



As an ENERGY STAR® Partner, DT Research Inc. follows the EPA's product qualification and certification process to ensure the products marked with the ENERGY STAR® logo are ENERGY STAR® qualified for energy efficiency.

The ENERGY STAR® program specifications for computers were to promote energy efficiency and reduce air pollution through more energy-efficient equipment in homes, offices, and factories. One way products achieve this goal is by using the Microsoft Windows power management feature to reduce power consumption when the product is not in use. The power management feature enables the computer to initiate a low-power or "sleep" mode after a period of user inactivity.

To take advantage of these potential energy savings, users should use the default power management settings that are provided with ENERGY STAR qualified computers. The default power management settings on ENERGY STAR® qualified computers are preset to behave in the following ways :

- Turn off display after 10 minutes of user inactivity.
- Initiate a low power sleep mode for the computer after 30 minutes of user inactivity.
- Briefly press the power button will bring the computer out of sleep mode.

Additional information on the ENERGY STAR® program, its environmental benefits and the potential energy and financial savings of the power management feature can be found on the EPA ENERGY STAR® Power Management Web site at <http://www.energystar.gov/powermanagement>.

DT Research Rugged Convertible Laptop



BASIC OPERATION GUIDE

LT360PA

INTRODUCTION

Thank you for acquiring DT Research's LT360PA Rugged Laptop. Featuring a flexible, robust enclosure, the Rugged Laptop with a 13.3" convertible display and an LED-backlit keyboard is powered by the Intel® Core™ Ultra processor and optional IR front camera, barcode scanner, smart card/CAC reader, night vision screen, offering optimal combinations of performance and power savings. The LT360PA Rugged Laptop is available with Microsoft® Windows® operating system. The software operating system features web browser, client/ server computing software, media player, accessories, and applications support.

PACKAGE CONTENTS

- One LT360PA with two Battery Packs
- AC-DC Power Adapter with Power Cord
- Basic Operation Guide



Input/ Output Ports

A Audio Jack	I Ethernet Port (Optional)
B latest USB/charging	J latest USB/charging (Optional)
C USB Type-A	K SFP Connector (Optional)
D Ethernet Port	L DC-in Jack
E Smart Card/CAC Reader	M USB Type-A
F SD Card Slot	N HDMI Output Port
G Barcode Scanner (Optional)	O Nano SIM Card Slot
H 24-pin Fischer Connector (Optional)	P IR Camera (Optional)

Button Functions

BUTTON	ACTION	BUTTON	ACTION
1	Power Button	5	88 Standard, Full-size Keyboard with Backlight
2	Programmable Buttons	6	Multi-touchpad
3	Brightness Control Buttons	7	Battery Latches *Push the switch up to unlock the latch, then slide the latch left to remove the battery.
4	Trigger Button		

PRECAUTIONS

- Always exercise care when operating and handling the LT360PA.
- Do NOT apply excessive pressure to the display screen.
- We recommend using the Digital Pen (optional) to keep the screen clean.
- Avoid prolonged exposure of the display panel to any strong heat source. Wherever possible, the LT360PA should face away from direct light to reduce glare.
- If the AC-DC power adapter is used to recharge or power the laptop, do NOT use any AC-DC adapter other than the one provided or acquired from the manufacturer or its partners.
- In the unlikely event that smoke, abnormal noise, or strange odor is present, immediately power off the LT360PA and disconnect all power sources. Report the problem to your device provider immediately.
- Never attempt to disassemble the LT360PA, as this will void the warranty.

NOTE:

To obtain protection consistent with any IP rating for the device, the I/O (audio, power, USB, card reader, etc.) port doors must be closed. If the IP protection is compromised by mishandling or misuse, such as by leaving port doors open or improperly closed, any resulting product damage will not be covered under any DT Research warranty.

BASIC FEATURES

The LT360PA rugged laptop integrates a high-brightness touchscreen, USB ports, and embedded networking elements such as wireless LAN.

A LT360PA typically integrates an 802.11 wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your LT360PA does not come with such a network adapter, please consult your device provider to establish the desired network connectivity.

OPERATION

Powering ON and OFF

To activate the LT360PA, push and quickly release the Power Button. The display will come on in a few seconds. To put the LT360PA in Standby mode, push and quickly release the Power Button. To turn the LT360PA off for extended storage, power off safely using any software function that “shuts down computer” provided in the software operating system.

NOTE:

The battery pack shipped with your laptop may be low in power—please use the AC-DC adapter with the LT360PA when setting up for the first time to fully charge the battery pack, or use the optional battery charger kit.

NOTE:

When the battery pack is charging, the blue Battery LED should blink slowly. If plugging in the AC-DC adapter does not trigger this blinking activity and the LED stays dark, the battery pack(s) may have been drained substantially. Try unplugging/ replugging the AC-DC adapter to the LT360PA a few times to activate the charging process.

NOTE:

To conserve power, use (push and quick release) the Power Button to put the laptop in “Standby” mode while not in use. Pushing briefly on the same button will wake up the system within seconds.

NOTE:

Avoid using the Power Button (“hold 4+ seconds” feature) to turn off the laptop—this form of hardware shutdown is intended to be a means of recovery from lockups, and not as normal operation.

Start Up

If the power up (from Standby mode or otherwise) is successful, the appropriate interface will be displayed after a launch sequence of several seconds. The wireless LAN connection may take 10-15 seconds to be established.

Configuring the Rugged Laptop

The LT360PA may be configured using the utilities and methods dictated by the software operating system. The LT360PA should be configurable for various properties such as user profiles, network features, and several system elements.

Convert the LT360PA

1. Unlock the latch to release the keyboard from the screen

2. Gently pull out the keyboard



NVIS Mode and Screen Brightness Control (optional)

- When power button is pressed to power on the unit, power LED will flash orange once to indicate the unit is booting. Unit will boot into NVIS mode with zero nit brightness by default and display will be dark. You can press the “Brightness Up” and “Brightness Down” buttons to set NVIS mode display to desired brightness (up to 20 nits).
- To toggle between NVIS and high-brightness display mode, press the “NVIS/ Normal Mode Toggle” button. When changed from NVIS mode to high-brightness mode, display brightness percentage will be same as the brightness level set in NVIS mode before toggling.
- Use brightness control buttons to set desired brightness level. When changed from normal display mode to NVIS mode, display brightness will be set to 0 nit (display is dark) and you need to use brightness control buttons to change display to desired brightness.
- Brightness up, Brightness down, NVIS/Normal toggle, Windows Key and Control Center functions are fixed and not user programmable.
- Two programmable buttons can be programmed through Button Manager.

Wireless Networking

The LT360PA is often delivered with an embedded (user-inaccessible) 802.11 WLAN adapter equipped with a hidden custom antenna.

- Through the support of typical WLAN adapters, the LT360PA should be able to detect all 802.11 access points in the vicinity to select the access point of choice for connection.
- The SSID and WEP/WPA/WPA2 (if enabled) parameters on the LT360PA and the access points have to match. The SSID is case-sensitive and it is recommended to enable WEP/WPA/WPA2 encryption (or advanced alternatives) for secure access.
- When WEP/WPA/WPA2 is enabled, you may need to consult your network administrator or your networking equipment literature to properly configure associated settings such as Authentication mode, etc.
- Refer to the access point operating manuals for setting up the 802.11 access points.

USING THE RUGGED LAPTOP

Peripherals Support

Through its USB 3.0 ports, the LT360PA supports a wide range of USB-based peripherals. These peripherals are applicable for software installation, applications storage, data storage, and system software recovery and updates.

For More Support

Users can download the Laptop Modules Basic Operation Guides from the DT Research website.

If the LT360PA comes with a Mobile broadband module, please contact your product and/or service provider for the SIM Card installation procedures.



CAUTION:

- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.

RF Exposure Information (RED & UKCA)

To be protected against all verified adverse effects, the separation distance of at least 0mm must be maintained between the antenna of the radio having max. 7.3dBi antenna and all persons.

Hereby, [DT Research, Inc.] declares that the radio equipment type [LT360PA] is in compliance with Directive 2014/53/EU and UK Radio Equipment Regulations 2017. The full text of the EU and UK declaration of conformity is available at the following internet address: <http://www.dtresearch.com>.

The functions of Wireless Access Systems including Radio Local Area Networks(WAS/RLANs) within the band 5150-5350 MHz and 5945-6425MHz for this device are restricted to indoor use only within all European Union countries (BE/BG/CZ/DK/DE/EE/IE/EL/ES/FR/HR/ IT/CY/LV/LT/LU/HU/MT/NL/AT/PL/PT/RO/SI/SK/FI/SE/TR/N O/CH/IS/LI/UK(NI).

Maximum EIRP for EU

Wireless Band/Frequency:	Model: LT360PA
Bluetooth:2402MHz-2480MHz	19.80dBm
Bluetooth LE:2402MHz-2480MHz	13.84dBm
Wifi: 2412MHz-2472MHz/2422MHz-2462MHz	19.86dBm
Wifi: 5150MHz-5725MHz	22.26dBm
Wifi: 5725MHz-5875MHz	13.12dBm
Wifi: 5925MHz-6425MHz	22.99dBm

This equipment complies with Directive 2014/53/EU and UK Radio Equipment Regulations 2017 radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The portable device is designed to meet the requirements for exposure to radio waves established by European Union market(France). These requirements set a SAR limit of 2W/kg averaged over one gram of tissue. The highest SAR value 0.27 W/kg reported under this standard during product certification for use when properly worn on the body.

The equipment has been tested with radios set to their highest transmission levels with following setup:

Mode	use against the head	worn or carried against the torso of the body(Body)	worn or carried against the torso of the body(Bystander)	Worn on limbs
Separation	/	0 mm	25 mm	/
SAR Value	/	0.03 W/kg	0.27 W/kg	/
Sar Limit	2W/kg (over 10 g)	2W/kg (over 10 g)	2W/kg (over 10 g)	4W/kg (over 10 g)

Body-worn accessories (e.g., carry case, belt clip) containing metallic components which has not been tested or certified may change the RF performance of the device, including its compliance with RF exposure. User shall avoid using such accessories and should operate at least the above stated separation distance to maintain RF exposure compliance.



Operating authorizations must exist to operate the product in the following member states of the European Union, refer to the table below.



AT	BE	BG	CH	CY
CZ	DE	DK	EE	EL
ES	FI	FR	HR	HU
IE	IS	IT	LI	LT
LU	LV	MT	NL	NO
PL	PT	RO	SE	SI
SK	TR	UK		



Importer Name: Concept International GmbH
Importer Address: Zweibrückenstr. 5-7 80331 München Germany

Federal Communication Commission Interference

This equipment has been tested and found to comply with the 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The portable device is designed to meet the requirements for exposure to radio waves established by the FCC. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body, with 0mm separation.

FCC ID Label is in removable battery compartment, it could be easily found by removing the battery cover.

Indoor Client 6CD statement

- a. That this device will only associate and connect with a low-power indoor Access Point, subordinate device, or standard access point and never directly link to any other client devices.
- b. This device will always initiate transmission under the control of a low-power indoor AP, subordinate or standard AP except for brief communications before joining a network. These quick messages will only occur if the client has detected an indoor AP, subordinate, or standard access point operating on a channel. These brief messages will have a time-out mechanism such that if it does not receive a response from an AP it will not continually repeat the request.
- c. This device when associated and connected with a low-power indoor access point, subordinate or standard access point device, will operate at a power lower as advertised by the indoor access point, subordinate, or standard access point (at some point in time testing will be required but FCC will provide advance notice before the requirement takes affect):
 - i. lower or equal to the power advertised by the low-power indoor access point or subordinate and never above the maximum output power allowed by the FCC grant for clients associated with indoor clients or subordinates.
 - ii. lower than or 6 dB below the power advertised by the standard access point.
- d. We acknowledging the device is prohibited for control of or communications with unmanned aircraft systems. including drones.

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Unique Identifier Trade Name:

Model No.: LT360PA

Responsible Party – U.S. Contact Information

DT Research, Inc.

2000 Concourse Drive, San Jose, CA 95131

<http://www.dtresearch.com>



IC Compliance Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé.

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

RF Exposure Compliance

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The portable device is designed to meet the requirements for exposure to radio waves established by the ISED. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body, with 0mm separation.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'utilisateur final doit suivre les instructions spécifiques pour satisfaire les normes. Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.

Le dispositif portatif est conçu pour répondre aux exigences d'exposition aux ondes radio établie par le développement énergétique DURABLE. Ces exigences un SAR limite de 1,6 W/kg en moyenne pour un gramme de tissu. La valeur SAR la plus élevée signalée en vertu de cette norme lors de la certification de produit à utiliser lorsqu'il est correctement porté sur le corps, avec une séparation de 0mm.

The functions of Wireless Access Systems including Radio Local Area Networks(WAS/RLANs) within the band 5150-5250 MHz for this device are restricted to indoor use only.

Les fonctions des systèmes d'accès sans fil, y compris les réseaux locaux radioélectriques (WAS/RLAN), dans la bande 5150-5250 MHz de cet appareil sont limitées à une utilisation en intérieur.

IC Wi-Fi 6E Statement:

- a. Devices shall automatically stop transmitting if there is an absence of information to transmit or an operational failure. Note that the intention is not to prohibit either the transmission of control or signalling information, or the use of repetitive codes, where one or both are required by the technology. An explanation of how transmitting is stopped shall be included in the certification filing.
- b. Devices shall not be used for control of or communications with unmanned aircraft systems.
- c. Devices shall not be used on oil platforms.
- d. Devices shall not be used on aircraft.
- e. Devices shall not be used on aircraft, except for the low-power indoor access points, indoor subordinate devices, low-power client devices, and very low-power devices operating in the 5925-6425 MHz band, that may be used on large aircraft as defined in the Canadian Aviation Regulations, while flying above 3,048 metres(10,000 feet).
- f. Except for very low-power devices, devices shall not be used on trains.
- g. Except for very low-power devices, devices shall not be used on maritime vessels.
- h. Except for very low-power devices, devices shall not be used on automobiles.
- i. Client devices shall not be capable of initiating a network.
- j. Low-power indoor access points, indoor subordinate devices, low-power client devices, and very low-power devices operating in the 5925-6425 MHz band may be used on large aircraft, as defined in the Canadian Aviation Regulations, while flying above 3,048 metres (10,000 feet).

a. Les dispositifs doivent automatiquement cesser de transmettre s'il n'y a pas d'informations à transmettre ou s'il y a une défaillance opérationnelle. Il convient de noter que l'intention n'est pas d'interdire la transmission d'informations de contrôle ou de signalisation, ou l'utilisation de codes répétitifs, lorsque l'un ou l'autre est requis par la technologie. Une explication de la manière dont la transmission est interrompue doit être incluse dans le dossier de certification.

b. Les dispositifs ne doivent pas être utilisés pour contrôler les systèmes d'aéronefs sans pilote ou pour communiquer avec eux.

c. Les dispositifs ne doivent pas être utilisés sur des plates-formes pétrolières.

d. Les dispositifs ne doivent pas être utilisés sur des aéronefs.

e. Les dispositifs ne doivent pas être utilisés à bord des aéronefs, à l'exception des points d'accès intérieurs de faible puissance, des dispositifs subordonnés intérieurs, des dispositifs clients de faible puissance et des dispositifs de très faible puissance fonctionnant dans la bande 5925-6425 MHz, qui peuvent être utilisés à bord des grands aéronefs, tels que définis dans le règlement de l'aviation canadienne, lorsqu'ils volent à plus de 3 048 mètres (10 000 pieds).

f. À l'exception des dispositifs de très faible puissance, les dispositifs ne doivent pas être utilisés dans les trains.

g. À l'exception des dispositifs de très faible puissance, les dispositifs ne doivent pas être utilisés sur les navires maritimes.

h. À l'exception des dispositifs de très faible puissance, les dispositifs ne doivent pas être utilisés sur les automobiles.

i. Les dispositifs clients ne doivent pas être en mesure d'initier un réseau.

j. Les points d'accès intérieurs de faible puissance, les dispositifs subordonnés intérieurs, les dispositifs clients de faible puissance et les dispositifs de très faible puissance fonctionnant dans la bande 5925-6425 MHz peuvent être utilisés à bord de grands aéronefs, tels que définis dans le Règlement de l'aviation canadien, lorsqu'ils volent à plus de 3 048 mètres (10 000 pieds) d'altitude.