DT Research **Rugged Convertible Laptop**

BASIC OPERATION GUIDE

LT355

INTRODUCTION

Thank you for acquiring DT Research's LT355 Rugged Laptop. Featuring a flexible, robust enclosure, the Rugged Laptop with a 15.6" convertible display and an LED-backlit keyboard is powered by the Intel® processor and optional graphics card, offering optimal combinations of performance and power savings. The LT355 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 LT355 with two Battery Packs
- AC-DC Power Adapter with Power Cord
- Basic Operation Guide

Input/ Output Ports

A	DC-in Jack	**E**	USB Type-A
	Smart Card/CAC Reader	**F**	Ethernet Port (RJ45)
	Ethernet Port (RJ45)	**G**	COM Port
	HDMI Output Port		

Button Functions

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

PRECAUTIONS

• Always exercise care when operating and handling the LT355.

• 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 LT355 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 LT355 and disconnect all power sources. Report the problem to your device provider immediately.

• Never attempt to disassemble the LT355, 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 LT355 rugged laptop integrates a high-brightness touchscreen, USB ports, and embedded networking elements such as wireless LAN.

A LT355 typically integrates an 802.11 wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your LT355 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 LT355, push and quickly release the Power Button. The display will come on in a few seconds. To put the LT355 in Standby mode, push and quickly release the Power Button. To turn the LT355 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 LT355 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 LT355 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.

NOTE:

tablet use conditions are not supported by the LT355

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 LT355 may be configured using the utilities and methods dictated by the software operating system. The LT355 should be configurable for various properties such as user profiles, network features, and several system elements.

Convert the LT355

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 LT355 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 LT355 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 LT355 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 LT355 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 LT355 comes with a Mobile broadband module, please contact your product and/or service provider for the SIM Card installation procedures.

RF Exposure Information (RED & UKCA)

To be protected against all verified adverse effects, the separation distance of at least 287mm must be maintained between the antenna of the radio having max. 4.6dBi antenna and all persons.

Hereby, [DT Research, Inc.] declares that the radio equipment type [LT355] 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

Bluetooth:2402MHz-2480MHz	12.74dBm
Bluetooth LE:2402MHz-2480MHz	9.66dBm
Wifi: 2412MHz-2472MHz/2422MHz-2462MHz	19.99dBm
Wifi: 5150MHz-5725MHz	18.55dBm
Wifi: 5725MHz-5875MHz	13.10dBm
Wifi: 5925MHz-6425MHz	17.19dBm

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

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
To maintain compliance with FCC's RF Exposure guidelines, this equipment should be installed and operated with minimum distance between 255.09mm the radiator your body: Use only the supplied antenna.

Indoor Client 6XD statement
1. FCC regulations restrict the operation of this device to indoor use only.
2. The device will only associate and connect with a low-power indoor access point or subordinate device and never directly connect to other client devices.
3. The device will always initiate transmission under the control of a low-power indoor AP or subordinate except for brief transmissions before joining a network. These short messages will only occur if the client has detected an indoor AP or subordinate 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.
4. transmissions will be lower or equal to the power advertised by the indoor low-power access point or subordinate and never above the maximum output power allowed by the FCC grant for equipment class 6XD.
5. 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: **DT Research**
Model No.: LT355
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 duCanada.

RF Exposure Compliance

To maintain compliance with RSS's RF Exposure guidelines, this equipment is designed to maintain a minimum distance of 255.09 millimeters between the antenna/source of radiation and the radiator your body; the separation distance between the device and the bystander must not exceed 25 mm to show compliance with the requirements of the bystander.
Pour maintenir la conformité avec les directives d'exposition aux radiofréquences de RSS, cet équipement est conçu pour maintenir une distance minimale de 255,09 millimètres entre l'antenne/source de rayonnement et le radiateur de votre corps ; la distance de séparation entre l'appareil et le spectateur ne doit pas dépasser 25 mm pour montrer la conformité avec les exigences du spectateur.

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:
Devices shall not be used for control of or communications with unmanned aircraft systems.
Low-power indoor access points and indoor subordinate devices shall bear statements acknowledging both of the following restrictions in the user manual and, where feasible, in a conspicuous location on the device:
Operation shall be limited to indoor use only.
Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).
L'équipement ne doit pas être utilisé pour le contrôle ou la communication des systèmes d'aéronefs sans pilote. Les points d'accès intérieurs de faible puissance et les accessoires intérieurs doivent indiquer les restrictions suivantes dans le manuel de l'utilisateur et, si possible, à un endroit bien en vue de l'appareil: Le fonctionnement doit être limité à un usage intérieur. Il est interdit de travailler sur les plates - formes pétrolières, les voitures, les trains, les navires maritimes et les aéronefs, à l'exception des gros aéronefs de plus de 3 048 mètres (10 000 pieds).
PMN: Intel Wi-Fi 6E AX210
HVIN: AX210NGW