



S.A.G.A EURL
C/O Gaston ULRIC
15 Lotissement Les Vallons
Route de Balata
97234 FORT DE FRANCE
SIRET 482 569 613 00011

BON DE LANCEMENT ET EXÉCUTION N° 14-2018

IMMATRICULATION : F-GATD
DATE 18/10/2018

ORGANISME D'ENTRETIEN

Nom : ATIS N° d'agrément : FR.145.566

Dirigeant responsable : GUINOT Françoise

SITUATION DE L'APPAREIL AU COURS DES TRAVAUX

	MARQUE	TYPE	N° DE SÉRIE	HT	H depuis Rév.	Pot. Restant
Cellule	PIPER	PA 28-181	28 78 90138	9731.3		
Moteur	LYCOMING	O360 A4M	L-30677-36AC	4337.0	1012.8	
Hélice	SENSENICH	76EM8S5-0-62	100294K	2837.8	855.1	

Heures depuis dernière visite : 47.4

Heures jusqu'à prochaine visite : 2.6

Nature des travaux	VISA	
	Lancement	Exécution
1. ATA 32 : Tuyauteries souples de circuit de freinage : EO 2. Remplacement de la pile de la balise ARTEX ME406 et essai fonctionnel de la balise .		

TRAVAUX SUPPLÉMENTAIRES	VISA

Programme d'entretien

Les travaux doivent être réalisés en accord avec le Programme d'Entretien

S.A.G.A :

Edition n° 2, Révision : 00, Avril 2013.

Approbation : OSAC – DOOM

Demandeur : ULRIC Gaston

Ordre d'Execution n° 18-084

Date :	19/10/2018	Heures totales aéronef :	9731.3
Immatriculation	Désignation	P/N	S/N
F-GATD	Piper	PA28-181	28-7890138
Objet : BC SAGA14-2018			
Emis par : Nicolas Dadou			

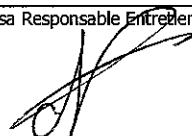
Item	Travaux Demandés	CRIT	Visa Exec.	Visa Cont.
1	EO : ATA 32-1 Tuyauteries souples du circuit de freinage suivant AMM chap. 32-40-00		<i>SH</i>	
2	SC : ATA 25-3 Pile balise de détresse suivant manuel Artex		<i>SH</i>	
3				
4				
5				

Observations : (noter le numéro de l'item correspondant)
 Item 1 : ESSAI opérationnel du circuit de freinage suivant AMM chap 32-40-00
 Item 2 : Remplacement de la pile balise de détresse suivant Manuel 570-1600 Rev A.A.
 prochain remplacement le : 30 Sept 2025

Temps estimé :	2H	Temps passé :	2H
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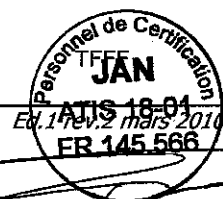
Pièces Remplacées
Kit Batterie PN 655-0012 SN 378542-005

Travaux Reportés
Nil

Visa et acceptation Client des Travaux Demandés Date : _____ Heure UTC : _____	Visa et acceptation Client des Travaux Reportés Date : _____ Heure UTC : _____	Visa Responsable Entretien 
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Approbation Pour Remise en Service[1]			
Atteste que les travaux spécifiés, sauf exception mentionnée, ont été exécutés en conformité avec le PART 145 et que dans le cadre de ces travaux, l'aéronef est considéré comme apte à être remis en service.			
Date :	19/10/2018	Heure UTC :	17:00
Nom :	Jean S.	N° habilitation :	ATIS 18/01
		Lieu :	Visa :

† = autocontrôle † † = contrôle croisé Ⓢ = Contrôle par personnel habilité



[1] Cette section doit être rayée sauf si l'OE est utilisé pour des travaux en ligne sur un aéronef non muni d'un CRM. Dans ce cas, remplir et signer la déclaration APRS et la reporter sur le carnet de route (voir PI 007).




COMPONENT HISTORY

Material Outbound

WO-9135

Ref.	Date / Case#	Origin / Destination	Component / Batch	Aircraft FH	FC
M. OUT 2476 # 1 Y/ref	19/10/18 4227	ATIS ATIS	P/N 455-0012 S/N 378542-005 BATTERY KIT ME406	Qty. 1 Bar. code 1958 Condition NEW	

END OF REPORT

1. Approving Civil Aviation Authority / Country FAA / UNITED STATES		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: 20180709_M_J_292068	
4. Organization Name and Address: ACR Electronics, Inc. 5757 Ravenswood Road, Fort Lauderdale, FL 33312-6603				5. Work Order / Contract / Invoice Number: P413864	
6. Item Number 1		7. Part Number ARTEX BATTERY ME406 KIT YEL		8. Quantity 30	
9. Description 455-0012		10. Serial Number 378542-001 THRU 378542-025 378522-056 THRU 378522-060		11. Status NEW	
12. Remarks: <p style="text-align: center;">AIRWORTHINESS APPROVAL</p> <p style="text-align: center;">Item 1 is a Sub-Component of TSO C1026/C91a Article.</p> <p style="text-align: center;">PA 426265258-2018-0039</p>					
13a. Certifies the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.					
13b. Authorized Signature:  Marshall F. Krass		13c. Approval / Authorization No: 426265258		13d. Date (dd/mm/yyyy) 09-Jul-2018	
User / Installer Responsibilities It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that higher airworthiness authority accepts aircraft engine(s)/propeller/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					
FAA Form 8130-3 (02-14)					



SN: 378542-005

F G A T D OE-18-084

**PIPER AIRCRAFT
PA-28-181
AIRPLANE MAINTENANCE MANUAL**

5. Pump right brake cylinder very slowly approximately 12 times. This will purge air from toe brake cylinder system. Watch for any air forced through clear plastic tube during this operation. Verify air has been forced from toe brake system.
6. Pump hand brake an additional 25 times or until no air is observed through clear plastic tube.
7. Tighten brake bleeder and remove plastic tube.
8. Repeat steps 1 through 6 for left main landing gear.

V. BRAKE BLEEDING PROCEDURE (Pressure)

1. Place a clean, clear plastic tube on vent fitting on top of brake fluid reservoir. Extend the free end of tube to a container partially filled with hydraulic fluid (MIL-H-5606). Verify tube end is submerged in fluid.
2. Attach another clear plastic tube to right landing gear brake bleeder. Connect the free end of tube to pressure source. Open bleeder 1 to 2 turns and pressure fill system with fluid.
3. With fluid continually flowing through system, SLOWLY and simultaneously actuate hand brake and toe brake pedal, of side being bled, several times to purge air from cylinders. On dual brake installations, actuate both pedals for brake being bled.

—NOTE—

By watching the fluid pass through the plastic hose fluid reservoir and the bleeder fitting on gear being bled, check if any air is left in system. If air bubbles are evident, filling of the system must continue until all air is out of the system and a steady flow of fluid is obtained. If brake handle remains spongy, disconnect the bottom of toe brake cylinders (next to pedal) and rotate cylinder horizontally or above horizontal and use hand brake alone to purge air from system.

4. Close the open bleeder fitting to which the pressure hose is attached. Do not remove tube from fluid reservoir until both brakes have been bled. Check brakes on the side being bled for proper pedal pressure. Place cap on bleeder fitting.

—NOTE—

Remove any trapped air in the top of wheel brake unit by applying pressure to the system with the brake hand lever and slowly opening bleeder and releasing hand lever.

5. Repeat Steps 2 through 4 for left main landing gear.
6. Drain excess fluid from reservoir to fluid level with syringe.

W. BRAKE SYSTEM LEAK CHECK

SAV
Pull for a good, firm hand brake and lock parking brake mechanism. Allow system to stand for approximately 10 minutes. Grip park brake handle; it must not be able to be pulled aft further than the original set. If handle can be pulled toward the panel and feels spongy, a leak is in the system. A leak may appear at any one of the connections throughout system or internally in master brake cylinder or wheel brake assemblies.

ARTEX PRODUCTS / ACR ELECTRONICS, INC
 DESCRIPTION, OPERATION, INSTALLATION AND MAINTENANCE MANUAL
 ME406 (453-6603), ME406HM (453-6604)

TASK 25-62-30-050-801

2. Battery

SUBTASK 25-62-30-050-001

A. Battery Pack Removal

CAUTION: THE BATTERY PACK CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE (ESD) COMPONENTS AND IT MUST BE HANDLED WITH CARE. IF POSSIBLE, WEAR A GROUNDED WRIST STRAP WHEN HANDLING THE BATTERY PACK DURING INSTALLATION ACTIVITIES. TAKE PARTICULAR CARE TO AVOID TOUCHING THE EXPOSED CIRCUIT BOARD AND CONNECTOR PINS ON THE BOARD.

CAUTION: THE BATTERY PACK IS CONNECTED TO THE ELT VIA A SHORT INTERCONNECT FLEX CABLE, WHICH LIMITS THE DISTANCE THE TWO COMPONENTS CAN BE SEPARATED UNTIL THE FLEX CABLE IS DISCONNECTED.

- 1) See Figure 13 Battery Pack Removal.

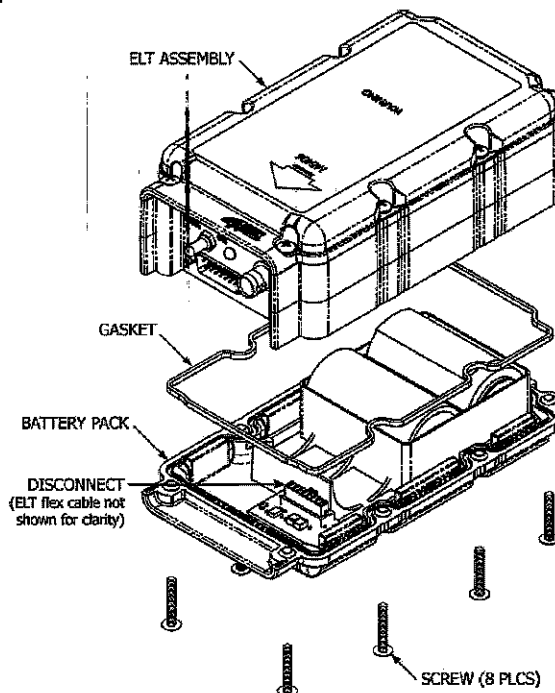


Figure 13 Battery Pack Removal

- 2) Turn the ELT upside down, such that the battery pack is bottom side up (battery cover is identified with embossed text "BATTERY ACCESS ON THIS SIDE").
- 3) Remove the eight screws from the battery cover.
- 4) Lay the ELT on its side, while keeping the ELT and battery pack securely held together.
- 5) Separate the battery pack from the ELT, taking care not to put strain on the short flex cable.
- 6) Disconnect the flex cable from the small circuit board mounted in the battery pack.

ARTEX PRODUCTS / ACR ELECTRONICS, INC

DESCRIPTION, OPERATION, INSTALLATION AND MAINTENANCE MANUAL

ME406 (453-6603), ME406HM (453-6604)

NOTE: It is very important the cockpit remote switch LED immediately begins flashing continuously upon ELT activation. If the LED fails to start flashing, recheck the interface wiring and connections between the ELT and the cockpit remote switch.

NOTE: If verification of the digital message (i.e., 406 MHz burst) is desired, follow the procedures outlined in SUBTASK 25-62-30-750-009 on page 33.

SUBTASK 25-62-30-450-001

B. Harness ELT D-Sub Plug Sealing

- 1) Seal the D-Sub plug at the ELT end to prevent moisture from penetrating the connection, thus preventing water from beading up and causing bridging between connector pins resulting in possible activation of the ELT. Use the following procedure:

NOTE: Perform the sealing process once all tests have been satisfactorily completed and all harness connections have been verified to be correct.

- a) Disconnect the remote switch harness D-Sub plug from the ELT.
- b) Separate the D-Sub housing halves.
- c) Inject Dow Corning® 4 Electrical Insulating Compound or an equivalent meeting MIL-S-8660C into the back side of the plug, such that the insulating compound surrounds the D-Sub pin area and covers the back of the plug.
- d) Reinstall the housing halves.
- e) Inject Dow Corning® 4 Electrical Insulating Compound or an equivalent meeting MIL-S-8660C around the male pins of the ELT receptacle.
- f) Connect the remote switch harness plug to the ELT.

SUBTASK 25-62-30-410-002

C. Installation Documentation

- 1) Make appropriate logbook (i.e., aircraft records) entries and submit FAA Form 337, along with any supporting data required by the FAA for approval of the installation, as applicable.

NOTE: Refer to TASK 25-62-30-410-801 on page 43 for additional information on installation approvals.

- 2) In countries other than the United States, make appropriate aircraft records entries and submit documentation as required for installation approval in accordance with national regulatory authorities.

TASK 25-62-30-450-806

8. Battery Pack Installation

SUBTASK 25-62-30-450-001

A. Battery Reinstallation

CAUTION: THE BATTERY PACK CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE (ESD) COMPONENTS AND IT MUST BE HANDLED WITH CARE. IF POSSIBLE, WEAR A GROUNDED WRIST STRAP WHEN HANDLING THE BATTERY PACK DURING INSTALLATION ACTIVITIES. TAKE PARTICULAR CARE TO AVOID TOUCHING THE EXPOSED CIRCUIT BOARD AND CONNECTOR PINS ON THE BOARD.

- 1) This subtask applies to reinstallation of an existing battery that was removed for inspection and testing.
- 2) See Figure 26 Battery Pack Installation.

ARTEX PRODUCTS / ACR ELECTRONICS, INC
DESCRIPTION, OPERATION, INSTALLATION AND MAINTENANCE MANUAL
ME406 (453-6603), ME406HM (453-6604)

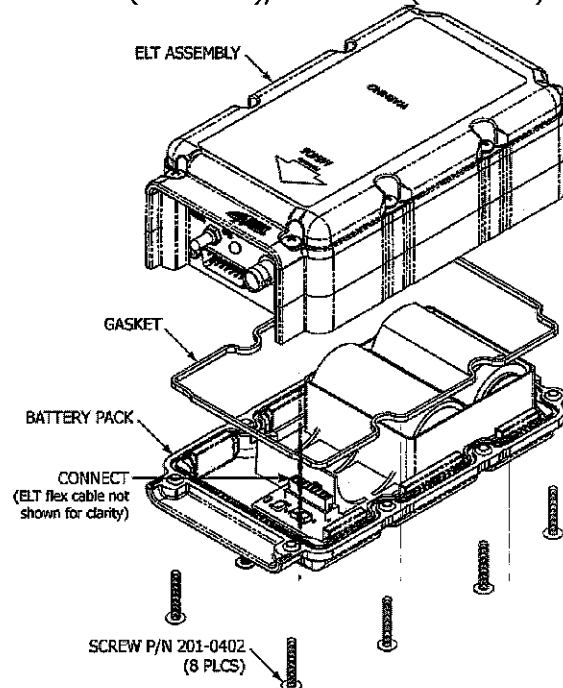


Figure 26 Battery Pack Installation

- 3) Verify the gasket is in place and in good condition.
- 4) Lay the battery pack on the work surface with the cells facing up.
- 5) Align the ELT with the battery pack, holding it slightly above the pack with one hand.
- 6) Connect the ELT flex cable receptacle to the plug on the battery pack circuit board using the other hand, taking care not to put a twist in the flex cable.

NOTE: The receptacle should "click" into place when properly mated to the plug.

- 7) Reset the ELT by toggling the ELT local control switch to "ON" and back to "ARM" after 1-2 seconds, if the ELT activates.

NOTE: This step may be necessary because the ELT will occasionally activate when power is connected to it in Step 6.

- 8) Fit the battery pack into place on the ELT, making sure the gasket is positioned correctly.
- 9) Turn the battery pack bottom face up to facilitate installing the screws, while securely holding the ELT and battery pack together.
- 10) Install the eight battery pack retaining screws and tighten until the ELT is snug against the gasket.
- 11) Torque the screws to 10-12 lb-in (113-136 N•cm).
- 12) Perform an ELT self-test as follows:
 - a) Set the ELT local control switch in the "ON" position. The LED will begin flashing every 3-4 seconds.
 - b) Return the switch to the "ARM" position after 1-2 seconds. If the ELT is working properly, the LED will stay on for approximately 1 second. The ELT may flash the following expected error codes, which should be ignored.
 1. 3-flash and 4-flash errors, which are generated because the ELT is not installed and connected to an antenna, etc.

ARTEX PRODUCTS / ACR ELECTRONICS, INC
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ME406 (453-6603), ME406HM (453-6604)

W/A
W/A
W/A

2. A 5-flash error will be indicated if the ELT is programed with a location protocol, and is generated because the ELT is not connected to the navigation system and receiving position data.
3. A 6-flash error will indicate the G-Switch loop between pins 5 and 12 on the D-Sub connector is open or not installed.
- c) If a 7-flash error code is indicated, there is a problem with the battery or battery connection wiring. Refer to Table 6 on page 37.

SUBTASK 25-62-30-450-002

B. New Battery Installation

CAUTION: DO NOT USE CONTACT CLEANER ON ELT COMPONENTS. SUCH CHEMICAL AGENTS CAN BE HIGHLY DESTRUCTIVE TO THE MOUNTING HARDWARE AND ELT HOUSING, CAUSING CRACKING, FRACTURING AND OTHER DAMAGE.

- 1) This subtask applies to installation of a new (i.e., replacement) battery.
- 2) Verify the bottom of the ELT is clean and free of battery corrosion residue. Clean as necessary.
- 3) Install the new gasket in the battery pack sealing groove.
- 4) Perform Steps (4) through (12) of the procedure outlined in SUBTASK 25-62-30-450-001 on page 62.
- 5) Place the duplicate copy of the battery expiration date label on the ELT in a location where it is visible when the ELT is installed in the mounting tray.

NOTE: The label is supplied with the new battery pack.

- 6) Enter the pertinent battery replacement information in the logbook (i.e., aircraft records) and fill out any other required documentation.

TASK 25-62-30-410-803

9. Helicopter Installations - Special Considerations

SUBTASK 25-62-30-990-001

A. Background

- 1) There are few guidelines, aside from experience, regarding the best way to mount an ELT in helicopters.
- 2) Before the availability of multi-axis G-switch modules, manufacturers advised installing ELTs with the sensitive axis pointing approximately 45° downward from the normal forward direction of flight.
 - a) This mounting attitude was adapted due to a combination of the directional sensing limitations of a single-axis G-switch and the flight characteristics of helicopters.
 - b) Mounting the ELT in this attitude and orientation is currently specified by CAR, Part 5, Subpart 551.104.
 - c) Experience has indicated this mounting angle tends to preload the G-switch and "nuisance" activation can occur as a result of severe aircraft maneuvers, and abrupt takeoffs and landings.
- 3) ACR Electronics does not recommend installing ELTs designed with a single-axis G-switch in helicopters due the limitations and issues cited above.

SUBTASK 25-62-30-990-002

B. Recommendations

- 1) ACR Electronics recommends installation of the ME406HM ELT in helicopters. The ME406HM ELT is equipped with a 5-axis G-switch module in addition to the usual primary G-switch, which is oriented to the direction of flight. See Figure 27 ELT Orthogonal Axes.

25-62-30

ARTEX PRODUCTS / ACR ELECTRONICS, INC
DESCRIPTION, OPERATION, INSTALLATION AND MAINTENANCE MANUAL
ME406 (453-6603), ME406HM (453-6604)

SUBTASK 25-62-30-750-010

O. ELT Reset Check – Item 5h

- 1) Place the ELT control switch in the "ON" position.
- 2) Return the switch to the "ARM" position.
- 3) If the ELT is working properly, the LED will stay on for approximately 1 second and then turn off. If a series of flashes are displayed, refer to Table 6 on page 37.

NOTE: A 5-flash error indication will occur if the ELT is programmed with a location protocol, since no navigation input data is present.

~~SUBTASK 25-62-30-750-011~~

P. Installed Transmitter Test – Item 6

CAUTION: DO NOT ALLOW THE DURATION OF THIS TEST TO EXCEED 5 SECONDS. THE ELT WILL TRANSMIT A 406 MHZ SIGNAL AFTER THE ELT IS ACTIVATED FOR APPROXIMATELY 47 SECONDS. THE COSPAS-SARSAT SATELLITE SYSTEM WILL CONSIDER THE 406 MHZ TRANSMISSION TO BE A VALID DISTRESS SIGNAL.

- 1) Reinstall the ELT in accordance with SUBTASK 25-62-30-410-001 on page 60.
- 2) If required by local aviation regulations, perform the following functional check within the first 5 minutes after the hour (UTC).
- 3) Notify any nearby control tower of your intentions.
- 4) Tune a receiver, usually the aircraft transceiver, to 121.5 MHz.

NOTE: An AM radio may be used to receive the signal.

- 5) Activate the ELT by placing the cockpit remote switch in the "ON" position. The LED will begin flashing continuously.
- 6) Listen for 3 audible sweeps on the receiver, which takes about 1 second.
- 7) Verify the buzzer sounds immediately upon activation.
- 8) Return the cockpit remote switch to the "ARM" (off) position while paying close attention to LED activity when the ELT enters the "ARM" condition. If the ELT is working properly, the LED will stay on for approximately 1 second and then turn off.

NOTE: This test also completes the requirement to check ELT controls by verifying operation of the remote switch.

- 9) Refer to Table 6 on page 37 if the LED displays a series of error code flashes.