



# Information Sheet IS18008

## VS Series – Updating to 5.x Software and OS Recovery Procedure

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## INFORMATION SHEET

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### 1 INTRODUCTION

The VS Series FM transmitter is a microprocessor-controlled unit. Periodically, enhancements or improvements to the system are identified and made available. Implementation of these improvements requires a software upgrade. This document describes how to update transmitter software from 4.x to 5.x and how to re-install the Operating System in the event corruption has occurred.

#### NOTE

*Minor software updates that are released within the same overall number (i.e, SW 5.x.y to SW 5.y.z) can be performed using the Upgrading Software procedure found in section 4 of the Operations and Maintenance manual.*

#### 1.1 Equipment Affected

This procedure applies to all VS series transmitters running software 4.x or later.

#### 1.2 Responsibility for Implementation

This procedure should be carried out by qualified station maintenance personnel who are familiar with VS series transmitters.

#### 1.3 Scheduling

This procedure should be performed only when directed by a software upgrade procedure or when corruption of the OS has occurred. The transmitter will need to be “off air” during this procedure.

#### 1.4 Manpower Requirements

Implementing these instructions will require approximately 60 minutes.

#### 1.5 Special Tools/Test Equipment

- USB flash drive, freshly partitioned and formatted to FAT32, to hold downloaded OS recovery files

#### NOTE

*Use a web search tool to find a procedure specific to your PC operating system for clearing all partitions and formatting USBs to FAT32.*

#### 1.6 Publications Affected

This modification does not affect the VS series documentation.

### 2 PRELIMINARY REQUIREMENTS

This procedure will erase the user database. Only the default "Nautel" user will be valid with no password required. Before proceeding, record user settings such as user accounts, logs, SNMP configuration, email configuration, time zone, notifications and playlists to ensure they can be restored after the procedure is complete. Refer to the transmitter's Operations and Maintenance Manual to locate these settings.



### 3 RECOVERING THE OS

- (a) Using a PC or laptop with a web browser, go to <http://www3.nautel.com/pub/>. Select Directory **VS\_Series/OS Recovery**.
- (b) Select the latest 5.x software version available.
- (c) Download the zip file found in the directory. See Figure 1 as an example, noting the zip file version will be named the same as the directory folder.

## Index of /pub/VS\_Series/OS\_Recovery/Ver 5.2

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
<a href="#">Parent Directory</a>	-	-	-
<a href="#">IS13011A_VS Series 4-A Recover OS.pdf</a>	2017-07-31 10:48	173K	
<a href="#">VS_CS_osrecovery_v5.2.zip</a>	2017-08-01 13:18	153M	

Figure 1: Download .zip File Selection

- (d) Extract the contents of the zip file to the root directory of a USB flash drive.
- (e) Ensure transmitter is in RF Off mode.
- (f) Remove any USB devices from rear of the transmitter.
- (g) Plug the USB flash drive used in step (d) into the top USB port (A1J8B) on the rear of the transmitter, located immediately below the LAN port (see Figure 2).

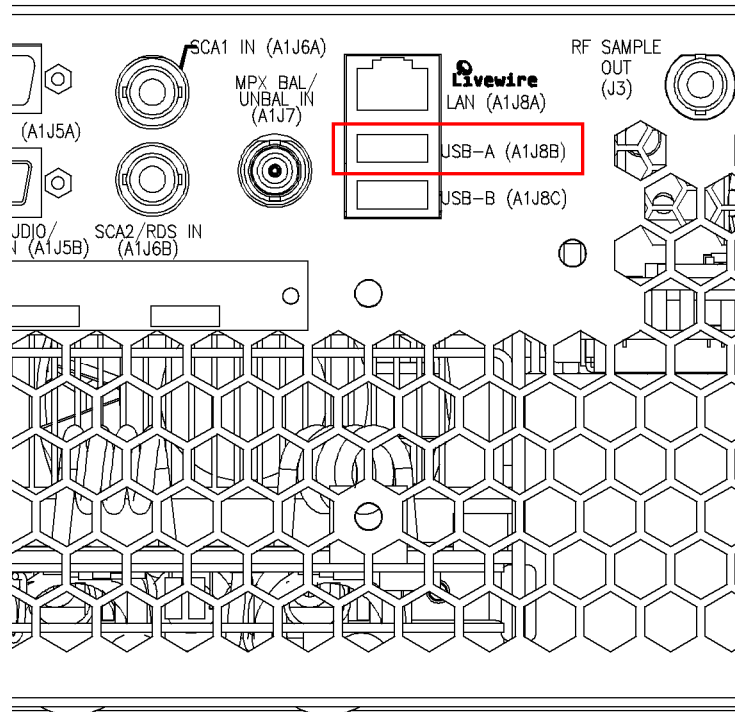


Figure 2: A1J8 USB Port



- (h) Using the transmitter's front panel UI, navigate to the Main Menu -> System Settings -> OS Recovery screen, which should display the word **Cancel**. Press the UI's up arrow key to change the selection to **Force OS Recovery** (see Figure 3). Press the center checkmark button to initiate the process.

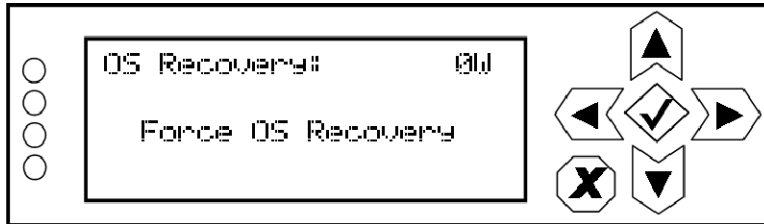


Figure 3: Force OS Recovery screen

- (i) After approximately 30 seconds, the VS transmitter's front panel will indicate the OS Recovery process has started (see Figure 4). The process takes about 20 minutes.

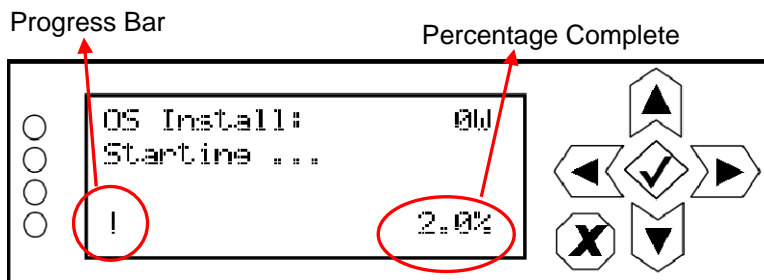


Figure 4: OS Recovery Process Begins

- (j) When the OS recovery process is complete, the front panel will indicate a 100% completion percentage (see Figure 5). Reboot the transmitter by cycling its ac power (off, then on). Remove the USB flash drive. This completes the OS Recovery procedure. Wait approximately two minutes after the ac power cycle to allow the ARM to boot before proceeding.

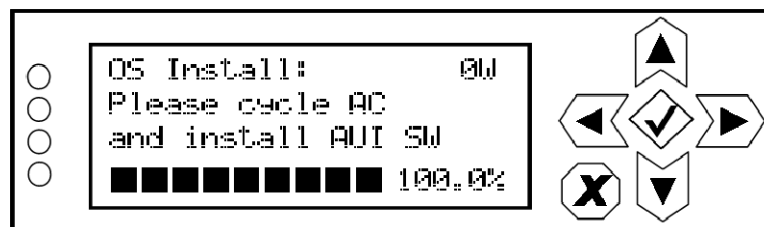


Figure 5: OS Recovery Complete

#### 4 SOFTWARE UPGRADE

After an OS recovery, a software upgrade must be performed. When first logging into the AUI after an OS recovery, normal AUI functionality will not be available until a software upgrade from a .tgz file is performed. A software upgrade file is included with the OS recovery file.

To perform the post OS recovery software upgrade, use the front panel UI of the VS Series transmitter and navigate to Main Menu -> System Settings -> Firmware Update. See Figure 7 for a depiction of the **Firmware Update** screen.

The software upgrade .tgz file that was included with the OS recovery will appear on the front panel UI screen. Use the up arrow to scroll to the TGZ file (see Figure 6 for file format example) and press the center checkmark button to initiate the upgrade process.

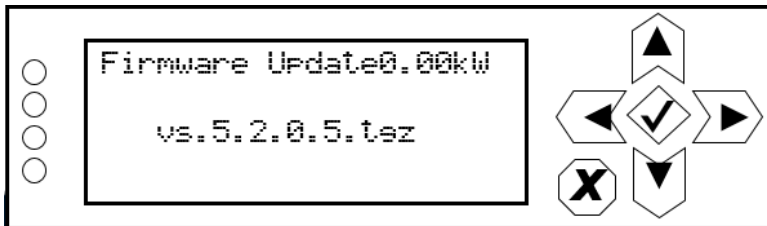


Figure 6: Software Upgrade Screen (Example tgz file shown)

#### NOTE

*Once the OS Recovery is complete, the user database is reset, therefore only the default "Nautel" user is valid with no password required.*

*Refer to the transmitter's Operations and Maintenance Manual to re-establish lost user settings including: user accounts, logs, SNMP configuration, email configuration, time zone, notifications and playlists.*

*Before connecting remotely via the AUI, clear your web browser's cache to remove any obsolete AUI files.*

#### 5 CHANGING THE OS PASSWORD

After completing an OS install or recovery, the OS password must be changed for security purposes. To do this, you will need a way to remotely connect to a Linux computer using SSH. PuTTY is a common utility for Windows users (available at <ftp://www3.nautel.com/Utilities/putty/putty.exe>; if unable to open this link, use a search engine to find new URL), while Linux users can use 'ssh' from the command line. Change the password as follows:

- (a) Connect to the transmitter IP address using your selected SSH client.
- (b) Login with username **root** and password **gckTZbiMEq**
- (c) At the prompt, type the command **passwd**. This is the Linux command to change your password.
- (d) Enter and confirm your new password.
- (e) Record your new password on the Proof of Performance document provided with the transmitter. If you would like Nautel to track your password for support purposes, please email [support@nautel.com](mailto:support@nautel.com) with your new information.
- (f) Close the console window.

