# Franklin Fueling Systems TSA Upgrade

# Installation Instructions

These instructions are for upgrading or adding software options to a T5 Series or Colibri console using the TSA Upgrade Tool.

#### Important: Before attempting any upgrade, download and save the most recent setup file to your computer.

**Note:** Do not upgrade EMS consoles used with balance systems (see Tech bulletin TB0110-02).

#### **Download Upgrade Firmware**

The upgrade firmware can be downloaded from our website OR can be ordered from Franklin Fueling Systems on a USB memory stick. Part # TSA-UPGMS for T5 Series (EVO not included), Part # CL-UPGMS for Colibri. There is no USB memory stick option available for the TS-550 evo. The TS-550 evo must use the website download option.

- To download from the website, go to www. franklinfueling.com. Select Service \ Software Downloads.
  - The Software Downloads are separated into Colbri, T5 Series, and TS-550 evo Software Downloads. Click on the appropriate version. Fill in the Contact Information and click Download Software.

• To download from the USB memory stick.

Insert the USB memory stick into the USB port of the computer that will be used to perform the Software Upgrade. Browse to the file to select it.



The downloaded file will be named by the version (example T5S1545341.exe). After downloading, the user will be prompted to run the file and this will open the extraction utility and the user must select the destination for the files or accept the default destination. Once the extraction is complete then TSAUpgradeTool.exe will start.

## **Connection parameters**

Default settings for the connection parameters are as follows:

- <u>Address</u>: 192.168.168.168 is the default for a tank gauge console and is what will be used as a IP address when connecting with the Ethernet crossover cable. If you are upgrading the console remotely, enter the correct IP address of the console here.
- Port: port 80 is the default port setting for the consoles
- <u>Password</u>: the default password for the tank gauge console is admin and is entered as a default on the TSA Upgrade Tool. If the password on the console has been changed, enter the correct password here.

After the connection parameters are entered correctly, click the QUERY button. This will connect the TSA Upgrade Tool to the T5 series console and retrieve the registration, firmware and database information from the console.

The identification information will be entered automatically from the console. No information has to be manually entered in here.

TSA Upgrade Tool (4762) 1.2.8.4762	X
Connection parameters	
Address: 192.168.168.168	-
Password:	
Save Setup and Database	
System Serial Number: 200912F9	
Ethernet Address: 00:12:27:00:12:F9	_
Controller Serial Number: 14-9004-C503-0000-FD	-
Console Type: T5 Series Upgrade Mode: No	
Registration Firmware DTU Setup Database VRM	
Options	
Current Saved Availab	
Tank Testing: Yes Yes 2	
SCALD Testing: Yes ?	
Line Testing: Yes Yes ?	
Reconciliation: Yes Yes ?	
Vapor Recovery Monitoring (CP-201): Yes Yes ?	
Secondary Containment Monitoring (AB-2481): Yes Yes ?	
]	
Sa <u>v</u> e Rest <u>o</u> re <u>B</u> rowse Regist <u>e</u> r.	
Status: Ready	

## **Registration Tab**

Under the registration tab you will see all available options for the tank gauge console.

"Current" will either have a yes or no. If there is a yes, the console has that specific option already installed. If no, then the option is not installed on the console.

If the TSA Upgrade Tool was received in response to an order for a new Software Option, the "Available" column will list the purchased option as yes. For example, if your console does not have SCALD Testing, the "Current" entry for SCALD testing will have NO and the "Available" column will state YES (If the SCALD option has been purchased).

# **Firmware Tab**

The Firmware Tab is where software revision upgrades will be located. Clicking on the Firmware Tab will show the following information:

TSA Upgrade T	ool	(4762) 1.	2.8.4762	X
Connection parameters				
Address: 192 168	168	168 🔻	Port: 80	
	100.			
Password:			<u>Q</u> u	ery
V Save Se	tup ar	d Database		
Identification				
System Serial Number:	3308	80D 3D		
Ethernet Address:	00:1	2:27:00:0D:3D		
Controller Serial Number:	14-1	6CE-8403-0000-55	5	
Console Type:	T5 S	eries	Upgrade Mode	No
	<u></u>			
Begistration	ware	DTU Setup	Database VRM	
Module Type	Slot	Current Version	Available Version	
AC Input Module	1	0.9.0	0.9.0	
💿 Relay Module	2	0.9.0	0.9.0	
Probe Module	5	0.9.2	0.9.2	
\varTheta 4-20mA Input Module	6	0.9.4	0.9.8	
💿 2-Wire Sensor Module	7	0.9.0	0.9.0	
\varTheta Controller Module	CM	0.9.5.3689	1.2.8.4762	
🔶 Power Supply Module	PS	1.0.1	1.0.3	
Printer Module	30	0.9.2		
				1
Upgrade All	Upgra	de Selected	<u>B</u> rowse	
Status: Ready				

<u>Module Type</u>: Shows the modules located in the console that you are connected to. The information here will differ depending on the configuration of the particular console you are connected to (The Colibri console will only show the Controller Module).

- A green button next to Module Type indicates that this module currently has the latest version of software installed.
- A red button next to the Module Type indicates that this module does NOT currently have the latest version of software installed. This can be verified by comparing the Current Version with the Available Version numbers.

<u>Slot</u>: Is the physical location of the module in the console.

<u>Current Version</u>: Shows the version that is currently on the module in the console that you are connected to.

<u>Available Version</u>: Lists the latest released versions of software available to upgrade the software on the console.

# **Upgrading Firmware Steps**

Assume as an example we want to upgrade the 4-20mA Input Module. The console currently shows version 0.9.4 installed and version 0.9.8 is available.

Select the Upgrade Selected button after highlighting the specific module to be upgraded.

For the example we would highlight the 4-20mA Input Module and click the upgrade selected button. You will be prompted with this warning.

Upgrad	e Warning 🛛 🔀
•	Prior to performing any upgrade, the system's historical data should be printed out or saved via the web interface report pages. Failure to do so can result in a loss of important historical compliance and fuel management data. Contact your local FFS Tech Representative for further assistance or click OK to continue.
	OK Cancel

Make sure historical data is saved. Then click OK. This will bring up the confirmation screen.

Confi	rm 🔀
2	The following module will be upgraded:
$\checkmark$	4-20mA Input Module [Slot 6] Version 0.9.4 -> 0.9.8
	Estimated time to complete is 8 minutes.
	Would you like to continue?
	OK Cancel

Notice the Estimated time to complete, do not restart your computer or console without allowing enough time for the upgrade to complete.

Click OK to continue the upgrade process.

The bottom of the TSA Upgrade tool will show the status of the upgrade process. There are three steps in the upgrade process:

- "Upgrading (*module name*) Module" is the first step and will take the most time
- "Rebooting" is the second step in the upgrade process. This step is rebooting the console.
- "Ready" is an indication that the console has been upgraded and rebooted and has returned to normal operation.

#### Important Notes:

- We recommend that each module be upgraded individually. Do not use the <u>Upgrade All Button</u>.
- Upgrade the <u>Controller Module</u> first and then the <u>Power Supply Module</u> second, followed by the remaining modules.

## **DTU** Tab

The DTU tab is used for logging DTU signal quality only. The output for the data log will be posted in a different folder for each specific Controller Serial Number under \ My Document \TSA Upgrade Tool with a filename of DTU Status Log.

TSA Upgrad	le Tool (476	62) 1.2.8.4762 🛛 🔀
Connection parame Address: 192 Password: S	eters . 168. 168. 168 ave Setup and Datab	Port: 80
<u>I</u> dentification <u>S</u> ystem Serial N <u>E</u> thernet A Controller Serial N Console	umber: 200912F9 ddress: 00:12:27:00: umber: 14-9004-C50 Type: T5 Series	12:F9 13:0000-FD Upgrade Mode: No
<u>R</u> egistration	<u>F</u> irmware DTU	Setup Database VRM
Remote DTU	Current Version	Quality 🔼
1 2 3 4 5 6 7 8 9 9 10	0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7 0.9.7	100 100 100 100 100 100 100 100 100 100
Refresh	Start Continu	ious 🛛 every 2 sec 💌 🗖 Log
Status: Ready		

Refresh will display the last DTU signal quality status data.

Start Continuous will stream the data.

Append to Log will begin logging the data.

## Setup Tab

The setup tab is used to manually and automatically download the system setup. The TSA Upgrade Tool will download the setup automatically when you query a specific Controller Serial Number. The setup is saved to a different folder for each serial number in \My Documents\ TSA Upgrade Tool. The upgrade tool will only automatically download the setup file if the folder and file does not already exist. You can manually save the setup at any time you are connected to a console and make a comment about that setup file. It will also be saved in the same folder as the automatically saved setup using a date and time stamp for the file name.

Save will manually save the setup information.

Restore will upload the highlighted setup into the console.

Edit will allow you to edit the comment for the highlighted setup.

Delete will remove the highlighted setup.

## **VRM** Tab

The VRM tab is used to log A/L data for a site. The output for the data log will be posted in a different folder for each specific Controller Serial Number under \My Document\ TSA Upgrade Tool with a file name of VRM Status Log.

TSA Upgr	rade To	ol (4762)	) 1.2	2.8.4762	×
 □	arameters				
Address:	192.168.1	68.168	-	Port: 80	
Password:	****				1
1	🗸 Save Seti	up and Database		<u></u> u	ery
<u>S</u> ystem Ser	ial Number:	160091291			
Ethern	et Address:	00:12:27:00:12:9	91		
Controller Ser	ial Number:	14-3E8D-BC03-0	1000-B1	1	
Conground Sch		TE Casian			Ma
Lo	nsole Type:	1 D Deries		Upgrade Mode	
	1.0	ÍÍ.	ĩ	-	1
Registration	n   🔍 <u>E</u> irmv	vare   DTU   S	etup	Database VRM	
Fueling Point	Air Volume	Liquid Volume	A/L	Date	
1	2.2	0.0	0.24	2009-05-18 07:53	:50
3	2.2	13.2	0.20	2009-05-18 07:53	:50
4	2.7	0.0	1.04	2009-05-18 07:53	:50
5	2.4	11.3	0.22	2009-05-18 07:53	:50
6	2.4	0.0	0.22	2009-05-18 07:53	:50
Refresh		itart Continuous		every 2 sec 💌	☐ Log
Status: Re	ady				

Refresh will display the last A/L data.

Start Continuous will stream the data.

Log Transactions will begin logging the data.

## **Upgrade Notes**

- When the T5 console 4-20 mA module is upgraded the lines MUST be relearned if the current version is less than 0.5.3. Lines and SCM containments do not need to be relearned if it is 0.5.3 or greater.
- If you choose to upgrade all of the modules that are available for upgrade allow yourself enough time.
- Do not attempt to cycle power to the gauge or your computer until you see the status ready indication on the TSA Upgrade program.

# Recovering a Module (T5 Series Gauge Only)

If one or more of the modules indicates a flashing "run" light during an upgrade the recovery steps below should be used to recover the module.

#### **IMPORTANT NOTE:**

If more than one module has the flashing "green" run light, power down the console and remove all but one of the modules. Power the console back up and recover them one at a time. Modules should not be re-inserted with power supplied, power down the unit each time modules are added. The recover program will not find multiple modules to recover.

If there are multiple modules flashing green, then all of the offending modules, with the exclusion of one, need to be removed. The one remaining offending module can then be recovered via the following methods. Afterwards reinstall each module one by one recovering each in turn.

You will need to type in "recover" in the address bar after the 2<sup>nd</sup> forward slash

#### Ex. <u>http://ip address/recover</u>

This will recover the module that has been lost during an upgrade. Recover screen is shown below.

1. Click the browse button.

♦ FFS T5 Series - Recover	🔓 🖛 🔂 🖛 🖾 👘 🐨 Safety 🖛 Tools 🕶 🕢 🖛
Stripes #7325 - Administrator access level	xmi <b>en</b> es pt ru fr hi pl sk de zh_CN zh_TW (en)
Franklin Fueling Systems	Recover
System FMS VRM Setup Preferences	Recover Reboot
Status Alarms Reports Configuration Registration Diagnostic Tools About XML Recover	09/13/2010 15:50:48
Warning: System may not function normally during upgrade process. All testing and dispensing may be interrupted.	
Parameters	
Source File Name	Browse

- 2. Open the software version folder labeled T5Sxx (xx = software version).
- 3. Open up the Firmware folder

Organize ▼ Include in library ▼ Favorites Desktop Downloads Recent Places Libraries Documents Music Pictures	Share with ▼     Burn     New folder       Name     ▲       Image: Strate in the second	Date modified 6/9/2010 2:05 PM 6/9/2010 2:05 PM 2/4/2010 12:27 PM 2/4/2010 12:27 PM 2/4/2010 12:29 PM	Type File folder File folder Setup Information Text Document	Size 1 KB
<ul> <li>★ Favorites</li> <li>▲ Desktop</li> <li>▲ Downloads</li> <li>▲ Recent Places</li> <li>➢ Libraries</li> <li>☑ Documents</li> <li>▲ Music</li> <li>▲ Pictures</li> </ul>	Name  Firmware  Registration  AUTORUN  ConsoleTypes  Gip  sign  si	Date modified 6/9/2010 2:05 PM 6/9/2010 2:05 PM 2/4/2010 12:27 PM 2/4/2010 12:27 PM 2/4/2010 12:29 PM	Type File folder File folder Setup Information Text Document	Size 1 KB
<ul> <li>Desktop</li> <li>Downloads</li> <li>Recent Places</li> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>Pictures</li> </ul>	<ul> <li>imware ◄</li> <li>Registration</li> <li>AUTORUN</li> <li>ConsoleTypes</li> <li>gzip</li> <li>iconv.dll</li> </ul>	6/9/2010 2:05 PM 6/9/2010 2:05 PM 2/4/2010 12:27 PM 2/4/2010 12:27 PM 2/4/2010 12:29 PM	File folder File folder Setup Information Text Document	1 KB
<ul> <li>Downloads</li> <li>Recent Places</li> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>Pictures</li> </ul>	Registration ConsoleTypes Gip	6/9/2010 2:05 PM 2/4/2010 12:27 PM 2/4/2010 12:27 PM 2/4/2010 12:29 PM	File folder Setup Information Text Document	1 KB
<ul> <li>Recent Places</li> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>Pictures</li> </ul>	<ul> <li>AUTORUN</li> <li>ConsoleTypes</li> <li>gzip</li> <li>iconv.dll</li> </ul>	2/4/2010 12:27 PM 2/4/2010 12:27 PM 2/4/2010 12:29 PM	Setup Information Text Document	1 KB
Libraries Documents Music Pictures	<ul> <li>ConsoleTypes</li> <li>gzip</li> <li>iconv.dll</li> </ul>	2/4/2010 12:27 PM 2/4/2010 12:29 PM	Text Document	
<ul> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>Pictures</li> </ul>	🐓 gzip 🚳 iconv.dll	2/4/2010 12:29 PM		1 KB
<ul> <li>Documents</li> <li>Music</li> <li>Pictures</li> </ul>	🚳 iconv.dll		Application	67 KB
🎝 Music		2/4/2010 12:29 PM	Application extens	868 KB
Pictures	🚳 libeay32.dll	2/4/2010 12:29 PM	Application extens	992 KB
	🚳 libxml2.dll	2/4/2010 12:29 PM	Application extens	954 KB
🛃 Videos	🚳 msvcr71.dll	2/21/2003 3:42 AM	Application extens	340 KB
	🚳 msvcrt.dll	4/14/2008 5:42 AM	Application extens	335 KB
🖳 Computer	sqlite3	2/4/2010 12:29 PM	Application	507 KB
🚢 Local Disk (C:)	sadownloadclient	2/4/2010 12:35 PM	Application	292 KB
🚽 madison (\\fe50data) (F:)	TSAUpgradeTool	2/4/2010 12:29 PM	Application	1,115 KB
	TSAUpgradeTool	2/4/2010 12:27 PM	Icon	1 KB
🙀 Network	tsauploadclient	2/4/2010 12:35 PM	Application	311 KB
	sawsclient	2/4/2010 12:36 PM	Application	294 KB
	Version	3/29/2010 4:58 PM	Text Document	1 KB
	🚳 zlib1.dll	2/4/2010 12:29 PM	Application extens	72 KB

4. Open up the lavina-ppc folder

And Address of the						x
C C < ↓ T 551415174 → Fi	irmware 🕨	<b>√</b> ∮j	Search Firmware			٩
Organize 🔻 🛜 Open 🛛 Inc	lude in library 🔻 Share with 👻 Burn	New folder				0
☆ Favorites	Name	Date modified	Туре	Size		
🧮 Desktop	퉬 lavina-bric	6/9/2010 2:05 PM	File folder			
🐌 Downloads	\mu lavina-ppc	6/9/2010 2:05 PM	File folder			
🖳 Recent Places						
🚍 Libraries						
Documents						
J Music						
📔 Pictures						
📑 Videos						
Computer						
Local Disk (C:)						
🕎 madison (\\fe50data) (F:)						
👽 Network						
lavina-ppc Date modifi File folder	ied: 6/9/2010 2:05 PM					
111					_	

5. Upload the appropriate file that corresponds with the module that needs to be recovered.

Organize 🔻 Include in library	✓ Share with ✓ Burn New fol	der		
☆ Favorites	Name	Date modified	Туре	Size
No. 10 Desktop	퉬 cm-0.5.11	6/9/2010 2:05 PM	File folder	
\rm Downloads	anaau-0.9.8.s19	8/5/2009 9:29 AM	S19 File	
💷 Recent Places	cm-0.5.2.47.webupdate.bin	8/30/2006 3:50 PM	BIN File	
	cm-1.4.1.5174.bin	3/29/2010 4:51 PM	BIN File	1
🥽 Libraries	dhiau-0.9.0.s19	5/1/2007 1:08 PM	S19 File	
Documents	gioau-0.9.0.s19	5/1/2007 1:09 PM	S19 File	
👌 Music	plcau-0.9.8.s19	4/2/2009 9:30 AM	S19 File	
Pictures	prtau-0.9.3.s19	4/16/2008 11:58 AM	S19 File	
📑 Videos	pwrau-1.0.4.s19	1/8/2010 9:31 AM	S19 File	
	rlyau-0.9.0.s19	5/1/2007 1:12 PM	S19 File	
👰 Computer	sn2au-0.9.0.s19	5/1/2007 1:12 PM	S19 File	
🚢 Local Disk (C:)	sn3au-0.9.0.s19	5/1/2007 1:13 PM	S19 File	
🖵 madison (\\fe50data) (F:)	vrmau-0.9.2.s19	4/29/2008 11:54 AM	S19 File	

**NOTE:** Depending on what software version you downloaded, some software versions referenced below may change. The latest version of software is always available online at www.franklinfueling.com anaau-0.9.8.s19 = 4-20ma Module (both intrinsically safe and explosion proof) cm-1.4.1.5174.bin = Controller Module dhiau-0.9.0.s19 = AC Input Module gioau-0.9.0.s19 = Input/Output Module plcau-0.9.8.s19 = Display Module prtau-0.9.3.s19 = Printer Module pwrau-0.9.8.s19 = Power Supply Module rlyau-0.9.0.s19 = Relay Module sn2au-0.9.0.s19 = 2 Wire Sensor Module sn3au-0.9.0.s19 = 3 Wire Sensor Module vrmau-0.9.2.s19 = Probe Module FFS T5 Series - Recover 🐴 🔻 🔝 👻 🖃 🖶 👻 Page 🔻 Safety 👻 Tools 🕶 🔞 💌 Stripes #7325 - Administrator access level xml **en** es pt ru fr hi pl sk de zh CN zh TW (en) Franklin Fueling Systems Recover

C:\Users\mclam01\Desktop\T5S1415174\Firmware\lavina-ppc\cm-1.4.1.5174.bin

This will recover the module and the run light will stop blinking and return to solid once complete. Recover process per module will take the same amount of time as an upgrade so be patient and do not stop communication prior to recovering.

If you have questions about this procedure, contact Franklin Fueling Systems Technical Support at 800-984-6266.

Select the corresponding file and then click recover in the upper right hand side on the screen next to reboot.

Recover Reboot

09/13/2010 15:50:48

Browse...

System FMS VRM Setup Preferences

Source File Name

Status Alarms Reports Configuration Registration Diagnostic Tools About XML Recover

Warning: System may not function normally during upgrade process. All testing and depensing may be interrupted. Parameters Page intentionally blank



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