



Operation and Maintenance Manual

Product Link™ PLE702, PLE602, PLE602P, PLE601, PL641, PL641V2, PL631, PL631V2, PL542, PL243, PL241, PL240, PL240B, PL161, PL141, PL131, PL083, and PL042 Systems

PL6 1-UP (Machine Control
& Guidance Products)
PL2 1-UP (Machine Control
& Guidance Products)
PL1 1-UP (Machine Control
& Guidance Products)
PL0 1-UP (Machine Control
& Guidance Products)
PL5 1-UP (Machine Control
& Guidance Products)
PL7 1-UP (Machine Control
& Guidance Products)

Important Safety Information

Most accidents that involve product operation, maintenance and repair are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. A person must be alert to potential hazards, including human factors that can affect safety. This person should also have the necessary training, skills and tools to perform these functions properly.

Improper operation, lubrication, maintenance or repair of this product can be dangerous and could result in injury or death.

Do not operate or perform any lubrication, maintenance or repair on this product, until you verify that you are authorized to perform this work, and have read and understood the operation, lubrication, maintenance and repair information.

Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

The hazards are identified by the "Safety Alert Symbol" and followed by a "Signal Word" such as "DANGER", "WARNING" or "CAUTION". The Safety Alert "WARNING" label is shown below.



The meaning of this safety alert symbol is as follows:

Attention! Become Alert! Your Safety is Involved.

The message that appears under the warning explains the hazard and can be either written or pictorially presented.

A non-exhaustive list of operations that may cause product damage are identified by "NOTICE" labels on the product and in this publication.

Caterpillar cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are, therefore, not all inclusive. You must not use this product in any manner different from that considered by this manual without first satisfying yourself that you have considered all safety rules and precautions applicable to the operation of the product in the location of use, including site-specific rules and precautions applicable to the worksite. If a tool, procedure, work method or operating technique that is not specifically recommended by Caterpillar is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that you are authorized to perform this work, and that the product will not be damaged or become unsafe by the operation, lubrication, maintenance or repair procedures that you intend to use.

The information, specifications, and illustrations in this publication are on the basis of information that was available at the time that the publication was written. The specifications, torques, pressures, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service that is given to the product. Obtain the complete and most current information before you start any job. Cat dealers have the most current information available.



When replacement parts are required for this product Caterpillar recommends using Cat replacement parts.

Failure to follow this warning may lead to premature failures, product damage, personal injury or death.

In the United States, the maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual of the owner's choosing.

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Foreword

Literature Information

This manual should be stored in the operator's compartment in the literature holder or seat back literature storage area.

This manual contains safety information, operation instructions, and maintenance recommendations.

Some photographs or illustrations in this publication show details or attachments that can be different from your product.

Continuing improvement and advancement of product design might have caused changes to your product which are not included in this publication. Read, study and keep this manual with the product.

Whenever a question arises regarding your product, or this publication, please consult your Cat dealer for the latest available information.

Safety

The safety section lists basic safety precautions. In addition, this section identifies the text and locations of warning signs and labels used on the machine.

Operation

The operation section is a reference for the new operator and a refresher for the experienced operator. This section includes a discussion of gauges, switches, product controls, attachment controls, and programming information.

Photographs and illustrations guide the operator through correct procedures of checking, starting, operating and stopping the product.

Operating techniques outlined in this publication are basic. Skill and techniques develop as the operator gains knowledge of the product and its capabilities.

Maintenance

The maintenance section is a guide to equipment care.

Safety Section

i07835141

Safety Signs and Labels

SMCS Code: 7606

WARNING

Do not operate or work on this equipment unless you have read and understand the instructions and warnings in the Operation and Maintenance Manuals. Failure to follow the instructions or heed the warnings could result in injury or death. Contact your Caterpillar dealer for replacement manuals. Proper care is your responsibility.

WARNING

Improper operation of an access platform could result in injury or death. Operators must carry out their duties properly and follow all instructions and guidelines given for the machine and access platform.

WARNING

Accidental engine starting can cause injury or death to personnel working on the equipment.

To avoid accidental engine starting, disconnect the battery cable from the negative (-) battery terminal. Completely tape all metal surfaces of the disconnected battery cable end in order to prevent contact with other metal surfaces which could activate the engine electrical system.

Turn the battery disconnect switch to the OFF position and lockout the battery disconnect switch with a safety lock.

Place a Special Instruction, SEHS7332, "Do Not Operate" tag at the start switch and battery disconnect location to inform personnel that the machine is being worked on.

Safety Messages

The warning film in Illustration 1 can be found in a location such as the dash or control panel. The warning film is clearly visible to the operator during the normal operation of the equipment.

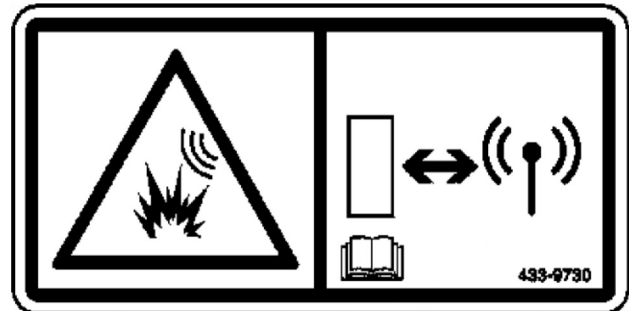


Illustration 1

g03356592

Film

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The blast site is defined as the area that handles explosive material during loading. Included is the perimeter that is formed by the loaded blast holes.

If required, the following are suggested methods to disable the Caterpillar Product Link communication device:

- Turn the Product Link radio disable switch to the OFF position.
- Disconnect the Caterpillar Product Link communication device from the main power source. This action is performed by disconnecting the wiring harness at the Product Link radio.
- If equipped with a PL141 or PL131 turn off the Product Link device or remove its internal battery.
- If equipped with a PL161 remove the PL161 from the equipment.

Safety Section
General Hazard Information

- The PL542 contains an internal battery that cannot be turned OFF manually. If necessary remove the PL542 from the equipment.
- The PL240B contains an internal battery that cannot be turned OFF manually. If necessary remove the PL240B from the equipment.
- The PL243 contains an internal battery that cannot be turned OFF manually. There is an RF disable input switch. Refer to Special Instruction, M0098124 for more details.
- The PL083 contains an internal battery that cannot be turned OFF manually. There is an RF disable input switch. Refer to Special Instruction, M0109130 for more details.

Note: If no radio disable switch is installed and the equipment will be operating near a blast zone, a radio disable switch may be installed. The switch will allow the Caterpillar Product Link communication device to be shut off by the operator from the equipment control panel. Refer to Special Instruction, REHS7339, Special Instruction, REHS8850, Special Instruction, REHS9111, Special Instruction, SEHS0377, and Special Instruction, REHS9757 for more details and installation instructions.

Other Films

The film in Illustration 2 can be found in a location such as the dash or control panel. The warning film is clearly visible to the operator during the normal operation of the equipment.



Illustration 2

g03356733

The film in Illustration 2 is intended to inform the operator that the equipment is equipped with a wireless transmitting device. Accordingly, data concerning this equipment, the condition of the equipment, and the operation of the equipment is being transmitted by the Caterpillar Product Link communication device to Caterpillar and is communicated to customers and Caterpillar dealers by the user interface. The data is used to serve the customer better and to improve upon Caterpillar products and services. Transmission of information using a Caterpillar Product Link communication device is subject to legal requirements that may vary from location to location.

Refer to the Operation and Maintenance Manual, SEBU8832, "Operation" and the Operation and Maintenance Manual, SEBU8832, "Regulatory Compliance" section for additional information.

i05951990

General Hazard Information

SMCS Code: 7606

WARNING

Do not operate or work on this equipment unless you have read and understand the instructions and warnings in the Operation and Maintenance Manuals. Failure to follow the instructions or heed the warnings could result in injury or death. Contact your Caterpillar dealer for replacement manuals. Proper care is your responsibility.

Foreword

This document is a supplement to the Operation and Maintenance Manual for the equipment. Permanently attach this document to the Operation and Maintenance Manual for the equipment.

Introduction

This document provides information about the operation of the Caterpillar Product Link communication device .

Operation of the equipment and the maintenance of the equipment must not occur unless the instructions and warnings in the Operation and Maintenance Manual for the equipment have been read and the instructions and the warnings are understood. The contents of this document must be understood before the equipment that is equipped with the Caterpillar Product Link communication device is operated.

Regulatory Compliance Information

Radio Frequency Components

i07708255

Product Link (PL641 V2 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 1

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL641 V2	698 MHz - 716 MHz	0.316W typical, 2W max
	704 MHz - 716 MHz	
	703 MHz - 748 MHz	
	815 MHz - 830 MHz	
	824 MHz - 849 MHz	
	830 MHz - 845 MHz	
	832 MHz - 862 MHz	
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1710 MHz - 1785 MHz	
	1750 MHz - 1785 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	
2500 MHz - 2570 MHz		

Table 2

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL641 V2	9-32V	750mA - 225mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canadas license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference

- This device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter, 7830A-PLS62W, has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- This device has been designed to operate with the antenna(s) listed below, and having a maximum gain of 8 dBi. Antennas not included in this list or having a gain greater than 8 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Antennas for use:

- 558 - 6550 Antenna As Hard Mount
- 558 - 6551 Antenna As Adhesive Mount

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 3

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL641V2, Cellular Radio Telematics Device,
Brand: Caterpillar Model: PL641V2
Part #: 555 - 5509, 555 - 5510
Antenna Part #: 558 - 6550, 558 - 6551

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, X Annex III, _____ Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2):	EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2 EN 301 908-13 V11.1.2 EN 303 413 V1.1.1
2011/65/EU:	RoHs:	EN 50581:2012

Notified Body Name: CETECOM GmbH

Notified Body Number: 0680

Examination Certificate # : M18-0588-01-TEC

Signature: 

Name: Michael Caruthers

Place: Peoria, IL

Title: Engineering Manager

Date: 16apr2019

i07718838

Product Link (PLE702 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL71-Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 4

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PLE702	9-32V	780mA-320mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Regulatory Compliance Information
PLE702 - If Equipped

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan,
Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 5

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Brand: Caterpillar Model: PLE702

Part Number: 494-6472

Part Number: 494-6473

Is in conformity with the relevant Union harmonization legislation:

Directive 2014/30/EU

Directive 2011/65/EU

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

2014/30/EU:

EMC

EN13309:2010

EN ISO 14982:2009

Conformity Assessment Procedure: Annex II, Annex III, Annex IV

Directive 2011/65/EU

RoHS

EN 50581:2012

Other Standards Applied:

ISO13766:2006

EN 61000-4-8:2016

EN 61000-4-6:2003

EN 61000-4-4:2016

EN 61000-4-5:2014

Signature: 

Name: Michael A Caruthers

Title: Engineering Manager

Place: Peoria, Illinois, USA

Date: 02Nov2017

i07736285

Product Link (PL131 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL11-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 6

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL131	1616 MHz - 1626.5 MHz	1.2W Typical, 1.5W max

Table 7

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL131	3.6V Internal Battery	2A

Certification Notices

Canada Notice to Users

This device complies with Industry Canada's license exempt RSSs.

Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

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Product Link (PL243 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL21–Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 8

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL243	698 MHz - 716 MHz	0.316W typical, 2W max
	704 MHz - 716 MHz	
	703 MHz - 748 MHz	
	815 MHz - 830 MHz	
	824 MHz - 849 MHz	
	830 MHz - 845 MHz	
	832 MHz - 862 MHz	
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1710 MHz - 1785 MHz	
	1750 MHz - 1785 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	
2500 MHz - 2570 MHz		

Table 9

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL243	9–32V	450mA - 120mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference

- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Declaration of Conformity - European Union

Table 10

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL243, Cellular Radio Telematics Device,
Brand: Caterpillar Model: PL243
Part Number: 550 - 3269 Antenna Part Number: Internal

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, <u> X </u> Annex III, _____ Annex IV		
2014/53/EU:	LVD (Sec 3.1a):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.2.0 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.1 EN 301 908-13 V11.1.1 EN 303 413 V1.1.1
2011/65/EU:	RoHS	EN 50581:2012

Notified Body Name: CETECOM GmbH
Notified Body Number : 0680
Examination Certificate #: M19-0706-02-TEC

Signature: 

Name: Michael Caruthers
Place: Peoria, IL

Title: Engineering Manager
Date: 02may2019

i07814303

Product Link (PL631V2 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 11

Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL631V2	1616 MHz - 1626.5 MHz	5.1W max

Table 12

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL631V2	9-32V	2.0A -1.3A

Certification Notices

Canada Notice to Users

This device complies with Industry Canadas license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter, IC: 4629A-9523N, has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- This device has been designed to operate with the antenna(s) listed below, and having a maximum gain of 3 dBi. Antennas not included in this list or having a gain greater than 3 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Antennas for use:

- 443-8462 Antenna As Hard Mount
- 443-8463 Antenna As Adhesive Mount
- 558-6550 Antenna As Hard Mount
- 558-6551 Antenna As Adhesive Mount

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Declaration of Conformity - European Union

Table 13

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL631V2, Cellular Radio Telematics Device
Brand: Caterpillar Model: PL631V2
Part #: 544 - 1881
Antenna Part #: 443 - 8463, 443 - 8462, 558 - 6550, 558 - 6551

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, X Annex III, _____ Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN 60950-1:2006+A11:2009+A1:2010+A12:2011 +A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.2.0 EN 301 489-19 V2.1.0 EN 301 489-20 V2.1.0
	RF (Sec 3.2)	EN 301 441 V2.1.1 EN 303 413 V1.1.1
2011/65/EU:	RoHS	EN 50581:2012

Notified Body Name: TUV SUD BABT

Notified Body Number: 0168

Examination Certificate #: BABT-RED000351 i02


 Signature: **Name: Michael Caruthers** **Title: Engineering Manager**
Place: Peoria, IL **Date: 06jun2019**

i07815967

Product Link (PL083 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL01–Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 14

Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL083	1616 MHz - 1625.5 MHz	5.1W max
	698 MHz - 716 MHz	0.316W typical, 2W max
	704 MHz - 716 MHz	
	703 MHz - 748 MHz	
	815 MHz - 830 MHz	
	824 MHz - 849 MHz	
	830 MHz - 845 MHz	
	832 MHz - 862 MHz	
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1710 MHz - 1785 MHz	
	1750 MHz - 1785 MHz	
	1850 MHz - 1910 MHz	
1920 MHz - 1980 MHz		
2500 MHz - 2570 MHz		

Table 15

Specifications — Russia Specific		
Model	Transmitter Frequency Range	Transmitter Power Average
PL083	1621.35 MHz - 1626.5 MHz	2.16 dBW

Table 16

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL083	9–32V	1.4A - 302mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Regulatory Compliance Information
PL083 - If Equipped

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Declaration of Conformity - European Union

Table 17

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL083, Dual Mode (Cellular/Satellite) Radio Telematics Device

Brand: Caterpillar Model: PL083

Part Number: 545 - 3987

Antenna Part Number: Internal

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, X Annex III, _____ Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.2.0 EN 301 489-19 V2.1.0 EN 301 489-20 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 301 441 V2.1.1 EN 303 413 V1.1.1 EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.1 EN 301 908-13 V11.1.1
2011/65/EU:	RoHS	EN 50581:2012

Notified Body Name: CETECOM GmbH

Notified Body Number : 0680

Examination Certificate #: M19-0716-03-TEC

Signature: 

Name: Michael Caruthers

Place: Peoria, IL

Title: Engineering Manager

Date: 13jun2019

i07816408

Product Link (PL631 - If Equipped)

SMCS Code: 7490; 7606**S/N:** PL61-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 18

Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL631	698 MHz - 716 MHz	0.316W typical, 2W max
	704 MHz - 716 MHz	
	703 MHz - 748 MHz	
	815 MHz - 830 MHz	
	824 MHz - 849 MHz	
	830 MHz - 845 MHz	
	832 MHz - 862 MHz	
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1710 MHz - 1785 MHz	
	1750 MHz - 1785 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	
2500 MHz - 2570 MHz		

Table 19

Specifications — Russia Specific		
Model	Transmitter Frequency Range	Transmitter Power Average
PL631	1621.35 MHz - 1626.5 MHz	2.16 dBW

Table 20

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL631	9-32V	2.0A -1.3A

Certification Notices

Canada Notice to Users

This device complies with Industry Canadas license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter, IC: 4629A-9523, has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

- This device has been designed to operate with the antenna(s) listed below, and having a maximum gain of 3 dBi. Antennas not included in this list or having a gain greater than 3 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Antennas for use:

- 443 - 8462 Antenna As Hard Mount
- 443 - 8463 Antenna As Adhesive Mount
- 558 - 6550 Antenna As Hard Mount
- 558 - 6551 Antenna As Adhesive Mount

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 21

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL631, Cellular Radio Telematics Device
Brand: Caterpillar Model: PL631
Part #: 442 - 7199
Antenna Part #: 443 - 8463, 443 - 8462, 558 - 6550, 558 - 6551

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, X Annex III, _____ Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN 60950-1:2006+A11:2009+A1:2010+A12:2011 +A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.2.0 EN 301 489-19 V2.1.0 EN 301 489-20 V2.1.0
	RF (Sec 3.2)	EN 301 441 V2.1.1 EN 303 413 V1.1.1
2011/65/EU:	RoHS	EN 50581:2012

Notified Body Name: TUV SUD BABT

Notified Body Number: 0168

Examination Certificate # : BABT-RED000351 I02


 Signature: _____
 Name: Michael Caruthers Title: Engineering Manager
 Place: Peoria, IL Date: 06jun2019

i07820527

Product Link (PL161 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL11–Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 22

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL161	2.4 GHz - 2.48 GHz	2.5 mW

Table 23

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL161	3.6V (Internal Battery)	32mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings

Argentina – CNC ID: C-20967

Botswana – BTARegistered No: BOCRA/TA/2018/3814

China – CM IIT ID: 2017 DJ49 92

Ghana – NCA Approved: 1R3-1M-7E1-15D

Indonesia – 52 84 6/SDPPI/20173130

Jamaica – This product contains a Type Approved Module by Jamaica : SMA – PL161

Jordan – TRC/LPD/2017/568

Mauritania – Approved by the ARE of Mauritania Agreement Number: 0462/ARE/2018 Date of Agreement: 09/01/2018

Nigeria – Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

Qatar – ict Qatar Type Approval reg.No:CRA/SA/2017/R-6432

Singapore – Complies with IMDA Standards DA106210

Thailand – This telecommunication equipment conforms to NTC technical requirement

UAE (United Arab Emirates) – TRAREGISTERED No: ER57063/17 DEALER No: DA0130583/14



Australia



New Zealand – R-NZ



Brazil – Approval No. 07077-17-07855



Chad – Approved by the ARCEP of Chad Approval No. 11 8/ARCEP/DG/DRN/SA/2017



Hong Kong – Certificate Number: HK0021800054



Japan – R 00 1–A11 450



Malaysia – Certification Number: CIDF17000122



Mexico – IFT : RCPCAPL 17-11 89



Pakistan – TAC No: 9.704 / 2018 Approved by PTA



Paraguay



Saudi Arabia – TA 2018 - 1922



Philippines – 1816239C



South Africa – TA-2017/1878



South Korea – R-CRM-CTU-PL1 61



Serbia – “I” 0 05 17



Taiwan



Zambia – ZMB / ZICTA / TA / 2018 / 2 / 45

Declaration of Conformity - European Union

Table 24

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link PL161 Telematics Device

Brand: Caterpillar

Model#: PL161

Antenna Part #: Internal

Part Number: 503-2958

Is in conformity with the relevant Union harmonization legislation:

Directive 2014/53/EU

Directive 2011/65/EU

Directive 2014/30/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: RED	LVD (Sec 3.1a):	EN60950-1:2006 + A12:2011 + A2:2013
	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 V2.2.1
2011/65/EU: RoHS		EN 50581:2012
2014/30/EU EMC		EN 13309:2010

Signature:



Name: Michael Caruthers Title: Engineering Manager

Date: 24jun2019

Place: Peoria, IL

i07828785

Product Link (PL641 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 25

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL641	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 26

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL641	9-32V	750mA-225mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter, IC: 7830A-PXS8, has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- This device has been designed to operate with the antenna(s) listed below, and having a maximum gain of 2.5 dBi. Antennas not included in this list or having a gain greater than 2.5 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Antennas for use:

- 443-8460 Antenna As Hard Mount
- 443-8462 Antenna As Hard Mount
- 443-8463 Antenna As Adhesive Mount
- 558-6550 Antenna As Hard Mount
- 558-6551 Antenna As Adhesive Mount

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan,
Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 27

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL641, Cellular Radio Telematics Device,
Brand: Caterpillar Model: PL641
Part #: 440 - 2104, 440 - 2105
Antenna Part #: 440 - 2104 uses Internal Antenna
Antenna Part #: 440 - 2105 can use 443 - 8463, 443 - 8462, 443 - 8460, 558 - 6550, 558 - 6551


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, <u> X </u> Annex III, _____ Annex IV		
2014/53/EU:	LVD (Sec 3.1a):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 301 511 V12.5.1 EN 300 440 V2.1.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2 EN 303 413 V1.1.1
2011/65/EU:	RoHs	EN 50581:2012

Notified Body Name: TUV SUD BABT
Notified Body Number: 0168
Examination Certificate # : BABT-RED000353 i01.01

Signature: 

Name: Michael Caruthers Title: Engineering Manager
Place: Peoria, IL Date: 9jul2019

i07828806

Product Link (PL542 - If Equipped)

SMCS Code: 7490; 7606**S/N:** PL51-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 28

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL542	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 29

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL542	9-32V	850mA-225mA

Certification Notice

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with FCC Part 22, Part 24, and with limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings

Benin – Approved by the ACEP of Benin
Approval No: 168/ARCEP/SE/DR/DAJRC/GU/2018
Date of Agreement: 05 Sep 2018

Mauritania – Approved by the ARE of Mauritania.
Approval No: 0515/ARE2018. Date of Agreement:
07/06/2018.

Nigeria – Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

Thailand – This telecommunication equipment conforms to NTC technical requirement



Chad – Approved by the ARCEP of Chad. Approval Number: 57/ARCEP/DG/DRN/SAI/2018. Date of Agreement: 31/

05/18



EAEU – (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 30

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL542, Telematics Device
Brand: Caterpillar Model: PL542
Antenna Part #: Internal Part Number: 515-7080

Is in conformity with the relevant Union harmonization legislation:

Directive 2014/53/EU
Directive 2011/65/EU
Directive 2014/30/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):	EN60950-1:2006 (2nd Ed)+Am12:2011+Am:2:2013 EN62311:2008
	EMC (Sec 3.1b)	EN 301 489-1 V2.1.1 EN 301 489-17 V3.1.1 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 300 328 V2.1.1 EN 303 413 V1.1.1 EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2
2011/65/EU	RoHS	EN 50581:2012
2014/30/EU	EMC	EN 13309:2010

Signature:



Name: Michael Caruthers

Title: Engineering Manager

Place: Peoria, IL

Date: 21mar2019

i07828811

Product Link (PL241 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL21-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 31

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL241	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 32

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL241	9-32V	1.5A-400mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter, IC: 5131A-HE910, has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- This device has been designed to operate with the antenna(s) listed below, and having a maximum gain of 3.31 dBi. Antennas not included in this list or having a gain greater than 3.31 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Antennas for use:

- 443-8460 Antenna As Hard Mount
- 443-8462 Antenna As Hard Mount
- 443-8463 Antenna As Adhesive Mount
- 558-6550 Antenna As Hard Mount
- 558-6551 Antenna As Adhesive Mount

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan,
Armenia, Kyrgyzstan)

Declaration of Conformity - European Union

Table 33

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL241, Cellular Radio Telematics Device,
Brand: Caterpillar Model: PL241
Part Number: 444 - 9619
Antenna Part Number: 443 - 8463, 443 - 8462, 443 - 8460, 558 - 6550, 558 - 6551

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):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2 EN 300 440 V2.1.1 EN 303 413 V1.1.1
2011/65/EU:	RoHS	EN 50581:2012

Signature:



Name: Michael Caruthers
Place: Peoria, IL

Title: Engineering Manager
Date: 12jul2019

i07828815

Product Link (PL240 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL21-Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 34

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL240	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 35

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL240	9-32V	250mA-200mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

**Ukraine – 028**

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings

Costa Rica – FCC mark

Nigeria – Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

Qatar – ictQATAR. Type Approval reg. No:CRA/SA/2016/R-5433

Singapore – Complies with IMDA Standards. Dealer License: DB105771

Thailand – This telecommunication equipment conforms to NTC technical requirement

UAE (United Arab Emirates) – TRA Registered No: ER47254/16. Dealer No. DA130583/14

**Australia – E401****EAEU – (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)****Hong Kong – US0021800013**

Indonesia – 49587/SDPPI/20173130

**Japan – R 003–160123T 0160071003****New Zealand – R-NZ E401****Philippines – NTCType ApprovedNo. ESD-CPE-1703322**

Declaration of Conformity - European Union

Table 36

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL240, Cellular Radio Telematics Device

Brand: Caterpillar

Model: PL240

Antenna Part #: Internal

Part Number: 505-6727, 526-3054

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):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
	RF (Sec 3.2)	EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2 EN 303 413 V1.1.1
2011/65/EU:	RoHS	EN 50581:2012

Notified Body Name: TUV SUD BABT

Notified Body Number: 0168

Examination Certificate # : BABT-RED000350 i01.01

Signature:



Name: Michael Caruthers

Title: Engineering Manager

Place: Peoria, IL

Date: 21mar2019

i07828816

Product Link (PL042 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL01–Up

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 37

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL042	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 38

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw
PL042	9–32V	250–250mA

Certification Notices

Canada Notice to Users

Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings

Nigeria – Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

Singapore – Complies with IDA Standards DB105771

Thailand – This telecommunication equipment conforms to NTC technical requirement

Indonesia – 51763/SDPPI/2017



EAEU – (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)



Japan – R 003–170036. T D170023003

Declaration of Conformity - European Union

Table 39

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Brand: Caterpillar	Model: PL042
Part Number: 514 - 7505	Antenna Part Number: Internal

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, x Annex III, _____ Annex IV

2014/53/EU:	LVD (Sec 3.1a):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
	EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19: V2.1.0
	RF (Sec 3.2)	EN 301 511:V9.0.2, V12.5.1 EN 301 908-1:V6.2.1, V11.1.1 EN 301 908-2 V11.1.2 EN 303 413: V1.1.1
2011/65/EU:		EN 50581:2012

Notified Body Name: TUV SUD BABT

Notified Body Number: 0168

Examination Certificate #: BABT-RED000457 i01.01

Signature:



Name: Michael Caruthers

Title: Engineering Manager

Place: Peoria, IL

Date: 21mar2019

i07828824

Product Link (PL141 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL11-Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 40

Radio Transmitter Specifications		
Model	Transmitter Frequency Range	Transmitter Power
PL141	824 MHz - 849 MHz	0.5W typical, 2W max
	880 MHz - 915 MHz	
	1710 MHz - 1755 MHz	
	1850 MHz - 1910 MHz	
	1920 MHz - 1980 MHz	

Table 41

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw Range
PL141	3.6V Internal Battery	2A

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



**EAEU – (Russia, Belarus, Kazakhstan,
Armenia, Kyrgyzstan)**

Declaration of Conformity - European Union

Table 42

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 Street
Peoria, IL 61629
USA

hereby declares that the product, object of this description:

Product Link, PL141, Satellite Radio Telematics Device
Brand: Caterpillar Model: PL141
Part Number: 448-3379
Antenna Part Number: Internal Antenna

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):	EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008
EMC (Sec 3.1b):	EN 301 489-1 V2.1.1 EN 301 489-19 V2.1.0 EN 301 489-52 V1.1.0
RF (Sec 3.2)	EN 301 511 V12.5.1 EN 301 908-1 V11.1.1 EN 303 413 V1.1.1
2011/65/EU: RoHS	EN 50581:2012

Signature:



Name: Michael Caruthers

Place: Peoria, IL

Title: Engineering Manager

Date: 25feb2019

i07828835

Product Link (PLE601 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61-Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 43

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw
PLE601	9-32V	500mA - 300mA

Certification Notices

Canada Notice to Users

This device complies with Industry Canada license exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference
- This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/tv technician for help

Changes or modifications to this device without the express approval of Caterpillar may void the users authority to use this device.

Certification Markings



EAEU – (Russia, Belarus, Kazakhstan,
Armenia, Kyrgyzstan)

i07828883

Product Link (PLE602 - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61–Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 44

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw
PLE602	9–32V	630mA - 330mA

i07828888

Product Link (PLE602P - If Equipped)

SMCS Code: 7490; 7606

S/N: PL61–Up

WARNING

Care must be taken in handling lithium batteries.

Lithium batteries are not a serviceable part.

Personal injury can result from battery exploding.

Caution must be used because there is risk of an explosion if the battery is replaced by an incorrect type.

Do not dispose of battery or batteries in a fire. The battery is capable of exploding and emitting caustic chemicals.

Dispose of used batteries according to federal and local laws.

NOTICE

The transmission of information using a Cat Product Link communication device is subject to legal requirements. The legal requirements may vary from location to location, including, but not limited to, radio frequency use authorization. The use of a Cat Product Link communication device must be limited to those locations where all legal requirements for the use of the Cat Product Link communication device and communication network have been satisfied.

If equipment outfitted with the Cat Product Link communication device is located in or relocated to a location where (i) legal requirements are not satisfied or (ii) transmitting or processing of such information across multiple locations would not be legal, Caterpillar disclaims any liability related to such failure to comply, and Caterpillar may discontinue the transmission of information from that equipment.

Consult your Cat dealer with any questions that concern the operation of the Product Link system in a specific country.

Reference: Refer to the Operation and Maintenance Manual of your product for additional information.

Specifications

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

The following Cat Product Link communication device specifications are provided to aid in conducting any related hazard assessment and to ensure compliance with all local regulations:

Table 45

Operating Voltage and Current Draw		
Model	Voltage Range	Maximum Current Draw
PLE602P	9–32V	653mA - 330mA

Product Information Section

Identification Information

i07833783

Manufacturing Information

SMCS Code: 7606

Product Information

Entity authorized by the manufacturer at the territory of Eurasian Economic Union:

Caterpillar Eurasia LLC.

75, Sadovnicheskaya Emb.

Moscow, 115035, Russia

Phone: +7 (495) 2133340, Fax: +7 (495) 2133372,
email: cat_moscow@cat.com**Manufacturer:** Caterpillar Inc.

100 NE Adams Street Peoria, Illinois 61629 United States of America

Date of Manufacture

Markings on the device and or package contain information about the date of manufacture, or a link to the source of this information. If required, the date of manufacture can be obtained by the serial number of the product, by contacting your authorized dealer.

Term and Conditions of Storage and Transportation

The product is packed in consumer packaging of manufacturer. The product should be stored in the factory packing and storage conditions for climatic factors of Group 4 in accordance with GOST 15150-69. When loading and transportation requirements on warning labels on the boxes must be followed, shocks and bumps that can affect the appearance and performance of the device should not be allowed.

Transportation can be done by all kinds of covered transport vehicles. When transporting by air, ensure that the Product Linkdevice is transported in a sealed heated compartment.

Actions In Case of Technical Failures

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

- Turn the machines master disconnect off and then back on.
- Unplug the Product Link harness from the machine connector and then plug the harness back in.
- Disconnect the negative cable from the negative battery terminal and then reconnect the cable.

If these solutions do not help, call for service.

Proper Disposal

Proper disposal of devices upon failure is required according to local regulations. This process may be through the warranty return process, reman, or scrap of material.

Operation Section

Operation

i07833791

System Overview

SMCS Code: 7606

Note: Your equipment may be equipped with a Caterpillar Product Link communication device.

The Caterpillar Product Link communication device utilizes cellular and/or satellite technology to communicate equipment information. This information is communicated to Caterpillar, Cat dealers, and Caterpillar customers. The Caterpillar Product Link communication device contains a Global Positioning System (GPS) satellite receiver.

Note: The Product Link PL161 does not contain a GPS receiver.

The capability of two-way communication between the equipment and a remote user is available with the Caterpillar Product Link communication device. The remote user can be a dealer or a customer.

Note: The Product Link PL161 does not support two-way communication.

Note: All Product Link devices with an internal antenna and all devices with an associated transmitting antenna must be located more than 20 cm (7.874 inch) from the machine operator to comply with FCC Regulations for RF human body safety.

Data Broadcasts

Data concerning this equipment, the condition of the equipment, and the operation of the equipment is being transmitted by the Caterpillar Product Link communication device to Caterpillar and is communicated to customers and Caterpillar dealers by the user interface. The data is used to serve the customer better and to improve upon Caterpillar products and services. The information transmitted may include: equipment serial number, equipment location, and operational data, including but not limited to: fault codes, emissions data, fuel usage, service meter hours, software, and hardware version numbers and installed attachments.

Caterpillar and/or Cat dealers may use this information for various purposes. Refer to the following list for possible uses:

- Providing services to the customer and/or the equipment

- Checking or maintaining Product Link system
- Monitoring the health or performance of the equipment
- Helping maintain the equipment and/or improve the efficiency of the equipment
- Evaluating or improving Caterpillar products and services
- Complying with legal requirements and valid court orders
- Performing market research
- Offering the customer new products and services

Caterpillar may share some or all the collected information with Caterpillar affiliated companies, dealers, and authorized representatives. Caterpillar will not sell or rent collected information to any other third party and will exercise reasonable efforts to keep the information secure. Caterpillar recognizes and respects customer privacy. For more information, please contact your local Cat dealer.

Operation in a Blast Site for Product Link Radios

WARNING

This equipment is equipped with a Cat® Product Link communication device. When electric detonators are being used for blasting operations, radio frequency devices can cause interference with electric detonators for blasting operations which can result in serious injury or death. The Product Link communication device should be deactivated within the distance mandated under all applicable national or local regulatory requirements. In the absence of any regulatory requirements Caterpillar recommends the end user perform their own risk assessment to determine safe operating distance.

Note: If using the previous version of Product Link radios (PL121SR, 522, 523, 420, or 421) refer to blast site requirements as stated in Operation and Maintenance Manual, SEBU8142, "Product Link - 121SR/321SR/420/421/522/523".

If required, the following are suggested methods to disable the Caterpillar Product Link communication device:

- Turn the Product Link radio disable switch to the OFF position.
- Disconnect the Caterpillar Product Link communication device from the main power source. This action is performed by disconnecting the wiring harness at the Product Link radio.

- To turn off the PL141 or PL131, push the power button or remove the internal battery.
- The PL161 cannot be turned off. If necessary, remove the PL161 from the equipment.
- The PL542 contains an internal battery that cannot be turned OFF manually. If necessary remove the PL542 from the equipment.
- The PL240B contains an internal battery that cannot be turned OFF manually. If necessary remove the PL240B from the equipment.
- The PL243 contains an internal battery that cannot be turned OFF manually. There is an RF disable input switch. Refer to Special Instruction, M0098124 for more details.
- The PL083 contains an internal battery that cannot be turned OFF manually. There is an RF disable input switch. Refer to Special Instruction, M0109130 for more details.

Note: If no radio disable switch is installed and the equipment will be operating near a blast zone, a Product Link radio disable switch may be installed on the equipment. The switch will allow the Caterpillar Product Link communication device to be shut off by the operator from the equipment control panel. Refer to Special Instruction, REHS7339, Special Instruction, REHS8850, Special Instruction, SEHS0377, and Special Instruction, REHS9111 for more details and installation instructions.

Consult your Cat dealer if there are any questions.

Information for the initial installation of the Caterpillar Product Link communication device is available in Special Instruction, REHS7339, Special Instruction, REHS8850, Special Instruction, REHS9111, Special Instruction, SEHS0377, Special Instruction, REHS9757, and Special Instruction, M0077632.

Operation, configuration, and troubleshooting information for the Caterpillar Product Link communication device can be found in the Systems Operation, Troubleshooting, Testing and Adjusting, UENR3697, Systems Operation, Troubleshooting, Testing and Adjusting, UENR5823, Systems Operation, Troubleshooting, Testing and Adjusting, UENR5824, Systems Operation, Troubleshooting, Testing and Adjusting, M0070044, Systems Operation, Troubleshooting, Testing and Adjusting, M0076820, and Systems Operation, Troubleshooting, Testing and Adjusting, UENR6983.

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Product and Dealer Information

Note: For product identification plate locations, see the section "Product Identification Information" in the Operation and Maintenance Manual.

Delivery Date: _____

Product Information

Model: _____

Product Identification Number: _____

Engine Serial Number: _____

Transmission Serial Number: _____

Generator Serial Number: _____

Attachment Serial Numbers: _____

Attachment Information: _____

Customer Equipment Number: _____

Dealer Equipment Number: _____

Dealer Information

Name: _____ Branch: _____

Address: _____

Dealer Contact

Phone Number

Hours

Sales: _____

Parts: _____

Service: _____

