SUPPLEMENTS

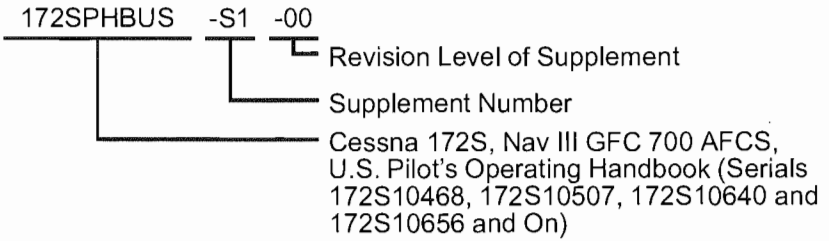
INTRODUCTION

The supplements in this section contain amended operating limitations, operating procedures, performance data and other necessary information for airplanes conducting special operations for both standard and optional equipment installed in the airplane. Operators should refer to each supplement to ensure that all limitations and procedures appropriate for their airplane are observed.

A non FAA Approved Log Of Approved Supplements is provided for convenience only. This log is a numerical list of all FAA Approved supplements applicable to this airplane by name, supplement number and revision level. This log should be used as a checklist to ensure all applicable supplements have been placed in the Pilot's Operating Handbook (POH). Supplements for both standard and installed optional equipment must be maintained to the latest revision. Those supplements applicable to optional equipment which is not installed in the airplane, do not have to be retained.

Each individual supplement contains its own Log of Effective Pages. This log lists the page number and revision level of every page in the supplement. The log also lists the dates on which revisions to the supplement occurred. Supplement page numbers will include an S and the supplement number preceding the page number.

The part number of the supplement provides information on the revision level. Refer to the following example:



LOG OF APPROVED SUPPLEMENTS

NOTE

IT IS THE AIRPLANE OWNER'S RESPONSIBILITY TO MAKE SURE THAT HE OR SHE HAS THE LATEST REVISION TO EACH SUPPLEMENT OF A PILOT'S OPERATING HANDBOOK, AND THE LATEST ISSUED "LOG OF APPROVED SUPPLEMENTS". THIS "LOG OF APPROVED SUPPLEMENTS" WAS THE LATEST VERSION AS OF THE DATE IT WAS SHIPPED BY CESSNA; HOWEVER, SOME CHANGES MAY HAVE OCCURRED, AND THE OWNER SHOULD VERIFY THIS IS THE LATEST, MOST UP-TO-DATE VERSION BY CONTACTING CESSNA PROPELLER AIRCRAFT CUSTOMER SERVICES AT (316) 517-5800.

Supplement Number	Name	Revision Level	Equipment Installed
1	Artex ME406 Emergency Locator Transmitter (ELT)	0	X
2	Artex C406-N Emergency Locator Transmitter (ELT)	0	
3	Bendix/King KR87 Automatic Direction Finder (ADF)	0	
4	Winterization Kit	0	
5	JAR-OPS Operational Eligibility	0	

Cessna
A Textron Company

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual

SKYHAWK SP

CESSNA MODEL 172S

NAV III AVIONICS OPTION - GFC 700 AFCS

Serials 172S10648, 172S10507, 172S10640 and 172S10656 and On

SUPPLEMENT 1

ARTEX ME406 EMERGENCY LOCATOR TRANSMITTER (ELT)

SERIAL NO._____

REGISTRATION NO._____

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Artex ME406 Emergency Locator Transmitter (ELT) is installed.

APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J
Cessna Aircraft Co.
Delegation Option Authorization DOA-820564-CE

RLS Administrative AR

Member of GAMA

DATE OF APPROVAL 20 December 2007

20 DECEMBER 2007

SUPPLEMENT 1

ARTEX ME406 EMERGENCY LOCATOR TRANSMITTER (ELT)

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status	Date
Original Issue	20 December 2007

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
S1-1 thru S1-8	Original	0

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

Number	Title	Airplane Serial Effectivity	Revision Incorporated	Incorporated in Airplane

ARTEX ME406 EMERGENCY LOCATOR TRANSMITTER (ELT)

GENERAL

The Artex ME406 Emergency Locator Transmitter (ELT) installation uses a solid-state 2-frequency transmitter powered by an internal lithium battery. The ME406 is also equipped with an instrument panel-mounted remote switch assembly, that includes a red warning light, and an external antenna mounted on the top of the tailcone. The remote switch assembly is installed along the upper right instrument panel and controls ELT operating modes from the flight crew station. When the remote switch is set to the ARM position, the transmitter is energized only when the internal "G" switch senses longitudinal inertia forces per TSO-C91a/TSO-C126. When the remote switch is set to the ON position, the transmitter is immediately energized.

The ME406 transmitter unit is located in the tailcone along the right side behind the baggage compartment aft panel. On the ELT transmitter unit is a panel containing an ARM/ON switch and a transmitter warning light.

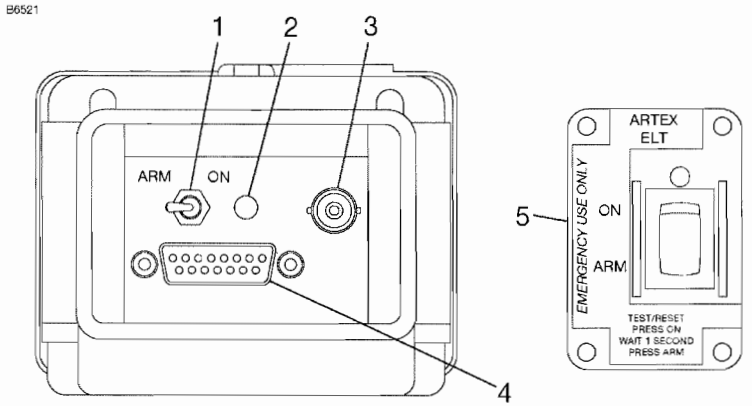
The ELT installation uses two different warnings to tell the pilot when the ELT is energized. The aural warning is an unusual sound that is easily heard by the pilot. The visual warning is a flashing red light directly above the remote switch that shows the pilot that the ELT has been activated.

When the ME406 is energized, the ELT transmits the standard swept tone signal on the international VHF frequency of 121.5 MHz until battery power is gone. The 121.5 MHz signal is mainly used to pinpoint the beacon during search and rescue operations, and is monitored by general aviation, commercial aircraft, and government agencies.

In addition, for the first 24 hours of the ELT being energized, a 406.028 MHz signal is transmitted at 50 second intervals. This transmission lasts 440 milliseconds and contains identification data programmed into the ELT and is received by COSPAS/SARSAT satellites. The transmitted data may include the Aircraft ID, ELT Serial Number, Country Code, and COSPAS/SARSAT ID.

(Continued Next Page)

ARTEX ME406 ELT CONTROL PANEL



1. ELT PANEL SWITCH (2-Position Toggle Switch):
   a. ARM (OFF) - Turns OFF and ARMS transmitter for automatic activation if "G" switch senses a predetermined deceleration level.
   b. ON - Activates transmitter instantly. The ON position bypasses the automatic activation switch. The RED warning light on ELT panel and on the remote switch assembly mounted on the instrument panel should come on.
2. TRANSMITTER WARNING LIGHT - Light comes on RED to indicate the transmitter is transmitting a distress signal.
3. ANTENNA RECEPTACLE - Connects to the antenna mounted on top of tailcone.
4. REMOTE CABLE JACK - Connects to the ELT remote switch assembly located on the upper right instrument panel.
5. REMOTE SWITCH ASSEMBLY - (2-Position Rocker Switch):
   a. ARM (OFF) - Turns OFF and ARMS transmitter for automatic activation if "G" switch senses a predetermined deceleration level.
   b. ON - Remotely activates the transmitter for test or emergency situations. The RED warning light above the rocker switch comes on to indicate that the transmitter is transmitting a distress signal.

Figure S1-1

OPERATING LIMITATIONS

There are no additional airplane operating limitations when the Artex ME406 ELT is installed.

The airplane owner or operator must register the ME406 ELT with the applicable civil aviation authority before use to make sure that the identification code transmitted by the ELT is in the COSPAS/SARSAT database. Refer to www.cospas-sarsat.org for registration information.

Refer to 14 CFR 91.207 for ELT inspection requirements. The ME406 must be inspected and tested by an approved technician using the correct test equipment under the appropriate civil aviation authorities approved conditions.

EMERGENCY PROCEDURES

If a forced landing is necessary, set the remote switch to the ON position before landing. This is very important in remote or mountainous terrain. The red warning light above the remote switch will flash and the aural warning will be heard.

After a landing when search and rescue aid is needed, use the ELT as follows:

NOTE

The ELT remote switch assembly could be inoperative if damaged during a forced landing. If inoperative, the inertia "G" switch will activate automatically. However, to turn the ELT OFF and ON again requires manual switching of the ELT panel switch which is located on the ELT unit.

1. MAKE SURE THE ELT IS ENERGIZED:
   a. If the red warning light above the remote switch is not flashing, set the remote switch to the ON position.
   b. Listen for the aural warning. If the COM radio(s) operate and can be energized safely (no threat of fire or explosion), energize a COM radio and set the frequency to 121.5 MHz. The ELT tone should be heard on the COM radio if the ELT is working correctly. When done, de-energize the COM radio(s) to conserve the airplane battery power.
   c. Make sure that nothing is touching or blocking the ELT antenna.
2. AFTER RESCUE - Set the remote switch to the ARM position to de-energize the ELT. If the remote switch does not function, set the switch on the ME406 (in the tailcone) to the ARM position.

NORMAL PROCEDURES

When operating in a remote area or over hazardous terrain, it is recommended that the ELT be inspected by an approved technician more frequently than required by 14 CFR 91.207.

NORMAL OPERATION

1. Check that the remote switch (on the upper right instrument panel) is set to the ARM position.

Normal operation of the ME406 from the flight crew station is only to de-energize and arm the ELT after it has been accidentally energized (no emergency).

The ELT can be energized by a lightning strike or hard landing. If the red light above the remote switch is flashing and the aural warning is heard, the ELT is energized. Check for the emergency signal on a COM radio set to 121.5 MHz. To stop the transmissions, set the remote switch to the ON position momentarily and then set to the ARM position. Tell the nearest Air Traffic Control facility about the accidental transmissions as soon as possible to hold search and rescue work to a minimum.

PERFORMANCE

There is no change to the airplane performance when the Artex ME406 ELT is installed.

Cessna
A Textron Company

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual

SKYHAWK SP

CESSNA MODEL 172S

NAV III AVIONICS OPTION - GFC 700 AFCS

Serials 172S10648, 172S10507, 172S10640 and 172S10656 and On

SUPPLEMENT 2

ARTEX C406-N EMERGENCY LOCATOR TRANSMITTER (ELT)

SERIAL NO._____
REGISTRATION NO._____

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Artex C406-N Emergency Locator Transmitter (ELT) is installed.

APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J
Cessna Aircraft Co.
Delegation Option Authorization DOA-ESO564-CE

RLS Administrative AR

Member of GAMA

DATE OF APPROVAL 20 December 2007

20 DECEMBER 2007

SUPPLEMENT 2

ARTEX C406-N EMERGENCY LOCATOR TRANSMITTER (ELT)

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status	Date
Original Issue	20 December 2007

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
S2-1 thru S2-8	Original	0

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

Number	Title	Airplane Serial Effectivity	Revision Incorporated	Incorporated in Airplane

ARTEX C406-N EMERGENCY LOCATOR TRANSMITTER (ELT)

GENERAL

The Artex C406-N Emergency Locator Transmitter (ELT) installation uses a solid-state 3-frequency transmitter powered by an internal lithium battery. The navigation function of the C406-N ELT receives power from the airplane's main battery thru Avionics Bus 1 and the Essential Bus. The C406-N is also equipped with an instrument panel-mounted remote switch assembly, that includes a red warning light, and an external antenna mounted on the top of the tailcone. The remote switch assembly is installed along the top right side of the instrument panel and controls ELT operating modes from the flight crew station. When the remote switch is set to the ARM position, the transmitter is energized only when the internal "G-switch" senses longitudinal inertia forces per TSO-C91a/TSO-C126. When the remote switch is set to the ON position, the transmitter is immediately energized.

The C406-N transmitter unit is located in the tailcone along the right side behind the baggage compartment aft panel. On the ELT transmitter unit is a panel containing an ON/OFF switch and a transmitter warning light.

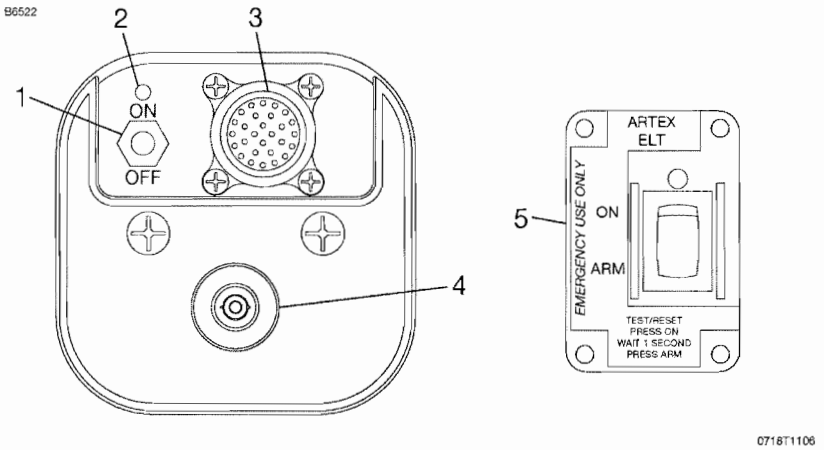
The ELT installation uses two different warnings to tell the pilot when the ELT is energized. The aural warning is an unusual sound that is easily heard by the pilot. The visual warning is a flashing red light directly above the remote switch that shows the pilot that the ELT has been activated.

When the C406-N is energized, the ELT transmits the standard swept tone signal on the international VHF frequency of 121.5 MHz and UHF frequency of 243.0 MHz until battery power is gone. The 121.5 MHz signal is mainly used to pinpoint the beacon during search and rescue operations, and is monitored by general aviation, commercial aircraft, and government agencies.

In addition, for the first 24 hours of the ELT being energized, a 406.028 MHz signal is transmitted at 50 second intervals. This transmission lasts 440 milliseconds and contains identification data programmed into the ELT and is received by COSPAS/SARSAT satellites. The transmitted data may include the Aircraft ID, GPS coordinates, ELT Serial Number, Country Code, and COSPAS/SARSAT ID.

(Continued Next Page)

ARTEX C406-N ELT CONTROL PANEL



1. ELT PANEL SWITCH (2-Position Toggle Switch):
   a. OFF - Turns OFF and ARMS transmitter for automatic activation if "G" switch senses a predetermined deceleration level.
   b. ON - Activates transmitter instantly. The ON position bypasses the automatic activation switch. The RED warning light on ELT panel and on the remote switch assembly mounted on the instrument panel should come on.
2. TRANSMITTER WARNING LIGHT - Light comes on RED to indicate the transmitter is transmitting a distress signal.
3. REMOTE CABLE JACK - Connects to the ELT remote switch assembly located on the upper right instrument panel.
4. ANTENNA RECEPTACLE - Connects to the antenna mounted on top of tailcone.
5. REMOTE SWITCH ASSEMBLY - (2-Position Rocker Switch):
   a. ARM (OFF) - Turns OFF and ARMS transmitter for automatic activation if "G" switch senses a predetermined deceleration level.
   b. ON - Remotely activates the transmitter for test or emergency situations. The RED warning light above the rocker switch comes on to indicate that the transmitter is transmitting a distress signal.

Figure S2-1

OPERATING LIMITATIONS

There are no additional airplane operating limitations when the Artex C406-N ELT is installed.

The airplane owner or operator must register the C406-N ELT with the applicable civil aviation authority before use to make sure that the identification code transmitted by the ELT is in the COSPAS/SARSAT database. Refer to www.cospas-sarsat.org for registration information.

Refer to 14 CFR 91.207 for ELT inspection requirements. The C406-N must be inspected and tested by an approved technician using the correct test equipment under the appropriate civil aviation authorities approved conditions.

EMERGENCY PROCEDURES

If a forced landing is necessary, set the remote switch to the ON position before landing. This is very important in remote or mountainous terrain. The red warning light above the remote switch will flash and the aural warning will be heard.

After a landing when search and rescue aid is needed, use the ELT as follows:

NOTE

The ELT remote switch assembly could be inoperative if damaged during a forced landing. If inoperative, the inertia "G" switch will activate automatically. However, to turn the ELT OFF and ON again requires manual switching of the ELT panel switch which is located on the ELT unit.

1. MAKE SURE THE ELT IS ENERGIZED:
   a. If the red warning light above the remote switch is not flashing, set the remote switch to the ON position.
   b. Listen for the aural warning. If the COM radio(s) operate and can be energized safely (no threat of fire or explosion), energize a COM radio and set the frequency to 121.5 MHz. The ELT tone should be heard on the COM radio if the ELT is working correctly. When done, de-energize the COM radio(s) to conserve the airplane battery power.
   c. Make sure that nothing is touching or blocking the ELT antenna.
2. AFTER RESCUE - Set the remote switch to the ARM position to de-energize the ELT. If the remote switch does not function, set the switch on the C406-N (in the tailcone) to the OFF position.

NORMAL PROCEDURES

When operating in a remote area or over hazardous terrain, it is recommended that the ELT be inspected by an approved technician more frequently than required by 14 CFR 91.207.

NORMAL OPERATION

1. Check that the remote switch (on the right instrument panel) is set to the ARM position.

Normal operation of the C406-N from the flight crew station is only to de-energize and arm the ELT after it has been accidentally energized (no emergency).

The ELT can be energized by a lightning strike or hard landing. If the red light above the remote switch is flashing and the aural warning is heard, the ELT is energized. Check for the emergency signal on a COM radio set to 121.5 MHz. To stop the transmissions, set the remote switch to the ON position momentarily and then set to the ARM position. Tell the nearest Air Traffic Control facility about the accidental transmissions as soon as possible to hold search and rescue work to a minimum.

PERFORMANCE

There is no change to the airplane performance when the Artex C406-N ELT is installed.

Cessna
A Textron Company

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual

SKYHAWK SP

CESSNA MODEL 172S

NAV III AVIONICS OPTION - GFC 700 AFCS

Serials 172S10648, 172S10507, 172S10640 and 172S10656 and On

SUPPLEMENT 3

BENDIX/KING KR87 AUTOMATIC DIRECTION FINDER (ADF)

SERIAL NO._____

REGISTRATION NO._____

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Bendix/King KR 87 Automatic Direction Finder (ADF) is installed.

APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J
Cessna Aircraft Co.
Delegation Option Authorization DOA-E20004-CE

RLS Administrative AR

Member of GAMA

DATE OF APPROVAL 20 December 2007

20 DECEMBER 2007

SUPPLEMENT 3

BENDIX/KING KR87 AUTOMATIC DIRECTION FINDER (ADF)

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status	Date
Original Issue	20 December 2007

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
S3-1 thru S3-12	Original	0

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

Number	Title	Airplane Serial Effectivity	Revision Incorporated	Incorporated in Airplane

BENDIX/KING KR87 AUTOMATIC DIRECTION FINDER (ADF)

GENERAL

The Bendix/King Digital ADF is a panel-mounted, digitally tuned automatic direction finder. It is designed to provide continuous 1-kHz digital tuning in the frequency range of 200-kHz to 1799-kHz and eliminates the need for mechanical band switching. The system has a receiver, a built-in electronic timer, a bearing pointer shown on the G1000 Horizontal Situation Indicator (HSI), and a KA-44B combined loop and sense antenna. Controls and displays for the Bendix/King Digital ADF are shown and described in Figure S3-1. The Garmin GMA 1347 Audio Panel is used to control audio output. Audio panel operation is described in the Garmin G1000 Cockpit Reference Guide.

The Bendix/King Digital ADF can be used for position plotting and homing procedures, and for aural reception of amplitude modulated (AM) signals.

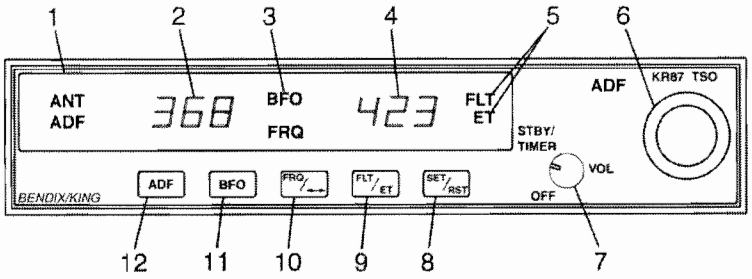
The flip-flop frequency display allows switching between preselected standby and active frequencies by pushing the frequency transfer button. Both preselected frequencies are stored in a nonvolatile memory circuit (no battery power required) and displayed in large, easy-to-read, self-dimming gas discharge numbers. The active frequency is continuously displayed in the left window, while the right window will display either the standby frequency or the selected readout from the built-in electronic timer.

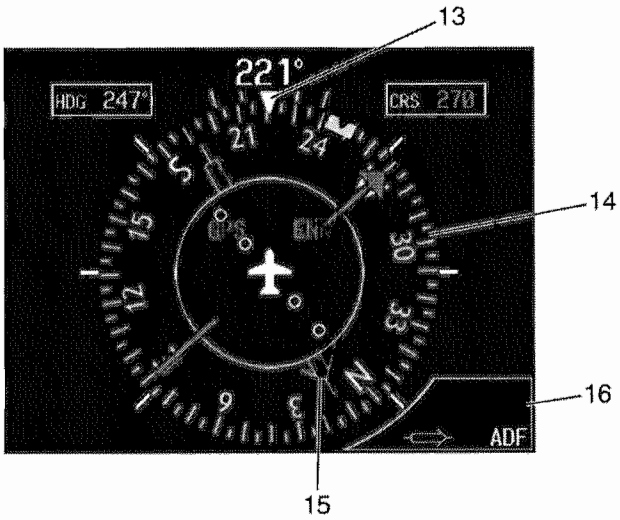
The built-in electronic timer has two timing functions that operate independently. An automatic flight timer starts when the unit is turned on. This timer counts up to 59 hours and 59 minutes. An elapsed timer will count up or down for up to 59 minutes and 59 seconds. When a preset time interval has been programmed and the countdown reaches :00, the display will flash for 15 seconds. Since both the flight timer and elapsed timer operate independently, it is possible to monitor either one without disrupting the other. The pushbutton controls are internally lighted. The light intensity is controlled by the AVIONICS dimmer control.

(Continued Next Page)

BENDIX/KING KR87 AUTOMATIC DIRECTION FINDER (ADF)

B4218





0585T1043
0585T1065

Figure S3-1

GENERAL (Continued)

1. ANT/ADF MODE ANNUNCIATOR - Antenna (ANT) is selected when the ADF button is in the OUT position. This mode improves the audio reception and is usually used for station identification. The bearing pointer is deactivated and will park in the 90° relative position. Automatic Direction Finder (ADF) mode is selected by pushing the ADF button. This mode activates the bearing pointer and will point in the direction of the station relative to the aircraft heading.
2. ACTIVE FREQUENCY DISPLAY - The frequency to which the ADF is tuned is displayed here. The active ADF frequency can be changed directly when either of the timer functions is selected.
3. BFO (Beat Frequency Oscillator) ANNUNCIATOR - The BFO mode is activated and annunciated by pushing the BFO button. When BFO mode is active, the carrier wave and its morse code identifier can be heard.

NOTE

CW signals (Morse Code) are unmodulated and no audio will be heard without use of BFO. This type of signal is not used in the United States air navigation. It is used in some foreign countries and marine beacons.

4. STANDBY FREQUENCY/FLIGHT TIME OR ELAPSED TIME DISPLAY - When FRQ is shown, the STANDBY frequency is shown in the right display. The STANDBY frequency is selected using the frequency select knobs. The selected STANDBY frequency is put into the active frequency window by pushing the frequency transfer button. Either the standby frequency, the flight timer, or the elapsed time is shown in this position. The flight timer and elapsed timer replace the standby frequency which goes into blind memory to be called back at any time by pushing the FRQ button. Flight time or elapsed time are shown and annunciated by depressing the FLT/ET button.
5. FLIGHT TIMER AND ELAPSED TIMER MODE ANNUNCIATION - Either the elapsed time (ET) or flight time (FLT) mode is annunciated here.

(Continued Next Page)

GENERAL (Continued)

6. FREQUENCY SELECT KNOBS - Selects the standby frequency when FRQ is displayed and directly selects the active frequency whenever either of the time functions is selected. The frequency selector knobs may be turned either clockwise or counterclockwise. The small knob is pulled out to tune the 1's. The small knob is pushed in to tune the 10's. The outer knob tunes the 100's with rollover into the 1000's up to 1799. These knobs are also used to set the desired time when the elapsed timer is used in the countdown mode.
7. ON/OFF/VOLUME CONTROL SWITCH (ON/OFF/VOL) - Controls power and audio output level. Turn the control switch clockwise from the OFF position to energize the receiver and increase audio volume. The KR87 has audio muting which causes the audio output to be muted unless the receiver is locked on a valid station.
8. SET/RESET ELAPSED TIMER BUTTON (SET/RST) - The SET/RST button resets the elapsed timer whether it is being displayed or not.
9. FLIGHT TIMER/ELAPSED TIMER MODE SELECTOR BUTTON (FLT/ET) - The FLT/ET button selects either Flight Timer mode or Elapsed Timer mode when pushed.
10. FREQUENCY TRANSFER BUTTON (FRQ) - The FRQ transfer button interchanges the active and standby frequencies when pushed.
11. BFO (Beat Frequency Oscillator) BUTTON - The BFO button selects the BFO mode when pushed in. (See note under item 3).
12. ADF BUTTON - The ADF button selects either the ANT mode or the ADF mode. The ANT mode is selected when the ADF button is in the out position. The ADF mode is selected when the ADF button is pushed in.
13. LUBBER LINE - Indicates magnetic heading of the airplane.
14. ROTATING COMPASS ROSE (HSI COMPASS CARD) - The rotating compass rose turns as the heading of the airplane changes. The magnetic heading of the airplane is under the lubber line.
15. BEARING POINTER - Shows magnetic bearing to the station.
16. BEARING INFORMATION WINDOW - Shows the type of pointer that is being used as the ADF bearing pointer. If ADF is not shown, push the BRG1 or BRG2 softkey until ADF is shown.

OPERATING LIMITATIONS

Refer to Section 2 of the Pilot's Operating Handbook and FAA Approved Flight Manual (POH/AFM).

EMERGENCY PROCEDURES

There is no change to the airplane emergency procedures when the Bendix/King KR 87 Automatic Direction Finder (ADF) is installed.

NORMAL PROCEDURES

TO OPERATE AS AN AUTOMATIC DIRECTION FINDER:

1. OFF/VOL Control - ON
2. Frequency Selector Knobs - SELECT desired frequency in the standby frequency display.
3. FRQ Button - PUSH to move the desired frequency from the standby to the active position.
4. ADF Selector Switch (on audio control panel) - SELECT as desired.
5. OFF/VOL Control - SET to desired volume level and identify that desired station is being received.
6. PFD Softkey (on PFD) - PUSH to show BRG1 and BRG2 softkeys.
7. BRG1 or BRG2 Softkey (on PFD) - PUSH to show ADF in Bearing Information Window.
8. ADF Button - SELECT ADF mode and note magnetic bearing on HSI.

(Continued Next Page)

NORMAL PROCEDURES (Continued)

ADF TEST (PREFLIGHT or IN FLIGHT):

1. ADF Button - SELECT ANT mode and note pointer moves to 90° position.
2. ADF Button - SELECT ADF mode and note the pointer moves without hesitation to the station bearing. Excessive pointer sluggishness, wavering or reversals indicate a signal that is too weak or a system malfunction.

TO OPERATE BFO:

1. OFF/VOL Control - ON
2. BFO Button - PRESS ON
3. ADF Selector Buttons (on audio control panel) - SET to desired mode.
4. VOL Control - ADJUST to desired listening level.

NOTE

A 1000-Hz tone and Morse Code identifier is heard in the audio output when a CW signal is received.

TO OPERATE FLIGHT TIMER:

1. OFF/VOL Control - ON
2. FLT/ET Mode Button - PRESS (once or twice) until FLT is annunciated. Timer will already be counting since it is activated by turning the unit on.
3. OFF/VOL Control - OFF and then ON if it is desired to reset the flight timer.

TO OPERATE AS A COMMUNICATIONS RECEIVER ONLY:

1. OFF/VOL Control - ON
2. ADF Button - SELECT ANT mode
3. Frequency Selector Knobs - SELECT desired frequency in the standby frequency display.
4. FRQ Button - PRESS to move the desired frequency from the standby to the active position.
5. ADF Selector Buttons (on audio control panel) - SET to desired mode.
6. VOL Control - ADJUST to desired listening level.

(Continued Next Page)

NORMAL PROCEDURES (Continued)

TO OPERATE ELAPSED TIME TIMER-COUNT UP MODE:

1. OFF/VOL Control - ON
2. FLT/ET Mode Button - PRESS (once or twice) until ET is annunciated.
3. SET/RST Button - PRESS momentarily to reset elapsed timer to zero.

NOTE

The Standby Frequency which is in memory while Flight Time or Elapsed Time modes are being displayed may be called back by pushing the FRQ button, then transferred to active by pushing the FRQ button again.

TO OPERATE ELAPSED TIME TIMER COUNT DOWN MODE:

1. OFF/VOL Control - ON
2. FLT/ET Mode Button - PRESS (once or twice) until ET is annunciated.
3. SET/RST Button - PRESS until the ET annunciation begins to flash.
4. FREQUENCY SELECTOR KNOBS - SET desired time in the elapsed time display. The small knob is pulled out to tune the 1's. The small knob is pushed in to tune the 10's. The outer knob tunes minutes up to 59 minutes.

NOTE

Selector knobs remain in the time set mode for 15 seconds after the last entry or until the SET/RST, FLT/ET or FRQ button is pressed.

(Continued Next Page)

NORMAL PROCEDURES (Continued)

TO OPERATE ELAPSED TIME TIMER COUNT DOWN MODE: (Continued)

5. SET/RST Button - PRESS to start countdown. When the timer reaches 0, it will start to count up as display flashes for 15 seconds.

NOTE

While FLT or ET are displayed, the active frequency on the left side of the window may be changed, by using the frequency selector knobs, without any effect on the stored standby frequency or the other modes.

ADF OPERATION NOTES:

ERRONEOUS ADF BEARING DUE TO RADIO FREQUENCY PHENOMENA:

In the U.S., the FCC, which assigns AM radio frequencies, occasionally will assign the same frequency to more than one station in an area. Certain conditions, such as Night Effect, may cause signals from such stations to overlap. This should be taken into consideration when using AM broadcast stations for navigation.

Sunspots and atmospheric phenomena may occasionally distort reception so that signals from two stations on the same frequency will overlap. For this reason, it is always wise to make positive identification of the station being tuned, by switching the function selector to ANT and listening for station call letters.

In the vicinity of electrical storms, an ADF indicator pointer tends to swing from the station tuned toward the center of the storm.

(Continued Next Page)

NORMAL PROCEDURES (Continued)

ADF OPERATION NOTES: (Continued)

ELECTRICAL STORMS:

In the vicinity of electrical storms, an ADF indicator pointer tends to swing from the station tuned toward the center of the storm.

NIGHT EFFECT:

This is a disturbance particularly strong just after sunset and just after dawn. An ADF indicator pointer may swing erratically at these times. If possible, tune to the most powerful station at the lowest frequency. If this is not possible, take the average of pointer oscillations to determine station bearing.

MOUNTAIN EFFECT:

Radio waves reflecting from the surface of mountains may cause the pointer to fluctuate or show an erroneous bearing. This should be taken into account when taking bearings over mountainous terrain.

COASTAL REFRACTION:

Radio waves may be refracted when passing from land to sea or when moving parallel to the coastline. This also should be taken into account.

PERFORMANCE

There is no change in airplane performance when the Bendix/King KR 87 Automatic Direction Finder (ADF) is installed. However, the installation of an externally mounted antenna or related external antennas, will result in a minor reduction in cruise performance.

Cessna
A Textron Company

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual

SKYHAWK SP

CESSNA MODEL 172S

NAV III AVIONICS OPTION - GFC 700 AFCS

Serials 172S10648, 172S10507, 172S10640 and 172S10656 and On

SUPPLEMENT 4

WINTERIZATION KIT

SERIAL NO._____

REGISTRATION NO._____

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Winterization Kit is installed.

APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J
Cessna Aircraft Co.
Delegation Option Authorization DOA-E30594-CE

RLS Administrative AR

Member of GAMA

DATE OF APPROVAL 20 December 2007

20 DECEMBER 2007

SUPPLEMENT 4

WINTERIZATION KIT

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status	Date
Original Issue	20 December 2007

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
S4-1 thru S4-6	Original	0

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

Number	Title	Airplane Serial Effectivity	Revision Incorporated	Incorporated in Airplane

WINTERIZATION KIT

GENERAL

The winterization kit consists of two cover plates, with placards, which attach to the air intakes in the cowling nose cap, a placard silk screened on the instrument panel, and insulation for the crankcase breather tube. This equipment should be installed for operations in temperatures consistently below 20°F (-7°C). Once installed, the crankcase breather insulation is approved for permanent use in both hot and cold weather operations.

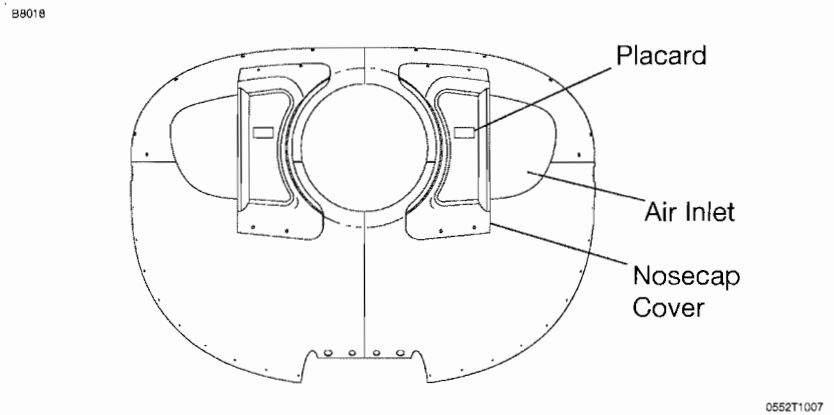


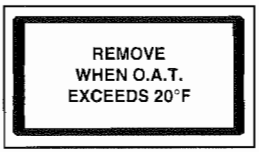
Figure S4-1

OPERATING LIMITATIONS

The following information must be presented in the form of placards when the airplane is equipped with a winterization kit.

1. On each nose cap cover plate:

B8021



2. On the instrument panel below the PFD:

B7545

WINTERIZATION KIT MUST BE REMOVED WHEN OUTSIDE AIR TEMPERATURE IS ABOVE 20° F.

EMERGENCY PROCEDURES

There is no change to the airplane emergency procedures when the winterization kit is installed.

NORMAL PROCEDURES

There is no change to the airplane normal procedures when the winterization kit is installed.

PERFORMANCE

There is no change to the airplane performance when the winterization kit is installed.

Cessna
A Textron Company

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual

SKYHAWK SP

CESSNA MODEL 172S

NAV III AVIONICS OPTION - GFC 700 AFCS

Serials 172S10648, 172S10507, 172S10640 and 172S10656 and On

SUPPLEMENT 5

JAR-OPS OPERATIONAL ELIGIBILITY

SERIAL NO._____
REGISTRATION NO._____

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for JAR-OPS Operational Eligibility.

APPROVED BY

FAA APPROVED UNDER 14 CFR PART 21 SUBPART J
Cessna Aircraft Co.
Delegation Option Authorization DOA-[illegible]-CE

RLS Administrative AR

Member of GAMA

DATE OF APPROVAL 20 December 2007

20 DECEMBER 2007

SUPPLEMENT 5

JAR-OPS OPERATIONAL ELIGIBILITY

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status	Date
Original Issue	20 December 2007

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
S5-1 thru S5-5/S5-6	Original	0

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

Number	Title	Airplane Serial Effectivity	Revision Incorporated	Incorporated in Airplane

JAR-OPS OPERATIONAL ELIGIBILITY

GENERAL

OPERATIONAL ELIGIBILITY

The JAA TGLs noted below specify that Operational Eligibility information be included in the airplane POH/AFM or POH/AFM Supplement for convenience in the JAR-OPS approval process. This Supplement provides a consistent location for the requested information. This information does not address the operation of the airplane or equipment by the pilot.

NAVIGATION OPERATIONAL ELIGIBILITY

The GPS/GNSS receivers in the G1000 System are certified to TSO C129a Class A1 and ETSO C129a Class A1 or TSO C145a and ETSO 2C145a.

The installed performance of the G1000 System has been tested and approved for IFR enroute, terminal and non-precision (RNAV or GPS) approach operations per AC 20-138A when using GPS/GNSS with the correct navigation database.

The G1000 System meets the requirements for GPS/GNSS as a Primary Means of Navigation for Oceanic/Remote Operations (RNP-10) per AC 20-138A, FAA Notice N8110.60, FAA Order 8400-12A and FAA Order 8700-1. Both GPS/GNSS receivers are required to be operating and receiving usable signals except for routes requiring only one Long Range Navigation sensor.

The G1000 System has been shown to be eligible for BRNAV (RNP-5) and PRNAV (RNP-1) Enroute and Terminal navigation per JAA TGL-2 (ACJ20X4), JAA TGL-10 and AC 90-96A provided that the G1000 is receiving usable navigation information from at least one GPS receiver. Eligibility does not constitute Operational Approval.

(Continued Next Page)

GENERAL (Continued)

SSR MODE S ENHANCED SURVEILLANCE OPERATIONAL ELIGIBILITY

The GTX 33 Transponder is certified to TSO C112a and ETSO 2C112a. The installed performance of the GTX 33 has been tested and approved per AC 20-131A, Draft AC-131B and AC 23-8B.

The GTX 33 is able to respond to interrogations in Modes A, C and is fully compliant with the requirements of Mode S Elementary Surveillance per TGL 13 Rev 1 and Draft TGL 13 Rev 2. Extended Squitter functionality is supported by the GTX 33. This does not constitute airworthiness or operational approval for Extended Squitter functionality.

OPERATING LIMITATIONS

There is no change to the airplane operating limitations for JAR-OPS Operational Eligibility. JAR-OPS may require separate airspace operating limitations.

EMERGENCY PROCEDURES

There is no change to the airplane emergency procedures for JAR-OPS Operational Eligibility.

NORMAL PROCEDURES

There is no change to the airplane normal procedures for JAR-OPS Operational Eligibility.

PERFORMANCE

There is no change to the airplane performance for JAR-OPS Operational Eligibility.

AmSafe, Inc.
Inflatable Restraints Division
1043 N. 47th Avenue
Phoenix, AZ, 85043
Document No.: E508810
Revision: D

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT

to

PILOT'S OPERATING HANDBOOK AND
FAA APPROVED AIRPLANE FLIGHT MANUAL

for

Cessna Aircraft Company

Skyhawk Models: 172R, 172S

Skylane Models 182S, 182T, T182T

Stationair Models 206H, T206H

Airplane Reg. No. _____ Airplane S/N: _____

This supplement must be attached to the FAA-Approved Cessna Airplane Models 172R, 172S, 182S, 182T, T182T, 206H, and T206H associated Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Airplane is modified by the installation of AmSafe Aviation Inflatable Restraint (AAIR®) System, V23 Version in accordance with STC No. SA01700LA.

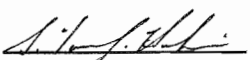
The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this supplement, consult the associated Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

FAA APPROVED _____

Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
Transport Airplane Directorate

Date June 28, 2007

LOG OF REVISIONS

REV NO	EFFECTED PAGES	DATE	DESCRIPTION	FAA APPROVAL
IR	Title (1) Log Page (2) 3 4	11-24-04 11-24-04 11-24-04 11-24-04	Initial Release	Original signed P. Power Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: November 24, 2004
A	Log Page (2) 3 4	12-21-04 12-21-04 12-21-04	Added information in SECTION 1and a limitation in SECTION 2. Corrected Moment Arm for system installations in all models.	Original signed by P. Power Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: December 21, 2004
B	Log Page (2) 4	4-14-05 4-14-05	Added weight and balance information summary for Models 172, 182, and 206 without rear bench seat AAIR Systems.	Original signed by P. Power Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: April 14, 2005
C	Log Page (2) 4 5 - Added	10-26-05 10-26-05 10-26-05	Section 6 – changed paragraph to explain alternate calculation concerning new EMA. Added weight and balance information summary for Model 206 additional kits and added alternate summaries for all models with new, lighter EMA in parenthesis.	Original signed by P. Power Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: October 26, 2005
D	Title (1) Log Page (2) 3 4 5	6-28-07 6-28-07 6-28-07 6-28-07 6-28-07	Updated Title by removing POH part numbers and added Title and page to footer. Section 2 – First paragraph – deleted part numbers from first sentence and deleted reference to part numbers above in last sentence. Third paragraph – sentence was "The restraint in an empty co-pilot or passenger seat must not . . ." Added warning label for orientation of airbag and information on additional Child Seat Buckle for Middle Seats of 206. Section 6 – deleted bolded empty weight in all summaries and deleted last paragraph. Whole Document – updated changed Company name from AMSAFE, Inc. to AmSafe, Inc. Unless proper name, aircraft was replaced with airplane.	 Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: June 28, 2007

SECTION 1 GENERAL

The AAIR V23 is a self-contained, modular, three-point restraint system that improves protection from serious head-impact injury during a survivable airplane crash by inclusion of an inflatable airbag to the lapbelt portion of the three-point restraint. An unbuckled restraint airbag will not inflate.

SECTION 2 LIMITATIONS

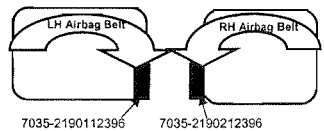
A child safety seat shall not be used with the V23 AAIR System in the front seat (co-pilot). A child safety seat may be used in the rear seat positions only by attaching the child seat with an auxiliary child seat buckle. The standard inflatable restraint buckle cannot be used to secure a child safety seat.

The Auxiliary Child Seat Buckle adapter secures a Child Safety Seat to either left or right positions of the Rear Seat for all models and the Middle Seats for Model 206 (see warning label below). For the Rear Seats, it is typically stored under the cushion and is found in the center of the seat adjacent to the standard AAIR End-Release Buckle Assembly. For the Middle Seats of Model 206, it is attached at the same attachment point as the metal strap AAIR End-release Buckle Assy and may be stored under the seat cushion. Both these Child Seat Buckle adapters are identifiable by part number below and attach to the Airbag Belt portion of the Seatbelt Airbag Assembly (see diagram).

It is recommended that the restraint in an empty co-pilot or passenger seat not be buckled to prevent inflation of the lapbelt airbag in the unoccupied seat.

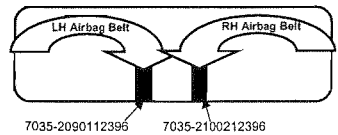
Representative Seatbelt Warning Label
Note: Label side of belt goes towards occupant.

Middle Seats for Model 206



Airplane Forward

Rear Bench Seat for Models 172, 182, and 206



SECTION 3 EMERGENCY PROCEDURES

No Change

SECTION 4 NORMAL PROCEDURES

To activate the system, join (buckle) the three-point restraint in the same manner as any other three-point seatbelt. An empty co-pilot or passenger seat restraint must not be buckled.

SECTION 5 PERFORMANCE

No Change

SECTION 6 WEIGHT AND BALANCE/EQUIPMENT LIST

For complete information of the AAIR V23 System effect on weight and balance loading to the airplane, please refer to AmSafe Aviation's, Weight and Balance Information Report, Document No. E508952.

In the summary that follows, Empty Weights and Moments are given for AAIR Systems with the current EMA, P/N 508358-409 and the new, lighter-weight EMA, P/N 508358-421, useful for loading and Center of Gravity calculations. Those expressed in parentheses were calculated using the new, lighter EMA, P/N 508358-421.

Models 172R, 172S – with optional rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in. lbs.	
7.638	57.928	442.454	AAIR System Difference Added (EMA, P/N 508358-409)
(7.338)		(425.075)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 172R, 172S – without optional rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in. lbs.	
3.848	45.397	174.686	AAIR System Difference Added (EMA, P/N 508358-409)
(3.698)		(167.871)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 182S, 182T, T182T – with rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in. lbs.	
7.638	57.682	440.578	AAIR System Difference Added (EMA, P/N 508358-409)
(7.338)		(423.270)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 182S, 182T, T182T – without rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in lbs.	
3.848	41.798	160.838	AAIR System Difference Added (EMA, P/N 508358-409)
(3.698)		(154.569)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 206H, T206H – with optional rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in.lbs.	
11.54	69.782	805.284	AAIR System Difference Added (EMA, P/N 508358-409)
(11.090)		(773.882)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 206H, T206H – without optional rear seat bench AAIR System

Weight-lbs.	Arm-in.	Moment-in.lbs.	
7.75	53.852	417.350	AAIR System Difference Added (EMA, P/N 508358-409)
(7.450)		(401.197)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 206H, T206H – Pilot/Co-Pilot Seat Only AAIR System

Weight-lbs.	Arm-in.	Moment-in.lbs.	
2.575	44.583	114.802	AAIR System Difference Added (EMA, P/N 508358-409)
(2.425)		108.113)	AAIR System Difference Added (EMA, P/N 508358-421)

Models 206H, T206H – Middle Seat Only AAIR System

Weight-lbs.	Arm-in.	Moment-in.lbs.	
3.875	65.382	253.356	AAIR System Difference Added (EMA, P/N 508358-409)
(3.725)		(243.547)	AAIR System Difference Added (EMA, P/N 508358-421)