Visual set-up guide

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IP REMOTE CONTROL SOFTWARE

RS-BA1

This short visual guide is for those wishing to set-up remote control of their IC-7300 using ICOM's RS-BA1 software. RS-BA1 will work either via a USB cable connected to the IC-7300 or via the LAN/WAN. Section 2 of this guide describes the direct USB cable set-up. Section 1 of this guide is for the somewhat more complex situation where the PC being used to control the IC-7300 and transmit and receive from, is not directly connected to the IC-7300. I get the feeling that the RS-BA1 software was "developed" over time rather than "designed" to work the way it does. The package consists of two separate programs The *remote utility* program and the *remote control* program. The *remote utility* has two different functions depending whether it is on the LOCAL PC or the REMOTE PC. The *remote control* program will work with or without the *remote utility* program however remote audio is only possible with the *remote utility* running and in that configuration all communication passes through it, audio and serial data.

****** THIS IS NOT AN OFFICIAL ICOM DOCUMENT ******

NOTE: with version 1.94 of the RS-BA1 software, ICOM added a set-up wizard. This version of my documentation includes those screens if you are using V 1.92 or earlier of the RS-BA1 software, please refer to my earlier documentation (v17).

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Section 1 – True Remote operation.

The concept used by ICOM in their software is to have one PC directly connected to the IC-7300 (that PC in computing terms is the *SERVER* PC and will be referred to in this document as the LOCAL PC – it is local to the IC-7300 not the operator) and another PC which is with the operator in a remote location connecting to the LOCAL PC via either the Local (LAN) network or the wide area (Internet) network. The PC near the operator will be referred to as the REMOTE PC in this document. The LOCAL PC will need to have a set "static" IP address so that the packets of data from the REMOTE PC can be sent to the correct destination.

There are two programs supplied by ICOM (remote utility and remote control) and USB drivers to be downloaded from the ICOM website.

The USB drivers create a virtual serial communication port and audio ports by talking to the chip inside the IC-7300.

The USB drivers should be installed on both the LOCAL PC and the REMOTE PC. In the case of the LOCAL PC, install the drivers **before** you plug in the USB cable from the LOCAL PC to the IC-7300.

*****NOTE – if you find that the PC is turning on the IC-7300 to TX by itself or you get the error message "Windows does not recognise the last USB device attached" - please refer to the Additional Notes / Problem resolution section at the end of this document. ******

The remote utility program can perform one of two roles. On the LOCAL PC it is the *SERVER* software and connects the ports from the IC-7300 out to the REMOTE PC. On the REMOTE PC it connects via a network (LAN or WAN) to the ports seen by the remote utility program on the LOCAL PC to the remote control program on the REMOTE PC and does the actual connection from the remote control program on the REMOTE PC through the remote utility on the LOCAL PC to the IC-7300.

The remote utility on the LOCAL PC is configured and started but does not *connect* to the IC-7300 – it "passes through" commands from the REMOTE PC.

In this configuration the remote control program only runs on the REMOTE PC. If you connect with the remote utility on the LOCAL PC or run the remote control program on the LOCAL PC, the REMOTE PC will get the "BUSY" error and not be able to connect to the IC-7300.

Where a particular set-up panel is not listed below, it requires no changes, that is, leave it at the settings it has from when the program was installed, don't change it.

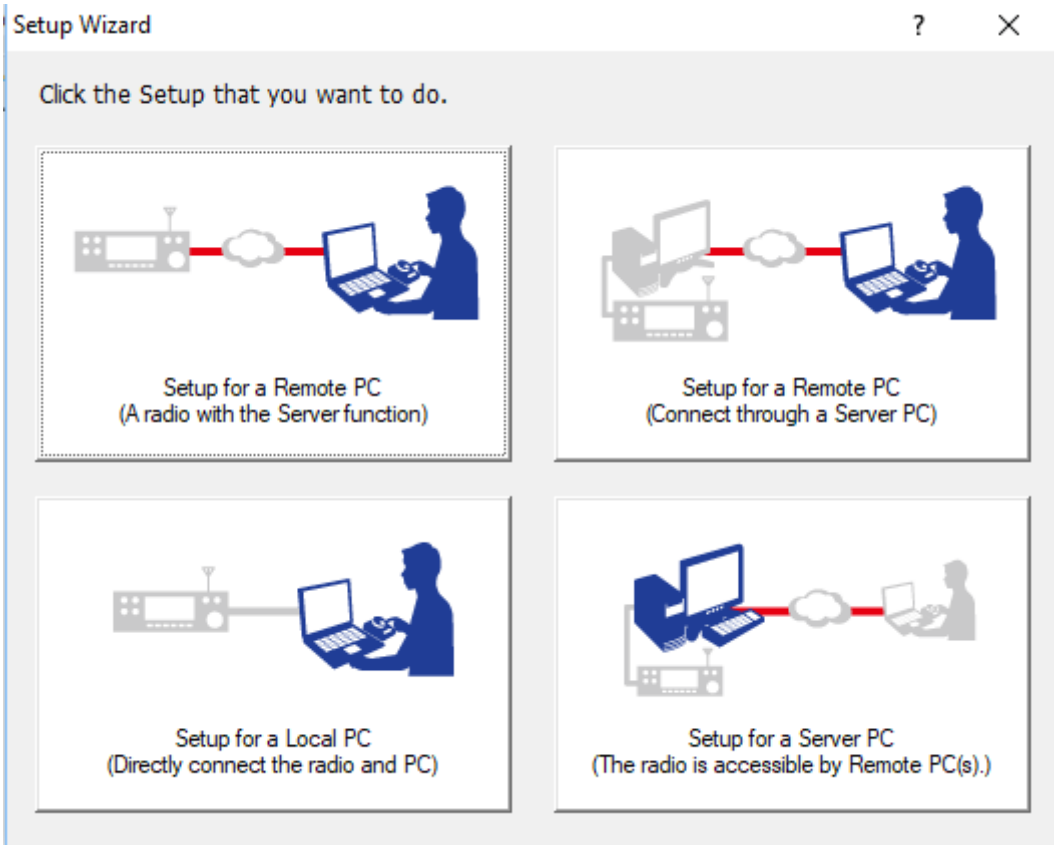
After the first start and registration of "your computer details" version 1.94 (and presumably later versions) starts a set-up Wizard where you chose one of four operations –

1. Set-up this PC as the "true remote PC" (as I call it) – the one that is away from the rigs location, either accessing via your local LAN or via the Internet directly into an ICOM rig with a built-in server.

2. Set-up this PC as the "true remote PC" that talks to the ICOM rig via another PC which is connected via USB to the rig and acting as a server.

3. Set-Up this PC as a direct "console" of the ICOM rig via a short USB cable. Note: the setup here sets up the ICOM Remote Utility and starts it. You need to start the ICOM Remote control program yourself and set under connect setting, Model, connection and remote utility

4. Set-up this PC as the server to support remote operation to an ICOM rig that does not have a built-in server.

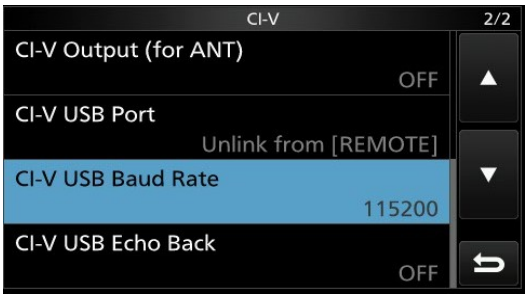


If all goes well with the set-up wizard, you should not need to refer to the rest of my instructions here – they do however give you a deeper knowledge of what is going on in the system and if you wish to change settings from what the set-up wizard chose for you

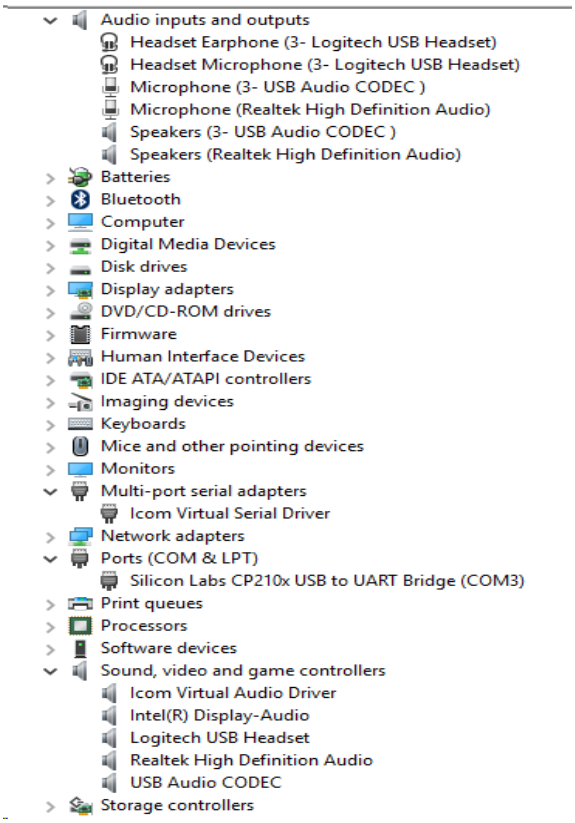
The following notes covering options 2, 3, and 4 in the set-up wizard (I do not have an ICOM rig with a built in server, so I cannot expand on that set-up) may help you make your changes.

1. True Remote – IC-7300 settings.

Settings in the IC-7300 Menus – CIV unlinked from the ICOM special remote cable socket and USB set to 115200 baud rate.



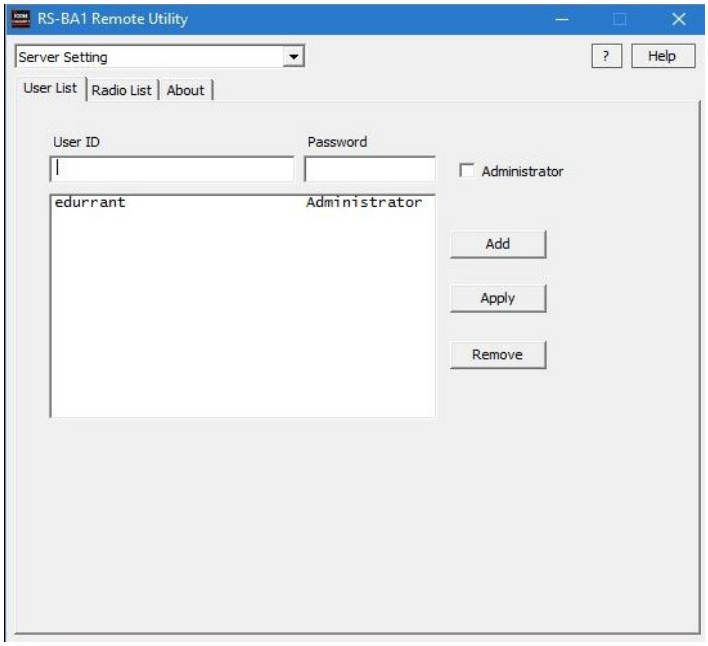
2. True Remote - LOCAL PC.



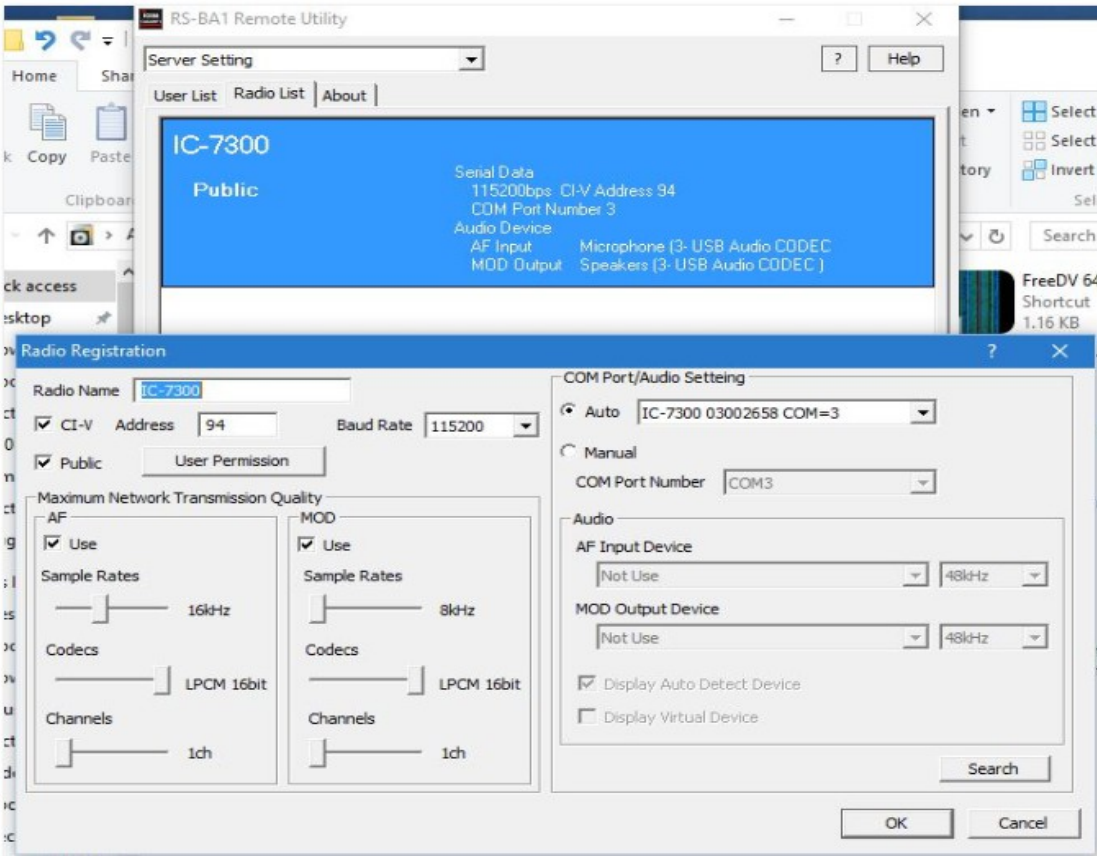
A. Windows Device manager – This is a screenshot after installing the USB driver package from ICOM, which supports the US audio and serial comms hardware built inside the IC-7300. Audio inputs & outputs (USB Audio CODEC), Multi-port serial adapter and Ports (COM & LPT) should show the following entries if you have installed the ICOM USB drivers correctly (i.e. before connecting the USB cable – see "additional Notes").

(the ICOMVirtual Serial Driver shown is installed with the RS-BA1 software)

B. Remote Utility program on LOCAL PC - *Server Setting / User list* (this is the account you will have the Remote Utility program on the REMOTE PC log in with).

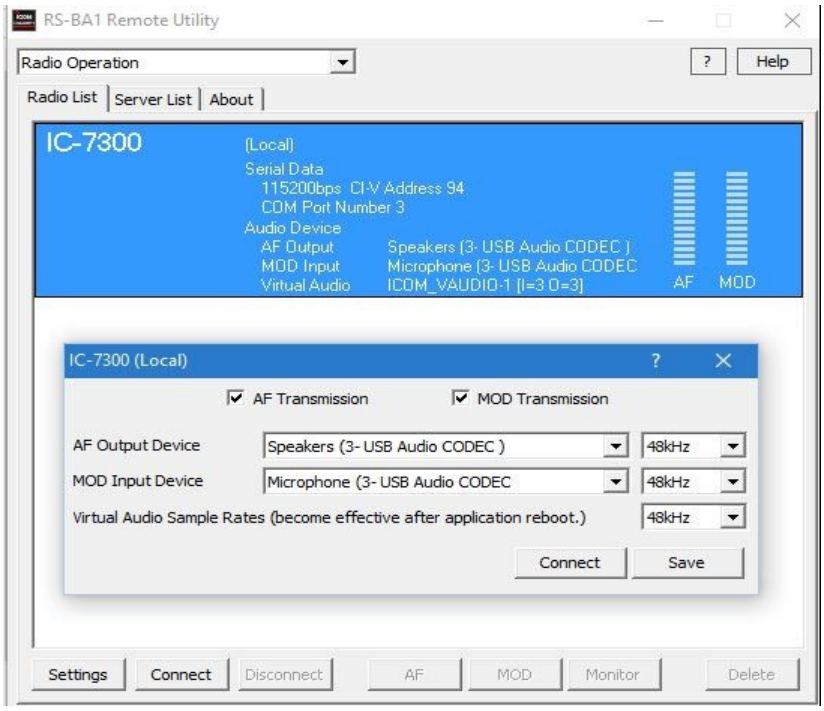


C. Remote Utility program on LOCAL PC - *Server Setting / Radio list.*

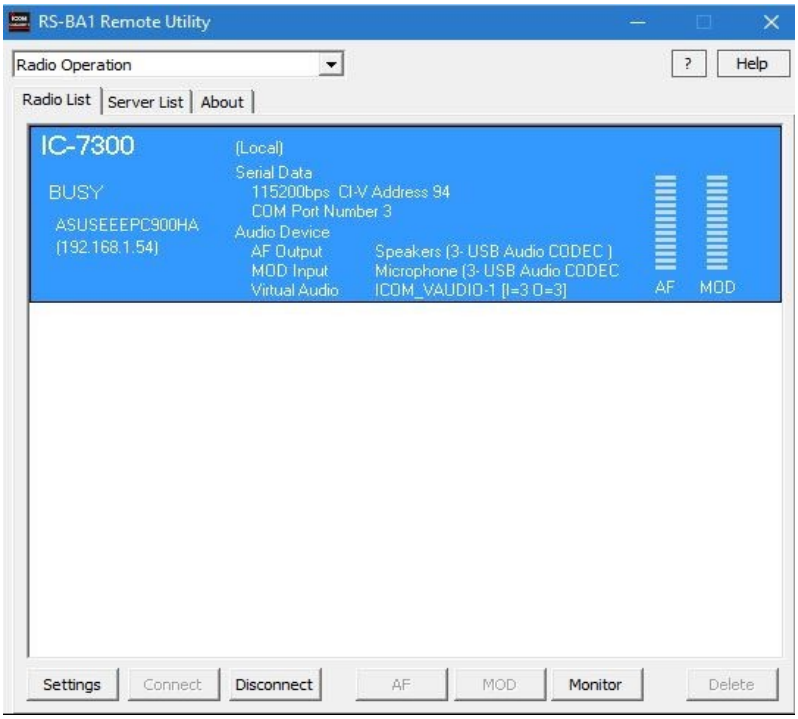


The radio name is what the remote control program on the REMOTE PC will see when LOCAL and REMOTE PCs are connected. Set all other settings as shown. If the auto Com port setting does not reflect the port from the Windows device manager, it can be set manually.

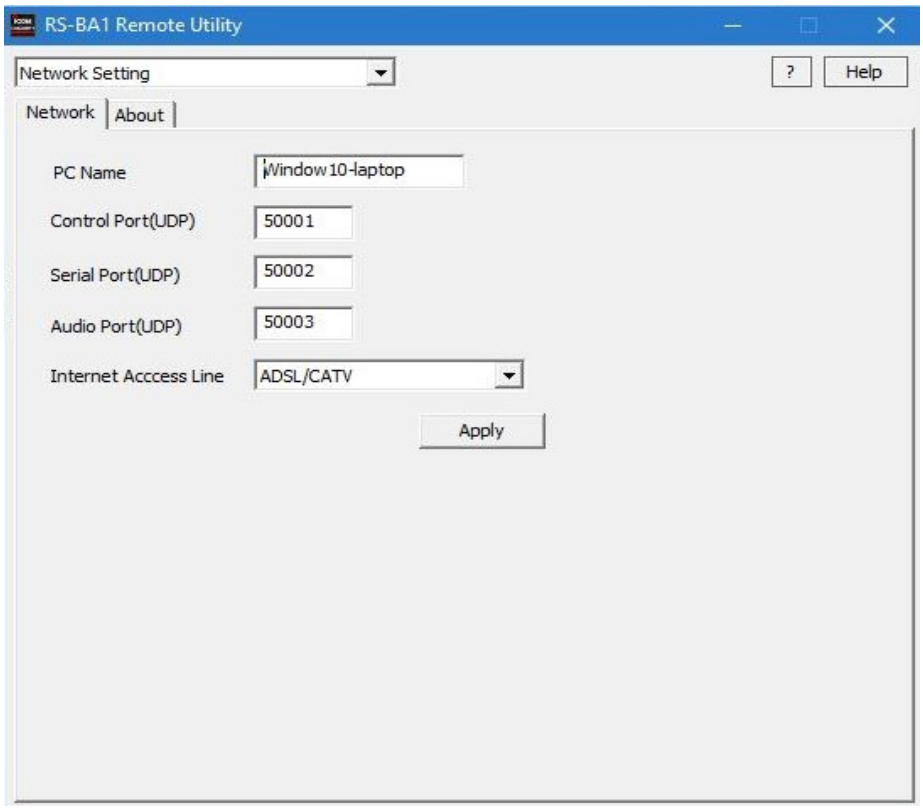
D. Remote Utility program on LOCAL PC - *Radio operation / Radio list.* Showing the audio settings for this link to the USB Audio CODEC in the IC-7300 from the LOCAL PC.



E. Remote Utility program on LOCAL PC - *Radio operation / Radio list.* Operational view - this shows who is connected remotely. NOTE: you should NOT connect using this program on the IC-7300 from the LOCAL PC, doing so will block the remote station! In the example shown ASUSEEEPC900HA is the REMOTE PC.



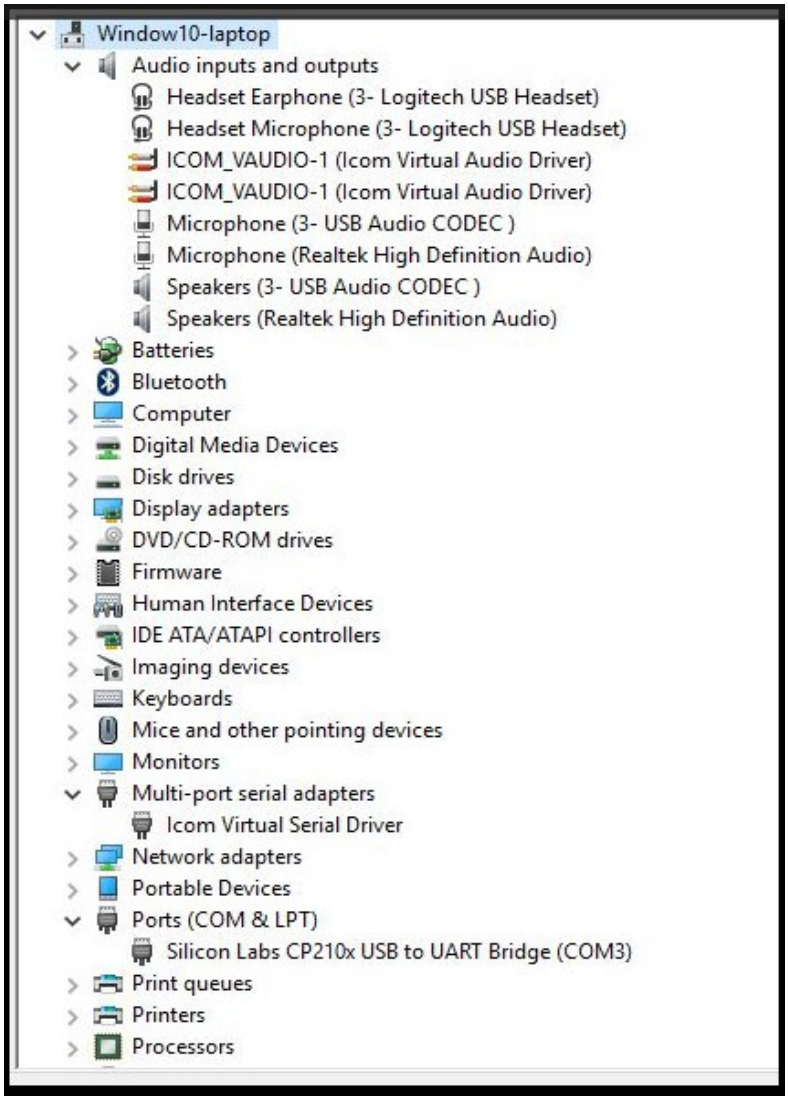
F. Remote Utility program on LOCAL PC - *Network Setting / Network.* This section defines what the outgoing Network connection is – use the standard ports shown if your home router will forward them. Add a name for this LOCAL PC. The Internet Access Line setting does not appear to make any difference to operation whether ADSL or FTTH is selected.



3. True Remote - REMOTE PC.

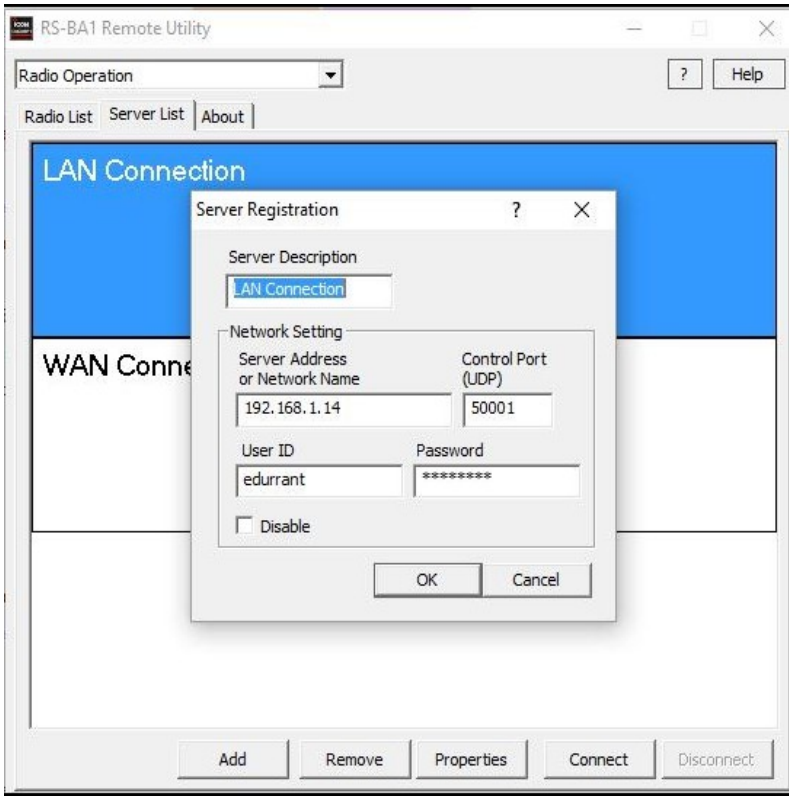
Settings on the "truly remote" PC which is the one which connects to the IC-7300 VIA the Remote Utility program on the LOCAL PC (the one attached to the IC-7300 via a USB cable and having a static IP address). The connection from the REMOTE PC to the LOCAL PC can either be via the Local network (i.e. in your house) or over the Internet (changes in router needed).

A. Install ICOM USB drivers – the same USB package that you installed on the LOCAL PC needs to also be installed on the REMOTE PC. Once installed and working, and the LOCAL and REMOTE PCs are linked, the device manager in Windows should look like the picture below. The USB Audio CODEC, ICOM_VAUDIO-1, ICOM virtual serial driver and Silicon Labs CP210x USB to UART bridge entries all come from the ICOM driver pack that you installed.

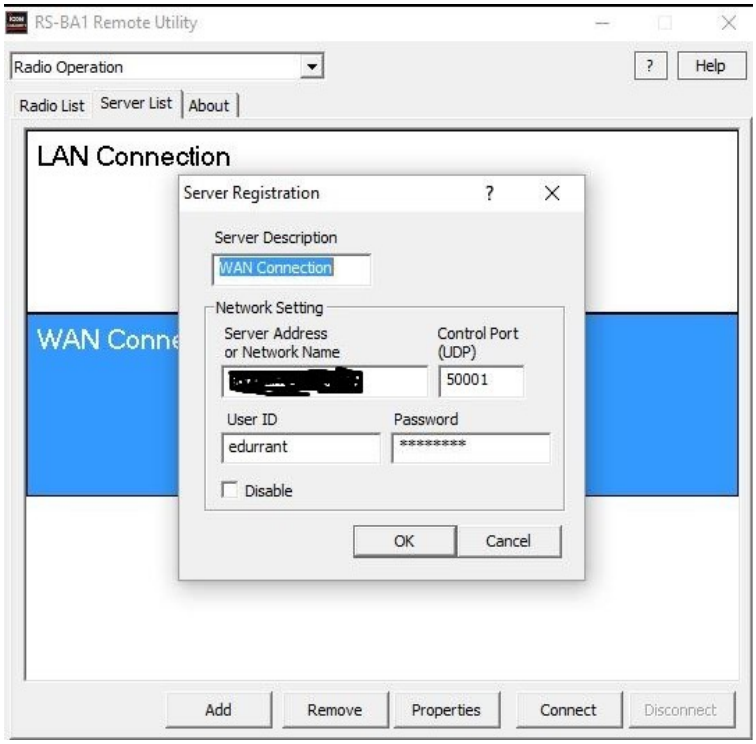


B. Remote utility on REMOTE PC – *radio operation/Server list* – this is where we define how the remote utility program on the REMOTE PC will communicate with the remote utility program on the LOCAL PC.

Firstly we configure the connection on the local home network for when you want to operate your IC-7300 from another room in your home, or in the garden etc.



and now also through the same *(radio operation/server list)* panel – we configure the connection to be used when you are away from home and connecting from an Internet Cafe or via a 3G data connection, into the Internet and then on into the LOCAL PC at home:



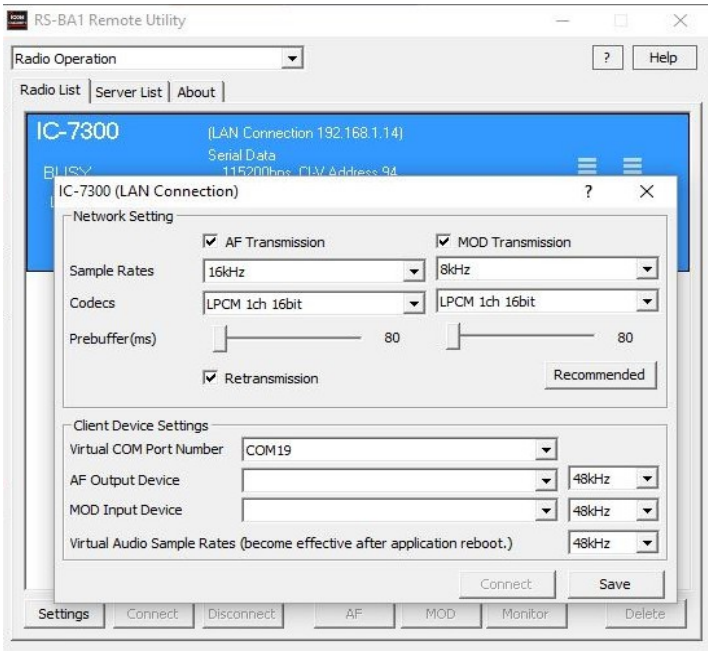
The blacked out field will contain either your Internet static IP address if you have one or the domain name of your domain defined on a Dynamic DNS service provider such as DYNDNS or NOIP. The control port will need to change only if you have had to change the ports in use in

the *network settings/network* due to your router not allowing ports in this range to be passed through.

The User ID & Password fields need to match the userid and password that you created in the *server setting /user list* in the remote utility program on the LOCAL PC. After configuration when you start the remote utility on the REMOTE PC you will be taken to the *radio operation/radio list* page and pressing "connect" on this page will actually connect the server and radio "links" however at this point, you need to do this manually so that we can continue with the configuration.

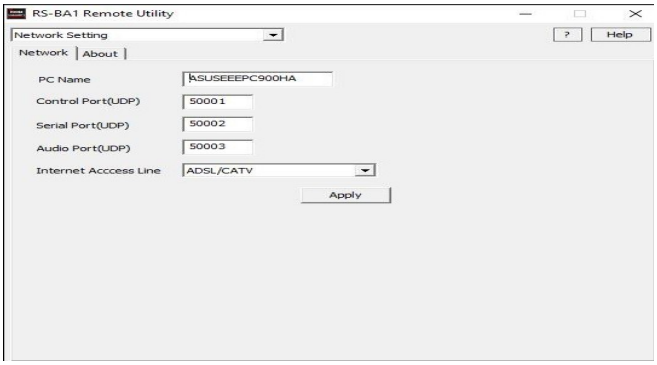
C. Remote Utility on REMOTE PC - *radio operation/radio list*

Once you have connected to the LOCAL PC you will see an entry in the list and by clicking on settings be able to define the virtual com port that the *remote control* program will need to use later – you can chose any port that is not in use. The other values on this screen regarding audio in the network settings part can be left at the recommended values. The other two fields in the *client device settings* section define audio output and input on the REMOTE PC. The pull-down menus will give the option of "windows default" plus all of the physical local audio devices the program can see. If you are using what are currently the windows default audio devices, you can select this option however I recommend selecting the exact device that you wish to use. If you can't hear the 7300 audio on the REMOTE PC or the microphone doesn't work from it, this is the most likely setting to be in error.



D. Remote Utility on REMOTE PC – *network setting/network.*

The first time that you start the remote utility on the REMOTE PC you will be taken to this panel and will need to enter a name for this (REMOTE) PC. All other fields can be left as they are unless you have to change the IP Port numbers because the home router wont allow these through. These settings match the network IP port settings in the LOCAL PC remote utility.



E. Remote Control program on REMOTE PC – *Connection settings.*

Select IC-7300 as the model – if it doesn't appear, you haven't updated the software to the latest version.

The next box – connection – has two options REMOTE and USB. Although this is the REMOTE PC – we choose USB as the remote utility is presenting to this PC the USB port that the LOCAL PC is connected to. The REMOTE option is most likely for use with ICOM rigs that have a built-in Ethernet server and require no LOCAL PC.

The only visible remote utility is the one that you installed on the LOCAL PC and in my case I named that IC-7300 in *server setting/radio list* in the remote utility program on the LOCAL PC. This pull down will only have one choice. If nothing is available you don't have the remote utility programs on both the LOCAL PC and this REMOTE PC running or haven't connected yet from this REMOTE PC to the LOCAL PC – you need to do that before configuring the remote control program on this REMOTE PC.

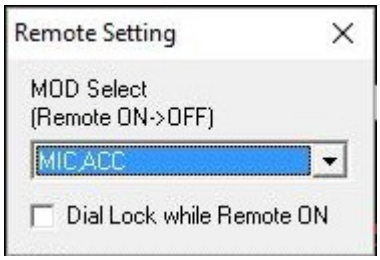
The C-IV panel tells the remote control program which virtual communications port it should use to send CAT commands, this is the port that we chose in the *radio operation/radio list* in the remote utility on this REMOTE PC (my example is COM 19). The speed is set to 115200 baud to allow the use of the spectrum scope on the REMOTE PC (it is disabled at slower speeds). The C-IV address for all IC-7300 rigs is 94 and the CI-V address for this software should be left at its default of E0.

Make sure that the audio device selected is the ICOM Virtual Audio device (again if this doesn't appear in the list, it means you are not connected back to the LOCAL PC).

I set the remaining three check boxes to be blank.

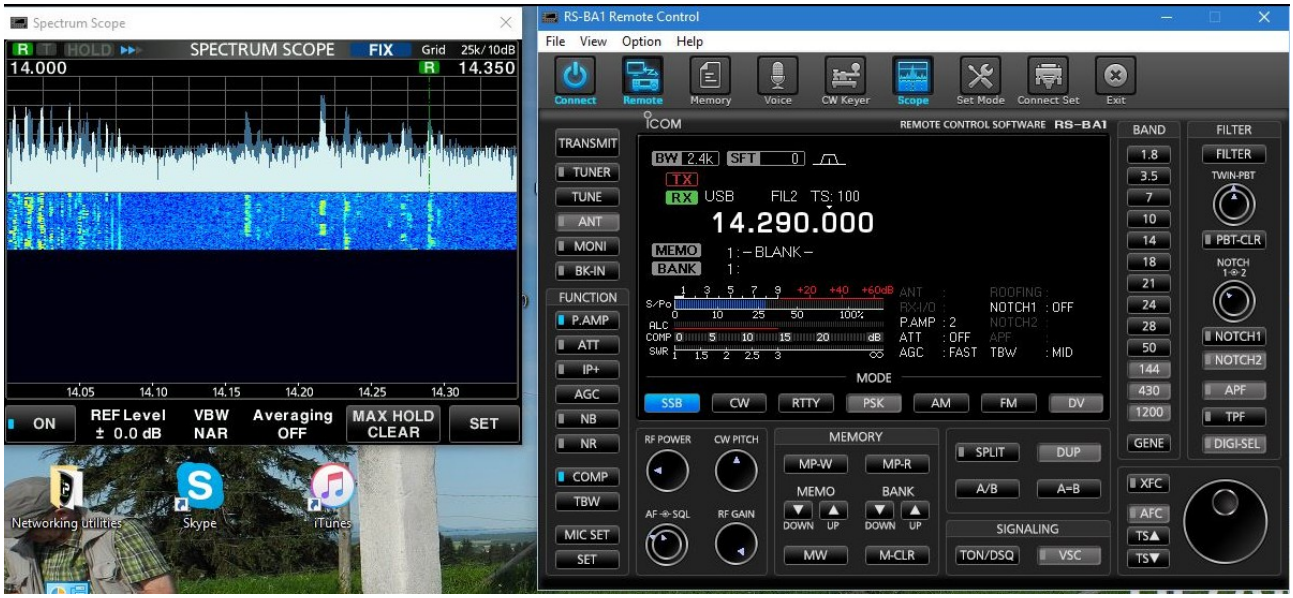
F. Remote Control program on REMOTE PC – *File/remote setting.*

Once you click **connect** in the *remote control* program, under the File pull-down, there is the option *remote setting,* this defines how the audio is handled – refer to the manual for more information on whether you need to set MOD Select differently to what I have here. Note setting it differently can leave the IC-7300 Microphone and/or loudspeaker disabled when the RS-BA1 software disconnects from it.



G. Remote Control program on REMOTE PC – *Scope button*

Once you are connected and you have the REMOTE PC displaying the IC-7300 controls one more feature is available and that is the spectrum scope which runs as a separate program on the REMOTE PC not within the remote control program. Click on the "Scope" button in the Remote Control program and you should see something like this:



If you don't get the scope to start, the most common error is that you have not set the communications speed to 115200 Baud in the IC-7300 yet.

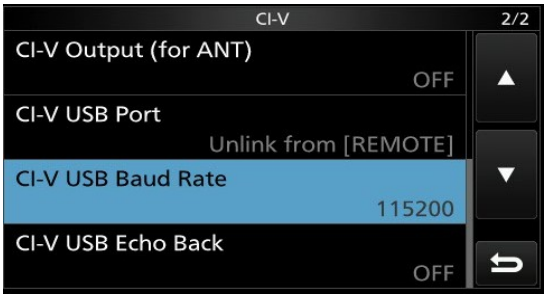
Section 2 – PC controlled operation in the shack.

Settings when operating from the LOCAL shack PC (no Ethernet connected REMOTE PC in this configuration). The PC is connected directly to the IC-7300 using a USB type A to USB type B connector cable (the type of cable that is used to connect a printer to a PC). As described above the USB drivers should be downloaded and installed on the LOCAL PC **BEFORE** the cable is ever plugged in between the PC and the IC-7300 (even with the IC-7300 turned "off" if power is connected the USB controller is on and visible over the USB cable).

Where a particular set-up panel is not listed below, it requires no changes, that is, leave it at the settings it has from when the program was installed, don't change it.

1. Shack controlled - Settings in the IC-7300 Menus

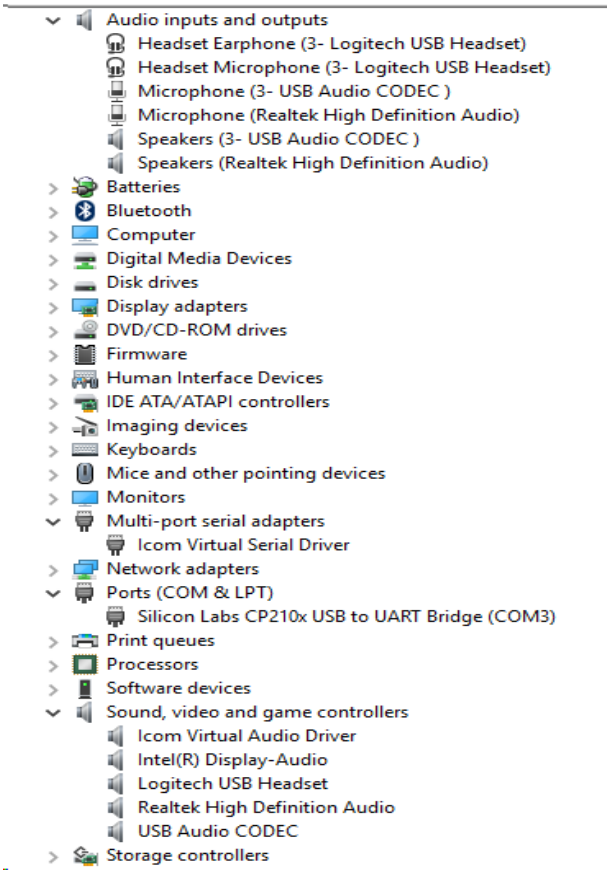
CIV unlinked from the ICOM special remote cable socket and USB set to 115200 baud rate.



2. Shack controlled – Settings on LOCAL PC.

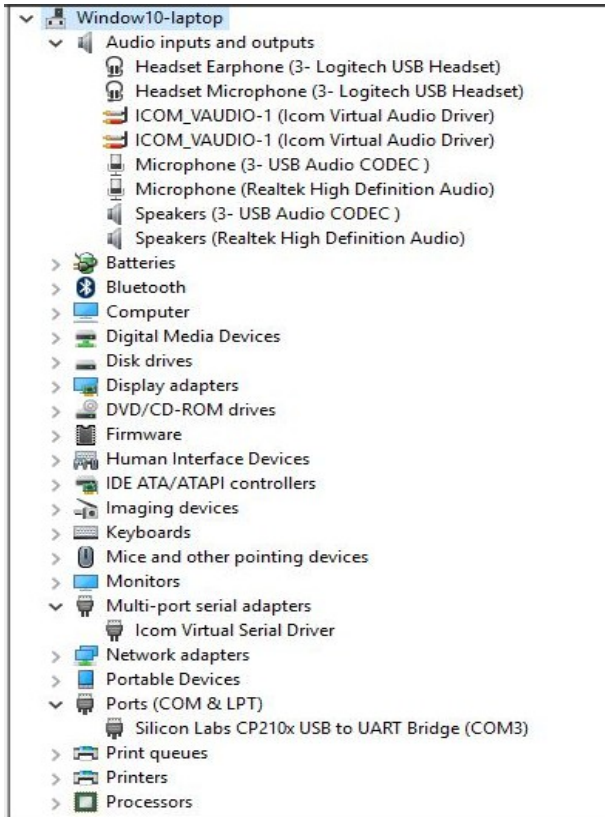
A. Windows Device manager – Audio inputs & outputs (USB Audio CODEC), Multi-port serial adapter and Ports (COM & LPT) should show the following entries if you have installed the ICOM USB drivers correctly (i.e. before connecting the USB cable – see "additional Notes").

Below is the view before systems are connected:



→ make a note of the Com port number on the Silicon Labs CP210x line ←

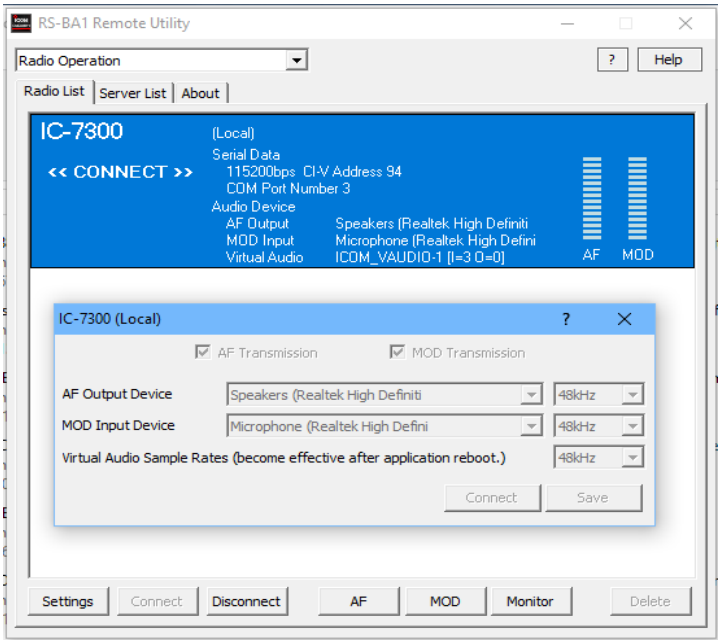
Below is the view after connection is made – note addition of Virtual Audio Ports:



NOTE if you don't require audio to the shack PC, you do not need to run the *remote utility* program and so can skip steps B. and C. below.

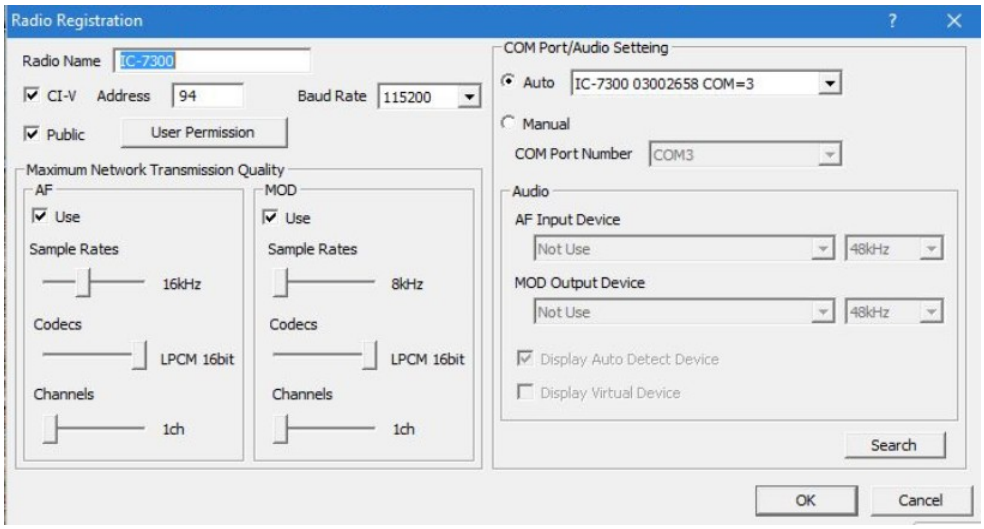
B. Remote Utility program - *Radio Operation / Radio List*

Audio devices in this panel should point at the LOCAL Audio devices **NOT** the CODEC which is the audio channel used when operating from a "truly remote" PC via this LOCAL PC. In this case I have simply taken the Windows default devices, which in my case are the built in microphone and speaker in my laptop. If you are using a headset with this locally attached PC, you will need to select the appropriate local audio devices in the drop down lists.

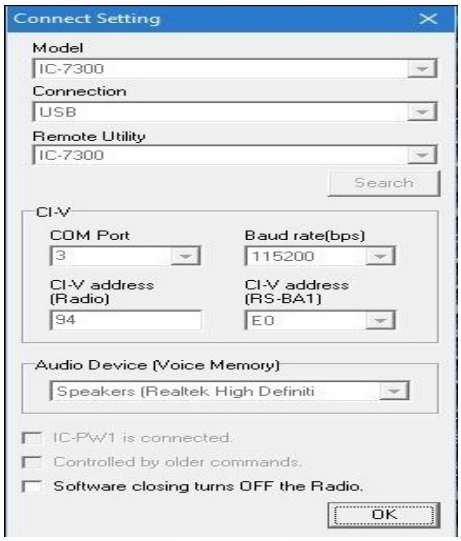


C. Remote Utility program - *Server Setting / Radio List, Radio registration*

(note CIV address is 94 for the IC-7300 and the auto com port setting should pick up the same as you can see in Windows Device manager – in my case COM3 if this isn't the case set it manually).



D. **Remote Control program -** *connection settings* – connection type USB and speed 115200, C-IV address 94 and the com port is the one displayed in the Windows device manager under the Silicon Labs CP210x entry.



If the "Connect Setting" box is greyed out as shown above - it means the program is trying to connect and therefore will not let you change the settings. Follow the steps below.

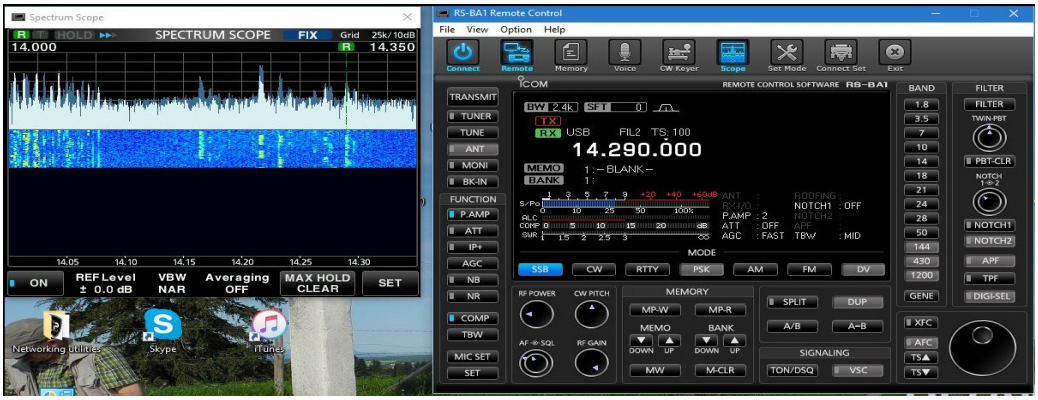
1. Having configured the remote utility program, start it but DON'T press its connect button yet.
2. Start the remote control program and press on the **"Connect Set"**

NOT the "connect" button on the top row of the program screen.

3. You should now have the panel, not greyed out and you are able to change the settings.

4. Once saved close both the remote control program and the remote utility and then follow the standard start process - for a "Non-remote" - control from the shack process, this is to start the remote utility, press connect and if all is OK, then go to the Remote control program, start that and press connect there.

E: Spectrum Scope – with the USB speed set to 115200, it is possible to run the spectrum scope on the LOCAL PC – it loads as a separate window when you click on scope within the Remote Control program.



Start up Sequence for Remote control.

Once you have fully configured the IC-7300, the LOCAL PC and the REMOTE PC. The following is the start-up sequence:

1. Apply power to the IC-7300 (you may wish to turn the rig on, but this is also possible via the remote connection).
2. Start the *"remote utility"* program on the LOCAL PC (the one that is connected via the USB cable to the IC-7300).

   If operating just in Shack-control mode,

3. click the radio entry in the radio operation/radio list panel that you were presented with when the program started up, now press connect and the radio entry should show "CONNECTING" - this should really say "CONNECTED" but something got lost in the Japanese to English translation I think. If the panel says "CONNECT NG" (Connect no good) – there is a problem and you should check that 1. the IC-7300 has power, 2. you have the USB cable connected and 3. you did all the configuration steps in this document.

   If you have connected OK, and you have manually turned the IC-7300 on, you should hear the receivers audio through the PCs speaker.

4. Now start the *"remote control"* program and press the power/connect button and you should see a copy of what is on the IC-7300 on the computer screen (slightly different layout but content the same). If there is a communications error reported, you have configured either the port number, the speed or the C-IV code incorrectly in the communications settings of this program. At this point you should be able to control and operate the IC-7300 from your Shack-PC. As long as you have set the communications port to 115200 Baud you may also start the Spectrum Scope on the PC by clicking on the Scope button at the top of the *"remote control"* program.

   If operating in "True remote" mode,

   i.e. not controlling the IC-7300 from the Shack PC rather a portable laptop either around your house or away from your house via the Internet. **DO NOT** press connect in the *"remote utility"* program on the LOCAL PC, otherwise you will lock out the remote access. Leave the remote utility program running on the LOCAL PC and go to the REMOTE PC.

5. Start the "remote utility" program on the REMOTE PC. You will be presented with the radio operation/radio list panel – still under radio operation, click on the server list tab.
6. The program will automatically try to connect to the last connection used. If this is not the connection you wish to use, press disconnect and then select either the Local area Network connection or the Wide area connection depending whether you are connecting over your home network or another network (which will use the Internet and your router) and then click on connect on this panel.
7. Go back to the radio list tab and select the rig entry there and click connect on that panel. This should connect through to the LOCAL PC and if the IC-7300 is already on, you should hear the receivers audio through the remote PCs speakers. If there is no audio, check the LOCAL PC's settings that the audio settings in the radio list point to the USB CODEC and not the physical audio devices on the LOCAL PC.
8. Now start the *"remote control"* program and press the power/connect button and you should see a copy of what is on the IC-7300 on the computer screen (slightly different layout but content the same). If there is a communications error reported, you have configured either the port number, the speed or the C-IV code incorrectly in the communications settings of this program. At this point you should be able to control and operate the IC-7300 from this REMOTE PC. As long as you have set the communications port to 115200 Baud you may also start the Spectrum Scope on the PC by clicking on the Scope button at the top of the *"remote control"* program.

Additional notes / problem resolution:

IC-7300 <–> PC connectivity - Do not use any kind of Interface box between the IC-7300 and your LOCAL PC. You should only use a simple USB A-B cable (i.e. printer cable) between your "LOCAL" PC in the shack and the IC-7300. **DO NOT** connect the USB cable between the IC-7300 and your PC prior to installing the ICOM USB drivers. If you have, Windows will have installed drivers from the web that *IT* thinks are a good match - they aren't! If this is the case - disconnect the cable, de-install the drivers via device manager in Windows, reboot the PC, install the drivers from ICOM and then attach the cable to the IC-7300 and apply power to the IC-7300 (you don't actually have to power the IC-7300 on, as soon as it has 12/13.8v attached, the USB controller is powered up). At this point Windows will actually install the drivers and it will look first to the PC and find the ICOM drivers that you just loaded and use those, rather than going to the web for them.

Network Communication issues - If using the Internet to connect between the REMOTE PC and the LOCAL PC, Windows firewall and router changes to allow access are required – please refer to the ICOM documentation and your router documentation for how to do this. As port mapping is used to direct traffic to and from the Internet, a REMOTE PC configured to use the Internet will not be able to connect to a LOCAL PC on the same LAN (as the router associates the three RS-BA1 IP Ports with one specific internal IP address – that of the LOCAL PC). To test an Internet REMOTE PC's operation it has to connect to the Internet by some other means than the LAN router – for example 3G Cell communications or a different Wi-Fi LAN. When wishing to use the REMOTE PC when connected to the Local or Internet networks, two server registrations are required in the REMOTE PC's remote utility program – one going directly to the LAN IP address of the LOCAL PC and one going to the IP address of the Internet side of the router. As that Internet address can change it is recommended to use a dynamic DNS service so that you can give a host name rather than a specific IP address. Then depending upon the situation you are in, you connect using either the WAN (Internet) or LAN connection to the LOCAL PC.

Network Router issues – the two remote utility programs talk to each other using UDP IP ports 50001-50003. Within the LAN this will not be a problem however if accessing over the Internet, you will have to add port redirection rule(s) in your router and some routers – such as the Deutsche Telekom Speedport Hybrid will not allow this range of port numbers through, hence the port numbers used have to be changed in both the LOCAL PC and REMOTE PC *Network Setting / Network* panel and the REMOTE PC's *radio operation/server list* panel to ports that are allowed by the router.

Connection method in remote control program - When configuring the connection in the remote control program on the REMOTE PC there are two connection methods available *USB* and *REMOTE* – logically one would think that as this PC is remote, the option chosen should be *REMOTE* however doing so will limit the maximum speed that the serial communication port can operate at and this has the effect of disabling the spectrum scope option. Setting the link to USB however allows the full speed setting of the link. While the remote utility software effectively "mirrors" what is seen on the LOCAL PC to the REMOTE PC, use of *USB* makes sense. What is the *REMOTE* setting for? It may be that when using the RS-BA1 software with one of the ICOM rigs that have a direct network connection and server software built in (e.g. IC-7850) and don't need a LOCAL PC, that the *REMOTE* option is the option that should be used. In our case with the IC-7300 we don't use that option.

Virtual serial communications Ports – On the LOCAL PC, you will need to check in the device manager to see what port number the virtual port has when the USB cable is connected between the LOCAL PC and the IC-7300 and the IC-7300 has 12v power attached. This number is required in configuring the remote utility program on the LOCAL PC. On the REMOTE PC, as the remote utility program on the REMOTE PC "talks" to the remote utility program on the LOCAL PC via Ethernet, the virtual serial comm port number can be set to any number that is not in use by a physical comm port on the REMOTE PC – so chose a high

number (e.g. 19) for this and configure that in both the remote utility and remote control programs on the REMOTE PC.

Use of CW with the RS-BA1 software – let me start by saying that I am not a CW operator – I never learned the dots and dashes. I have also not tried to run CW with my IC-7300 however when I saw the following post from Don VA7IQ on the IC7300 yahoo group, I decided to include it in this document as I expect many people will be wondering.

RS-BA1 and CW

Fri Oct7,2016 9:55am (PDT) . Posted by: don_middleton_604

While still tweaking the audio side of RS-BA1, I am starting to think about how to remotely use CW.
Receiving is easy, but how about sending?
I've gone through the manuals and found nothing to indicate how a key (iambic, straight) could be attached to the remote computer using RS-BA1 in order to send code, and use the CW Keyer function so prominently displayed on the screen.
The manual says you may need the right firmware load to use the CW keyer, but nothing on how it works on RS-BA1. If it were the type to type in the text and then it translated it, fine. But, nothing suggests that.
Does anyone have experience or recommendations on how to remotely use CW on the IC-7300 using RS-BA1?
Thanks, Don VA7IQ

RS-BA1 and CW #2

Fri Oct7,2016 1:59pm (PDT) . Posted by: don_middleton_604

SOLVED.

It is a type-in keyer that you can use Auto-TX or just press TX. It only activates in CW mode, of course.
Memories in RS-BA1 are different than the radio, as is the case on all frequency memories.
No physical possible from the looks of it.
Keyer speed appears to be set at the IC-7300 only and not remotely.
Info seemed hidden in the online help of RS-BA1.
Enjoy! Don

So it appears (at present) there is no way to attach a CW key (be it manual or automatic) to the controlling PC (be it in the shack or remote) and operate in that fashion. As with RTTY transmission the memories can be used to send standard text however.

Thanks to Don VA7IQ for this useful information.

Off Air Recording and On Air Playback with ICOM 7300 and RS-BA1

Wed Oct12,2016 2:56 pm (PDT) . Posted by: ks4ju

Since the 7300 doesn't have the recording / retransmit feature built in, there have been several good "work-around"s that have mentioned here. However, If you have the ICOM RS-BA1 this can be done fairly easily and quickly. It is just a bit hard to find because the feature is split between the Remote Control application and the Remote Utility application. First we are going to assume that your 7300 is attached directly to your PC via a USB cable. Here are the basic steps to do this.

1. You will need to have the Remote Control application and the Remote Utility running simultaneously

on the same PC. The Remote Utility needs to be configured and connected to the 7300 (check the RS-BA1 manual on how to do this).
2. Set your PC to use the 7300 sound card as the default for recording and playback. Audio will still be available through the 7300's internal speaker.
3. Start both the Remote Utility and the Remote Control applications.
4. Check the Remote Utility drop down menu at the top of the screen and make sure that Radio Operation is selected and Radio List is selected in the tabs below it. If all is well, you should see your radio listed with the Connected showing. Click on your active radio and the buttons at the bottom of the screen will become active. You should see a button at the bottom of the Remote Utility that says AF. Click the button and a small recording control panel will pop up. Check the location of where the recordings are stored shown in the recorder. You might want to set this to a more convenient location such as the Desktop. Once a signal is acquired that you want to record, press the record button. When finished be sure to press the stop button.
5. Go over to the Remote Control Application and press the microphone icon at the top. This will open the Voice Memory window.
6. In the Voice Memory box click the Edit button. This will bring up the Voice Memory Setting box.
7. In the Voice Memory Setting Box click the button to the far right of any one of the Voice Memory locations and select the recorded file.
8. Go to the Voice Memory box that should still be open and click on the voice memory button you assigned the file to.
9. The file contents will automatically transmitted over the air and the 7300 will switch out of transmit automatically when finished.

Even though this sounds cumbersome, it's really not. Most of the above settings are stored in the programs. So when they start they are basically ready to go. So all you really have to do is start both applications, make sure that you radio is selected and the AF button is pressed, make your recording, pop back over to the Voice Memory load the file and transmit. Once you get the hang of the process it only take mere seconds to complete. Thanks to James KS4JU for this useful information.

PC is turning on the IC-7300 to TX by itself or you get the error message “Windows does not recognise the last USB device attached”.

After re-installing my Windows 10 PC a problem occurred that I didn't have before. With the PC running, when I turned the IC-7300 on, it would switch into transmit two or three times for no apparent reason.

When I disconnected the USB cable between the PC and the rig, the problem went away, so I know it was the PC causing the problem. I suspected the drivers so I de-installed them and did a clean install. The problem stayed.

Alboke on the IC-7300 yahoo group gave me the key. Whenever anything happens on the USB bus Windows 10 can reset addresses and this could cause the RTS line to vary, causing a TX action from the IC-7300. This hadn't happened before the rebuild however so why was it happening now? I had a thought … It is possible that I had the cable to the IC-7300 in a port of it's own on the Laptop PC rather than being plugged into the USB hub as I had it now. Sure enough, moving the IC-7300 to a USB port all of its own, solved the problem!

Hurrah!! But... now I got an error message appearing on the PC every time I switched the IC-7300 on - “Windows does not recognise the USB that was recently attached”. I checked in Device manager and the IC-7300 ports (comms & audio) showed no errors at all and worked fine. Others had reported this error on the list before and all were simply ignoring the message. I was about to do the same when I decided realised what actually causes the problem –

the ICOM multi-port Serial driver installed with recent versions of the RS-BA1 software is the culprit. Once this is removed these problems no longer occur. Do you need the ICOM multi-port driver? I think it is only needed if you wish to run multiple remote access programs to the IC-7300 at the same time and in fact there are other options (other software packages) to allow you to do this.