

Technical Information

December 21, 2022

Main Software Upgrade Instructions

The procedure to update the main software can either be updated automatically via the internet if the unit is connected to a network via the Network port, or for units not connected to the internet it can be updated via the serial port with the use of the Rotel YModem Upgrade Manager computer communications program. Only one update method need be used; both contain the same software.

Internet Upgrade

Items needed for upgrade

Ethernet cable connected between the unit and a functioning internet connection.

Upgrade Procedure

1. Ensure the unit is currently connected to an active internet connection via the rear panel Network port. This can be verified by pressing the MENU button repeatedly on the unit to cycle through the menu options to reach the Network menu and confirmed the status is "Connected".

2. Press the MENU button repeatedly until reaching a menu listing the current MAIN software version. Press the ENTER key to check for new software.

3. If an upgrade is found, the display will indicate "Upgrade available. Upgrade now=NO".

4. To update, press the "+" key to change the display to read "Upgrade now=YES", then press ENTER to proceed.

5. The unit will restart automatically during the download and upgrade process.

Serial Cable Upgrade

Updating via a directly connected serial cable between a Windows PC and the Rotel device requires the Rotel YModem Upgrade Manager Program. Instructions are as below.



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ROTEL YModem Upgrade Manager V2.0.3 Software Upgrade Instructions

Software update for Rotel products can be completed using the Rotel YModem software update utility via an RS232 connection. The step-by-step instructions below provide information on setup and configuration using a Windows PC.

Items needed for upgrade

- 1. Windows-compatible x86 or x64 PC with serial port connection, or USB-to-serial adapter.
- 2. RS232 straight cable with DB-9 terminations.
- 3. Upgrade software and YModem download program.
- 4. Supported operating system: Windows XP, Windows Vista, Windows 7, Windows 10

Note - Windows XP requires installation of .NET framework before installing the Rotel YModem software application.

Upgrade Procedure

1. Download YModem Upgrade Manager V2.0.3 from ROTEL website. <u>http://www.rotel.com/software-downloads</u>

 Name
 Date modified
 Type
 Size

 Image: Rotel YModem Upgrade Manager V2.0.3.e
 9/7/2019 10.23 AM
 Application
 368 KB

- 2. Connect the RS232 cable between the unit and the computer.
- 3. Launch the Rotel YModem Upgrade Manager computer program. It should be located in the folder labeled "Rotel YModem Upgrade Manager".

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Select Com Port:	COM3 ~	Connect	•			
Model:	Unknown			вот	'EI	
Select baud rate:	57600 🗸					
File Name:	Select a bin file				Open	
Send Upgrad	de Request					
Send Upg	rade File				Restart	
INSTRUCTIONS: - If the attach configured. - If the device - Choose the Y-H	cannot be dete	ected, select 1	he baud rat	e manually.	be	~
- Click "SEND U	PGRADE REQUEST	'to put the de	evice into U	pgrade Mode		
- Confirm the U	pgrade mode is	ready in the d	communicatio	n window.		
- If the device on the device a			ect "RESTART	", power of	f then	
- Click "SEND U	PGRADE FILE" to) send the new	software to	the device		
- After the upg then power back		eted, power off	the device	, wait 10 s	econds	
- Confirm the s	oftware version	n in the setup	menu.			\$
© ROTEL Electronics :	2019					

4. Once the YModem program has launched, verify or adjust the settings to the following:

Port: COM3 (or the appropriate COM port for your PC's serial connection – see the Troubleshooting section at the end of this document for more information on determining the correct COM port)

5. Press "Connect" on the program. The Connect button should grey out, and the Open button should become selectable.

elect Com Port:	COM3		Connect	5	
Aodel:	RC-1590		Power On	RO	теі
elect baud rate:	115200		AUTO		
ile Name:	Select a b	in file			Open
Send Upgra	de Request				
Send Upg	rade File				Restart

6. Click the "Open" button. A window will open to locate the software update bin file which was included with the upgrade files. Browse to the location on the computer where this file was saved, select the file and click [Open] for next step.

<	« RC-1590 Main Soft > V131 🛛 🗸 🕻	Search V131	م ر
Organize 👻 Ne	v folder		
	▲ Name	Date modified	Туре
🖈 Quick access	🗋 RC1590E-V131-STM32.bin	7/2/2015 3:19 PM	VLC med
\land OneDrive	RC1590E-V131-Ymodem.bin	7/2/2015 3:19 PM	VLC med
💻 This PC			
🚢 Network	v «		>
	File name: RC1590E-V131-Ymodem.bin	Vmodem (*.bin*)	\sim

7. Once the file has been selected, click the "Send Upgrade Request" button.

💱 ROTEL YModer	n Upgrade Ma	inager \	/2.0.3		? ×
Select Com Port:	COM3		Connect	lina e s 1	
Model:	RC-1590		Power On		ROTEL
Select baud rate:	115200		AUTO		
File Name:	RC1590E-V13	1-Ymod	em.bin		Open
Send Upgra	de Request				
Send Upg	rade File				Restart

8. The front panel display of the unit should turn off and some text should appear in the window of the Ymodem program.

0M3 ~ -1590 15200 ~	Connect Power On AUTO	ROTE
		ROTE
15200 🔍	AUTO	
C1590E-V131-Ymo	dem.bin	Open
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- 9. Click the Send Upgrade File" button to start the download. A file transfer window should appear as the file downloads to the unit.
- 10. Once the transfer is complete the file transfer window will disappear, and the text in the file transfer window will indicate the programming has completed and to turn power cycle the device.

🗊 ROTEL YModer	m Upgrade Manager	r V2.0.3		×
Select Com Port:	COM3 ~	Connect	•	
Model:	RC-1590	Power On	RO	TEL
Select baud rate:	115200 🔍	AUTO		
File Name:	RC1590E-V131-Ymc	odem.bin		Open
Send Upgra	de Request			
Send Upg	rade File			Restart
f it is upgrad	le menu not appe	eared then AC power	off and then O	N.
	(C) COPYRIGHT 2	2009 Rotel Technolo	gy Global	=
		ing Application (V	ersion 2.0.0)	=
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11. Press "OK" to close the file transfer window, and then press "Close" to close the YModem Upgrade Manager.

🔅 ROTEL YModer	n Upgrade Mar	nager V2.0.3		×
Select Com Port:	COM3	Connect		
Model:	RC-1590	Power On	ROTE	
Select baud rate:	115200			
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Send Upgra	de R Time tak	d Successful X en: 17 Seconds vnload Successful	Restart	
		or the second		
	(C) COPYRIG ation Progr	appeared then AC p HT 2009 Rotel Tech amming Application echnology Global I	n (Version 2.0.0) =	
Download Imag Execute The P	e To the ST Program		lash 1 2	

- 12. Unplug the power cord, or push the front panel power toggle button to do a power cycle to complete the upgrade process.
- 13. If at any time the update is interrupted or failed, or the unit does not respond after upgrade see the Troubleshooting section at the end of this document to try the procedure again.

Troubleshooting

How to determine RS232 COM port: It is important when selecting the com port for updates and RS232 communication to be aware of what com port is being used on the PC for the upgrade, whether it be a built in serial port on the PC, or a USB to serial adapter. Selecting the incorrect com port in an update program or an RS232 terminal will result in communication errors.

Common YModem error messages from incorrect com port settings are:

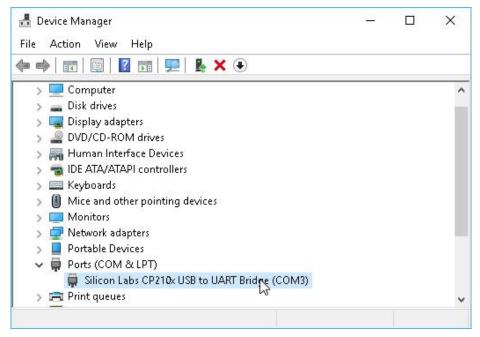
"Unable to connect. Please verify COM port information."

This error appears when selecting a com port that does not exist on the PC, or when the currently selected com port is in use by another program or device.

Solution: Refer to the steps below for information on how to determine which com port the serial port is on, and how to change it if necessary. If the port is correct, close all open programs. Common programs that also use the serial port would be other terminal programs like HyperTerminal.

Use the following steps to confirm which com port the serial port or USB to Serial adapter has been installed to and if necessary, change it to a more suitable port.

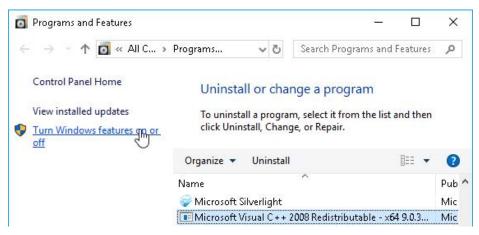
- 1. From the desktop, right click on "My Computer", and select Properties.
- 2. From the System Properties window, click on the Hardware tab, and select Device Manager.
- From the Device Manager Window, look for the setting labeled Ports (COM & LPT), and click on the + to open this section. The USB to Serial adapter should be listed in this area, with the COM port in use listed in parenthesis next to it.



- Unable to Lunch on Windows 7/10: By default, Windows 7/10 has integrated .Net Framework 2.0/3.5 inside and user no need to manually install it, please check below configuration to make sure it is enabled in Windows 7 and 10 if unable to lunch the application
 - 1. Press [WIN]+[R] keyboard shortcut to activate RUN dialog box, type "appwiz.cpl" to lunch "Programs and Features".

	Type the name of a program, folder, document, or Interne resource, and Windows will open it for you.
Open:	appwiz.cpl

2. Click "Turn Windows features on or off" to activate "Windows Features" dialog box.



3. Make sure below ".NET Framework 3.5" option is enabled.

📑 Wind	lows Features	32 <u>—</u> 23		×
Turn V	Vindows features on or off			?
	a feature on, select its check box. To turn a f			
check b	ox. A filled box means that only part of the f		s turned	on.
	NET Framework 3.5 (includes .NET 2.0 ar	nd 3.0)		^
± 🔳	.NET Framework 4.7 Advanced Services			
	Active Directory Lightweight Directory Se	rvices		
	Containers			
	🖥 Data Center Bridging			
±	Device Lockdown			
	Guarded Host			
H	Hyper-V			
	Internet Explorer 11			
· ·	Internet Information Services			
	Internet Information Services Hostable W	eh Core		
	Legacy Components		8	~
	0	K	Can	cel

Failed to Receive the File during upgrading: Generally, the upgrading requires a good RS232 communication, make sure a good enough RS232 or USB cable be used, a long external RS232 or USB cable possible led a bad electrical signal quality transferring during upgrading process.

Check below options when you see below error message:

- 1. Check the RS232 or USB connection.
- 2. Check the RS232-to-USB convertor, or replace it by good one.
- 3. Remove the RS232 or USB external cable to shorter the distance between amplifier and main chassis of the PC computer, or replace by a good one.

🔅 ROTEL YModer	n Upgrade Manag	ger V2.0.3	×
Select Com Port:	сомз ~	Connect	
Model:	RC-1590	Power On	TEL
Select baud rate:	115200 💛	AUTO	
File Name:	RC1590E-V131-Y	modem.bin	Open
Send Upgra	de Request		
Send Upg	rade Fil		Restart
f it is upgrad	le menu not ap	opeared then AC power off and then (DN.
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In-Applic		nming Application (Version 2.0.0)	-
		chnology Global Inc.	=
Download Imag	ge To the STM3	J ====================================	

- Important for Windows XP: make sure you have the .NET FRAMEWORK 2.0/3.5 installed, in addition make sure you have the Windows Installer 3.1 installed before you installed the framework.
 - 1. Access below link to download and install .Net Framework 2.0/3.5: https://www.microsoft.com/en-US/download/details.aspx?id=21

To download the full redistributable package, rather than the bootstrapper, click on the link below to start the download: <u>.NET Framework 3.5 full package</u>

→ C 🔒 https://ww	ww.microsoft.com/en-US/download/details.aspx?id=21
Microsoft .NET F	ramework 3.5
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	amework 3.5 contains many new features building incrementally upon .0 and 3.0, and includes .NET Framework 2.0 service pack 1 and .NET vice pack 1.
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+ Related Resource	25

2. Access below link to download and install Windows Installer 3.1: http://support.microsoft.com/kb/893803