SERVICE LETTER 266

MVP-50T Installs on Fire Boss

Aircraft Makes/Model(s):	Float Model(s):	**Compliance:** Mandatory	**By:** MAS
Air Tractor	Wipaire Fire Boss Conversion	**Part Number:** 1012636	**Approved:**DRH
AT-802 & AT-802A	(10000A Floats & Landplane)	**Date:** 1/5/2026	**Revision:** E

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	10/28/2024
B	Full rewrite of service letter.	1/6/2025
C	Added description of functionality, added N_g alert, added optional removal of engine power light.	2/19/2025
D	Updated Work Instructions, added image, renumbered steps to configure ITT & Torque to alert on redline only.	4/11/2025
E	Changed M1 to N1 in Step 9 in Work Instructions Part C.	1/5/2026

FAA approval has been obtained for technical data in this publication that affects STC or TSO design compliance.

EFFECTIVITY:

This service letter applies to Air Tractor models AT-802 & AT-802A with Wipline 10000 amphibian floats and Fire Boss converted landplanes installed per STC SA01795CH with an MVP-50T installed.

COMPLIANCE:

Mandatory compliance

BACKGROUND:

Fire Boss converted AT-802 and AT-802A aircraft per STC SA01795CH have implemented engine audible and visible annunciations. This annunciation is activated when the engine torque or ITT parameters exceed their red line values. These values are configured according to the engine variant. Newly manufactured AT-802 and 802A aircraft can be equipped with the Electronics International MVP-50T. The installation of the MVP-50T eliminates the appropriate ITT connection point for the Wipaire installed engine annunciation.

To maintain the same level of annunciation between aircraft with and without the MVP-50T, the audio capabilities of the MVP-50T must be installed and enabled to allow audio alerts for ITT and engine torque. This service letter describes the procedures for enabling this functionality on the MVP-50T and adds an additional alert for N_g. This service letter also removes the associated aural and visual alerts previously installed per STC SA01795CH (this functionality is provided by the MVP-50T alert audio and the MVP-50T Master Warning and Caution Lights.

FUNCTIONALITY:

After completion of this service letter, the MVP-50T will provide an aural "Check Engine Power" warning when N_g, ITT, and engine torque reaches a red operating limit. A momentary acknowledge switch will silence the MVP-50T audio alerts for 1 minute.

The MVP-50T Master Warning and Caution Lights provide a heads-up visual warning. The red Warning Light will blink any time the operating level of any monitored function reaches a red operating limit and the yellow Caution Light will blink any time the operating level of any monitored function reaches a yellow operating limit. Pushing any MVP-50T button, or rotating or pushing the Select knob will acknowledge the blinking. Acknowledging a yellow blinking display will cause the yellow Caution Light to go out. Acknowledging a red blinking display will cause the red Warning Light to stop blinking and go solid red. Any time another function reaches a red and/or yellow operating limit the Caution or Warning Light will once again blink.

Aural and visual warnings can be extinguished by remedying the over limit condition.

COMPLIANCE METHOD:
Configure the audio annunciations for the MVP-50T as described in the work instructions of this service letter.

APPROXIMATE SHOP HOURS:

The following breakdown shows approximate shop hours for each phase of instructions.

Shop Hours	
Task	Hours
Part A	2
Part B	8
Part C	2
Total hours	12

WARRANTY INFORMATION:
This service letter includes warranty for parts provided by Wipaire. Contact Wipaire customer support for labor considerations.

TECHNICAL DATA:
Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at www.wipaire.com.

HARDWARE UPDATE:
Older models of the MVP-50T (Serial numbers 190500 and prior) will require a software update to enable audio functions. Please contact Electronics International with unit serial number and Hardware ID to determine upgrade applicability. Electronics International will be responsible for performing these upgrades. The following work instructions will only cover procedures with an MVP-50T unit that has been updated with audio capability.

ELECTRONICS INTERNATIONAL CONTACT INFORMATION
David Primmer

Electronics International

Support@iFlyEi.com

(541) 318-6060

KIT CONFIGURATIONS	
KIT NUMBER	DESCRIPTION
1012636-01	MVP-50T AUDIO UPDATE KIT, AT802A SINGLE SEAT
1012636-02	MVP-50T AUDIO UPDATE KIT, AT802 DUAL SEAT

ITEMS PROVIDED IN SERVICE KIT				
ITEM	QTY -01	QTY -02	PART NUMBER	DESCRIPTION
1	5 FT	5 FT	27500-22TG1T14	22 AWG SINGLE CONDUCTOR, SHEILDED WIRE
2	3 FT	3 FT	22759-16-22-9	WIRE, 22 AWG, WHITE
3	4	4	205089-1	D-SUB CONN PIN, 20-34 AWG GOLD CRIMP
4	2	2	02-06-2103	MOLEX CONN PIN, 18-24 AWG CRIMP TIN
5	1 FT	1 FT	3635W-1/8-0	HEAT SHRINK, ADHESION LINED, 1/8 IN
6	1	2	PGM-3	NYLON BLACK, HOLE PLUG 0.468"
7	1	2	7B3-4400-26	PLACARD, ASYMETRICAL SCOOP
8	1	2	7B3-4400-15	PLACARD, WATER IN FLOAT
9	1	1	A208SYCB04	MOMENTARY SWITCH
10	1	1	1012707	PLACARD, ACKNOWLEDGE
11	1	1	1012708	PLACARD, VOICE ALARM
12	1	1	1012709	AUDIO FILE (CONTACT WIPAIRE CUSTOMER SUPPORT)
13	1	1	1012729	PLACARD, ENGINE TORQUE

REQUIRED TOOLS AND CONSUMABLES	
ITEM	DESCRIPTION
1	SOLDERING IRON
2	PHILLIPS HEAD DRIVER
3	DRILL WITH ¼" DRILL BIT
4	SOLDER
5	HEAT GUN
6	WIRE CUTTER/WIRE STRIPPER
7	D-SUB PIN REMOVAL TOOL*
8	AD-1377 OR SIMILAR SPECIFIED CRIMP TOOL
9	D-SUB CRIMP TOOL
10	MOLEX CRIMP TOOL
*Optional equipment	

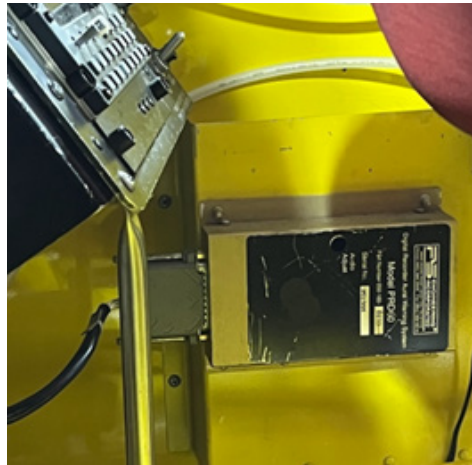# Work Instructions Part A – Removing Old Annunciations

Work Instruction Notes:

Removal of the engine power aural annunciations from the Wipaire installed systems is required when utilizing the aural annunciations from the MVP-50T. Removal of the Engine Power visual indicator is optional, however it must be re-placard to "Engine Torque."
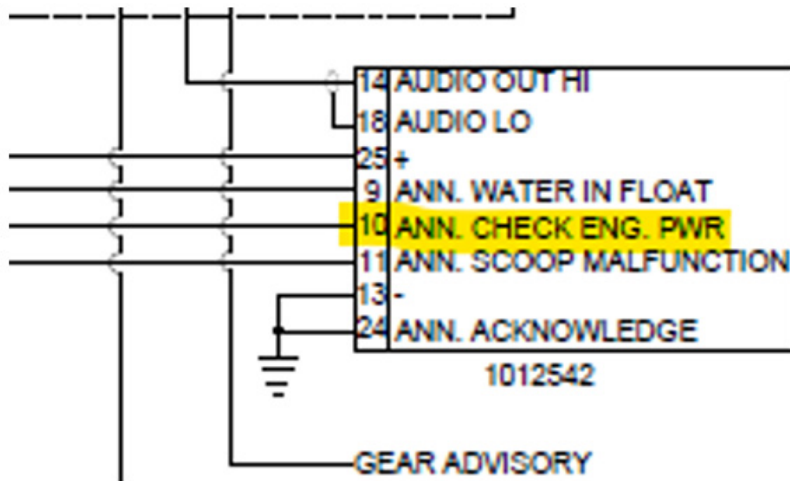
For ease of access for all work instructions, remove the top panel of the glare shield.
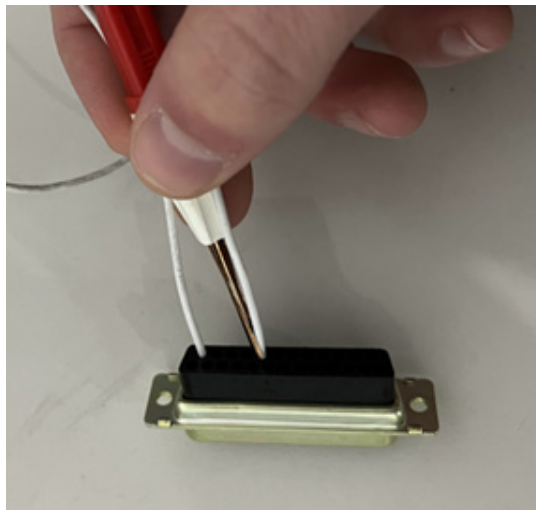

1. Locate the PRD-60 voice annunciation box.

2. Disconnect the 25 pin D-Sub connector from the PRD-60 voice annunciation box and locate the Check Engine Power input, pin 10.

3. Using a D-Sub pin removal tool, remove the Check Engine Power pin from the D-Sub connector. Once removed, properly cap and stow the wire. If a pin removal tool is not available, cut the wire and properly cap and stow both ends.

4. Locate the Engine Power light on the aircraft panel. **Skip to step 8 if keeping the Engine Power light installed.

5. From the backside of the light, undo the connector on the wire tail labeled "EXCESS POWER". Remove the nut on the backside of the light and remove the light assembly with the wire tail. **Optional, see step 8.

6. Properly stow the opposite wire lead. Place the nylon hole plug (Item 6) in place of the light assembly. Remove the ENGINE POWER placard and replace it with the new placards (Item 7, Item 8). **Optional, see step 8.
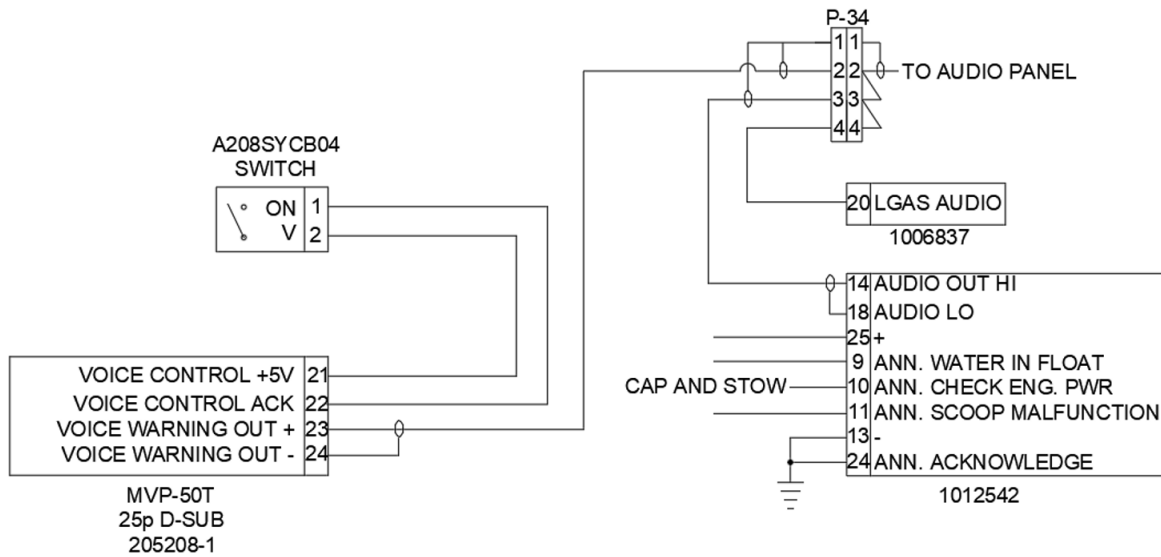

7. For AT802 two seaters, repeat steps 4-6 with the backseat panel. **Optional, see step 8.

8. **If keeping the Engine Power light installed, remove the ENGINE POWER placard and replace it with the ENGINE TORQUE placard (Item 13).

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Work Instructions Part B – Wiring and Installation
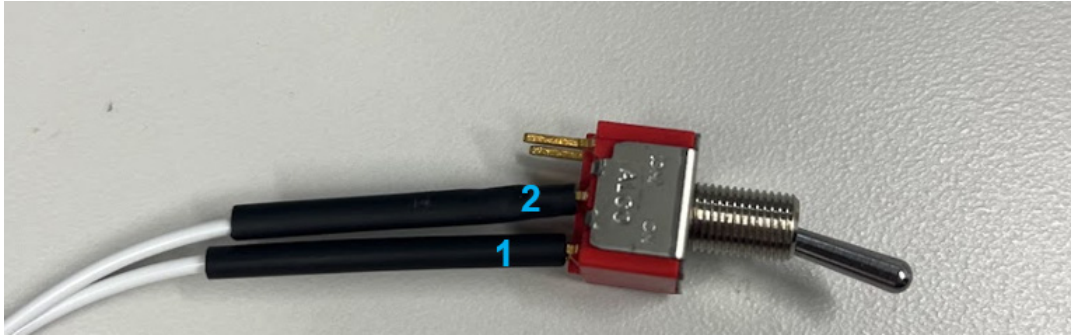
Work Instruction Notes:

Reference the following wire schematic for the following instructions.

1. Locate and remove the MVP-50T 25 pin D-sub connector. For ease of access, it may be beneficial to remove the MVP-50T display from the panel by removing the four Philips head screws that secure the display to the panel.
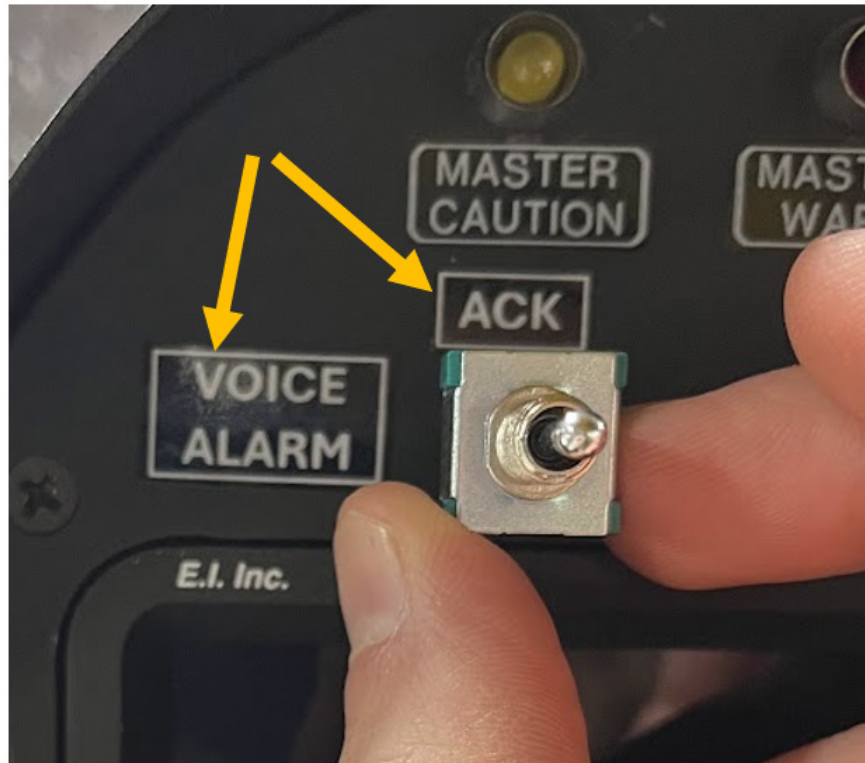
2. Unless already installed, wire the Voice Warning Out + (pin 23) into the MVP-50T D-sub connector using a male D-sub pins (Item 3) and shielded wire (Item 1, cut to length). Wire the Voice Warning Out – (pin 24) to the wire shield. (See wiring schematic)

3. Using the provided Molex crimp (Item 4), wire the Voice Warning Out + wire from the MVP-50T into the open pin 2 position on the P34 connector. Both the PRD60 and Wipaire LGAS will have audio outputs going to the same connector. Crimp the wire shield from the PRD60 and MVP-50T together and insert into position 1 on P34. (See wiring schematic)

4. Using 22AWG wire, (Item 2, cut to length) solder the audio acknowledge pins 21 and 22 to pins 1 and 2 on the provided momentary switch (Item 9). Use the heat shrink (Item 5, cut to length) to secure the wires to the switch.

5. Near the Master Caution or Master Warn light, locate a space to install the supplied momentary switch and placards. Ensure ample space to install both switch and placards in proper orientation. Drill a 1/4-inch hole and install the switch with the provided hardware.

6. Install the "VOICE ALARM" and "ACK" placards (Item 10, Item 11) as shown in the image below.

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Work Instructions Part C – MVP-50T Audio Configuration

Work Instruction Notes:

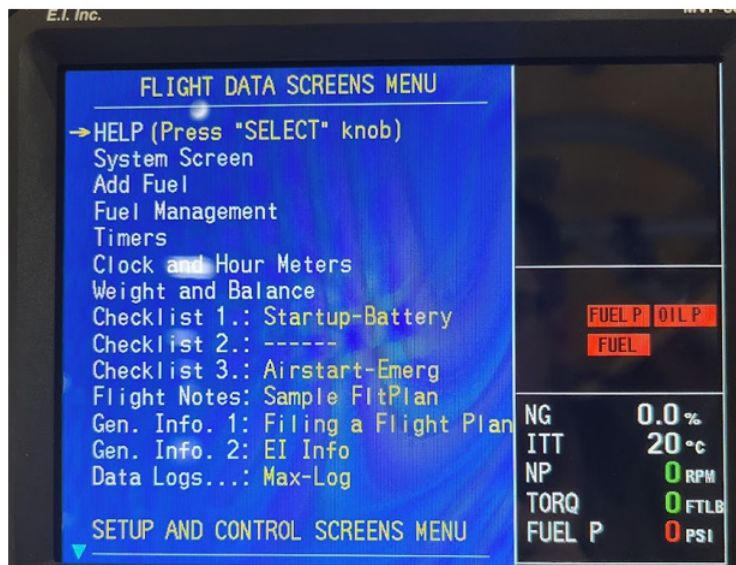Contact Electronics International prior to these instructions to request a second level passcode.
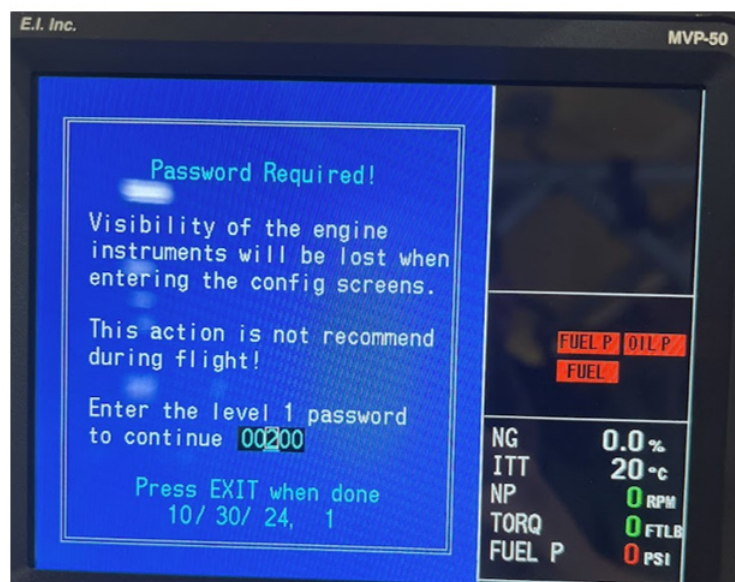
David Primmer

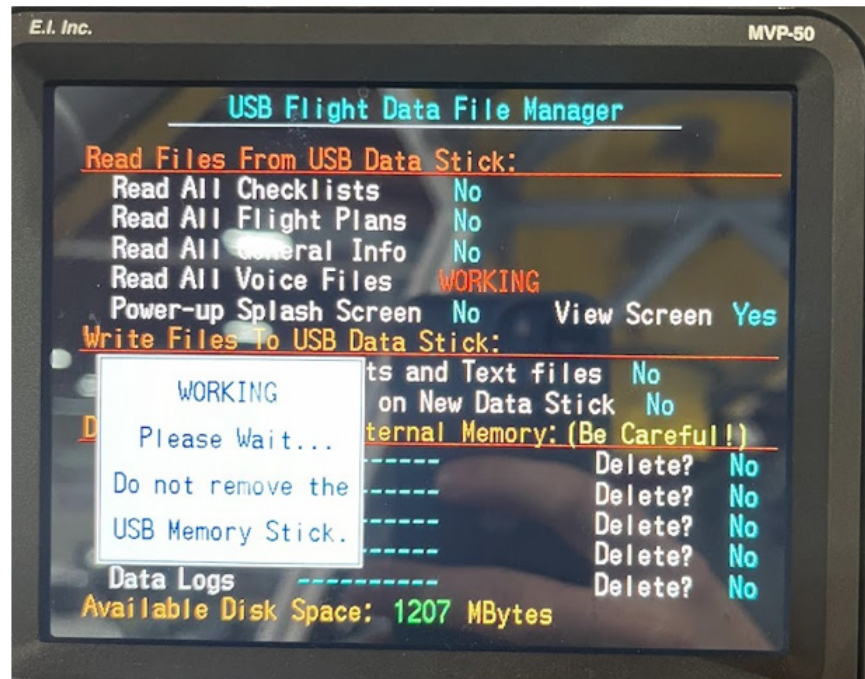Electronics International

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1. Obtain a USB flash drive and upload audio file 1012709 (Item 12) to the flash drive. Follow the 1012709 instructions if required to format the USB flash drive.

2. Insert the USB flash drive (Item 12) in the USB port on the front of the MVP-50T. Power on the MVP-50T and navigate to the settings menu by pressing the "Menu" button.
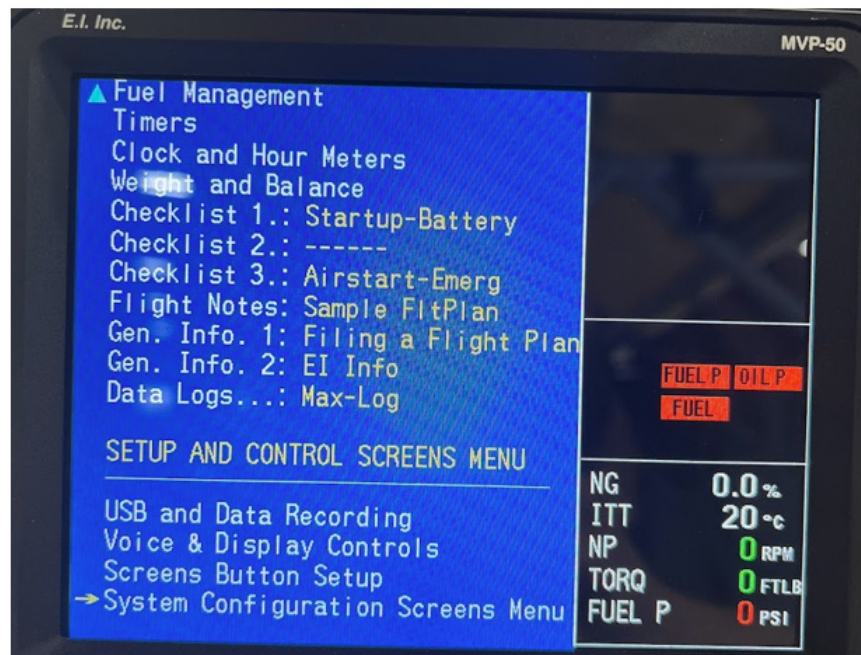

3. Scroll down and select "System Configurations Screens." Then select the "USB and Data Recording" menu. If prompted to enter a password, enter either 00100, 00200, or the aircraft serial number. Press "EXIT" when password is entered.
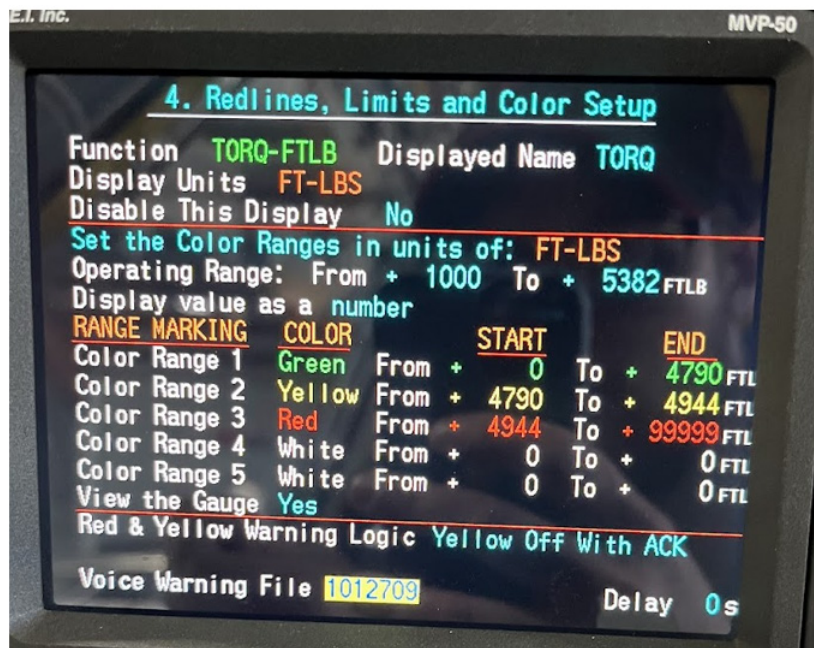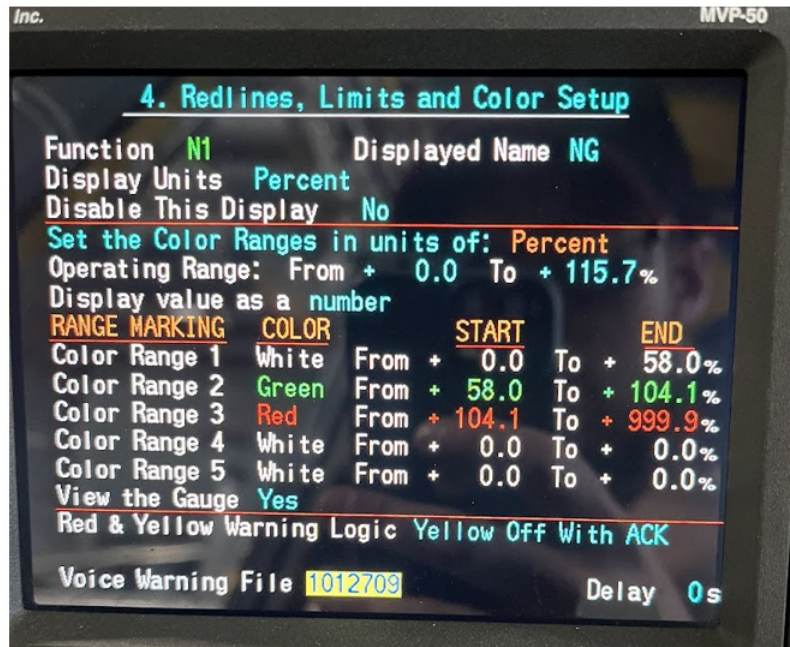
4. From the USB Flight Data File Manager screen, scroll down to the "Read All Voice Files" option and select "Yes". DO NOT power off the MVP-50T or remove the USB flash drive until the process is complete.
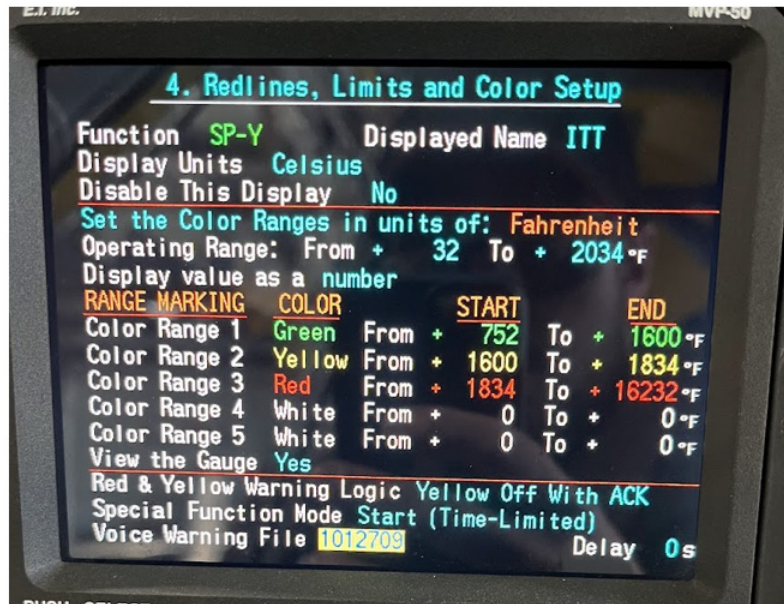

5. To test the audio file, exit to the main settings page again and select "Voice and Display Controls".

6. On the "Voice and Display Controls" screen, scroll down to select voice file to test. The name of the Wipaire voice file will be 1012709. Once selected, select "Yes". Voice file should play and be clear and audible.

7. To configure the audio file to play during torque and ITT exceedance, navigate to the main settings page and select the "Systems Configuration Screens Menu." If prompted to enter a password, enter either 00100, 00200, or the aircraft serial number. Press "EXIT" when password is entered.
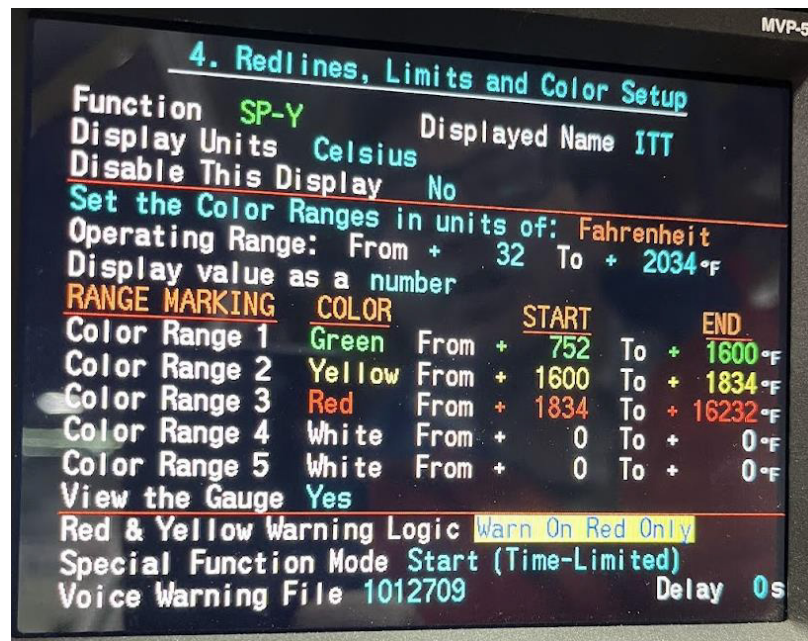
8. From the System Configuration Screens Menu, scroll down and select the "Redlines, Limits and Color Setup".

9. For ITT (may be shown as SP-Y), N_g (may be shown as N1), and Torque functions (may be shown as TORQ-FTLB), select the Wipaire "1012709" as the Voice Warning file. **DO NOT** change any other parameters on these screens. The MVP-50T will prompt you to enter the second level passcode received from Electronics International at the beginning of these work instructions.

10. For ITT and Torque functions ONLY, select the "Red & Yellow Warning Logic" options and select "Warn on Red Only." **DO NOT** change any other parameters on these screens. The audio annunciations and Master Warning Light will activate only in the red range. The Master Caution Light will not activate; however, the MVP will still provide a yellow indication on screen.

11. When complete, exit all settings screens and power off the MVP-50T.

Functional Test *Optional

If the correct test equipment is available, simulate an over-torque condition and an ITT exceedance condition. Verify that the audio files play while either parameter is at or above the set redline limit. Also verify that the "acknowledge" switch is functional and silences ALL audio alerts for 1 minute.

Aircraft Closing & Return to Service

Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 266.