UENR8458
05NOV2020

Operation Document

Machine Security System Bluetooth Network and Key FoB

Table of Contents ***page***

Name of product: Cat® Bluetooth® Network
Make: Cat® Brand
Model: CATBTNT
(A5:S4)
Type: Wireless Device (Module for the reception-transmission of data from Bluetooth® Key Fob and sensors)
SMCS Code: 7008; 7600-ZM

The CATBTNT part number 504-4980 is the buy-level part that includes a radio equipment and a software tied to the machine integration. The radio equipment contained in the CATBTNT is 462-0441. Such radio equipment complies with the applicable regional product compliance requirements as demonstrated with the attached DoC. The software included in the buy-level part does not impact regulatory performance parameters.

Name of product: Cat® Bluetooth® FOB
Make: Cat® Brand
Model: CATBTFOB
(A1:S1)
Type: Wireless Device (Chip-key for operator identification with Bluetooth®)
SMCS Code: 7008; 7600-ZM

CATBTNT Safety Parameters

Input Voltage	
Operating Voltage Range	9VDC to 32VDC
Protection	Reverse Polarity
Bluetooth Communication	
Transmit Frequency	2.402 GHz to 2.480 GHz
Transmit Output Power	0 dBM (1 mW)
Current Consumption (max)	
Max operational current draw	80mA
Environment	
Operating Temperature	−40° C (−40° F) to 85° C (185° F)
Storage Temperature	−50° C (−58° F) to 85° C (185° F)

CATBTFOB Safety Parameters

Input Voltage	
Battery	Coin Cell CR2450
Battery Chemistry	Manganese Dioxide Lithium
Battery Nominal Voltage	3V
Bluetooth Communication	
Transmit Frequency	2.402 GHz to 2.480 GHz
Transmit Output Power (max)	0 dBM (1 mW)
Current Consumption (max)	
Max Average Current	1mA
Environment	
Operating Temperature	−30° C (−22° F) to 60° C (140° F)
Storage Temperature (battery removed)	−50° C (−58° F) to 85° C (185° F)

Declaration of Conformity – European Union

CATERPILLAR®
EU Declaration of Conformity

This Declaration of Conformity is issued under the sole responsibility of the manufacturer.
The undersigned, representing the manufacturer:

Caterpillar Inc.
100 N.E. Adams
Peoria, IL 61629
USA
hereby declares that the product, the object of this description:

Brand: Caterpillar
Antenna Part #: Internal

Model: CATBTNT (A5S4)
Part #: 462-0441

Is in conformity with the relevant Union harmonization legislation:

Directive 2014/53/EU
Directive 2011/65/EU

Conformity is shown by compliance with the applicable requirements of the following documents:

Conformity Assessment Procedure: ___✓___Annex II, _____Annex III, _____Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN 62368-1:2014
	EMC (Sec 3.1b):	EN 301 489-1 V1.8.1
		EN 301 489-1 V2.2.0
		EN 301 489-17 V2.2.1
		EN 301 489-17 V3.2.0
	RF (Sec 3.2)	EN 300 328 V2.1.1
2011/65/EU	RoHS	EN 50581:2012

Signature: 

Name: Michael Caruthers
Title: Product Manager
Place: Peoria, IL
Date: 12oct2020

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The undersigned, representing the manufacturer:

Caterpillar Inc.
100 N.E. Adams
Peoria, IL 61629
USA
hereby declares that the product, the object of this description:

Brand: Caterpillar Model: CATBTFOB (A1:S1)
Part #: 487-3004

Is in conformity with the relevant Union harmonization legislation:

Directive 2014/53/EU
Directive 2011/65/EU

Conformity Assessment Procedure: ___✓___Annex II,_____Annex III, _____Annex IV

2014/53/EU: RED	LVD (Sec 3.1a):	EN 62368-1:2014
	EMC (Sec 3.1b):	EN 301 489-1 V2.2.0
		EN 301 489-17 V3.2.0
	RF (Sec 3.2)	EN 300 328 V2.1.1
2011/65/EU	RoHS	EN 50581:2012

Signature: 

Name: Michael Caruthers

Title: Product Manager

Place: Peoria, IL

Date: 12oct2020

Conditions for Assembly, Storage, Transfer and Disposal

CATBTNT:

All Cat BTNT locations use isolation mounts regardless of location. The isolation mounts cannot be removed to allow only the use of the M6 bolt for hard-mounting.

Note: The CATBTNT mounting surface does not align with the rear of the enclosure without the isolation mounts. Replace the geometry of the isolation mount with a new component if an isolation mount is not available.

Mounting Locations

Ensure that the following guidelines are met when mounting the Cat BTNT transceiver.

- Mount the CATBTNT transceiver inside the cab if used for operator ID applications.
- Do not mount the transceiver more than 1 m away from the key switch. This ensures reliable wireless transfer of operator ID data from the key fob to the transceiver.

Note: The 1 m distance requirement is due to the controlled range of the key fob.

- Ensure that the radio frequency propagation is not inhibited. Do not fully enclose the transceiver in metal. The transceiver may be mounted to a metal plate inside a panel or compartment as long as most of the panel material is non-metallic.
- Mount the transceiver away from other transmitting and receiving antennas. These antennas include, but are not limited to, the following: AM/FM, CB, Cellular/satellite, and GPS.

CATBTFOB:

Battery Replacement Guidelines

Opening the Enclosure

Find the opening feature on the housing by locating the slot in the housing next to the hex-shaped metal key ring

Use a coin to assist with the opening of the two-piece housing. Once loosened, pull apart one side of the housing from the other to expose the battery.

Note: The slot is designed for a coin the size of a U.S. dime or penny.

After the battery is fully exposed, remove the battery by hand and dispose of in accordance with all applicable federal, state, and local regulations.

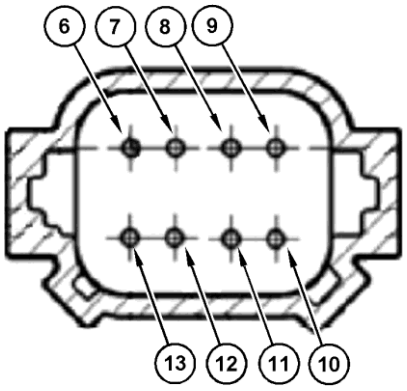
Replace the used battery with a new CR2450, align the enclosures back together, and press together the housing until it snaps together. Check that the spacing is even on all sides of the housing.

Transfer and Disposal

Contact an authorized dealer to determine the disposal and transfer conditions.

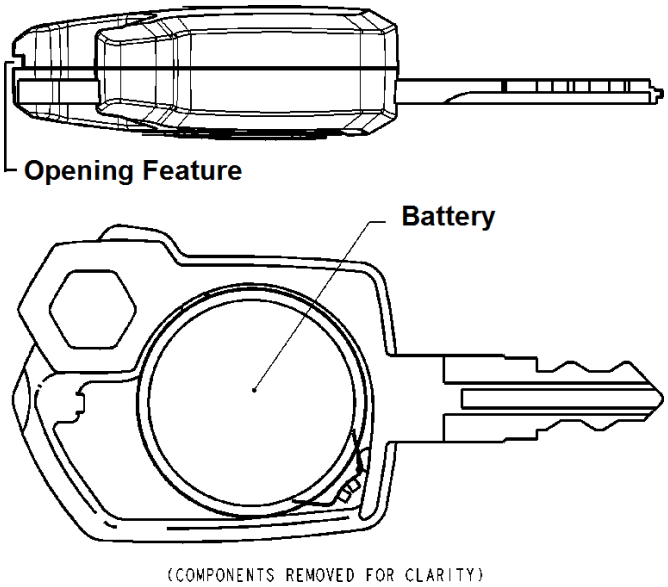
Electrical Connection

CATBTNT:



Pinout of 8-pin DTconnector
(6) Pin 1: Batt +
(7) Pin 2: Batt -
(8) Pin 3: CAN +
(9) Pin 4: CAN -
(10) Pin 5: SWG #1 (LOC 0)
(11) Pin 6: SWG #2 (LOC 1)
(12) Pin 7: GND
(13) Pin 8: Key switch

CATBTFOB:



Preventative Maintenance

No preventative maintenance is required for these devices.

Safe Operation

Ensure that the following guidelines are met when handling the CATBTFOB

- Do not crush, short, charge incinerate or deform battery. Keep away from children. Replacing batteries use only CR2450 batteries complying EN60086-4 or UL1642

Information about the faults and corrective actions

Before calling to the dealer for repair, check the integrity of the electric wires, and cycle the battery power to the device. Cycling battery power can be accomplished by:

• Turning the machines master disconnect off and then back on.

• Unplugging the harness from the Bluetooth device and then plugging the harness back in.

• Disconnecting the negative cable from the negative battery terminal and then reconnect the cable. If these solutions do not help, call the local dealer for service.

Date of Manufacture

Contact an authorized dealer to determine the date of manufacture using the serial number.