

ATEQ IONIQ 6 SW
1.01 version

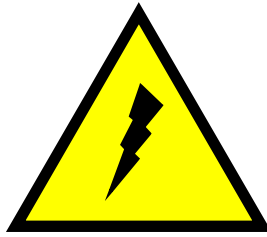


(Photo non contractual)

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Recommendations for electrical test equipment

Safety rules for the IONIQ



The IONIQ operating and power-up will necessarily depend on a security system allowing the getting out of danger throughout the all test area. The access to these devices must be impossible without the intervention of a suitable automatic security system that cut main supply and High Voltage generator primary (24 V). See connecting paragraph.

Presence of High Voltage:

- Never start a test unless the High Voltage test cables are properly connected.
- High Voltage generator supply output: 30kV – 0.33 mA.
- Test outputs: 30 kV - 30 μ A maximum per output.

Precautions for High Voltage

Because of the test voltage, which may reach 30 kV, there is a risk of electric shock due to the accumulation of energy in any object which may be charged by the electrode. ATEQ recommends the following to protect operators:

- Install an emergency stop system on main supply.
- Keep off the test area during the tests.
- Discharge the system if test parts are accumulating energy.
- Place the test part under a metal bell to avoid some electromagnetic disturbance.

Precautions in the test environment

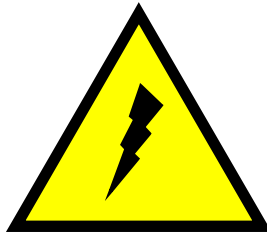
- Keep the test area as clean and dry as possible (preferably below 70 % humidity depending on the tests and the rejects limits) and free of explosive gas.

Precautions for the operators

- **ATEQ** recommends that the operators working with the equipment have adequate training and are suitably qualified for this work.

Recommendations for electrical test equipment

Safety rules for the IONIQ



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Recommendations for electrical test equipment

Generals' precautions

- Read the user manual before using the instrument.
- All electrical connections to the instrument must be fitted with safety devices (fuses, circuit-breakers,...) suitable for the requirements of the situation and which complies with the standards in force
- Add an emergency stop system on the main supply.
- To avoid electromagnetic disturbance, electrical connections made to the instrument must be less than 3 meters.
- The electrical power supply cable must be connected to a safety grounding system plug.
- Disconnect the electrical main supply of the instrument before any service operation.
- Do not open the instrument when it is powered up.
- Avoid any jets of water or any liquid in the direction of the instrument.

ATEQ will be pleased to give any information required concerning installation and use of the instrument under maximum safety conditions.



We draw your attention to the fact that ATEQ will not be held responsible for any accident linked to incorrect use of the measurement instrument or the remote control or to non-compliance of the installation with safety rules.

Nor will ATEQ accept any liability for calibration or adjustment to its instrument which are not carried out by its own personnel.



PREFACE

Dear Customer,

You have just purchased an **ATEQ** instrument, we thank you for the trust you have placed on our brand. This instrument has been designed to ensure a long and unparalleled life expectancy, and we are convinced that it will give you complete satisfaction during many long years of operation.

In order to maximise the life expectancy and reliability of your **ATEQ** instrument, we recommend that you install this instrument on a secured workbench and advise you to consult this manual in order to familiarise yourself with the functions and capabilities of the instrument.

Our **ATEQ** After Sales Service centre can give you recommendations based on your specific operation requirements.

ATEQ

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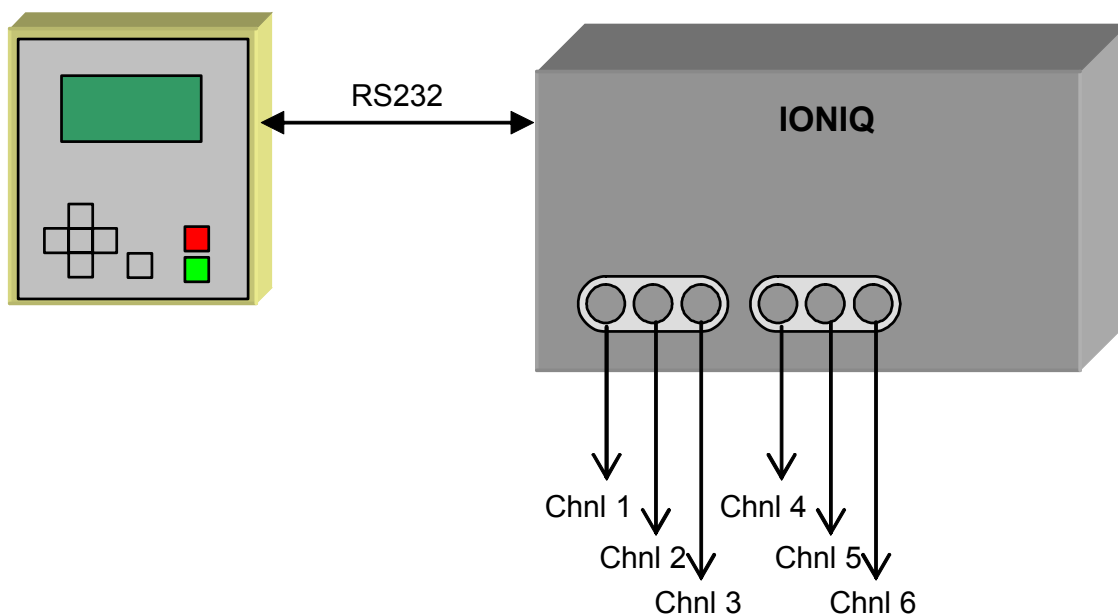
Preamble

DEFINITION AND PRINCIPLES OF THE IONIQ 6 SW

1. DEFINITION

The **ATEQ IONIQ 6SW** is a test instrument intended for leak testing using high voltage. 1 to 6 measurement channels may be processed by one unit.

Remote-control for display of test results for each channel at same time and access parameters



2. MEASUREMENTS CHARACTERISTICS

The following tests may be carried out with this instrument:

MEASUREMENTS	RANGE	RESOLUTION	ACCURACY
Generator Test voltage	5.00 – 27.3 kV DC	0.1 kV	+/- 5 % U
Detection Current measurement Percentage in comparison with a reference channel	0 – 100 %	1 %	-

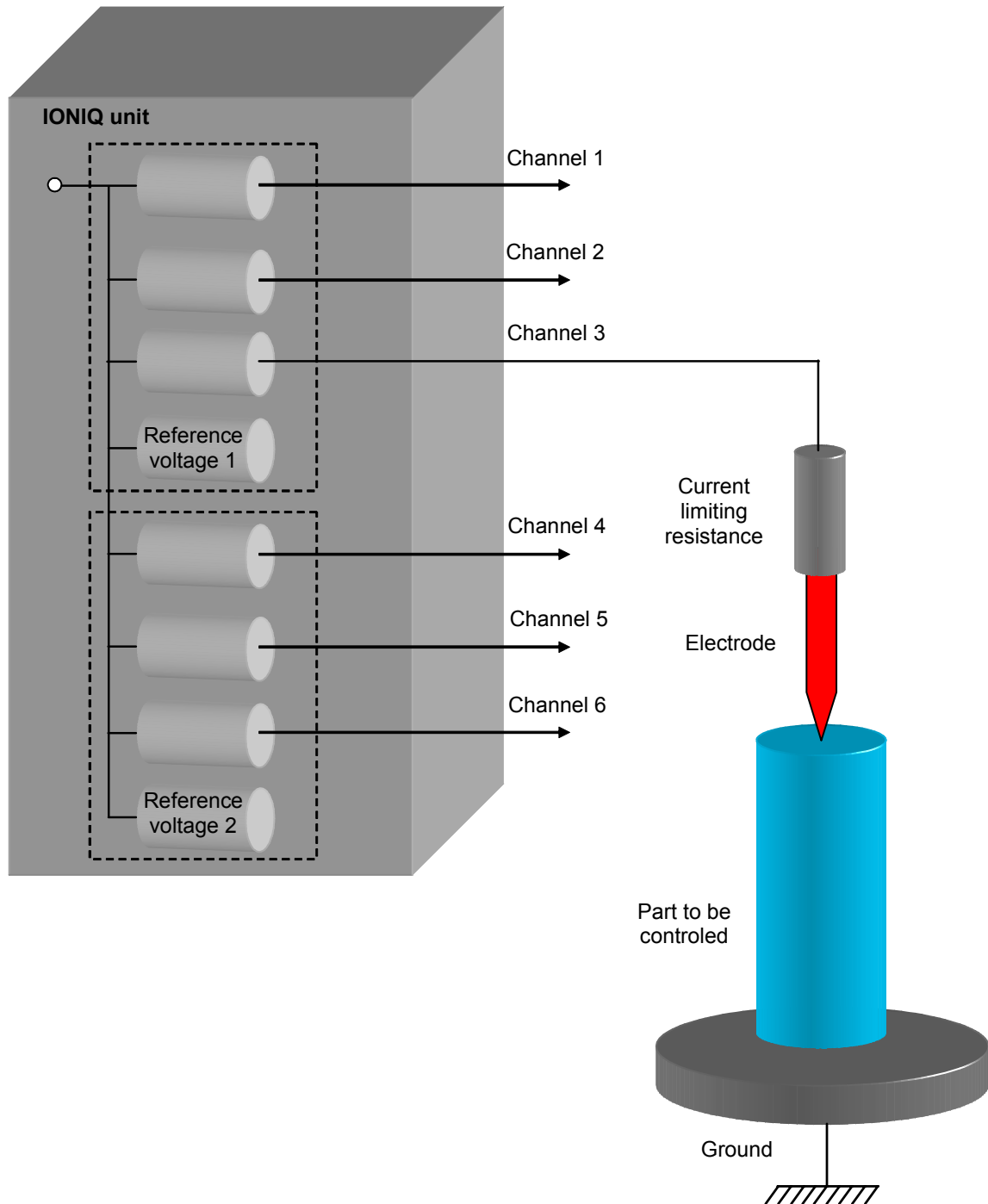
3. MEASUREMENT PRINCIPLE

- Generation of High Voltage.
- Measurement of the current:

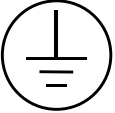

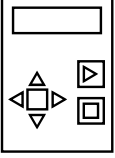

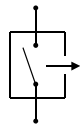
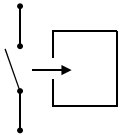
The instrument compares the measurement to the reference channel and expresses the result as a %. A measure at 100 % means no leak and at 0 % it's a large leak.

The reference channel enables the functioning of the High Voltage generator to be checked on each test.

Principle



4. PRESENTATION OF THE SYMBOLS

Symbol	Name	Function
	Ground connector	Connector for the electric plugging to the ground.
	Warning!	Read and respect the instructions of the user manual, before plugging and using the instrument.
	Remote control	Connector for a remote control.
	Printer	Connector for printer plugging.
	Output	Dry contact output.
	Input	Dry contact input.

Chapter 1

INSTALLATION OF THE INSTRUMENT

1. APPEARANCE OF THE ATEQ IONIQ 6 SW



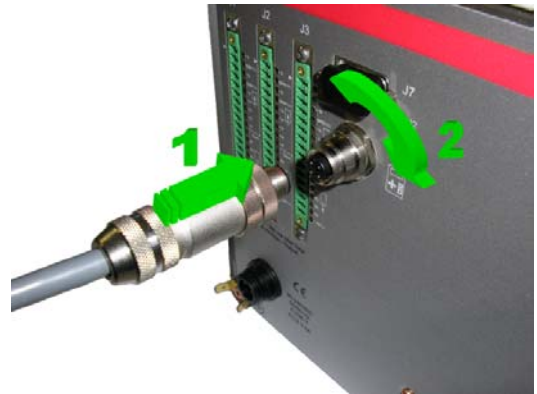
The **ATEQ IONIQ 6 SW** is made of two units:

- a measurement and High Voltage unit inserted in a casing,
- a console (remote control) which houses the operator interfaces.

These two elements are connected to each other by a cable, with an RS232 networking cable.

2. QUICK START GUIDE

- 1) connect the remote control cable on the measurement component (male side).



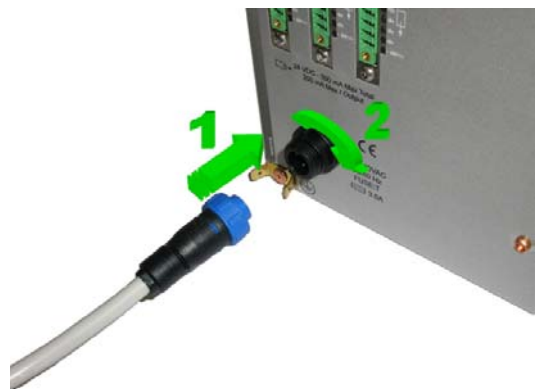
- 2) Connect the other end of the cable (female side) on the remote control component.



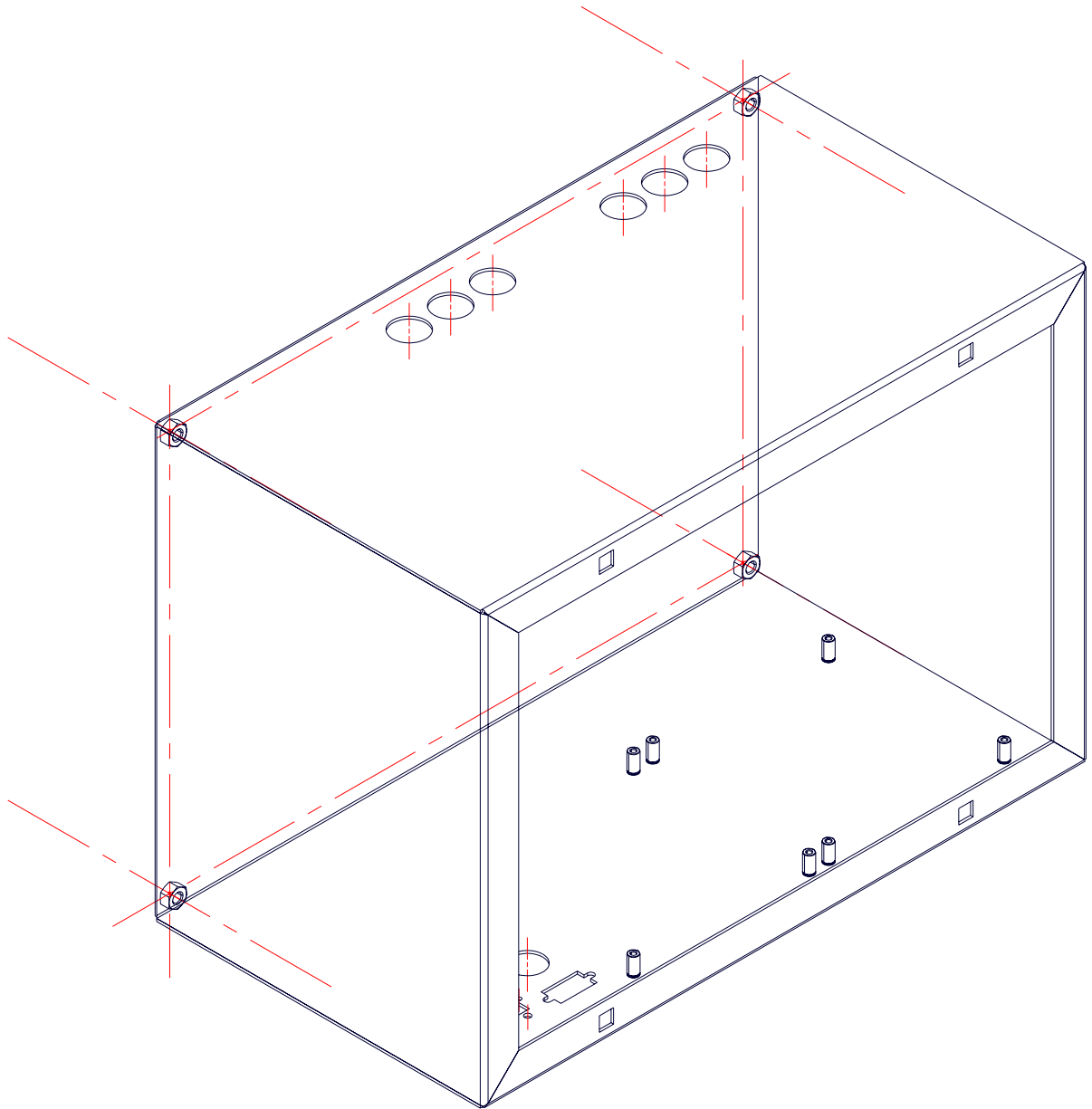
- 3) Check the connection of the high voltage outputs channels on the measurement component.



- 4) Connect the power supply (90 to 240 V AC) cable on the measurement component. The instrument will switch on.

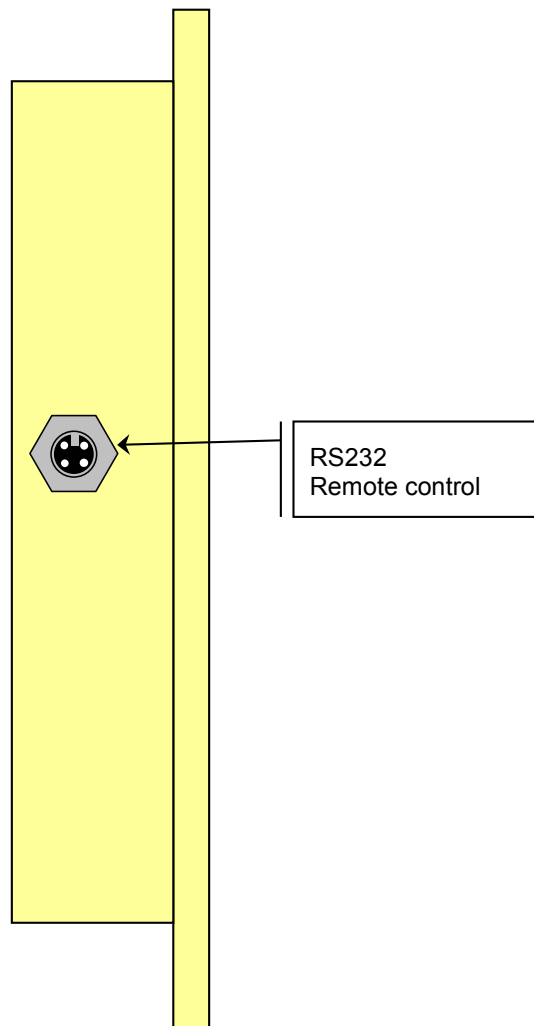


The other side of the power supply AC cable (network plug side) must be connected to a safety grounding system.



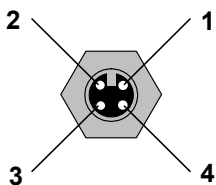
3. LAYOUT OF CONNECTORS ON THE REMOTE CONTROL

3.1. PRESENTATION OF THE DISPLAY CONSOLE



3.1.1. Electrical connectors

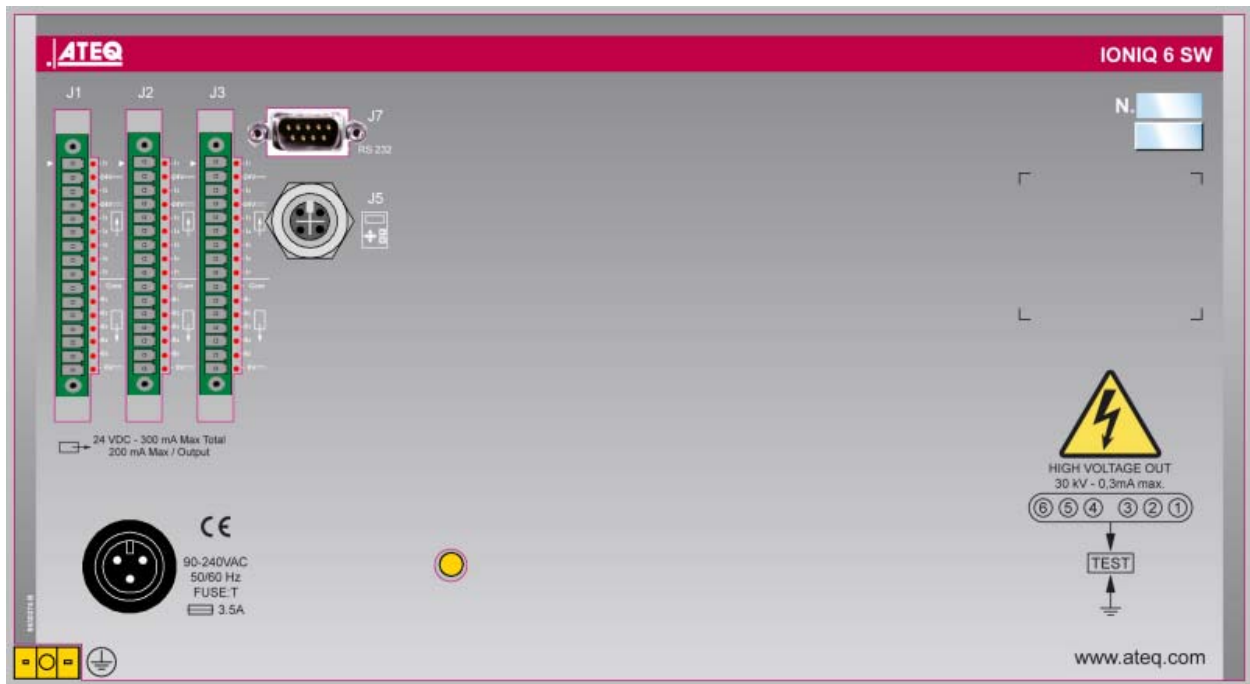
3.1.1. 1) RS232 remote control connector



Allows the connection of the interface module with the measurement head. (Male Lumberg type connector). Link this connector to the J5 "Remote control" connector of the measurement head.

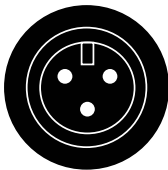
PIN 1	Network (D+)
PIN 2	+ 24 V
PIN 3	Network (D-)
PIN 4	Earth 0V

3.2. PRESENTATION OF THE CONNECTORS ON THE MEASUREMENT CASE



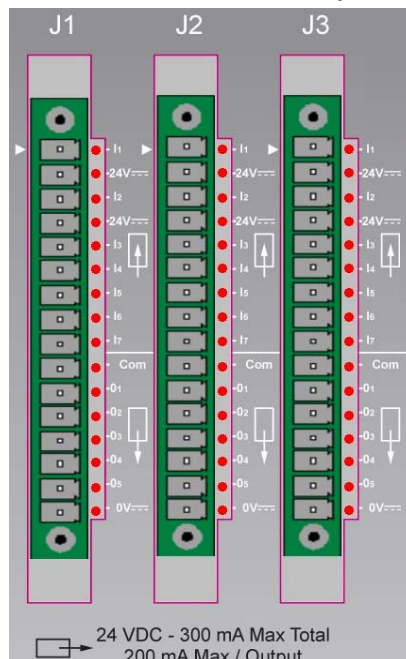
3.2.1. Connectors detail

3.2.1. 1) Power supply



The **ATEQ IONIQ 6 SW** operates under a power from 90 to 240 V AC / 45 W.

3.2.1. 2) J1, J2 and J3 connector (I/O Inputs/Outputs)



Pin	J1	J2	J3	
1	RESET (input 1)	Not used	Not used	INPUTS (Activation by 24 V DC)
2	Common (+ 24 V)	Common (+ 24 V)	Common (+ 24 V)	
3	START (input 2)	Not used	Not used	
4	Common (+ 24 V)	Common (+ 24 V)	Common (+ 24 V)	
5	Input 3 (program selection 2)	Not used	Not used	
6	Input 4 (program selection 3)	Not used	Not used	
7	Input 5 (program selection 5)	Not used	Not used	
8	Input 6 (program selection 9)	Not used	Not used	
9	Input 7 (programmable input)	Not used	Not used	
10	Common outputs	Common outputs	Common outputs	DRY OUPUTS CONTACTS 60V AC / DC Max 200mA Max per outputs
11	Part OK channel 1 output	Part OK channel 3 output	Part OK channel 5 output	
12	Part OK channel 2 output	Part OK channel 4 output	Part OK channel 6 output	
13	Part FAIL output	Part FAIL output	Part FAIL output	
14	Alarm voltage output	Alarm voltage output	Alarm voltage output	
15	End of cycle	End of cycle	End of cycle	
16	0 V	0 V	0 V	

Note: *small L.E.D. are associated to each inputs (orange L.E.D.) and outputs (red L.E.D.), when the input or output is activated the corresponding L.E.D. is on.*

3.2.1. 3) Activating a program from the J1 connector inputs

To activate a program from the J1 connector inputs, pins 5 to 8 must be selected (one or more at a time). Binary code $n + 1$.

- To select program number 1, send an impulse on another input selection and after send a start.
- The inputs are validated only on a changing state 0 to 1 (rising edge). A permanent state at value 1 don't update the input.
- If the running program is changed manually from the remote control, it stays at this number if it not changed from the PLC by a rising edge.

Pin combinations for program selection

Program number	Pin 5 (Input 3)	Pin 6 (Input 4)	Pin 7 (Input 5)	Pin 8 (Input 6)
1	0	0	0	0
2	1	0	0	0
3	0	1	0	0
4	1	1	0	0
5	0	0	1	0
6	1	0	1	0
7	0	1	1	0
8	1	1	1	0
9	0	0	0	1
10	1	0	0	1
11	0	1	0	1
12	1	1	0	1
13	0	0	1	1

Program number	Pin 5 (Input 3)	Pin 6 (Input 4)	Pin 7 (Input 5)	Pin 8 (Input 6)
14	1	0	1	1
15	0	1	1	1
16	1	1	1	1

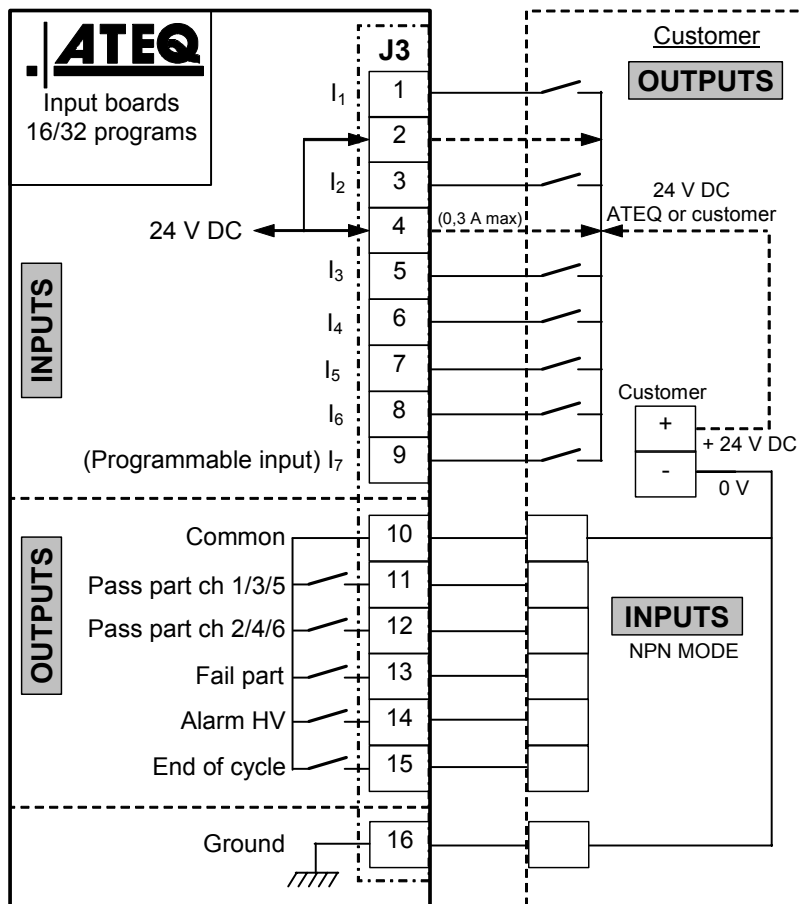
3.2.1. 4) J1 Connector (I/O Inputs/Outputs) programmable input

Input 7 can be parameterised in the **CONFIGURATION/ INPUT OUPUT** menu.

- ✓ Program selection,
- ✓ Infinite test cycle.

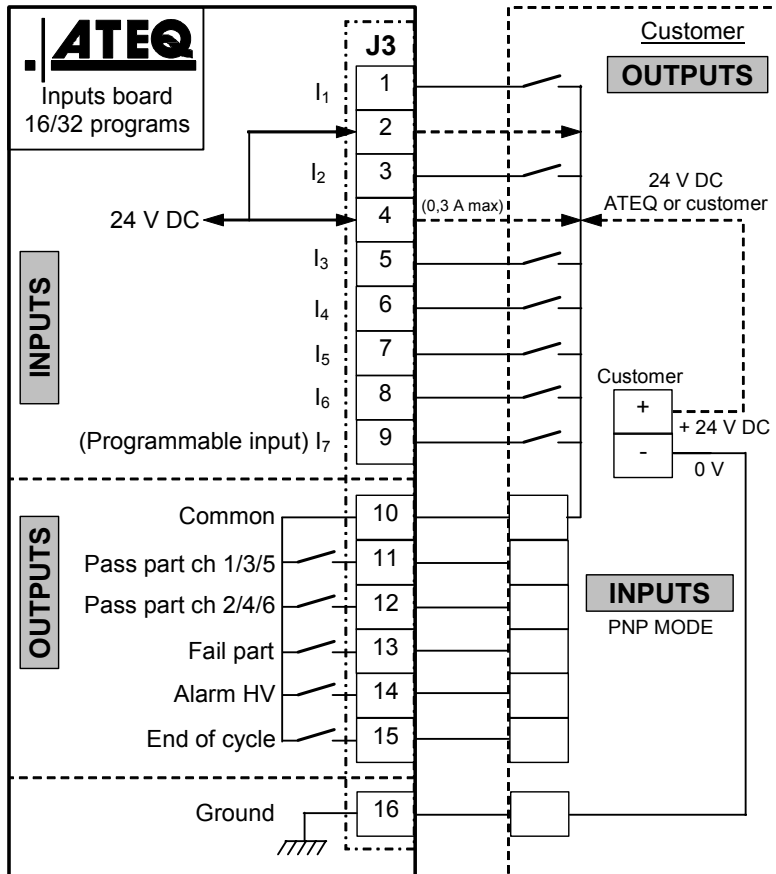
3.2.1. 5) J1 / J2 / J3 Connector (I/O Inputs/Outputs) drawing

a) PLC in NPN mode connection



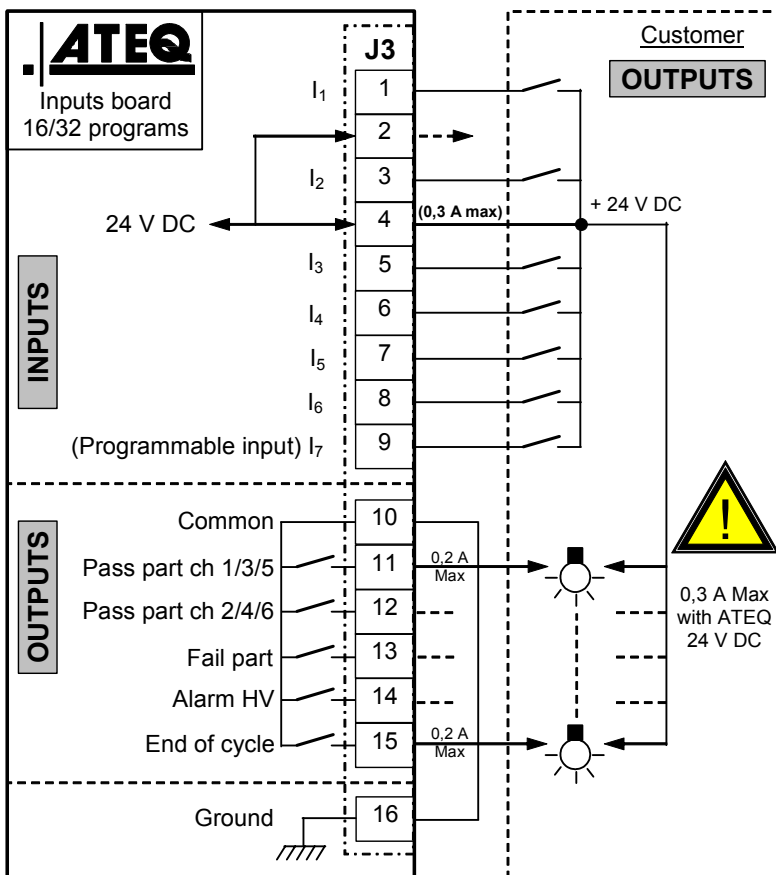
Note: The 24V power supply must be provided by the internal power supply of the ATEQ instrument (0,3A maximum) **OR** through an external power supply provided by the customer.

b) PLC in PNP mode connection



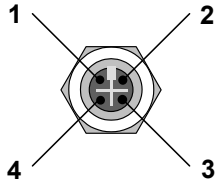
Note: The 24V power supply must be provided by the internal power supply of the ATEQ instrument (0,3A maximum) **OR** through an external power supply provided by the customer.

c) Lights connection



Note: The 24V power supply must be provided by the internal power supply of the ATEQ instrument (0,3A maximum) **OR** through an external power supply provided by the customer.

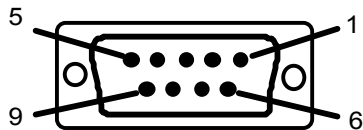
3.2.1. 6) J5 remote control connector (RS232)



Allows the connection of an intelligent remote control. (Female Lumberg type connector). Optional.

PIN 1	Network (TXD)	PIN 3	Network (RXD)
PIN 2	Power + 24V	PIN 4	Ground 0V

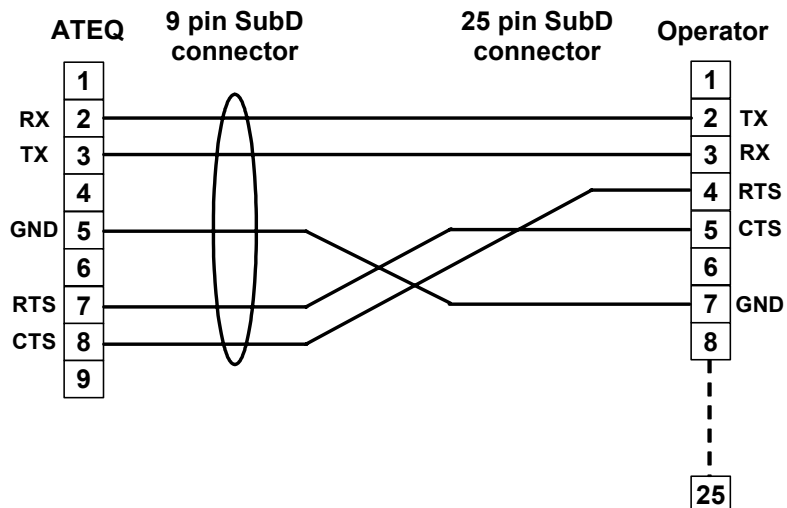
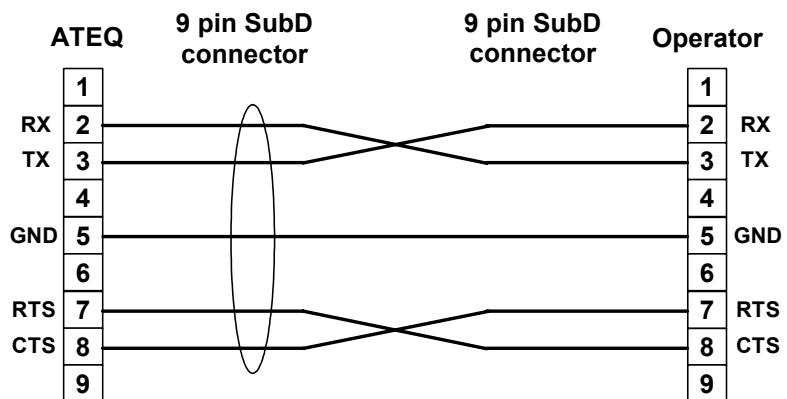
3.2.1. 7) J7 connector (RS232)



Allows the connection of a printer, a bar code reader, a PC, a memory module.

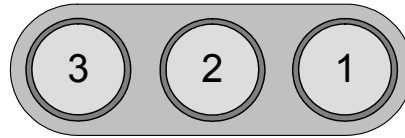
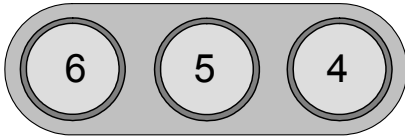
PIN 1	Not connected	PIN 6	+ 5 V DC 200 mA max
PIN 2	RXD Reception of the data	PIN 7	RTS request to send
PIN 3	TXD Sending of the data	PIN 8	CTS clear to send
PIN 4	Not connected	PIN 9	Not connected
PIN 5	Ground		

3.2.1. 8) Examples of RS232 cables

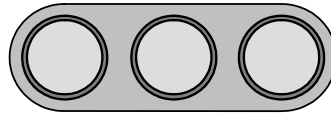
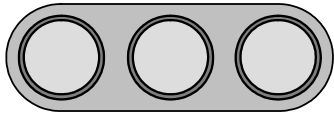


3.3. TEST OUTPUT (HV)

HV outputs for ionic test.



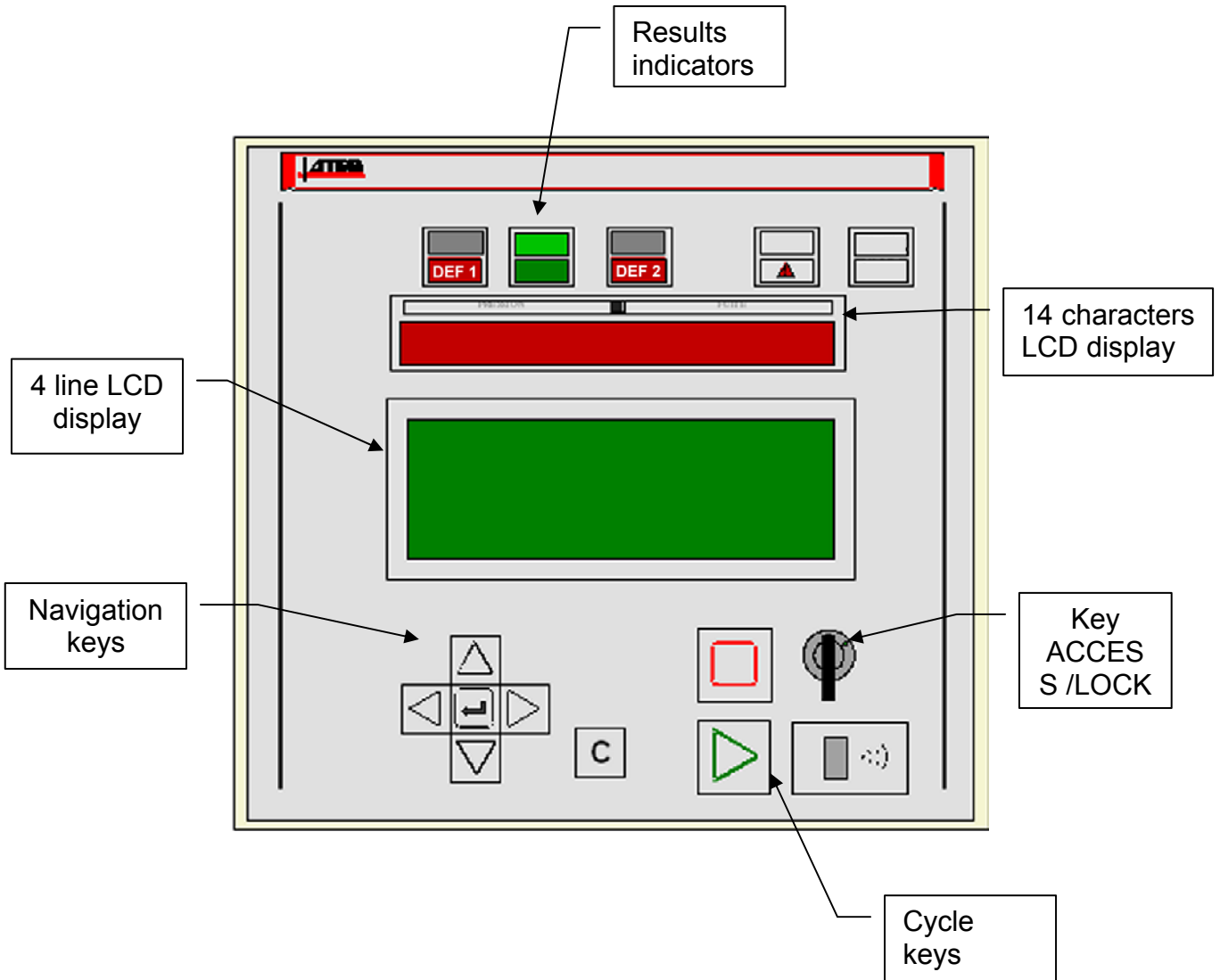
1 – 2 – 3 – 4 – 5 - 6: Test channels.



6	5	4	ATEQ	3	2	1
12	11	10	IONIQ 6 SW	9	8	7

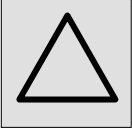
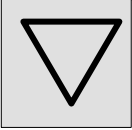
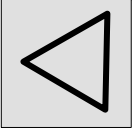
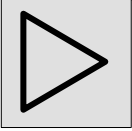


Chapter 2 USER INTERFACES

1. ATEQ IONIQ 6 SW REMOTE CONTROL APPEARANCE

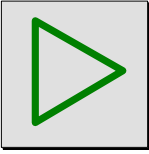
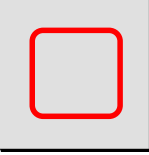


2. APPEARANCE OF THE KEYBOARD

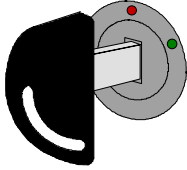
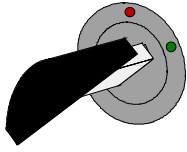
2.1. NAVIGATION KEYS

KEY	FUNCTION
	Scroll up or increase numerical values
	Scroll down or decrease numerical values
	Not used
	Not used
	ENTER key Opening a menu Entering a parameter Confirmation of a parameter
	« C » for CANCEL Return to the previous menu or function Escape without modifying a parameter

2.2. CYCLE KEYS

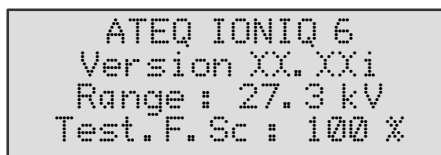
KEY	FUNCTION
	START key Starts a measurement cycle
	RESET key Stops a cycle in progress

3. LOCKABLE SWITCH

POSITION	FUNCTION
	<p>LOCKED position. Access to adjustable parameters not possible.</p>
	<p>ACCESS position. Adjustable parameters may be accessed.</p>

Note: whatever position the key is in (**LOCKED** or **ACCESS**), test cycles can be started and stopped.

4. 4 LINE LCD DISPLAY



Used to display measurements and adjustable parameters. In the example opposite, XX.XXi represents the program version for the instrument.

5. 14 CHARACTER LED DISPLAY




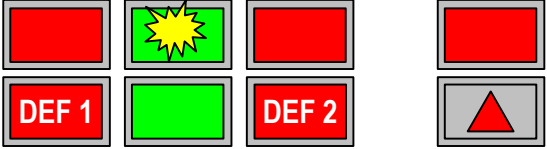
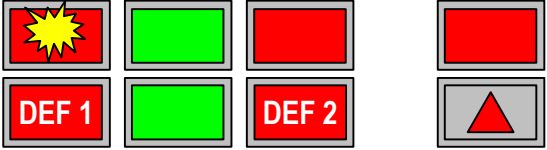

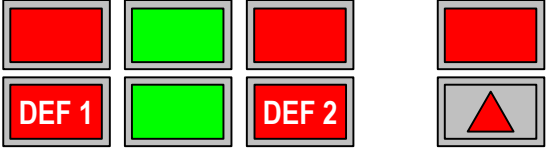
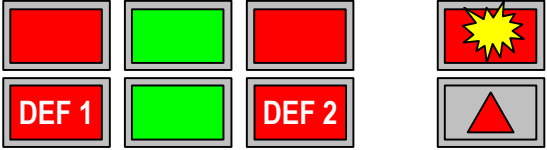
Allows the display of measurements and adjustable parameters.

The different messages displayed are:

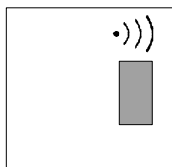
<p>WAIT A</p> <p>The test cycle is in wait step.</p>	<p>PARAMETERS</p> <p>The operator is in parameters access mode.</p>
<p>STABILISATION</p> <p>The test cycle is in stabilization step.</p>	<p>PR.01 CYCLE</p> <p>The instrument is in rest mode.</p>
<p>TEST</p> <p>The test cycle is in test step.</p>	<p>VOLTAGE 1</p> <p>Alarm low voltage on the reference channel 1 is triggered.</p>
<p>READY</p> <p>The instrument is ready to run test cycle.</p>	<p>ATEQ IONIQ 6</p> <p>Power on of the instrument</p>

6. FUNCTIONS OF THE INDICATOR LIGHTS

The  symbol represents an indicator which is lit.

All channels part OK indicator	
High Voltage error.	
One of the channels fail part.	
Rest mode.	
Not used.	

7. INFRA-RED INTERFACE



Not used.

Chapter 3

INSTALLATION AND SETTINGS

1. POWERING UP THE ATEQ IONIQ 6 SW

Supply the apparatus with 24 V DC. When powered up the instrument:

displays version and the full scale...	
...then displays the main menu and is ready to run test cycles.	

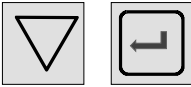
2. CREATION OF A TEST PROGRAM

To modify the parameters, turn the key to the ACCESS position.		
To access the main menu, press ENTER . In the main menu, place the cursor in front of the PARAMETERS menu. Confirm with the ENTER key.		
The PARAMETERS menu is used to manage test programs. <ul style="list-style-type: none"> ➤ If the various programs to be created have different parameters, they must be created one by one. ➤ If the programs have identical parameters, a base program can be created and then the Copy-Paste function can be used to duplicate the program as many times as is necessary. 		

2.1. CHOICE OF THE PROGRAM NUMBER

Position the cursor in front of the chosen program number and confirm with the ENTER key.		
--	--	--

2.2. TEST TYPE SELECTION

<p>The PARAMETERS menu gives access to ionic test type (CYCLE) see the following paragraph for explanations.</p>		<pre>PARAM/TYPE ▶CYCLE</pre>
--	---	------------------------------

2.2.1. Ioniq test (cycle)

The ionic test is for leak testing using high voltage.

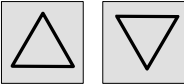

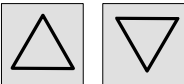

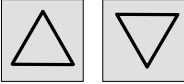

The parameters of one program are for the 6 channels at same time.

2.3. PARAMETER SETTINGS

Once the test type is chosen, the test cycle parameters must be set.

The procedure to follow for setting the test parameters is identical in each case.

Example: Wait time A.

<p>First, position the cursor in front of the chosen parameter using the navigation keys (here, Wait A).</p>		<pre>PARAM/pr001 ▶WAIT A : 0.00 s STAB TIME: 0.50 s TEST TIME: Inf. s</pre>
<p>Then, confirm with the ENTER key. The cursor will move to the right of the display.</p>		<pre>PARAM/pr001 WAIT A : 0.00 s ◀ STAB TIME: 0.50 s TEST TIME: Inf. s</pre>
<p>Modify the value using the navigation keys.</p>		<pre>PARAM/pr001 WAIT A : 0.04 s ◀ STAB TIME: 0.50 s TEST TIME: Inf. s</pre>
<p>Once the value is modified, confirm with the ENTER key.</p>		<pre>PARAM/pr001 ▶WAIT A : 0.04 s STAB TIME: 0.50 s TEST TIME: Inf. s</pre>
<p>To move on to the next parameter, use the navigation keys.</p>		<pre>PARAM/pr001 WAIT A : 0.04 s ▶STAB TIME: 0.50 s TEST TIME: Inf. s</pre>
<p>To exit from the menu, use the CANCEL key.</p>		<pre>PARAMETERS ▶Copy-Paste Pr: 01 CYCLE Pr: 02 -----</pre>

2.3.1. Test kV

This parameter is the high voltage instruction for the test. When the voltage instruction is validated, the maximum and minimum voltage limits are set respectively to + 20 % and – 20 % of the instruction.

☞ Set this parameter using the method described in § 2.3.

2.3.2. Maximum kV

Maximum limit for high voltage monitoring for the test. This value is automatically set at + 20 % of the voltage instruction and can be manually modified. When over the “Voltage 1 (or 2) high” alarm is triggered.

☞ Set this parameter using the method described in § 2.3.

2.3.3. Minimum kV

Minimum limit for high voltage monitoring for the test. This value is automatically set at - 20 % of the voltage instruction and can be manually modified. When lower “Voltage 1 (or 2) low” alarm is triggered..

☞ Set this parameter using the method described in § 2.3.

2.3.4. Wait time

Wait time A is part of cycle parameters and it's a waiting before sending the High Voltage.

Wait time B also appears if the automatic connector function is validated, but generally not used.

☞ Set this parameter using the method described in § 2.3.

2.3.5. Stabilization time

For setting the High Voltage charge time (establishment of the high voltage into the test circuit).

Increase this time according to the test set-up to obtain stable and repeatable values for the test results. A time below 0.3 s may trigger the "Voltage low (or high)" alarm.

☞ Set this parameter using the method described in § 2.3.

2.3.6. Test time

The test time is the time of measurement of the current (6 channels) at the same time. The infinite test is possible with voltage monitoring.

☞ Set this parameter using the method described in § 2.3.

2.3.7. Maximum %

Used to set maximum limit for test rejects. Before this limit the test is Pass and over this limits it is Fail.

Maximum reject levels (% compared to the value measured on the reference channel).

When test time is infinite, the maximum test voltage monitoring remains in operation.

☞ Set this parameter using the method described in § 2.3.

2.3.8. Minimum %

Used to set minimum limit for test rejects. Before this limit the test is Fail and over this limits it is Pass.

Minimum reject levels (% compared to the value measured on the reference channel).

When test time is infinite, the minimum test voltage monitoring remains in operation.

☞ Set this parameter using the method described in § 2.3.

2.3.9. Functions

The **FUNCTION** menu gives access to additional parameters which must first be activated in the **CONFIGURATION** menu and then the **EXTENDED MENU**.

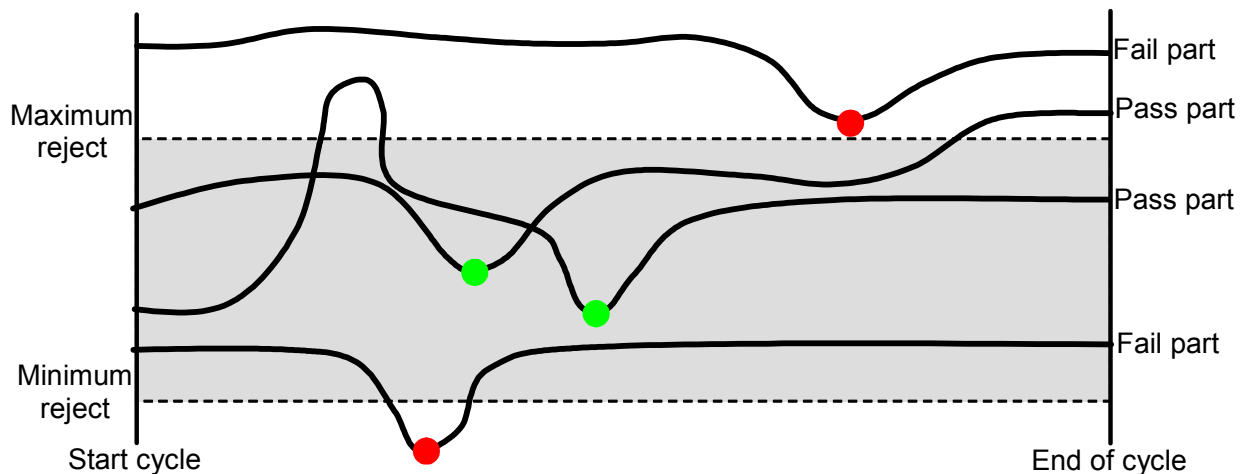
If no additional parameters are confirmed in the **EXTENDED MENUS**, the **FUNCTION** menu will be empty when selected.

To activate these parameters, refer to chapter 4 § 2.

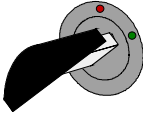
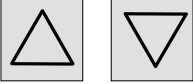
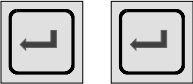

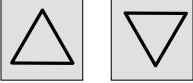




2.4. RESULTS FOLLOWING MINIMUM AND MAXIMUM REJECTS

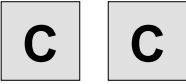
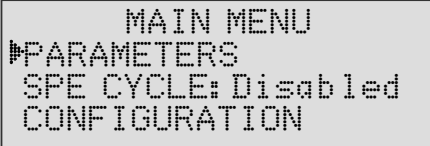
The IONIQ S6 make measurements as peak hold function. The instrument measures the High Voltage percent, which can change during the test. The instrument stores the greatest drop and then displays it at the end of the test.

If the drop is between the minimum and maximum reject, the part is pass, if the drop is outside of these rejects, the part is fail.

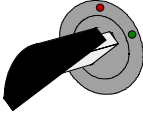
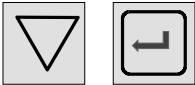
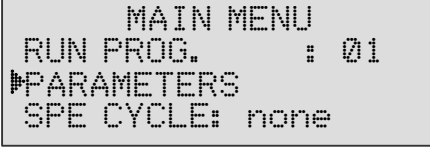



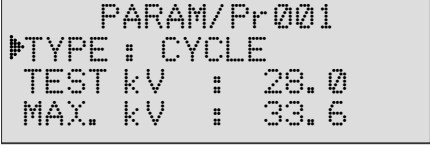

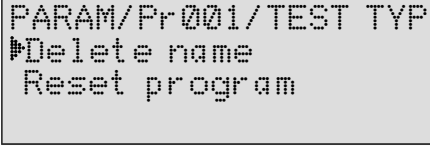

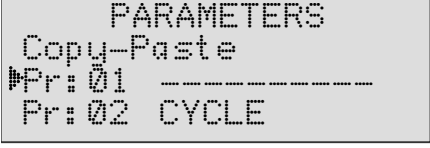

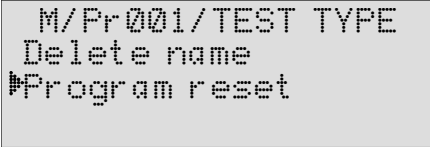




3. DUPLICATION OF A TEST PROGRAM

<p>To modify the parameters, turn the key to the ACCES position.</p>		
<p>Starting from the main menu, position the cursor in front of the PARAMETERS function.</p>		<pre> MAIN MENU RUN PROG.: 001 PARAMETERS SPE CYCLE : Disabled </pre>
<p>Confirm with the ENTER key. The cursor will appear in front of the Copy-Paste function. Confirm the function again using the ENTER key.</p>		<pre> PARAMETERS Copy-Paste Pr : 01 CYCLE Pr : 02 CYCLE </pre>
<p>Next, confirm the COPY function.</p>		<pre> PARAM/Copy-Paste COPY : Pr --- PASTE : Pr --- </pre>
<p>Display the number of the program to be copied using the navigation keys. (In this case, program no.1).</p>		<pre> PARAM/Copy-Paste COPY : Pr 001 PASTE : Pr --- </pre>
<p>Confirm using the ENTER key.</p>		<pre> PARAM/Copy-Paste COPY : Pr 001 PASTE : Pr --- </pre>
<p>Place the cursor in front of PASTE.</p>		<pre> PARAM/Copy-Paste COPY : Pr 001 PASTE : Pr --- </pre>
<p>Confirm with the ENTER key. Assign a number to this new program using the navigation keys (For example no.3).</p>		<pre> PARAM/Copy-Paste COPY : Pr 001 PASTE : Pr 003 </pre>
<p>Confirm with the ENTER key, The display confirms that the program has been copied.</p>		<pre> COPY IN PROGRESS </pre>
<p>The program no.1 parameters have now been copied into program no.3 parameters. In this example program no.3 is an exact copy of program n°1.</p>		<pre> PARAM/Copy-Paste COPY : Pr 001 PASTE : Pr 003 </pre>

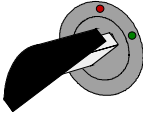
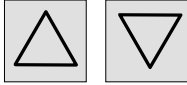

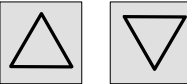

<p>Press the CANCEL key twice to return to the main menu.</p>		
--	---	--

4. DELETING A PROGRAM OR A PROGRAM NAME


<p>To modify the parameters, turn the key to the ACCES position.</p>		
<p>Position the cursor in front of PARAMETERS function. Confirm with the ENTER key.</p>		
<p>Position the cursor in front of the program number or the program name to be deleted.</p>		
<p>Confirm once to enter the program.</p>		
<p>Confirm a second time to gain access to the delete menu. There are two possibilities : delete the program name or delete the whole program.</p>		
<p>1°) Confirm a third time. The name of the program is deleted.</p>		
<p>2°) Place the cursor in front of Program reset.</p>		
<p>Confirm with the ENTER key. The program is then deleted.</p>		

Note: If the “*Program delete*” operation is carried out first, then the program name is also deleted.


5. CHOICE OF THE PROGRAM TO BE RUN

<p>Position the key in the ACCESS position.</p>		
<p>Starting from the main menu, place the cursor in front of the RUN PROG. function.</p>		<pre> MAIN MENU ▶RUN PROG. : 01 PARAMETERS SPE CYCLE: none </pre>
<p>Confirm with the ENTER key.</p>		<pre> MAIN MENU RUN PROG. : 01 ◀ PARAMETERS SPE CYCLE: none </pre>
<p>Display the number of the program required by scrolling through the numbers with the navigation keys.</p>		<pre> MAIN MENU RUN PROG. : 04 ◀ PARAMETERS SPE CYCLE: none </pre>
<p>Confirm your choice with the ENTER key.</p>		<pre> MAIN MENU ▶RUN PROG. : 04 PARAMETERS SPE CYCLE: none </pre>

6. STARTING A MEASUREMENT CYCLE

<p>Press the START key to start a measurement cycle.</p>		<pre> RUN/Pr: 001 *◀ 90% READY </pre>
<p>The cycle phases appear on the display: A for Coupling A time, B for coupling B time, S for stabilization, T for test and R for ready.</p>		<pre> 29.4kV 29.4kV ----- T01: 100 T02: 99 T03: 99 T04: 99 T05: 99 T06: 100 </pre>

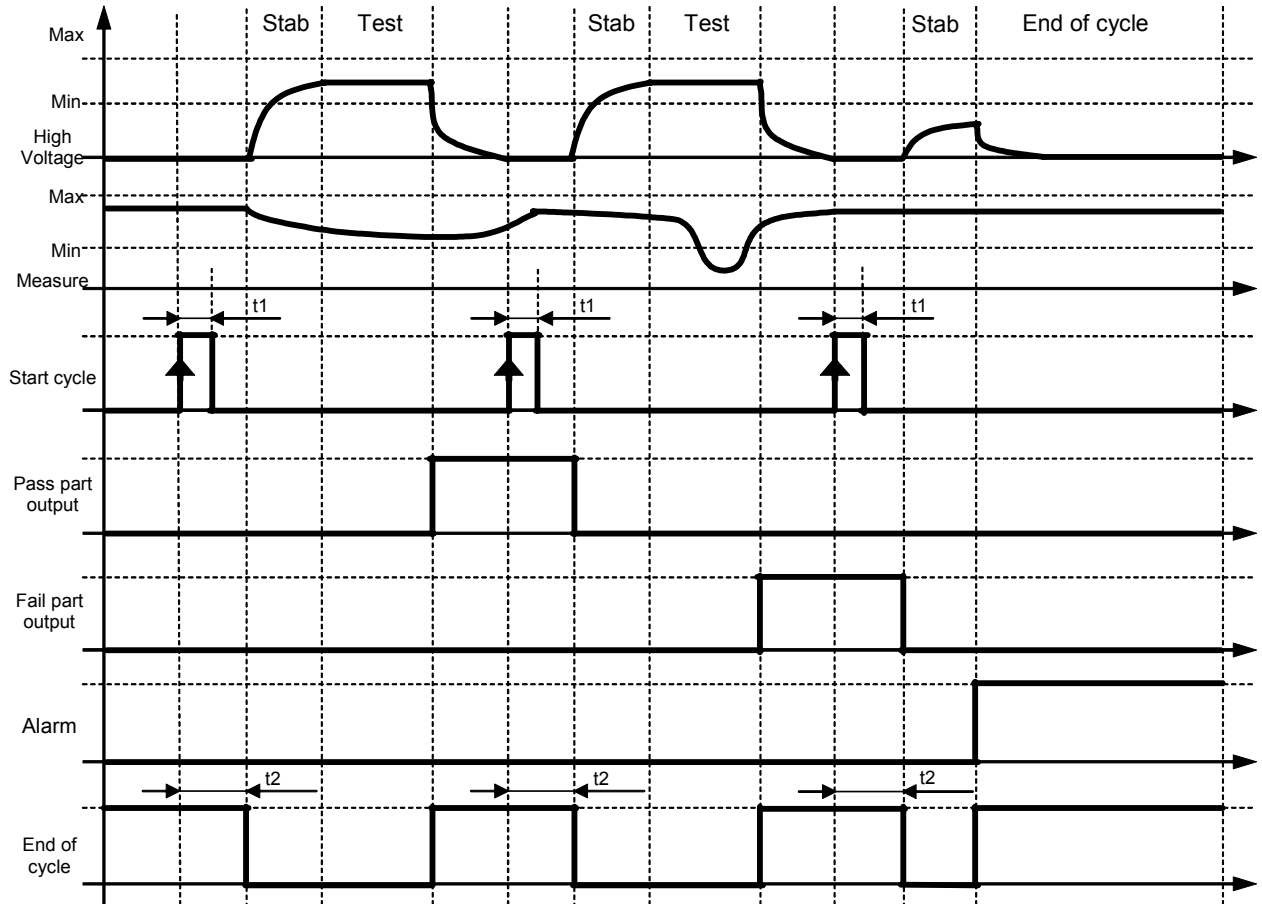
7. STOPPING A CYCLE

<p>Press the RESET key to stop the measurement. The display "READY" indicates that the instrument is ready to perform a new measurement test.</p>		<pre> RUN/Pr: 001 *◀ 90% READY </pre>
---	---	--

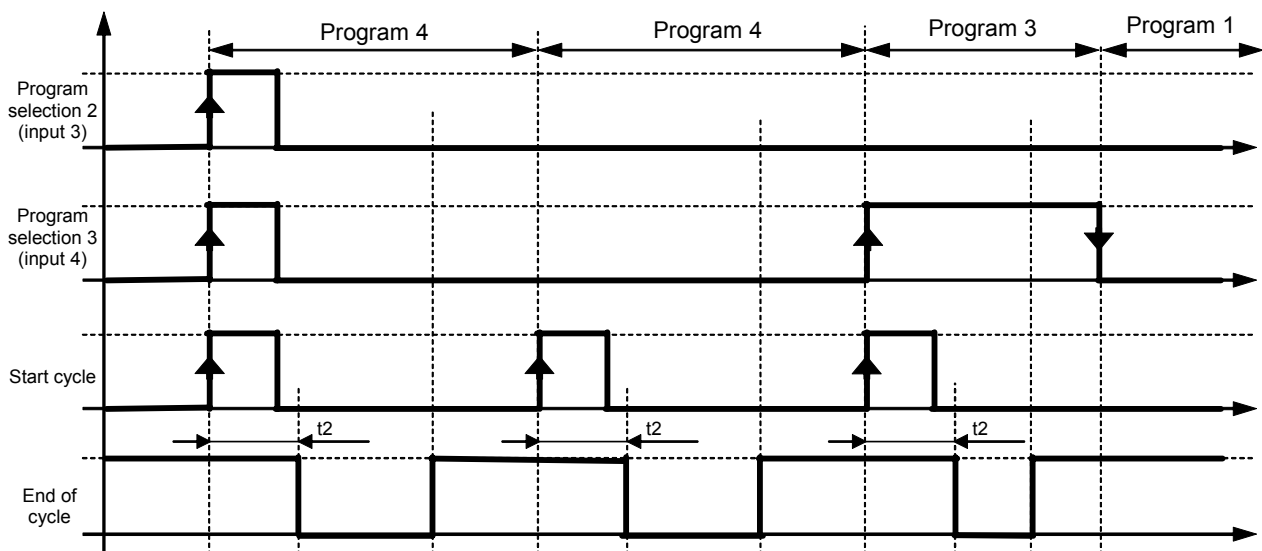
8. CYCLE TIME CHART

Here is the cycle time chart for a IONIQ test measurement:

t1 = 50 ms minimum; t2 = 100 ms maximum.



Selection program number time chart:

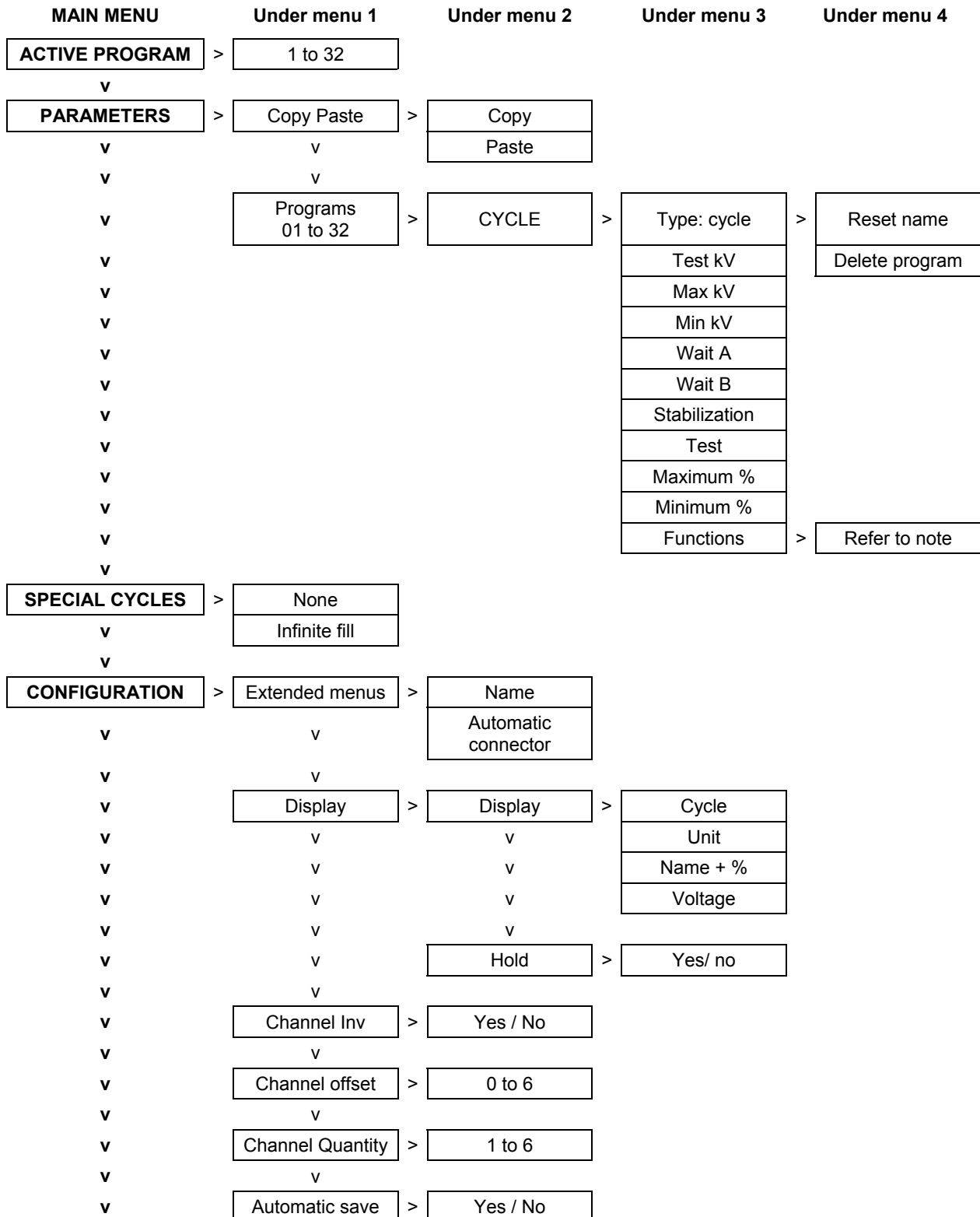


Chapter 4

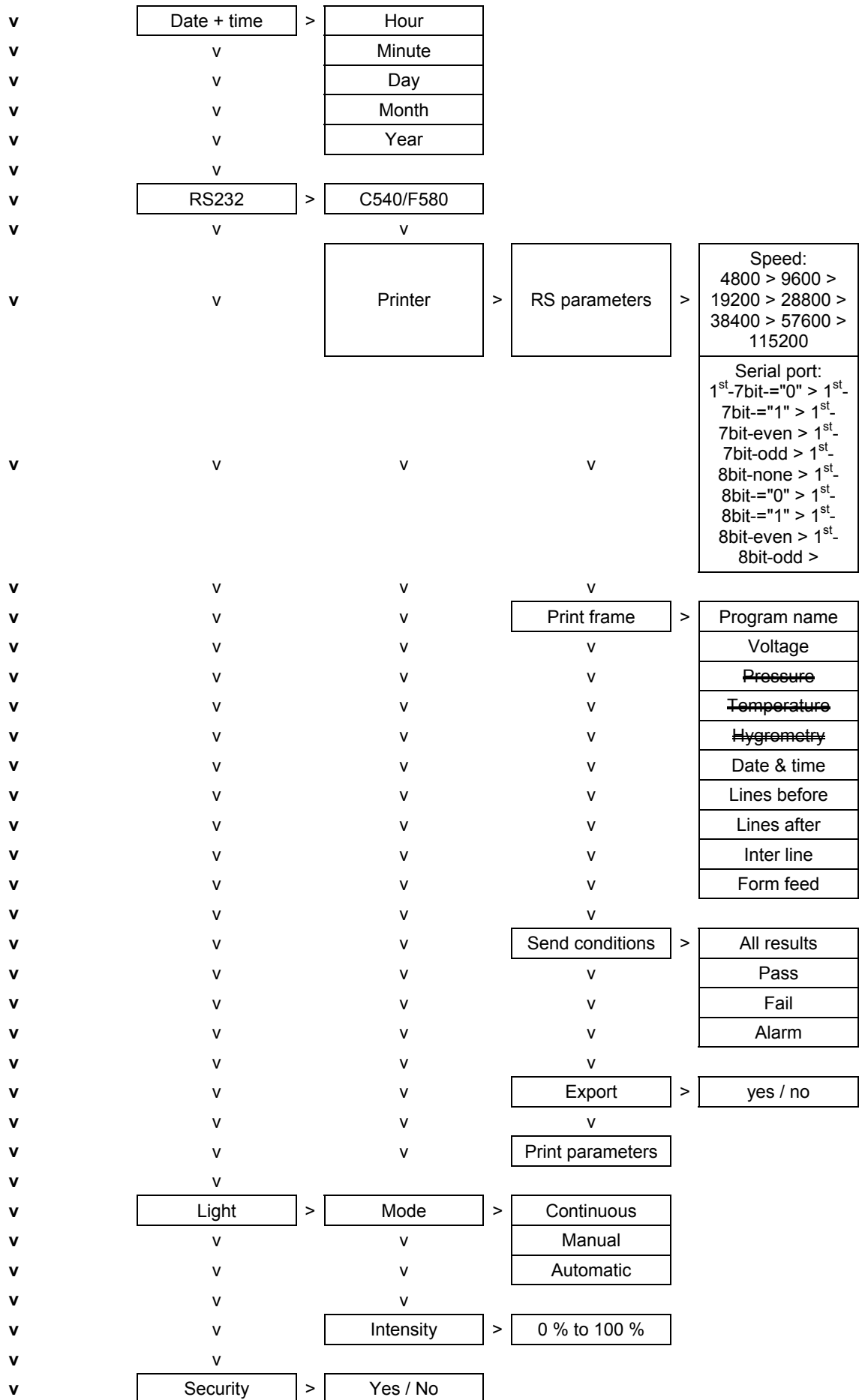
FUNCTIONS OF THE INSTRUMENT

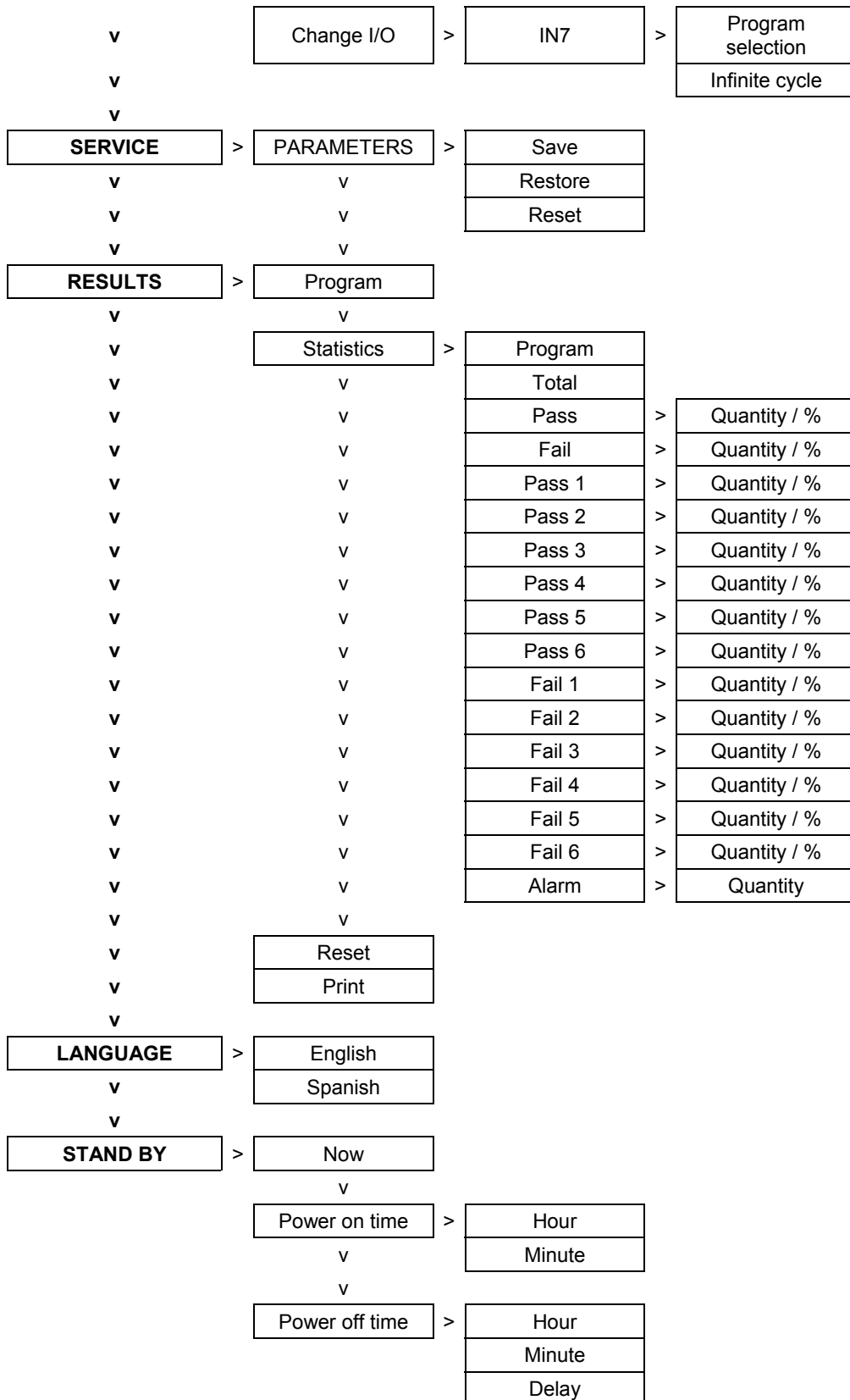
1. MENU STRUCTURE

1.1. MAIN MENU



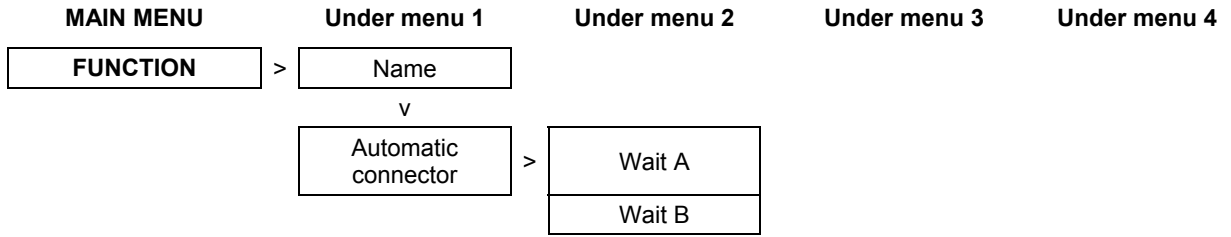
Chapter 4 – Functions of the instrument





Note: The parameters that feature in the **EXTENDED MENUS** can be found in the **FUNCTIONS** menu of the program when they are activated (refer to the following chapter).

1.2. "FUNCTIONS" MENU WHEN ACTIVATED












2. CONFIGURATION MENU

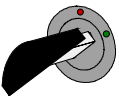
2.1. EXTENDED MENUS


The extended menus offer access to additional functions. If these functions are activated, they can be found in the **FUNCTION** menu when a program is created. If no additional functions are activated, the **FUNCTION** menu will be empty when a program is created. .

2.1.1. Activation of the additional functions

<p>In the main menu, place the cursor in front of the CONFIGURATION label</p>		<pre> MAIN MENU SPE CYCLE: none CONFIGURATION SERVICE </pre>
<p>Confirm using the ENTER key.</p>		<pre> CONFIGURATION EXTENDED MENUS PRINTER : YES HOUR </pre>
<p>Next, confirm the EXTENDED MENUS function with the ENTER key. The list of additional functions is then displayed.</p>		<pre> CONFIG/EXTEND MENUS NAME : No AUTO CONNECT : No </pre>
<p>To activate a function (e.g. the NAME function), confirm it with the ENTER key. Next, choose YES with the navigation keys and confirm again with the ENTER key. Start the operation again if you need to activate other functions.</p>	   	<pre> CONFIG/EXTEND MENUS NAME : Yes AUTO CONNECT : No </pre>
<p>Once all the chosen functions are activated, press the CANCEL key twice to return to the main menu.</p>	 	<pre> MAIN MENU SPE CYCLE: none CONFIGURATION SERVICE </pre>

2.1.2. Setting the additional functions

- ✓ Place the key in the **ACCESS** position .
- ✓ Create a new program (refer to chapter 3 §2 "Creation of a test program").
- ✓ In the parameters list for this new program, confirm the **FUNCTIONS** parameter (refer to chapter 3 § 2.3 "Parameter settings").

 **Only the functions which have been activated using the above method will appear in the FUNCTIONS parameter.**

2.2. LIST OF ADDITIONAL FUNCTIONS


2.2.1. Name

This function is used to customize a program, for example to name a program after the part to be tested.

 Select the option and enter settings if necessary.

2.2.2. Automatic connector

Special function, do not use it.

 Select the option and enter settings if necessary.

2.3. DISPLAY FUNCTION

This function allows customizing the display to adapt it for following the user preferences. Four modes are available.

In case of six channels installed, the display means like the following one.

On the first line are displayed the configured information and the three others are for the six channels steps and values.

```
29.4kV 29.4kV -----
T01: 100 T02: 99
T03: 99 T04: 99
T05: 99 T06: 100
```

Generals information

6 channels steps and values

 Select the option and enter settings if necessary.

In case of two channels or less installed, the display means like the following one.

On the first line are displayed the configured information, on the second line is displayed the reference channel voltage, on the third and fourth lines are for the first and second channels steps and values.

```
RUN/Pr : 001 *C 95%
VOLTAGE 1 : 28.1kV
1-PASS : 100%
2-PASS : 99%
```

Generals information

Reference channel voltage

2 channels steps and values

2.3.1. Voltage display mode

In this mode, on the first line are displayed the voltage values of the two references channels during the test cycle.

```
29.4kV 29.4kV -----
T01: 100 T02: 99
T03: 99 T04: 99
T05: 99 T06: 100
```

2.3.2. Name + % display mode

In this mode, on the first line are displayed the name of the program personalization and the value in percent of the minimum reject.

```
ABCDEFGHIJKLM * < 95%
R01: 100 R02: 99
R03: 99 R04: 99
R05: 99 R06: 100
```

If the program has no personalization name, the program number is displayed.

```
RUN/Pr : 001 * < 95%
R01: 100 R02: 99
R03: 99 R04: 99
R05: 99 R06: 100
```

2.3.3. Test unit display mode

In this mode, on the first line is displayed the reject unit in this case: percent.

```
TEST UNIT : %
R01: 100 R02: 99
R03: 99 R04: 99
R05: 99 R06: 100
```

2.3.4. Cycle display mode

In this mode, on the first line is displayed the current step of the cycle.

WAIT A, STABILISATION, TEST and READY.

```
TEST
T01: 100 T02: 99
T03: 99 T04: 99
T05: 99 T06: 100
```

2.3.5. Hold function

The hold function allows keeping on the display the test results of the precedent measurement during the first phases of the current cycle measurement (wait and stabilization steps). This is to allow to the operator to read the results easily in case of short measurement times.

```
29.4kV 29.4kV -----
T01: 100 T02: 99
T03: 99 T04: 99
T05: 99 T06: 100
```

2.4. CHANNELS INVERSION

This function allows reversing the channels numbers on the display, the channel 1 becomes channel 6.

	1	2	3	4	5	6
CHANNELS INV : NO	1	2	3	4	5	6
CHANNELS INV : YES	6	5	4	3	2	1

2.5. CHANNEL OFFSET

The channel offset function allows modify the channels number.

For example, if the offset is set to 2 the first channel will have the number 3, the second the number 4, etc...

Channels	Offset = 0	Offset = 2
First channel	Number: 01	Number: 03
Second channel	Number: 02	Number: 04
Third channel	Number: 03	Number: 05
Fourth channel	Number: 04	Number: 06
Fifth channel	Number: 05	Number: 07
Sixth channel	Number: 06	Number: 08
	<pre> 29.4kV 29.4kV ----- T01: 100 T02: 99 T03: 99 T04: 99 T05: 99 T06: 100 </pre>	<pre> 29.4kV 29.4kV ----- T03: 100 T04: 99 T05: 99 T06: 99 T07: 99 T08: 100 </pre>

2.6. CHANNEL QUANTITY

This parameter set the number of displayed channels; this is for the display and frames sending only. The High Voltage is still sending on the 6 channels.

The I/O relay and statistics results are working on the standard way like there were 6 channels.

In this example, the displayed channel quantity is set to 4.

The channels 5 and 6 are not displayed but are functional.

```

29.4kV 29.4kV -----
T01: 100 T02: 99
T03: 99 T04: 99
                
```

2.7. AUTOMATIC SAVE

This function has for main objective to save the test parameters from the RAM memory of the instrument to its flash memory.

When this function is not validated, each time the key switch is turned from the **ACCESS** to the **LOCKED** mode, the instrument displays **NO PARAMETERS SAVED IN FLASH**. The save operation can be carried out manually in the **SERVICE PARAMETERS** menu.

When the **AUTOMATIC SAVE** function is confirmed with a **YES**, the parameters are saves automatically when the key is turned from the **ACCESS** to the **LOCKED** position.

This function is useful if the parameters in the RAM are accidentally erased (battery failed). The instrument will then automatically read and restore the flash parameters in the RAM.

2.8. DATE AND TIME

This function includes a clock (hours, minutes) and an internal calendar (day, month and year).

☞ Select the option and enter settings if necessary.

2.9. RS232

2.9.1. C540/580

This function enables the configuration of the instrument so that it may be supervised by an ATEQ central module.

☞ Select the option and enter settings if necessary.

2.9.1. 1) Print frame

Not operational.

2.9.2. Printer

This function enables the configuration of the instrument to enable the printing of the program data (parameters) as well as the test results. When the option is activated (YES), each time a cycle is started, the test results are systematically printed.

☞ Select the option and enter settings if necessary.

2.9.2. 1) RS parameters

These parameters enable the configuration of the instrument enabling it to communicate with the printer.

Associated parameters to be set: Speed, Stop byte, number of data bytes, parity.

☞ Select the option and enter settings if necessary.

2.9.2. 2) Print frame

This function enables the configuration of the results printout.

Associated parameters to be set: Prog. name (Display of the program name when set), VOLTAGE (display of the reference channels voltage), Date & Time (printing of the date and the time), Lines before (number of lines before the result), Lines after (number of lines after the result), Inter line (space between each line), Form feed (new page).

a) Frame format

The results frame is based on 40 columns.

Example of frame format:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
<	0	1	>	:	A	B	C	D	E	F	G	H	I	J	K	L																								
<	0	1	>	:	0	5	/	0	3	/	2	0	0	8		1	4	:	2	5	:	5	0																	
<	0	1	>	:	H	V	1			2	9	.	3		k	V	:			H	V	2			2	9	.	4		k	V									
<	0	1	>	:	C	H	A	N	N	E	L		1		:	(	O	K	)					1	0	0		%											
<	0	1	>	:	C	H	A	N	N	E	L		2		:	(	D	T	)					0	1	3		%											
<	0	1	>	:	C	H	A	N	N	E	L		3		:	(	O	K	)					0	9	5		%											
<	0	1	>	:	C	H	A	N	N	E	L		4		:	(	A	L	)			V	O	L	T	A	G	E		2		L	O	W					
<	0	1	>	:	C	H	A	N	N	E	L		5		:	(O	K)					0	9	6		%												
<	0	1	>	:	C	H	A	N	N	E	L		6		:	(T	D)					0	0	0		%												

Channel 1: pass part.
 Channel 2: fail part.
 Channel 3: pass part.

Channel 4: alarm voltage low (in this case the alarm for the 6 channels is triggered).
 Channel 5: pass part.
 Channel 6: short circuit.

First line (name) frame detail: <01>:ABCDEFGHIJKL

Columns	Characters
1	<
2-3	Program number
4	>
5	:
6 - 17	Personalization (program name) 12 characters maximum

Second line (time & date) frame detail: <01>:05/03/2008 14:25:50

Columns	Characters
1	<
2-3	Program number
4	>
5	:
6 – 7	Day
8	/
9 – 10	Month
11	/
12 – 15	Year
16	Space
17 – 18	Hour
19	:
20 – 21	Minutes
22	:
23 – 24	Seconds

Third line (references channels) frame detail: <01>:HV1 29.3 kV: : HV2 29.4 kV

Columns	Characters
1	<
2-3	Program number
4	>
5	:
6 - 8	H V 1 for high voltage reference 1
9 – 10	Two spaces
11 – 14	Reference 1 voltage value
15	Space
16 – 17	k V characters (voltage unit)
18	:
19	Space
20	:
21	Space
22 – 24	H V 2 for high voltage reference 2
25	Space
26 – 29	Reference 2 voltage value
30	Space
31 – 32	k V characters (voltage unit)

Fourth to ninth lines (results) frame detail: <01>:CHANNEL 1 : (OK) : 100 %

Columns	Characters
1	<
2-3	Program number
4	>
5	:
6 – 12	C H A N N E L characters
13	Space
14	Channel number
15	Space
16	:
17	Space
18	(
19– 20	2 letters indicating OK for pass part TD for fail part AL for alarm
21)
22	Space
23	:
24	Space
25 – 27	Percent
28	Space
29	% character

2.9.2. 3) Sending conditions

With this function you can choose which data is to be printed on the results sheet.

Associated parameters to be set: **ALL RESULTS** (sending on all test results), **PASS** (sending frame if all the parts are “Pass”), **FAIL** (sending frame if only one part is fail), **ALARM** (sending when the alarm has been triggered).

☞ Select the option and enter settings if necessary.

2.9.2. 4) Exporting

This function can be used to create and send a special results frame which can be processed by a PC using Microsoft Excel© for example or with ATEQ save results module.

This frame is of the same type as the print parameters frame except that the different character strings follow each other and are separated by a punctuation mark which enables the various boxes to be entered automatically in Microsoft Excel©.

This frame is operated by connecting a computer to the instrument's RS 232 link.

Columns detail:

- | | |
|------------------------------------|------------------------------------|
| 1) Customization. | 11)Channel 4 test result message. |
| 2) Program number. | 12)Channel 4 result numeric value. |
| 3) Date. | 13)Channel 5 test result message. |
| 4) Hour. | 14)Channel 5 result numeric value. |
| 5) Channel 1 test result message. | 15)Channel 6 test result message. |
| 6) Channel 1 result numeric value. | 16)Channel 6 result numeric value. |
| 7) Channel 2 test result message. | 17)HV1 result. |
| 8) Channel 2 result numeric value. | 18)HV1 value. |
| 9) Channel 3 test result message. | 19)HV2 result. |
| 10)Channel 3 result numeric value. | 20)HV2 value. |

See next page.

Exportation example:

1	2	3	4	5	6	7	8	9	10
ABCDEFGHIJKLM	1	28/02/08	10:29:12	(OK)	99	(OK)	99	(OK)	99
ABCDEFGHIJKLM	1	28/02/08	10:29:26	(TD)	0	(OK)	98	(OK)	99
ABCDEFGHIJKLM	1	28/02/08	10:29:38	(OK)	98	(TD)	0	(OK)	98
ABCDEFGHIJKLM	1	28/02/08	10:29:54	(OK)	99	(OK)	98	(TD)	0
ABCDEFGHIJKLM	1	28/02/08	10:30:08	(OK)	99	(OK)	99	(OK)	99
ABCDEFGHIJKLM	1	28/02/08	10:30:17	(OK)	99	(OK)	99	(OK)	99
ABCDEFGHIJKLM	1	28/02/08	10:31:04	(OK)	100	(OK)	99	(OK)	99
ABCDEFGHIJKLM	1	28/02/08	10:31:36	(AL)		(AL)		(AL)	

11	12	13	14	15	16	17	18	19	20
(OK)	100	(OK)	100	(OK)	99		28.2		28.1
(OK)	100	(OK)	100	(OK)	99		27.4		27.3
(OK)	100	(OK)	100	(OK)	99		27.4		27.3
(OK)	100	(OK)	100	(OK)	99		27.4		27.3
(TD)	0	(OK)	99	(OK)	99		27.4		27.3
(OK)	99	(TD)	0	(OK)	98		27.4		27.3
(OK)	100	(OK)	99	(TD)	0		27.3		27.3
(AL)		(AL)		(AL)		VOLTAGE 1 LOW	27.3	VOLTAGE 2 LOW	27.3

2.9.2. 5) Print parameters


When this option is confirmed the test parameters of all the programs are printed immediately.

a) Example of parameter print frame

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
V	e	r	s	i	o	n		0	1	.	0	:	0																											
0	.	5	/	0	3	/	2	0	0	8																														
P	r		0	1		A	B	C	D	E	F	G	H	I	J	K	L																							
T	Y	P	E		C	Y	C	L	E																															
M	A	X		k	V					3	.	5	.	1																										
M	I	N		k	V					2	.	3	.	1																										
C	O	U	P	L		A				0	.	0	0		s																									
S	T	A	B		T	I	M	E						0	.	5	0		s																					
T	E	S	T		T	I	M	E						0	.	5	0		s																					
M	A	X		%						1	0	0																												
M	I	N		%						9	0																													

2.10. SECURITY

This function deactivates the **START** and **RESET** keys on the instrument front panel. Programs can only be started from the instrument inputs (J3 connector).

 Select the option and enter settings if necessary.







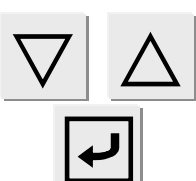
2.11. LIGHTING THE SCREEN

Screen illumination can be programmed and modified. The lighting can be adjusted according to the ambient conditions or the user's choice.

There are three lighting modes:

- ✓ **continuous** mode, display screen permanently lit whatever the conditions,
- ✓ **manual** mode, the screen remains lit for 20 minutes and if the keyboard has not been used by the end of this period the screen shuts down and only relights when the keyboard is touched again,
- ✓ **automatic** mode, which is identical to manual mode, with illumination of the screen also if an action is carried out from the external inputs (rear connectors).

Using these three modes, the lighting intensity of the screen can be programmed from 00 (screen off) to 07 (maximum lighting intensity).

<p>In the main menu, position the cursor by the CONFIGURATION menu then confirm by pressing ENTER.</p>		<pre> MAIN MENU PARAMETERS SPE CYCLE: Disabled CONFIGURATION </pre>
<p>Move the cursor down until it is in front of the LIGHT menu then confirm by pressing ENTER.</p>		<pre> CONFIGURATION PRINTER : No SECURITY : No LIGHT </pre>
<p>Place the cursor in front of MODE to choose the required lighting mode and confirm using ENTER.</p>		<pre> CONFI/LIGHT MODE : CONTINOU INTENSITY : 04 </pre>
<p>Select the lighting mode and confirm using ENTER.</p>		<pre> CONFI/LIGHT/MODE CONTINUOUS MANUAL AUTO </pre>
<p>To return to the previous menu, press the C button once</p>		<pre> CONFI/LIGHT MODE : PERMANEN INTENSITY : 07 </pre>
<p>To select the lighting intensity for the display, place the cursor in front of the INTENSITY menu and confirm using ENTER.</p>		<pre> CONFI/LIGHT MODE : CONTINOU INTENSITY : 04 </pre>
<p>Then select the lighting intensity from 00 (off) to 07 (maximum luminosity) and the new lighting intensity will be applied as soon as ENTER is pressed.</p>		<pre> CONFI/LIGHT MODE : CONTINOU INTENSITY : 06 </pre>

2.12. CHANGE I/O CONFIGURATION

Please refer to Chapter 1, paragraph 3.2.1.4) "Connector J1 (Binary inputs/outputs) programmable input".

2.12.1. Input 7 (IN7)

This menu is used to configure programmable input 7 on connector J1 on the 16-program input/output board.

Refer to Chapter 1, paragraph 3.2.1.4) "Connector J1 (binary Inputs/Outputs) programmable input".

The various functions which can be set on input 7 are: "Program selection", "Infinite cycle".



These functions represent all the special cycles available.

3. SPECIAL CYCLES MENU

3.1. SPECIAL CYCLES AVAILABLE




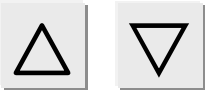

The following list shows all the special cycles which are possible: those available will vary depending on what is checked in the extended menus or according to the optional extras requested at the time of manufacture of the instrument.

Special cycle	Function
✓ Inactive	No special cycle selected.
✓ Infinite cycle:	Cycle used to put test part under measure for infinite time or for calibration Ioniq unit, the high voltage is not monitored during this cycle.

To run a special cycle, select it in the "special cycles" menu, then press the  button. To stop it, press the  button. In some cycles the stop is automatic.

3.2. INFINITE CYCLE

This is to launch a test cycle with an infinite test time.

<p>In the main menu, place the cursor in front of the SPE CYCLE function and confirm using the ENTER key.</p>		<pre> MAIN MENU RUN PROG. : 01 PARAMETERS SPE CYCLE: none </pre>
<p>Next, place the cursor in front of Infinite fill and confirm using the ENTER key.</p>		<pre> SPE CYCLE none Infinite cycle </pre>
<p>The display confirms that the special cycle has been selected.</p>		<pre> MAIN MENU RUN PROG. : 01 PARAMETERS SPE CYCLE: Inf cyc. </pre>
<p>Press the START key to start a new cycle.</p>		<pre> 29.4kV 29.4kV ----- T01: 100 T02: 99 T03: 99 T04: 99 T05: 99 T06: 100 </pre>
<p>If necessary, adjust the value of the voltage instruction using the up and down arrows.</p>		<pre> 29.6kV 29.6kV ----- T01: 100 T02: 99 T03: 99 T04: 99 T05: 99 T06: 100 </pre>
<p>To stop the cycle, press the RESET key.</p>		<pre> TEST UNIT : % R01: 100 R02: 99 R03: 99 R04: 99 R05: 99 R06: 100 </pre>

Note: during the infinite cycle run, the instrument doesn't display for pass or fail part in regard with the reject percent and the High Voltage alarm is not available.

4. SERVICE MENU









4.1. PARAMETERS SERVICE

This menu is used to manage the memory containing the test cycle parameters.

- ✓ Save maintenance parameters menu: used to save the configuration of the parameters in the current test.
- ✓ Restore maintenance parameters menu: used to restore a previously saved configuration.
- ✓ Erase maintenance parameters menu: used to delete the current configuration.

To access the menu, turn the switch to the **ACCESS** position.



<p>In the main menu, place the cursor in front of SERVICE and confirm using ENTER.</p>	 	<pre> MAIN MENU CYCLE SPE: Disabled CONFIGURATION ▶MAINTENANCE </pre>
<p>Then place the cursor in front of PARAMETERS and confirm using ENTER.</p>	 	<pre> MAIN/SERVICE ▶PARAMETERS </pre>
<p>Then place the cursor in front of the action required: SAVE: save current parameters, RESTORE: replace current parameters by those stored in the memory, ERASE: delete current parameters and return to the initial configuration and confirm using ENTER.</p>	 	<pre> IN/SERVI/PARAMETER SAVE : No RESTORE : No RESET : No </pre>
<p>To activate an operation, confirm using ENTER. Then choose YES using the arrows then confirm again using ENTER.</p>	 	<pre> IN/SERVI/PARAMETERS SAVE : Yes RESTORE : No RESET : No </pre>

Turn the switch to the **LOCK** position.



Note: if the parameters have been modified, then current and saved parameters are therefore different, when the instrument begins to operate, the following message is displayed on the screen.

```

SAVE PARAMETERS
                    
```

This message is not blocked and will disappear after a few seconds. It informs that a saving of the parameters may be necessary. In this case three solutions arise:

- 1) **Restore** the saved parameters (current parameters will be lost).
- 2) **Save** the current parameters in the memory (the parameters already in the memory will be lost).
- 3) **Do nothing** and work with the current parameters.

5. RESULTS MENU

This function is used for:

- ✓ the detailed display of the test results: total number and percent of parts tested (incremental 6 for each cycle whatever the number of channels validated and alarms not included), total number and percent of pass parts (sum of the pass parts), total number and percent of fail parts (sum of fail parts), number and percent of pass part for each channels, number and percent of fail parts for each channels, number alarms triggered,
- ✓ resetting the results memory,
- ✓ printing the results.

The printed frame may be like this:


```

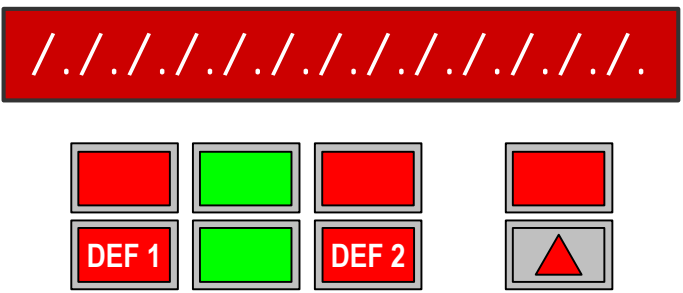


06/03/2008 11:40:56
Pr 01
TOTAL 2028
PASS 1708, 84%
FAIL 320, 15%
PASS1 303, 14%
PASS2 293, 14%
PASS3 304, 14%
PASS4 283, 13%
PASS5 222, 10%
PASS6 298, 14%
FAIL1 35, 1%
FAIL2 45, 2%
FAIL3 34, 1%
FAIL4 55, 2%
FAIL5 112, 5%
FAIL6 36, 1%
ALARM 5
    
```

6. STAND BY MENU

This function is used to switch off the instrument without disconnecting it. Standby can be immediate or programmed with start and stop times.















There are two ways to achieve immediate standby:

- 1) Either through the standby menu,
- 2) Or by pressing the **RESET**  button for more than three seconds.

<p>Note: when the instrument is on standby, the display is off.</p>	
<p>To reactivate the instrument, simply press any key on the front panel or activate any input.</p>	
<p> Select the option and enter settings if necessary.</p>	

6.1. STANDBY USING THE MENU

Standby using the menu enables start and stop times for the instrument to be programmed.

<p>In the main menu, position the cursor beside STANDBY and confirm by pressing ENTER.</p>	 	<pre> MAIN MENU RESULTS LANGUAGE : English STAND-BY </pre>
<p>To program automatic standby at a given time, position the cursor beside STOP TIME.</p>	 	<pre> STAND-BY Now : No Pow-on time : No STAND-BY : No </pre>
<p>Confirm the STOP TIME parameter using YES</p>	 	<pre> STAND-BY Now : No Pow-on time : No Pow-off time : Yes </pre>
<p>Then set parameters for the time (hours and minutes) when the standby must take effect. "TIME DELAY" is the delay (in minutes) between the programmed time and actual standby</p>	 	<pre> STAND/Pow-off time HOUR : 00 MINUTE : 00 Delay : 00 </pre>
<p>To program the start-up time for the instrument, position the cursor beside START TIME</p>	 	<pre> STAND-BY Now : No Pow-on time : Yes Pow-off time : Yes </pre>
<p>Confirm the START TIME parameter using YES</p>	 	<pre> STAND-BY Now : No Pow-on time : Yes Pow-off time : Yes </pre>
<p>Then set parameters for the instrument start time (in hours and minutes).</p>	 	<pre> STAND/Pow-on time HOUR : 00 MINUTE : 00 </pre>

7. LANGUAGE MENU

This function allows the choosing of the instrument language. Several languages are available. Two are installed at the fabrication of the instrument, the English is the language by default the other is choose by the customer.

Chapter 5 ACCESSORIES

1. ACCESSORIES SUPPLIED WITH THE INSTRUMENT

1.1. MAINS POWER CABLE

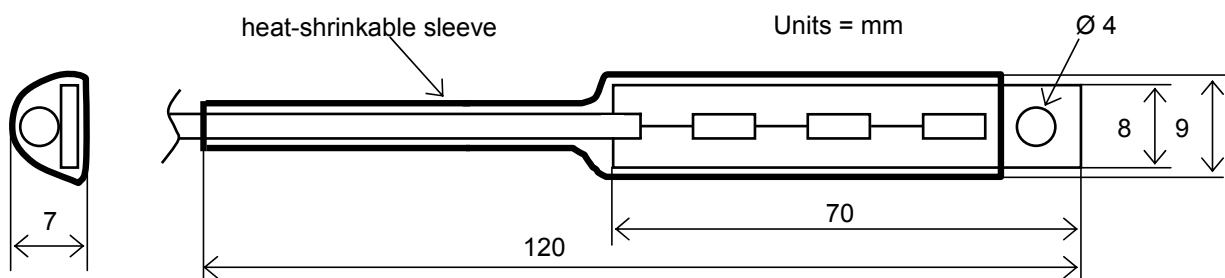
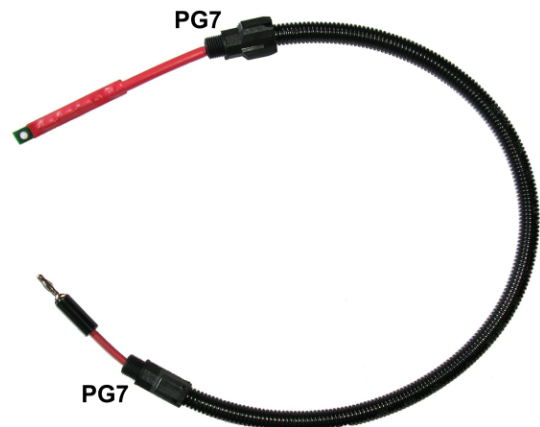


The power supply cable of the **IONIQ 6 SW** allows its connection to the mains supply network (from 90 to 260V AC).

1.2. MEASUREMENT ACCESSORIES

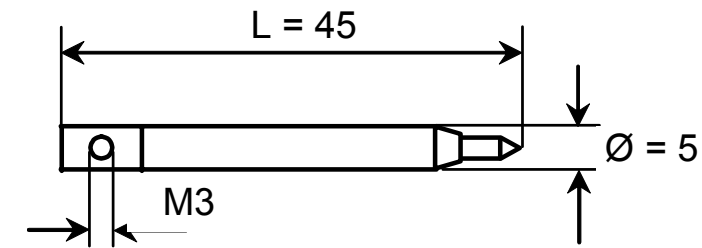
1.2.1. Resistance board + cable

Installed in standard in each test wire end. Cable gland size: PG7.



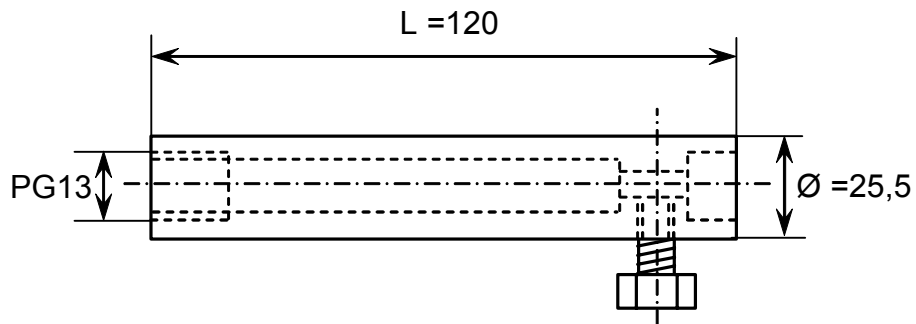
2. OPTIONAL ACCESSORIES

2.1.1. Tungsten carbide electrode



2.1.2. Insulating support

To be fixed on an insulated amount.

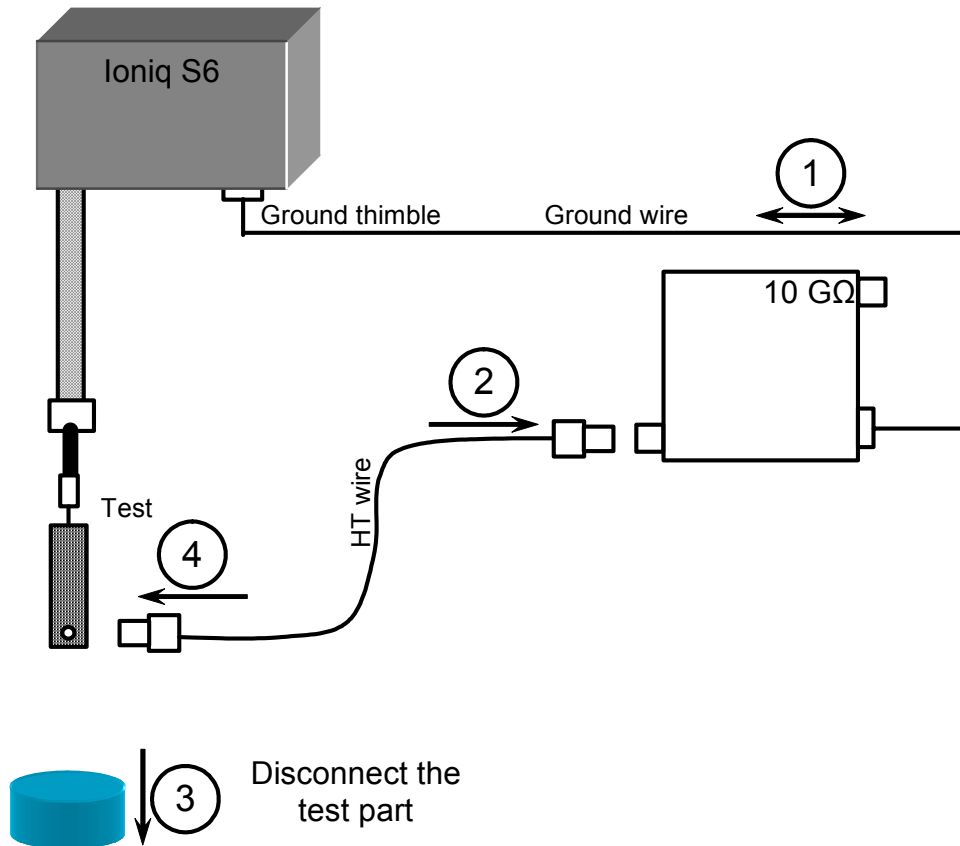


2.1.3. Test load (standard resistor box)

Test load for 1 channel, with 2 values.

To check only one value at the same time:

- 30kV on 1 GΩ → 30 μA (measurement display about 10 %).
- 30 kV on 10 GΩ → 3 μA (measurement display about 83 %).


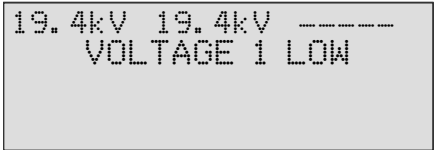

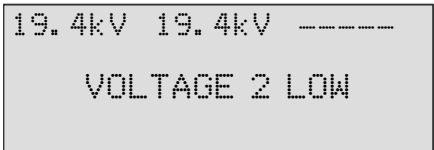

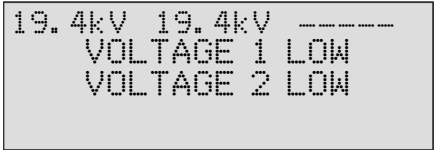


In the case of several test channels, leave them on the test assembly so that they are insulated and test them one by one.

Chapter 6

ERROR MESSAGES

The **ATEQ IONIC 6 SW** can display error messages if there are operational problems.

PROBLEM	LIT INDICATORS	MESSAGE DISPLAYED
<p>Reference 1 channel voltage too low. Action: check the minimum High Voltage limit or the stabilization time too short.</p>		
<p>References 2 channel voltage too low. Action: check the minimum High Voltage limit or the stabilization time too short.</p>		
<p>References high voltage too low on the two references channels. Action: check the minimum High Voltage limit or the stabilization time too short.</p>		

Chapter 7

OPERATIONAL PROBLEMS



Never start a cycle unless the High Voltage cables are connected to the measurement component.

1. KNOWN STANDARD MEASUREMENT

In order to set the reject limit and check that the **ATEQ IONIQ 6 SW** is functioning properly, the user should use one or more parts which he knows are faulty or the ATEQ test charge.

2. ELECTRODES

The electrode must be kept free of dust.

Replacement times for the electrodes will depend on the amount of use and the number of leaks detected.

If an electrode has been damaged by a badly positioned part, it must be replaced (the electrode must be kept as sharp as possible and free from rust)

Appendices

ATEQ IONIQ 6 SW

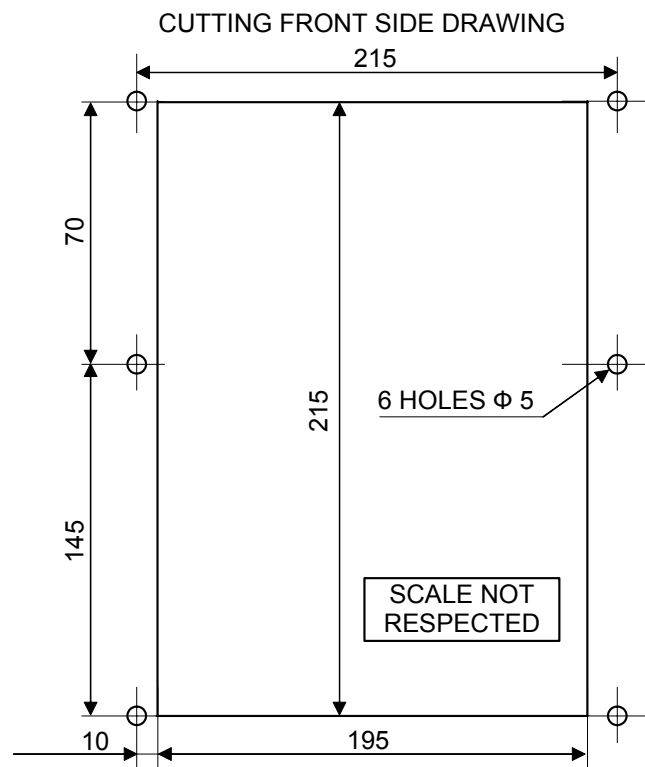
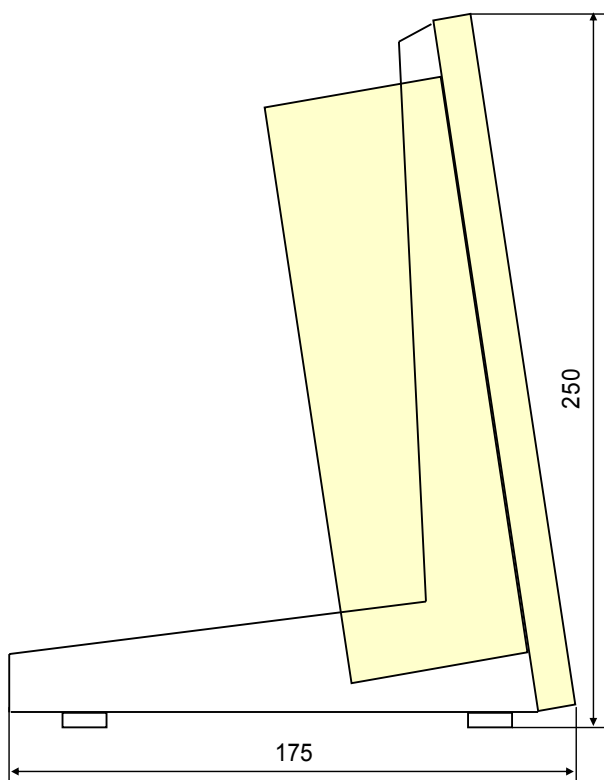
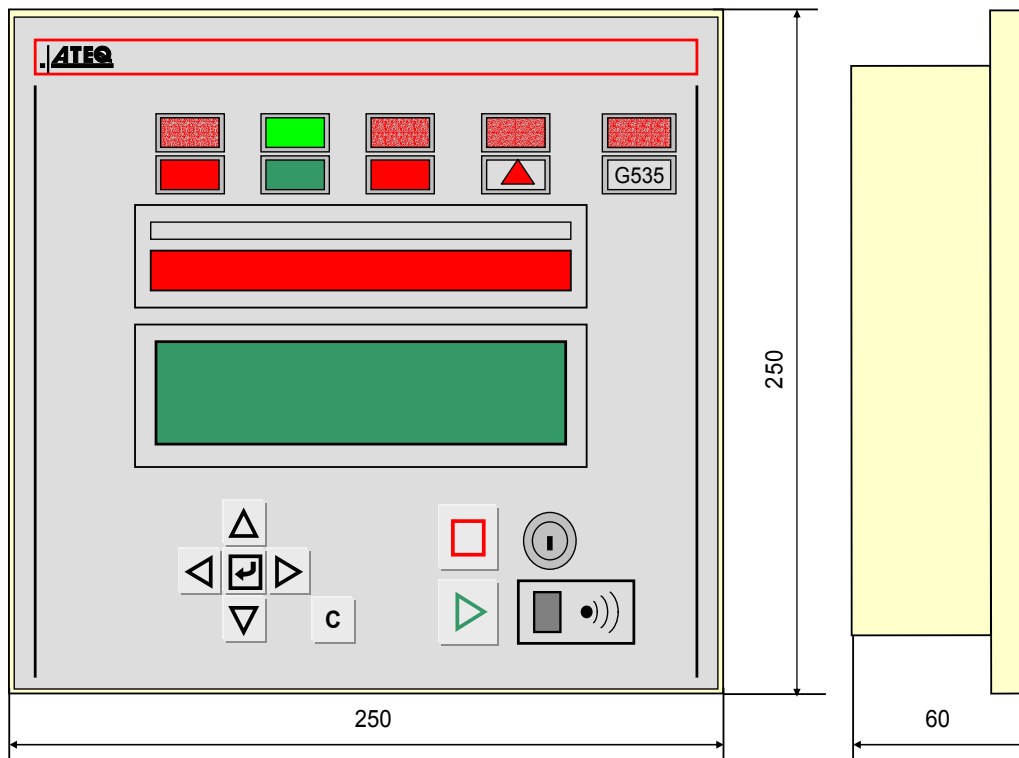
1. TECHNICAL CHARACTERISTICS OF THE IONIQ 6 SW

	MEASUREMENT CASE	REMOTE CONTROL
Dimensions H x L x D (mm):	350 x 200 x 250	250 x 250 x 60
Power supply:	90 – 240 V AC 50 / 60 Hz (fuse 3.5A)	Via network connection
Weight (kg):	9.4 kg	2.8 kg
Temperatures:		
Operational:	+10°C to +45°C	+10°C to +45°C
Storage:	0°C to +60 °C	0°C to +60 °C

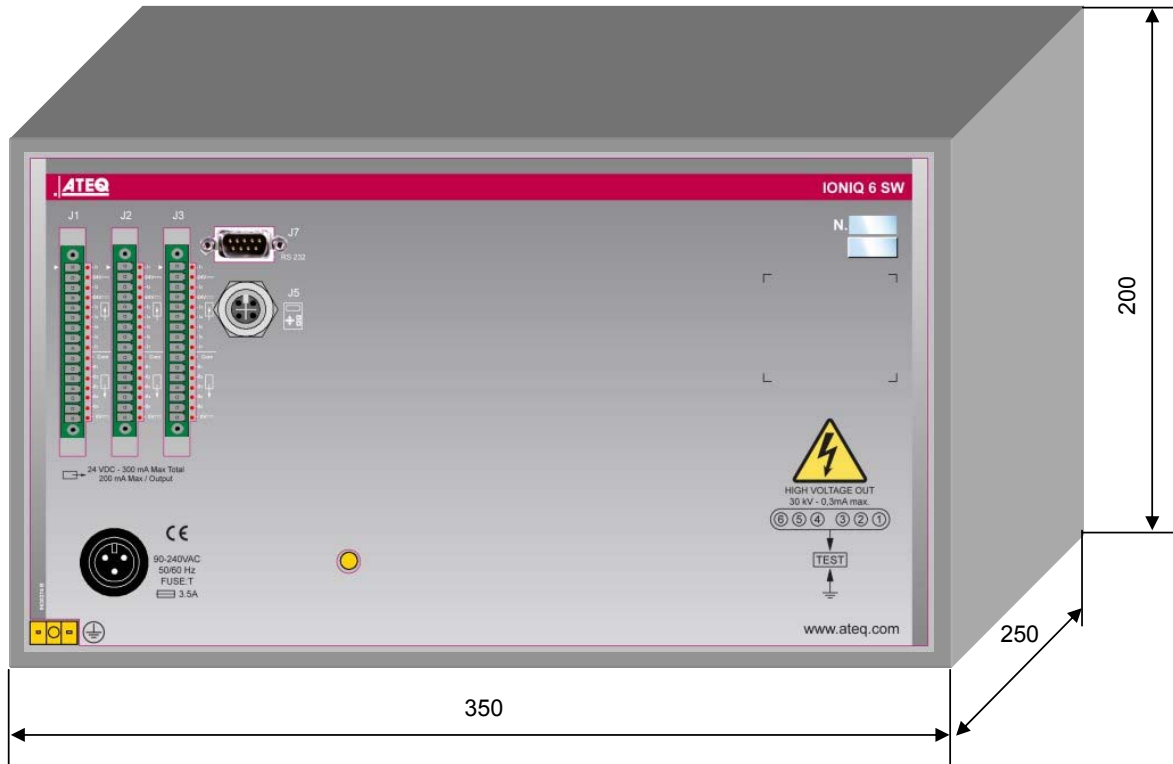
Note: in case of installation of the instrument on a wall or ceiling, this installation must comply with the standard NF EN 61 010-1.

2. MECHANICAL DEFINITION DRAWINGS

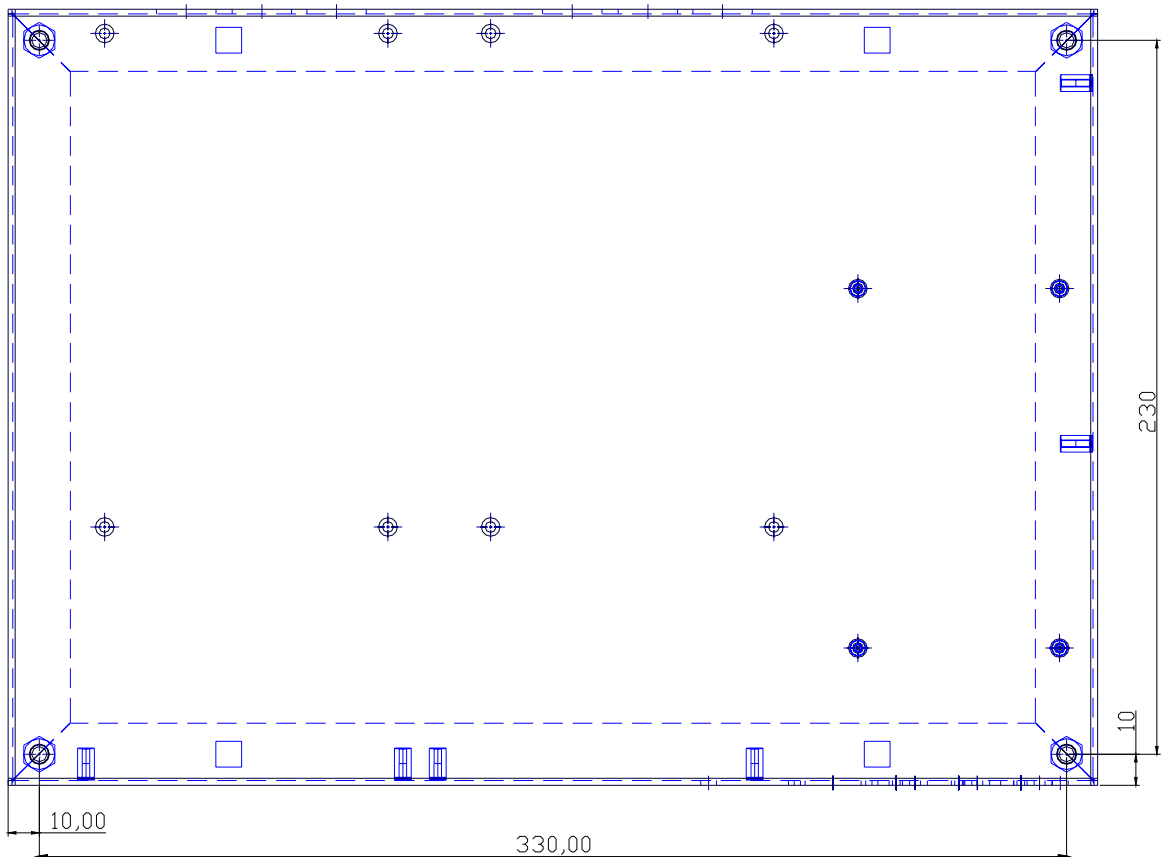
2.1. REMOTE CONTROL



2.2. MEASUREMENT CASE



2.3. CASE MOUNTING



Mounting with four threaded holes M6.

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