings
No
Passive/Active
User Name
Password
1 ON USER 1
2 ON USER 2
3 OFF
4 OFF
5 OFF
6 OFF
7 OFF
8 OFF
ADMIN
www.tolkar.com.tr

EDIT PASSWORD

The control system has a password system available to the user purposing to protect the programs and para meters on the panel. Passwords defined by the factory are “9999999” for the operator and “101010” when authorized. It is suggested to change these passwords after installation of the machine. Otherwise procedures to be performed by unauthorized and unqualified persons will cause malfunction of the machine or operation with low performance.

To change the password press button “DEGISTIR” (CHANGE) in the section to be changed. Enter your password over the numeric screen appearing on the screen and confirm. Your password will have been changed.

After required changes are made, return to the page of setting using the arrow button at the upper right corner of the screen.





AUTHORIZATION LEVELS Zone Name	Minimum Authorization Level
Start Program	Operator
Write Program	Operator
Copy Program	Operator
Program Reports	Operator
Parameter	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
Reset Total Electricity Comsumption Info	Authorized
Periodic Electricity Consumption Info Reset	Authorized
Reset Total Steam Consumption Info	Authorized
Periodic Steam Consumption Info Reset	Authorized
Reset Total Gas Consumption Date	Authorized
Periodic Gas Consumption Data Reset	Authorized
Reset Total Operating Program Number Info	Tolkar Service
Periodic Operating Program Number Info Reset	Authorized
Total Weight	Tolkar Service
Periodic Weight	Authorized
Total Operation Time	Tolkar Service
Periodic Operation Time	Authorized
Total Stand-By Time	Tolkar Service
Periodic Stand-By Time	Authorized
Remaining Maintenance Time	Authorized

STARTUP

This is the initial screen shown when power is supplied to the machine. This screen figures the address and phone details. Touching anywhere on the screen while being on this page, you can skip to the menu page.



The next screen after the startup page figures warning for accurate and relevant utilization of the machine. Complying with the warnings shown here is essential for machine's health and performance. To skip to the main page press button "ONAYLA" (CONFIRM) at he lower right corner of the screen.



MAIN MENU

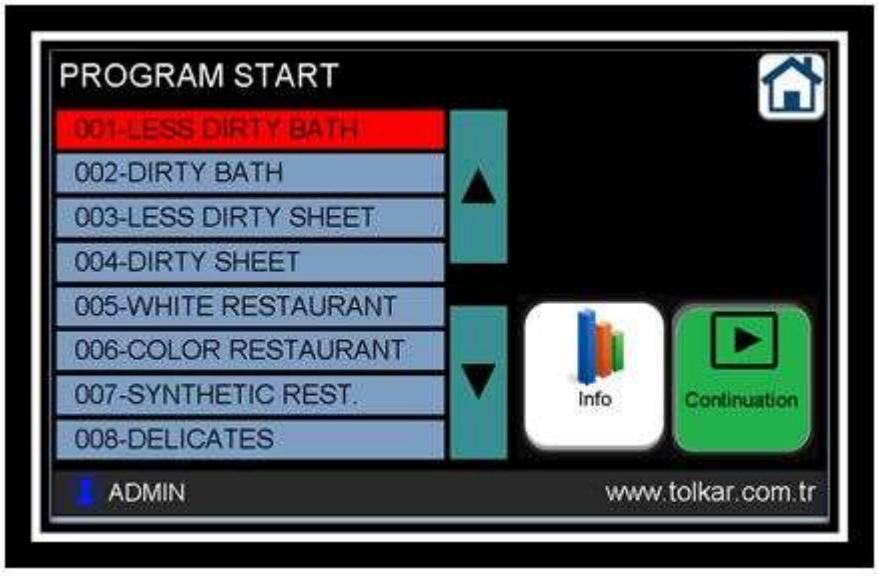
Menu screen is the next after the startup screen. All screens and sub-screen are accessible over the menu. On the upper right screen corner are the date and time info is figured, and entering the password at the lower left corner figures the name of the active user. Press the appropriate button on the screen for the process to be performed.



START PROGRAM

This is the screen over which the drying programs are operated. On the left of the screen are the programs listed, which are loaded at the factory. Select on this screen to program to be operated. After selection is made the line with the program name will turn into blue. If you should not see the program to be operated on the screen, scroll the list using the up- and down scroll bar at the side of the program list.

After selection of the program to be operated, press “DEVAM” (CONTINUE) at the lower right screen corner.

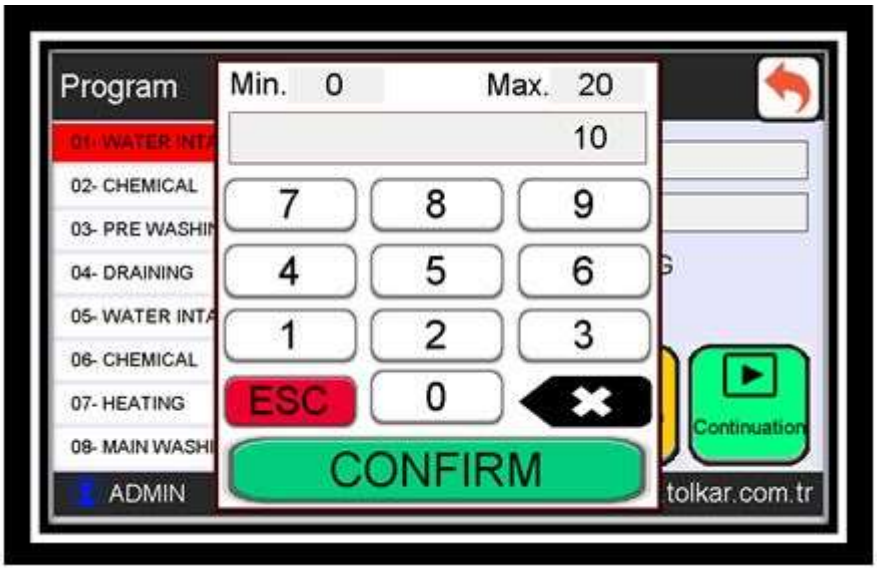


The control panel has a reporting system, which records the operated programs, operation date and time, total operation time, stand-by time, operating user, consumed electricity, steam or gas amount.

After entering the data press button “BASLAT” (START) at the lower right screen section. The machine will start to operate in the selected program according to the entered data.



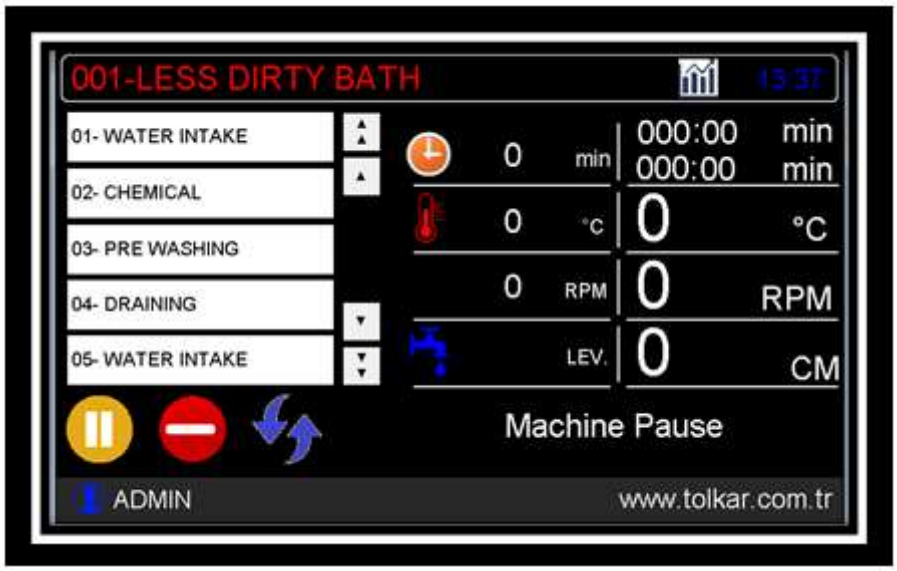



Program
Min. 0
Max. 20
10
02- CHEMICAL
03- PRE WASHIN
04- DRAINING
05- WATER INTA
06- CHEMICAL
07- HEATING
08- MAIN WASHI
7
8
9
4
5
6
1
2
3
ESC
0
CONFIRM
Continuation
ADMIN
tolkar.com.tr


Program
001-LESS DIRTY BATH
01- WATER INTAKE
02- CHEMICAL
03- PRE WASHING
04- DRAINING
05- WATER INTAKE
06- CHEMICAL
07- HEATING
08- MAIN WASHING
IZMIR HOTEL
BATH TOWEL
Load Amount
10
KG
Start With Delay
Continuation
ADMIN
www.tolkar.com.tr

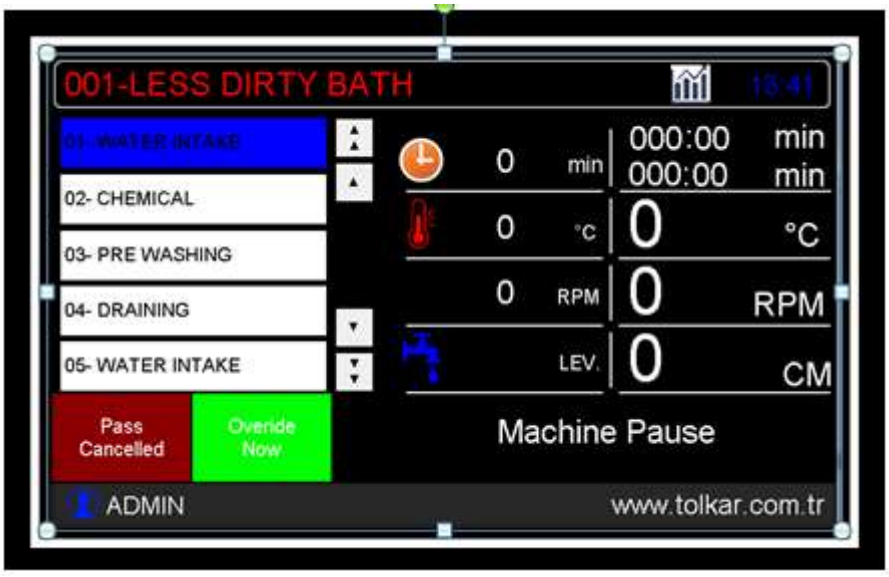
WORK PAGE

After the program is started, the machine starts to perform continuously measurements and to count the time. Values on the screen have following meanings.





1. Area showing the name of the operating program
2. Area showing the name of the actual step of the program
3. Area showing the operation time set value of the actual step
4. Area showing the operation temperature set value of the actual step
5. Area showing elapsed time and remaining time values of the program
6. Button opening the page which is show trend graph of the recorded drum rotation speed, temperature and water level.
7. Area showing the local time
8. Program pause and start button
9. The button is used to terminate the running program
10. Button to jump the program to a step selected from the step list.
11. The area that shows water intake state of the machine."Lev" indicates that water is being taken as a level measurement
12. Area showing the rotational speed parameter value of the actual step
13. Area showing the actual water level of the machine
14. Area showing the actual rotation speed of the drum
15. Area showing the actual temperature of the machine



Below warning screen appears, when the finish button is pressed in the operating program. Touch the appropriate button in order to finish or continue the program.



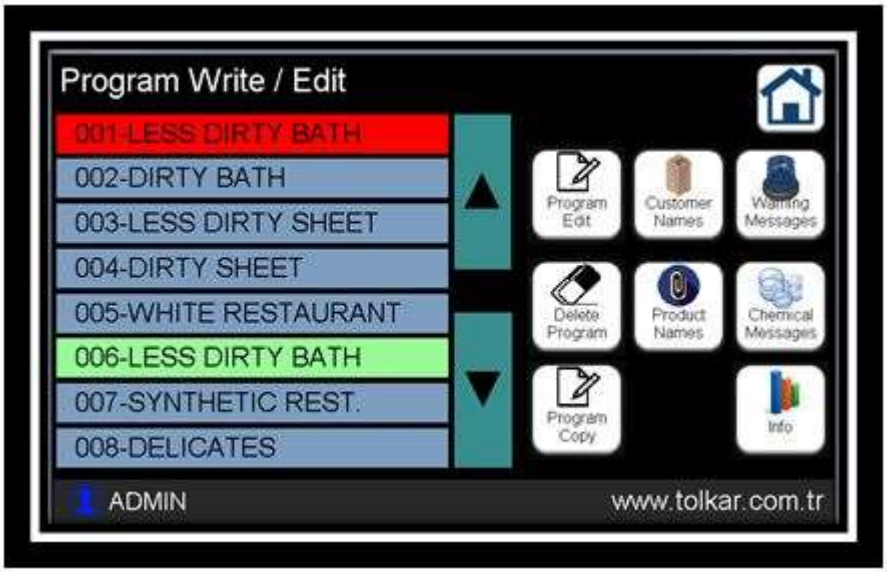
It is the wanring sing shown on the screen, if the machine temperature has not the appropriate value if the machine shall be stopped during the program operation. Touch appropriate option to skip the machine to the cooling step or the finis the program.



The control panel creates the program related report after the operating program is finished. This report is further recorded to the program reports section. The electricity, gas and steam consumptions mentioned in the report may vary from the real values found by calculation.

WRITE/ EDIT PROGRAM

This is the screen were programs, which shall perform the drying process, are written and edited. On the left screen section are 20 ready programs listed, which are loaded to the machine at the factory. Pressing the button “PROGRAM DUZENLE” (EDIT PROGRAM) on this screen, the written program can be edited; the empty program can be selected scrolling the list with the up and down buttons in the program list and a process can be performed; this empty program is writable, the selected program is erasable, the selected program can be copied to another program, product and customer names can be changed.



Pressing the button “PROGRAM DUZENLE” (EDIT PROGRAM) on this screen, the content of the selected program appears. This page includes the parameter to be applied by the machine when operating in the heating phase.



To give first a name to the program or the change the existing program name, touch the area on the upper screen section where the program name is written. Touching there will open the keypad. Using this keypad enter the name to be given to the program. After the program name is written, confirm the name pressing the button “ENTER” on the keypad.



After the program name is entered, on the left screen section the steps of the program content will appear. On the right screen section the steps addable to the program are listed. If step addition shall be made in the ready program, select the place where the step has to be added touching the program at the left section. The color of the selected

step will turn into red. In order add the required step press long on the step on the right column. A question will appear on the screen asking where the line of the step shall be. Selecting here the option “ÜSTÜNE EKLE” (ADD ON THE TOP) the step selected on the right section will be added on the top of, this means prior to the step selected

inside the program. Selecting the option “ALTINA EKLE” (ADD BENEATH) the step selected on the right section will be added under, this means after the step selected inside the program. After the step to be added is selected, the page related to the step appears on the screen. After entering here the appropriate values press button “KAYDET” (SAVE) and save the changes. If “IPTAL” (CANCEL) is selected, the page will be left without saving the changes.

EDIT PROGRAM STEPS

Give Alarm Step



Water Intake Step



Simple Chemical Step



Heating Step



Washing Step



Draining Step



Intermediate Extraction Step



Speed Extraction Step



Program Call Step

After entering the appropriate values on the program writing page, press button “CIK” (EXIT) on the upper left screen corner. Save status of the program written on the screen appears. Here are the performed changes saved by means of the “KAYDET” (SAVE) option and the screen returns to the write/edit program page. Selecting the option

“IPTAL” (CANCEL) the question page will close and allow changes on the program. Selecting the option “DEFAULT”, changes will be save by the screen and the values in the program opened if new program shall be written, will be opened as the values of that written program. This may save you time when writing a similar program.





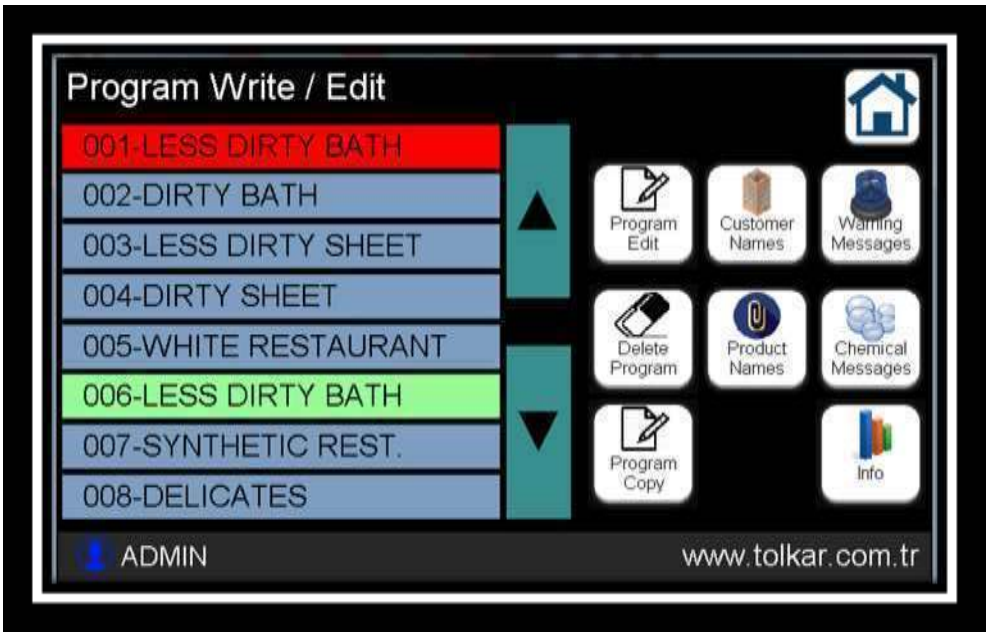
DELETE PROGRAM

To delate a program from the program list, go on that program and touch. Line of the selected program will turn into blue. After program is selected press button “PROGRAM SIL” (DELETE PROGRAM). The 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) the process can be cancelled.
After program deletion, the name of the deleted program will be empty.

COPY PROGRAM

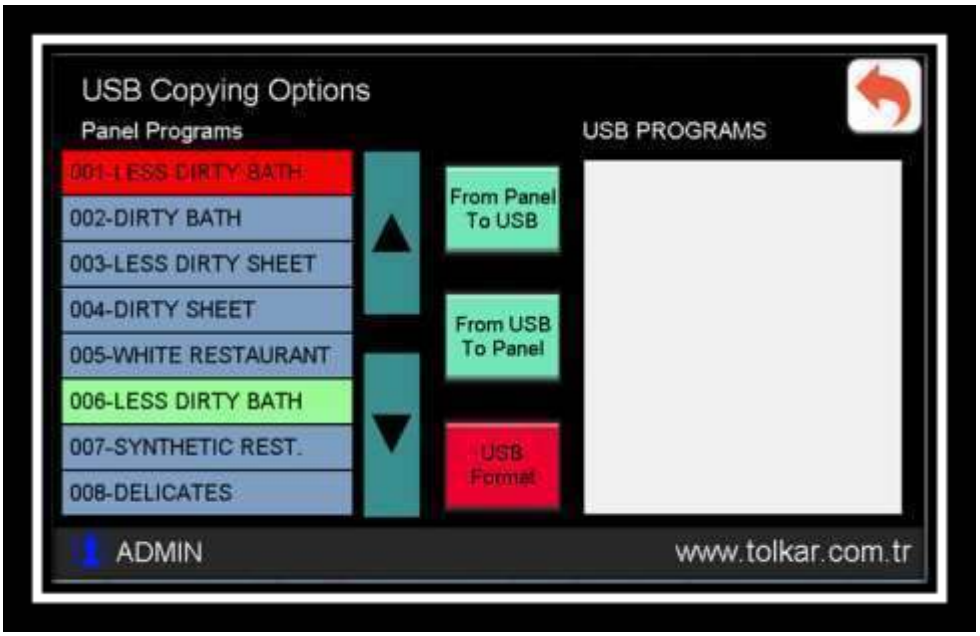
To copy a program in the program list to another program, go on that program and touch. The line of the selected program will turn into blue. After program is selected press button “PROGRAM KOPYALAMA” (COPY PROGRAM). A warning program appears on the screen. On the appeared page it is mentioned to which program the selected program shall be copied. Touching the area with the program number will reveal the numeric keypad, write the number of the program to be copied and confirm. After confirming by pressing the button “EVET” (YES) the desired program will be copied. Pressing the button “HAYIR”(NO) the process can be cancelled.





COPY PROGRAM FROM OR TO AN USB DEVICE

When an USB device is plugged in to the panel, the panel will recognize it and activate some functions. After plugging in an USB device on the left screen section the panel programs are listed and on the right section the programs on the USB device are listed. If a program is transferred previously, it will be listed on the right screen section.



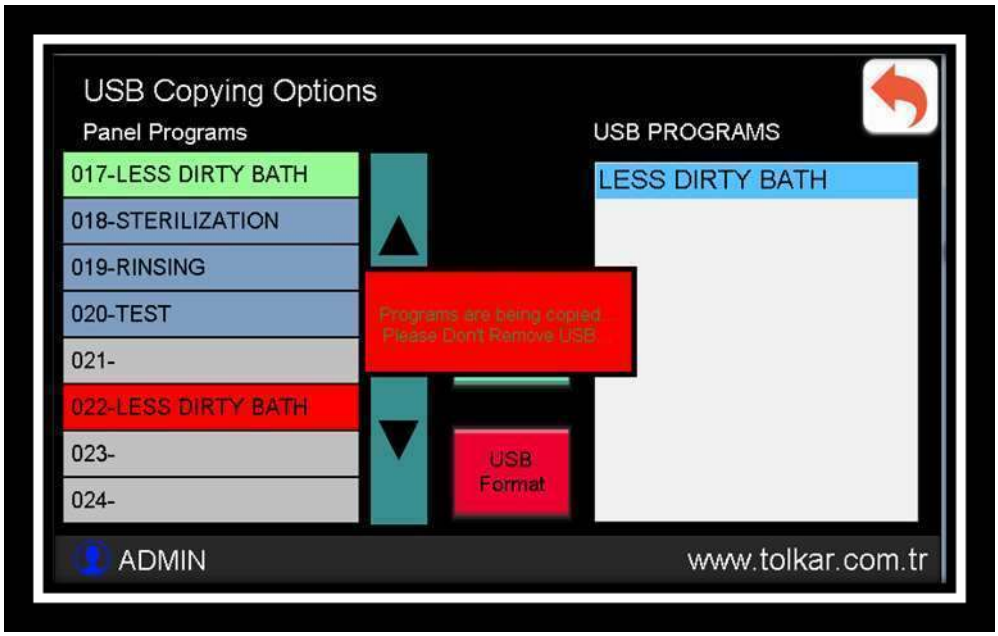
Copying from the Panel to an USB Device

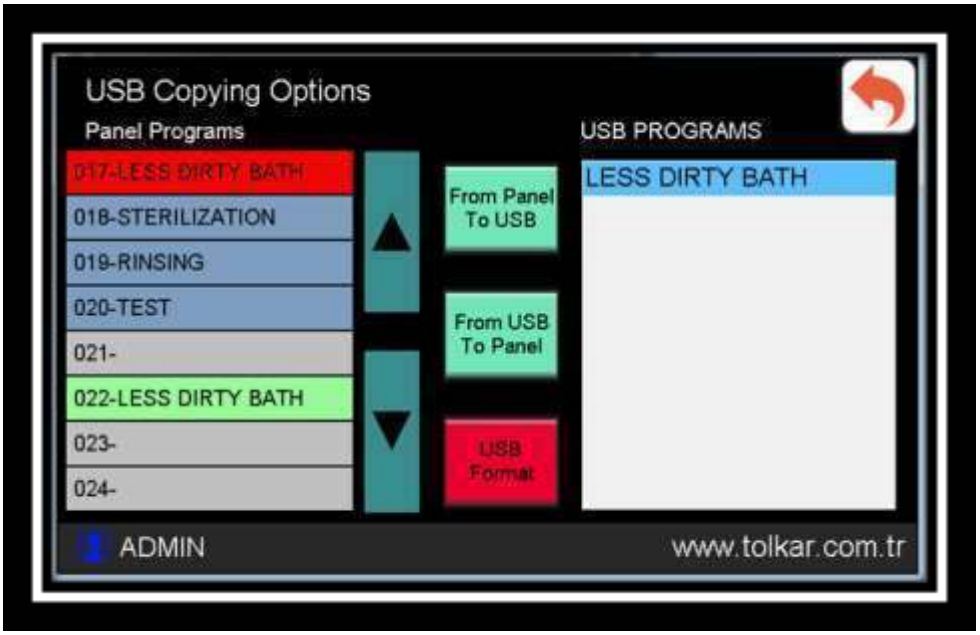
To copy a program from the program list to an USB device, go on that program and touch. The line of the selected program will be filled with blue color. After program is selected press button “PANEL’DEN USB’YE” (FROM PANEL TO USB). A copying warning page appears on the screen and the program will be copied to the USB device.



Copy from an USB device to the Panel

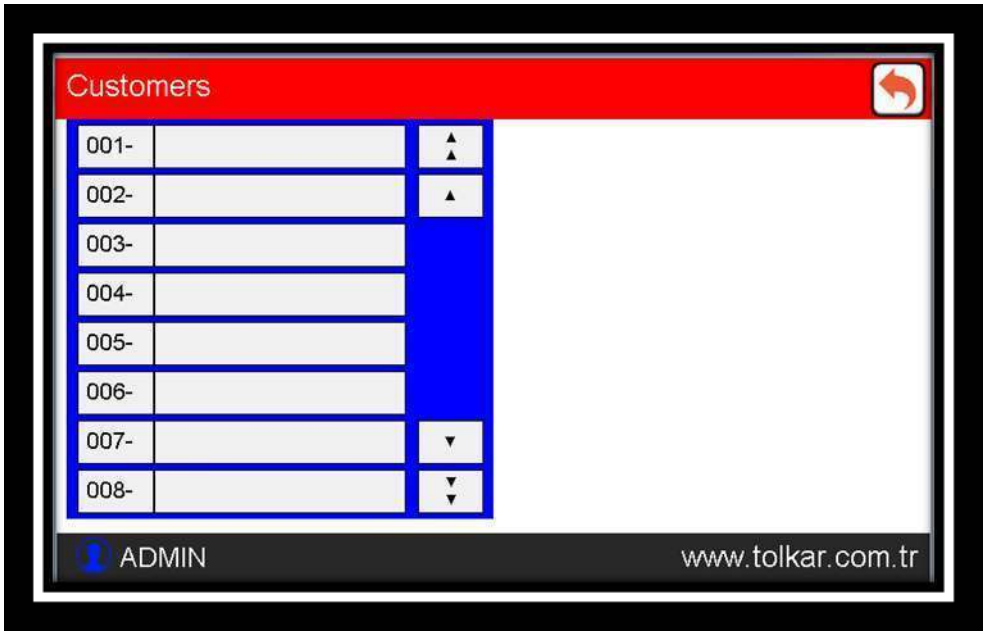
To copy a program from the USB device to the panel, go on that program and touch. The line of the selected program will filled with blue color. After the program on the USB device is selected, select on the panel to which program number copying shall be done. After the selection press the button “USB’DEN PANEL’E” (FROM USB TO PANEL). A copying warning appears on the screen and the program will be copied from the USB device to the panel.



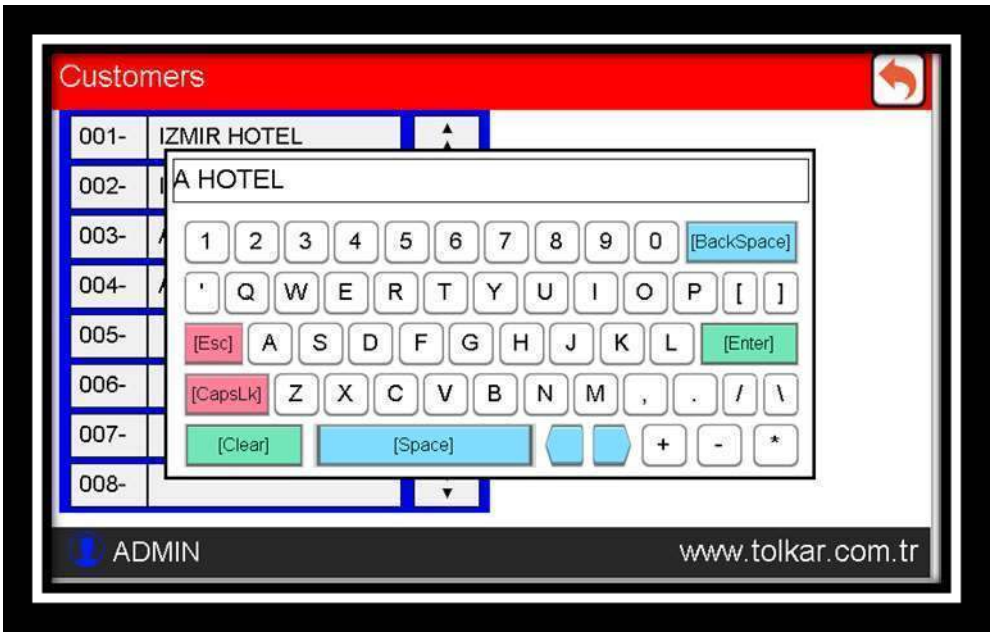


CUSTOMER NAMES

Your computer has a reporting system, which continuously saves the operated programs. To ensure that this reporting system is more detailed, it is required to know the customer of the articles to be dry tumbled in every program to be operated. And this requires that the customer names are previously saved in the system.



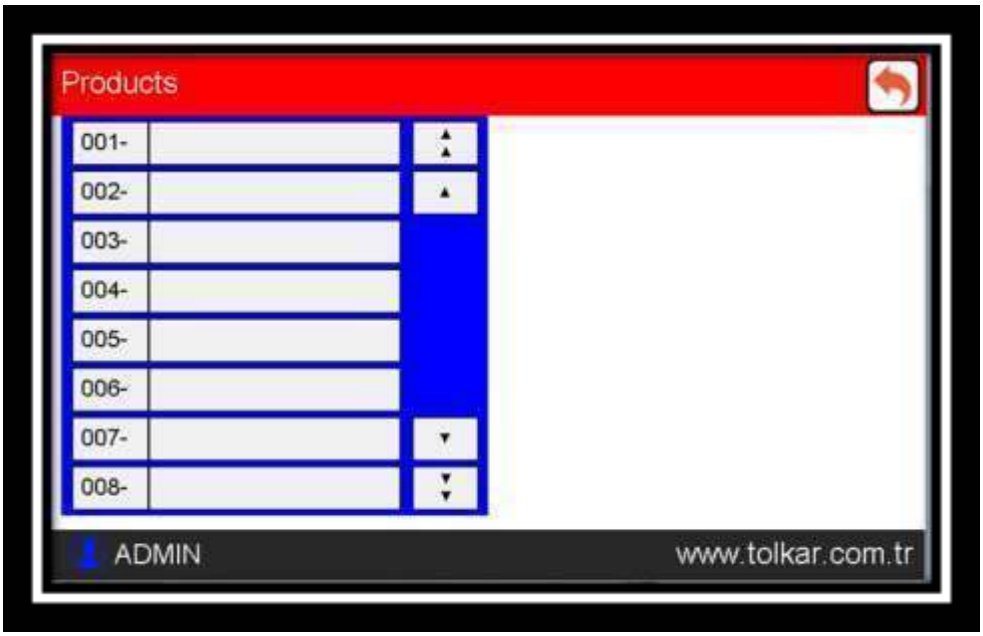
To enter a new customer name press the button “YENİ MÜŞTERİ GİRİŞİ” (ENTER NEW CUSTOMER) at the upper right screen corner. Enter the appropriate customer names via the revealed keypad and confirm pressing the button “ENTER” to add them to the system.



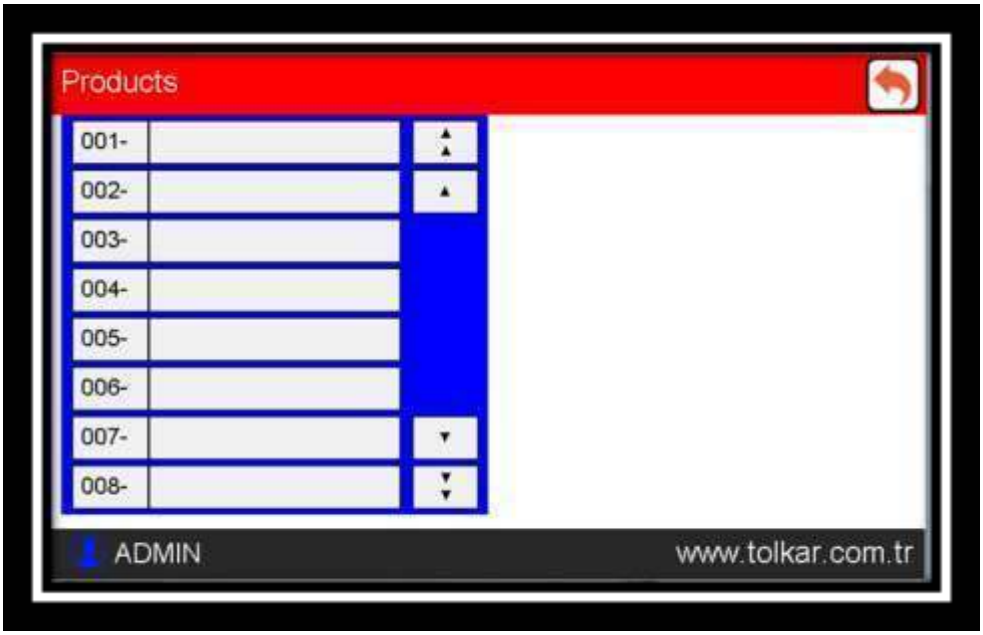


PRODUCT NAMES

Your computer has a reporting system, which continuously saves the operated programs. To ensure that this reporting system is more detailed, it is required to know the products to be dry tumbled in every program to be operated. And this requires that the product names are previously saved in the system.



To enter a new product name press the button “YENİ ÜRÜN GİRİŞİ” (ENTER NEW PRODUCT) at the upper right screen corner. Enter the appropriate product names via the revealed keypad and confirm pressing the button “ENTER” to add them to the system.


Products
001-
002-
003-
004-
005-
006-
007-
008-
ADMIN
www.tolkar.com.tr


Products
001- HAND TOWEL
SPA TOWELS
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


Products
001- HAND TOWEL
002- BATH TOWEL
003- SHEET
004- SPA TOWELS
005- WORKER OUTFIT
006-
007-
008-
ADMIN
www.tolkar.com.tr

REPORTS

PROGRAM REPORTS

The control system has a reporting system recording the operation status. Such reporting includes information related to every operated program. You can copy these date by plugging in an USB device to the control panel and evaluate these in excel format.

User
Indicates the name of the operator defined selecting the user and entering the password.

Program Name
Indicates the name of the operated program.

Start Time
Indicate the date and time, when this program was operated by the program operating user.

Total Time
Indicated the total operation time of the program.

Fan – Motor Electricity Consumption
Indicates the electricity consumption spent by the fan and drum motors when operating the program.

Steam Consumption
Indicates the steam consumption spent by the steam coils when operating the program.

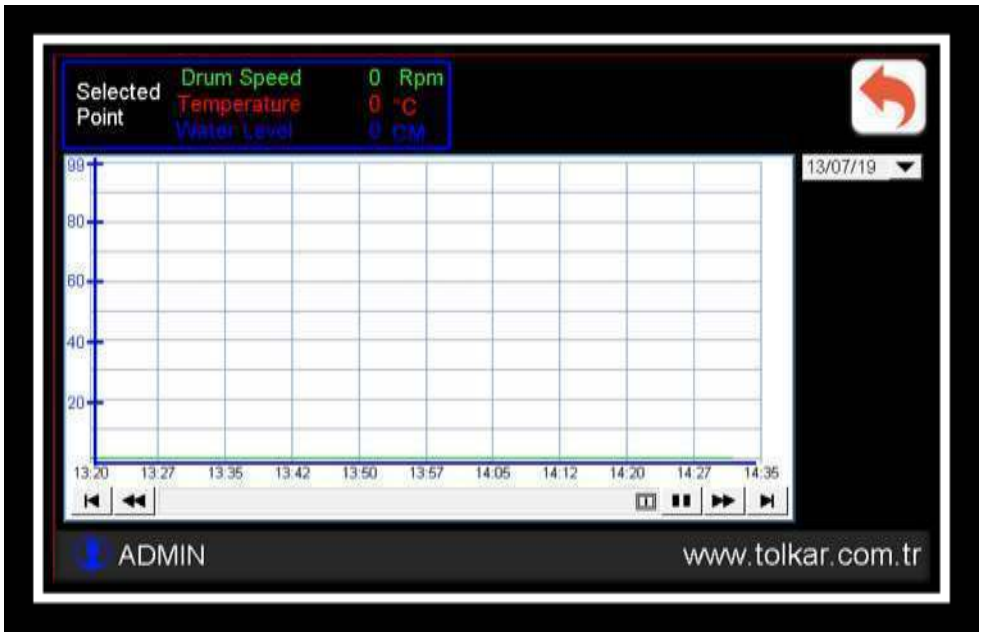
Resistor Electricity Consumption
Indicates the steam consumption spent by electric coils (resistor) when operating the program.

Gas Consumption
Indicates the gas consumption spent by the gas system when operating the program.

Total Electricity Consumption
Indicates the electricity consumption spent when operating the program.

In order to see the values not shown on the page, use the scroll bars beneath and at the right of the report page.

Further, you can see older records from the date tab at the right corner section.





PERIODIC CONSUMPTIONS

In this section of the control system general totals of the data of the reporting page during the operation of the machine are available. These data can be delated by an authorized pressing the button “RESET” next to the value.

Number of Total Operated Programs
Indicates the number of operated programs.

Total Operation Time

Indicates the total operation time of the machine.

Total Stand-By Time
Indicates the total stand-by time of the machine.

Total Electricity Consumption for the Rotation
Indicates the total electricity consumption spent by the fan and drum motors of the machine.

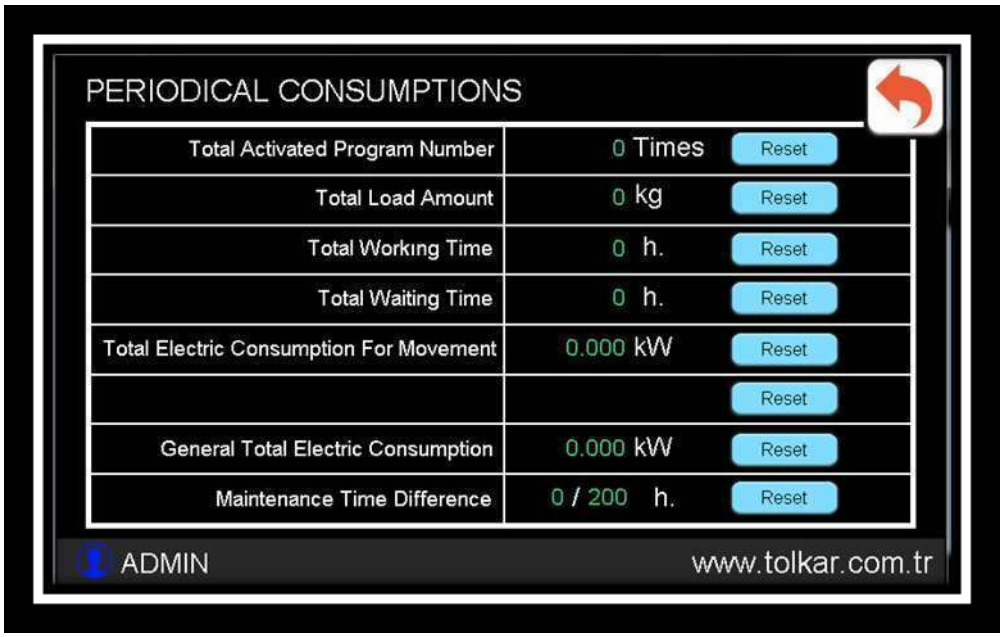
Total Electricity Consumption for Heating
Indicates the total electricity consumption spent by the electric coils (resistors) of the machine.

Total Steam Consumption for Heating
Indicates the total steam consumption spent by the steam coils of the machine.

Total Gas Consumption for Heating
Indicates the total gas consumption spent by the gas system of the machine.

General Total Electricity Consumption
Indicates the total electricity consumption of the machine.

Maintenance Time Interval
Indicates the time remaining for maintenance of the machine.



TOTAL CONSUMPTIONS

In this section of the control system general totals of the data of the reporting page since the initial installation of the machine are available. These data can be delated by an authorized pressing the button “RESET” next to the value. These data are as follows.

Number of Totally Operated Programs
Indicates the number of operated programs.

Total Dry Tumbled Load Amount
Indicates the total load amount dry tumbled by the machine.

Total Operation Time
Indicates the total operation time of the machine.

Total Stand-By Time
Indicates the total stand-by time of the machine.

Total Electricity Consumption for Rotation
Indicates the total electricity consumption spent by the fan and drum motors of the machine.

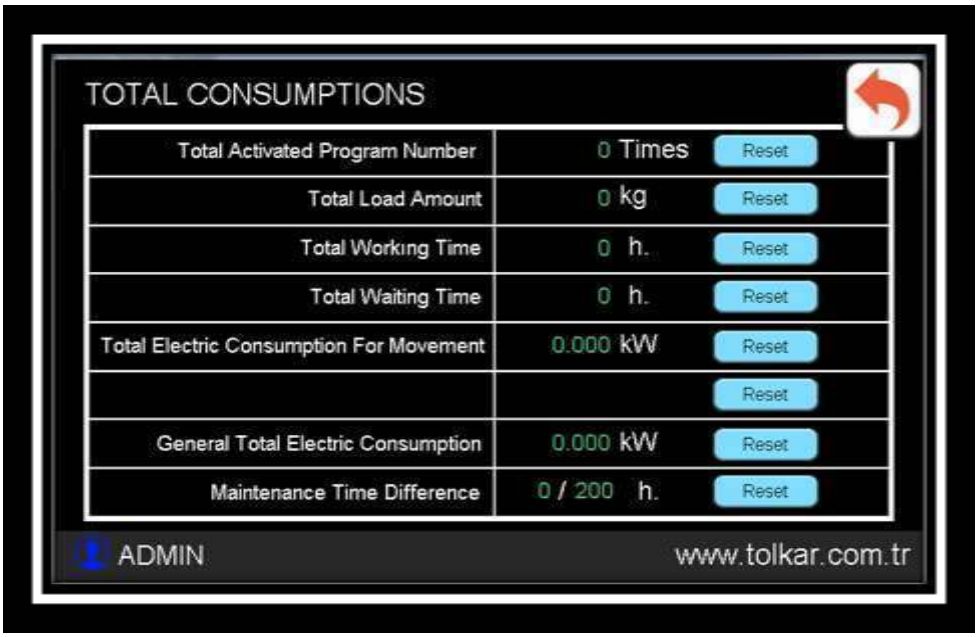
Total Electricity Consumption for Heating
Indicates the total electricity consumption spent by the electric coils (resistors) of the machine.

Total Steam Consumption for Heating
Indicates the total steam consumption spent by the steam coils of the machine.

Total Gas Consumption for Heating
Indicated the total gas consumption of the gas system.

General Total Electricity Consumption
Indicates the total electricity consumption of the machine

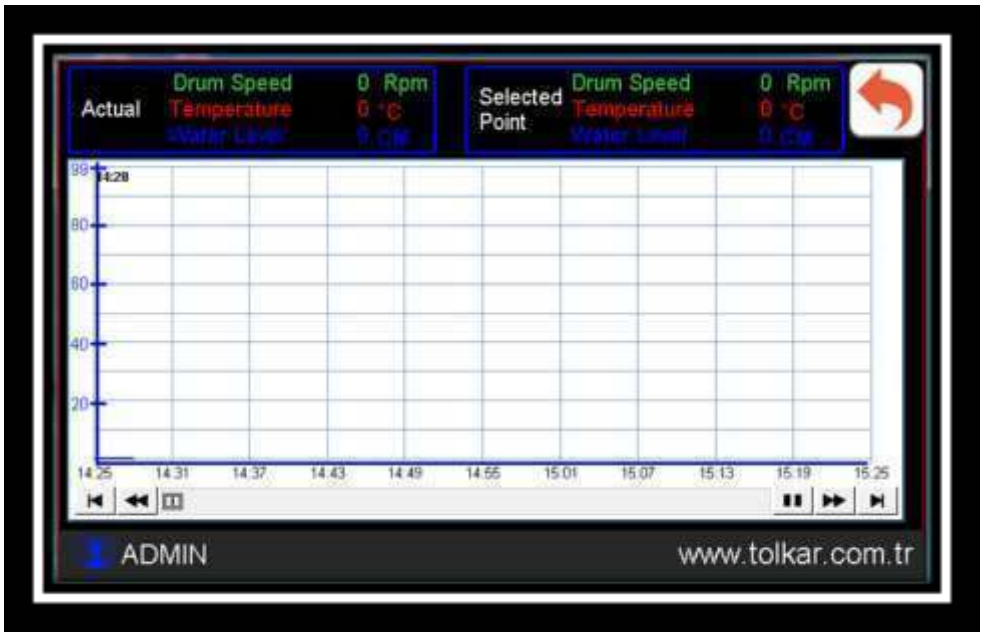
Maintenance Time Interval
Indicates the time remaining for maintenance of the machine



TEMPERATURE – MOISTURE GRAPHIC SCREEN

The control system on the machine saves automatically every 10 seconds during 90 minutes each time the program is operated, the date and time data and the temperature and moisture values read from the machine. By means of this record a temperature – moisture graphic is created. By means of this graphic the drying status can be tracked. You can copy these date plugging in an USB device to the control panel and evaluate these in excel format. In order to display this graphic press the “graphic” button on the upper right screen corner over the work page. A graphic appears on the screen. On the vertical in the left section of the graphic are the temperature and moisture displayed, and the time on the horizontal axis. The temperature value is indicated in red, the moisture value is indicated in blue.

On the upper left screen section instantly read values are displayed. Touching any point on the graphic, the touched time graphic will be written in the left column of the graphic and the moisture value will be written in the right upper section.



INVERTER TRACKING

The control system obtains data from the inverter controlling the drum motor in the machine via communication, and issues commands. This feature enables tracking the inverter online. Press long on the cycle value read over the work page when operating the program in order the track the inverter values during operation. The inverter tracking screen opens. This screen includes following values.

Target Frequency
It is the value indicating the frequency communicated by the control panel to the inverter and required to be applied on the drum motor of the machine.

Output Frequency
It is the value indicating the frequency applied by the inverter to the drum motor of the machine.

DC Bar
It is the value of voltage indicated by the inverter to the DC bar.

Output Power
It is the value indicating the power applied by the inverter on the drum motor of the machine

Output Voltage
It is the value of voltage applied by the inverter on the drum motor of the machine.

Output Current
It is the value indicating the current drawn by the drum motor of the machine.

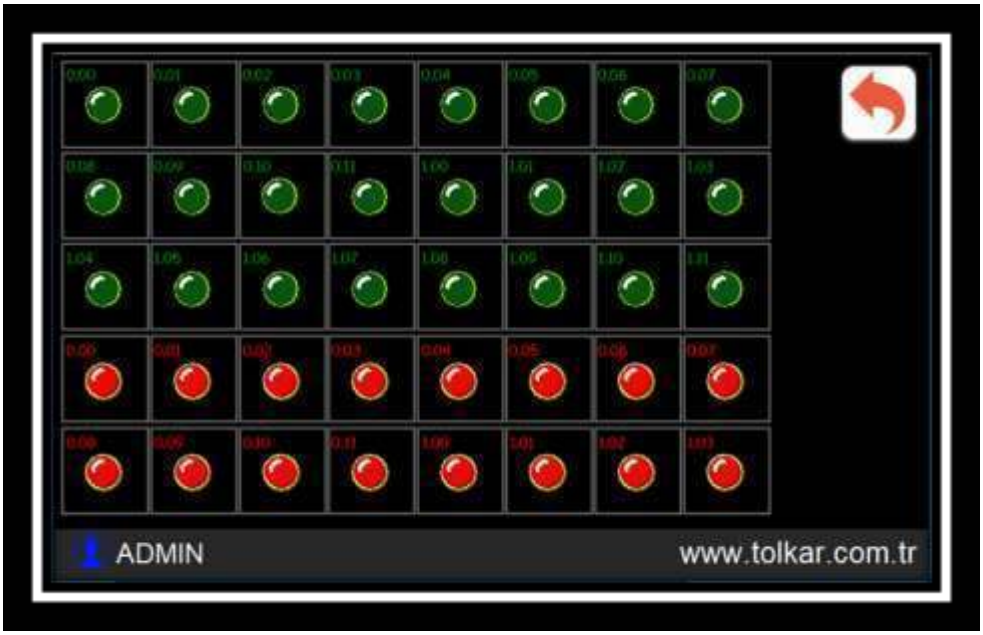
Inverter Al Ch 0
It is the value indicating the temperature received by the inverter from the temperature and moisture measuring card of the machine as analog.

Inverter Al Ch 1
It is the value indicating the temperature received by the inverter from the temperature and moisture measuring card of the machine as analog.



TEST PAGE

The control system has a test page showing the sensor and switch systems (inputs) and receivers (outputs) on the machine. Here in the upper section the green ones are the inputs, and the red ones are the outputs. On each of these their numbers and their meanings in the PLC system are mentioned. Further, these numbers indicates the cable numbers on the switchboard. Operations statuses of the systems are controlled over this page. The color of the active section will change.



TEMPERATURE CALIBRATION

The control board of the machine has a sensor calibration page purposing to ensure the accuracy of the values measured by the temperature and moisture sensors on the machine. There may be deviations cause by sensors and the tolerances of the electronic components used on the machine. 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 laundry articles or machine could be damaged caused by mismeasurements.

Pressing long on the temperature value, which is read while being on the work page, enables skipping to the sensor calibration page. On this page at the left section are the calibration parameters available for the temperature sensor, and on the right section the moisture sensor. Follow below instructions for the temperature and moisture calibration.

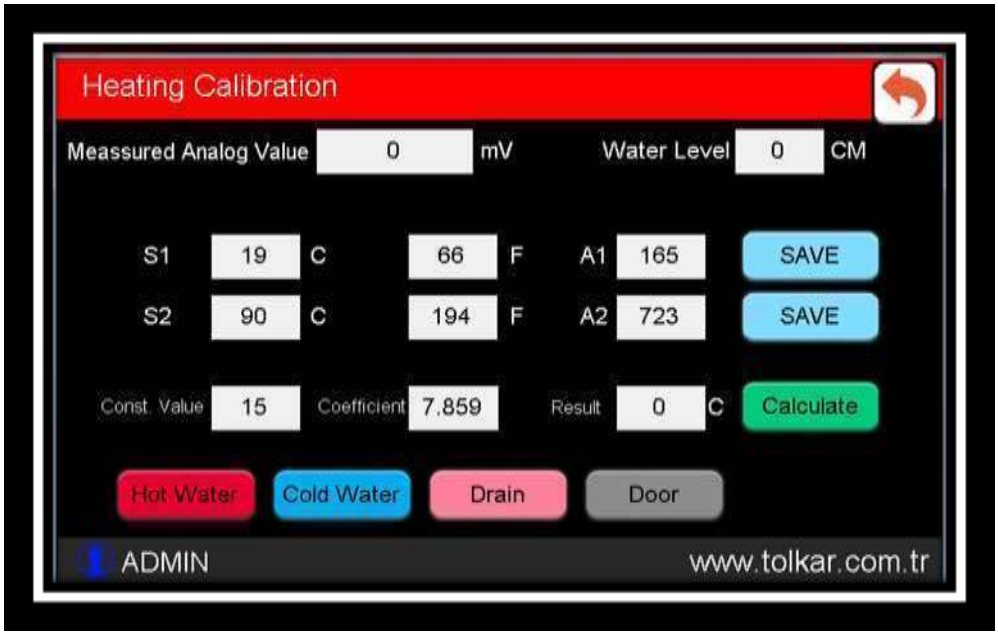
Temperature Calibration

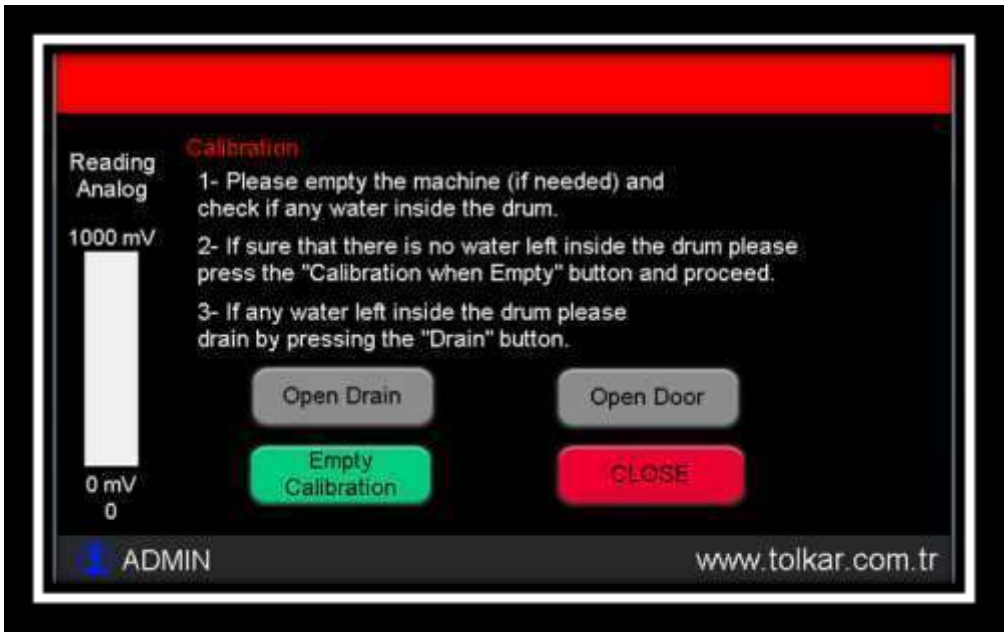
Make sure that the "ÖLÇÜLEN ANALOG" (MEASURED ANALOG) value in the upper section is between zero and 1000. If not so, check the sensor, sensor card and sensor connections or sensor card.

Discharge the laundry articles inside the machine. Take the machine in cooling function and operate until operation environment temperature is reached. Perform measuring at the point, where the sensor is located on the machine, using a temperature gauge of which you are sure that its calibration is made in advance and making accurate measuring. Enter the value read on the measuring device on the numeric screen touching the area "S 1" and press the button "KALIBRASYON" (CALIBRATION) next to the value. Write the value measured in the analog section to area "A 1".

Thereafter turn the machine to the heating function and operate in a manner, that machine operates at highest temperature. The value measured in the analog section will increase along the temperature increase. If not so, check the sensor, sensor card and sensor connections or sensor card. Perform measuring at the point, where the sensor is located on the machine, using a temperature gauge of which you are sure that its calibration is made in advance and making accurate measuring. Enter the value read on the measuring device on the numeric screen touching the area "S 2" and press the button "KALIBRASYON" (CALIBRATION) next to the value.

After entering the values complying with the "S 1" and "S 2" settings on the screen, press button "HESAPLA" (CALCULATE). The "SONUC" (RESULT) section shows the calibrated value calculated by the control board.





WARNING and ALARMS

The control board of the machine cautions the user against errors and warnings, which occur during the operation of the machine. There are two types as warning and defect status.

Caution Status

In this status the machine will continue to operate non-stop, however the temperature system will be deactivated. The reason of the caution status will be shown on the screen. After the reason for the caution status is

eliminated, the machine goes over in “BEKLEME DURUMU” (STAND-BY STATUS) or continuous to operate. Cautions statuses are mentioned below.

Machine Temperature is High

Indicates that the cylinder rotation has stopped while the machine cylinder temperature is higher than the cooling temperature. In such a case it is required to rotate the machine turning to the cooling step. Otherwise, the ironing bands available on the machine will be damaged and the ironing quality will reduce.

Hand Protection System Activated

Indicates that the hand protection system, provided on the front loader system of the machine for loading laundry articles and preventing hand squeezing, is activated and has stopped the machine.

No Gas Firing

Indicates, that ignition has been retried in the number as mentioned in the system setting because no correct burning occurred in the gas control system of the machine, however that such trials 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 burning is correct and that the funnel system is not clogged, and the compliance of the gas utilization with the machine capacity.

Alarm Status

In this case the machine stops and the program will be end. All outlets will be closed. A defect icon appears on the screen. Touching this icon opens the defect page. On the opened page the reason of the defect status will be indicated. Touching the indicated defect opens the information page showing the reason of the defect and troubleshooting ways. After the processes on this page are performed, press the “KAPAT” (CLOSE) button to close the page. Further, touching the date section on this page, list of defects occurred in the machine on the selected date are shown. Defect statuses are following.



Check the Phase Order

Phase order changes in the power inlet of the machine or voltage fluctuations have occurred. Check the power inlet and phase order of the machine.

Emergency Stop Pressed

The red colored EMERGENCY STOP mushroom button on yellow ground on the machines is pressed. Open turning the red colored mushroom button on yellow ground on the machine to the right.

Motor Thermal Protection

Indicates, that the motor protection thermic switch of the machine is switched off. Perform necessary voltage and current controls. After controls are performed, set the system pressing again the resetting-button on the thermic switch.

Left Door Open

Indicates, that the security door of the driving group with machine’s motor, pulley and gears is open. Close the door after performing the controls.

Right Door Open

Indicates, that the security door of the section with machine’s electric equipment is open. Close the door after performing the controls.

Upper Door Open

Indicates, that the upper security door of the first inlet cylinder section of the machine is open. Perform controls and close the door.

Gas Control System

Indicates, that burning of the gas control system could not be realized despite to several trials. Check the gas pressure, perform funnel controls and ventilation installation controls and re-operate the machine

Rotation Info cannot be read

Indicates failure of the encoder measuring system, which obtains machine's rotation info, and is not measuring. Check the compliance of the parameters from the system settings, and check whether the encoder device is moving together with the cylinder, and that the encoder is functioning.

Heating Failure

Indicates, that the temperature increase targeted at the end of a certain time after machine's heaters are active takes not place. According to machine's heating system type; check whether the resistor fuses are open and resistors are functioning, the compliance and functionality of the steam pressure and steam trap, whether the gas pressure is appropriate and burning is sound.

Heater Temperature Exceeded the Limited

Indicates, that the surface temperature of the heater system provided in the upper section of the machine has increased and shut-off the limit thermostat switch. Check the fan, filter system, funnel exhaust system and cleanness of the air inlet points on the heater system and air ways are clear.

Maintenance Time Warning

Indicates that machines maintenance time has come. Perform controls as shown in the user manual and lubricate the points to be lubricated using the advised lubricant. After the maintenance work is completed, reset the maintenance time over the setting section.

Hmı - Plc Communication Failure

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

Inverter - Plc Communication Failure

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

Uncontrolled Temperature Increase

Indicates, that the machine temperature is increased despite to that the heater system within machine's structure has reached the set temperature of the machine. Check whether the valve, coil, contactor system controlling the heater system are functioning correctly. Check the accuracy of the temperature measured by the machine.

Inverter Motor Protection Status

Indicates, that machine's motor control device (inverter) has shut-off the circuit in order to prevent motor damage. Perform required voltage, current and drum load controls. After controls are performed, reset the system pressing the RESET button on the inverter. 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 provided on the machine is reduced under the requested level. Replace the battery on the PLC without disconnecting machine's power.