

Pro-Series Software Update

(including Expert
and Wizard Instruments)

RDS Part No.: | S/DC/500-10-441
Document Issue: | 2.1 : 23/2/10

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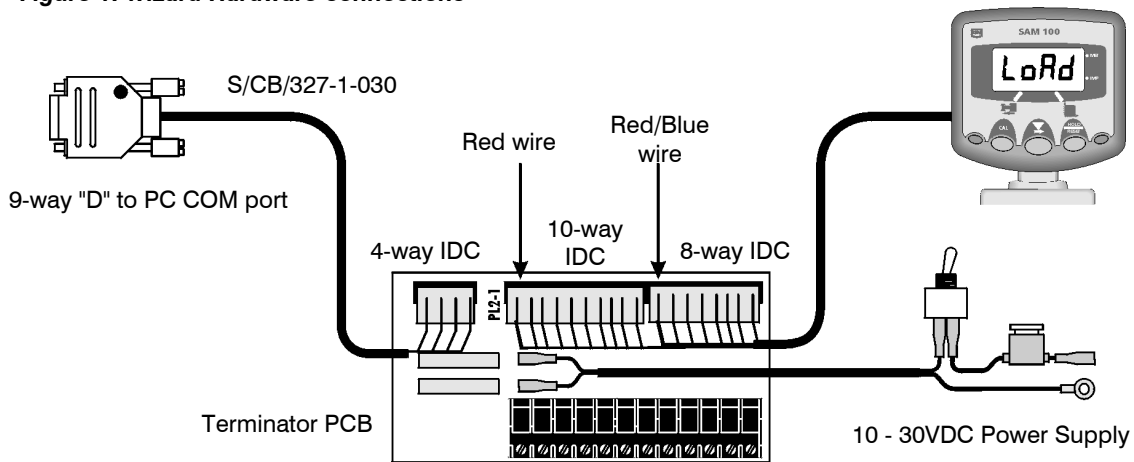
1 Hardware Setup

1.1 Wizard

Required: RDS Wizard Terminator without relays :- Pt. No. S/AC/327-1-004
 Upload Cable Pt. No. S/CB/327-1-030
 Power supply to Terminator

1. Connect the Terminator to the Wizard, PC and Power supply as shown (fig. 1). No other inputs or outputs must be connected to the Terminator.

Figure 1: Wizard Hardware connections



2. If the Wizard is powered, turn it off.
3. Press and hold the two outer buttons and switch the instrument on.
4. The display should then show "LoAd". If not, repeat steps 2 and 3.
5. Refer to section 2.2 to begin uploading using the "RDS Update" utility.

1.2 Expert

Required: Upload Cable Pt. No. S/CB/309-1-050

Connect the upload cable from the PC port to the serial port on the Expert, and connect the power supply. Do not switch the instrument on yet.

Refer to section 2.2 to begin uploading using the "RDS Update" utility.

1.3 Pro-Series

Required: Upload Cable Pt No. S/CB/268-1-032

Connect the metal 9 way 'D' connector to the **top** 9-way connector on the rear of the Pro Series. Connect the in-line 'D' connector to a serial COM port on the PC.

The Pro-Series must be powered, either via the normal 50 way 'D' connector or via the two core power cable integrated into the upload cable. Do not switch the instrument on yet.

Refer to section 2.2 to begin uploading using the "RDS Update" utility.

2 Update Procedure

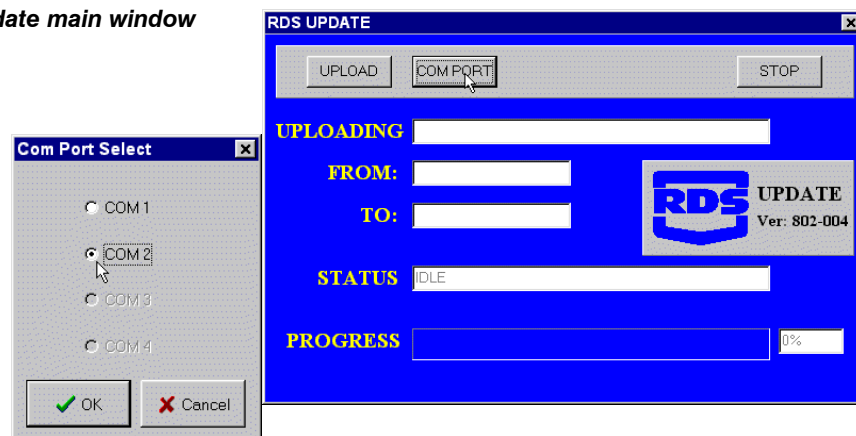
2.1 Installing the RDS Update Utility

Insert the floppy disk into drive A: and from Windows Explorer, double click on "Setup.exe".

Follow the on-screen instructions. The program is then installed in directory C:\Program Files\RDS Technology\RDS UPDATE

Start the software (Icon on Desktop), click on the COM PORT button and select the PC COM port that the upload cable is connected to (usually COM 1 or COM 2), then click "OK".

Figure 2: The RDS Update main window



2.2 Uploading (all instruments)

Before uploading new software to any instrument it is recommended that you manually record (or make a printout) of the existing calibration data and any other user-programmed settings!

By doing so the settings can be simply re-entered into the new software thus avoiding unnecessary re-calibration.

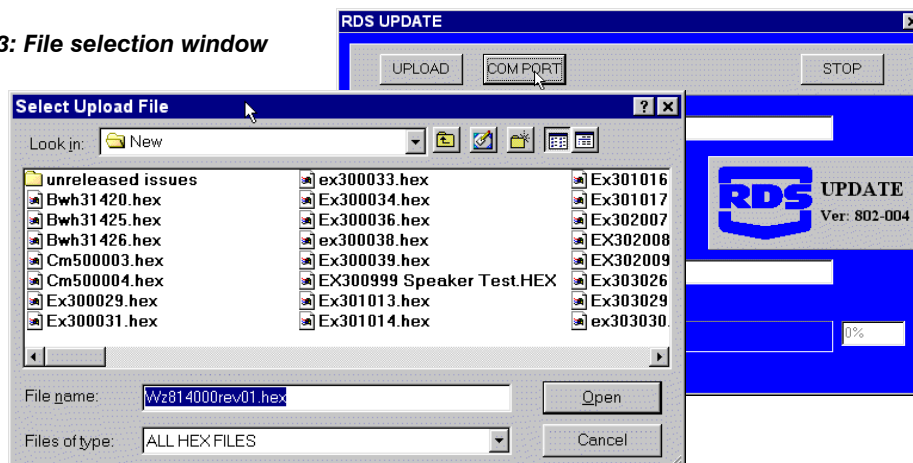
Click on the UPLOAD button and select the file (.HEX) you wish to upload.

A UDM / Wizard software file begins with "UDJ" or "WZ".

An Expert software file begins with "EX".

A Pro-Series software file begins with "PS".

Figure 3: File selection window



Once you have selected the file you wish to upload, click the OPEN button. If the instrument is already switched on, the upload will begin (refer to sections 2.2.1, 2.2.2 or 2.2.3).

If the instrument is not already switched on, the status line will read "Sending KQ" until the instrument is switched on, at which point the upload sequence will continue.

NOTE: If at any time there is a problem with uploading e.g. a faulty connection or a problem with the PC, then press the STOP button in the RDS Update window and repeat the procedure.

DO NOT simply switch the instrument off during the upload, or otherwise interrupt the power supply to the instrument (e.g. as can occur if starting the engine). If you do, the instrument memory can become corrupted and may have to be physically replaced, necessitating returning the instrument for repair.

2.2.1 Uploading to Wizard

The screen will display "ErAS" while the memory is being erased followed by "burn" shortly afterwards, when the new software begins uploading and once uploading is complete, it flashes "donE".

The RDS Update window will indicate "Software Upload Complete". Click the X in the top right corner of the window to close the programme.

Turn the Wizard off. Hold the 3 inner buttons and power on to perform a "Power On Reset". The head unit will undergo a short self-test routine and then revert to the normal display.

2.2.2 Uploading to Expert

The screen will display "Data Transfer" then "Erasing" as the existing software is erased. The display will then display "Loading (data)" after which the instrument will be ready for normal operation.

Once loading is complete the RDS Update window will indicate "Software Upload Completed". Click the X in the top right corner of the window to close the programme.

2.2.3 Uploading to Pro-Series

If the Pro Series is a mk.2 instrument with a secondary software module installed, ensure that the correct software is running. The upload programme will over-write the software that is functional.

On instruments using a CAN interface for weighing, the weighing option must be switched OFF before new software can be uploaded. The top port setup must be set for 'RDS Data Module', 'PC Download', 'ICP 200' 'ICP100' or 'NOT USED'

NOTE: Mapping Module software PS517 can only be uploaded to an instrument fitted with a secondary software module.

The screen will display the following as uploading progresses:

Remote Data Transfer KQ ID PD

Remote Data Transfer Flash ID: AD 40 Chip Erased Loading: FFFFFFFF Done
--

Once loading is complete the RDS Update window will indicate "Software Upload Completed". Click the X in the top right corner of the window to close the programme.

2.2.4 Unlock Code

If this software type has not previously been loaded into the instrument, then a registration window will be displayed on the Pro Series. Note down the unique 13- character code that appears on the screen, then contact the RDS Sales Office (Tel. +44 (0)1453 733300 with your name, address and contact details, the serial number of the instrument from the label on the back of the instrument, and the code number. You will then be supplied with an unlock code to enable the full functionality of the instrument.

On receiving the unlock code, simply enter it when prompted, after which the instrument will be ready for normal operation*

*(Ref. section 2.2.5).

2.2.5 Saving and Restoring Calibration Factors

Before updating Pro-Series with a new version of software, download and save the existing calibration factors to a .FAC file on the PC. A different version of RDS Update software is required to download or upload the factors. Please contact the service department at the factory for further assistance.

When new software is loaded and unlocked, the instrument normally, will automatically do a full reset to default factory settings. If not then you should manually reset to the default factors.

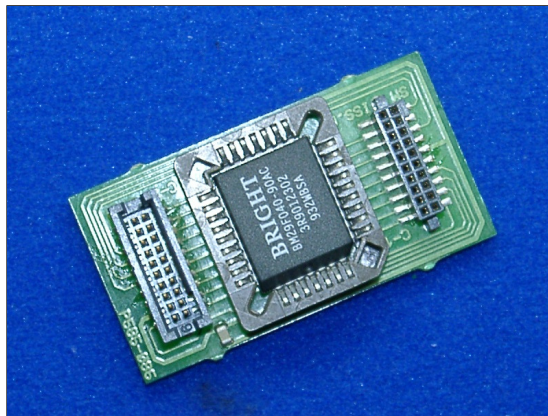
Existing factors that were previously saved to a .FAC file can only be uploaded to the exact same version of software. If you have uploaded a different version of software, you will have to either manually enter the previously recorded factors, or re-calibrate the instrument as appropriate.

2.3 Pro-Series Secondary Software Module

Pro-Series instruments with a green chassis can be upgraded via a Secondary Software Module. You can then switch the instrument freely between two applications - for example PS515 (Sprayer Control) and PS517 (Mapping Module).

Pro-Series with a black chassis cannot accept a Secondary Software Module.

Figure 4: Secondary Software Module



To fit the module, first remove the instrument rear cover (4 x M5 screws). Then remove the black cover plate (2 x M3 screws).

Figure 5: Fitting the Software Module

This Serial Number must be noted down and entered into a LM9000 for verification.



Before removing the Module from its protective packaging please read the leaflet "PCB Handling Precautions". Failure to observe these precautions may damage the module.

Hold the module by its edges only and push it into the socket (it only fits one way), taking care not to touch the memory chip or tracks on the PCB.

NOTE: For Loadmaster 9000 instruments, you should note down the module Serial Number, as this information must be recorded into the instrument for Verification purposes.

Replace the cover plate and rear cover.

You may have to enter an unlock code to activate the newly installed software (2.2.4).