ECCN 9E990

Aeronautical ACCESSORIES™
450 INDUSTRIAL PARK RD, PINEY FLATS,
TENNESSEE 37686-4419 USA
TELEPHONE: 423-538-5151 TOLL FREE: 800-251-7094
TELEFAX: 423-538-8469 E-MAIL: sales@aero-access.com
techsupport@aero-access.com

Technical Bulletin

TB No. AA-15029
No Revision
August 19, 2015

SUBJECT: 212/412/412EP BHVM Upgrade

PARTS AFFECTED: **Bell Helicopter Vibration Monitor (BHVM) Kit**
P/N 212-262-001 / 412-262-001 / 412-262-002
Bell Helicopter Vibration Monitor (BHVM) Kit with SmartCycle+
P/N 212-262-002 / 412-262-003 / 412-262-004

MODELS AFFECTED: Bell Helicopter Textron Inc model 412 and 412EP helicopters with subject BHVM Kit installed in accordance with FAA STC SR09373RC.

Bell Helicopter Textron Inc model 212 helicopters with subject BHVM Kit installed in accordance with Transport Canada STC SH09-36 or FAA STC SR02818NY.

COMPLIANCE: Compliance with all, or part, of this bulletin is per Customer's option.

DESCRIPTION: This Technical Bulletin is being issued to allow the owner to upgrade their BHVM kit to:

Part 1: the current software configuration setup version:

V4.1 SP4A - V44 – (for non FastFin 212, 412, 412EP)

V4.1 SP4A - V45 - (for 212, 412, 412EP w/FastFin installed)

Part 2: remove the disconnect on the Tail Rotor Bracket Assembly to eliminate corrosion.

Part 3: relocate the upper mast accelerometer for more accurate data collection (FOR 412, 412EP ONLY).

FAA/ODA APPROVAL: The engineering aspects of this Technical Bulletin are FAA/ODA approved.

MANPOWER: Approximately 5.0 man-hours.
(Man-hours are based on hands-on time and may vary with personnel or facilities available).

IF OWNERSHIP OF AIRCRAFT HAS CHANGED, PLEASE FORWARD THIS BULLETIN TO NEW OWNER

LOG OF REVISIONS

Date	Revision	Description	Affected Pages
08/19/15	NR	Original Release	All

Reviewed:

Engineering

1.0 MATERIALS REQUIRED

1.1 Part 1: Upgrade of PC-GBS 4.1SP4A Configuration File (CSIF) v43 to v44 or v45

Label P/N 1209-3196-PF:

1. Material Type: Brady Label THT-17-425-3 or equivalent
2. Text Color / Font Size: Black / 9 point
3. Background Color: White
4. Dimensions: Per Figure 1

Label P/N 1209-3198-PF:

1. Material Type: Brady Label THT-166-424-2 or equivalent
2. Text Color / Font Size: Black / 9 point
3. Background Color: White
4. Dimensions: Per Figure 1

NOTE

In lieu of making labels, the following Upgrade Kit is available from Aeronautical Accessories.

**TABLE 1 - PARTS LIST,
412-262-060 UPGRADE KIT**

Qty	Part Number	Description	Figure
1	1209-3196-PF	Label	1
1	1209-3198-PF	Label	1

1.2 Part 2: Removal of disconnect on T/R Bracket Assembly

Part 3: Relocation of Upper Mast Accelerometer – (412 & 412EP ONLY)

**TABLE 2 - PARTS LIST,
412-263-002 UPGRADE KIT**

QTY	PART NUMBER	DESCRIPTION
1	MS21919WDG9	CLAMP
1	MS21919WDG8	CLAMP
1	MS21919WDG4	CLAMP
1	MS21919WDG2	CLAMP
4	MS35206-216	SCREW
4	MS27039-1-07	SCREW
1	NAS1801-3-9	SCREW
1	MS21042L5	NUT
1	MS21042L4	NUT
3	MS21042L3	NUT
4	MS21042L04	NUT
8	NAS1149DN416J	WASHER
1	NAS1149F0532P	WASHER
1	NAS1149D0532J	WASHER
1	NAS1149F0463P	WASHER
1	NAS1149F0416P	WASHER
5	NAS1149D0332J	WASHER
4	D-150-0174	SPLICE KIT, SHIELDED CABLE
24"	M27500-22TG2T14	22 GA, 2 COND SHIELDED WIRE
8"	ATUM-16/4-0	INSULATING TUBE
12"	M22759/41-22-9	WIRE-1 COND UNSHIELDED, 22AWG
1	412-367-123	BRACKET
1	412-365-121	BRACKET
1	412-362-125	COVER PLATE
6"	M23053/5-306-0	1/4" HEATSHRINK BLK
1	D38999/20WA35SA	CONNECTOR
48"	ATUM-12/3-0	INSULATING TUBE
4	M83519/1-3	SOLDER SLEEVE
6	M39029/56-348	SOCKET
1	412-263-101	BACKSHELL ASSEMBLY

2.0 WEIGHT AND BALANCE

Not affected

3.0 PUBLICATIONS AFFECTED

Model 212: Instructions for Continued Airworthiness, report AA-08032

Model 412, 412EP: Instructions for Continued Airworthiness, report AA-04049

4.0 ADDITIONAL INFORMATION

Any questions regarding this bulletin should be addressed to:

Aeronautical Accessories
Attn: Technical Support
450 Industrial Park Rd
Piney Flats, TN 37686-4419
Email: techsupport@aero-access.com
1-800-251-7094

5.0 ACCOMPLISHMENT INSTRUCTIONS:

PART 1 - INSTRUCTIONS FOR UPGRADING PC-GBS 4.1SP4A CONFIGURATION FILE (CSIF) V43 TO V44 OR V45

5.1 AIRCRAFT CONFIGURATION FILES

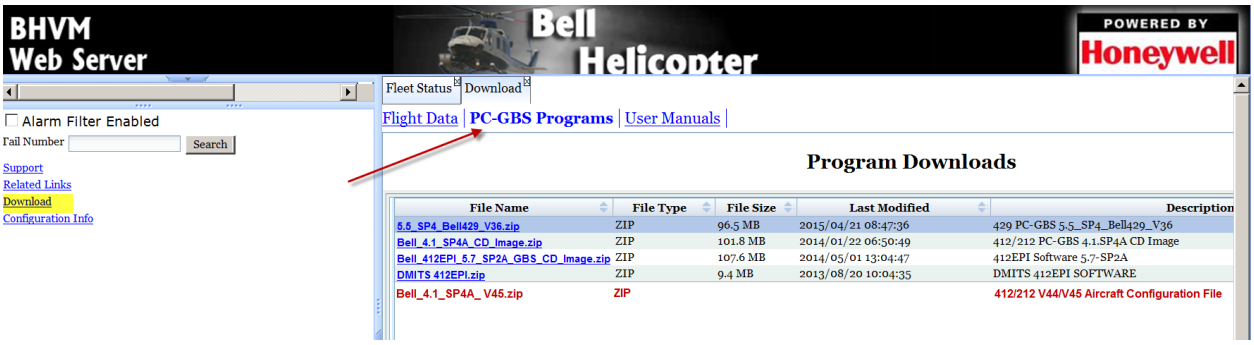
The following instructions are provided as a guide for upgrading the PC-GBS 4.1SP4A Configuration File (CSIF) from v43 to either v44 or v45. The table below describes the applicability of each configuration file.

NOTE
Installation of v44 is required prior to installing v45.

Version 43	Version 44	Version 45
Current released	New CI's thresholds for 412HG/412LG and 212 with tail rotor balance coefficients with Standard Vertical Fin	Same as V44 except new tail rotor balance coefficients for aircraft with Vertical Fin modified with FASTFIN.

5.2 SOFTWARE DOWNLOAD

1. Access BHVM web site at https://bhti-imds.iac-online.com.
2. Click on Download and choose "PC-GBS Programs".
3. Click on File Name, Bell 4.1 SP4A V45 Zip file and download to your desktop.

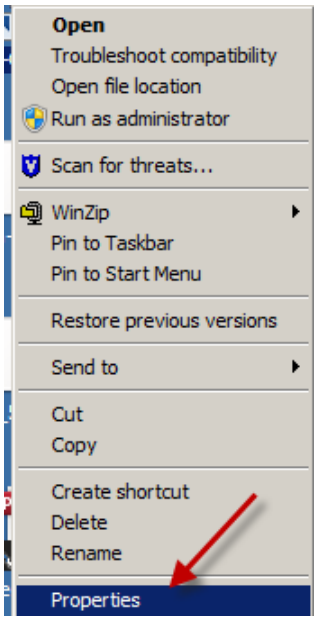


4. Create a new folder on Desktop called Bell 4.1 SP4A V45.
5. Unzip files Bell 4.1 SP4A V45.zip and extract them into the new folder you have just created.

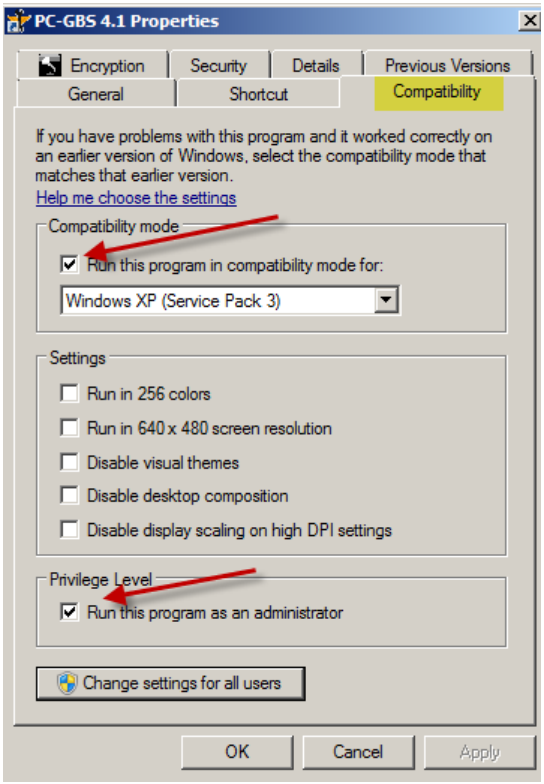
5.3 PC-GBS SOFTWARE WITH WINDOWS 7 COMPUTERS

This section applies to users operating Windows 7 Operating Systems.

1. Right click on PC-GBS icon on your Desktop and choose “Properties”.



2. In the PC-GBS Properties screen click on the “Compatibility Tab”.



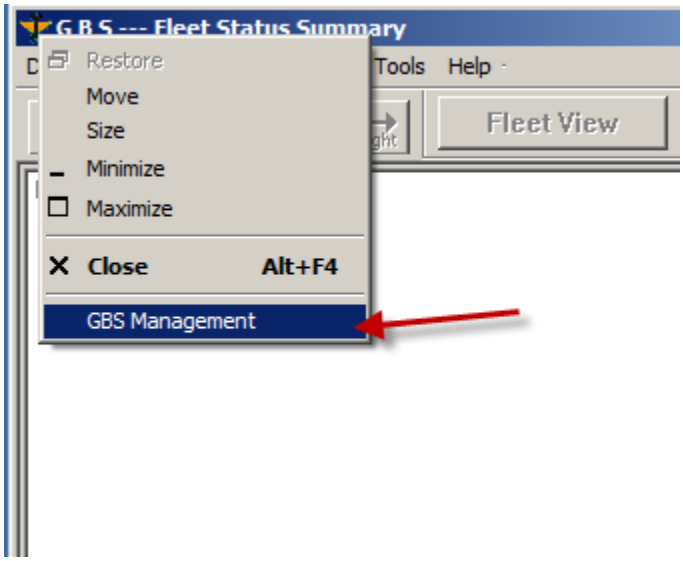
3. Check the following box.
   a. Run this program in Windows XP compatibility mode.
   b. Run this program as an administrator.

4. Click Apply then OK.

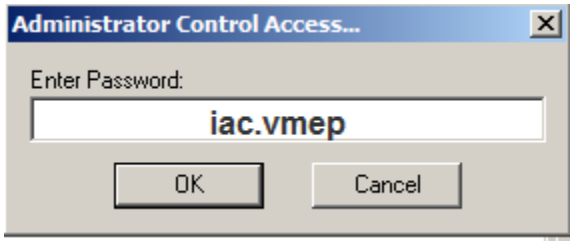
5.4 PC-GBS CONFIGURATION FILE VERSION 44 INSTALLATION

NOTE
Installation of v44 is required prior to installing v45.

1. Open PC-GBS.
2. Start the GBS management menu by right clicking on the GBS icon at the top left portion of the GBS title bar.

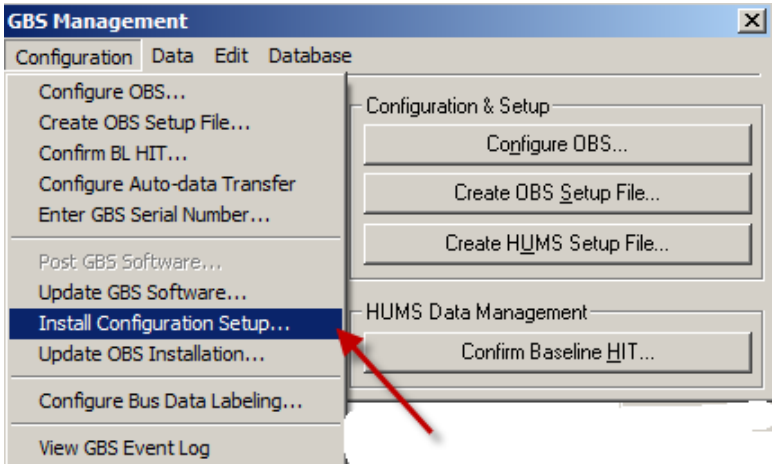


3. Enter password “iac.vmep.

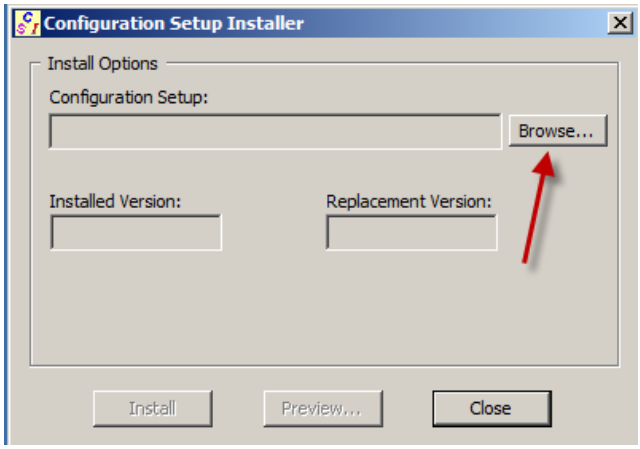


4. Click Ok.

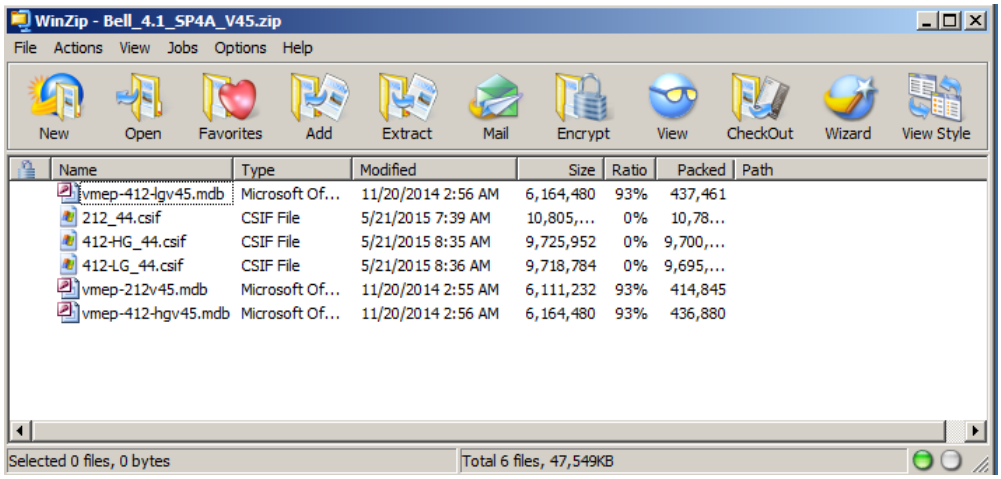
5. On the GBS Management screen click on “Configuration” and choose “Install Configuration Setup”.



6. On the Configuration Setup Installer screen Click “Browse”.

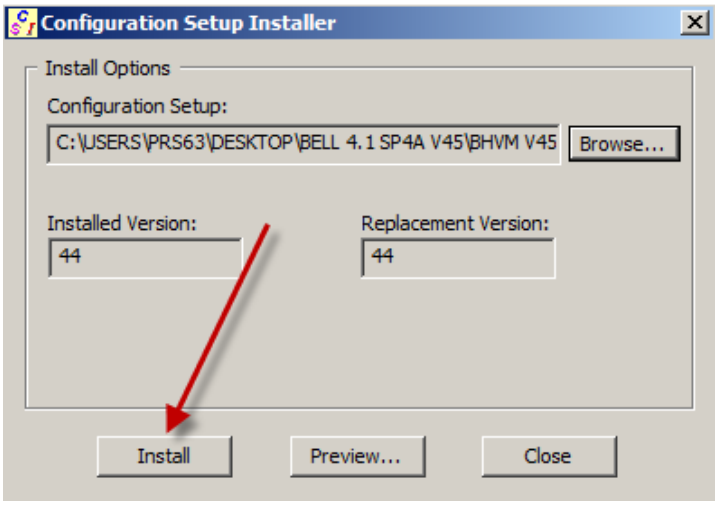


7. Browse to folder created earlier “Bell 4.1 SP4A V45”.

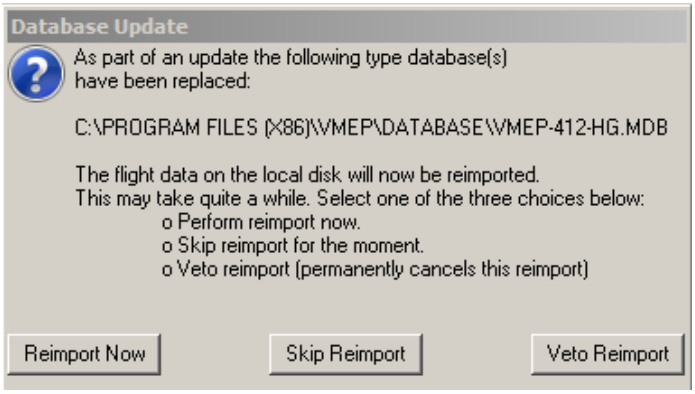


8. Choose the Aircraft Configuration required for your aircraft and click “Open”.
   a. 412-LG_44.CSIF (412 Low Gear)
   b. 412-HG_44.CSIF (412 High Gear)
   c. 212_44.CSIF (212 Low or High Gear)

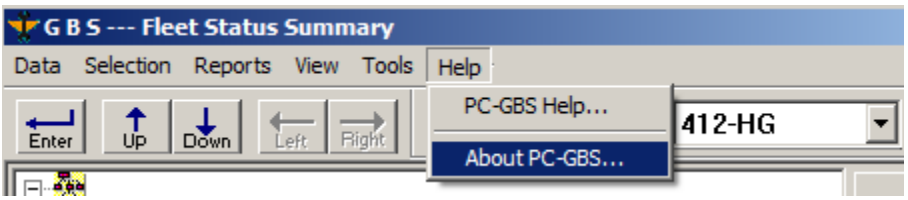
9. In the “Configuration Setup Installer screen click “Install”. Once installed click “Close”.



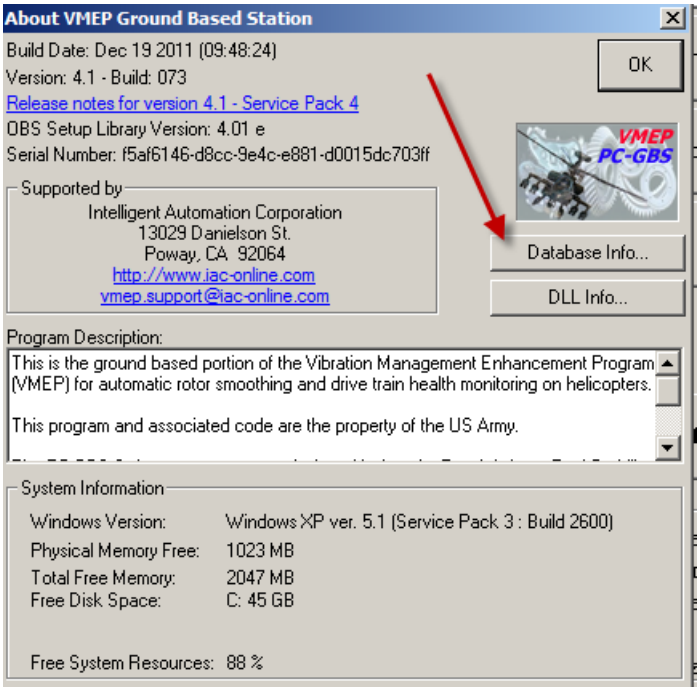
10. Software will request to Reimport your data, click “Reimport Now”.



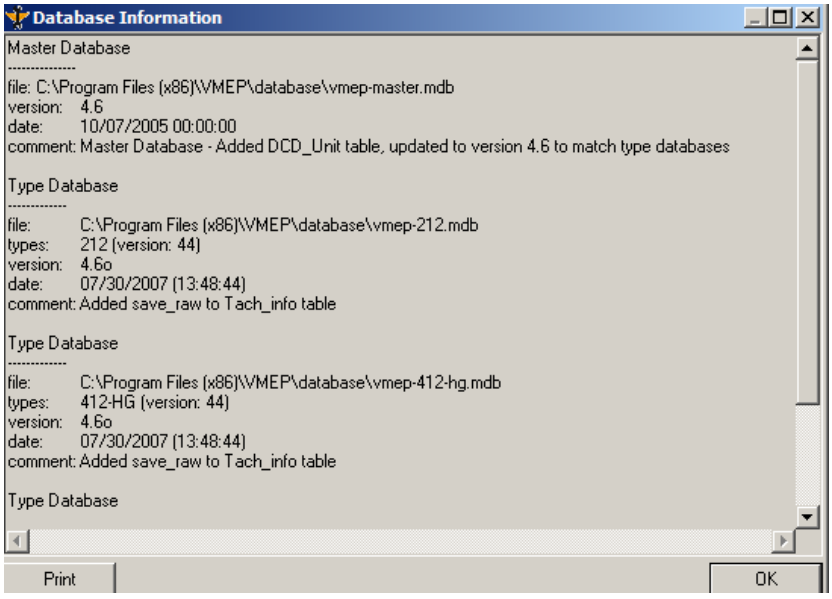
11. Click on PC-GBS Help.



12. In the “About VMEP Ground Based Station” click on “Data Base Info”.



13. Verify Version 44 is displayed.



14. Click “OK” in the Database Information screen and click “OK” on the “About VMEP Ground Based Station”.

15. Refer to **“Upload Aircraft Setup Files to MSPU (V44 or V45)”** below for procedure for the installation of the aircraft configuration file in the MSPU of the aircraft.

5.5 PC-GBS CONFIGURATION FILE VERSION 45 INSTALLATION

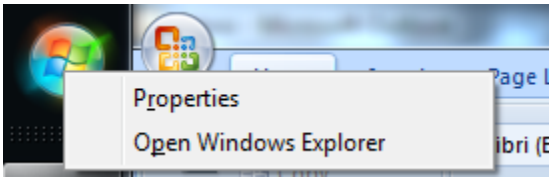
NOTE

If installing v44 only, skip this section and perform steps outlined in section "UPLOAD AIRCRAFT SETUP FILES TO MSPU (V44 OR V45)".

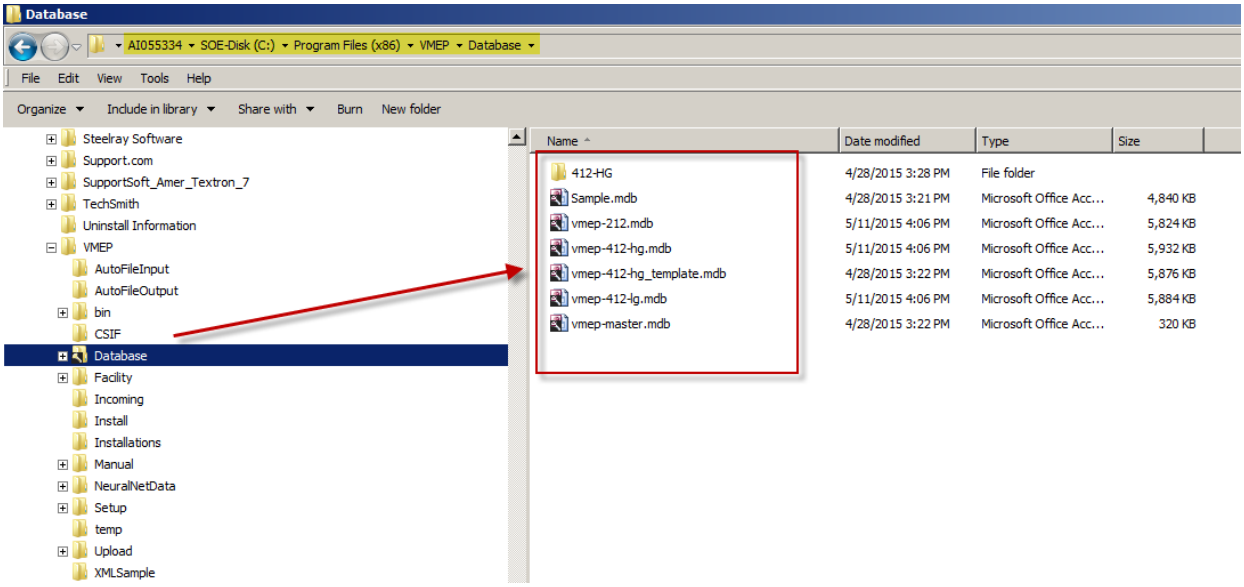
NOTE

Installation of v44 is required prior to installing v45.

1. Right click on window start menu.

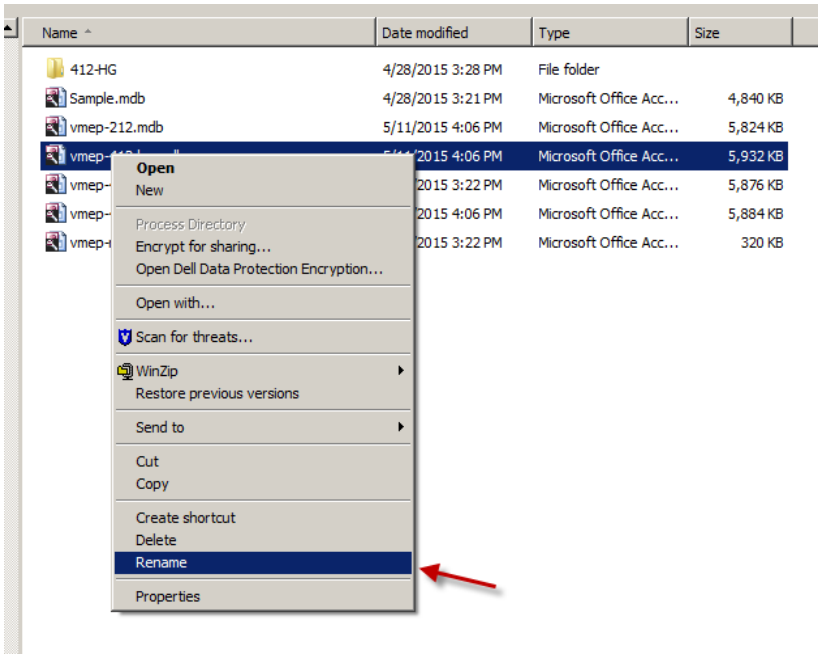


2. Click on open window explorer.
    a. For window 7:
        i. Click on C:\Program Files (x86)\VMEP\Database
    b. For Window XP, 2000:
        i. C:\Program Files\VMEP\Database
3. Open folder database.

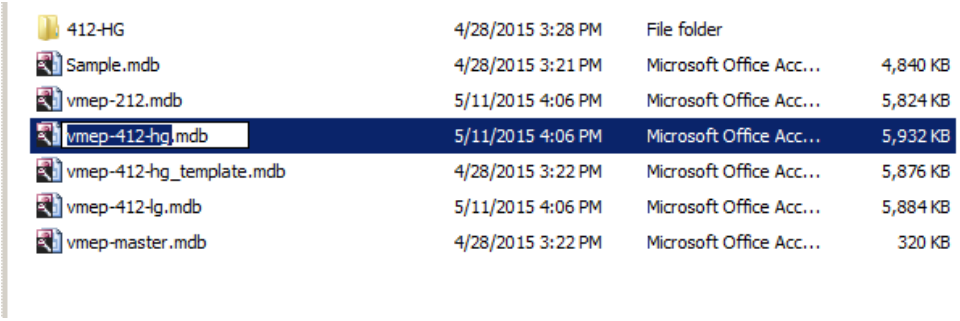


4. Locate vmep-412-hg.mdb or 412-lg.mdb or 212.mdb files.

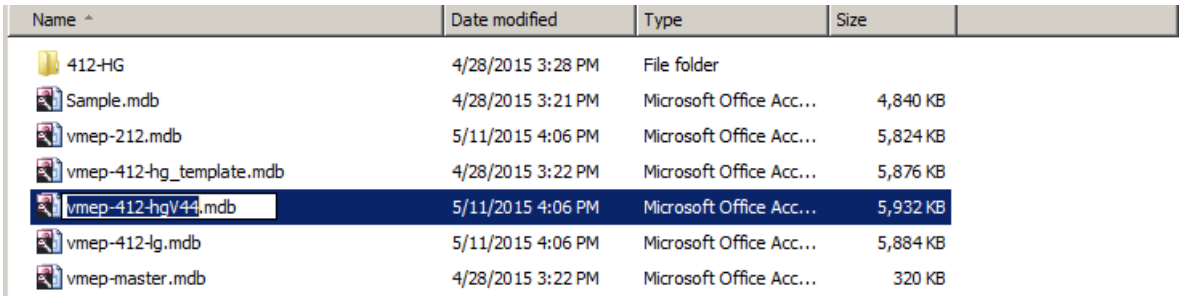
5. Right click on vmep mdb for the aircraft type you are upgrading to V45.



6. Click on rename.



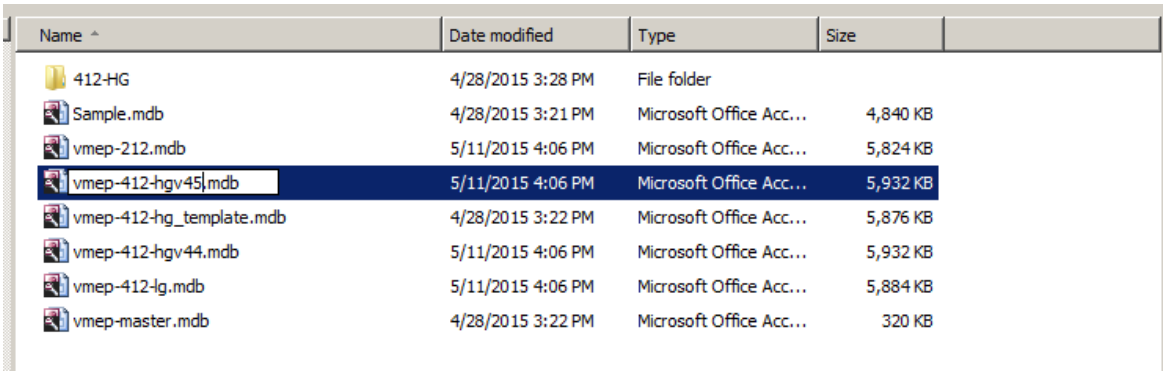
7. Rename file as follow depending on aircraft upgrade.
   a. vmep-412-hgv44.mdb
   b. vmep-412-lgv44.mdb
   c. vmep-212v44.mdb



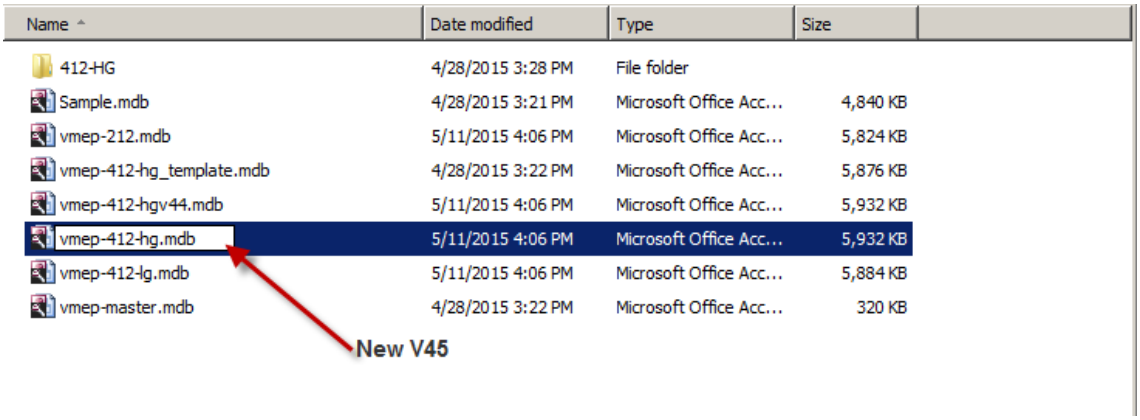
8. Click out of the re-name text to save the changes.

9. Go to your desktop folder (Bell 4.1 SP4A V45) and copy database needed.
   a. (412LG) vmep-412-lgv45.mdb
   b. (412HG) vmep-412-hgV45.mdb
   c. (212) vmep-212.mdbV45

10. Paste database V45 in Database folder.



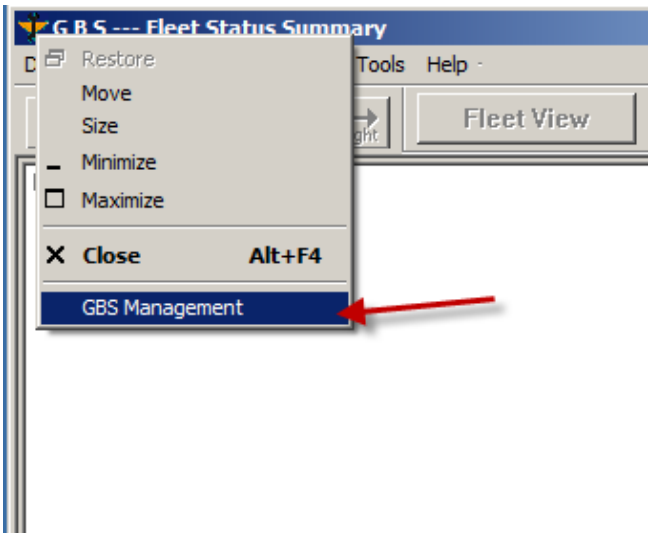
11. Remove extension v45 and click out of the re-name text to save the changes.



12. Close Windows Explorer.

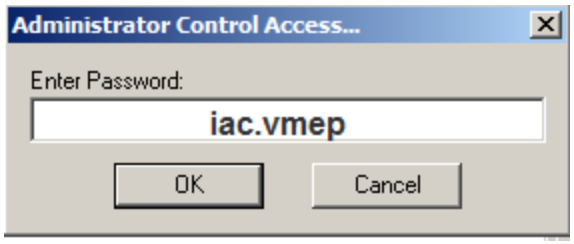
13. Open PC-GBS software.

14. Right clicking on the GBS icon at the top left portion of the GBS title bar.

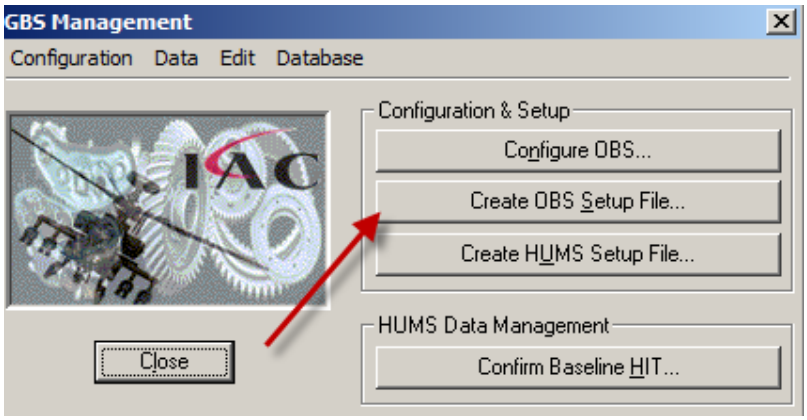


15. Enter password “iac.vmep”.

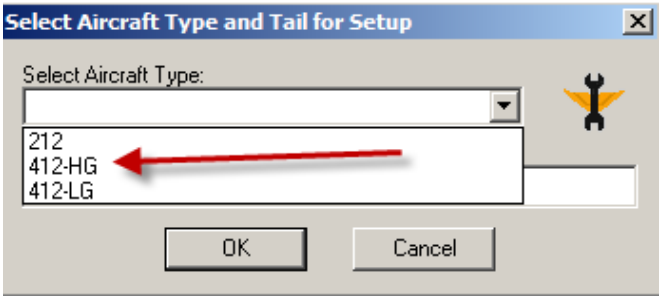
16. Click Ok.



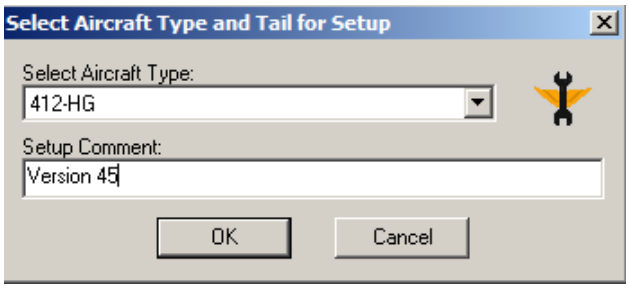
17. Click on “Create OBS Setup File”.



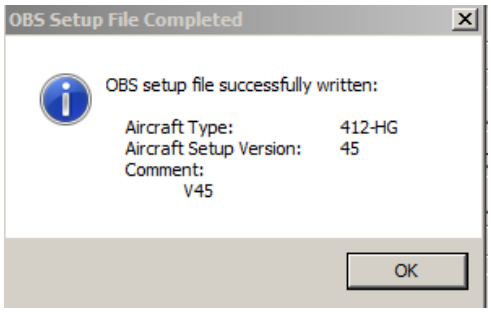
18. When prompted, Select aircraft type.



19. Add the following comment “Version45” and click OK.



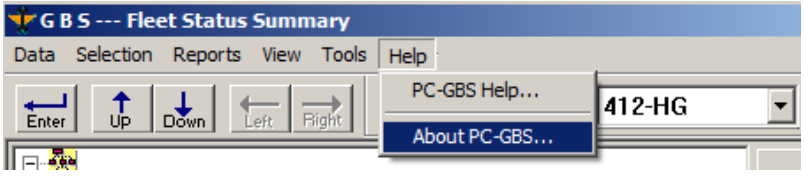
20. Once completed you will get a message the OBS is complete.



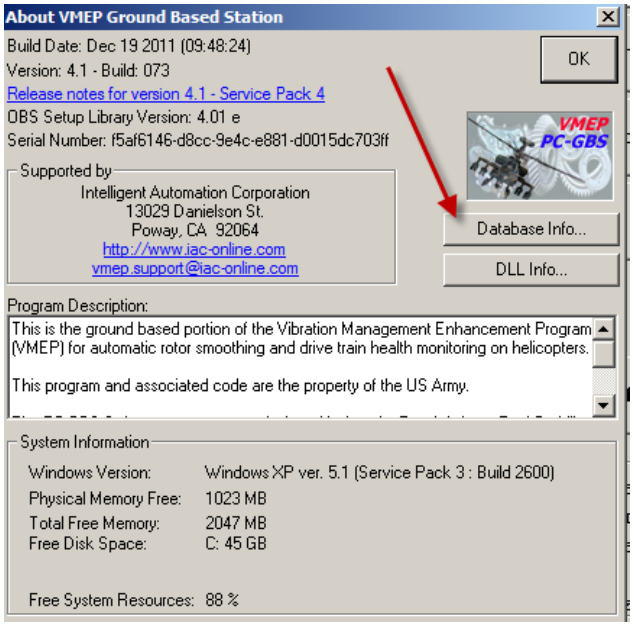
21. Close PC-GBS Software.

22. Re -open PC-GBS.

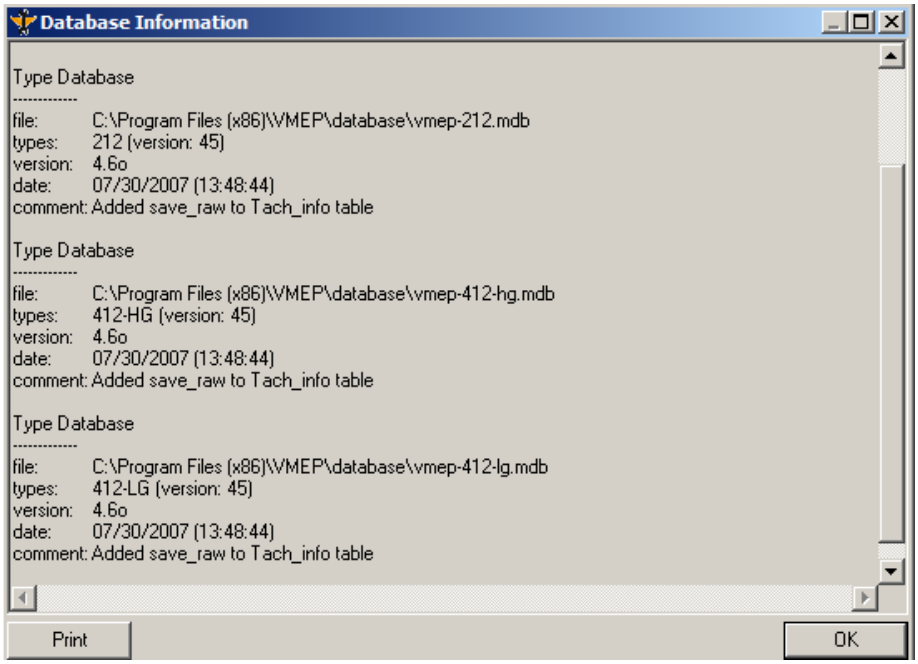
23. Click on About PC-GBS.



24. In “About VMEP Ground Based Station”, click on database information.



25. Confirm that version 45 was properly installed.

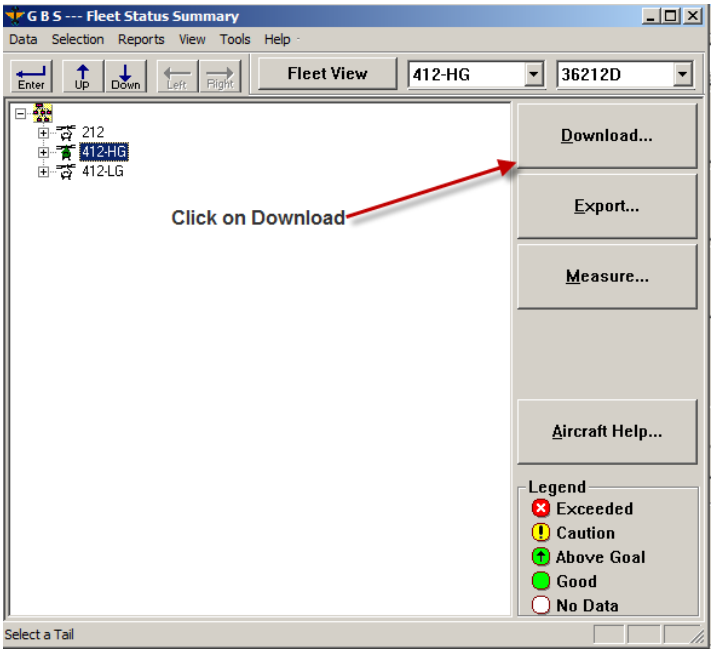


5.6 UPLOAD AIRCRAFT SETUP FILES TO MSPU (V44 OR V45)

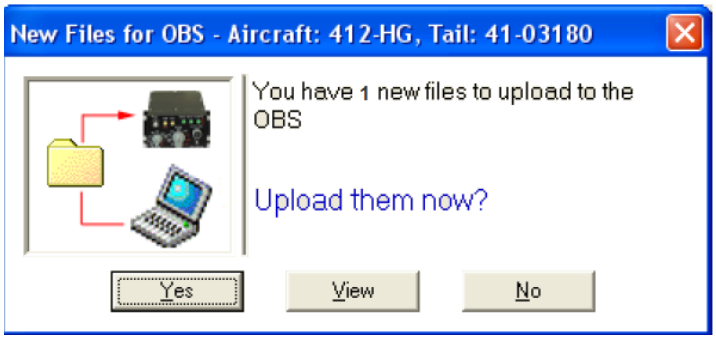
NOTE

This procedure is used for installing Version 44 or Version 45 in the aircraft MSPU. The version will be installed automatically.

1. Apply power to the aircraft and wait until the RDY Light is illuminated.
2. Connect the laptop tot eh MSPU by Ethernet cable.
3. Run PC-GBS.
4. Click the "**Download"** button.

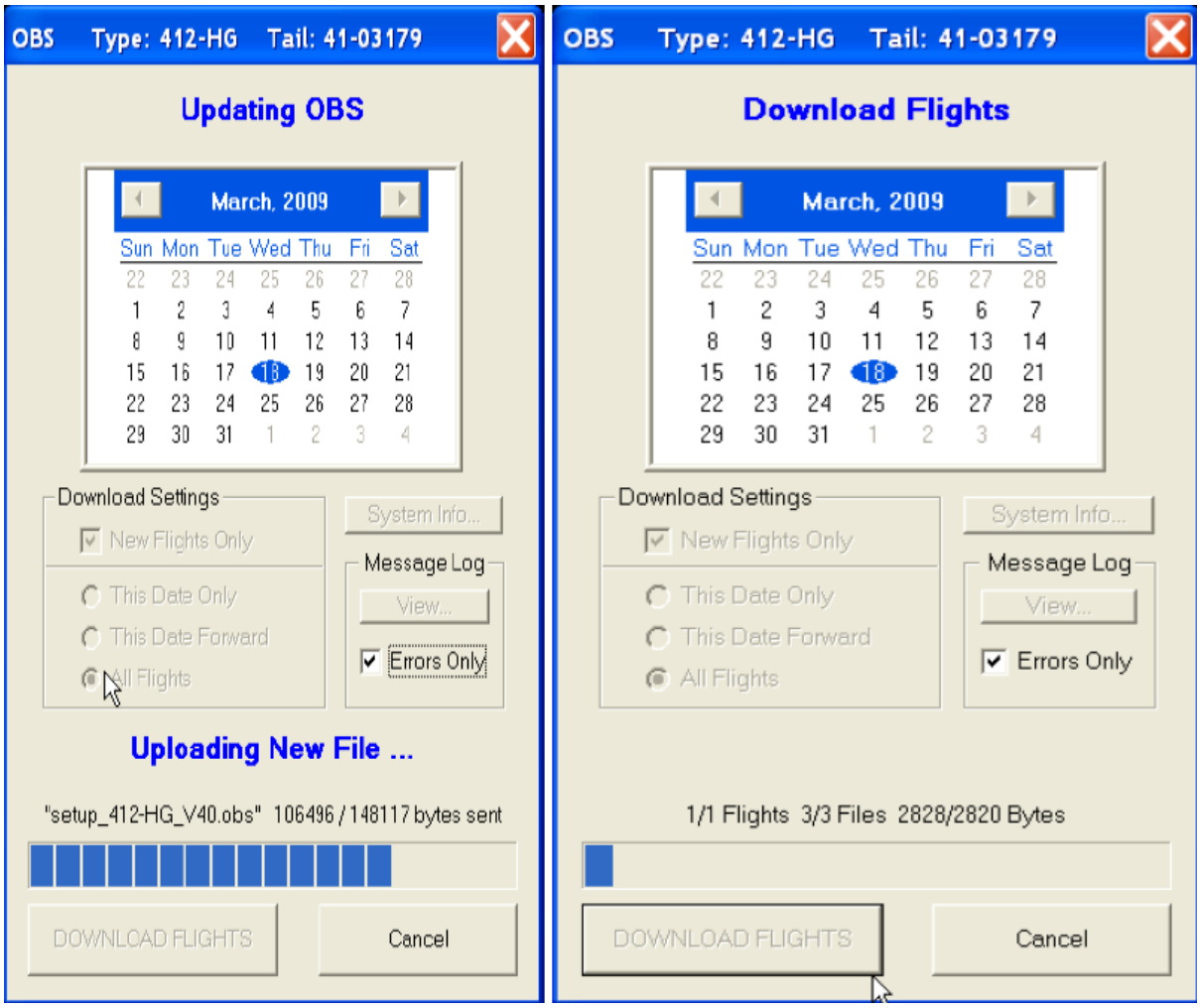


5. After downloading any flights, PC-GBS will check for updates and offer to upload the setup file.

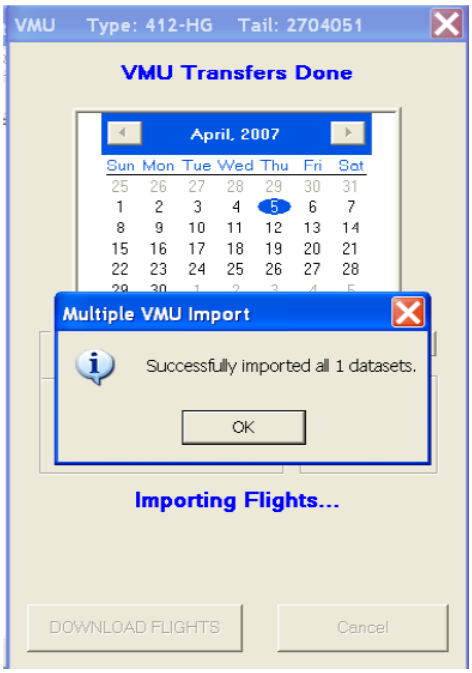


6. Click on the "**View"** button to see the file to be uploaded. There should be one 412-HG setup version 44 or 45 depending on which version is installed on your PC-GBS.

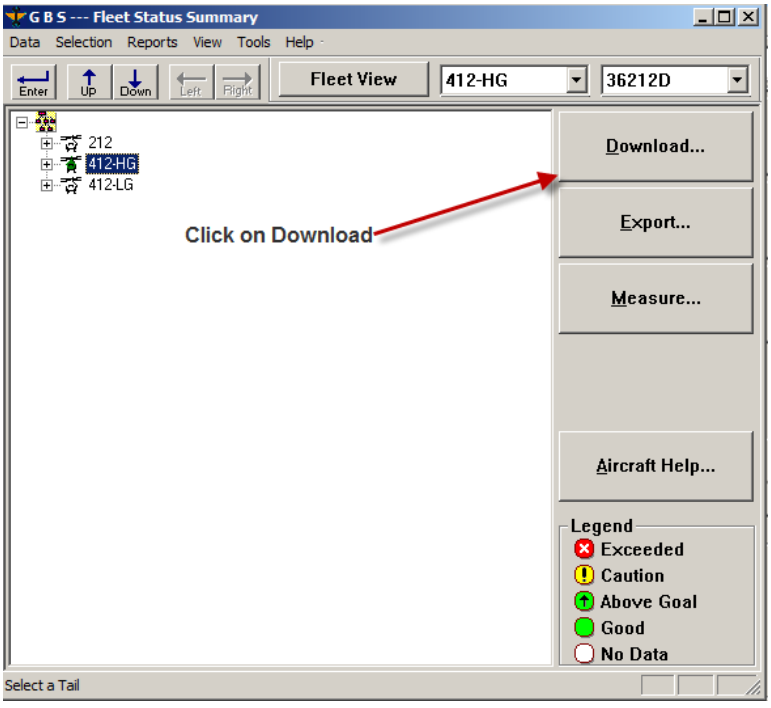
7. Click "**OK"** to close the view window.
8. Click **"YES"** to upload the file.
9. PC-GBS will upload the setup file.



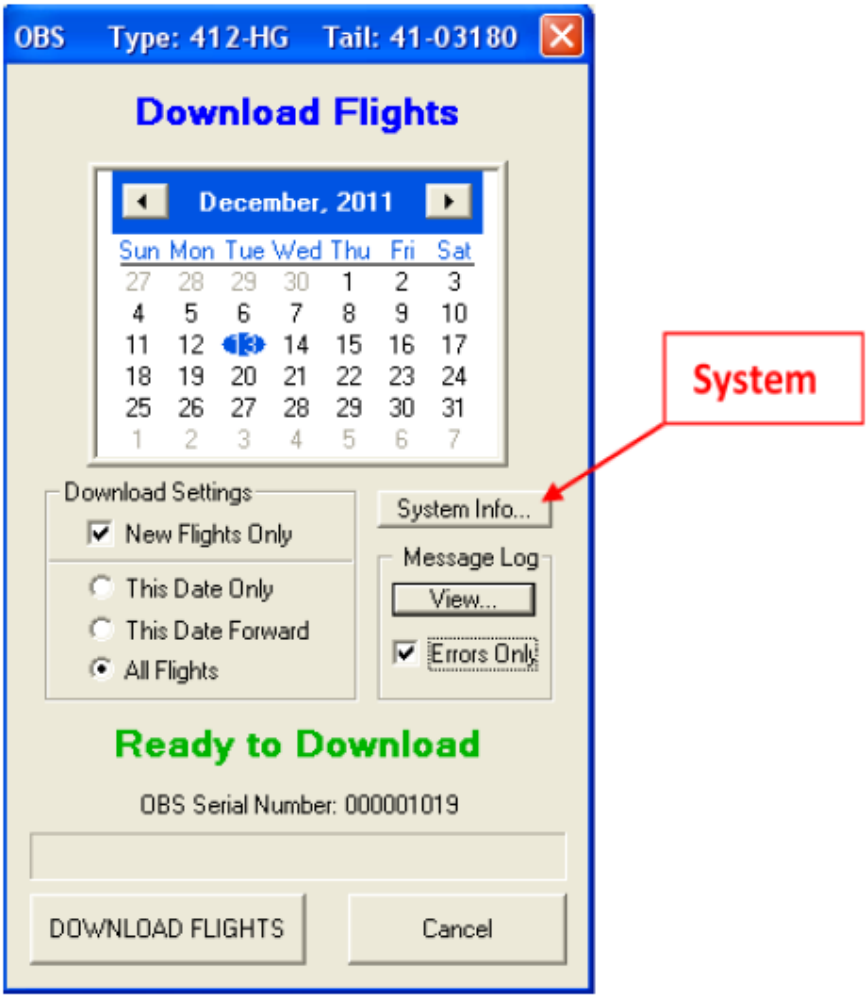
10. PC-GBS will upload the files to the MSPU and import the flight file it downloaded.



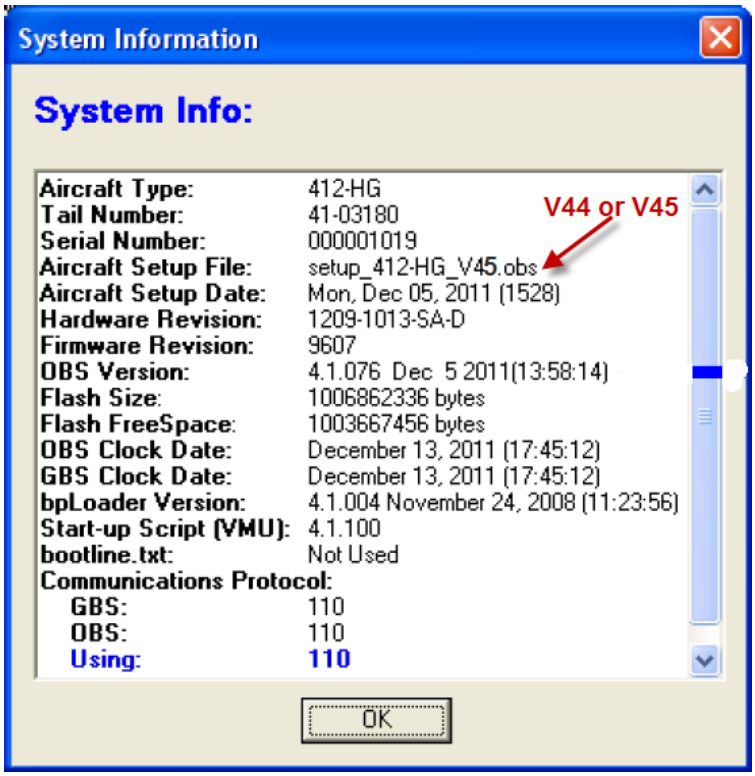
11. MSPU will save the files and reboot. Wait for the flashing lights on the CCH or the MSPU to stop flashing.
12. To verify the MSPU is configured with the new setup file, on the PC-GBS click the **"Download"** button and connect the MSPU again.



13. Click on **"System Info"** button and verify the MSPU is running the new file.



14. Verify that the correct Setup version, Tail Number, Aircraft Type and OBS Version (4.1.076) is displayed as illustrated below.



15. Click **OK** to close **System Info** box and continue download process.
16. Once data has been downloaded, return to PC-GBS main page and this completes the installation.
17. Power down aircraft and remove MSPU communications cable.

MSPU LABELING

18. Ensure information on Label (1209-3196-PF) and Label (1209-3198-PF), on the MSPU unit, matches with the examples shown in Figure 1.
19. Update labels by filling in the required data or by installing new labels, if required, to correspond with your specific aircraft application, as shown in Figure 1.
20. Upgrade of PC-GBS 4.1SP4A Configuration File (CSIF) complete.

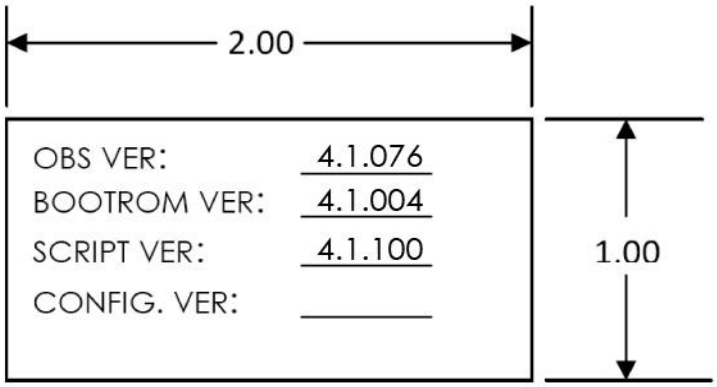
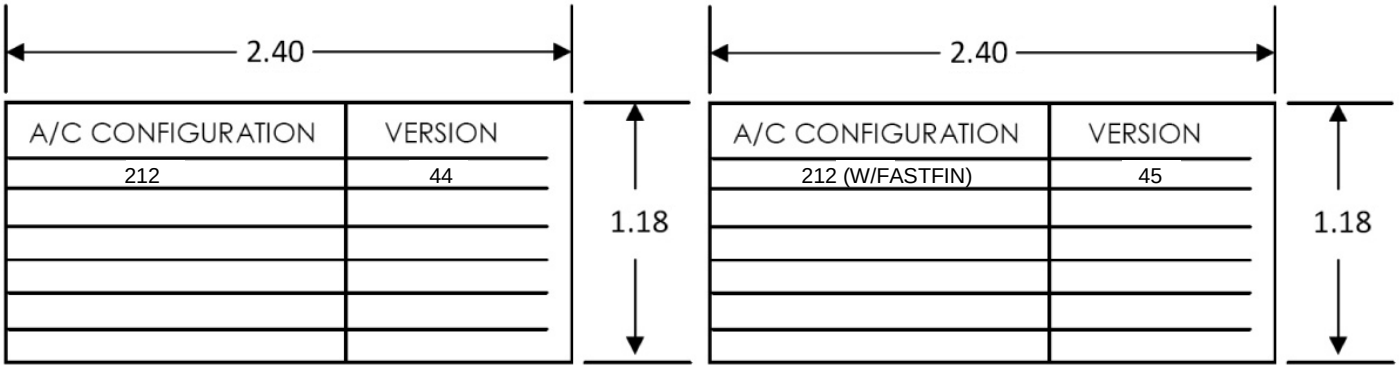
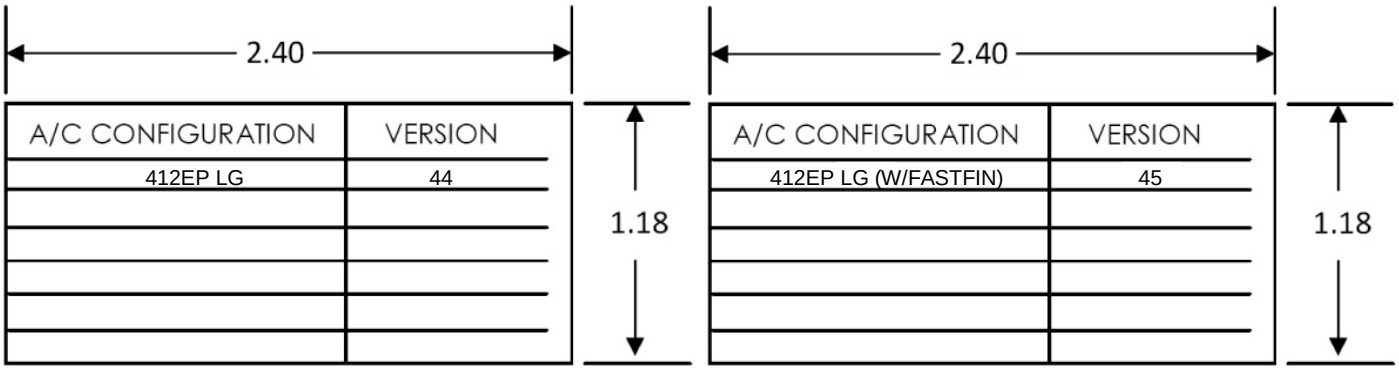


FIGURE 1. LABEL, P/N 1209-3196-PF



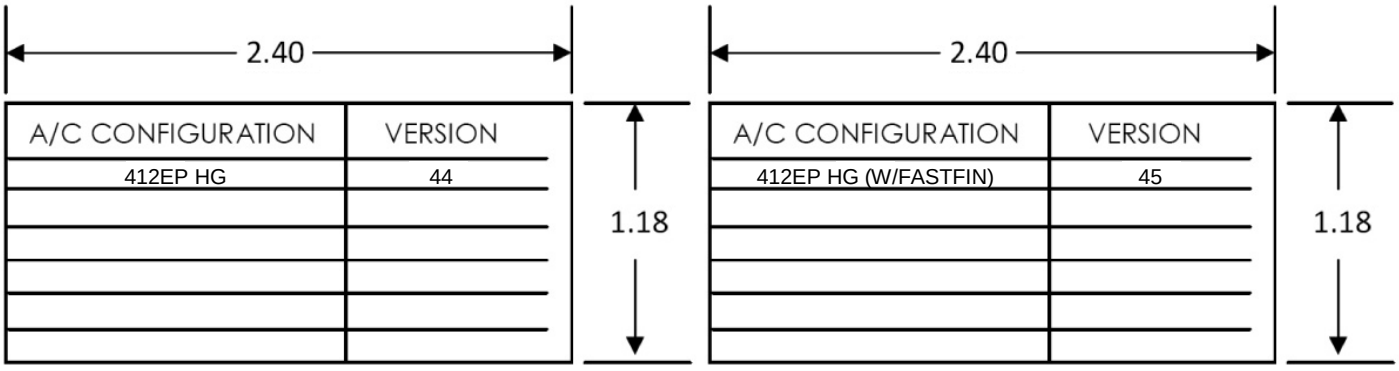
212, LABEL P/N 1209-3198-PF

212 (W/FASTFIN), LABEL P/N 1209-3198-PF



412EP LG, LABEL P/N 1209-3198-PF

412EP LG (W/FASTFIN), LABEL P/N 1209-3198-PF



412EP HG, LABEL P/N 1209-3198-PF

412EP HG (W/FASTFIN), LABEL P/N 1209-3198-PF

FIGURE 1 - LABEL, P/N 1209-3198-PF

6.0 ACCOMPLISHMENT INSTRUCTIONS:

PART 2 - REMOVAL OF T/R BRACKET DISCONNECT

(Refer to Figures 2, 3, 4, 5 and 6)

1. If installed, disconnect Optical Tach Sensor Cable Assembly (1209-3241-CA) from T/R Tach Disconnect Cable Assembly (1209-3217-CA - part of 412-260-115 T/R Cable Harness Assembly) and attach to Dummy Connector (D38999/22AW). If preferred, remove Optical Tach Sensor Cable Assembly, per applicable Instructions for Continuous Airworthiness Report. Retain all parts.
2. Remove Clamps (MS21919WDG5), Screws (MS27039-1-06), Washers (NAS1149F0332P), and Nuts (MS21042L3) that clamp T/R Disconnect Cable Assembly to 90° T/R gearbox housing, 2 places, as shown in Figure 2. Retain Washers and Nuts.
3. Remove Nut (MS21042L4), Washer (NAS1149F0416P) and Bracket (412-260-141) from T/R Bracket Assembly (412-260-103 / 412-260-119), as shown in Figure 2. Discard parts.
4. At T/R Bracket Assembly (412-260-103 / 412-260-119), mounted to tail rotor 90° gearbox, disconnect T/R Disconnect Cable Assembly (1209-3212-CA) from Connector (D38999/20WB35PN – part of 412-260-115 Tail Rotor Cable Assembly). Temporarily cap and stow loose end of T/R Disconnect Cable Assembly. Ref Figure 2.
5. On T/R Bracket Assembly (412-260-103 / 412-260-119), remove lockwire securing axial accelerometer end of Sensor Cable Assembly (1209-3226-CA-01-REV3) to Bracket Assembly. Remove accelerometer from bracket assembly by removing accelerometer bolt – ref Figure 2. Retain hardware.
6. Remove lockwire securing radial accelerometer end of Sensor Cable Assembly (1209-3225-CA-01-REV3) to Bracket Assembly (412-260-103 / 412-260-119). Remove accelerometer from bracket assembly by removing accelerometer bolt – ref Figure 2. Retain hardware.
7. Remove MS35206-216 Screws (4X), NAS1149DN416J Washers (4X) and M85049/95-10A Mounting Flange and remove receptacle end of 1209-3217-CA T/R Tach Disconnect Cable Assembly (part of 412-260-115 Tail Rotor Cable Assembly) – ref Figure 2. Retain hardware.
8. Remove MS35206-216 Screws (4X), NAS1149DN416J Washers (4X) and M85049/95-12A Mounting Flange to remove Connector (D38999/20WB35PN from receptacle end of Tail Rotor Cable Assembly (412-260-115). Remove Tail Rotor Cable Assembly (412-260-115) – ref Figure 2. Discard hardware.

9. Carefully remove the Label (CM-SCE-1/2-4H-9) and Tubing (M23053/5-108-0) from the exterior of the Tail Rotor Cable Assembly (412-260-115), ensuring no damage to wires inside, ref Figure 2.
10. De-pin T/R Tach Disconnect Cable Assembly (1209-3217-CA), Sensor Cable Assembly (1209-3225-CA-01-REV5) and Sensor Cable Assembly (1209-3226-CA-01-REV4) from Connector D38999/20WB35PN (part of 412-260-115 T/R Cable Assemby). Discard T/R Tach Disconnect Cable Assembly (1209-3217-CA) and retain Sensor Cable Assemblies (1209-3225-CA-01-REV5 and 1209-3226-CA-01-REV4) – ref Figure 2.
11. At the center of the Cover Plate (412-362-125), drill Ø.193-199 hole – ref Figure 3.
12. Match Drill Ø.124-.129 Cover Plate (412-362-125) to T/R Bracket Assembly (412-260-103 / 412-260-119), as shown in Figure 3.
13. Brush alodine bare aluminum per MIL-DTL-5541.
14. Install Cover Plate (412-362-125) to T/R Bracket Assembly (412-260-103 / 412-260-119) using Screws (MS35206-216), Washers (NAS1149DN416J) – under screw heads and nuts, and Nuts (MS21042L04), as shown in Figure 3.
15. On previously stowed end of T/R Disconnect Cable Assembly (1209-3212-CA), de-pin all wires from connector (D38999/26WB35SN). Cut sockets from end of wires, minimizing the amount of wire length removed. Discard connector parts – ref Figure 2.
16. Locate and carefully pull wires marked HVM24A22 and HVM26A22 through Backshell Assembly (412-263-101). Feed wires from braided end of Backshell Assembly – ref Figure's 4, 5 and 6.

NOTE

Ensure sufficient wire length exists for HVM24A22 and HVM26A22 when routed as shown in Figure 3.

17. Prepare ends of wires HVM24A22 and HVM26A22 as shown in Figure 6.
18. Install Connector (D38999/20WA35SA) using Solder Sleeves (M83519/1-3), Sockets (M39029/56-348, Heatshrink (M23053/5-306-0), Insulated Tubing (ATUM-16/4-0), and Heatshrink (ATUM-12/3-0), as shown in Figure 6. Use 6 inch lengths (maximum) of supplied Wire-1 cond unshielded, 22AWG (M22759/41-22-9) for jumper wires - ref Figure's 5 & 6.
19. Orient and install Connector (D38999/20WA35SA) to T/R Bracket Assembly (412-260-103 / 412-260-119) using retained Mounting Flange (M85049/95-10A), Washers (NAS1149DN416J) and Screws (MS35206-216) and as shown in Figure 3. Torque to 6-8 in-lbs.

20. Orient Bracket (412-367-123) and install to Cover Plate (412-362-125) using Screw (MS27039-1-07), Washer (NAS1149D0332J) and Nut (MS21042L3), as shown in Figure 3. Torque to 20-25 in-lbs.
21. Orient and attach Sensor Cable Assembly (1209-3226-CA-01-REV4) to T/R Bracket Assembly (412-260-103 / 412-260-119) with retained hardware, as shown in Figure 3. Do not torque fastener at this time.
22. Orient and attach Sensor Cable Assembly (1209-3225-CA-01-REV5) to T/R Bracket Assembly (412-260-103 / 412-260-119) with retained hardware, as shown in Figure 3. Do not torque fastener at this time.
23. Route Sensor Cable Assembly (1209-3225-CA-01-REV5) through Clamp (MS21919WDG4) and install clamp to Bracket (412-267-123), as shown in Figure 3, using Screw (MS27039-1-07), Washers (NAS1149D0332J) – 2X and Nut (MS21042L3). Torque to 20-25 in-lbs.
24. At the lower attaching point for the T/R Bracket Assembly (412-260-103 / 412-260-119) to the tail rotor 90° gearbox, install Washer (NAS1149F0463P), Bracket (412-367-121), Washer (NAS1149F0416) and Nut (MS21042L4), as shown in Figure 3.
25. Route cable from T/R Optical Tach Sensor Disconnect, Sensor Cable Assembly (1209-3225-CA-01-REV5) and Sensor Cable Assembly (1209-3226-CA-01-REV4) through Clamp (MS21919WDG9) and loosely install clamp to Bracket (412-367-121) using Screw (MS27039-1-07), Washers (NAS1149F0332P) – 2X and Nut (MS21042L3) – ref Figure 3. NOTE: Rotate clamp as required to clear Nut (MS21042L4). Do not Torque at this time.
26. Continue routing wires downward toward the 6 o'clock position of the tail rotor 90° gearbox and prepare Sensor Cable Assembly (1209-3225-CA-01-REV5) and Sensor Cable Assembly (1209-3226-CA—01-REV4) for splicing to T/R Disconnect Cable Assembly (1209-3212-CA).
27. With cables routed as shown in Figure 3, splice Sensor Cable Assembly (1209-3225-CA-01-REV5) and Sensor Cable Assembly (1209-3226-CA-01-REV4) to T/R Disconnect Cable Assembly (1209-3212-CA) using D-150-0174 Shielded Cable Splice Kit. Refer to RCPS-150-02 Installation Procedure for TE Connectivity Shielded Cable Splice Kits with Mini-Seal Crimp Primary Splices for installation instructions.

NOTE

Go to http://www.tycoelectronics.com for the latest revision of RCPS-150-02.

28. Re-check routing of wires and adjust clamping points, if required. Torque clamp fasteners as shown on Figure 3.
29. Torque fasteners securing the Sensor Cable Assembly (1209-3225-CA-01-REV5) and Sensor Cable Assembly (1209-3226-CA—01-REV4) accelerometers to 20-25 in-lbs. Lockwire per NASM33540. Ref Figure 3.

30. Secure wiring to tail rotor 90° gearbox at the 6 o'clock position using Clamp (MS21919WDG8), Screw (MS270329-1-07), Washers (NAS1149F0332P) – 2X, and Nut (MS21042L3) as shown in Figure 3. Torque to 20-25 in-lbs.
31. If previously removed, re-install Optical Tach Sensor, 1209-3241-CA-REV5, to T/R Bracket Assembly, 412-260-119, using Screw, MS35206-219, Washer, NAS1149DN416J, and Nut, MS21042L04, as shown in Figure 3. Torque to 6-8 in-lbs.
32. Mark/label wires per AC43.13-1.
33. Reference appropriate ICA report and perform an accelerometer check of the modified components.
34. Removal of T/R Bracket Disconnect complete.

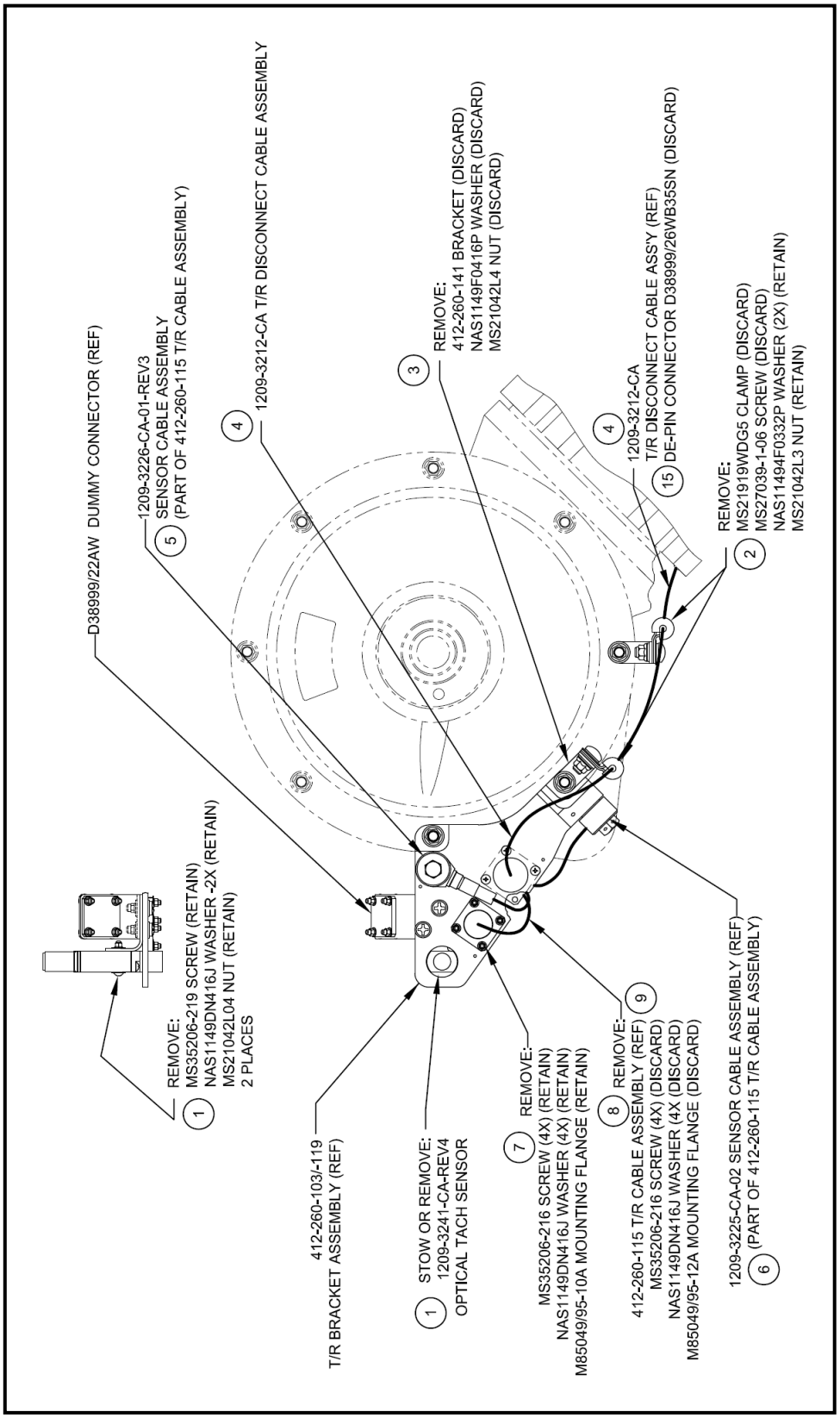


FIGURE 2 – LOOKING INBOARD FROM R/H SIDE AT T/R 90 DEG GEARBOX
(BALLOON NUMBERS CORRESPOND WITH APPROPRIATE INSTRUCTION STEP)

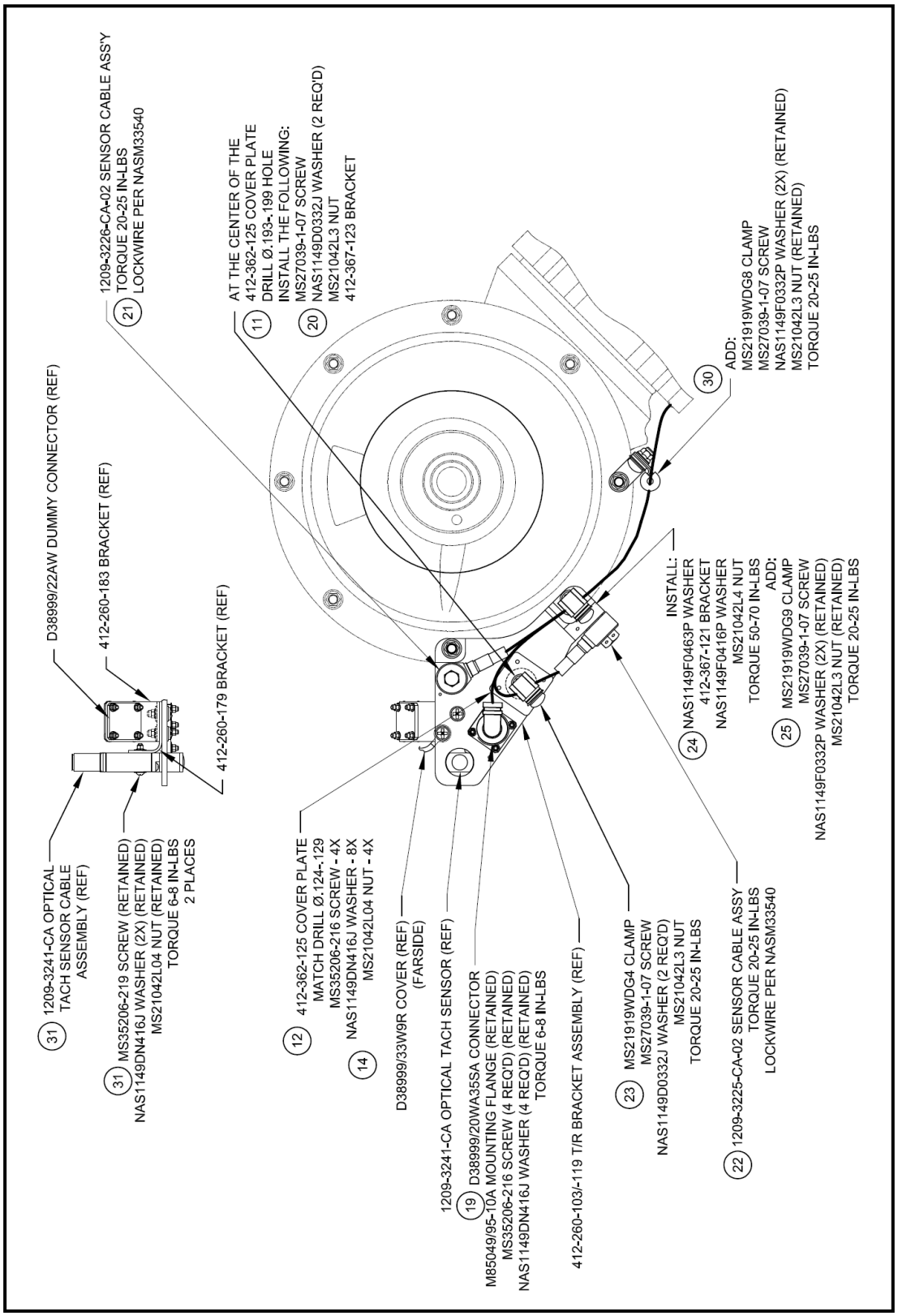


FIGURE 3 – LOOKING INBOARD FROM R/H SIDE AT T/R 90 DEG GEARBOX
(BALLOON NUMBERS CORRESPOND WITH APPROPRIATE INSTRUCTION STEP)

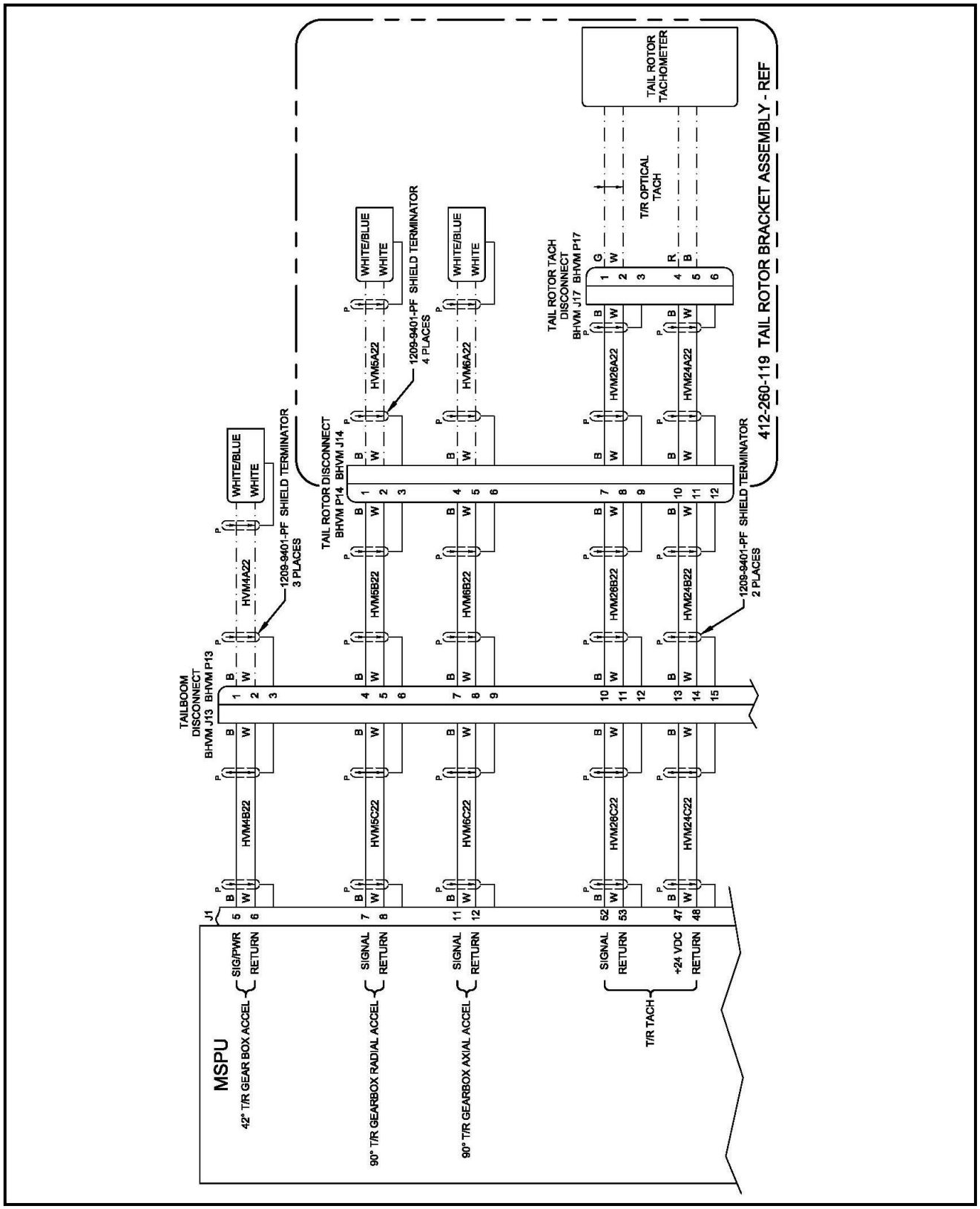


FIGURE 4 – SCHEMATIC WITH T/R ACCELEROMETER BRACKET DISCONNECT

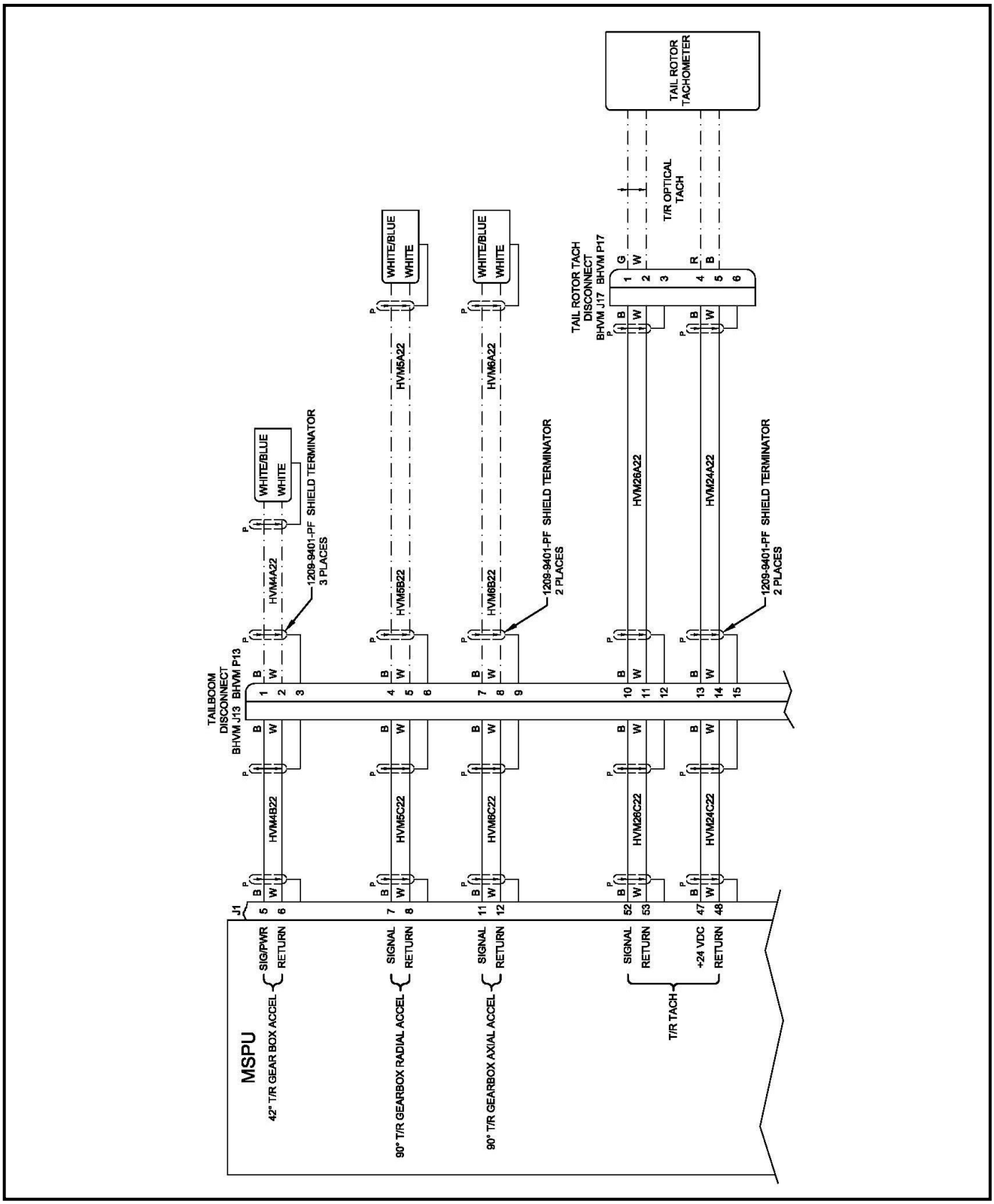


FIGURE 5 – SCHEMATIC WITHOUT T/R ACCELEROMETER BRACKET DISCONNECT

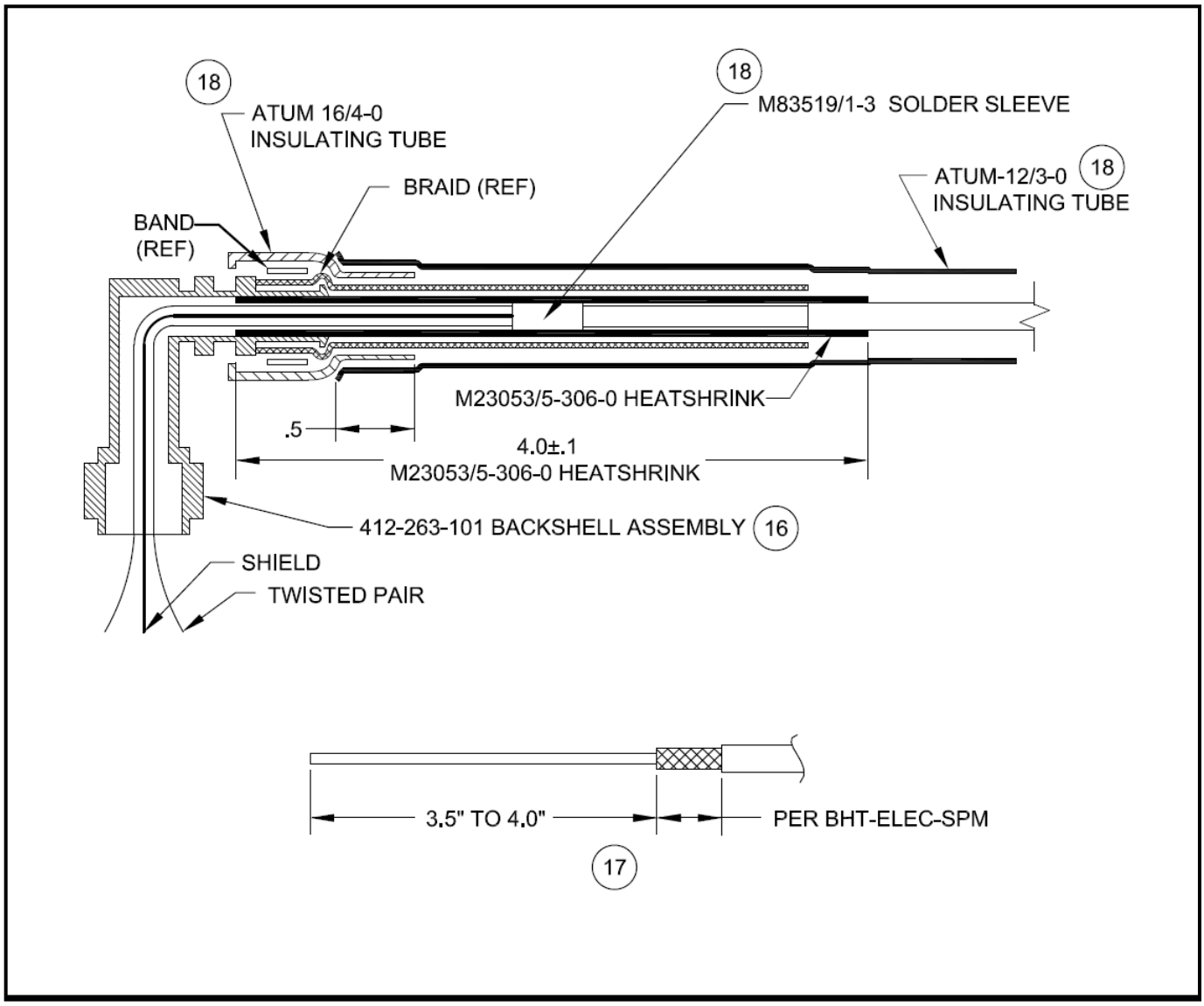


FIGURE 6 – BACKSHELL AND CONNECTOR INSTALLATION

(BALLOON NUMBERS CORRESPOND WITH APPROPRIATE INSTRUCTION STEP)

7.0 ACCOMPLISHMENT INSTRUCTIONS:

PART 3 – RELOCATION OF UPPER MAST ACCELEROMETER

(Refer to Figures 7 & 8)

1. Locate mounting location of Transmission Upper Mast Accelerometer – Ref Figure 7.
2. Remove lockwire securing accelerometer end of Sensor Cable Assembly (1209-3236-CA-01-REV3) to Accelerometer Mount (412-260-121), as shown in Figure 7. Loosen captive Bolt to remove sensor cable assembly accelerometer from Accelerometer Mount.
3. Remove Nut (MS21042L6), Washers (NAS1149F0663P), and Washer (412-260-127) to remove Accelerometer Mount (412-260-121) – as shown in Figure 7. Discard hardware and bracket.
4. Locate new mounting location for Transmission Upper Mast Accelerometer, as shown in Figure 8.
5. At the new mounting location, remove Nut (MS21042L5), Washer (NAS1149F0532P) and Washer (NAS1149D0563J), as shown in Figure 8. Discard hardware.
6. Un-clamp Sensor Cable Assembly (1209-3236-CA-01-REV3) from nearby clamps, as required, to enable routing of the accelerometer to the new mounting location, as shown in Figure 8.

NOTE

If Sensor Cable Assembly (1209-3236-CA-01-REV3) is too short, length cable using supplied wire (M27500-22TG2T14) and D-150-0174 Shielded Cable Splice Kit. Refer to RCPS-150-02 Installation Procedure for TE Connectivity Shielded Cable Splice Kits with Mini-Seal Crimp Primary Splices for installation instructions.

NOTE

Go to http://www.tycoelectronics.com for the latest revision of RCPS-150-02.

7. Apply Sealant (870 B-2) between Accelerometer Bracket (412-365-121) and Mast Bearing Retaining Plate to fill gap. Install Accelerometer Bracket, using Washer (NAS1149D0532J – under bracket), Washer (NAS1149F0532P – under nut) and Nut (MS21042L5) – ref Figure 8. Orient bracket such that accelerometer centerline passes through centerline of transmission housing. Torque nut to 100-140 in-lbs.
8. When installing accelerometer, ensure that arrow on accelerometer points away from aircraft. Install accelerometer end of Sensor Cable Assembly (1209-3236-CA-01-REV3) to accelerometer bracket using accelerometer

captive screw. Torque accelerometer attaching bolt to 20-25 in-lbs and secure with Lockwire per NASM33540 – ref Figure 8.

NOTE

Secure Sensor Cable Assembly (1209-3236-CA-01-REV3) with minimum R.75 service loop beginning no less than 1" from the end of the accelerometer boot. Ensure that cable does not contact moving parts.

9. Install Clamp (MS21919WDG2) using Screw (NAS1801-3-9), Washer (NAS1149D0332J) and Nut (MS21042L3), as shown in Figure 8. Torque to 20-25 in-lbs.
10. Clamp remainder of Sensor Cable Assembly as required to ensure that cable does not contact moving parts.
11. Mark/label wires per AC43.13-1.
12. Reference appropriate ICA report and perform an accelerometer check of the modified components.
13. Relocation of upper mast accelerometer complete.

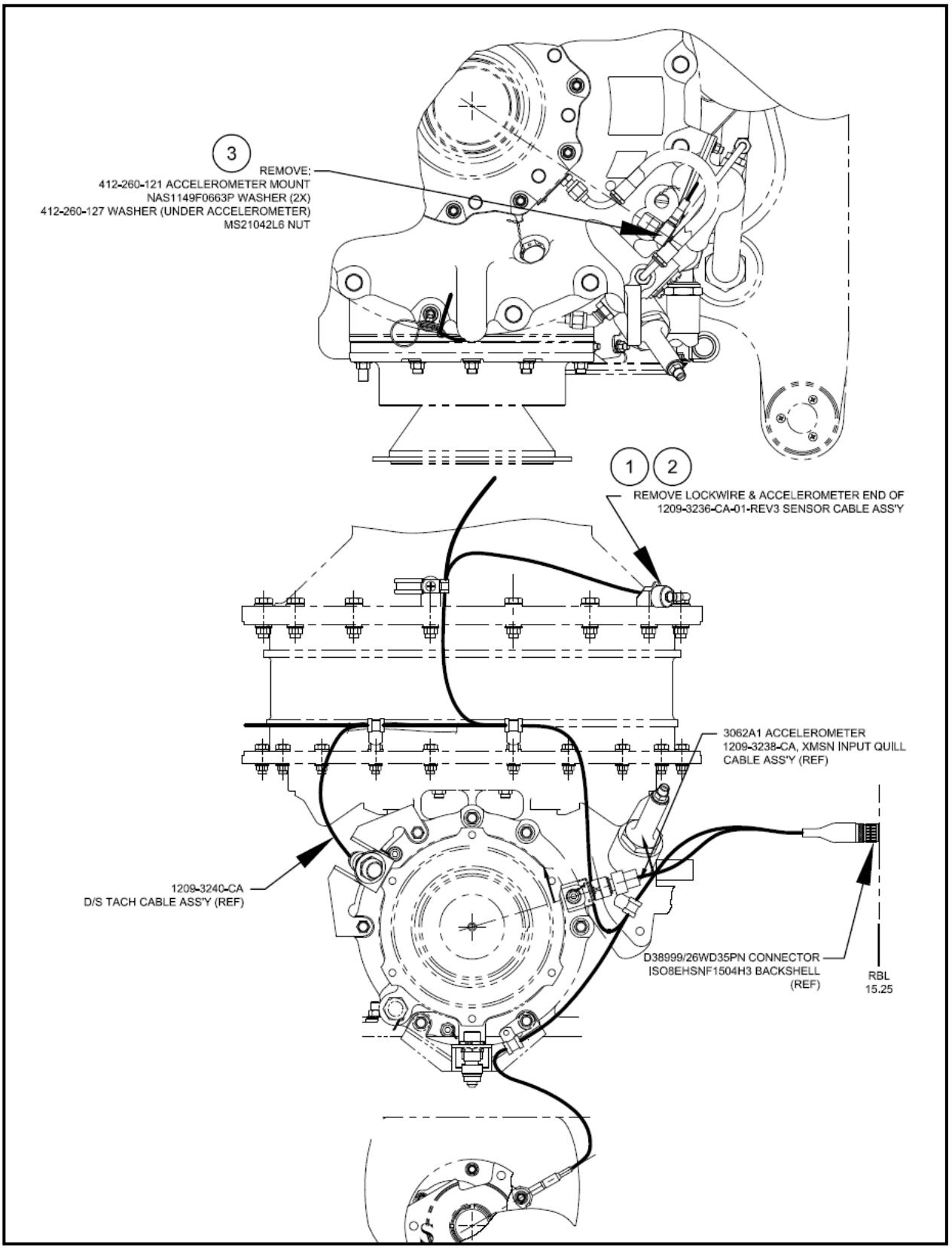


FIGURE 7 – EXISTING LOCATION FOR UPPER MAST ACCELEROMER
(BALLOON NUMBERS CORRESPOND WITH APPROPRIATE INSTRUCTION STEP)

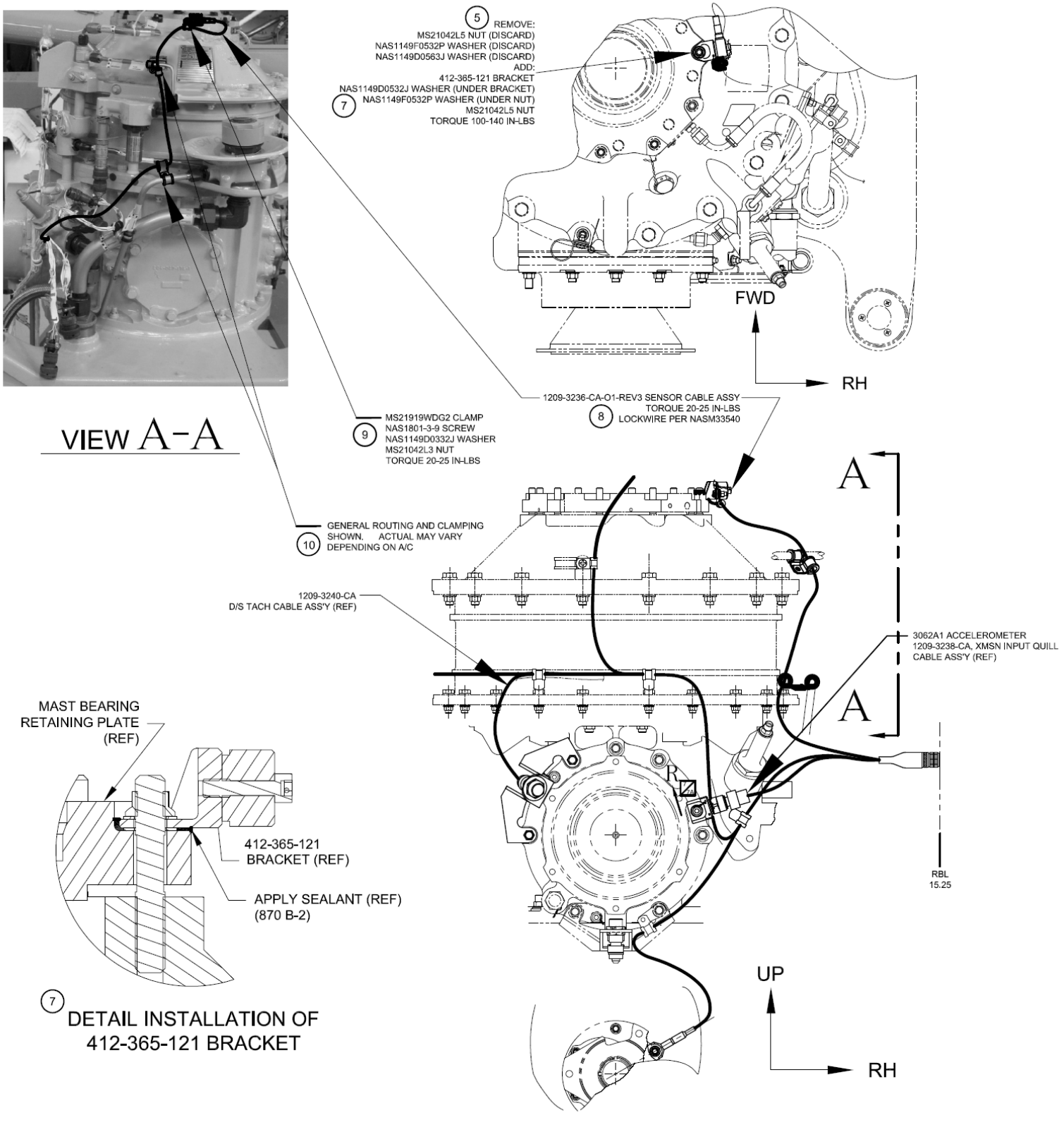


FIGURE 8 – NEW LOCATION FOR UPPER MAST ACCELEROMETER
(BALLOON NUMBERS CORRESPOND WITH APPROPRIATE INSTRUCTION STEP)