



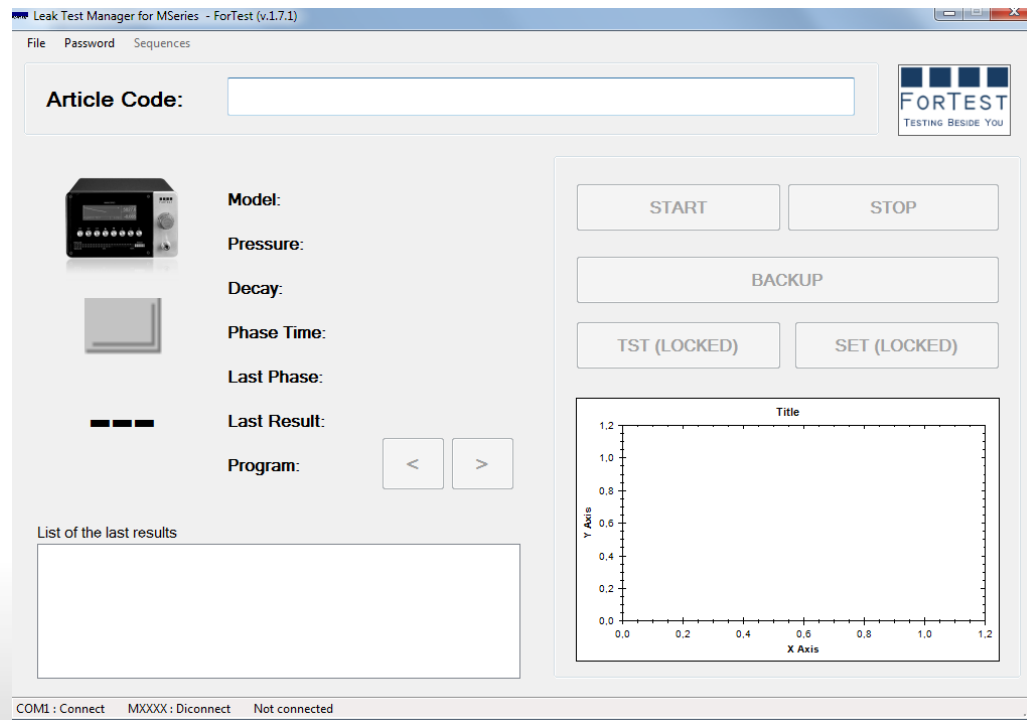
TESTING BESIDE YOU

## **Leak Test Manager**

**standard features and description**

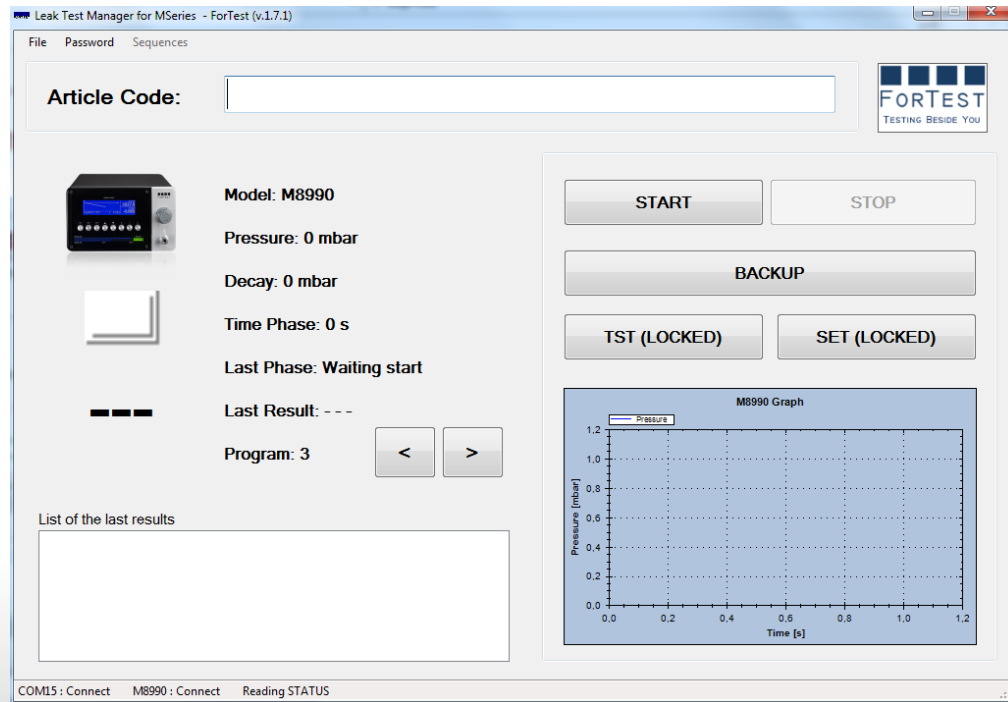
# MAIN SCREEN

Device is disconnected (all the controls in grey are disabled)



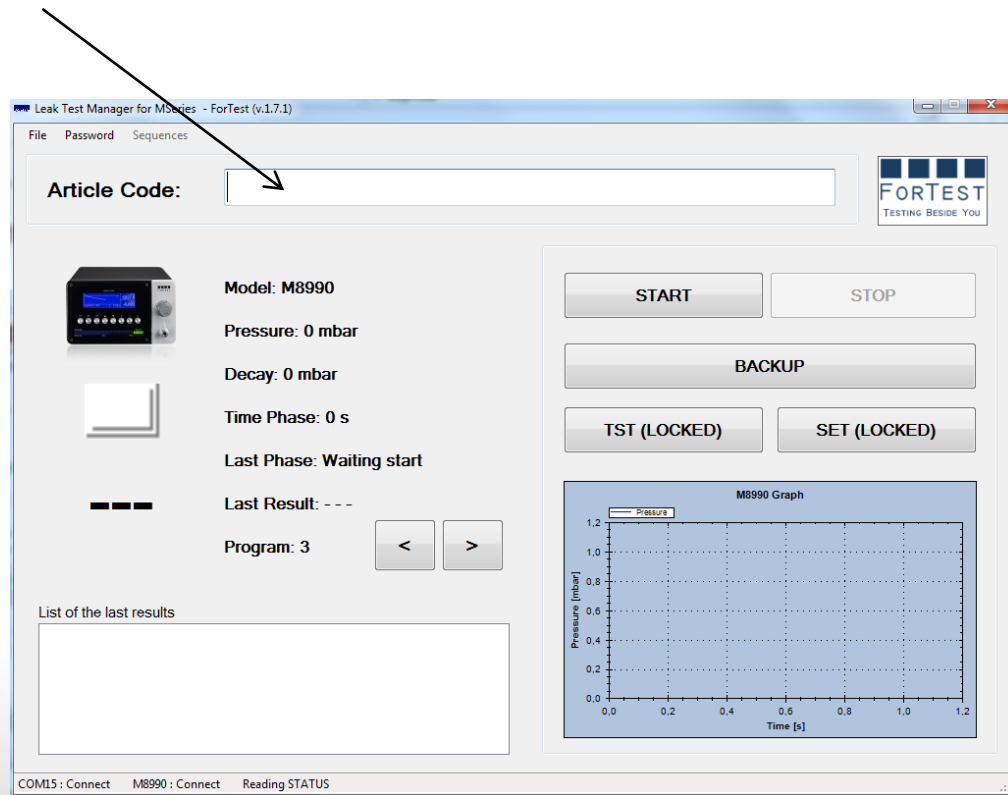
# MAIN SCREEN

Device is connected (all the controls are enabled)



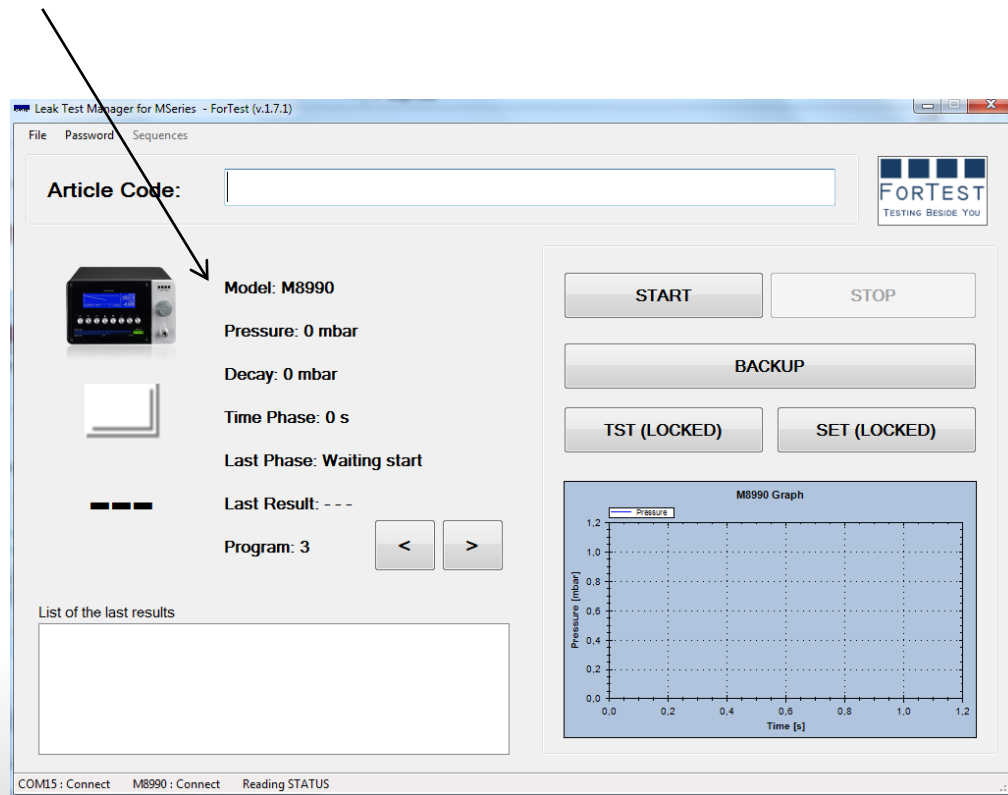
# MAIN SCREEN

**Article code:** is the alphanumerical code that will be recorded into the test archive. It can be insert manually or via a barcode scanner (see options)



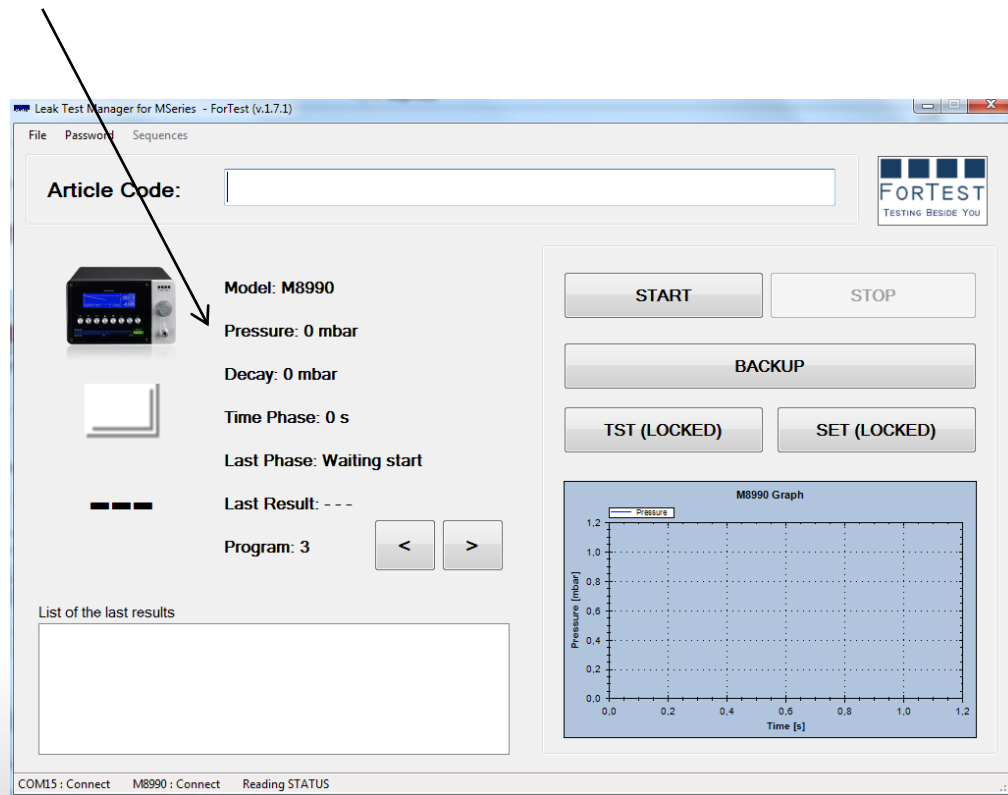
# MAIN SCREEN

**Model:** is the model of the equipment connected.



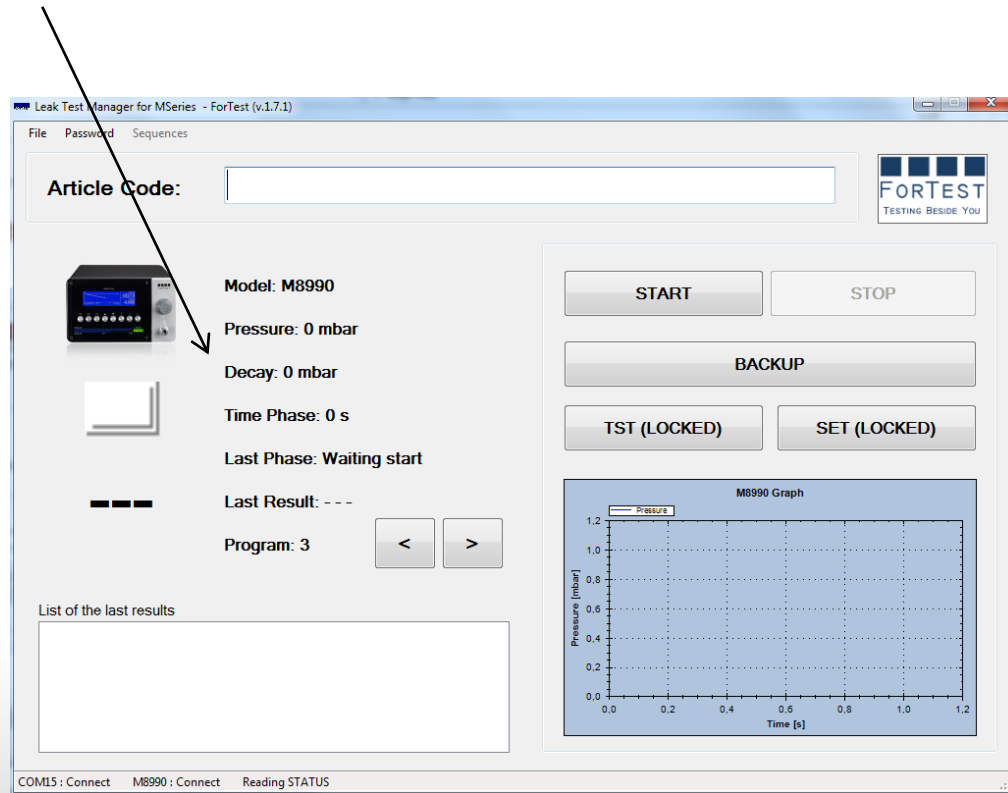
# MAIN SCREEN

**Pressure:** is current pressure evaluated by the device



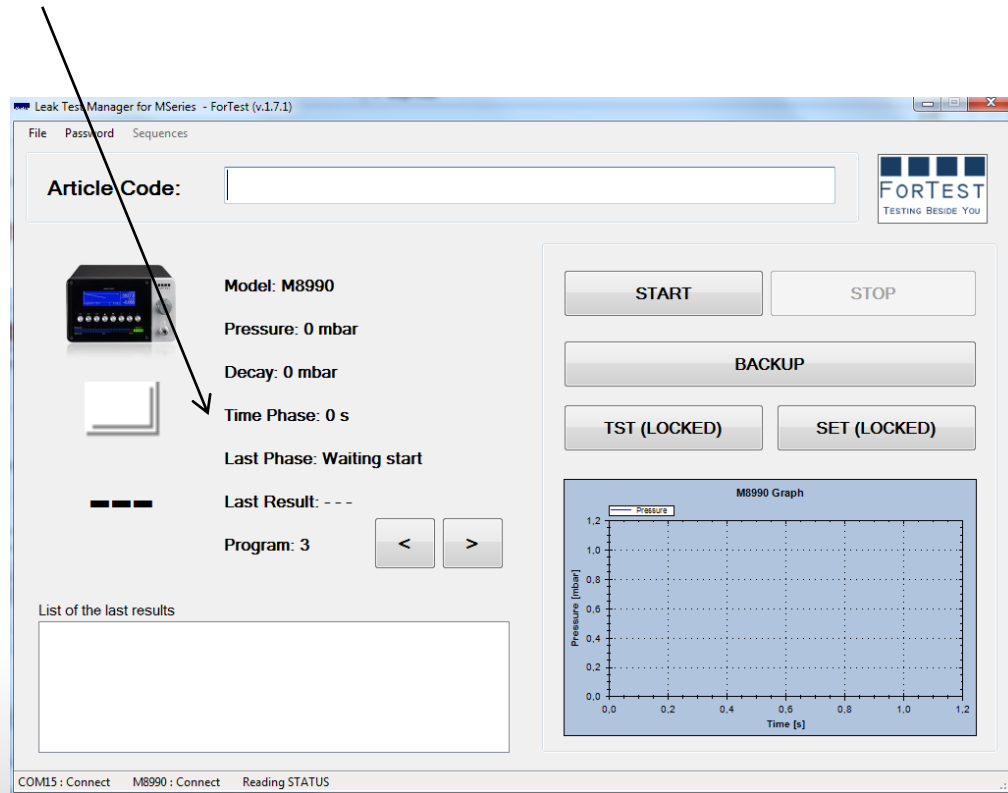
# MAIN SCREEN

**Decay:** is current decay evaluated on the device



# MAIN SCREEN

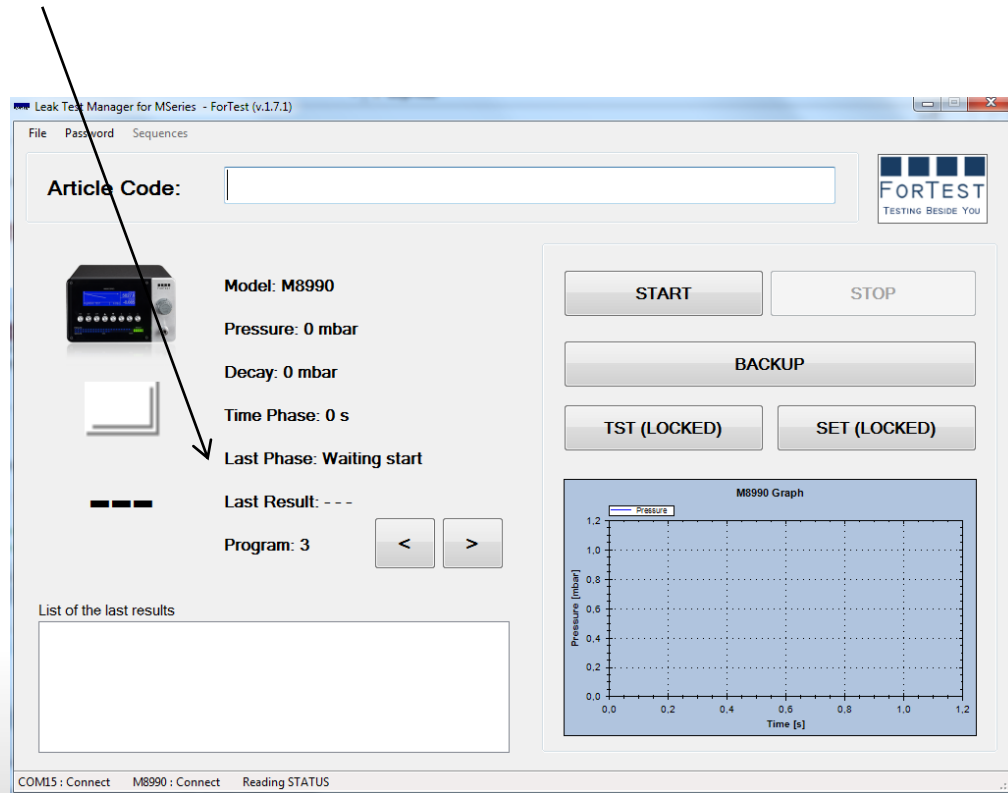
**Time phase:** is the time in seconds remaining to the next phase





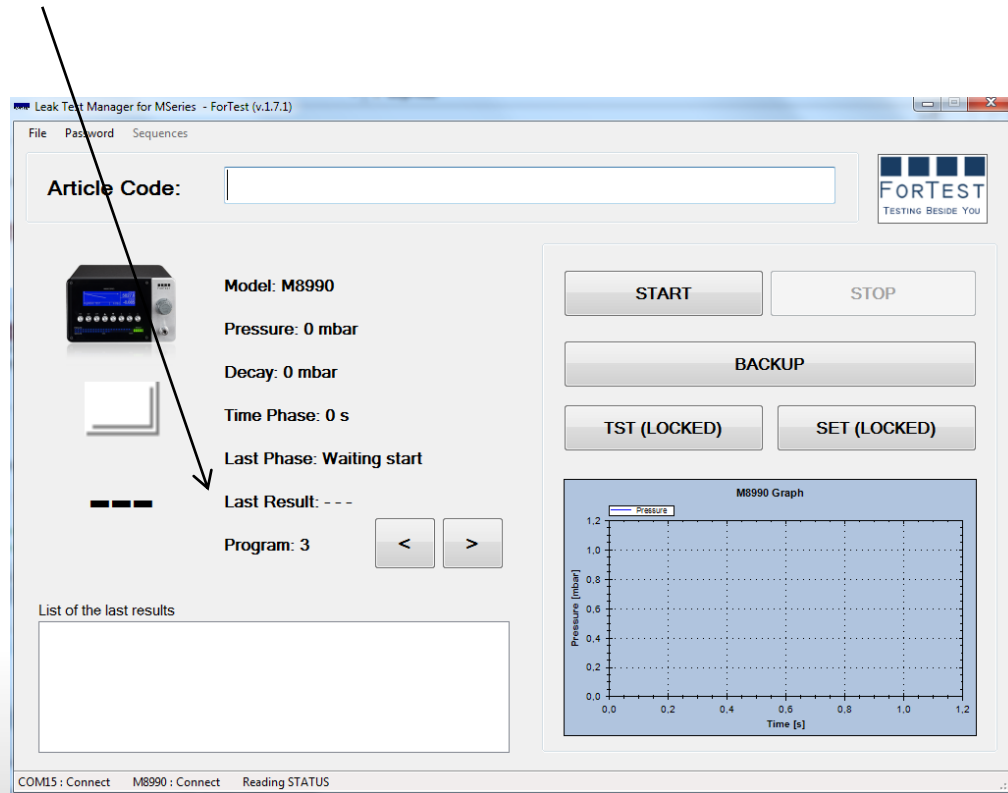
# MAIN SCREEN

**Last phase:** is the last phase evaluated during the full cycle of test (for example : “Waiting start”, “Filling”, “Settling” , “Test”)



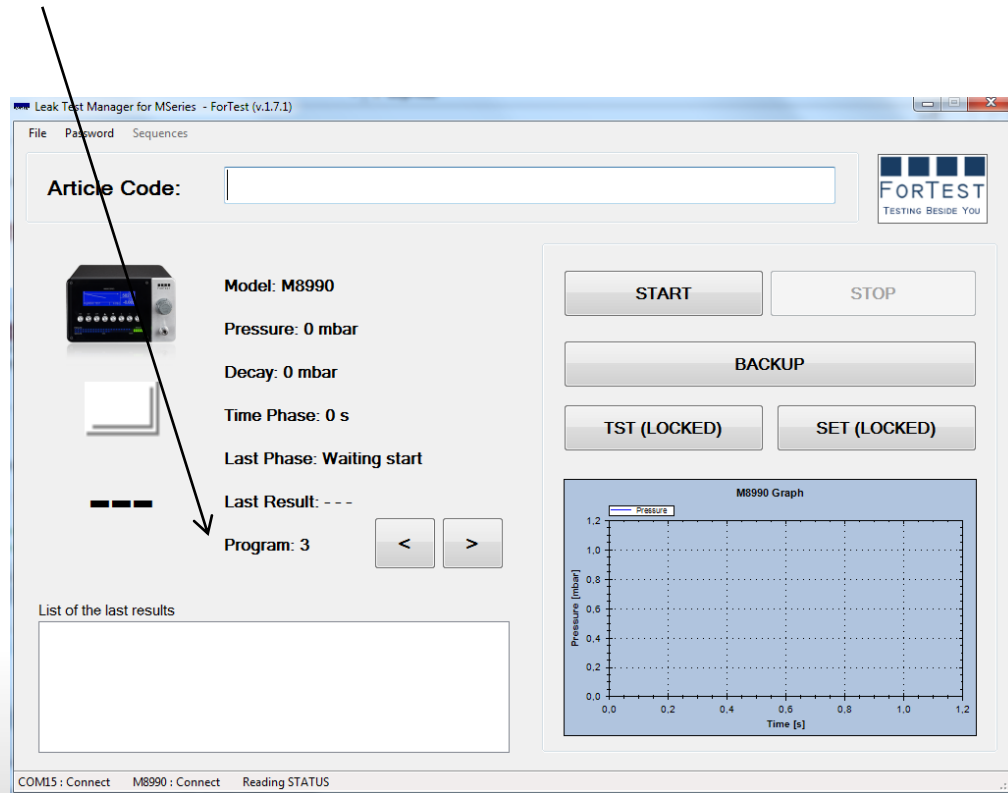
# MAIN SCREEN

**Last result:** is the last result evaluated at the end of test.  
For example : “Good” , “Abort” , “Bad”



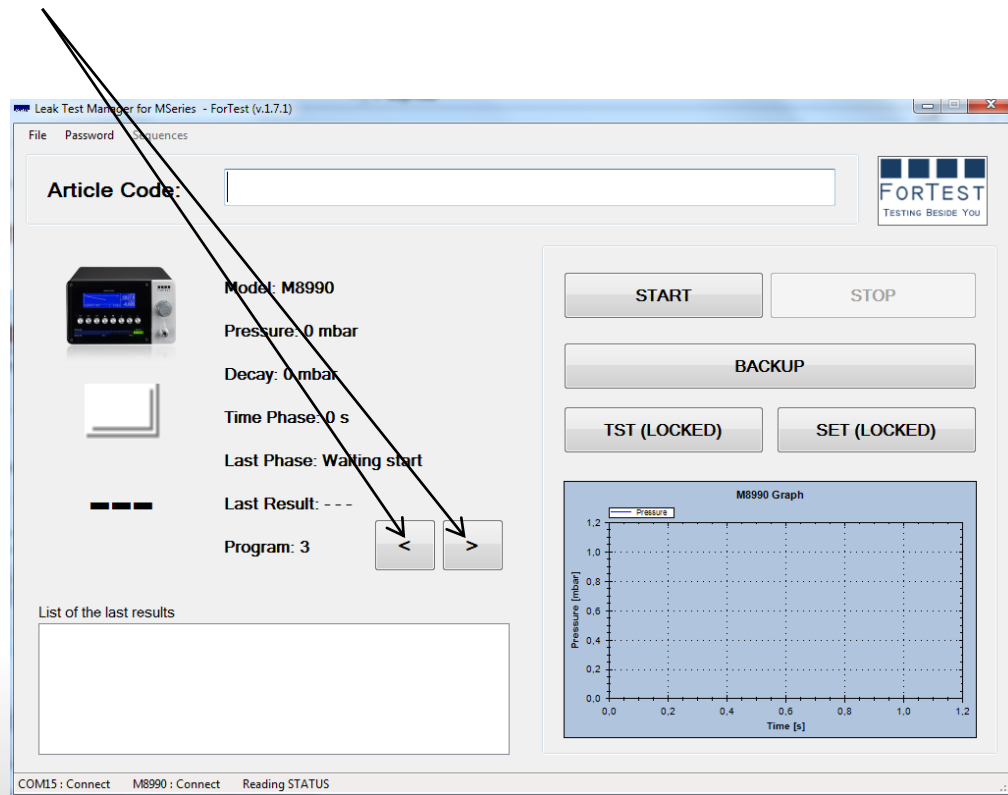
# MAIN SCREEN

**Program number:** is the current program of test running on the device



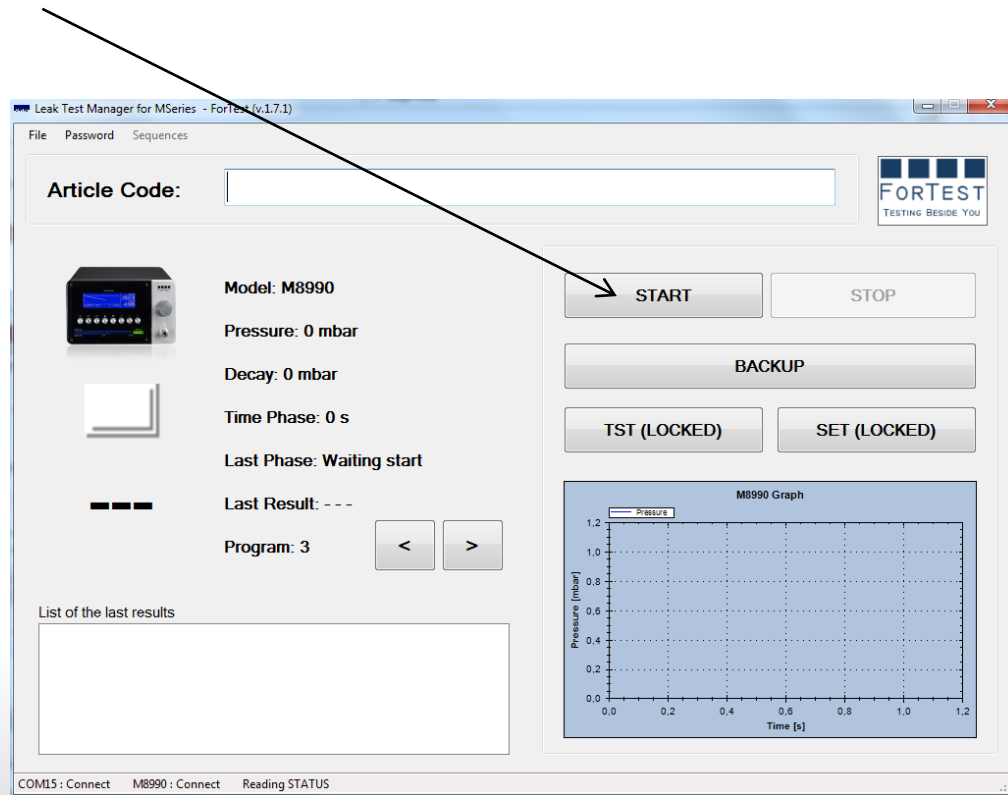
# MAIN SCREEN

**Program switch:** change forward or backward between test programs



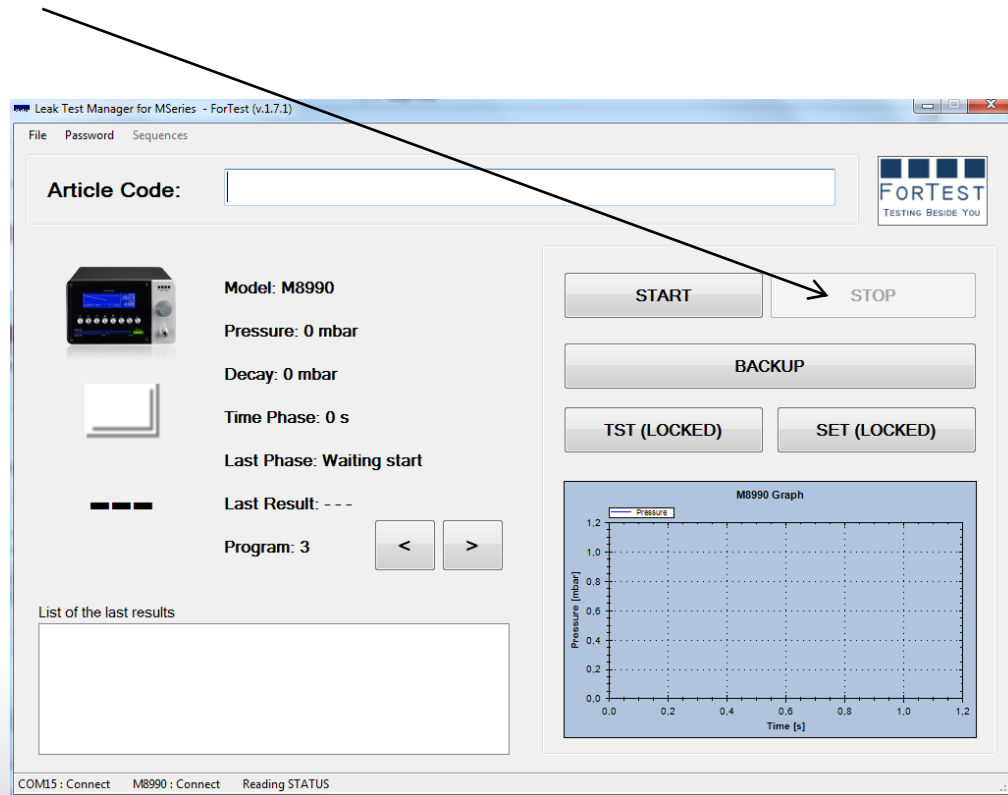
# MAIN SCREEN

**START:** start the current test program



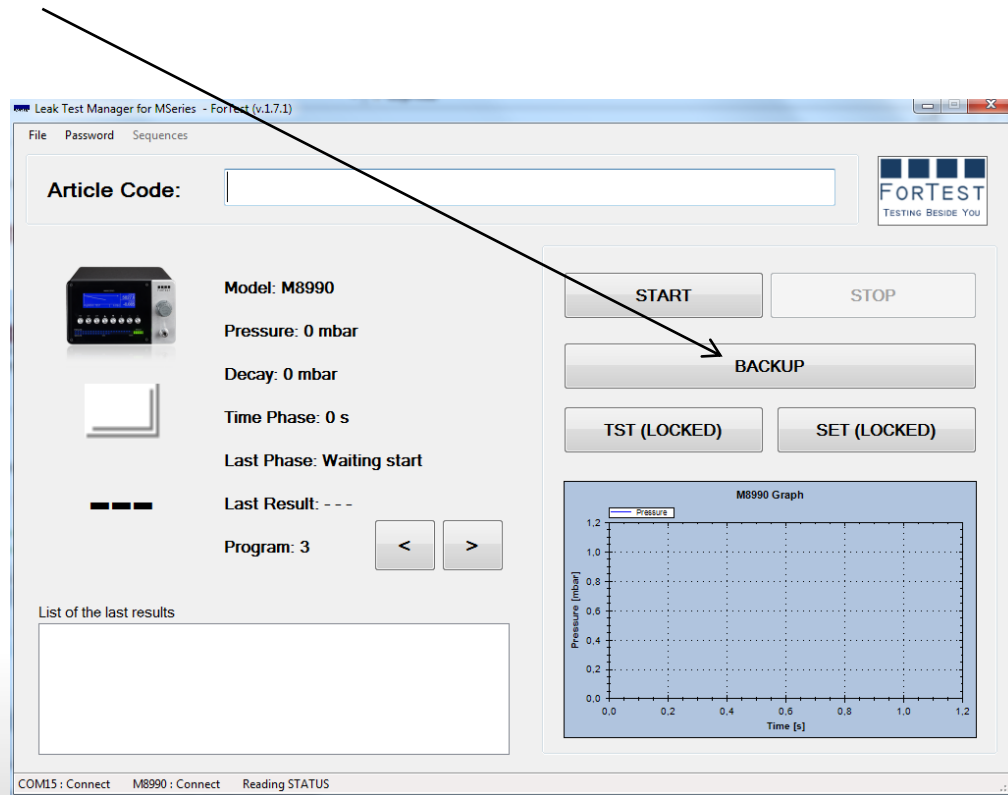
# MAIN SCREEN

**STOP:** stop the current test program



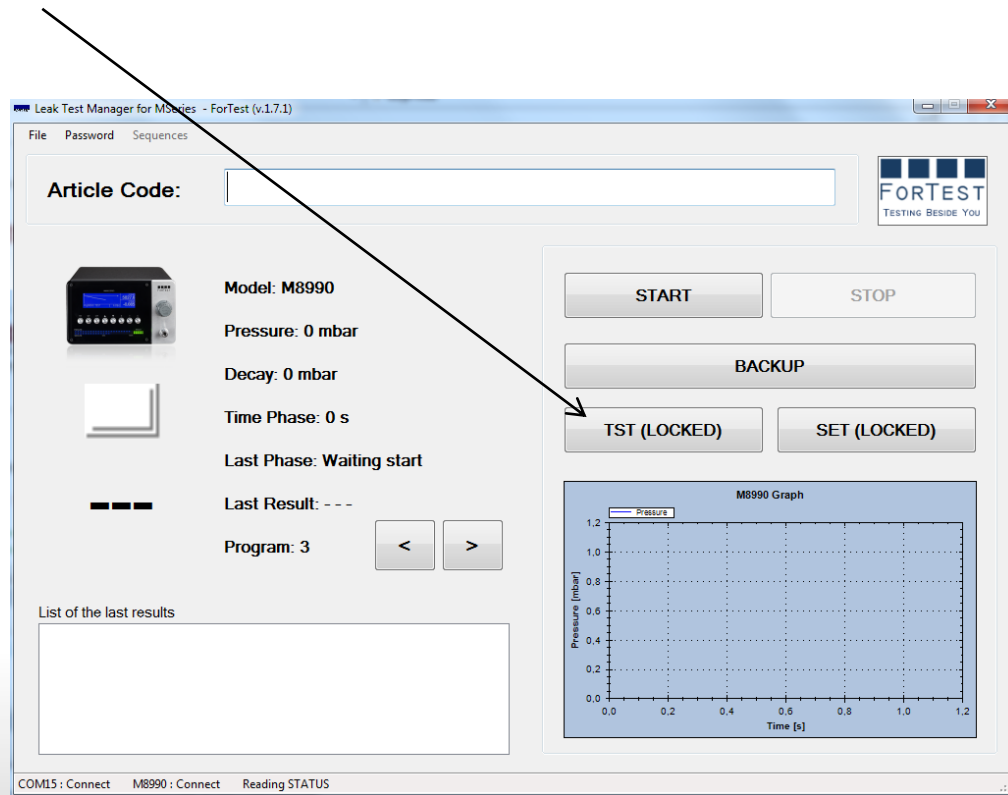
# MAIN SCREEN

**BACKUP:** perform a copy of all programs starting from program 0 to a Determinated program into a XML files. See “BACKUP” for more informations



# MAIN SCREEN

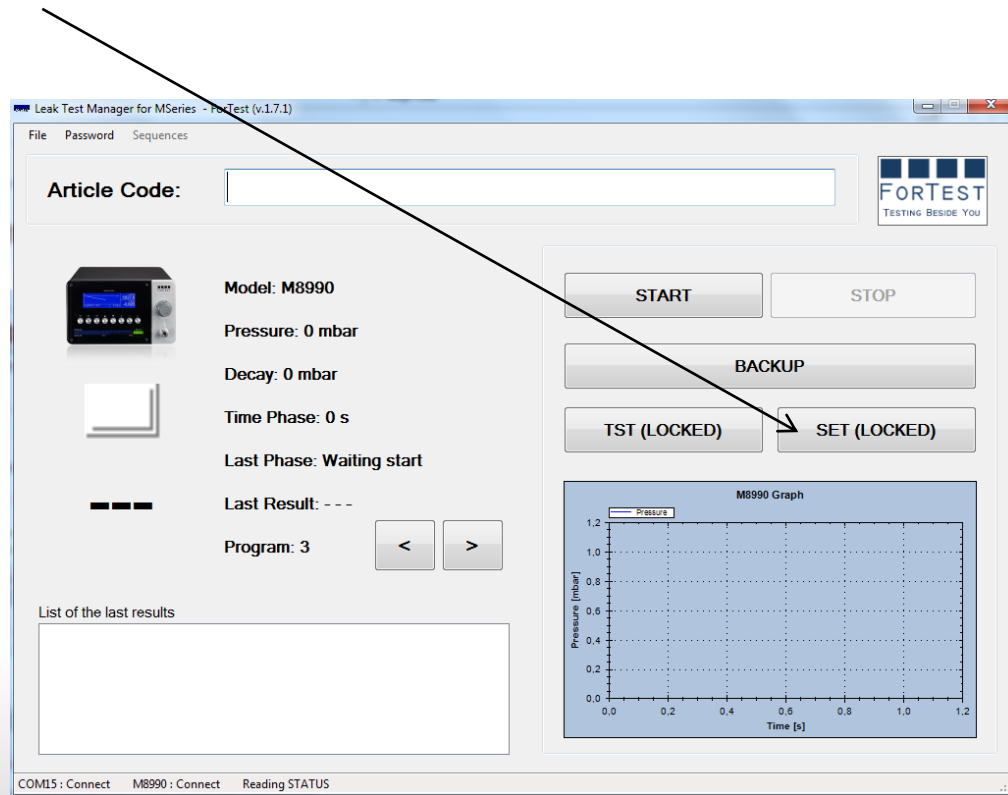
**TST:** Modify the testing parameters of a program (See “TST” for more informations) If “LOCKED” it means that is password protected.





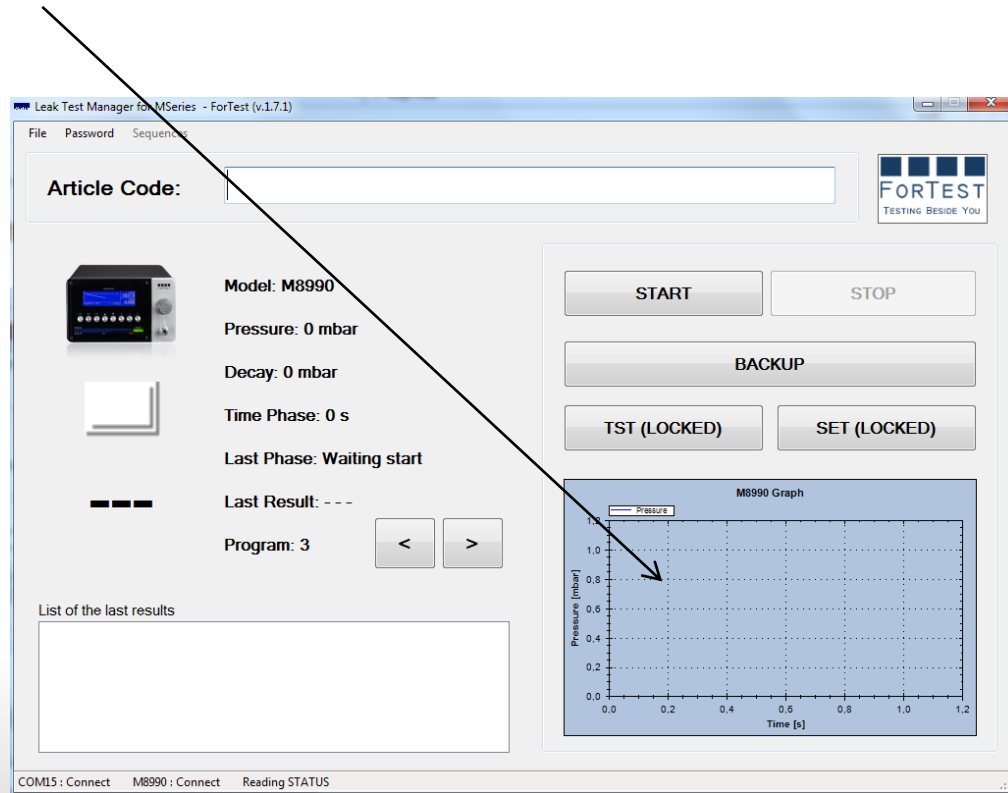
# MAIN SCREEN

**SET:** Modify the setting parameters of the device  
If “LOCKED” it means that is password protected.



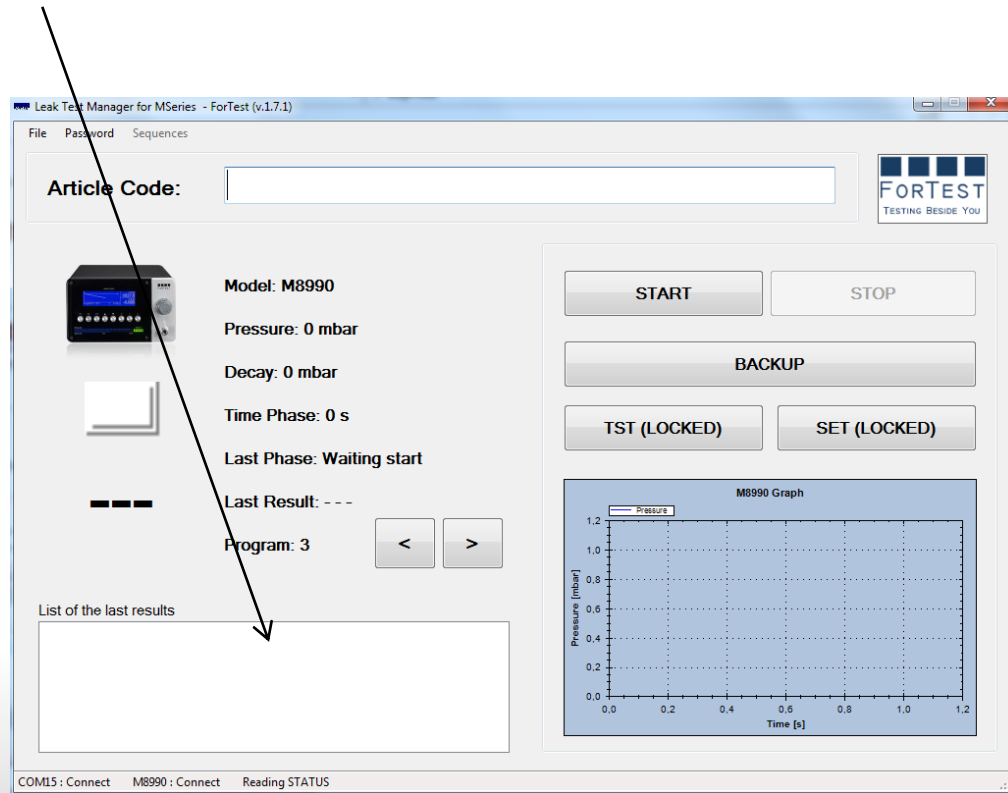
# MAIN SCREEN

**GRAPH:** Graph the pressure and the decay during the test



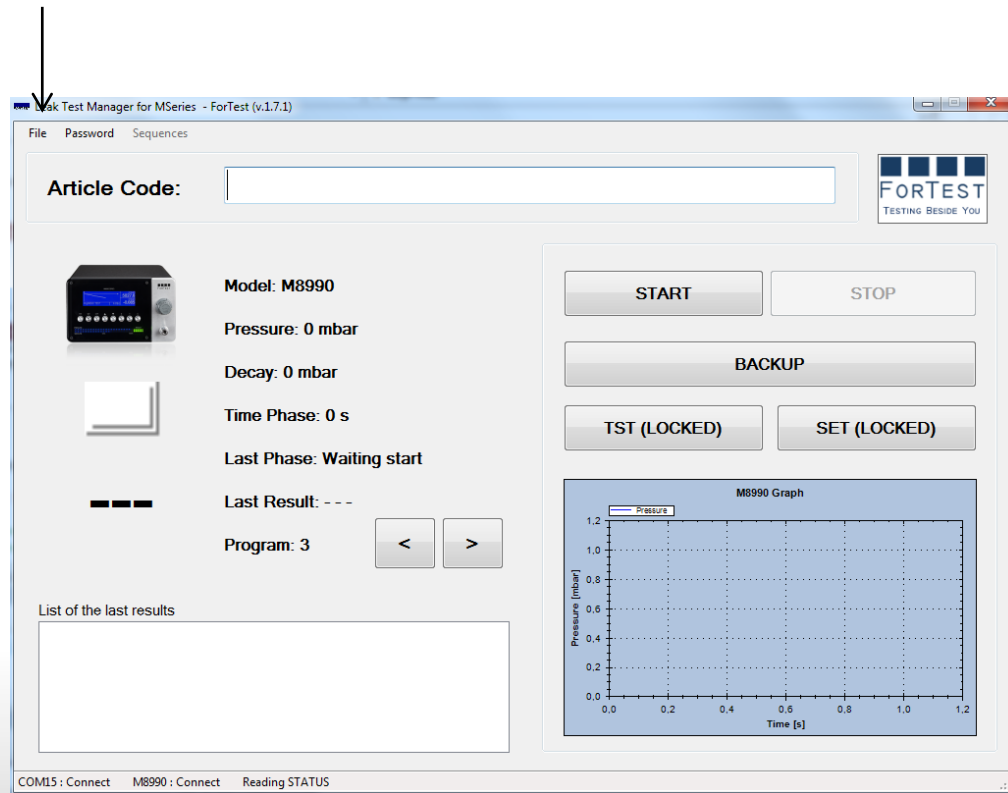
# MAIN SCREEN

**LAST RESULTS:** Show a list of the last results evaluated



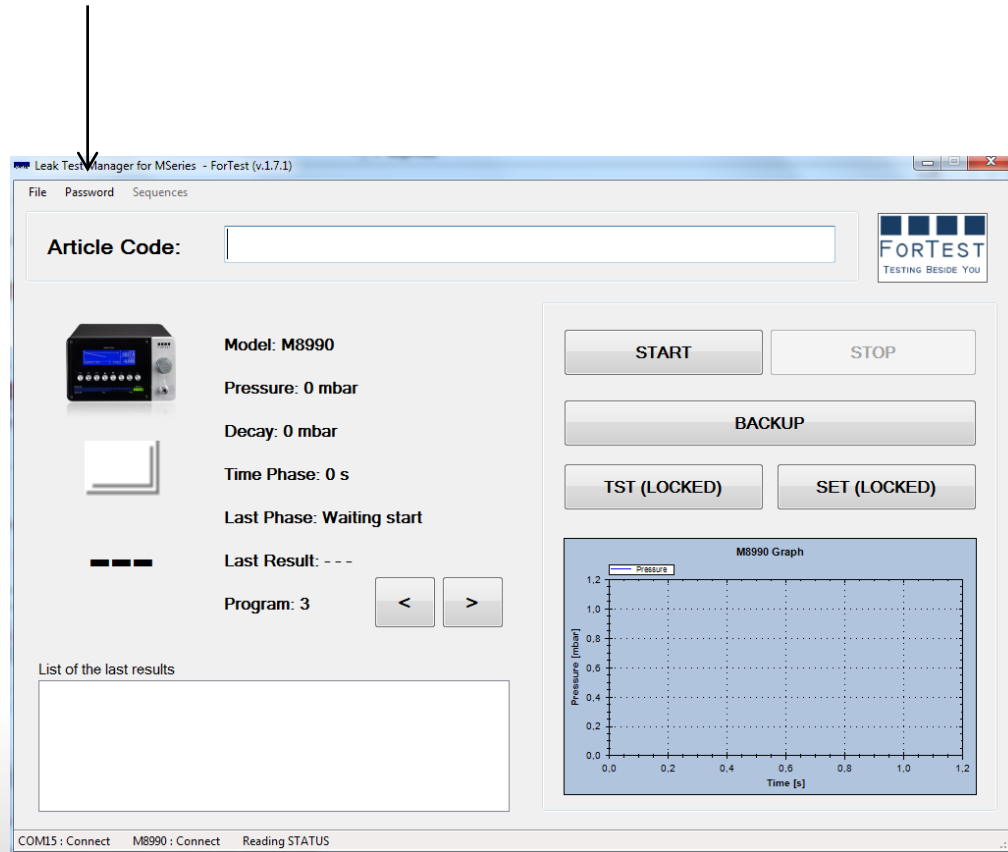
# MAIN SCREEN

**File:** It contain the “OPTION” menu for configure the software



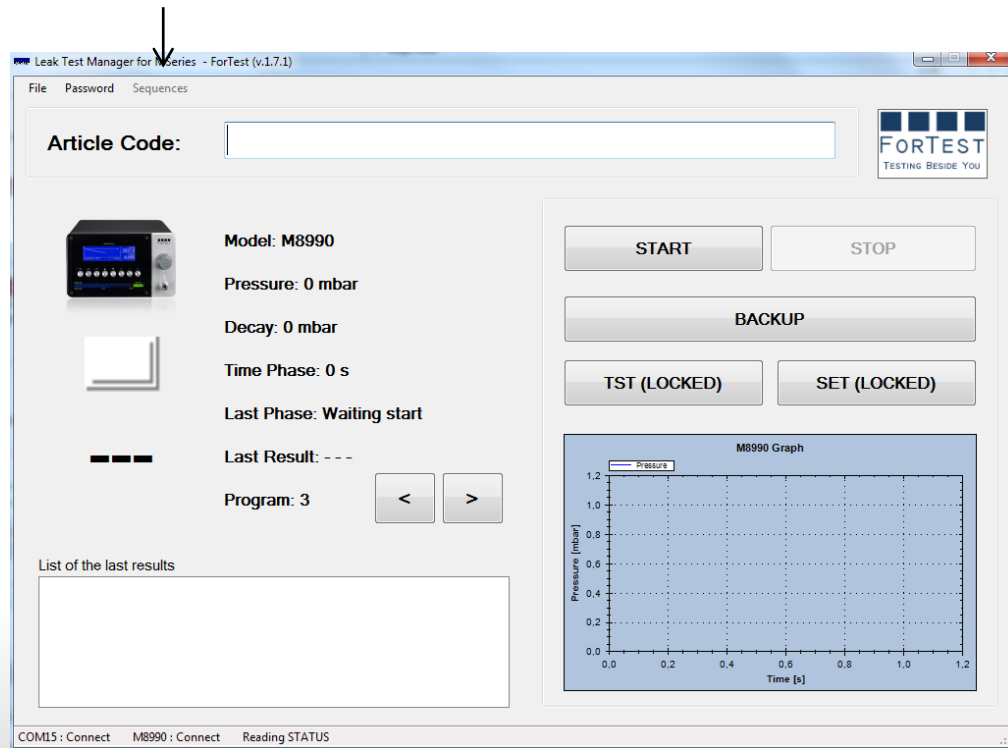
# MAIN SCREEN

**Password:** Lock/unlock controls by password and redefine a new password



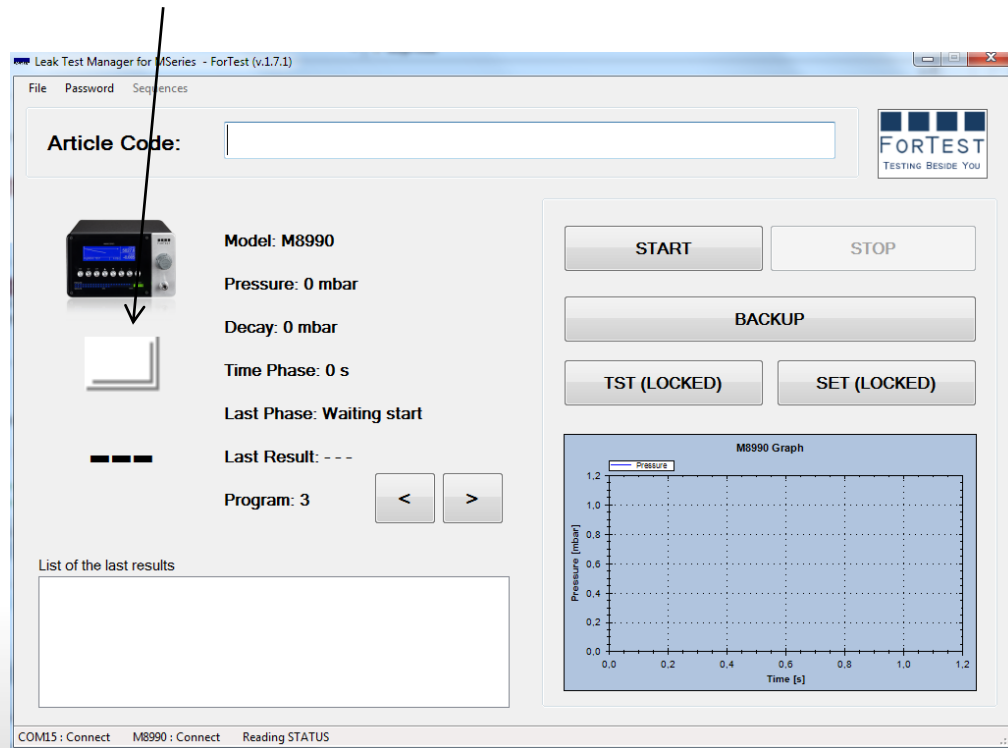
# MAIN SCREEN

**Sequences:** create an association between an article code and the execution of automatic test of sequences. For example is it possible to read a barcode and automatically perform a test on the program 1, if result OK program 2, etc..



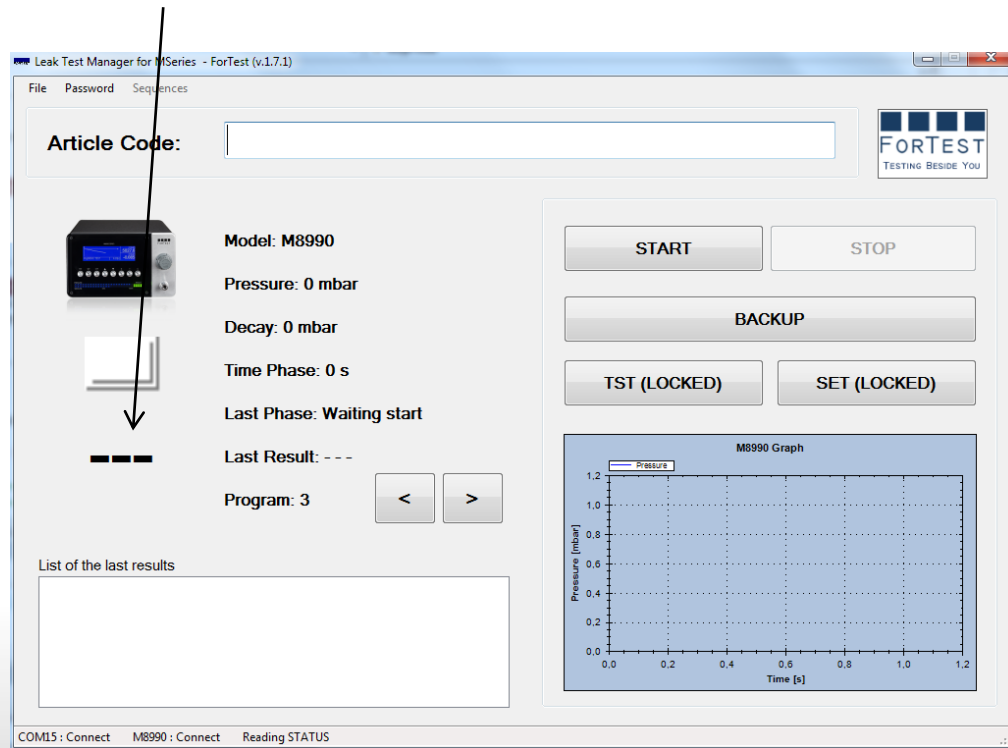
# MAIN SCREEN

**Semaphore light** : GREEN if result is OK, YELLOW if the test is in progress, RED if the test is KO , WHITE if the result is ABORT or not determined



# MAIN SCREEN

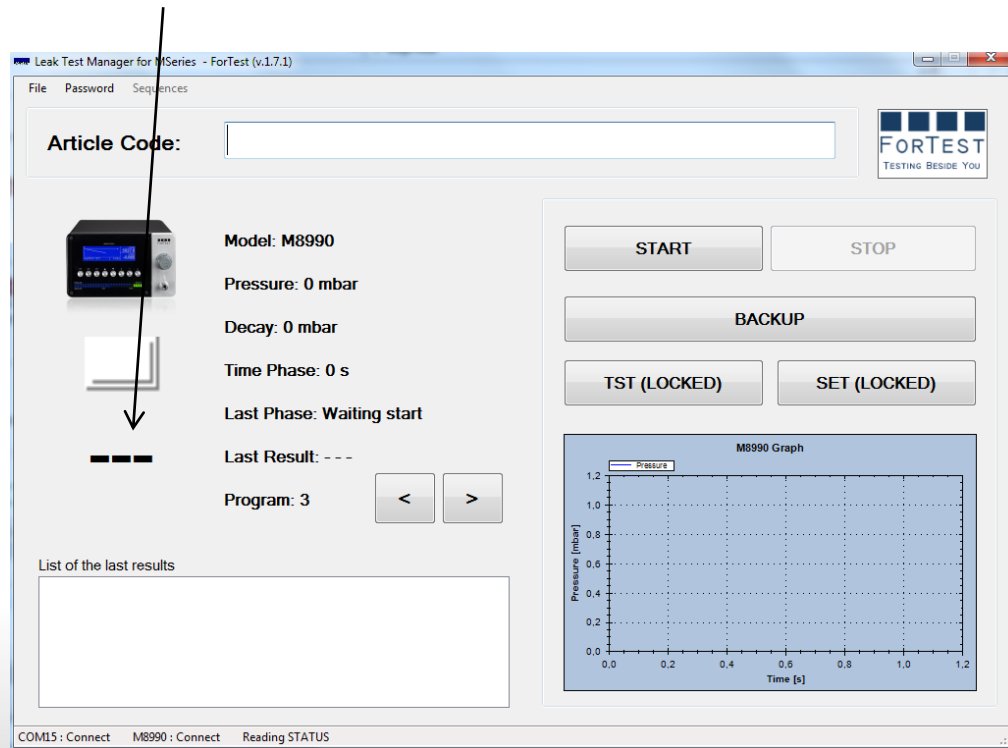
**Short result :** It show “OK” for Good result, “KO” for Bad result or “---” if the result is Abort or not determinated





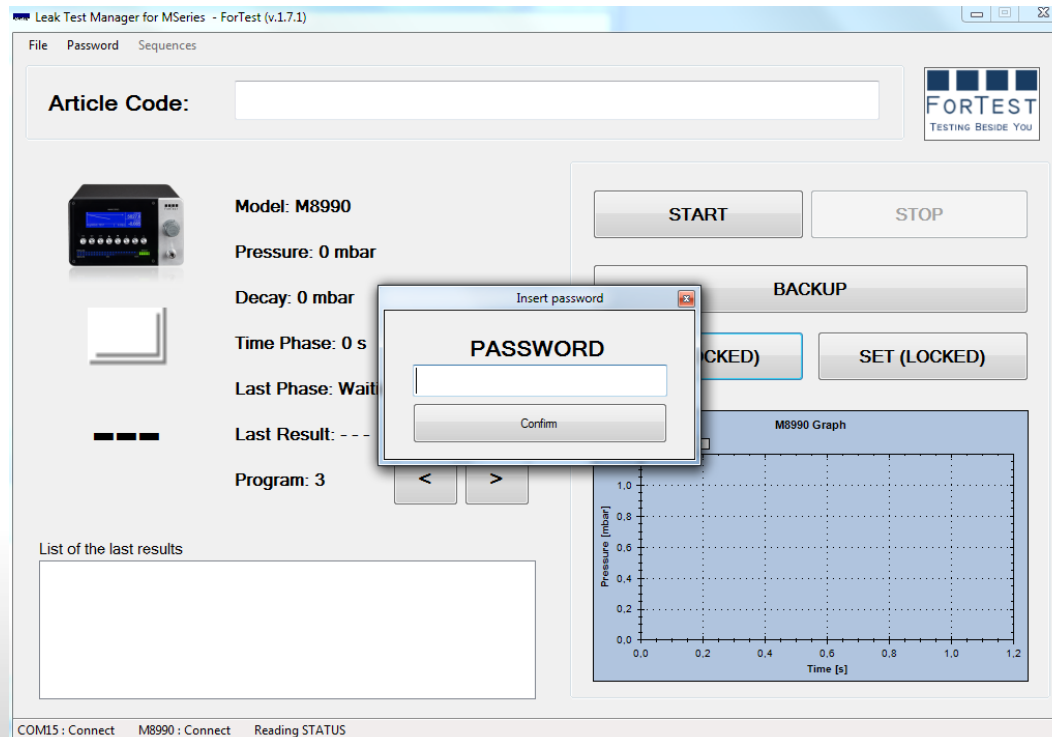
# MAIN SCREEN

**Short result :** It show “OK” for Good result, “KO” for Bad result or “---” if the result is Abort or not determinated



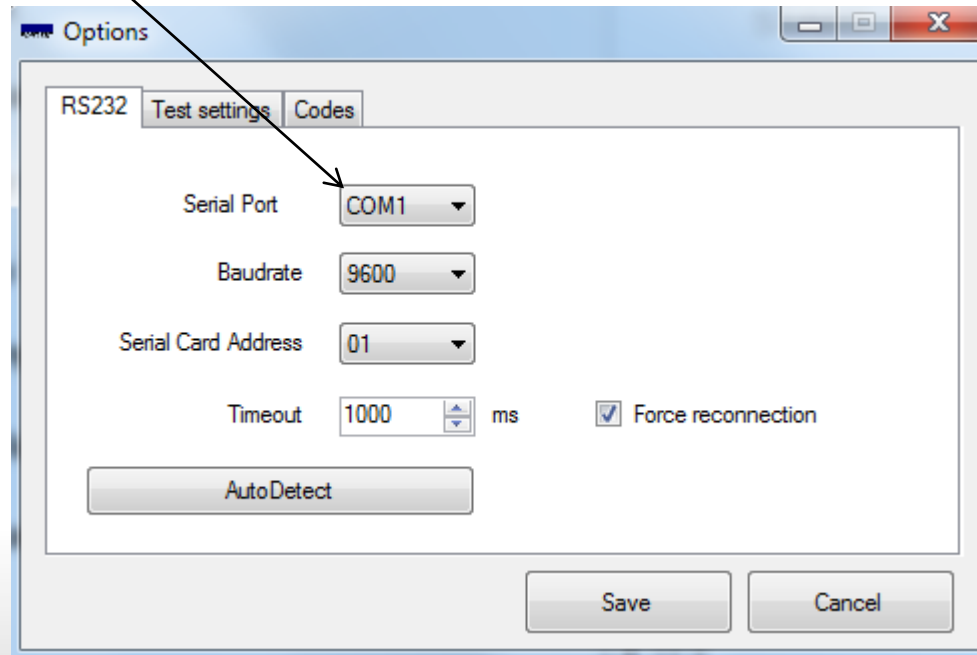
# MAIN SCREE

All “**LOCKED**” controls need to be “**UNLOCKED**” with the supervisor password. Default password is “fortest”



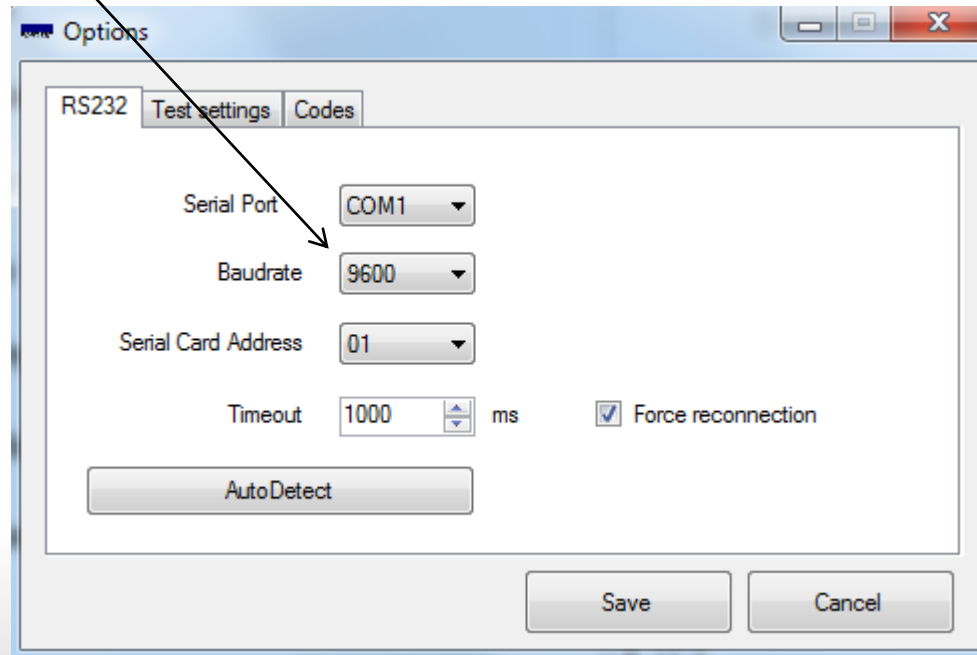
# OPTION (RS232)

**Serial port** : is the serial port name connected to the device



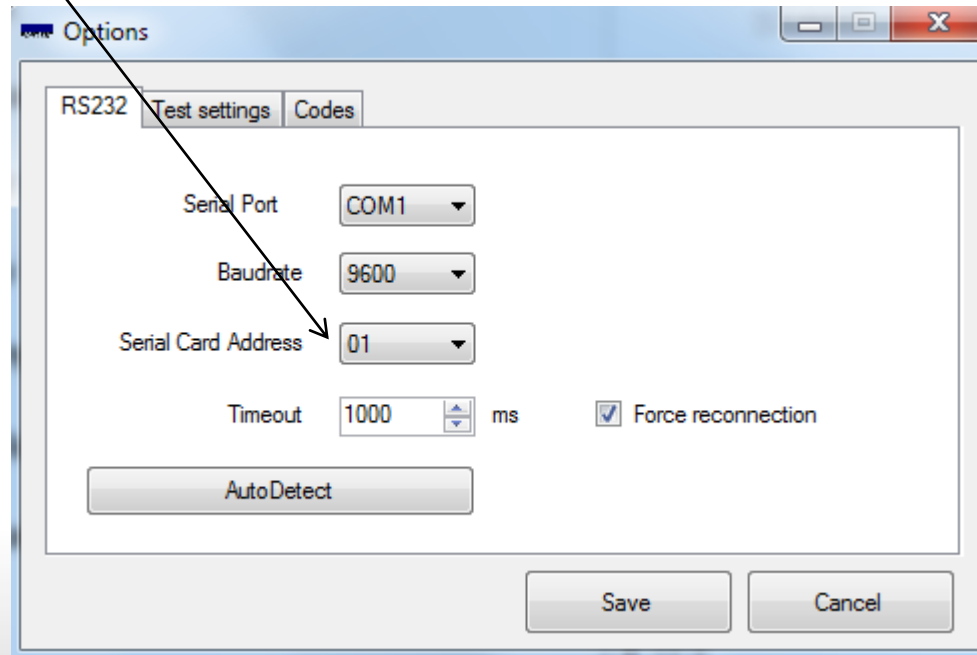
# OPTION (RS232)

**Baudrate:** is the current baudrate of the device



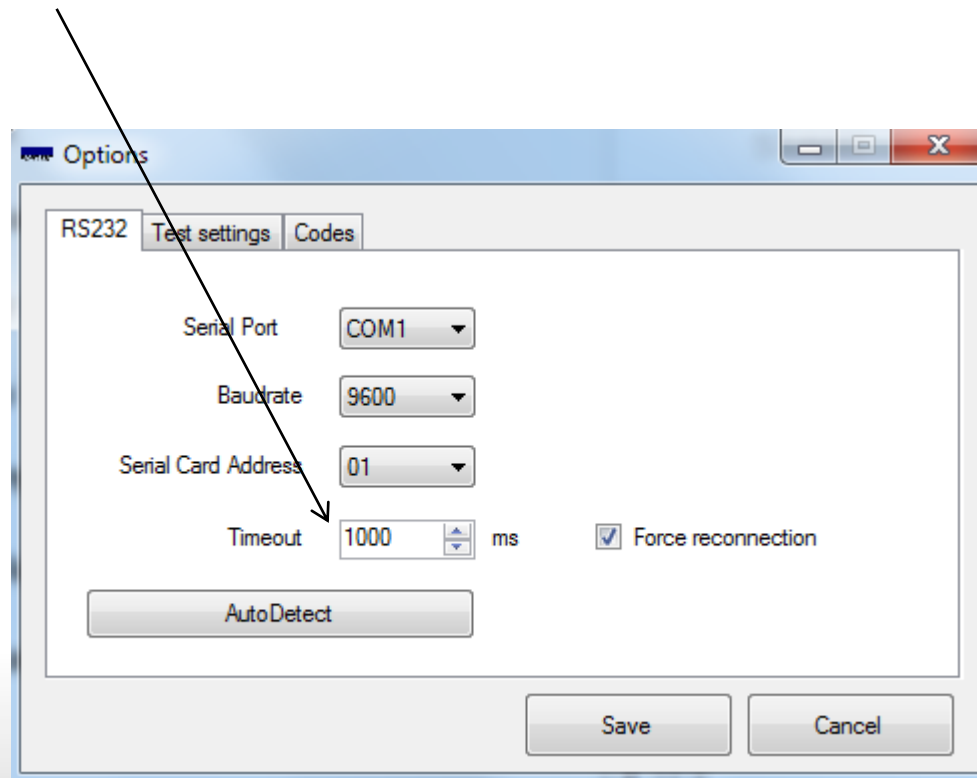
# OPTION (RS232)

**Serial Card Address:** is the address of the device



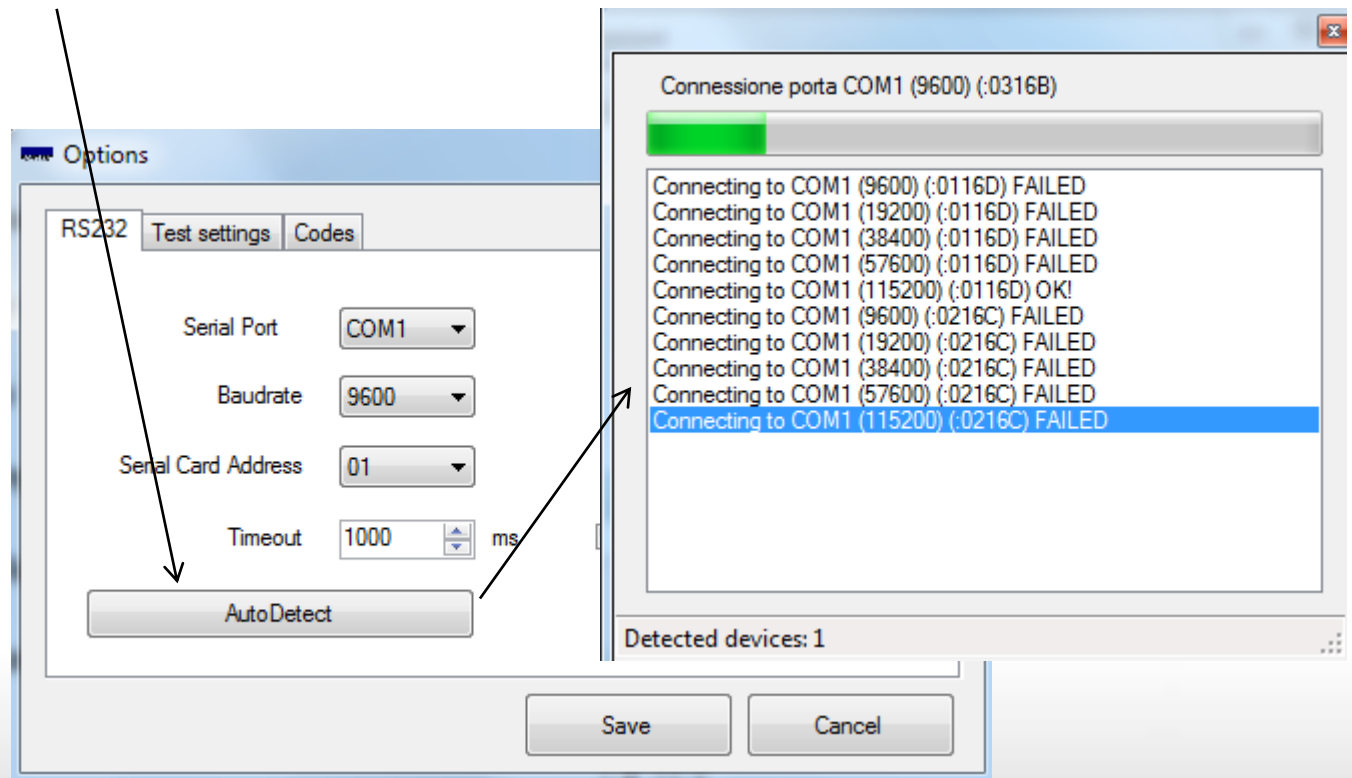
# OPTION (RS232)

**Timeout:** If the software don't receive an RX answer in N-milliseconds it show a timeout error and the communication with the device is lost.



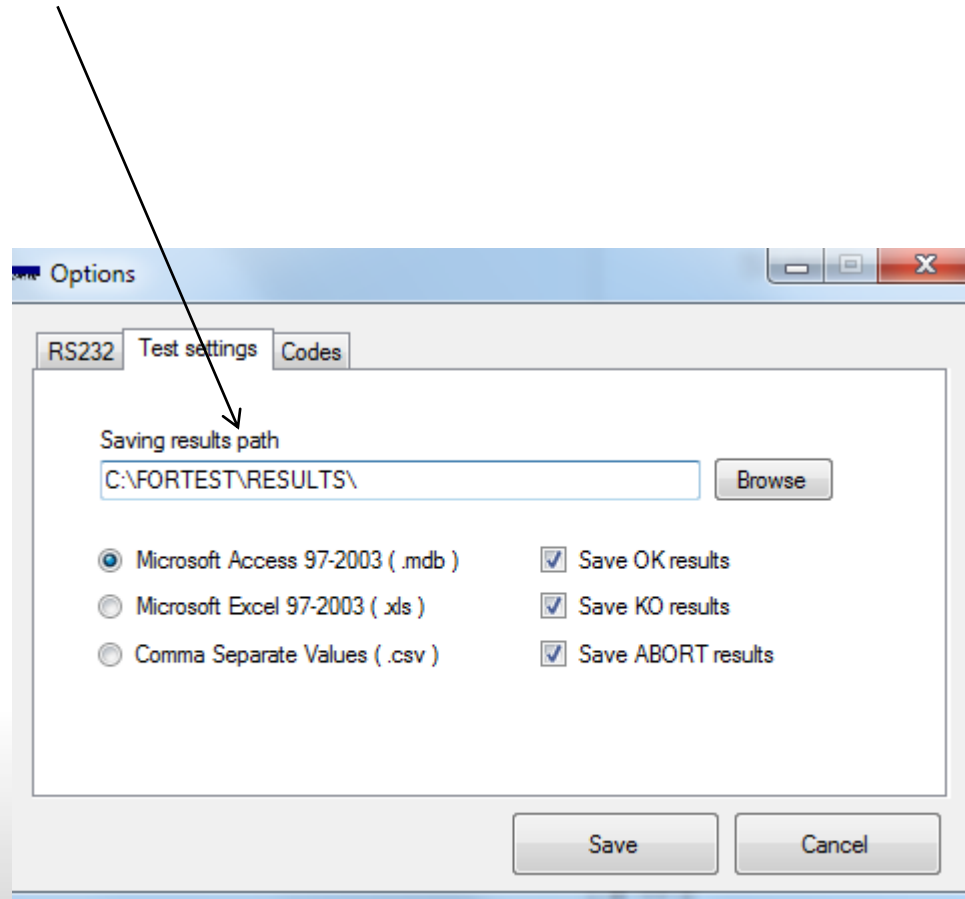
# OPTION (RS232)

**Autodetect:** Perform a scan of the equipment on every serial port and if detected it automatically configure the connection with it



# OPTION (TEST)

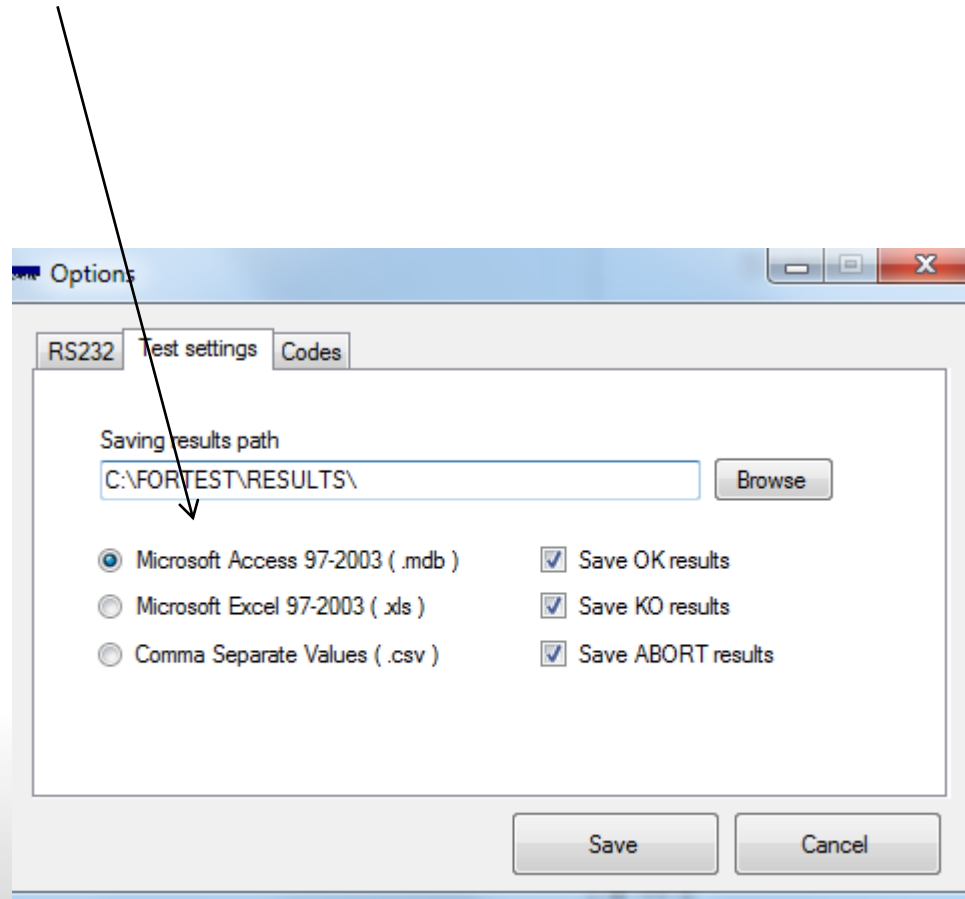
**SAVING RESULT PATH:** Is the directory path of the test archive saved





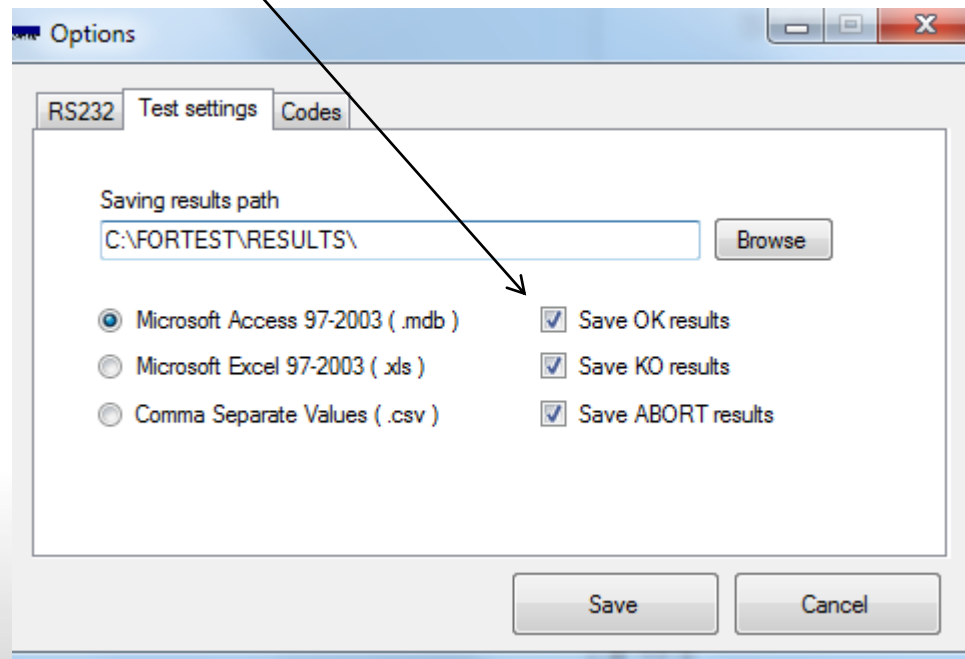
# OPTION (TEST)

**FORMAT ARCHIVE:** Is the format of the archive (MsAccess, Excel , CSV)



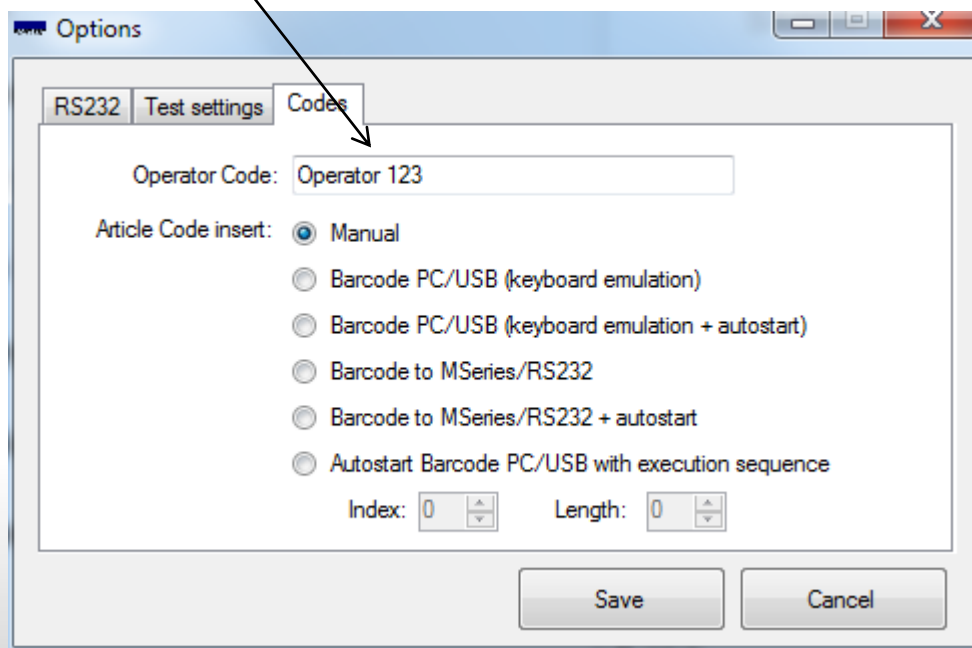
# OPTION (TEST)

**SAVE RESULTS:** Choose to save all “OK”, “KO” or “ABORT” results



# OPTION (BARCODE)

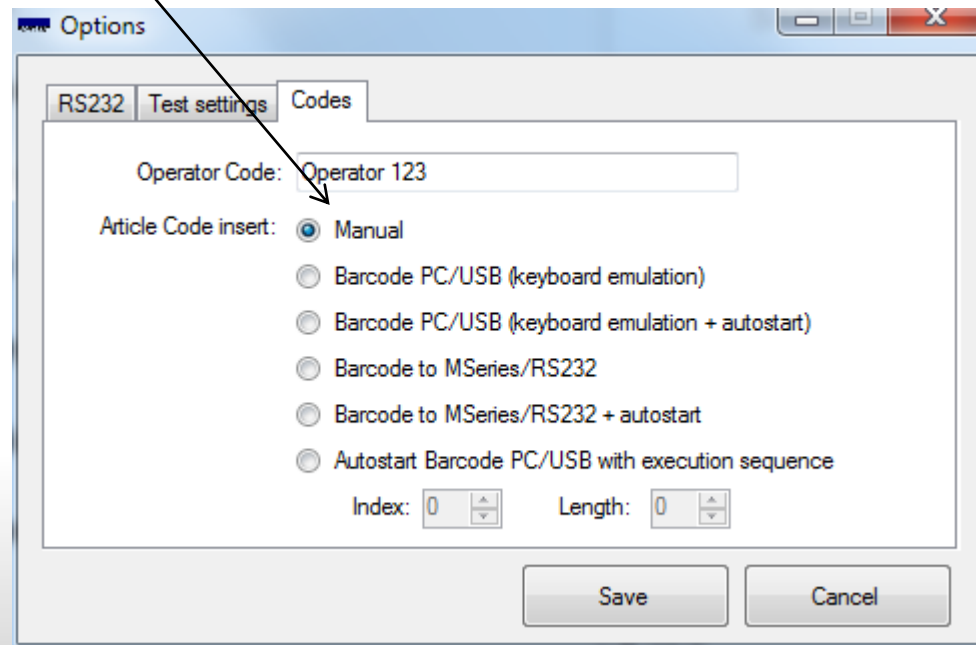
**OPERATOR CODE:** Is a code that will be inserted into the archive. It is an identification of who made the test.



The screenshot shows a software window titled 'Options' with three tabs: 'RS232', 'Test settings', and 'Codes'. The 'Codes' tab is active. Inside the tab, there is a text field labeled 'Operator Code:' containing the text 'Operator 123'. Below this, there is a section 'Article Code insert:' with six radio button options: 'Manual' (selected), 'Barcode PC/USB (keyboard emulation)', 'Barcode PC/USB (keyboard emulation + autostart)', 'Barcode to MSeries/RS232', 'Barcode to MSeries/RS232 + autostart', and 'Autostart Barcode PC/USB with execution sequence'. At the bottom of the 'Codes' tab, there are two spin boxes labeled 'Index:' and 'Length:', both set to '0'. At the bottom of the window are 'Save' and 'Cancel' buttons. An arrow from the text 'OPERATOR CODE:' in the paragraph above points to the 'Operator Code' input field.

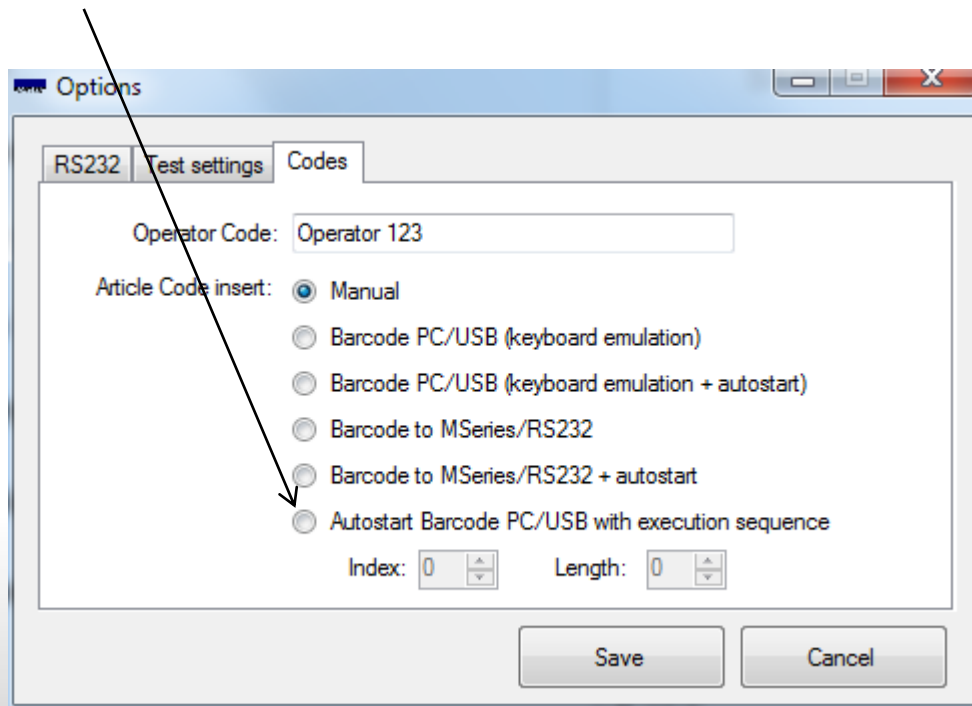
# OPTION (BARCODE)

**ARTICLE CODE INSER** : specify if the article code is inserted manually from the keyboard, from a barcode connected to PC or connected to the device.



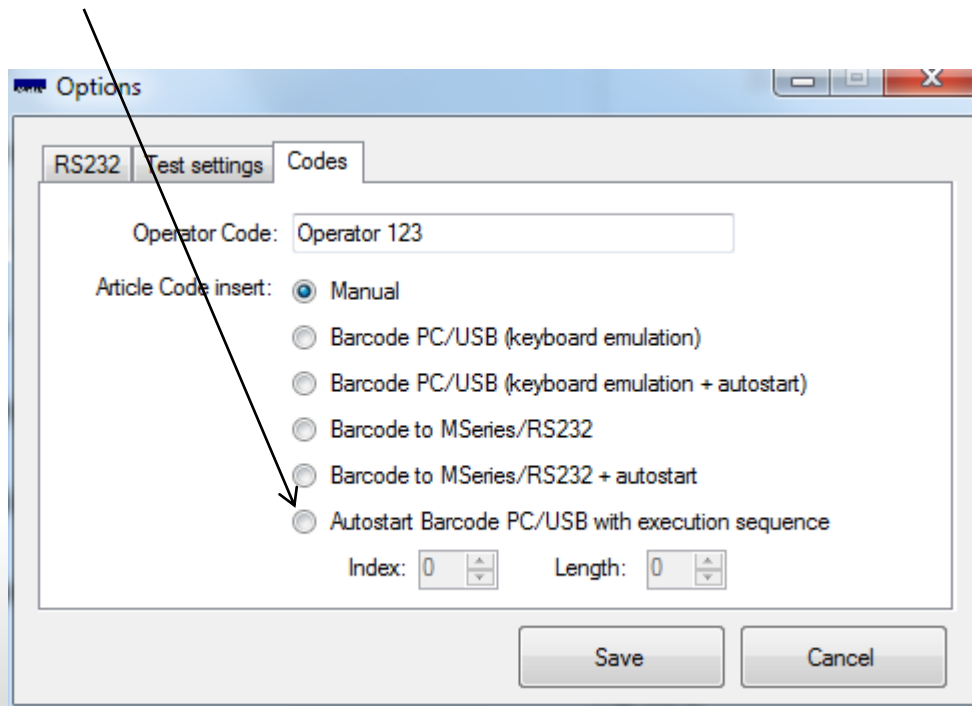
# OPTION (BARCODE)

NOTE: “**Autostart barcode PC/USB with execution sequence**” will enable the “SEQUENCES” menu. It permit to auto execute programs when a determinate article is written. **Index** is the starting point from evaluate the code. **Length** is the length of the barcode



# OPTION (BARCODE)

For example : If you have the barcode “ABC123DEF456” and you want to filter the barcode to evaluate only to “123DEF” you must use INDEX = 3 , LENGTH = 6 (starting index is 0). Into “SEQUENCES” only the filtered code will be matched



# TST

Example of TST parameters of the device. All text parameters must be confirmed with the “ENTER” key pressure

The screenshot displays the ForTest software interface. A central dialog box is open, showing various test parameters for a TST (Time-to-Success) test. The parameters are as follows:

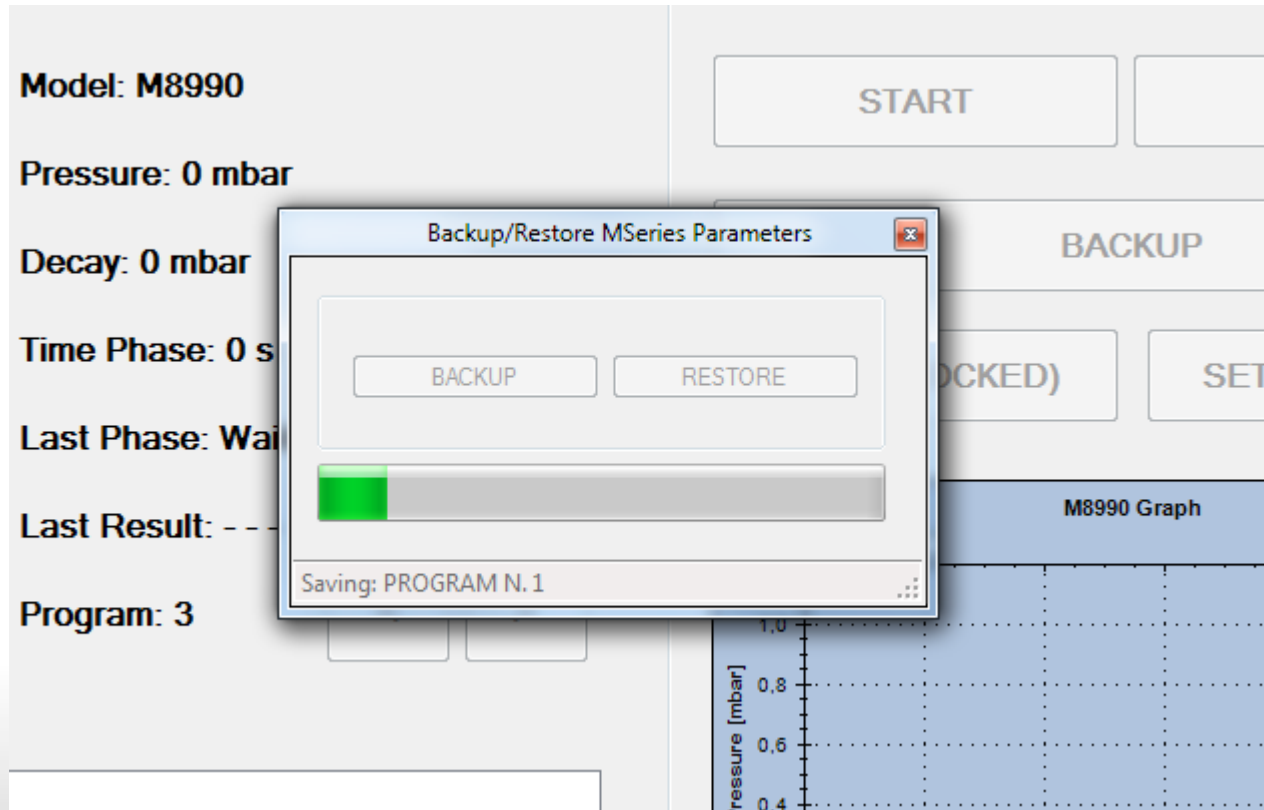
Parameter	Value	Unit
Program	3	
Kind of test	Leak Test	
Filling Pressure	5000	mbar
Pressure tolerance	1	%
Filling attempts	0	
Filling phase duration	5	s
Settling phase duration	5	s
Test phase duration	10	s
Discharge phase duration	0	s
Kind of measurement	Pressure	
Maximum decay	1	mbar
Piece's volume	0	mbar
Offset on the decay	0	mbar

Below the dialog box, a graph titled "990 Graph" is visible, showing a pressure decay over time. The x-axis is labeled "Time [s]" and ranges from 0.0 to 1.2. The y-axis represents pressure, though no numerical labels are visible on the axis itself.

In the background, the ForTest logo is visible in the top right corner, and several buttons are present: "STOP", "BACKUP", and "SET (UNLOCKED)".

# BACKUP

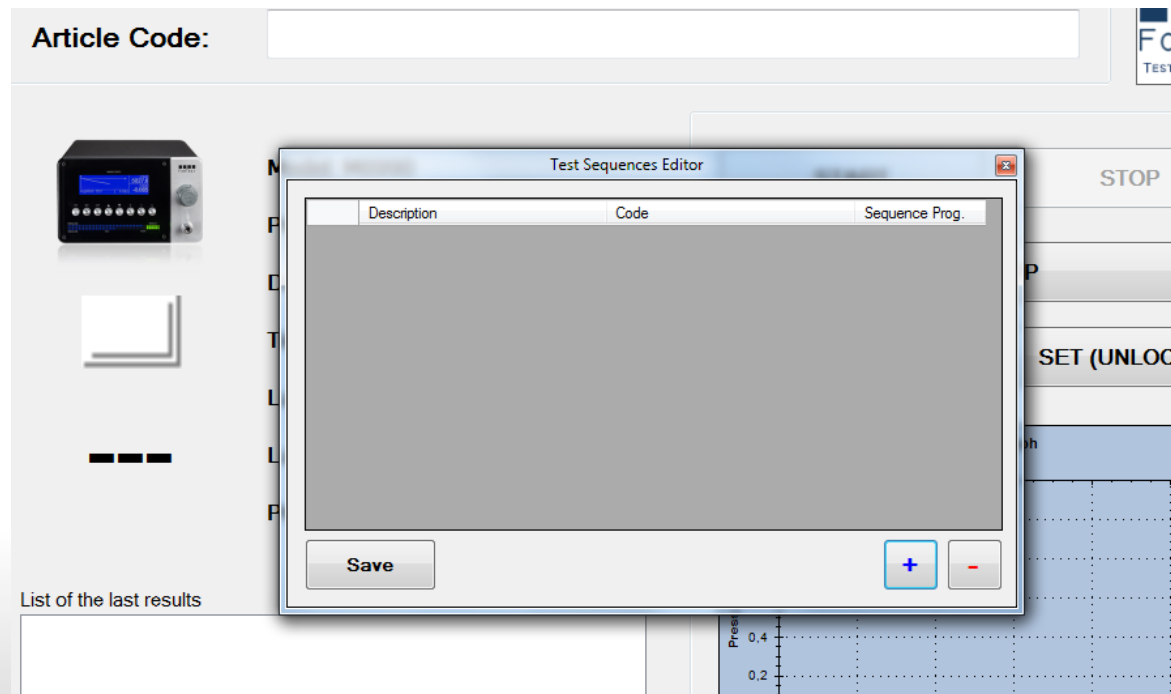
Example of BACKUP of TST programs





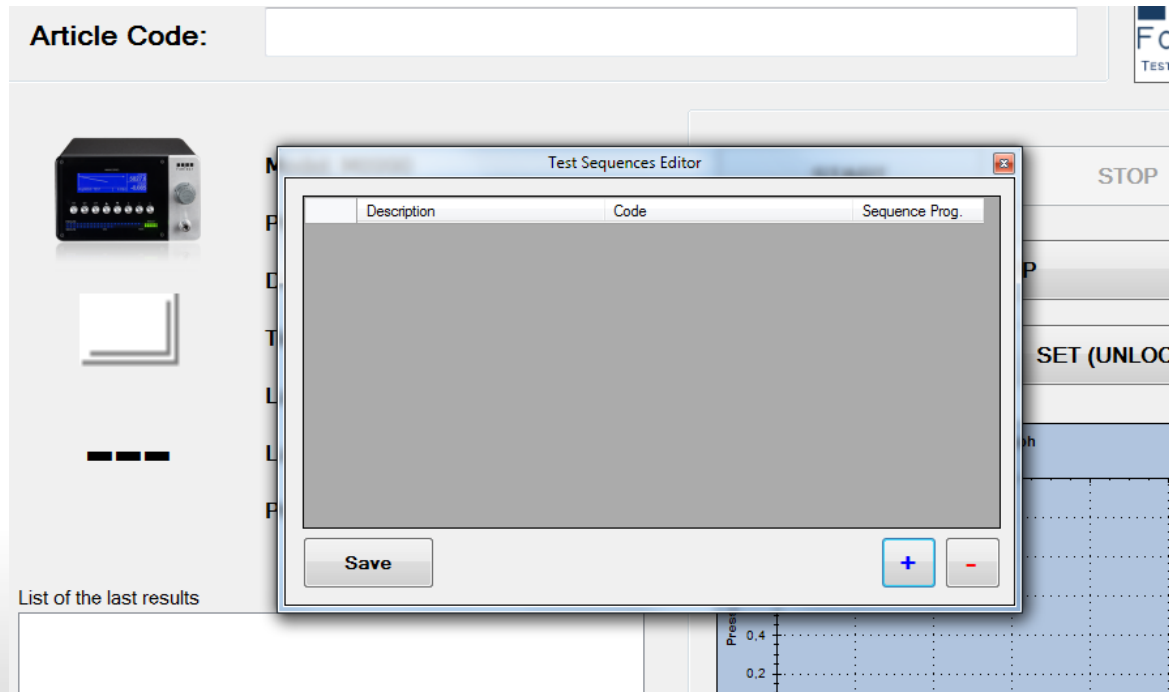
# SEQUENCES

Sequences is an editor that permit to execute programs on the device if an article code match with a specific code. For example a supervisor want to perform test of program 1 when the article code is “ABC”, test program 2 when the article code is “123” etc..



# SEQUENCES

- + : Add a rule to the sequence editor
- : Remove an existing rule

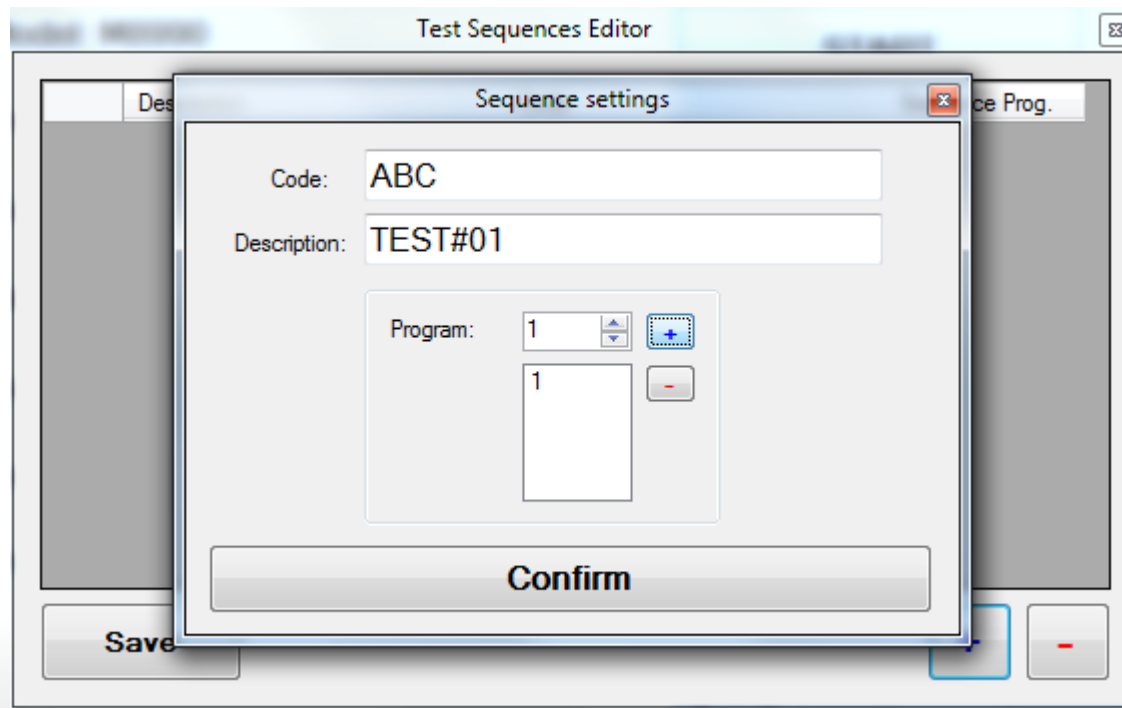


# SEQUENCES

**Code:** is the code to match with the article code

**Description:** is a description of the test to perform

**Program:** is the chain of programs to execute



# EXCEL ARCHIVE

## Example of test archive

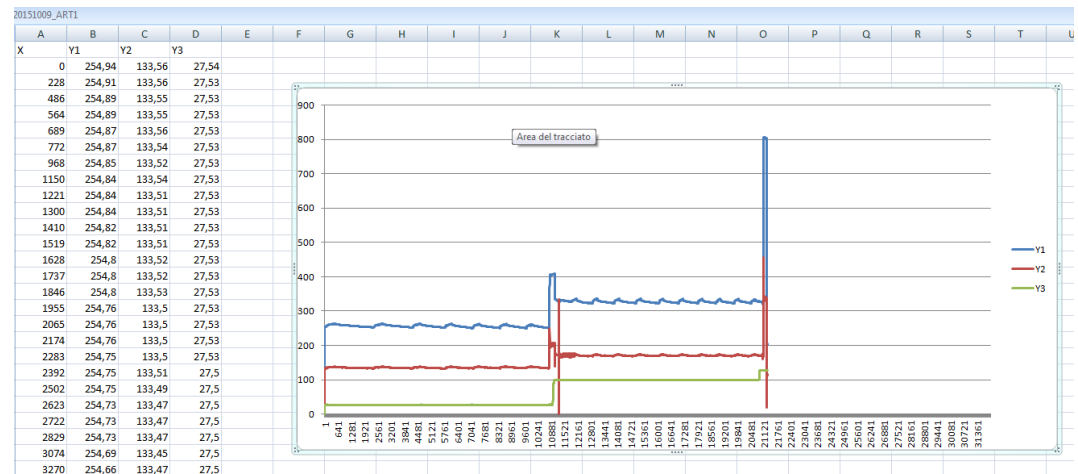
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Date	Hour	Program N	Filling Pre	Filling Pre	Filling Tim	Settling Tim	Test Time	Time UM	Max Deca	Decay Ev	Decay UM	VOUT_AL	VOUT_AL	Pressure E	Pressure E	Remaining	Remaining	Last Phase
2	04/11/2014	11:50:32	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,128	mbar	0	0	905,7	mbar	0	s	Fase ad u Bu
3	04/11/2014	11:50:33	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,085	mbar	0	0	907,1	mbar	0	s	Fase ad u Bu
4	04/11/2014	11:50:35	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,073	mbar	0	0	907,2	mbar	0	s	Fase ad u Bu
5	04/11/2014	11:50:38	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,067	mbar	0	0	907,4	mbar	0	s	Fase ad u Bu
6	04/11/2014	11:50:39	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,06	mbar	0	0	907,6	mbar	0	s	Fase ad u Bu
7	04/11/2014	11:50:41	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,06	mbar	0	0	907,5	mbar	0	s	Fase ad u Bu
8	04/11/2014	11:50:43	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,056	mbar	0	0	907,3	mbar	0	s	Fase ad u Bu
9	04/11/2014	11:50:45	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,053	mbar	0	0	907,3	mbar	0	s	Fase ad u Bu
10	04/11/2014	11:50:47	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,051	mbar	0	0	907,9	mbar	0	s	Fase ad u Bu
11	04/11/2014	11:50:49	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,051	mbar	0	0	907,1	mbar	0	s	Fase ad u Bu
12	04/11/2014	11:50:51	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,05	mbar	0	0	906,9	mbar	0	s	Fase ad u Bu
13	04/11/2014	11:50:53	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,046	mbar	0	0	907,6	mbar	0	s	Fase ad u Bu
14	04/11/2014	11:50:55	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,047	mbar	0	0	907,4	mbar	0	s	Fase ad u Bu
15	04/11/2014	11:50:57	0	9000	mbar	0,5	0,5	0,2	s	1000	-0,052	mbar	0	0	906,2	mbar	0	s	Fase ad u Bu

# Graph compare

CSV

0151009_ART1				
A	B	C	D	
X	Y1	Y2	Y3	
0	254,94	133,56	27,54	
228	254,91	133,56	27,53	
486	254,89	133,55	27,53	
564	254,89	133,55	27,53	
689	254,87	133,56	27,53	
772	254,87	133,54	27,53	
968	254,85	133,52	27,53	
1150	254,84	133,54	27,53	
1221	254,84	133,51	27,53	
1300	254,84	133,51	27,53	
1410	254,82	133,51	27,53	
1519	254,82	133,51	27,53	
1628	254,8	133,52	27,53	
1737	254,8	133,52	27,53	
1846	254,8	133,53	27,53	
1955	254,76	133,5	27,53	
2065	254,76	133,5	27,53	
2174	254,76	133,5	27,53	
2283	254,75	133,5	27,53	
2392	254,75	133,51	27,5	
2502	254,75	133,49	27,5	
2623	254,73	133,47	27,5	
2722	254,73	133,47	27,5	
2829	254,73	133,47	27,5	
3074	254,69	133,45	27,5	
3270	254,66	133,47	27,5	

EXCEL



Export data from CSV format into Excel and create custom graphs and compare values, execute formulas and macro