

COBHAM

AVIATOR Wireless Handset

Installation & maintenance manual



AVIATOR Wireless Handset

Installation and maintenance manual

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The information, drawings and wiring diagrams contained in this manual are intended as a reference for engineering planning only. The drawings and wiring diagrams contained herein do not represent any specific Supplemental Type Certificate (STC). It is the installer's responsibility to compose installation drawings specific to the aircraft. This manual and the drawings and wiring diagrams contained herein may not be used as a substitute for an STC package.

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Disposal

Old electrical and electronic equipment marked with this symbol can contain substances hazardous to human beings and the environment. Never dispose these items together with unsorted municipal waste (household waste). In order to protect the environment and ensure the correct recycling of old equipment as well as the re-utilization of individual components, use either public collection or private collection by the local distributor of old electrical and electronic equipment marked with this symbol.



Contact the local distributor for information about what type of return system to use.

Record of revisions

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Introduction

1.1 General description

This Installation manual describes the administrative and technical aspects, features, and functions of the AVIATOR Wireless Handset and Cradle.

All comments or recommendations regarding the installation, acceptance or operation of the AVIATOR Wireless Handset system or its accessories and components should be directed to Cobham SATCOM.

Refer to the AVIATOR Wireless Handset User Manual for instructions how to configure and operate the handset.

1.1.1 The AVIATOR Wireless Handset

Important!

Important

The AVIATOR Wireless Handset and Cradle are approved according to the DO-160E Environmental Qualifications Forms. For further details see *DO-160 specifications* on page B-1.

Overview of the AVIATOR Wireless Handset

The AVIATOR Wireless Handset is a compact, light-weight aeronautical handset for use with aeronautical satcom systems from Cobham SATCOM. The TT-5624B AVIATOR Wireless Handset connects through a wireless access point to the SwiftBroadband satcom system.

It is charged by the Cradle. The Cradle is installed in the aircraft cabin and powered by the aircraft's power supply.



Figure 1-1: TT-5624B AVIATOR Wireless Handset and Cradle

IP calls and SIP telephony

The AVIATOR Wireless Handset is used for making phone calls over an IP based network. The handset connects to a wireless access point complying with the Wireless Local Area Networking (WLAN) standard 802.11b/g.

VoIP calls can be terminated in the SIP server of the Swift Broadband Unit of the satcom system, or they can travel as an IP call over satellite and be terminated by a SIP server at the receiving end.

1.1.2 AVIATOR Wireless Handset features

- Voice communication over IP based network
- Noise cancellation system
- Echo cancellation system
- Automatic power-up and power-down
- Li-Ion battery for extended talk and standby time
- Headset connection (3.5 mm Jack connector)
- Adjustable keypad backlight
- Display of alarms of the SwiftBroadband Unit
- High quality color TFT display with night colors

1.2 Part numbers

Applicable Cobham SATCOM model- and part numbers

This Installation Manual is for the AVIATOR Wireless Handset and Cradle and is applicable to the model- and part numbers below:

T&T part number	Model number	Description
405624B-THR	TT-5624B	AVIATOR Wireless Handset, black
405624B-THW	TT-5624B	AVIATOR Wireless Handset, white
405626B-THR	TT-5626B	Cradle for AVIATOR Wireless Handset, black
405626B-THW	TT-5626B	Cradle for AVIATOR Wireless Handset, white
405624B-101		Manual pack for AVIATOR Wireless Handset and Cradle

Table 1-1: Model and part numbers

Circuit breaker

Recommended aircraft circuit breaker	Description
Klixon 2TC2-2 or MS3320-2	Dimension of circuit breaker: 2 A

Table 1-2: Circuit breaker for the Cradle

Spare parts

Additional connectors for the pigtail are available:

Cobham SATCOM part number: 31-206012-003 (ODU PN S20L0C-P02PJH0-420S)

1.3 Unpacking

Unpack your AVIATOR Wireless Handset and Cradle and check that the following items are present:

AVIATOR Wireless Handset

- AVIATOR Wireless Handset
- USB cable for service-charging the device outside the aircraft

Cradle for AVIATOR Wireless Handset

- Cradle for AVIATOR Wireless Handset
- Mating connector for the pigtail connector

Equipment drawings

2.1 Introduction

The following pages show outline drawings of the AVIATOR Wireless Handset and Cradle.

Important

The drawings in this manual are for reference only. If you have access to the [Cobham SYNC Partner Portal](#) you can get copies of the outline drawings under Downloads > Drawings. You can download the drawings as PDF files.

2.2 TT-5624B AVIATOR Wireless Handset

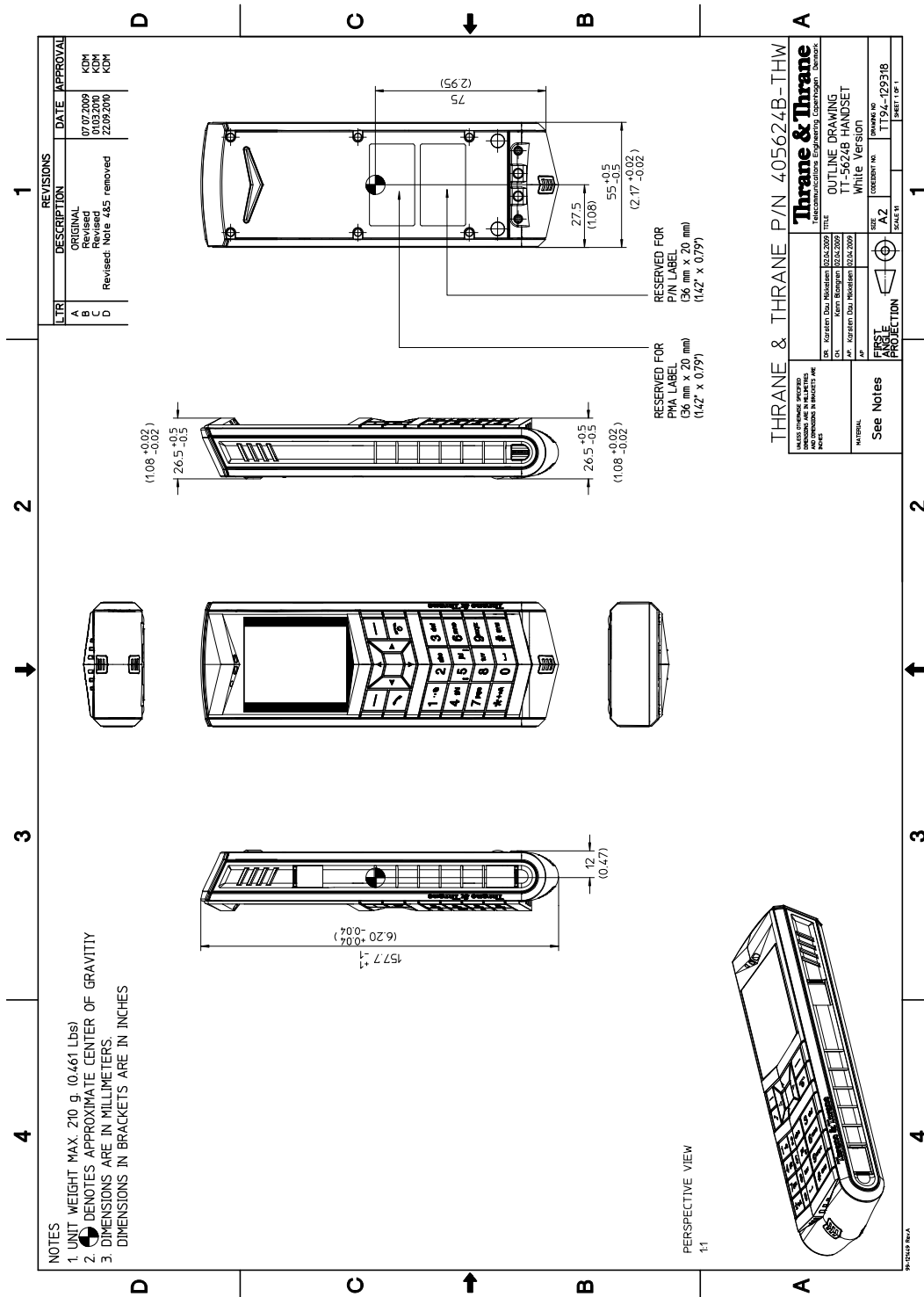


Figure 2-1: AVIATOR Wireless Handset, white version

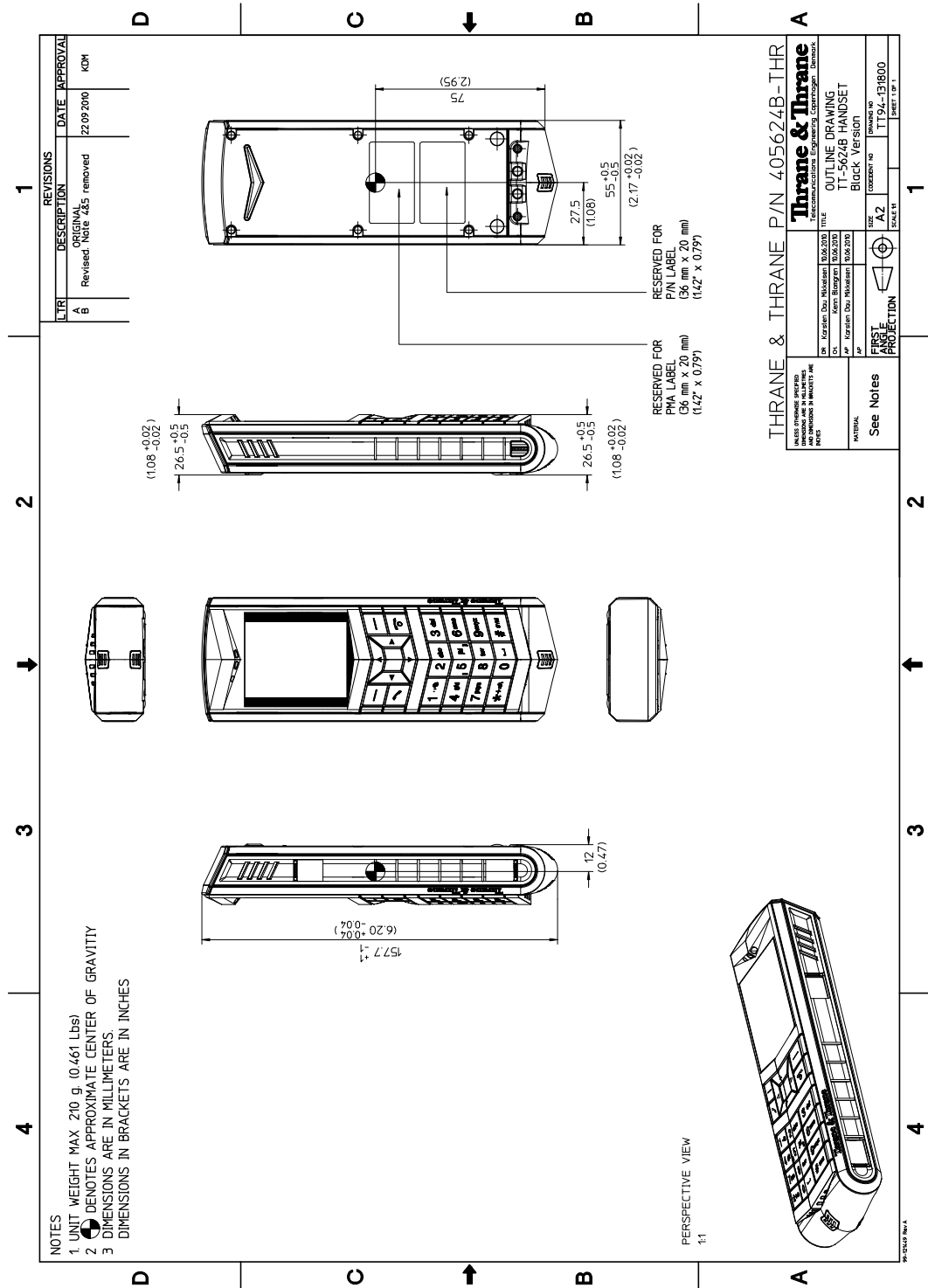
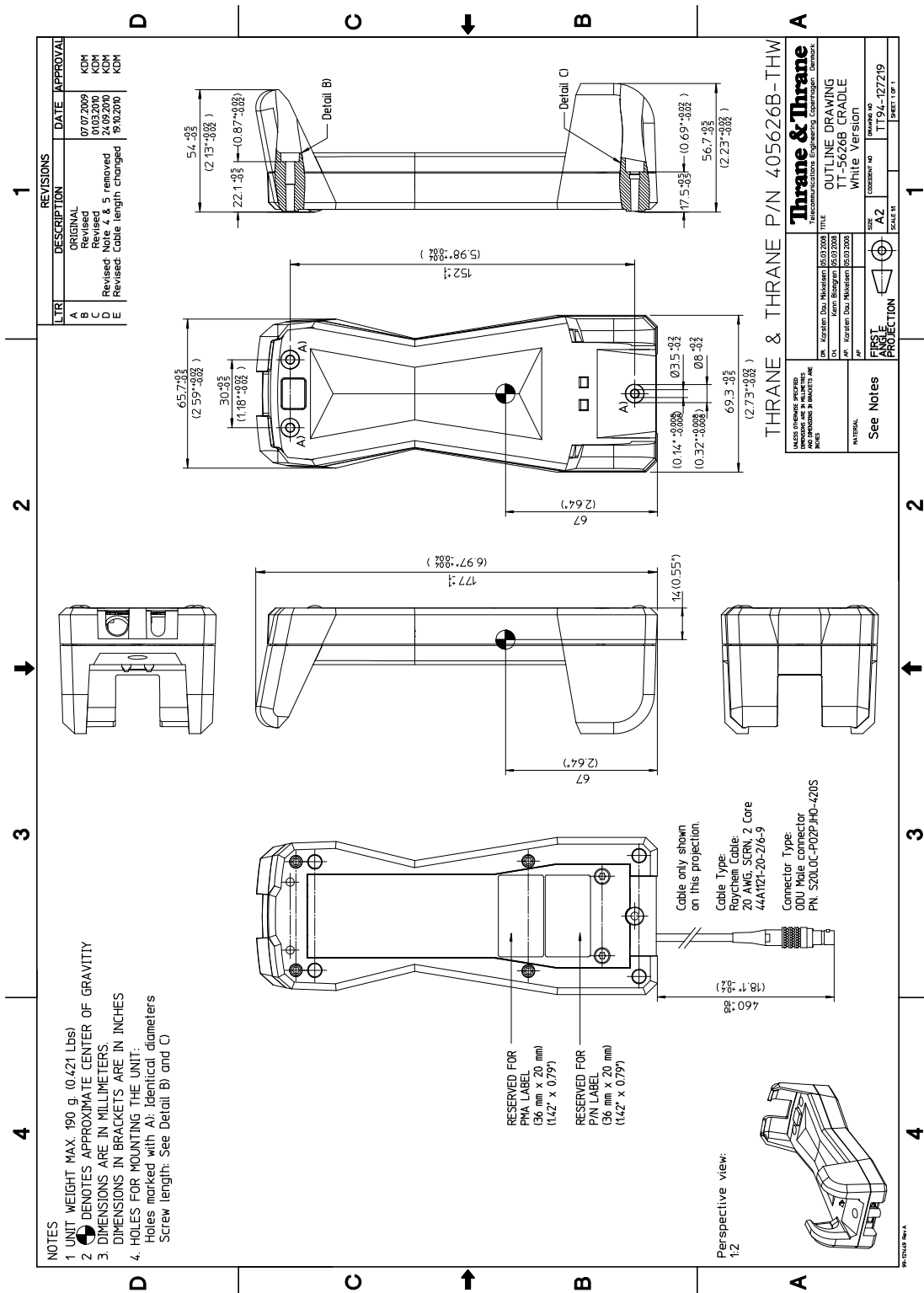


Figure 2-2: AVIATOR Wireless Handset, black version

2.3 TT-5626B Cradle





Connectors and pin-out

3.1 Cradle for AVIATOR Wireless Handset

The TT-5626B Cradle serves as a charger for the AVIATOR Wireless Handset when it is connected to the aircraft’s power supply.

3.1.1 Pigtail connector on the Cradle

Connector type

Mini-Snap male (ODU, size 0)

Connector drawing

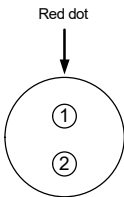


Figure 3-1: DC connector

Pin-out for DC connector for the Cradle

The connector has the following pin-out:

Pin	Function
1	28 V DC +
2	DC return

Table 3-1: Pin-out for DC connector

Mating connector

A mating connector for the pigtail connector (Mini Snap Female, size 0 (ODU PN K20L0C-P02NJH0-420S)) is included in the delivery. For details on how to mount the connector, see *To mount the mating connector on the cable* on page 4-4.

3.2 AVIATOR Wireless Handset

The AVIATOR Wireless Handset has two connectors on the side of the handset. One Jack connector for connecting a headset and one USB connector for service-charging the handset.



3.2.1 Jack connector for headset

Connector type

3.5 mm SMT phone jack (Switchcraft 35RASMT3BHNTR)

Pin-out

The Jack connector has the following pin-out:

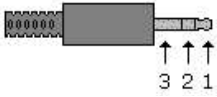
Pin	Function	
1	Microphone	
2	Speaker	
3	Ground	

Table 3-2: Pin-out for Jack connector for headset

3.2.2 USB connector for charging

Important

You are not allowed to charge the handset with the USB cable on board the aircraft. If you want to use the USB connector for charging, you must do it before entering the aircraft., e.g. in the installation center. For details, see *To charge the AVIATOR Wireless Handset from a computer or USB charger (service charge)* on page 4-7.

Connector type

Mini-USB type B, 5-pin

Installation

4.1 Mounting considerations

A Cradle is required for an aeronautical installation. It can only be mounted in the following ways:

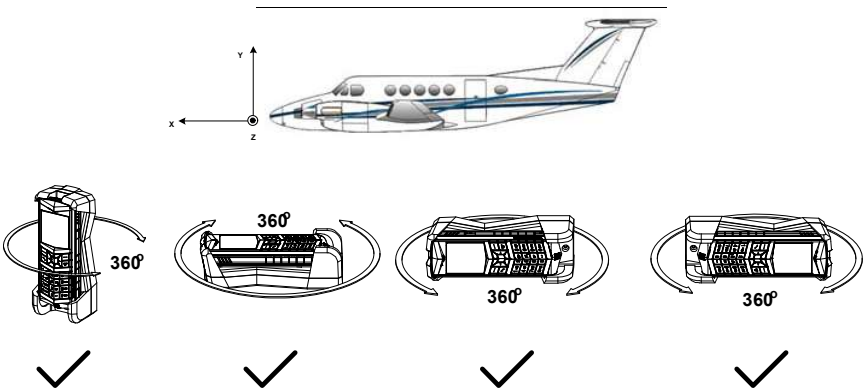


Figure 4-1: Allowed mounting positions in the cabin

Mount the cradle according to the information in the equipment drawing, see *TT-5626B Cradle* on page 2-4 in the chapter *Equipment drawings*.

Compass safe distance

Make sure that the AVIATOR Wireless Handset and the Cradle is installed far enough from any magnetic compass to avoid influence of the loudspeaker magnet on the compass reading. See the following table for the safe distance.

Device	Compass safe distance
AVIATOR Wireless Handset	400 mm (15.75 inches)
Cradle	400 mm (15.75 inches)

Table 4-1: Compass safe distance

For test conditions see *DO-160F string for AVIATOR Wireless Handset & Cradle* on page B-2.

4.2 Tools needed

Make sure you have the following tools when installing the Cradle for the AVIATOR Wireless Handset:

- **Positioning tool:** ODU (www.odu.de), part number for pin: 081 701 003 849 037, part number for socket: 081 700 003 749 037) fits cable type AWG 20/22/24.
- **Crimping tool:** AFM8 (DMC), M22520/2-01 or ODU (www.odu.de), part number: 080.000.037.000.000.

4.3 Electrical installation and wiring

4.3.1 To connect the AVIATOR Wireless Handset

The TT-5624B AVIATOR Wireless Handset connects through the wireless access point to the built-in SIP server and PBX of the SBU. For instructions how to connect see the AVIATOR Wireless Handset User Manual.

4.3.2 To wire the Cradle for the AVIATOR Wireless Handset

The following drawing shows the wiring of the TT-5626B Cradle.

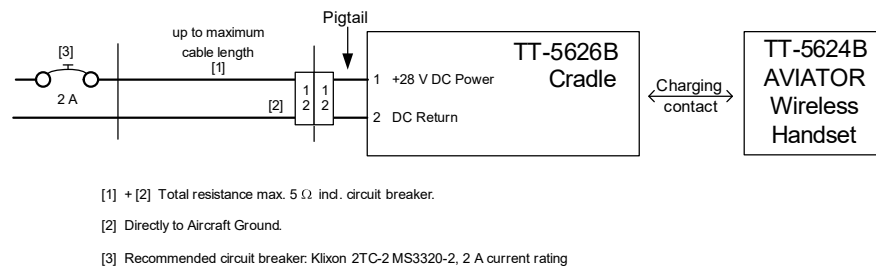


Figure 4-2: Wiring the Cradle

Connect the aircraft's DC power to the Cradle. For information on the DC connector see *Pin-out for DC connector for the Cradle* on page 3-1. For information on how to mount the mating connector on the cable, see the next section.

Cable requirements, Cradle

Cable ^a	Max. resistance	Other requirements
[1] (+28 V DC Power)	2.5 Ω , incl. circuit breaker	Max. cable length depends on the size of the wire.
[2] (DC return)	2.5 Ω	Max. cable length depends on the size of the wire.

Table 4-2: Requirements to Cradle DC cables

- a. The cable numbers refer to the numbers stated on the wiring drawing in **Figure 4-2: Wiring the Cradle**.

Circuit breaker considerations

A separate circuit breaker for the Cradle is recommended, for details see *Circuit breaker* on page 1-3. A maximum of five cradles may share one 2 A circuit breaker.

4.3.3 Cable preparation

Prepare the cable as indicated below:

Crimp termination (recommended)

- Stripping length, single conductor (A): 3 mm
- Stripping length, cable jacket (L): 10 mm
- Stripping length, braided shield (S): 2.5 mm

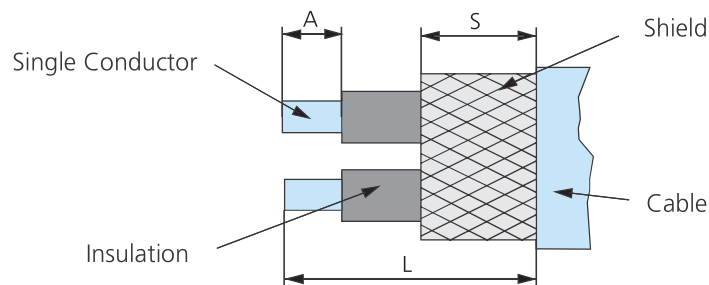


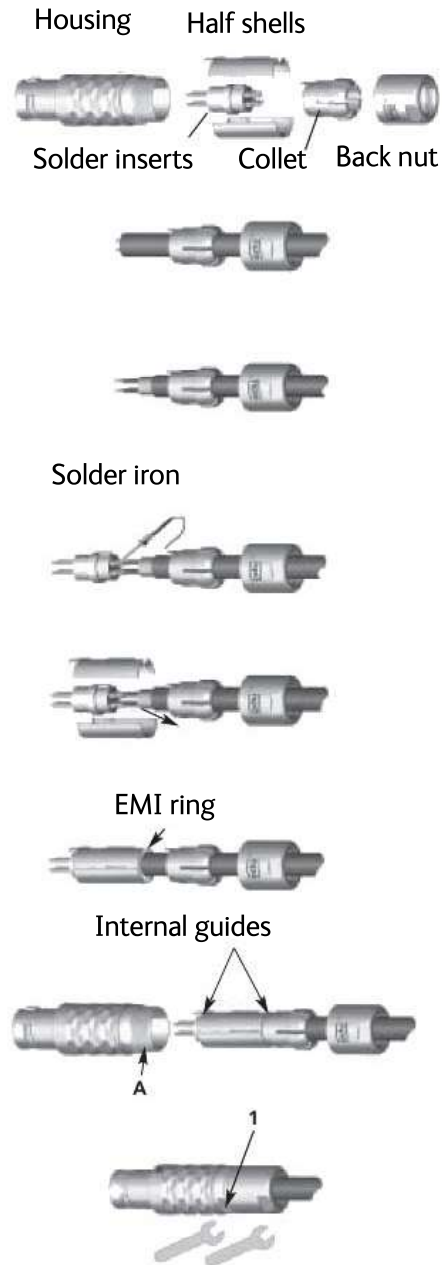
Figure 4-3: DC power cable, crimp termination

To mount the mating connector on the cable

Mating connector type: Mini Snap Female, size 0 (ODU PN K20L0C-P02NJH0-420S).

1. Slide Back nut and Collet over the cable.
 2. Strip cable and wire.
 3. Pre-tinning of strands recommended.
 4. Solder each wire to the corresponding contact.
 5. Bend cable shield outwards, assemble half shells.
 6. Slide the EMI ring against the sleeve and clamp the shield between it.
 7. Now you can put the assembled cable into the plug-housing. If needed, secure thread (A) with locking glue.
 8. Screw the Back nut onto the plug, hold against spanner flat (1) and fasten cable in the housing.
- Torque value: 0.6 Nm.

Note It is recommended to heat shrink the assembled pigtail and mating connectors, see next section.



Heat shrink

It is recommended to heat shrink the pigtail and the mating connector.



Figure 4-4: Heat-shrink of pigtail connector

4.3.4 To install the Cradle without the pigtail

You can mount the Cradle without using the pigtail in order to make the installation as tidy as possible. Cut off the connector and shorten the cable as required for your installation..

Important

There must be a minimum of 15 cm cable left.

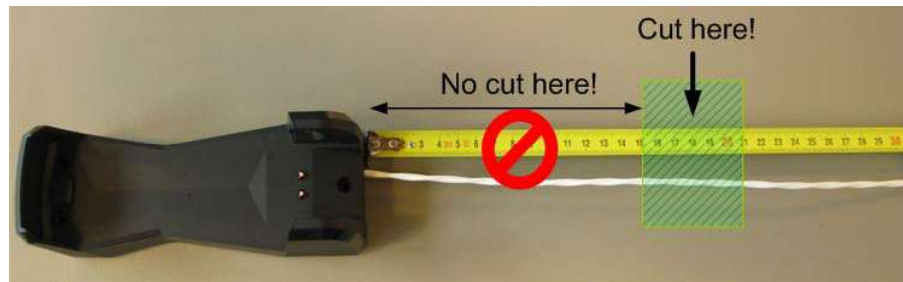


Figure 4-5: Installing the Cradle without the pigtail

Make sure that you can still turn the cradle when installed. This may be necessary during service and maintenance.

4.4 Recommended cables

The ODU connector collet system supports cable diameters from 3.0 mm to 4.2 mm.

The ODU crimp pins support cables from 24AWG to 20AWG (0.25 mm² to 0.5 mm²).

Use the instructions in *To mount the mating connector on the cable* on page 4-4 when assembling the ODU Mini snap connector.

4.4.1 DC cables, maximum resistance

Allowed maximum resistance in cable, Cradle

The following table shows the allowed maximum resistance.

Description	Pin	Maximum resistance
Cradle +28 V DC Power	1	2.5 Ω ^a (x Ω -y Ω in circuit breaker)
Cradle GND, DC Return	2	2.5 Ω ^b

Table 4-3: Maximum resistance for DC cable

- The max. cable resistance is calculated using the resistance of a Klixon 2TC circuit breaker. If another circuit breaker is used, the max. resistance and cable length may differ from these values.
- Note that the total cable DC resistance, i.e. the resistance of DC Power and GND is maximum 5 Ω .

4.4.2 Recommended DC Power cables

The cable types shall meet the following standards:

- M27500 for shielded wire

4.5 To charge the AVIATOR Wireless Handset

The battery icon next to the handset icon in the top right corner of the display shows the battery status of the handset. When the battery level is critically low, the handset makes a sound and shows a message, and the icon starts flashing to indicate that the battery needs recharging. If the battery is not recharged, the handset will eventually switch off.



There are two options for charging the handset:

- To charge the AVIATOR Wireless Handset using the cradle
- To charge the AVIATOR Wireless Handset from a computer or USB charger (service charge)

Important

It is strongly recommended to charge the handset after delivery to make sure it is fully charged and operational immediately after system power up.

All service charging via USB cable must be done outside the aircraft.

To charge the AVIATOR Wireless Handset from a computer or USB charger (service charge)

You need a computer or a USB charger and a USB cable with a mini-USB 5-pin connector at one end and a USB-A connector at the other end.

Do as follows:

1. Connect the mini-USB connector to the connector at the side of your handset.
2. Connect the other connector on the cable to a USB port on your computer or your USB charger. The AVIATOR Wireless Handset automatically starts the charging process.
 - Charging current: min. 200 mA
 - Charging time: up to 10 hours

Indications during charging process

A message appears for a couple of seconds in the display, the AVIATOR Wireless Handset makes a sound and the battery icon is animated to show that the battery is charging.



Service & maintenance

5.1 Continued Airworthiness

5.1.1 General

Maintenance

Maintenance requirements and instructions for continued airworthiness of the AVIATOR Wireless Handset and Cradle are restricted to the fact that the AVIATOR Wireless Handset requires replacement of an internal battery at a periodic scheduled service task of 8000 flight hours or 5 years (Overhaul). The Overhaul period is defined as the recommended period from production date or last maintenance to next maintenance.

You find the production date on the PMA label on the back of the AVIATOR Wireless Handset.

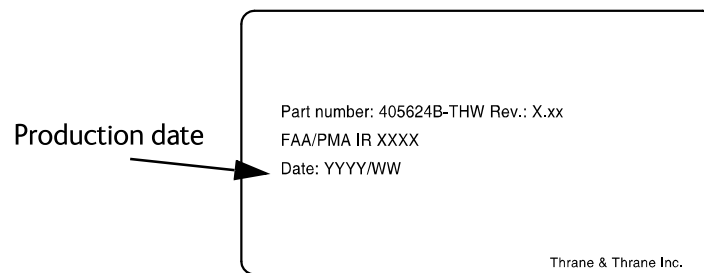


Figure 5-1: PMA label with production date (upper label)

Important

The AVIATOR Wireless Handset has a **rechargeable battery**. This battery can only be replaced at the factory!

5.1.2 Instructions

Documentation

Maintenance information for the AVIATOR Wireless Handset System is contained in this manual. Place the wiring diagram information in this manual in the aircraft operator's appropriate aircraft wiring diagram manuals.

Inoperative units

If the AVIATOR Wireless Handset or the Cradle is inoperative, remove or replace the unit.

For information on how to return a unit for repair, see *Returning units for repair* on page 5-4.

Once repaired, reinstall the unit in the aircraft in accordance with the instructions in this Installation and Maintenance Manual.

Scheduled Maintenance Program

The AVIATOR Wireless Handset and the Cradle are considered on-condition units and no additional maintenance is required other than a check for security and operation at normal inspection intervals.

Scheduled Maintenance Program tasks to be added to the aircraft operator's appropriate aircraft maintenance program are as follows:

Recommended Periodic Scheduled Servicing Tasks:

AVIATOR Wireless Handset: Battery storage	Charge the battery fully before storage. Repeat this every 2 years.
AVIATOR Wireless Handset: Battery lifetime	8000 flight hours or 5 years, whichever comes first
Cradle	None required.

Recommended Periodic Inspections:

AVIATOR Wireless Handset	None required
Cradle	None required

Recommended Periodic Scheduled Preventative Maintenance Tests:

(Tests to determine system condition and/or latent failures)

AVIATOR Wireless Handset	None required
Cradle	None required

5.2 Getting support

If this manual does not provide the remedies to solve your problem, you may want to contact your Airtime Provider or your local distributor.

5.2.1 Airtime support

If you need assistance from your Airtime Provider, please call the help desk. Check your Airtime subscription for a contact number.

5.2.2 System support

If you need assistance with problems caused by the AVIATOR Wireless Handset or Cradle, please call a distributor in your area.

A list of certified partners and distributors is available on Cobham SATCOM's web site: www.cobham.com/satcom. Select **Technical Service Partner List**, then **Aeronautical**.

5.3 Software update

For instructions how to upgrade the software of the AVIATOR Wireless Handset see the AVIATOR Wireless Handset user manual.

5.3.1 Verifying the software update

Software identification procedure

Make a cross mark in the Software Ver. field number according to the new software version on the PartNumber and SerialNumber identification label on the back of the AVIATOR Wireless Handset.

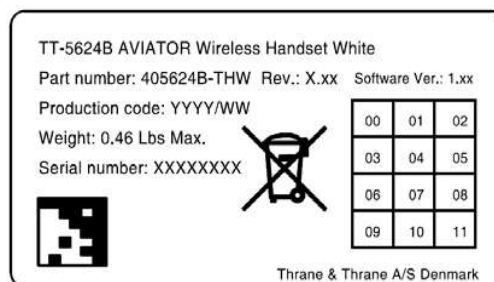


Figure 5-2: Software identification on the lower label

5.4 Troubleshooting

A troubleshooting guide for the AVIATOR Wireless Handset is included in the AVIATOR Wireless Handset user manual.

5.5 Returning units for repair

Should your Cobham SATCOM product fail, please contact your dealer or installer, or the nearest Cobham SATCOM partner. You will find the partner details on www.cobham.com/satcom, **Technical Service Partner List**. You can also access the Partner Portal at www.cobham.com/satcom, **Cobham SYNC Partner Portal**, which may help you solve the problem. Your dealer, installer or Cobham SATCOM partner will assist you whether the need is user training, technical support, arranging on-site repair or sending the product for repair. Your dealer, installer or Cobham SATCOM partner will also take care of any warranty issue.

Repackaging requirements

Should you need to send the product for repair, please read the below information before packing the product.

The shipping carton has been carefully designed to protect the AVIATOR Wireless Handset and its accessories during shipment. This carton and its associated packing material should be used when repacking for shipment. Attach a tag indicating the type of service required, return address, part number and full serial number. Mark the carton FRAGILE to ensure careful handling.

Note | Correct shipment is the customer's own responsibility.

If the original shipping carton is not available, the following general instructions should be used for repacking with commercially available material.

1. Wrap the defective unit in heavy paper or plastic. Attach a tag indicating the type of service required, return address, part number and full serial number.
2. Use a strong shipping container, e.g. a double walled carton.
3. Protect the front- and rear panel with cardboard and insert a layer of shock-absorbing material between all surfaces of the equipment and the sides of the container.
4. Seal the shipping container securely.
5. Mark the shipping container FRAGILE to ensure careful handling.

Failure to do so may invalidate the warranty.

5.6 Disposal of electrical & electronic equipment

Old electrical and electronic equipment marked with this symbol can contain substances hazardous to human beings and the environment. Never dispose these items together with unsorted municipal waste (household waste). In order to protect the environment and ensure the correct recycling of old equipment as well as the re-utilization of individual components, use either public collection or private collection by the local distributor of old electrical and electronic equipment marked with this symbol.



Contact the local distributor for information about what type of return system to use.

5.6.1 To remove the battery

Important

The AVIATOR Wireless Handset has a **rechargeable battery**. This battery can only be replaced at the factory! **Remove the battery only when disposing of the handset.**

To remove the battery from the AVIATOR Wireless Handset

You need the following tools:

- Torx screw driver size TX05
- Torx screw driver size TX06
- Pair of tweezers

To remove the battery, do as follows:

1. Use the tweezers to remove the rubber strip on each side of the AVIATOR Wireless Handset.



2. Use the Torx screwdriver size TX05 to remove 3 screws on each side.



3. Take off both plastic side pieces.



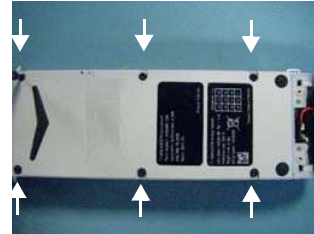
4. Use the Torx screwdriver size TX05 to remove 2 screws at the bottom on the back.



5. Use the tweezers to open the AVIATOR Wireless Handset.



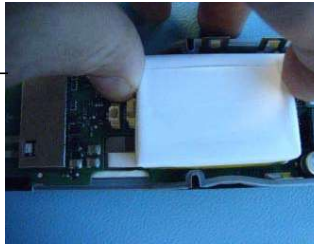
6. Use the Torx screwdriver size TX06 to remove 6 screws at the back.



7. Take out the battery with your fingers. It is glued to the board, you may need to use some force.



WARNING! Do under no circumstances use a sharp tool (like a knife or screwdriver) to remove the battery. This is to avoid a short circuit or a leak in the battery.



8. Use tweezers to tear the flat cable out of the connector.



WARNING! Potential risk of short circuit at the cable pins. Use non-conductive fiber tip tweezers.



9. Dispose of the AVIATOR Wireless Handset and the battery safely according to local laws and regulations.

Equipment specifications

A.1 Introduction

Important note!

The information, drawings, and wiring diagrams contained in this manual are intended as a reference for engineering planning only. It is the installer's responsibility to compose installation drawings specific to the aircraft.

A.2 AVIATOR Wireless Handset and cradle

A.2.1 TT-5624B AVIATOR Wireless Handset

Characteristics	Specification
Dimensions (L x B x H)	152 mm x 55 mm x 26.5 mm (5.98"x2.17"x1.04")
Weight	Max. 210 g (0.461 lbs)
Display	2.2", 240 x 320 pixel TFT color LCD
Operating temperature	-15°C to +45°C
Storage temperature	Long term (>6 months) -20°C to +25°C Short term (<6 months) -20°C to +45°C
Handset charging temperature	5°C to 30°C
Temperature, transport	-25°C to +55°C
Humidity	Up to 95% without condensation
Protection category	IP54, dust proof and splash proof
Air pressure, transport	4572m AMSL
Battery	Li-Ion 1880 mAh
Standby time	Up to 30 hours
Talk time	Up to 6 hours
Wireless network interface	Wireless Local Area Network (WLAN) according to 802.11b/g
Network Protocol	Internet Protocol (IP)
VoIP Protocol	SIP v2 Session Initiation Protocol (RFC3261), SDP (RFC2327)
Voice Codecs	G.711 and G.729 A/B
Physical interfaces	Headset 3.5 mm Jack plug Mini-USB 5-pin (service use only)
Encryption (VoIP protocol)	SRTP (RFC 3711), ZRTP (ID ver. 3)
Compass safe distance ^a	AVIATOR Wireless Handset: 400 mm (15.75") Cradle: 400 mm (15.75")
Certifications	FAA PMA 8130-3 FCC-ID: ROJIPHANSET

Table A-1: Specifications for AVIATOR Wireless Handset

a. Compliant with DO160-F, Section 15.0, category A.

A.2.2 TT-5626B Cradle

Characteristics	Specification
Dimensions (L x B x H)	177 mm x 67.5 mm x 54 mm (6.97'x 2.59' x 2.13')
Weight	Max. 190 g (0.421 lbs)
Mounting	Mount in a pressurized and temperature controlled location.
Operating temperature	-15°C to +45°C
Storage temperature	Long term (>6 months) -20°C to +25°C Short term (<6 months) -20°C to +45°C
Temperature, transport	-25°C to +55°C
Humidity	Up to 95% without condensation
Air pressure, transport	4572m AMSL
Certifications	FAA PMA 8130-3 FCC-ID: ROJIPHANSET
Power consumption	6 W max.
Aircraft DC power supply	28 VDC, min. 20.5 V, max. 32.2 V
Environmental Categories	Refer to Environmental Qualification form in insert-cross reference in Appendix B.

Table A-2: Specifications for Cradle for AVIATOR Wireless Handset

DO-160 specifications

B.1 General

B.1.1 Certifying agency

Approval of the AVIATOR Wireless Handset is not authorized by this installation manual. Acceptance for the installation and use of the AVIATOR Wireless Handset and its associated components must be obtained through the appropriate offices of the FAA or other certifying agency. It is recommended that all proposed installations be coordinated with the local jurisdiction of the FAA or other certifying agency prior to performing the installation.

B.1.2 Environmental Qualification Forms

The Environmental Qualification Forms list the environmental categories under which the AVIATOR Wireless Handset system is approved.

Please refer to RTCA DO-160E for further details on the following Environmental Qualification Form.

B.2 AVIATOR Wireless Handset and Cradle

AVIATOR Wireless Handset T&T Part Number: 405624B

Cradle T&T Part Number: 405626B

DO-160F string:

[A4X]CXB[SB2M]XXXXXXA[(AX)(BX)]A[RB][ZC][RS]M[XXXXX][XXXX]XAX

Conditions	DO-160F	Cat.	Comments
Temperature and Altitude	4.0	A4, X	Installation in temperature controlled areas and inside pressurized locations.
Low Temperature	4.5.1 & 4.5.2		Short time operating low is -15°C. Min. operational temperature is -15°C. Ground survival low temperature is -25°C. Note: Charging only between 5°C to 30°C.
High Temperature	4.5.3 & 4.5.4		Short time operating high +55°C. Max. operating high temperature is +45°C. Note: Charging only between 5°C to 30°C.
In-Flight Loss of Cooling	4.5.5	X	Forced cooling is not required.
Altitude	4.6.1		Max. altitude: 55000 ft
Decompression	4.6.2		Decompression test at 55000 ft
Overpressure	4.6.3		Overpressure at -15000 ft
Temperature Variation	5.0	C	Installation within temperature controlled areas: 2°C/min.
Humidity	6.0	X	No test required.
Operational Shocks and Crash Safety	7.0	B	Standard operational shock and crash safety.
Vibration	8.0	S, B2, M	
Explosion Proofness	9.0	X	No test required
Waterproofness	10.0	X	No test required
Fluids Susceptibility	11.0	X	No test required

Table B-1: DO-160F string for AVIATOR Wireless Handset & Cradle

Conditions	DO-160F	Cat.	Comments
Sand and Dust	12.0	X	No test required
Fungus Resistance	13.0	X	No test required
Salt Spray	14.0	X	No test required
Magnetic Effect	15.0	A	Magnetic deflection distance: between 0.3 m and 1.0 m
Power Input	16.0	AB	
Voltage Spike	17.0	A	
Audio Susceptibility	18.0	RB	
Induced Susceptibility	19.0	ZC	
Radio Frequency Susceptibility	20.0	RS	
Emission of Radio Frequency Energy	21.0	M	Installation in areas with significant electromagnetic apertures.
Lightning Induced Transient Susceptibility	22.0	X	No test required
Lightning Direct Effects	23.0	X	No test required
Icing	24.0	X	No test required
Electrostatic Discharge ESD	25.0	A	Operation, installation and repair in an aerospace environment.
Fire, Flammability	26.0	X	Equipment is tested according to FAR 25.853 and 25.869(a)—(4).

Table B-1: DO-160F string for AVIATOR Wireless Handset & Cradle (Continued)

A

AMSL Above Mean Sea Level

D

DO-160 A standard for environmental test of avionics hardware published by RTCA, Incorporated.

F

FAA Federal Aviation Administration

I

IP Internet Protocol. The method or protocol by which data is sent from one computer to another on the Internet.

L

LCD Liquid Crystal Display

P

PDF Portable Document Format, a file format created by Adobe Systems for document exchange

PMA Parts Manufacturing Approval (PMA) is a combined design and production approval for modification and replacement articles. It allows a manufacturer to produce and sell these articles for installation on type certificated products.

S

SBU SwiftBroadband Unit. Unit in the AVIATOR system providing access to the aeronautical BGAN service, SwiftBroadband.

SDP When media is streamed in a SIP based voice over IP call, being audio, or video or both, one of the requirements is for the participants to know the media details, i.e. transport address, transport protocol, codec, ports and other session description metadata. SDP, also known as Session Description Protocol is the protocol used with SIP (session initiation protocol) to advertise such information.

SIP Session Initiation Protocol. An application-layer control (signaling) protocol for creating, modifying, and terminating sessions with one or more participants. Used e.g. for Internet

telephony.

SMT Surface-Mount Technology (SMT) is a method for producing electronic circuits in which the components are mounted or placed directly onto the surface of printed circuit boards (PCBs).

T

TFT Thin Film Transistor. A thin film transistor liquid crystal display (TFT-LCD) is a variant of liquid crystal display (LCD) which uses thin-film transistor (TFT) technology to improve image quality (e.g., addressability, contrast).

U

USB Universal Serial Bus. A specification to establish communication between devices and a host controller (usually personal computers). USB is intended to replace many varieties of serial and parallel ports. USB can connect computer peripherals such as mice, keyboards, digital cameras, printers, personal media players, flash drives, and external hard drives.

W

WLAN Wireless Local Area Network

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