

Spirometry



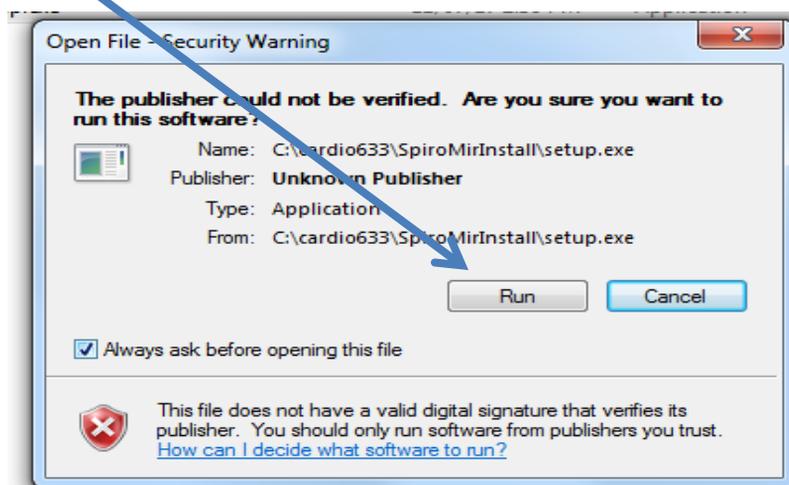
HOW TO INSTALL SPIROMETER

****Before install the Nasiff CardioCard products and the
 O make sure you turn of your security, fire wall
 real-time protection**

****Before connecting MiniSpir to a PC, the software must be
 on the PC in order to interface it with the device**

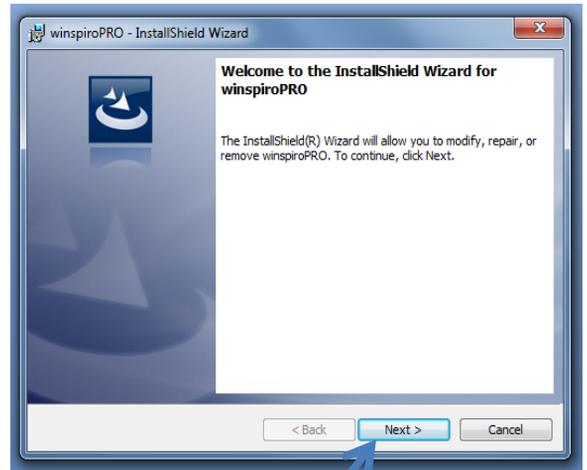
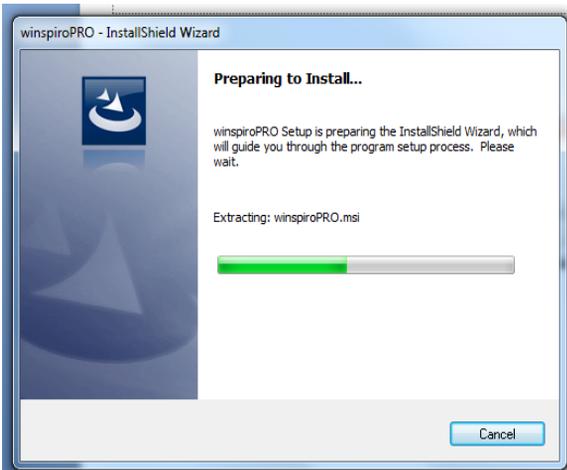
****If your IT Department is changes on your
 make sure they inform you when they are
 CardioCard completely to make sure**

- Insert the Nasiff Cardio Card CD
- Open up the program
- Go to the folder called SpiroMirInstall
- Click on setup.exe
- Click on Run



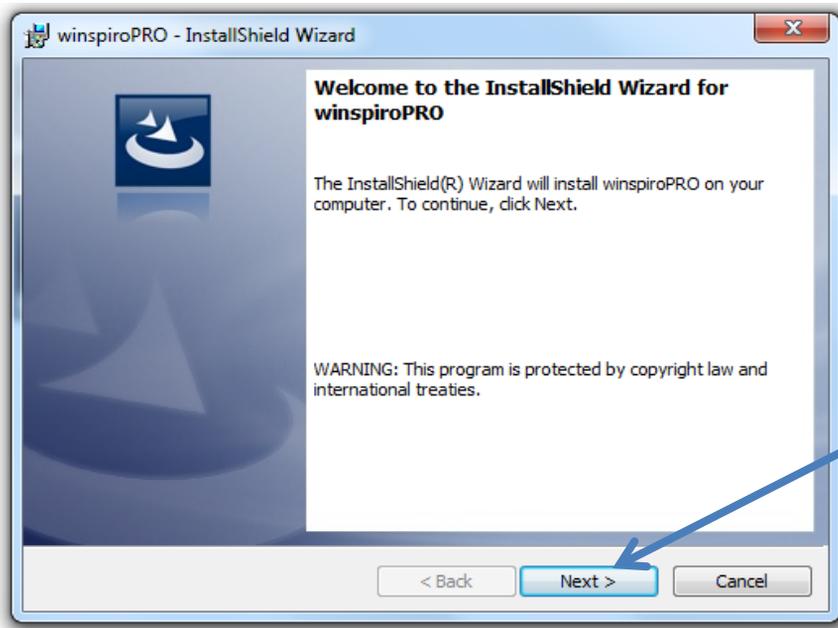
INSTALLING SPIROMETER

Select English then "OK"

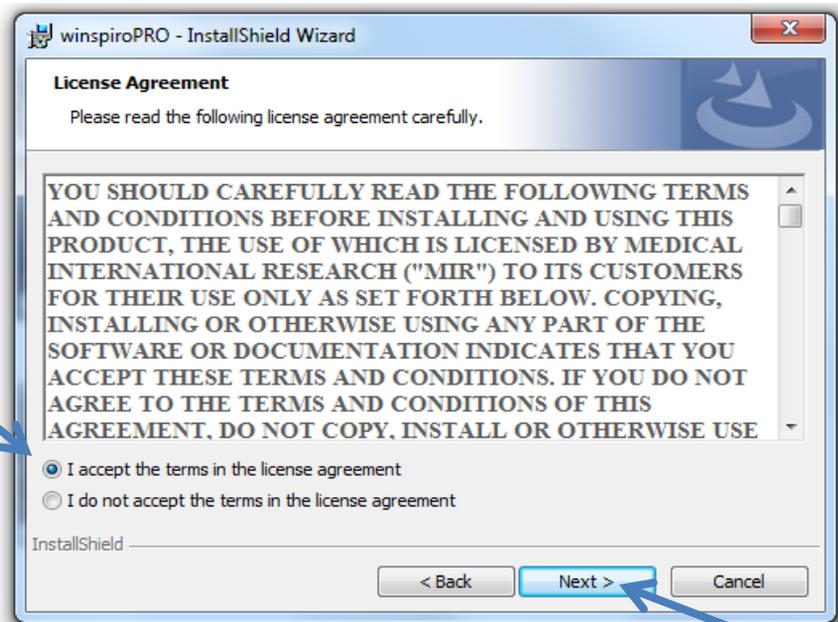


Click "Next"

• You will see the following screen



Click "Next"

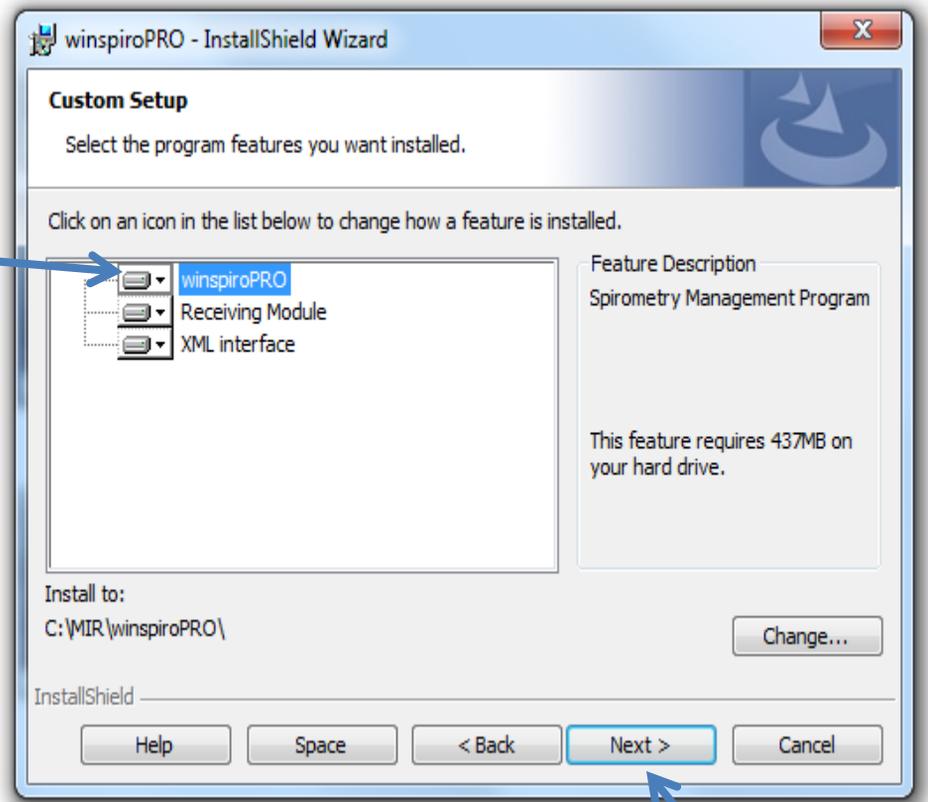


Click "I accept the terms in the license agreement"

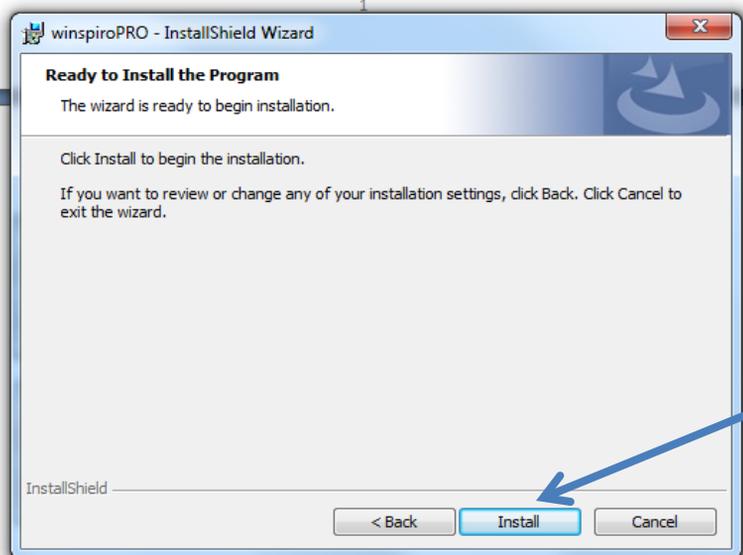
Click "Next"

WinSpiroPRO - U - u - k

Select
"winspiroPRO"

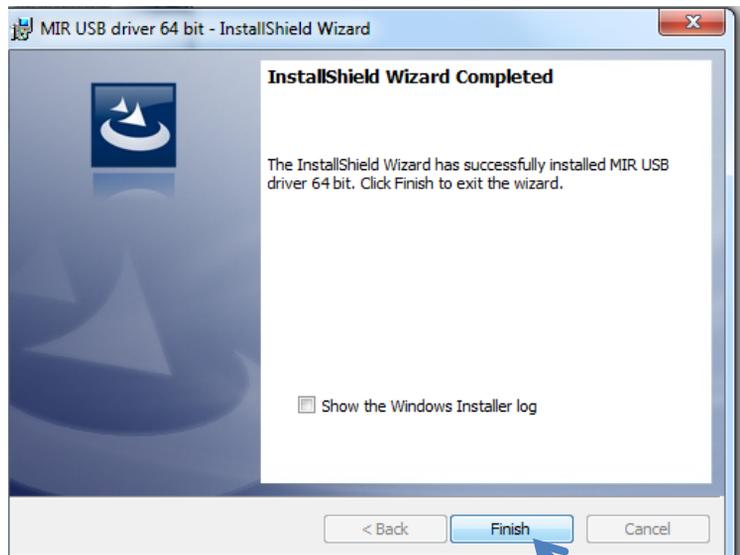
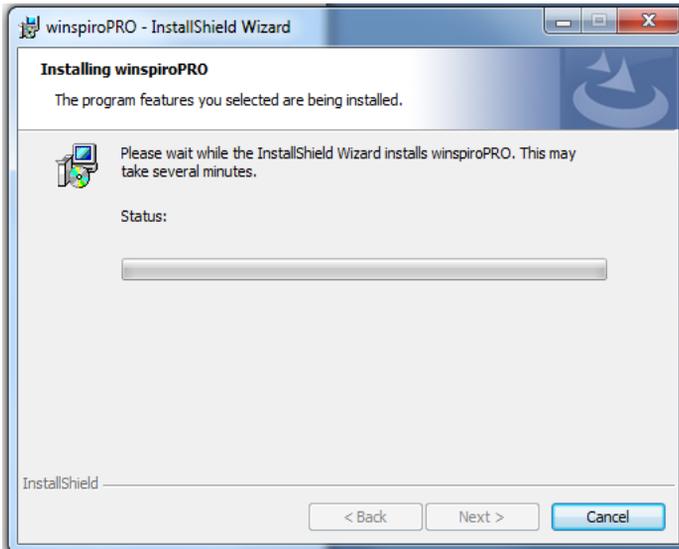


Click "Next"



Click "Install"

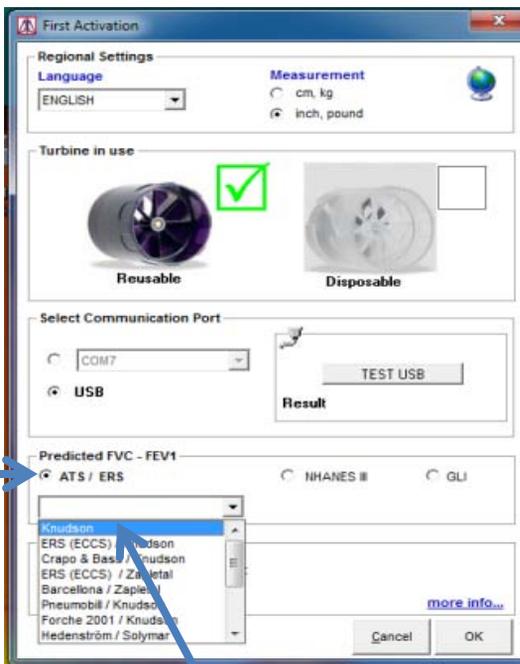
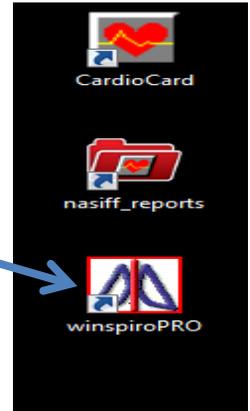
How to install U-ko



Click "Finish"

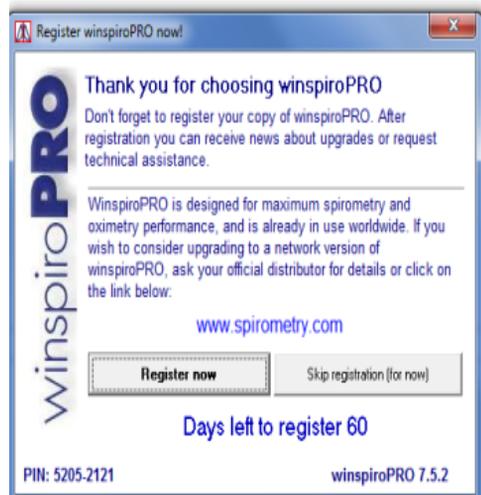
You will see this

On your desktop
click on “winspiroPRO”



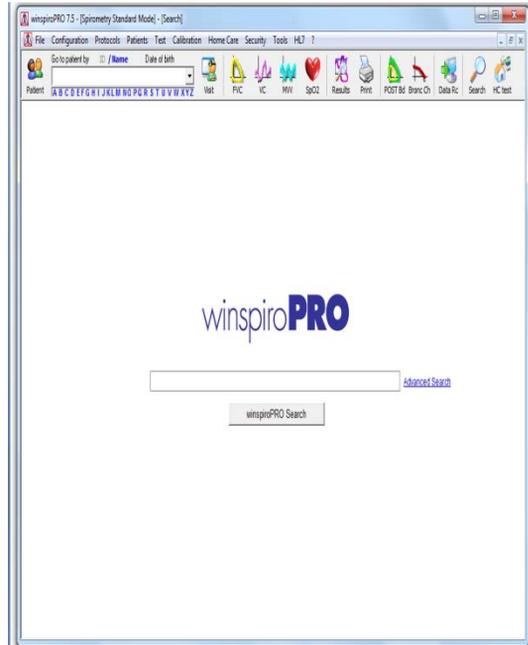
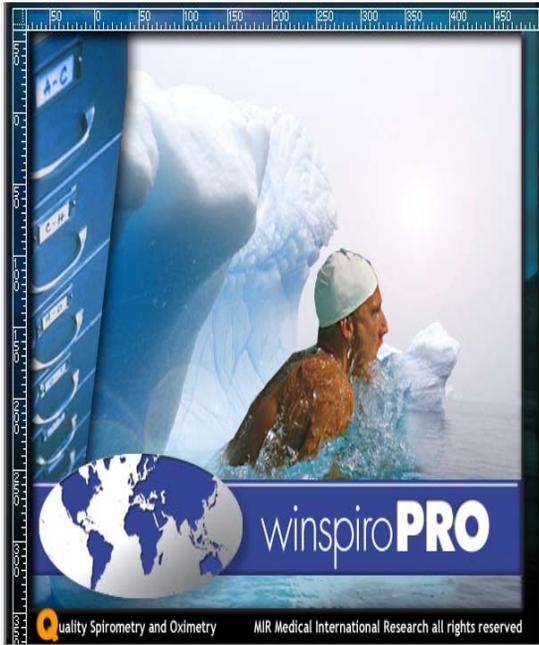
Select
ATS/ERS

Select “Knudson”



Make sure to Register

How to install U-u-k

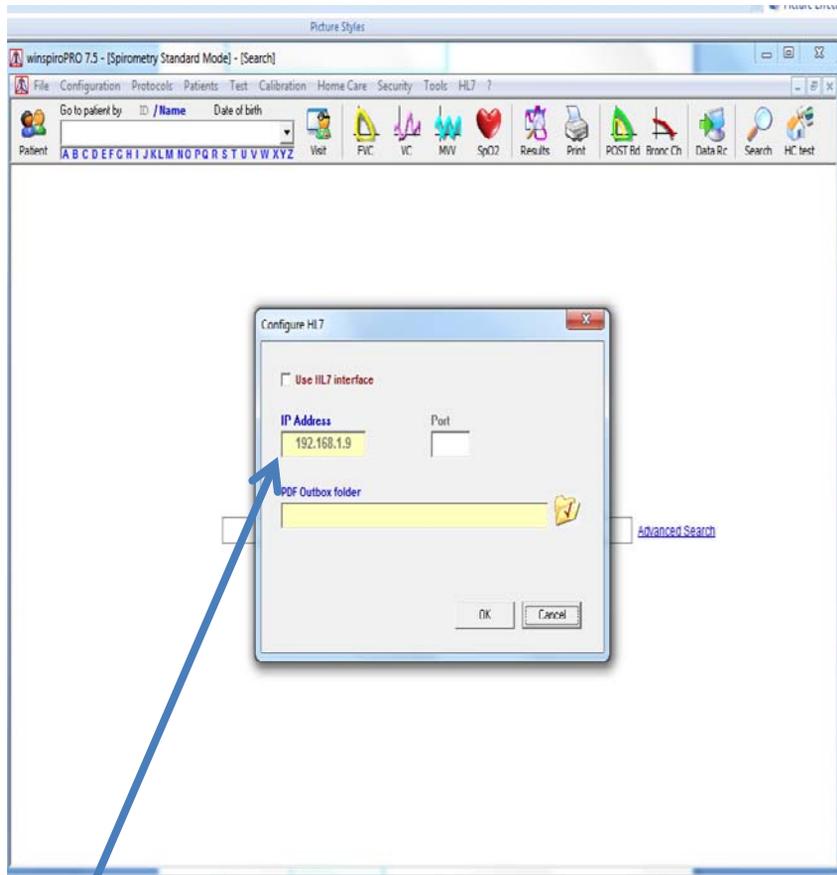


Click on "HL7"

Select "Configure HL7 communication"



Wau 008 dh U - u - k

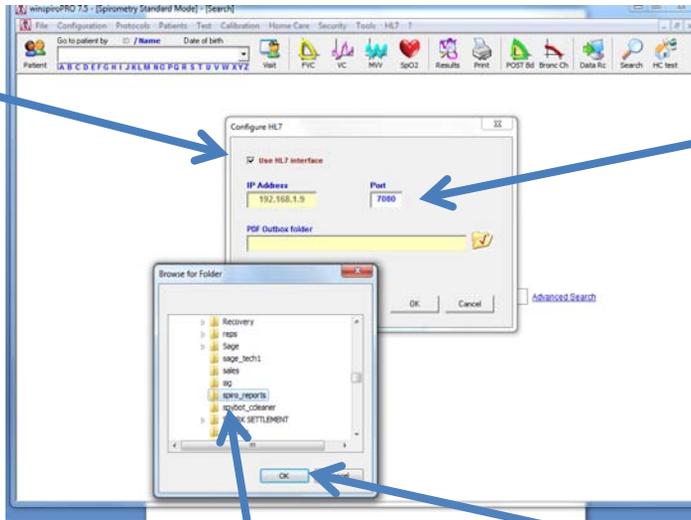


Make note on your IP Address example:
192.168.1.9 will need this to put in the
Nasiff CardioCard Program.

You'll be using U-u-k

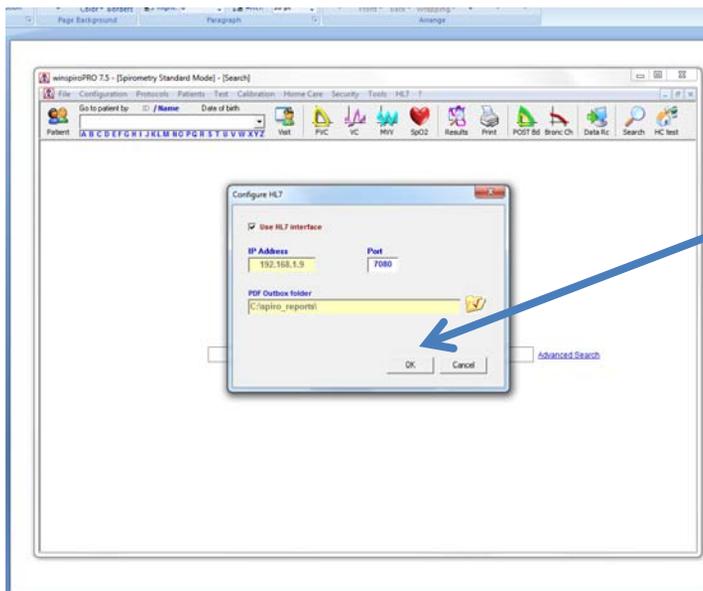
Select
"use HL7
interface"

Put in Port # 7080

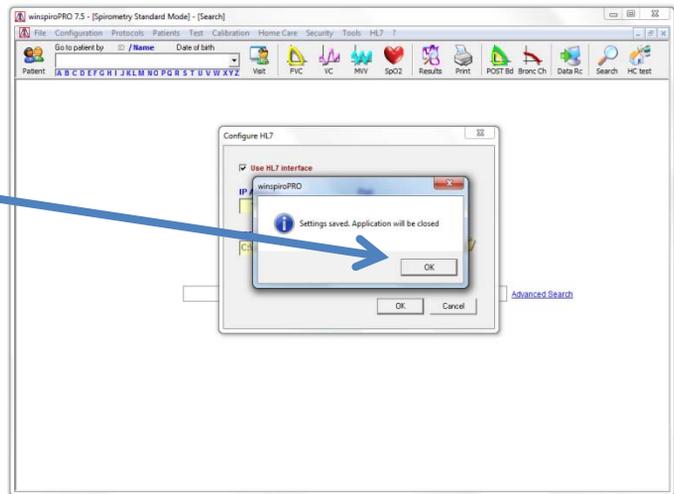


Browse to your "C" Drive and select "spiro_reports" then Click "OK"

Click "OK"

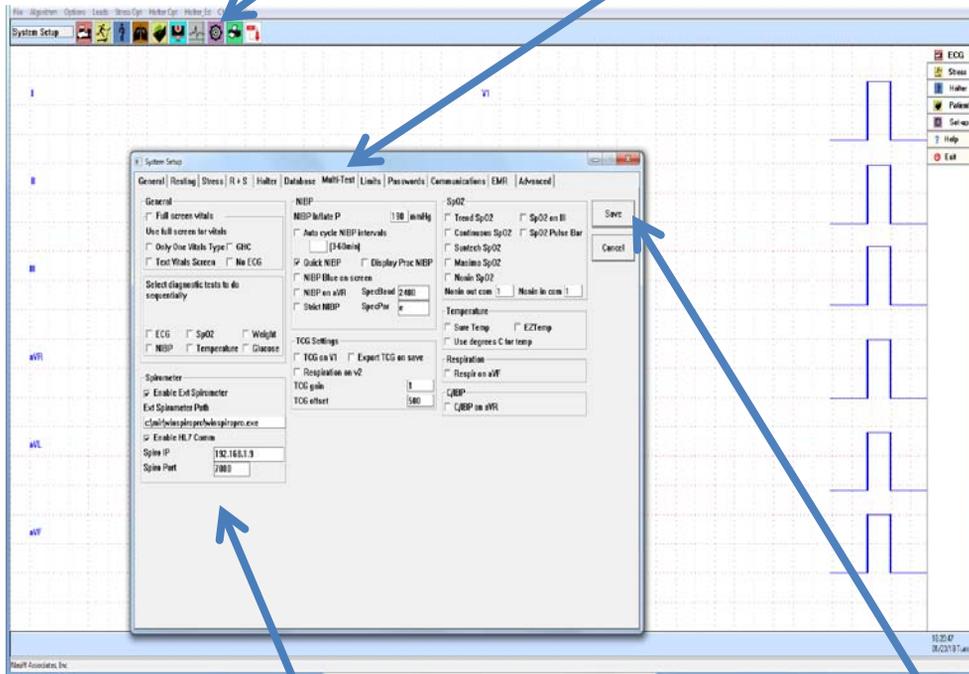


You' OK' d' \ U - u - k'



How to Configure U-u-k

(1) Click on “System Setup”, then Multi-Test



(2) Check “Enable Ext Spirometer”

Enter Ext Spirometer Path as “c:\mir\winspiropro\winspiropro.exe”

Check Enable HL7 Comm

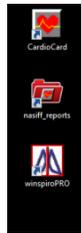
Spiro IP Number example: 192.168.1.9

Spiro Port # is “7080”

(3) Click
“Save”

(4) Plug the USB cable of the spirometer into your computer. When initially making a connection, the PC will either make an automatic driver installation or request some information.

How to set up the U-u-k



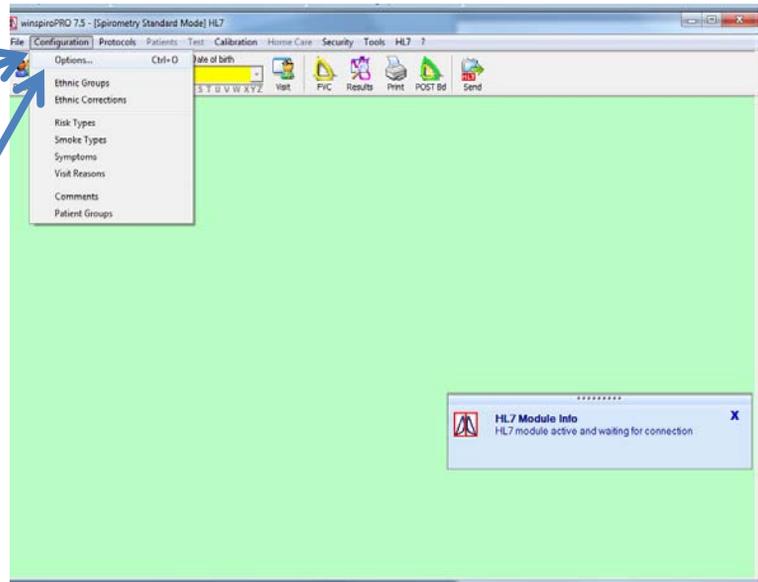
Click on the "Spirometer Icon"



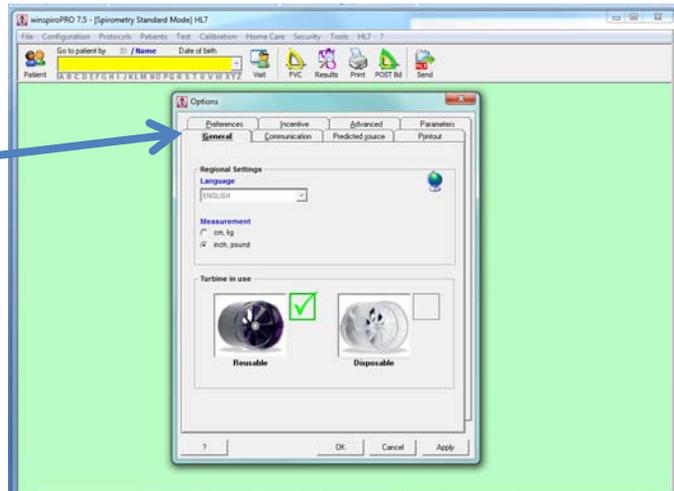
Click on "Configuration"



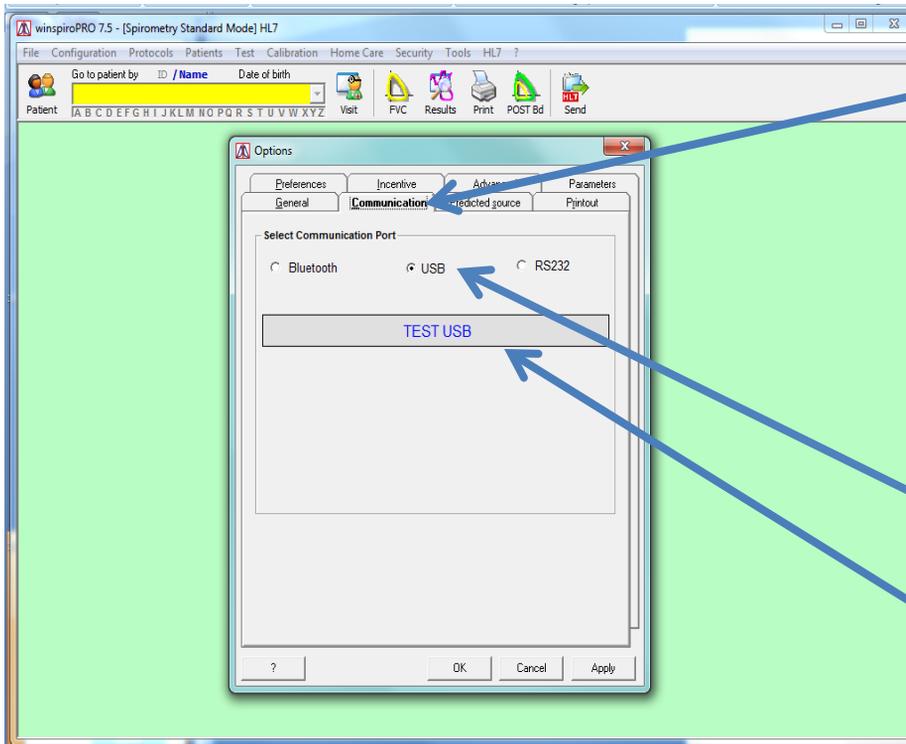
Then click on "Option"



Under the General tab make sure language is correct, measurement is inch, pound is selected. Make sure Under Turbine in use is correct



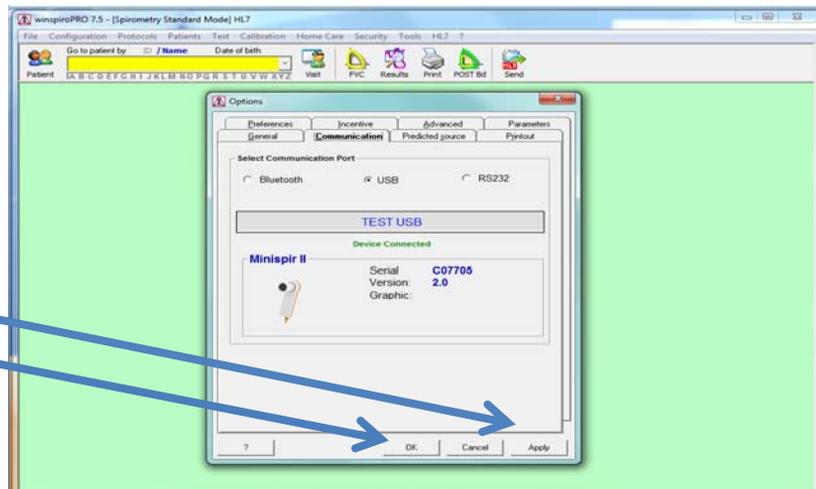
How to connect U-u-k



Click
Communication
Tab

Select
communication
Port "USB"
Then Select
"TEST USB"

Once
Connected
click "Apply"
Then "OK"



SPIROMETRY TEST

The device must only be used by qualified personnel with complete knowledge of spirometry; this is important for the correct execution of the tests, for the acceptability of measured parameters as well as for the correct interpretation of results.

For correctly carrying out a spirometry test, it is strongly recommended to carefully follow the instructions as described below.

Insert the mouthpiece supplied into the hollow part of the turbine by at least 0.5 cm.

Fit the nose clip onto the nose of the subject to ensure that air cannot escape through the nostrils.

Hold **MiniSpir** in one hand as you would a cell phone. The side with the **ID** label should be in the hand of the user.

Insert the mouthpiece well into the mouth beyond the teeth, being carefully to ensure that air cannot escape from the sides of the mouth.

It is suggested to make testing in a standing position and during an expiration lean forward, in order to help the expiratory action with a compression of the abdomen.

WARNING

Do not touch the USB cable during a test to avoid interfering with the transfer of data to the PC or stopping a test too soon.

Please note it is indispensable for an accurate spirometry that all air must be expired from lungs. It is important to stress that the disposable mouthpiece and turbine must be changed at the end of each test.

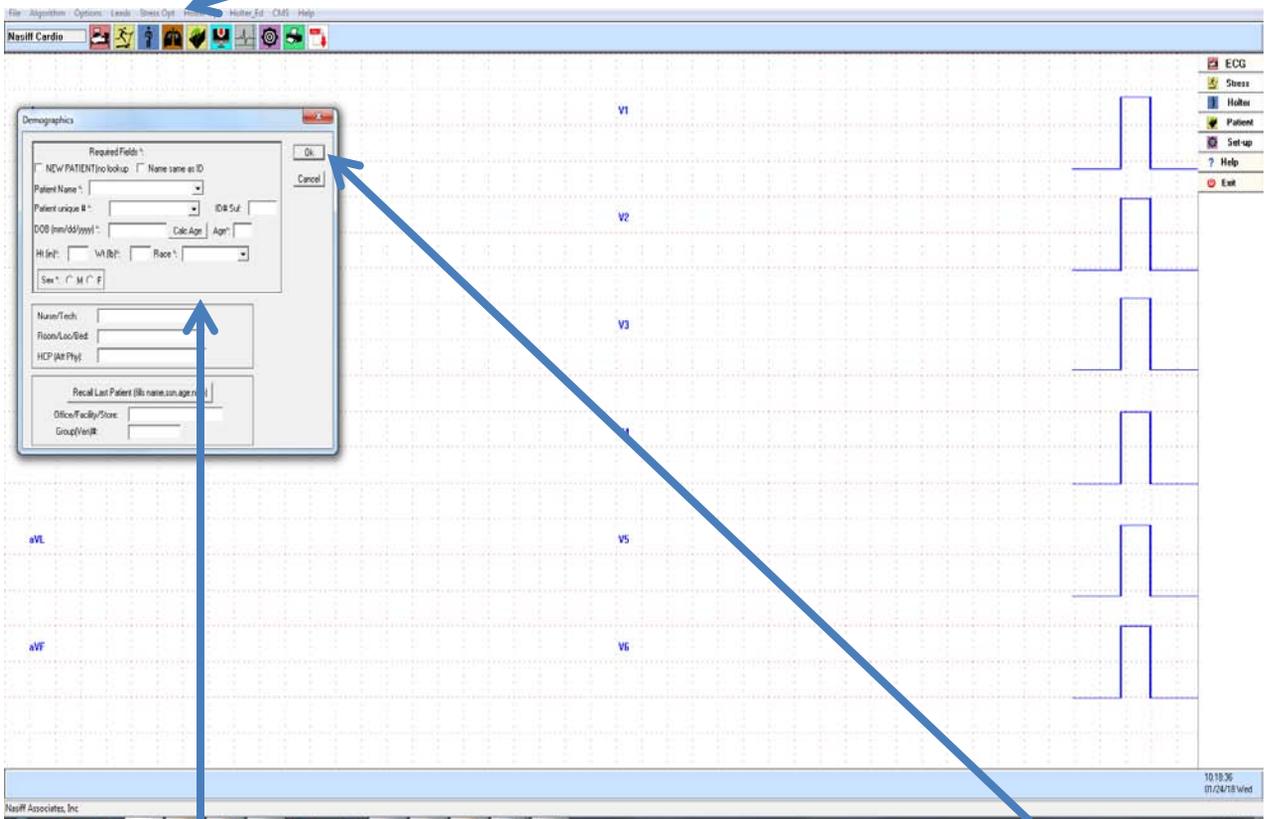
After 6 seconds from the initial forced expiratory **MiniSpir** emits a continuous beep,. This is useful to the doctor to understand if the patient has reached the minimum expiry time pursuant to the requirements as set forth by the major international associations of pneumology.

SPIROMETRY TEST



Open Nasiff Cardio Card
Click on the Icon

Click on the Spirometer Icon



Fill in Demographics
(8 Required Fields
marked with *)

Then click "OK"

START TEST

Click on "FVC" to start the test



The screenshot shows the 'FVC - PRE' window of a spirometry software. At the top, there is a menu bar with options: File, Configuration, Protocols, Patients, Test, Calibration, Home Care, Security, Tools, and HL7. Below the menu bar is a toolbar with icons for Patient, Visit, FVC, Results, Print, POST Bd, and Send. The main window contains a 'Start [Space]' button, an 'Accept [Enter]' button, and a 'Stop/Delete [Esc]' button. There are two graphs: a large one on the left for Flow (L/s) vs Volume (L) and a smaller one on the right for Flow (L/s) vs Time (s). Below the graphs is an 'Expiratory Time' field showing '0'. A warning message reads: 'WARNING: spirometry test needs use of the follow turbine type Reusable'. An image of a turbine is shown with the text 'to use another kind of'. At the bottom, there is a 'Blow!' prompt and a USB port indicator. A blue 'HL7 Module Info' dialog box is open in the bottom right corner, displaying: 'New Patient received Test, Spiro Test, Spiro HL7 Test'.

Then have the patient blow into the spirometer

HL7 SEND

When done with the test click “HL7 Send”

The screenshot shows the 'V4 Curve / Test Info' window in a spirometry software. A blue arrow points to the 'Send' button in the top menu bar. The interface displays a graph of flow (L/min) vs. volume (L), a table of parameters, and a table of predicted values. A small dialog box titled 'HL7 Module Info' is visible in the foreground.

Parameters	LLN	ULN	Preid	PRE	NPred	Z-score	FEV1%
FVC (L)	2.60	4.70	3.65	4.47	122	1.28	4.47
FEV1 (L)	2.13	3.36	3.00	3.92	131	1.76	3.92
FEV1/FVC (%)	72.6	92.9	82.7	87.7	136	0.80	87.7
PEF (L/s)	4.35	11.10	7.77	9.58	133	0.87	9.58
ELA (Years)	40	50	50	50	130		50
FEF275 (L/s)	1.44	5.00	3.22	3.93	122	0.95	3.93
FET (s)	6.00	2.77	4.6	2.77	46		2.77
EIVl (mL)			98	98			98
FVC (L)	2.60	4.70	3.65	0.30			
FEV1/FVC (%)	72.6	92.9	82.7	0.0			
FEV1 (L)	2.60	4.70	3.65	4.47	122	1.28	4.47
FEV1/FEV5 (%)	82.2	87.7	137				87.7
FEV3 (L)	2.65	4.54	3.60	4.47	124	1.52	4.47
FEV3/FVC (%)							
FFP25 (L/s)	3.84	10.46					
FFP50 (L/s)	1.79	6.04					
FFP75 (L/s)	0.34	2.52					

HL7 Module Info
New Patient received Test Spiro Test Spiro
HL7 Test

VIEWING THE SPIROMETER TEST

