

Update Guide

DV/SDV/4026 Modules

BCM40530/03

s/w v1.6

© Barrett Communications

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Overview

This guide outlines the updating of the firmware on the internal DV/SDV/4026 module. Specifically, it covers the following products:

1. Digital voice module - DV
P/N BCO40505 Digital Voice auto vocoder module 700/1200/2400 bps, no encryption
2. Secure digital voice module with DES 56 encryption - SDV-56
P/N BCO40506 - Secure digital voice auto vocoder module 700/1200/2400 bps with DES 56 encryption
3. Secure digital voice module with AES 256 encryption - SDV-256
P/N BCO40507 - Secure digital voice module auto vocoder 600/1200/2400 bps with AES 256 encryption.
Australian Government Export Licence required.
4. 4026 MIL 110B Strategic email system (Stanag 5066)
P/N BC402601 - Barrett MIL 110B Strategic email system (Stanag 5066) - 9600bps HF Data Modem
5. 4026 3G Data, Email & Internet Gateway system
P/N BC402602 - Barrett 3G Data, Email & Internet Gateway software to suit 3G Email System

Before Update

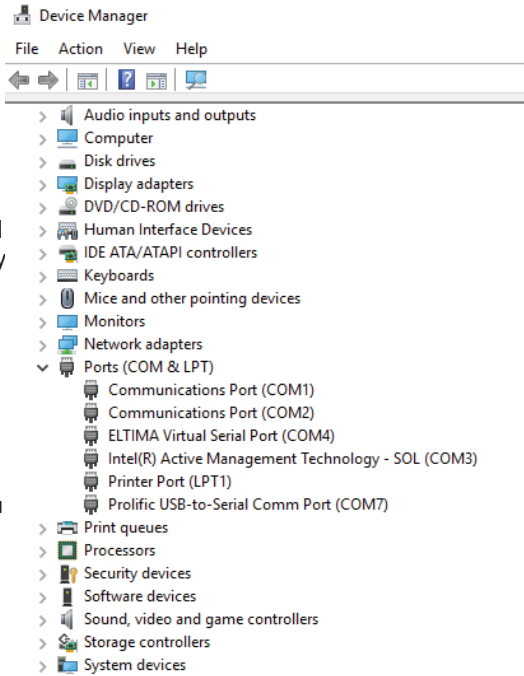
Ensure the following are present and correct:

Barrett Secure Programmer Software and Firmware Files.

COM port terminal program such as Terminator or PuTTY.

Programming cable connected between the 4050 SDR 25-way Auxiliary Connector and the COM Port of your PC.

Confirm in Windows Device Manager which COM port your PC is using. If you have more than one or a USB to serial converter, you might need to try each port until you find the correct one.

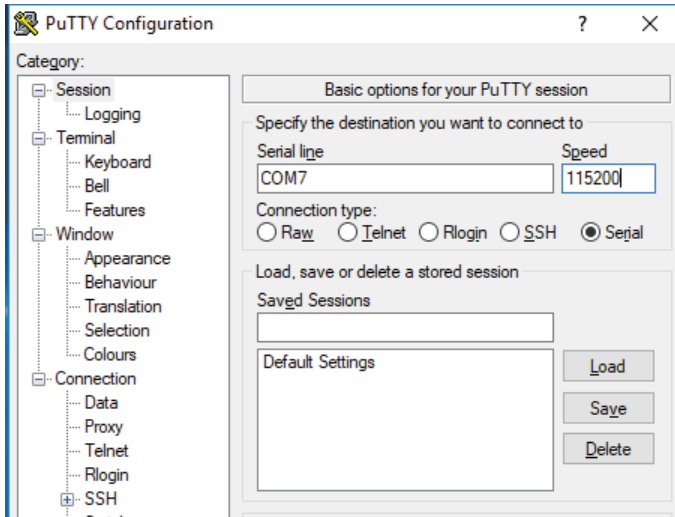


Preparing SDV/4026 for Update

1. In Settings<IO, check the radios RS232 COM port is set for Direct Connection and the RS232 Baud Rate is 115200.



2. Set the COM Port and the Baud Rate to 115200 in your terminal application.



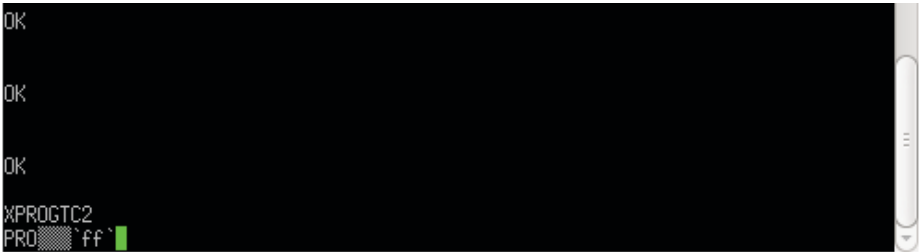
When connected to the radio, press the ENTER key a few times and the OK message should be printed. If not, check settings or the COM port selected.


Note: When entering the command below, depending on how your terminal application handles "line echoing", you may not see your typed commands.

- Type the following command, exactly as written, in CAPS, and then press Enter:

XPROGTC2

- You should see the following output on the terminal:



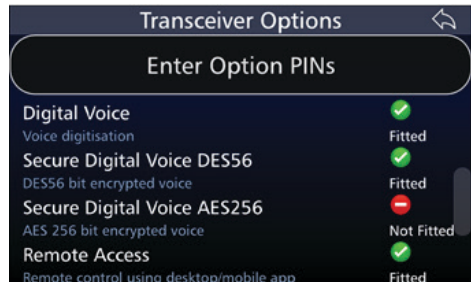
Once you see the output PRO  'ff', the SDV module is ready to be programmed.

Now close the terminal application.

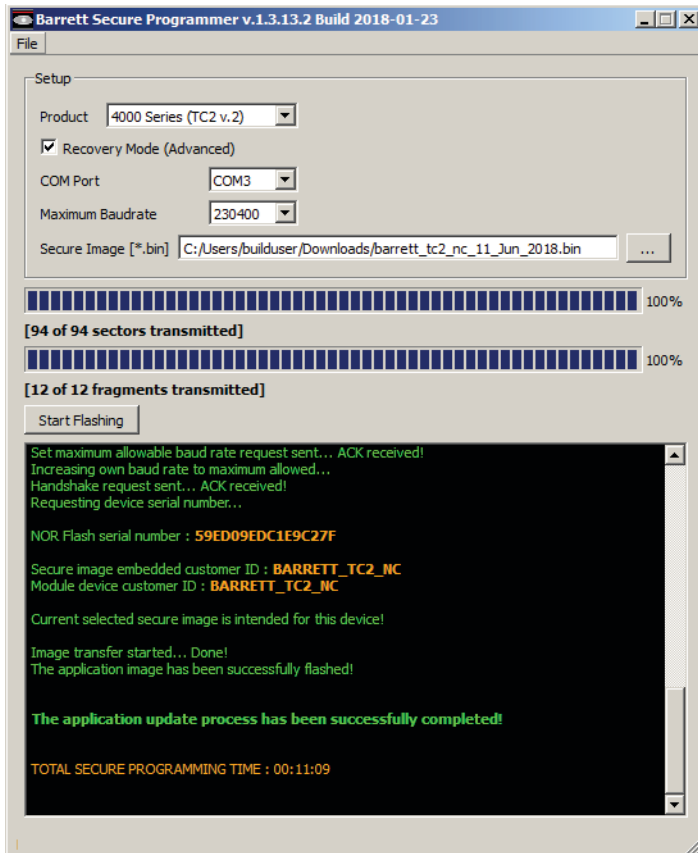
Note: If you leave the terminal application open, an error will occur in the next step as two programs are trying to connect to the same COM port.

Updating SDV Firmware

1. Run the Barrett Secure Programmer Software
2. In the "Product" field, select "TC2 v.2" from the drop down box
3. Check the "Recovery Mode" checkbox
4. Select appropriate COM port
5. Set Maximum Baud rate to 230400, this will auto set if higher speeds are available.
6. In the "Secure Image" field, click on the "..." button to navigate to the TC2 update .bin files. For example the folder SDV4026-product-tc2-digital_audio[V5-6-28]
7. Select the appropriate TC2 file for the board fitted to the radio. To check this go to Settings/System Info/Transceiver Options/. If AES256 fitted, use C_AES_LR_VOC version, otherwise the NC version.
8. When ready, click on the "Start Flashing" button.



9. The program output will inform the user soon after starting if any errors are detected.
10. The update procedure will continue and takes about 15 minutes to complete.
11. Once the update has completed, power cycle the radio. Check the version loaded in Settings/System Info/Version Information/SDV/4026 Firmware Version/.



Example output during flashing on the SDV/4026 Module

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