UNITY

GRUP TEKNOLOJİ A.Ş.

UST-H01

USER MANUAL

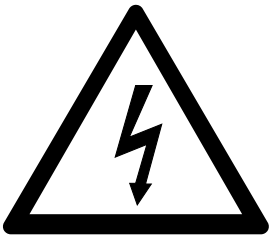
2024

CONTENTS

SECURITY MEASURES

1-) A product suitable for a healthy and safe working environment must be selected and the device must be used in accordance with the instructions.

2-) The necessary checks, maintenance and cleaning of the device must be done before production. However, electrical repairs should not be made under voltage.



3-) No electrical device should be touched or attempted to be repaired with wet hands.

4-) The operator must be informed about the operation of the device and only those under his/her responsibility should handle the device.

SECURITY MEASURES

5-) Attention should be paid to the lighting of the environment according to the location of the device.

6-) Employees should be required to comply with the safety measures and signs in the environment.

7-) Electrical devices and machines should have a protection type appropriate to the environment in which they are operated. They should be isolated against factors such as moisture, steam, oil, dust, and heat.

8-) At the end of the day, the device should be turned off and made safe after use.

SAFE USE WARNINGS

- Before performing any operation on the device, disconnect all supply voltages.
- Do not disassemble the device while it is energized.
- Do not clean the device with solvents or similar substances. Use only a dry cloth to clean the device.
- Before operating the device, check that the connections are correct. Keep signal cables away from contactors, inductive loads, electrical noise emitting devices and energy-carrying lines.
- In order to protect the device from adverse environmental conditions such as humidity, vibration, pollution and high/low temperature, install it away from contactors, electrical noise emitting devices and energy-carrying lines.
- To be minimally affected by electrical noise; Use shielded cables and ground the shield.
- In case of any problem with your device, contact your authorized dealer.
- The manufacturer cannot be held responsible in any way for any undesirable situations that may arise as a result of not implementing the above precautions.

OVERVIEW

The high frequency UST-H01 Spark Tester, which is generally used in the wire and cable industry, is used to detect small cracks, tears, holes, etc. in your product. It is designed to test the adequacy of cable insulation and insulation. Spark Tester helps to find cable electrical insulation errors thanks to the high voltage and low current created in the beaded chain area. When an electrical insulation error is found in the cable, the device warns the operator by giving an audible and visual alarm.

The LC oscillator inside the device generates a fixed frequency high voltage, and this voltage is applied to the product through the beads. If any insulation fault is detected, provided that the tested parts are reliably grounded, a spark occurs in the insulation coating layer. Then a pulse signal is sent to the detection circuit to increase the fault counter, so the device generates sound and light alarms, and finally the insulation fault is detected.

GENERAL AND TECHNICAL SPECIFICATIONS

OUTPUT VOLTAGE :	0 ~ 15KV (RMS)
MAXIMUM CABLE DIAMETER :	40mm
TEST FREQUENCY :	3000hz
ELECTRODE LENGTH :	90mm
MEASURABLE MAX SPEED :	2000m/dk
SERIAL COMMUNICATION :	RS485, TCP/IP
SAFETY PRECAUTIONS	GROUNDING CONNECTION ERROR, COVER SENSOR AND SAFETY BARRIER
CONTROL TYPE	PANEL, COMMUNICATION AND INTERFACE
DATA MONITORING	INTERFACE
VOLTAGE TYPE	AC
DISPLAY PANEL	DISPLAY SCREEN

WORKING CONDITIONS

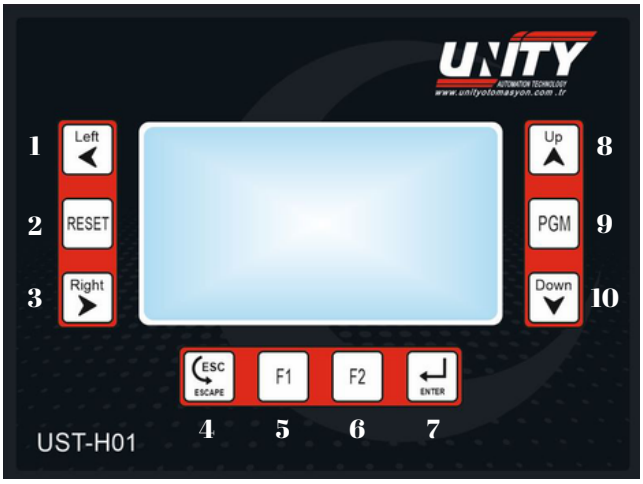
SUPPLY VOLTAGE:	200 - 240VAC, 50/60Hz
WORKING TEMPERATURE:	5 °C ~ 50 °C
HUMIDITY:	20% - 85%
POWER CONSUMPTION:	≤150W

NOTE: The device must be reliably grounded.

CONDITIONS OF USE

1) Place the product to be tested so that it centers the electrodes on the device.
2) Before proceeding to the next steps in this section, make sure that the product to be tested is grounded.
3) Turn on the power of the device and, if desired, reset the fault counter by pressing the reset button.
4) Adjust the test voltage to the desired value.
5) After completing all the steps, you can start the device.
Note: Do not touch the product during the test.

CONTROL PANEL

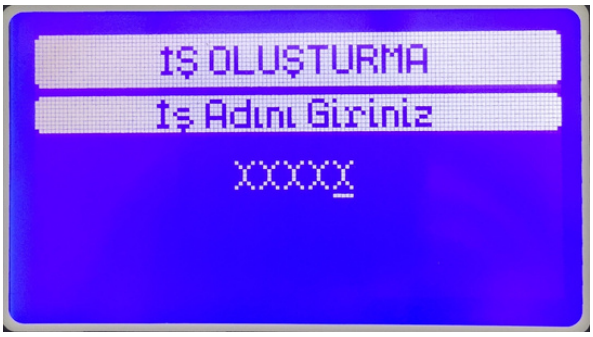


KEY NUMBER	EXPLANATION
1	Allows switching between modes in the parameters.
2	It is used to reset the error number on the screen.
3	It is used to switch between modes and change values in parameters.
4	It is used as the back button in the parameter inside.
5	-
6	It is used to reset the relay that gives output according to the number of errors.
7	"Used to confirm changed parameters, modes and values within parameters."
8	It allows switching between parameters and is used to increase values. (Up key)
9	Allows switching between the SETTINGS 1 and SETTINGS 2 sections on the device.
10	It allows switching between parameters and is used to decrease values. (Down key)

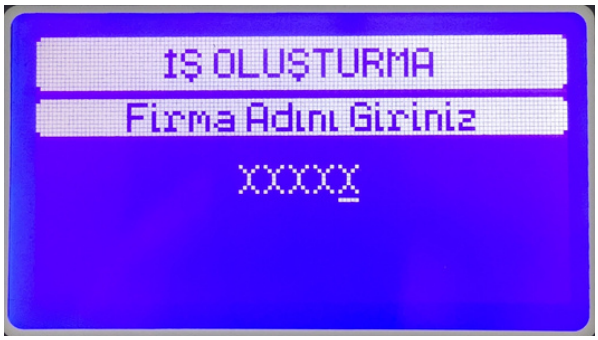
DEVICE PARAMETERS

When the UNITY UST-H01 device is booted, we are greeted by a main screen as shown in the image.

Pressing the PGM button will enter the SETTINGS1 parameter. This allows changes to be made to job creation, relays, date/time, connection and language settings.

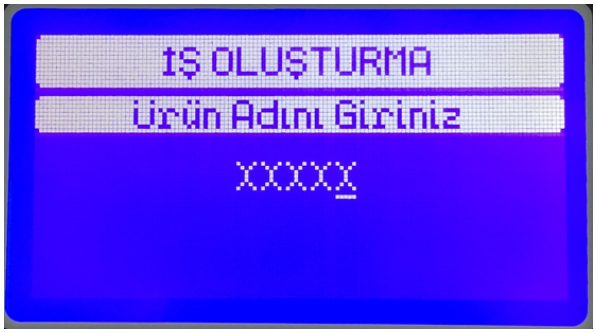


When the ENTER key is pressed, the job creation parameter is entered. The name of the job to be done is determined in this parameter.

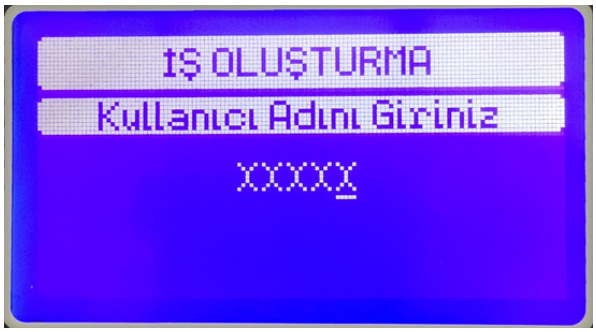


When you press ENTER again, you will be prompted to enter the Company Name.

DEVICE PARAMETERS



Press the ENTER key again and you will be asked to enter the Product Name in the job creation parameter.



Press the Enter key again, and the User Name will be requested to be entered in the job creation parameter. After all settings in this parameter are made, press the ENTER key to save.

This is the parameter that sets the states to which the contact output is connected against error conditions in the device. 1. In the relay settings, timed, continuous and output duration are determined. 2. In the relay settings, the target error number and duration are determined.

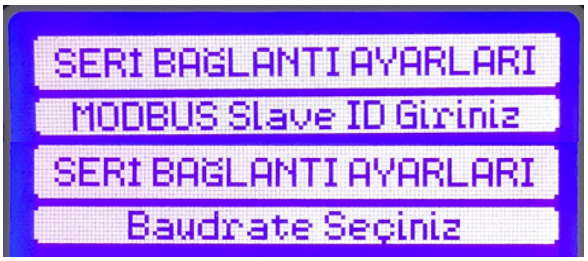
1. The relay setting has timed and continuous parameters in the output mode. The timed parameter ensures that the spark tester device gives a contact output for the set time when it goes into error. The continuous parameter ensures that the spark tester device gives a contact output continuously from the moment it goes into error. The F2 key is used to cut off the output. The Output Time parameter is the parameter that determines when the device goes into error.

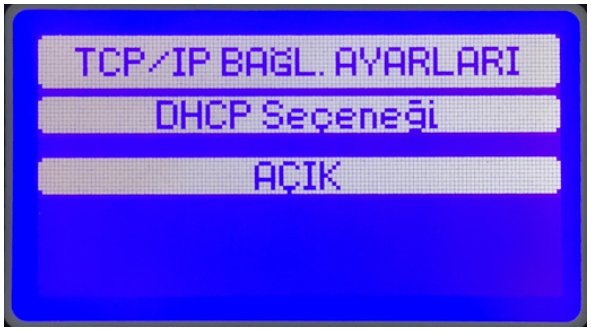
DEVICE PARAMETERS

2.The relay setting contains the Target Error Number and Output Time parameters. The Spark Tester device gives a contact output as a result of the specified number of errors. This is the parameter that sets the contact output time to be received after the specified number of errors.

Press the PGM key to access the SETTINGS1 parameter. The Down key is used to change the Date/Time settings. Year, month, day, day name, hour and second values are selected here. After confirming the changes with the ENTER key, exit with ESC.

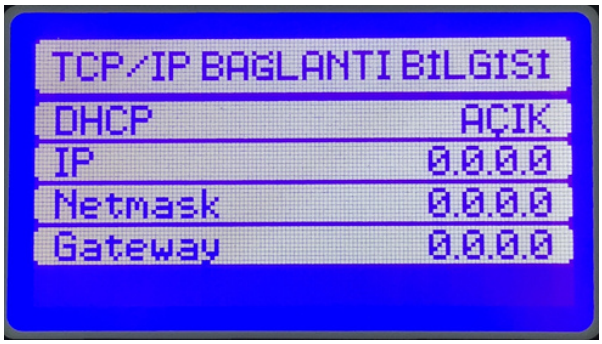
DEVICE PARAMETERS

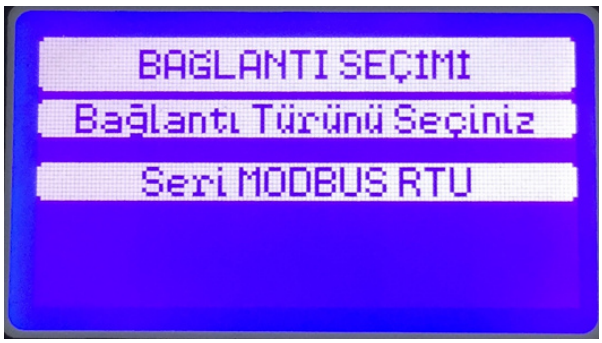




These parameters are not active.

DEVICE PARAMETERS

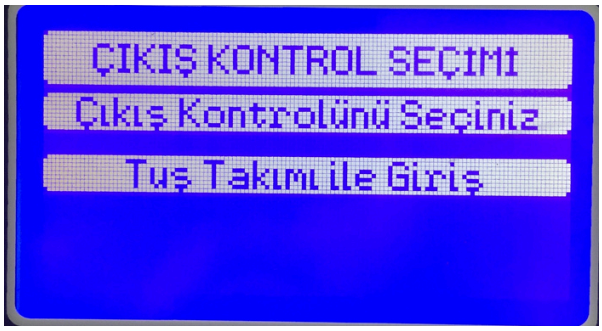




Press the PGM button to enter the LANGUAGE SELECTION parameter. Here, Turkish or English language preferences are made.

These parameters are not active.

DEVICE PARAMETERS



Press the PGM button to enter the SETTINGS2 parameter. From here, the type of output control is selected with the DOWN keys. If the keypad is selected, the output kW setting can be increased or decreased using the UP and DOWN keys on the panel.

Press the PGM button to enter the SETTINGS2 parameter. From here, the type of output control is selected with the DOWN keys. If current control is selected, the output kW value is set according to the 4/20mA current applied to the device.

Press the PGM button to enter the SETTINGS2 parameter. From here, the type of output control is selected with the DOWN keys. If voltage control is selected, the output value is adjusted according to the 0-10V voltage applied from the device terminal.

Press the PGM button to enter the SETTINGS2 parameter. From here, the type of output control is selected with the DOWN keys. If voltage control is selected, the output value is adjusted according to the 0-10V voltage applied from the device terminal.

CONNECTIONS

ENCODER		COMMUNICATION AND FEEDING	
5-PIECE FEMALE TUNIC SOCKET		4-PIECE FEMALE TUNIC SOCKET	
+12	BROWN	+	BROWN
+5	GRAY OR RED	-	GREEN
GND	GREEN OR BLUE	A	WHITE
A	WHITE	B	YELLOW
B	YELLOW		
5-PIECE MALE MIKE SOCKET		4-PART MALE TERMINAL	
1	BROWN	+	BROWN
2	GRAY OR RED	-	GREEN
3	GREEN OR BLUE	A	WHITE
4	WHITE	B	YELLOW
5	YELLOW		
5-PIECE FEMALE MIKE SOCKET			
+12	BROWN		
+5	GRAY OR RED		
GND	GREEN OR BLUE		
A	WHITE		
B	YELLOW		

RELAY OUTPUT		BUZZER	
RELAY CONNECTION		3-WAY MALE TERMINAL	
14	BLUE	NO	GREEN, WHITE
11	RED	NC	
12	BLACK	COM	YELLOW, BROWN
4-PIECE MALE MIX SOCKET		RELAY CONNECTION	
1	BLUE	14	BLUE
2	RED	11	RED
3	BLACK	12	BLACK
4-PIECE FEMALE MIKE SOCKET			
NO	WHITE		
NC	BROWN		
COM	YELLOW		

OUR CONTACT INFORMATION

Adres: 

Telefon: +90 212 549 30 56

GSM: +90 552 366 30 56
Mail: info@unitygrup.com
www.unitygrup.com