DFI

JUR101-TGU

10.1" Rugged Tablet

User's Manual

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Regulatory Information

To access the regulatory information for JUR101-TGU, please go to **Device Settings > About > Regulatory.**

Certifications and Standards

There are North American, European Union, and Australian versions of the JUR101-TGU, with different certifications and standards.

United States

In compliance with the FCC rules 47 CFR 15.19(a)(3), the statements that follow must appear on the device or in the user documentation. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
• The device may not cause harmful interference.
• This device must accept any interference received, including interference that may cause undesired operation.

Canada

In compliance with Industry Canada rules, the following statement must appear on the device or in the user documentation:

This Class B digital apparatus complies with Canadian ICES-003.
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Canadian regulations restrict the use of channels in the band 5150 MHz to 5250 MHz to indoor use only. When this product is connected with an access point that is operating in this frequency range, or when using ad-hoc mode, the use of this product is restricted to indoor use only.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

La réglementation canadienne restreignent l'utilisation des canaux dans la bande 5150 MHz à 5250 MHz pour une utilisation en intérieur. Lorsque ce produit est connecté à un point d'accès qui fonctionne dans cette gamme de fréquences, ou lorsque vous utilisez le mode ad-hoc, l'utilisation de ce produit est limitée à une utilisation en intérieur

Radio Frequency Safety

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment is in direct contact with the body of the user under normal operating conditions. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement est en contact direct avec le corps de l'utilisateur dans des conditions de fonctionnement normales. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec tout autre antenne ou transmetteur.

CE Marking (European Union)

This device is restricted to indoor use when the WLAN radio is operating in the 5150 to 5350 MHz frequency range.

UK
CA

UKCA Marking

This device is restricted to indoor use when the WLAN radio is operating in the 5150 to 5350 MHz frequency range.

Restricted Materials Conformity

The JUR101-TGU conforms to the following restricted materials regulations:

• RoHS 2011/65/EU
• RoHS 2015/863
• REACH 1907/2006 (33)
• REACH 1907/2006 (67)
• POP 2019/1021
• Proposition 65
• Canada Prohibition of Certain Toxic Substances
• TSCA

About this Manual

This manual can be retrieved from the website.

The manual is subject to change and update without notice, and may be based on editions that do not resemble your actual products. Please visit our website or contact our sales representatives for the latest editions.

Warranty

1. Warranty does not cover damages or failures that arises from misuse of the product, inability to use the product, unauthorized replacement or alteration of components and product specifications.

2. The warranty is void if the product has been subjected to physical abuse, improper installation, modification, accidents or unauthorized repair of the product.

3. Unless otherwise instructed in this user's manual, the user may not, under any circumstances, attempt to perform service, adjustments or repairs on the product, whether in or out of warranty. It must be returned to the purchase point, factory or authorized service agency for all such work.

4. We will not be liable for any indirect, special, incidental or consequential damages to the product that has been modified or altered.

About this Package

The package contains the following items. If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

- JUR101-TGU System Unit

- Standard Removable Battery

- AC Wall Charger with International Plug Kit

- Capacitive Small-Tip Stylus w/ Tether

- Quick Start Guide

- Hand Strap

- Connector Port Dust Cover

Note: The items are subject to change in the developing stage.
The product and accessories in the package may not come similar to the information listed above. This may differ in accordance with the sales region or models in which it was sold. For more information about the standard package in your region, please contact your dealer or sales representative.

Product Warnings

Follow the warnings listed below to use the JUR101-TGU and accessories safely.

Battery Warnings

• Do not disassemble or open, crush, bend or deform, puncture or shred.

• Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.

• Only use the battery for the system for which it is specified.

• Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leak age, or other hazard.

• Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.

• Replace the battery only with another battery that has been qualified with the system.

• Use of an unqualified battery may present a risk of fire, explosion, leakage, or other hazard.

• Promptly dispose of used batteries in accordance with local regulations.

• Battery usage by children should be supervised.

• Avoid dropping the battery. If the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.

• Improper battery use may result in a fire, explosion or other hazard.

Wall Charger Warnings

To reduce the risk of personal injury, electrical shock, fire or damage to the equipment:

• Plug the wall charger into an electrical outlet that is easily accessible at all times.

• Do not place anything on the wall charger cord or any of the other cables. Arrange them so that no one may accidentally step on or trip over them.

• Do not pull on a cord or cable. When unplugging the wall charger from the electrical outlet, pull on the plug, not the cord.

• The AC wall charger must be approved by DFI, have an output rating of 19V DC and a mini mum 3.16A, and be certified or listed by a nationally recognized testing laboratory.

• The AC wall charger provided with the JUR101-TGU meets these criteria. Using any other external power source can damage your product and void your warranty.

> **Battery Warnings**
> WARNING! This device comes with a lithium-ion rechargeable battery pack.
> To reduce the risk of fire or burns, do not disassemble, crush, puncture, short external contacts, or expose the battery pack to fire.

> **CAUTION:**
> Risk of explosion if the battery is replaced by an incorrect type.

Static Electricity Precautions

It is quite easy to inadvertently damage your PC, system board, components or devices even before installing them in your system unit. Static electrical discharge can damage computer components without causing any signs of physical damage. You must take extra care in handling them to ensure against electrostatic build-up.

1. To prevent electrostatic build-up, leave the system board in its anti-static bag until you are ready to install it.

2. Wear an antistatic wrist strap.

3. Do all preparation work on a static-free surface.

4. Hold the device only by its edges. Be careful not to touch any of the components, contacts or connections.

5. Avoid touching the pins or contacts on all modules and connectors. Hold modules or connectors by their ends.

> **Important:**
> Electrostatic discharge (ESD) can damage your processor, disk drive and other components. Perform the upgrade instruction procedures described at an ESD workstation only. If such a station is not available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the system chassis. If a wrist strap is unavailable, establish and maintain contact with the system chassis throughout any procedures requiring ESD protection.

Safety Precautions

- Use the correct DC / AC input voltage range.

- Unplug the power cord before removing the system chassis cover for installation or servicing. After installation or servicing, cover the system chassis before plugging in the power cord.

- There is danger of explosion if battery incorrectly replaced.

- Replace only with the same or equivalent specifications of batteries recommend by the manufacturer.

- Dispose of used batteries according to local ordinance.

- Keep this system away from humid environments.

- Make sure the system is placed or mounted correctly and stably to prevent the chance of dropping or falling may cause damage.

- The openings on the system shall not be blocked and shall be kept in distance from other objects to make sure of proper air ventilation to protect the system from over-heating.

- Dress the cables, especially the power cord, so they will not be stepped on, in contact with high temperature surfaces, or cause any tripping hazards.

- Do not place anything on top of the power cord. Use a power cord that has been approved for use with the system and is compliant with the voltage and current ranges required by the system's electrical specifications.

- If the system is to be unused or stored for a long time, disconnect it from the power source to avoid damage by transient overvoltage.

- If one of the following occurs, consult a service personnel:

  - The power cord or plug is damaged.

  - Liquid has penetrated the system.

  - The system has been exposed to moisture.

  - The system is not working properly.

  - The system is physically damaged.

- The unit uses a three-wire ground cable which is equipped with a third pin to ground the unit and prevent electric shock. Do not defeat the purpose of this pin. If your outlet does not support this kind of plug, contact your electrician to replace the outlet.

- Disconnect the system from the electricity outlet before cleaning. Use a damp cloth for cleaning the surface. Do not use liquid or spray detergents for cleaning.

- Before connecting, make sure that the power supply voltage is correct. The device is connected to a power outlet which should be grounded connection.

Safety Measures

To avoid damages to the system:

- Use the correct AC input voltage range.

To reduce the risk of electric shock:

- Unplug the power cord before removing the system chassis cover for installation or servic-ing. After installation or servicing, cover the system chassis before plugging the power cord.

Battery:

- Danger of explosion if battery incorrectly replaced.

- Replace only with the same or equivalent type recommend by the manufacturer.

- Dispose of used batteries according to local ordinance.

Table of Contents

Chapter 1 - Introduction

▶ Overview

The Rugged Table JUR101-TGU has the Windows 11 IoT Enterprise or Windows 11 Pro operating system. Standard features include a 10-inch display, capacitive touchscreen, hot-swapable battery, keypad, Bluetooth, Wi-Fi, and front and rear cameras. Standard accessories include lithiumion battery packs, an AC wall charger, hand strap, and a fine tip capacitive stylus and tether. Optional features include a 4G LTE data modem with a GNSS receiver, barcode imager, and RS-232 port.

▶ Key Features

- 11th Gen Intel® Core™ Processors

- High Brightness Sunlight-Readable 10.1 Screen

- ALL-DAY usability with hot swap capability (2 removable Li-Ion battery)

- Optical bonding enhances both visibility and strength

- Chemically-strengthened Dragontrail™ High Ion-Exchange (HIE™) cover glass for excellent impact and scratch resistance

- Adjustable LED backlit keys and 8x programmable function keys

- Ultra Rugged design to meet MIL-STD-810H (Full IP65)

▶ Dimensions

Accessory Mounting Screws 4X M4
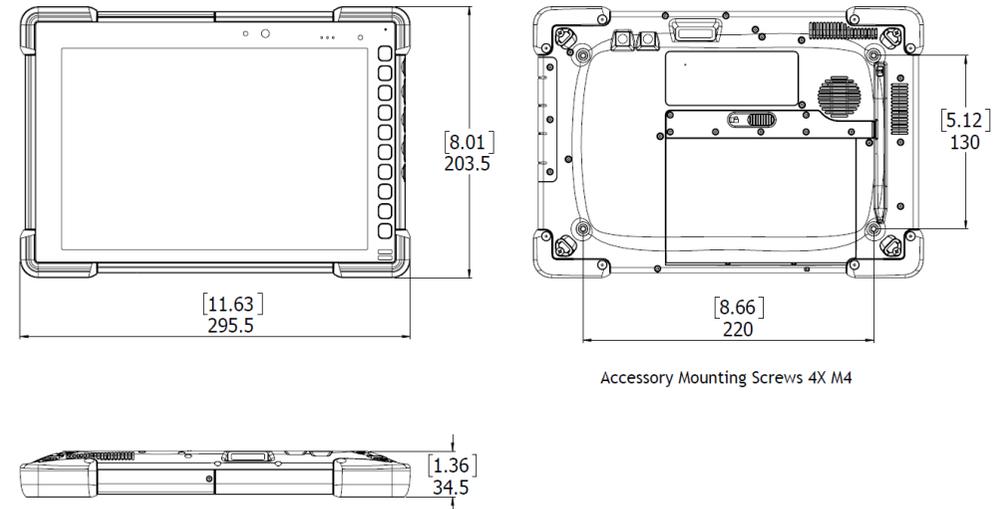
▶ **Getting to Know the JUR101-TGU**

Front View

1	Display /Touchscreen	5	Light Sensor
2	Camera Status LED	6	Microphone
3	Front-facing Camera	7	Keypad
4	LED Indicator Lights	8	Speaker

Rear View
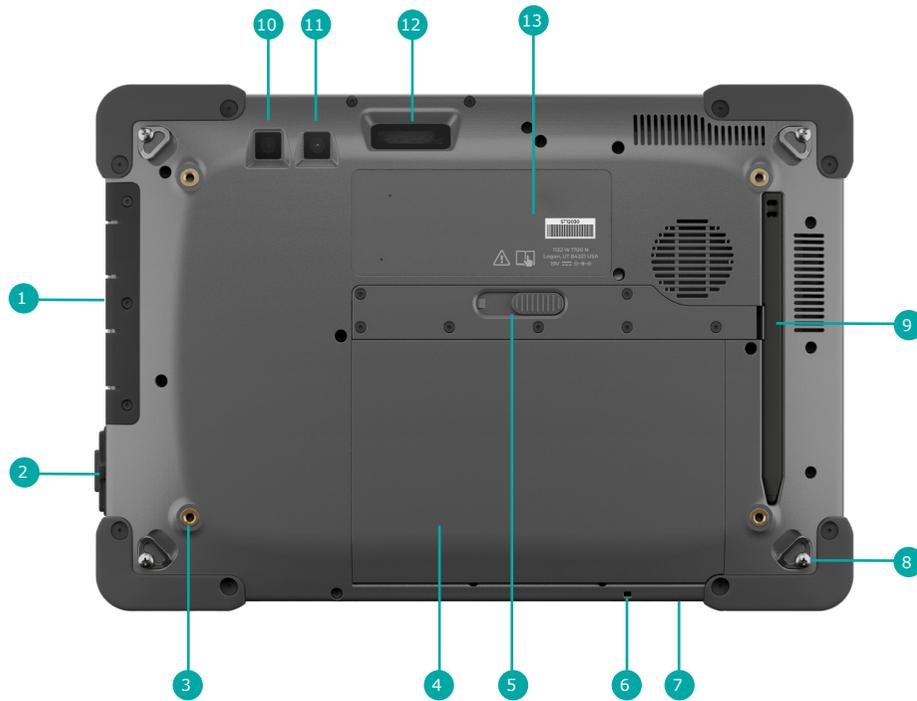
1	I/O Port Cover	6	Stylus Tether Attachment Point	11	Rear Camera
2	RS-232 (optional)	7	Security Lock Slot	12	Barcode Imager (optional)
3	Threaded mounting holes (x4)	8	Hand Strap Tether Look (x4)	13	Label
4	Battery Door	9	Stylus		
5	Battery Door Latch	10	Flash		

Side View

1	RS-232 (optional)
2	12V DC Input Port
3	USB-C
4	USB 3.1 Gen2
5	USB 3.1 Gen2
6	3.5mm Audio Jack

▶ **Specifications**

SYSTEM	Processor	11th Generation Intel® Core™ Processors Intel® Core™ i7-1185GRE, Quad Core, 12M Cache, 1.8GHz (4.4GHz), 15W Intel® Core™ i5-1145GRE, Quad Core, 8M Cache, 1.5GHz (4.1GHz), 15W Intel® Celeron® 6305E, Dual Core, 4M Cache, 1.8GHz (1.8GHz), 15W
	Memory	8 GB LPDDR4X RAM (Celeron model) 16 GB LPDDR4X RAM (i5 and i7 models)
DISPLAY & TOUCH SCREEN	Display	10.1" TFT LCD Panel
	Brightness	800
	Contrast	1000 typical
	Backlight Lifetime	30,000 hours
	Max. Resolution	1920 x 1200
	Touch Type	Projected Capacitive
GRAPHICS	Controller	Intel® Iris® Xe Graphics
	Feature	OpenGL 4.5, DirectX 12, OpenCL 2.1 HW Decode: WMV9, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9, AV1 HW Encode: AVC/H264, JPEG, HEVC/H265, VP9
STORAGE	External	256GB SATA (standard on i7) 128GB SATA (i5 and Celeron)
	Internal	MicroSD Card up to 1TB
WIRELESS	4G LTE	Multi-carrier capable Optional FirstNet, Band 14 mobile broadband
	Wi-Fi	802.11 a/b/g/n/ac, 2.4 GHz and 5 GHz
	Bluetooth	v5.1 (Class 1.5, BLE support)
CAMERA	Front Camera	2 MP
	Rear Camera	13 MP with LED illumination
BARCODE MODULE (Optional)	1D/2D IMAGER	Symbologies: all common 1D and 2D (PDF417,MicroPDF417, Composite, RSS, TLC-39, Data matrix, QR code, Micro QR code, Aztec,MaxiCode, Postal codes, etc.)
		Barcode Connector™ utility, wedge and configuration, SDK support available

SENSOR	Sensor	Ambient light sensor
		Compass
		Accelerometer
		Gyroscope
I/O	USB	1 x USB Type-C 2 x USB 3.1
	Serial	Optional RS-232 9-Pin D-Sub connector with 5V DC or 12V DC power output
	Buttons	Power, Windows key, Keyboard Shortcut,Directional Arrows (4x), Enter key, Volume Up, Volume down key (8x programmable function keys)
	Audio	3.5 mm audio jack
POWER	Type	DC 19V
	Connector	DC Jack
	Battery	Removable Li-Ion battery, 43.2 Whr (with integrated 5 LED charge indicators) Optional second Li-Ion battery, 43.2 Whr
		Hot-swap capability
OS SUPPORT	Microsoft	Windows 11 Pro (Celeron, i7) Windows 11 IoT Enterprise (i5)
MECHANISM	IP Rating	IP65
	Mounting	4 threaded mounting holes on the back of the tablet (220mm x 130mm), Screw Size: M4
	Dimensions (W x H x D)	285 x 195 x 30.5 mm
	Weight	1.76 kg (depending on battery and expansion configuration)
ENVIRONMENT	Operating Temperature	-20 ~ 50°C
	Storage Temperature	-30 ~ 70°C
	Relative Humidity	95%
STANDARDS AND CERTIFICATIONS	Shock	MIL-STD-810H, Method 514.6 Vibration
	Vibration	MIL-STD-810H, Method 516.6 Shock
	Certifciation	CE, FCC Class B, UKCA, Industry Canada

Chapter 2 - Getting Started

▶ Review Documentation

This user's manual and other documents like release notes are available on our website: https://www.dfi.com/tw/product/index/1621#download. View, download, and print documents as desired, either on the JUR101-TGU or another computer with an internet connection.

▶ Charge and Install the Battery Packs

The JUR101-TGU comes with one or two rechargeable and removable Li-ion battery packs (depending on the configuration).

To install and charge the battery packs:

1. The battery compartment is accessed from the back of the tablet. Push the battery door latch in, slide it left to the unlocked position, and remove the door.

2. If you are using an SD card for additional memory or a SIM card with the 4G LTE data modem(optional), you can install them now before you install the battery packs or at another time. If you do this, make sure you replace the card tray before battery installation. See Micro SD and Nano SIM Cards for details.

3. Insert the battery packs.
(1) Hold the battery so the black tab is on the back edge of the battery and connector is facing the door latch.
(2) Place the front edge in first, gently pushing it underneath the two battery catches.
(3) Rotate the back of the battery down until it sits flat inside the battery compartment.

4. Replace the door and press down on it while sliding the latch into the lock position.

5. Attach the appropriate plug for your country into the AC wall charger and plug it into a wall socket. Plug the other end into the DC power jack on the JUR101-TGU.

6. Charge the battery packs at room temperature (68°F or 20°C) until fully charged.

While the battery packs are charging, the red LED blinks. When batteries are fully charged and external power is applied, the red LED is solid.
The battery packs can also be charged in the battery charger. This is an optional accessory that allows you to charge extra batteries outside of the JUR101-TGU.

> **Note:**
> Use the AC wall charger that came with JUR101-TGU or another approved charger from DFI. If you use a USB-C charger ensure it can deliver 20V with a minimum of 60 Watts.

Each battery has five LED charge indicators.
Press the white rectangle button on the battery to see the LEDs light up according to the charge percentage.

- Five lights: 100% charged
- Four lights: 80% charged
- Three lights: 60% charged
- Two lights: 40% charged
- One light: 20% charged
- Flashing lights: discharged

CAUTION:
- The JUR101-TGU must have at least one battery installed to operate.
- The JUR101-TGU is not sealed against water and dust when the battery door is not installed.
- Do not insert the battery pack straight down. Damage to the unit could occur.

▶ **Attach the Hand Strap**

A hand strap is included with the JUR101-TGU. This allows you to hold the JUR101-TGU securely and ergonomically by resting most of the weight of the tablet on your forearm.

To attach the hand strap, fasten it to three corners as shown in the pictures below.

▶ Attach the Stylus Tether

A fine tip capacitive stylus and tether are included with the JUR101-TGU. To attach the stylus tether:

1. Remove the stylus by pressing on one end of the stylus until it releases.

2. Attach one end of the stylus tether to the stylus.

3. Push the free tether loop through the tether attachment point located on the bottom right side of the JUR101-TGU.

4. Insert the stylus with the attached tether through this loop and tighten the loop.

5. Place the stylus into the stylus storage slot located on the back side of the JUR101-TGU by lining up the notched end of the stylus with the stylus catch on the JUR101-TGU.

Chapter 3 - Standard Features

▶ Display

The JUR101-TGU has a bright color display and capacitive touchscreen with a diagonal viewing area of 10.1 inches (256.54 mm).

To adjust the display settings, including the text size, brightness, and orientation, go to Settings > System and select **Display**.

A shortcut to adjust the display brightness can be accessed in the Action Center by tapping the Wi-Fi, volume, or battery icon on the desktop.

▶ Camera

The JUR101-TGU has a 13 MP rear facing auto-focus camera and 2 MP front facing camera. You can capture both still images and videos using the camera application. Other options include a timer, brightness settings, and a rear camera flash.

Photo and Video Library

Photos and videos are automatically stored in the Pictures folder.

▶ Device Settings App

The JUR101-TGU has a built-in app called Device Settings. In this app you can see detailed information about your device, including the serial number, model number, and OS version. The Device Settings app also includes options to adjust settings for the touchscreen profiles, programmable keys, and GNSS. If you do not have a cell module, the GNSS feature will not be shown in the app. If your device has the optional RS-232, you will see this option in the Device Settings app as well. For more information about these optional features, Optional Features and Accessories.

About Screen

The About screen in Device Settings can tell you the serial number, model number, OS version, product name, BIOS version, embedded controller version, motherboard version, processor type, SSD model, SSD capacity, cell type, barcode type, expansion ID, and battery status of your unit. You can also find the regulatory information for the JUR101-TGU here.
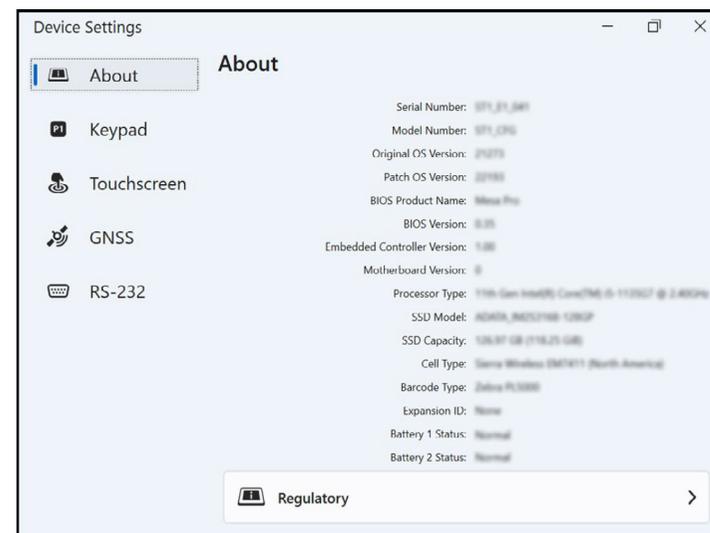
Keypad Screen

The Keypad screen in Device Settings allows you to customize the keypad backlight brightness, program 8 of the keypad buttons, or restore keypad defaults.

On the Keypad screen, select **All Users Settings** to make keypad changes for any user logged into the device. Select Per User Settings to customize keypad changes for your individual account. If **Per User Settings** are used, they take precedence over the All User Settings.

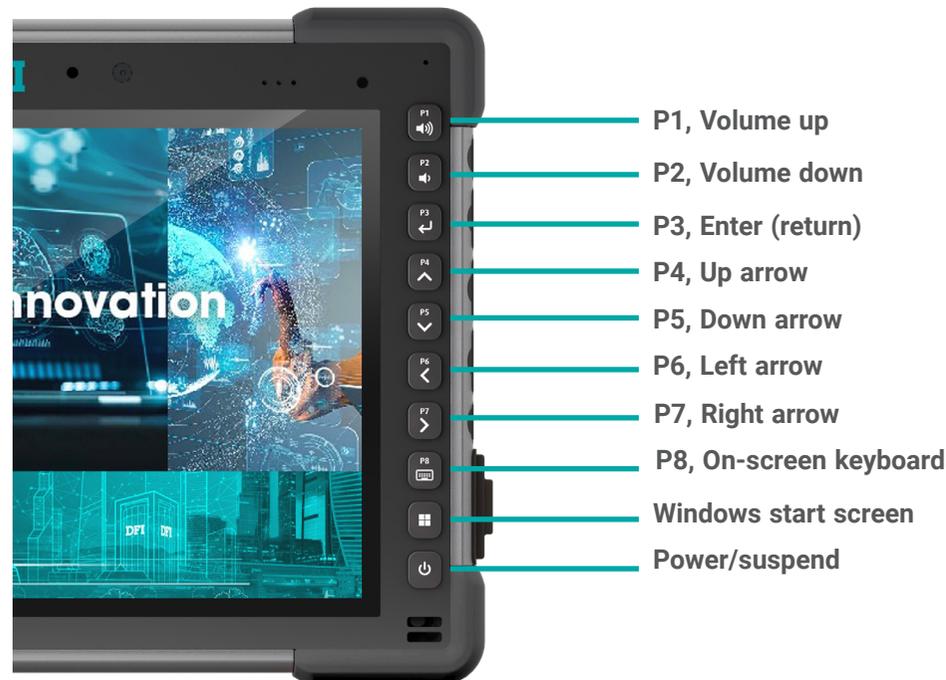Select **Restore Defaults** to restore the Keypad settings for All Users or Per User.
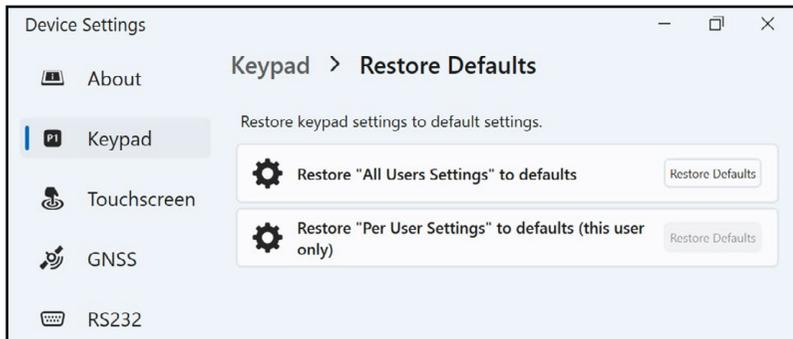
Keypad Backlight Brightness

To adjust the keypad backlight brightness, go to the Keypad User(s) Settings. The first keypad option is the Keypad Backlight Brightness. Use the drop-down menu to the right to select a brightness of 0%, 25%, 50%, 75%, or 100%. Dimming the keypad backlight extends battery life when the JUR101-TGU is in use.
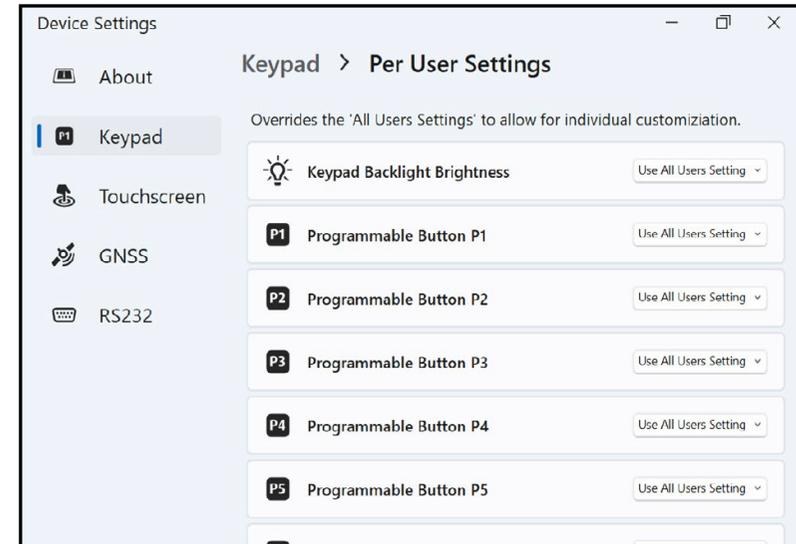
Programmable Keys

The JUR101-TGU has a power/suspend key, Windows key, and eight programmable keys (P1–P8). The default function of each programmable key is indicated on the key.

P1, Volume up

P2, Volume down

P3, Enter (return)

P4, Up arrow

P5, Down arrow

P6, Left arrow

P7, Right arrow

P8, On-screen keyboard

Windows start screen

Power/suspend

To assign other functions to the programmable keys, go to the Keypad User(s) Settings. The programmable keys and their current assignments are shown. Select your preferred function for each key from the drop-down menus.

Touchscreen Profiles

To adjust the touchscreen profile, go to Device Settings and select **Touchscreen**. Select the touch profile you want the screen optimized for: Finger/Stylus (default), Finger, Fine Hard-Tip Stylus, Glove, Wet/Finger, or Wet/Stylus. As the new profile loads, a progress bar is shown. You can try different profiles to see which one works best.

Using the JUR101-TGU in Wet Conditions

When using the JUR101-TGU in wet conditions, you must use your finger or the fine-tipped stylus that is included with the device on the capacitive touchscreen, depending on the touch-screen profile you have selected. When either of the Wet touchscreen profiles are in use, the JUR101-TGU must be held at a minimum 30 degree angle. While third party may work with the JUR101-TGU touchscreen, performance may vary.

> **CAUTION:**
> Do not use the Windows 11 screen calibration tool. If used, it may degrade the touchscreen performance.

▶ **LED Activity Indicators**

LED activity indicators are located on the front of the JUR101-TGU in the upper-left corner.

LED Indicators	
LED	**Activity**
Red LED, solid	When the JUR101-TGU is put to sleep or powered off by pressing the power key , the red LED is solid until the unit has successfully completed the process, and then the red LED turns off. If powering off the device, do not remove the batteries while the light is solid.
	The AC wall charger is plugged in and the batteries are full (not charging) and the device is running or put to sleep. If the JUR101-TGU is shutdown the red LED light turns off.
Red LED, blinking	The AC wall charger is plugged in and the batteries are in the process of charging.
White light	Front facing camera is in use.
Green LED, solid	Does not have an assigned function, but it can be programmed as desired.
Blue LED, solid or blinking	Does not have an assigned function, but it can be programmed as desired

> **Note:**
> These LEDs can be programmed by a developer. Sample code is available upon request.

▶ **Light Sensor**

All units have an ambient light sensor located on the front of the JUR101-TGU in the upper-right corner. The light sensor allows the backlight on the display to adjust automatically when the lighting changes. To enable this process, go to the Start menu and select **Settings**.

> **System** > **Display** > **Brightness**. Check "Change brightness automatically when lighting changes."

▶ **I/O Connector Ports**

The JUR101-TGU has a 19 V DC power input jack, two USB 3.1 Gen 2, one USB-C, and a 3.5 mm audio jack.

I/O Port Cover
The I/O Port Cover is removable and replaceable. If you need a new rubber cover, contact your sales representative.
1. Unscrew the rubber I/O cover from the back of the JUR101-TGU with a Torx T6 screwdriver.

2. Pull the cover out of the ports, then gently pull the curved rubber retainers out of the holes they are in.

3. Insert the replacement rubber cover back into the holes.

4. Screw the cover into the back of the JUR101-TGU.
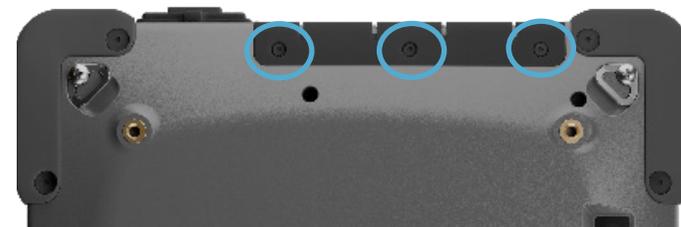
> **Note:**
> The I/O Port Cover is not required to maintain the seal of the connectors or the tablet. The cover is intended as a port dust cover.

▶ Micro SD and Nano SIM Cards

The JUR101-TGU has a slot for an SD card and a SIM card located in the battery compartment. The card slot and tray are designed to hold the card securely in place so it will not come out or disconnect if the tablet is dropped.

To insert or remove a card, follow these steps:

1. Power off the tablet.
2. Remove the battery door. Before doing this, review the proper procedure for removing the battery door in <u>Charge and Install the Battery Packs.</u>
3. Remove the battery pack by pulling up on the black tab on the battery pack.
4. Use the card tray eject pin that came with your JUR101-TGU to pop out the card tray.

> ⚠ **CAUTION:**
> Always power off the tablet before removing the battery. Failure to do so may cause loss of data or damage to the tablet.

> ⚠ **CAUTION:**
> The JUR101-TGU is not sealed against water and dust when the battery pack and battery door are not installed properly.

5. Insert your SD card or SIM card into the card tray.
6. Use the image on the battery compartment label to correctly align the SD card (slot on the right side of the left battery compartment).

7. Push the card tray back into place.
8. Replace the battery pack and return the battery door.

> 📋 **Note:**
> If you use Verizon as your cell network, you must use a Light Weight Machine to Machine (LWM2M) SIM card.

▶ Audio Features

The JUR101-TGU has the following audio features:

■ **Speaker**
   The speaker can provide audible indicators and program feedback in loud environments.
   You can listen to audio files and watch videos. For stereo audio, use Bluetooth or the audio jack.

■ **Microphone**
   Use the microphone to record audio notes or capture sound in a video.

■ **Audio Jack**
   The audio jack supports a stereo headset or headset/microphone combination with a 3.5 mm
   connection.

▶ USB-C

The JUR101-TGU has the following audio features:

The USB-C port allows for charging, data transfer, and a display connection.

Note: If you use a USB-C charger ensure it can deliver 20 V with a minimum of 60 Watts.

▶ Sensors

The JUR101-TGU has a built-in compass, accelerometer, and gyroscope.

Compass, Accelerometer, and Gyroscope
With the compass, accelerometer, and gyroscope, the JUR101-TGU can determine direction, even when the device is not resting flat. The gyroscope senses change in angular motion. The compass, accelerometer, and gyroscope can also be used by other user applications.

Compass Calibration
Periodic user calibrations help the compass function in its environment.

1. Open an app that uses the compass.

2. Move the JUR101-TGU around in the air so that it is oriented in different directions and angles. An effective way to assure this is properly done is to move the JUR101-TGU back and forth making a sideways figure eight for approximately 30 seconds.

▶ Bluetooth® Wireless Communication

The JUR101-TGU has built-in Bluetooth® wireless technology, allowing you to connect it to other wireless devices with Bluetooth technology.

Pair a Bluetooth Device

To connect the JUR101-TGU and another device with Bluetooth technology,

1. Turn both devices on.

2. Place them within a few feet of each other.
   (The JUR101-TGU has long range Bluetooth, but the other device might not.)

3. Make Bluetooth discoverable on both devices. Bluetooth on the JUR101-TGU is on by default.
   If you need to activate it, open the Action Center by tapping on the Wi-Fi, volume, or battery icon.

4. Tap and hold the Bluetooth icon. Select **Go to Settings**.

5. In the Bluetooth settings screen next to the "Pair new device" option, tap **Add Device**.

6. Choose the kind of device you would like to add, then select the device you would like to pair to from the list of available options.

7. If prompted, enter the PIN or pass code of the paired device.
   You should now be paired with the device.

> **Note:**
> If Bluetooth is on and the tablet enters Sleep or Hibernate mode, Bluetooth turns off to save battery power. The connection is resumed once it powers back on.

▶ Wi-Fi Wireless Networking

The JUR101-TGU has built-in Wi-Fi wireless networking to connect to the internet or an office network.

Connect to a Wi-Fi Network

To use Wi-Fi, you need to be in range of a Wi-Fi access point to make a connection. When Wi-Fi is turned on (the default), the JUR101-TGU automatically starts scanning the area for available Wi-Fi networks.

From the Action Center, click and hold the Wi-Fi network icon, then select **Go to settings**.

A list of available networks is shown. Select the network you want to use and enter the network security key. The JUR101-TGU remembers the Wi-Fi network connections created.

Wi-Fi can be turned off and on and settings can be managed from this set up screen.

▶ Power Management

The JUR101-TGU runs on battery power, using one or two rechargeable, Li-ion battery packs.

Charge the Battery Packs

For instructions on how to insert and charge the removable battery packs, refer to Charge and Install the Battery Packs. The intelligent battery charging circuit first charges the battery with the least amount of energy. When this battery pack comes to the same level as the other battery pack, then both battery packs are charged at the same time until they are fully charged.

The battery packs can be charged through the AC wall charger or the USB-C. The power source must be 60 W or higher to allow for a successful charge.

Battery packs are charged most efficiently at room temperature (68°F or 20°C). They will not charge if too hot or too cold.

> ⚠️ **CAUTION:**
> Only use the AC wall charger that came with your JUR101-TGU. The JUR101-TGU requires a 60W or higher power supply with a 19V output. This is required to power the tablet and charge the batteries simultaneously within 3–4 hours.

Battery Status and Management

To find out how much battery life remains, tap the battery icon on the bottom of the desktop screen. In the bottom left corner of the pop-up, the cumulative amount of remaining battery life for the batteries is shown.

For more information, tap on the percentage shown. This will take you to Settings > System > Power & battery where you can see the individual charge of each battery and the time before they are fully charged. The amount of time left varies depending on what you are doing with the unit.
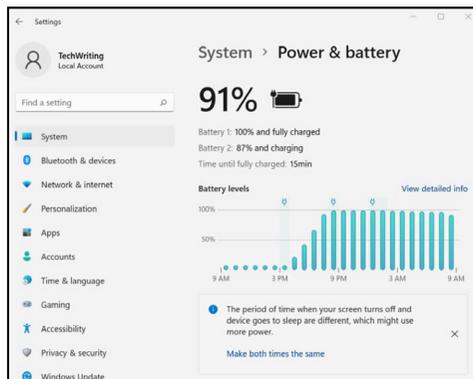
If the JUR101-TGU battery reaches a low charge, it automatically hibernates to prevent further drain on the battery.

To take the JUR101-TGU out of hibernation, plug it in with the AC wall charger.

You will see a warning to keep the charger connected until the charge is sufficient.

After the battery is charged enough to keep the JUR101-TGU on, you can unplug it.

> 📋 **Note:**
> Data and programs are secure as long as they have been saved, even if the battery pack becomes discharged.
> The tablet does not depend on the battery to store the data for extended periods.

Battery Life

Battery life on a full charge is about 4.5 hours with one battery or 9.5 hours with two. This varies depending on your usage of applications, backlight, and radio.

The shelf life for battery packs is about one year. The battery packs should be recharged at least once per year. This prevents the battery packs from discharging to a level that might damage the batteries. Battery packs that are not recharged at least every year, could fail to work or may have reduced capacity. Battery packs typically last 1,000 to 3,000 charging cycles.

CAUTION:

Only use batteries designed for the JUR101-TGU from an approved vendor. Use of non-approved batteries may void your product warranty.

CAUTION:

The unit is not designed to run on external power without a battery installed. Doing so can damage internal components and void the warranty of your unit if external power is accidentally lost.

Power Off the JUR101-TGU

Short-term Storage

When you plug the tablet into the accompanying wall charger, the batteries are prevented from being overcharged.

Charge the JUR101-TGU to 50–70% then power it off:

1. Press and hold the power button for 4 seconds.

2. A message displays asking you to swipe the screen down to shut down your device. Follow the instructions to swipe the screen.

Long-term Storage

To power off the JUR101-TGU for long-term storage.

1. Unplug external power.

2. Power off the JUR101-TGU as described in the previous section, Short-term Storage.

3. Wait for the red LED to turn off.

4. Press and hold the power button for 20 seconds. The red LED will start blinking at 10 seconds, then turn off around 17 seconds. At this point, the batteries have been disconnected from the system.

5. Take out the removable batteries and store them in a cool, dry location.

6. When you are ready to power on the JUR101-TGU, replace the battery packs. Before powering the unit on, plug in the AC wall charger and connect it to the JUR101-TGU.

▶ Settings in BIOS

The settings in the BIOS include the ability to disable several of the radios and LEDs. Depending on how your unit is configured you may need to have admin rights to access the BIOS settings. To get into the BIOS settings:

1. Restart your JUR101-TGU. During the boot, press and hold the Windows key on the keypad or the ESC key on an external keyboard.

2. In the BIOS, arrow down (either with external keyboard, or with the arrow keys on the keypad) to Setup Utility and press Enter.

3. Under the Setup Utility tab, arrow right to the Advanced tab.

4. Arrow down and select **Device Configuration**. Press Enter to select the front camera, rear camera, WLAN, Bluetooth, cell modem/GNSS, or LEDs and turn them on or off.

5. After changes are made, select P1 on the keypad (or F10 on an external keyboard) to save the changes. The JUR101-TGU will reboot.

Note:

If Windows Fast Startup is enabled (this is enabled by default) and you shut down the JUR101-TGU before breaking into the BIOS, changes saved in the BIOS will not be seen on your JUR101-TGU unless you perform a subsequent reboot. If you perform a Windows reboot to break into the BIOS then a reboot is not needed after the changes are saved.

Note:

In the BIOS, the Windows key acts like the ESC key and the P1 button acts like the F10 key.

▶ View Task Manager

Press and hold down the Windows key, then press the power key. A list that includes the **Task Manager** is shown. Select Task Manager to see which apps are running. Select **More details** to view Processes, Performance, and other items. This can be useful for troubleshooting.

▶ JUR101-TGU is Locked Up

If the JUR101-TGU is completely stuck and won't respond or you cannot get to the Start menu, hold the power key down for five seconds and wait for at least five minutes for the system to show the "Slide to shut down your PC" message. If that doesn't work, hold down the power key for 10 seconds. This causes a hardware shut off. Press the power button again to power it on.

If 10 seconds doesn't work, hold the power button down for 20 seconds. Batteries are forced to electrically disconnect from the tablet, causing a complete shut down. The tablet cannot be powered on again until it is plugged in with the AC wall charger. Keep this in mind if you are in the field.

CAUTION:

Holding the power button down for 10 or 20 seconds for a forced disconnect is recommended only as a last resort. Forcing the power off causes all unsaved data to be lost and corrupts active data transfers to storage.

Chapter 4 - Optional Features and Accessories

▶ RS-232 Port

An RS-232 9-Pin D-Sub connector is an optional feature for the JUR101-TGU. Depending on the settings, it will provide either 5 V DC or 12 V DC on pin 9.

The Device Settings app allows you to configure the behavior of the RS-232 port. To view the default configuration and make adjustments, go to the Device Settings app > RS-232. The default configuration for RS-232 is shown:
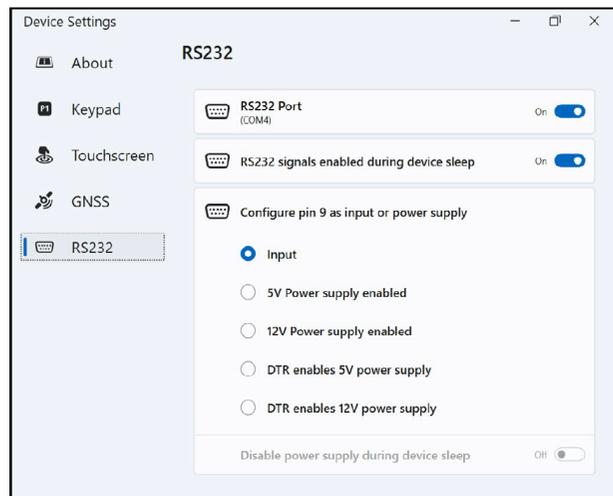
The following options can be edited to suit your application:

RS-232 port: When this is turned off, the RS-232 port powers down.

When this option is on, it powers up the RS-232 hardware. It then displays the assigned COM port number.

■ <u>**RS-232 signals enabled during device sleep:**</u>
when this is on the RS-232 input and output signals are enabled when the JUR101-TGU is running or in sleep mode.

■ <u>**Configure pin 9 as input or power supply:**</u>
Pin 9 is the Ring-In signal input. It is rarely used by devices anymore and has become a popular pin to provide a power source to an RS-232 device.

▶ Select **Input** if your device uses Ring-In signal or if it does not need to be powered from the RS-232 port.

▶ Select **Power supply** enabled to make pin 9 a power supply to be used by the RS-232 device. The power supply is enabled automatically without needing any interaction with the COM port. Depending on the settings, the power supply can provide either 5 V DC or 12 V DC.

▶ Select **DTR enables power supply** to make pin 9 a power supply (5 V DC or 12 V DC depending on settings). The power supply remains off until the user application opens the COM port and asserts the DTR signal. When the DTR signal de-asserts, the power supply turns off again.

■ <u>**Disable power supply during device sleep:**</u>
turn this option on to have the RS-232 input and output signals disabled automatically when the tablet is in sleep mode. If your app and/or RS-232 device experiences communication failures when the tablet enters or exits sleep mode, then do not use this option.

> **Note:**
> If you do not have a device plugged into the RS-232 port, the port pins corrode more quickly when left powered up. Use the setting to power down when it is not going to be used.

> **Note:**
> Power consumption during sleep is higher when the RS-232 hardware is powered up.

▶ 4G LTE Data Modem & GNSS

The 4G LTE data modem is an option for the JUR101-TGU, adding Wireless Wide Area Network data modem capability.

This modem supports all major service providers in North America, Europe, and many other regions of the world.

Set up a Data Account with a Wireless Provider

Contact a wireless provider to set up data service for the cellular data modem and obtain an account and SIM card. You need to provide the following information when setting up an account:

1. Billing Information and business ID, such as your Federal Tax ID or VAT number.

2. The wireless services required. Specify that you need data service only. You do not need voice or messaging services.

3. You may be asked for the modem's IMEI number. From the Start menu, go to Settings > Network & Internet > Cellular. Under More cellular settings, tap **Mobile operator settings**. The IMEI number is listed under Properties.

Install the SIM Card

The card slot and tray are designed to hold the card securely in place so it will not come out or disconnect if the tablet is dropped. To insert or remove a card,

1. Power off the tablet.

2. Remove the battery door as outlined in Charge and Install the Battery Packs.

3. Remove the battery pack by pulling up on the black tab on the front of the battery pack.

4. An image on the battery compartment label shows the correct location and orientation for the SIM card (slot on the right in the left battery compartment).

5. Use the card tray eject pin that came with your JUR101-TGU to pop out the card tray.

6. Place your SIM card in the tray.

7. Push the card tray back into place, covering the card slots.

8. Replace the battery pack, and return the battery door.

> **Note:**
> If the modem was on before shutting the JUR101-TGU down to insert the SIM card, you are prompted to configure the data connection when you reboot.

> **CAUTION:**
> The JUR101-TGU must be turned off before changing the SD or SIM card.

> **CAUTION:**
> The JUR101-TGU is not sealed against water and dust when the battery door is not installed properly.

GPS/GNSS

JUR101-TGU Geo/Cell models use an integrated 4G LTE cell modem and GPS/GNSS receiver with an internal antenna to provide position information. Use the Device Settings app to turn different GNSS sentences on and off as desired. You can also return the GNSS sentence settings to default.
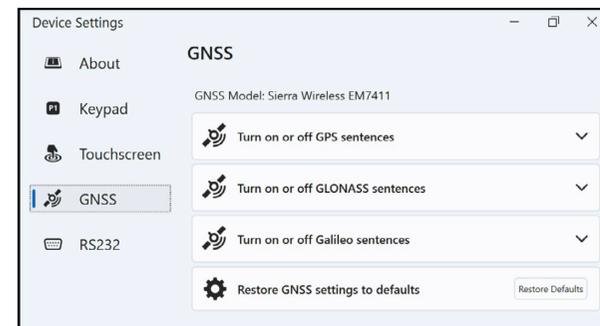
■ Integrated GPS/GNSS Support in Windows

The Windows operating system provides built-in support for GPS/GNSS devices. As part of that support, the Windows Sensor and Location platform provides a standard way for GPS/GNSS information to be made available to applications that have been designed using the Windows Sensor and Location application programming interfaces (APIs).

■ Legacy Support

In addition to the Sensor and Location APIs, legacy applications that require access to a serial port can access NMEA data through a serial COM port interface. The name of the COM port can be found by using Device Manager and looking under Ports (COM & LPT) for Sierra Wireless NMEA port (COMx) or Quectel USB NMEA Port (COMx) where "x" is the port number allocated on your device.

GPS/GNSS Accuracy

The GPS/GNSS antenna in the JUR101-TGU is at the top under the JUR101-TGU label. It is intended to work in both portrait and landscape view. Do not put your hand or another object over this area; accuracy could be reduced. The more items between the antenna and the satellites, the lower the accuracy.

▶ Barcode Imager

The JUR101-TGU Rugged Tablet with a barcode imager allows you to read 1D and 2D barcodes and easily import barcode data into custom or standard programs running on the JUR101-TGU. It is accessed through the Barcode Connector Utility.

Barcode Connector™ Utility

The Barcode Connector utility is a barcode wedge program provided with the barcode imager.

■ Home Screen

When the Barcode Connector utility loads, the home screen appears. From the home screen, you can do a Scan Test.

1. Aim the imager towards a barcode.

2. Tap **Scan** on the screen or press the scan button on the keypad (P2 is the default).

3. When a red aiming LED appears, place it on or near the barcode.

After a successful scan, the Scan Symbology Type and Scan Data are shown on the screen.

■ Barcode Menu

Select the menu symbol in the upper left corner of the home screen or swipe the screen from left to right to see the menu (you can do this from any screen in the application). This menu gives you access to several setting screens.

■ User Settings

From the menu, select **User** to open the User settings screen. From this screen, set up options like Barcode Scan Time and which button to use to scan barcodes.

■ Data Format and Barcode Types

On the Data Format screen, you can set up a prefix and suffix.

Use the rest of the menu options to set up different types of barcodes, including 1D code types, composite Codes, postal codes, and 2D code types.

OPTIONAL FEATURES AND ACCESSORIES

Read a Tag

Now that the Barcode Connector utility is set up, you can start scanning barcodes.

1. Minimize the Barcode Connector utility.

2. Open an application or document to receive the barcode data and put the cursor where you want the data to be placed.

3. The barcode imager is located on the top of the JUR101-TGU when in landscape mode. Aim the barcode imager at the barcode.

4. The distance required between the barcode and JUR101-TGU varies depending on the barcode being read. There is a red aiming LED that helps you aim at the correct barcode. Press the scan button. When the barcode is successfully scanned, the barcode information is placed in your document.

1D Barcodes	Code 39	Code 128	UPC-A	
2D Barcodes	Aztec	Maxicode	MicroPDF417	QR Code

Troubleshoot the Barcode Imager

If the barcode imager is not functioning correctly, you can set it to factory default settings.

1. Launch Barcode Connector.

2. Scan the Set Factory Default barcode, shown here.

3. Use the Reset Settings button on the User page of the Barcode Connector to restore the settings of the Barcode Connector program.

4. Close the Barcode Connector program.

5. Launch Barcode Connector and verify that correct functionality has been restored.

▶ Battery Charger

The Battery Charger allows you to charge spare battery packs for the JUR101-TGU.

How to Use the Battery Charger

Batteries charge best at room temperature (about 68°F or 20°C). Batteries will not charge (or might charge slowly) at temperatures below 32°F (0°C) or above 122°F (50°C).

Power the Battery Charger by using the AC wall charger provided with your JUR101-TGU. Insert the battery pack into the battery charger, orienting it so that the battery contacts meet the charging contacts in the battery charger. The LEDs will flash slowly, indicating that the battery pack is charging.

The Battery Charger can charge two battery packs at once. If needed, it can be mounted.

Battery Charger LED Indicator

The LED indicates the charging status:

▶   Solid, on: The battery pack is fully charged.

▶   Blinking (slow): The battery pack is charging.

▶   Off: There is no power. The battery is not charging.

▶ **Office Stand**

The Office Stand is freestanding and enables you to use your JUR101-TGU as a desktop computer.

When you receive the office stand, screw the two pieces together with the four screws and lock nuts included as shown in the picture to the left.

Chapter 5 - Storage, Maintenance, and Recycling

Follow the instructions in this chapter to properly maintain and recycle the JUR101-TGU.

▶ Store the JUR101-TGU and Battery Pack

When the tablet is not being charged and is in a sleep state, it draws a small amount of power. This power draw is used to maintain the memory (RAM) of the tablet in the same state it was in when it was awake. Charge the tablet each night or weekend when it is in a sleep state.

If the JUR101-TGU battery reaches a low charge, it automatically hibernates to prevent further drain on the battery. For more information, see Battery Status and Management.

Store the JUR101-TGU for More than Two Weeks

To store the tablet for two weeks or more, see Long-term Storage.

▶ Protect the Touchscreen

Protect the touchscreen from impact, pressure, or abrasive substances that could damage it. To further protect the touchscreen, apply a screen protector (optional accessory) using the directions that come in the package.

▶ Clean the JUR101-TGU

Make sure the battery door is securely installed. Remove the screen protector if you want to clean underneath it. Use warm water, a mild cleaning solution, and a soft bristle brush to gently clean the JUR101-TGU.

> **CAUTION:**
> Do not direct a high-pressure stream of water at the device to clean it. This action could break the seal, causing water to get inside the device and void the warranty.

> **CAUTION:**
> Replace the screen protector as often as the screen protector instructions recommend.

▶ Recycle the JUR101-TGU and Batteries

When the JUR101-TGU and Li-ion battery packs for your JUR101-TGU reach the end of their service life, they must not be disposed of with municipal waste. It is your responsibility to dispose of your waste equipment by handing it over to a designated electrical equipment recycling collection point.

> **CAUTION:**
> Exposure to some cleaning solutions may damage your device, including automotive brake cleaner, isopropyl alcohol, carburetor cleaner, and similar solutions. If you are uncertain about the strength or effect of a cleaner, apply a small amount to a less visible location as a test. If any visual change becomes apparent, promptly rinse and wash with a mild cleaning solution or with water.

> **Note:**
> Data and programs are secure as long as they have been saved, even if the battery pack becomes discharged. The tablet does not depend on the battery to store the data for extended periods.