Technical Information

July 27, 2023

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	Туре	Size
🔅 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".

🌼 ROTEL YModen	n Upgrade Manag	jer V2	.0.3				?	×
Select Com Port:	сомз ~		Conne	ect	•			
Model:	Unknown					RC	те	
Select baud rate:	57600 ~							
File Name:	Select a bin file						Ope	n
Send Upgrade Request								
Send Upgrade File Restart						art		
INSTRUCTIONS:							~	
- If the attached device can be auto-detected, the baud rate will be configured.								
- If the device cannot be detected, select the baud rate manually.								
- Choose the Y-Modem update software file and click OPEN.								
- Click "SEND UPGRADE REQUEST" to put the device into Upgrade Mode.								
- Confirm the Upgrade mode is ready in the communication window.								
- If the device is not in Upgrade mode, select "RESTART", power off then on the device and begin again.						en		
- Click "SEND U	PGRADE FILE"	to s	end the	new so	ftware	to the de	vice.	
- After the upg then power back	rade has comp on.	lete	d, power	° off t	he devi	ce, wait :	10 second	ds
- Confirm the s	oftware versi	on i	n the se	etup me	nu.			~
© 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.

🏟 ROTEL YModem Upgrade Manager V2.0.3				?	×
Select Com Port:	COM3 ~	Connect			
Model:	RC-1590	Power On	RO		Ľ
Select baud rate:	115200 ~	AUTO			
File Name:	Select a bin file			Ope	n
Send Upgra	de Request				
Send Upg	grade File			Resta	rt
product_type=07	7,RC-1590				^

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.

💮 Open			×
🔶 🔶 👻 🕇 📙 « RC	-1590 Main Soft > V131 🛛 🗸 💆 Sear	ch V131	م
Organize 👻 New folde	er	== -	•
A Quick accord	Name	Date modified	Туре
	RC1590E-V131-STM32.bin	7/2/2015 3:19 PM	VLC medi
🝊 OneDrive	RC1590E-V131-Ymodem.bin	7/2/2015 3:19 PM	VLC medi
💻 This PC			
🚢 Natwork 🔍 👻	<		>
File n	ame: RC1590E-V131-Ymodem.bin Vmo	odem (*.bin*)	~
		Open C	ancel

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

Select Com Port: COM3 Model: RC-1590 Select baud rate: 115200 AUTO File Name: RC1590E-V131-Ymodem.bin Open					
Model: RC-1590 Power On RCOTEL Select baud rate: 115200 AUTO AUTO File Name: RC1590E-V131-Ymodem.bin Open					
Select baud rate: 115200 AUTO File Name: RC1590E-V131-Ymodem.bin Open					
File Name: RC1590E-V131-Ymodem.bin Open					
Send Upgrade Request					
Send Upgrade 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.

🔯 ROTEL YModem Upgrade Manager V2.0.3					×	
Select Com Port:	COM3 ~	Connect	•			
Model:	RC-1590	Power On	R	рте		
Select baud rate:	115200 ~	AUTO				
File Name:	Ope	n				
Send Upgrade Request						
Send Upgrade File Restart						
if it is upgrad	le menu not appe	ared then AC po	wer off and then	ON.	^	
= (C) COPYRIGHT 2009 Rotel Technology Global = = In-Application Programming Application (Version 2.0.0) = = By Rotel Technology Global Inc. =						
<pre>= by Rotel Technology Global Inc. = =</pre>						

- 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 YModem Upgrade Manager V2.0.3					
Select Com Port:					
Model:	RC-1590	Power On	BC	TEL	
Select baud rate:	115200 ~	AUTO			
File Name:	Open				
Send Upgrade Request Send Upgrade File					
if it is upgrade menu not appeared then AC power off and then ON.					
= (C) COPYRIGHT 2009 Rotel Technology Global = = In-Application Programming Application (Version 2.0.0) = = By Rotel Technology Global Inc. =				= = =	
Waiting for the file to be sent (press 'a' to abort)CC					

11. Press "OK" to close the file transfer window, and then press "Close" to close the YModem Upgrade Manager.

ROTEL YModem Upgrade Manager V2.0.3								
Select Com Port:	COM3 ~	Connect	•					
Model:	RC-1590	C-1590 Power On						
Select baud rate: 115200 V AUTO								
File Name: RC1590E-V131-Ymodem.bin Open								
Send Upgrade R Download Successful								
Time taken: 17 Seconds File download Successful Restart								
<pre>if it is upgrade menu not appeared then AC power off and then ON. = (C) COPYRIGHT 2009 Rotel Technology Global = In-Application Programming Application (Version 2.0.0) = By Rotel Technology Global Inc. =</pre>								
By Rotel Technology Global Inc. By Rotel Technology Global Inc. Download Image To the STM32F2xx Internal Flash 1 Execute The Program								

- 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.
- 3. 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".

🖅 Run	×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
<u>O</u> pen:	appwiz.cpl ~
	OK Cancel <u>B</u> rowse

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.

💽 Windo	ows Features	—		\times				
Turn Windows features on or off								
To turn a check bo	feature on, select its check box. To turn a x. A filled box means that only part of the	feature feature i	off, clear i is turned o	ts on.				
	.NET Framework 3.5 (includes .NET 2.0 a	nd 3.0)		^				
🗉 🔳	.NET Framework 4.7 Advanced Services							
	Active Directory Lightweight Directory S	ervices						
Containers								
🔲 🔄 Data Center Bridging								
• •	Device Lockdown							
	Guarded Host							
•	Hyper-V							
	Internet Explorer 11							
🗉 🔳 🔄 Internet Information Services								
Internet Information Services Hostable Web Core								
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• 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:

- Check the RS232 or USB connection.
 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 YModen	ROTEL YModem Upgrade Manager V2.0.3					
Select Com Port:	COM3 ~	Connect	•			
Model:	RC-1590	Power On	RC	тег		
Select baud rate:	115200 ~	AUTO				
File Name:	Open					
Send Upgrade Request						
Send Upgrade Fil						
if it is upgrade menu not appeared then AC power off and then ON.						
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= In-Application Programming Application (Version 2.0.0) =						
= By Rotel Technology Global Inc. =						
Download Image To the STM32F2xx Internal Flash 1 Execute The Program 2						
waiting for the to receive the	file!	nt (press 'a	to abort)	LUUF alled		

- 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: <u>https://www.microsoft.com/en-US/download/details.aspx?id=21</u>

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://www.microsoft.com/en-US/download/details.aspx?id=21	
Microsoft .NET Framework 3.5	
Important! Selecting a language below will dynamically change the complete page content to that language. Select Language: English Download	
Microsoft .NET Framework 3.5 contains many new features building incrementally upon .NET Framework 2.0 and 3.0, and includes .NET Framework 2.0 service pack 1 and .NET Framework 3.0 service pack 1.	
Details	
G System Requirements	
Related Resources	

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