

<b>Trotter Controls, Inc. FORT WORTH, TEXAS</b>	<b><u>ENGINEERING REPORT</u></b>		NUMBER <b>0093</b>	REVISION
TITLE Software Version History Log - GEN II FRDS	BY	CHK'D	MODEL	
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**Overview**

This Engineering Report provides a list of FRDS software revisions by version number, along with the operational changes made to each revision of the software.

**References**

Item	Document	Company
1	9001-0012, GEN II FRDS Operator's Manual	Trotter Controls, Inc.
2		

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**PURPOSE:**

This report is to document changes in the GENII Fire Retardant Delivery System (FRDS) Software. These changes may not be fully described in the operations manual. Only changes that affect operation by the pilot or support personnel are included here.

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**VERIFING CURRENT VERSION INSTALLED:**

**MAIN SOFTWARE**

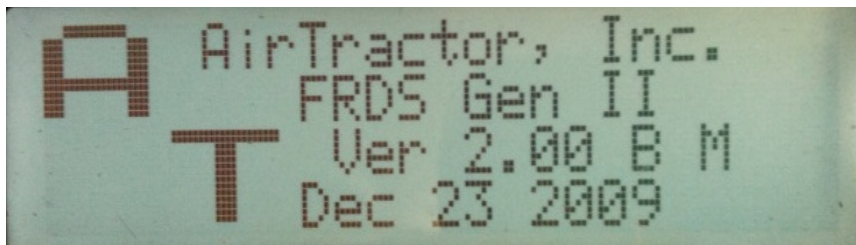
To determine the version of main software running on the FRDS system, examine the startup boot screen (displayed immediately after power-up) as shown in Figure 1 and 2.

Figure 1 shows Version 1.09 created on Mar 17 2009, as displayed on a VFD (vacuum fluorescent) display.



**Figure 1**

Figure 2 shows Version 2.00 (beta) created on Dec 23 2009, as displayed on an LCD display.



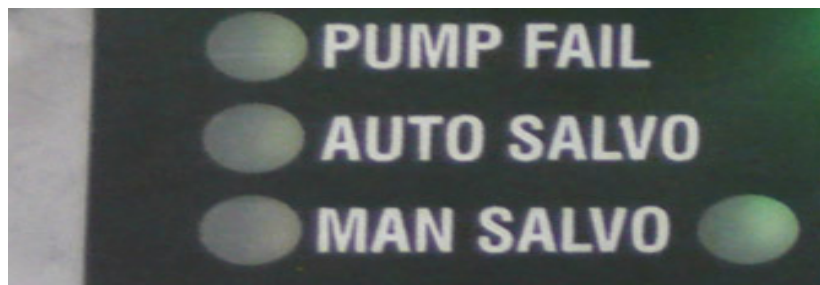
**Figure 2**

*Note: Logo and Version may differ from what is shown.*

**SUPERVISOR SOFTWARE**

To determine the version of the supervisor software running on the FRDS system, observe the "AUTO SALVO" LED when main power is first applied to the FRDS system. Count the flashes, any flash counts after five indicates version number. Version 1 is identified by the "AUTO SALVO" LED flashing 6 times just after startup.

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**Figure 3**

**OBTAINING UPDATE VERSION TO INSTALL:**

Contact Trotter controls for latest software version available. These are available as code uploaded by service personnel with a properly configured PC with Microchip software or by using a stand-alone field programming unit.

*Note: Supervisor software is not field-upgradeable.*

**BRIEF VERSION HISTORY - MAIN SOFTWARE:**

The release version is in chronological order here.

Many versions of software were released during initial testing and product development. These were versions 1.00 thru 1.12 and were never released on production aircraft.

1.13 was the primary release version when first GENII equipped aircraft delivery was delivered. This version is where this document begins tracking changes. All units in the field have been upgraded to V1.14 or higher.

**BRIEF VERSION HISTORY - SUPERVISOR SOFTWARE:**

No revisions have been made on this software since the initial product release. This is the only version released on production aircraft.

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The "AUTO SALVO" LED flashing 6 times just after startup identifies version 1.0... It is not likely that a revision will be required. If a revision of the software is made in the future, the LED flash count will go up to indicate that the supervisor software has been revised.

**VERSION WARNING:**

Units running Version 1.15 or previous should be updated to take advantage of new features and diagnostics. Contact Trotter Controls, Inc. for options.

**LATEST VERSION - MAIN SOFTWARE:**

The release version is in reverse chronological order here.

**2.00 (Beta)**

- Still in beta release.
- Primary release version required for LCD based GENII Systems.
- Auto detects the type of display being used with the system (either LCD or VFD).
- Timer mode now defaults to "1 second" and "Pilot".
- Air Tractor logo changed.
- EEPROM no longer contains any persistent error codes
- Manuals have been updated to match this version of software
  - o 9001-0011, Revision D ~ GENII FRDS Maintenance and Troubleshooting Manual
  - o 9001-0012, Revision D ~ GEN II FRDS Operators Manual, Trotter Controls, Inc.

**1.16**

- Final Version 1 release. All subsequent releases will be version 2.00 or greater unless version 1 software was customized for a specific client.
- SysTest screen shows the calculated gate speeds for each of the six valves after a successful SysTest Valve Connection test.
- The SysTest Hydraulic Pump Pressure Limit test now shows the different limits for turning the pump on depending on whether the ARMED switch is on or off.

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### 1.15

Units running this software version or previous should be updated.

- Main screen twist/push system for selecting coverage level and gallons-to-dump changed to ease operation and reduce pilot required input, this system is much faster (and easier) for the pilot to select and change the coverage level and gallons to dump.
- At the end of a successful Pilot SysTest (either Pilot(ALL) or Pilot(no doors)), the message "ALL SYSTEMS PASSED" is displayed. The text "[YES] [NO]" is also displayed, indicating that the pilot can dismiss the message by pressing either YES or NO.

### 1.14

Units running this software version or previous should be updated

- Hydraulic pump is now turned on at two different hydraulic pressure (psi) values depending on whether the ARMED switch is on or off.

### 1.13

Units running this software version or previous should be updated

- Primary release version.
- Original manual and supporting documentation was written to coincide with this version.