



CHASER  
RuggedTouchMonitor  
User's Manual

Model: RTD S11

Ver.: 1.2

©2020 RuggON Corporation. All rights reserved.

#### TRADEMARKS

RuggON logo is a trademark of RuggON Corporation, registered in the United States Patent and Trademark Office and in other countries. All brand and product names are trademarks or registered trademarks of their respective owners.

Images shown in this document may vary slightly from actual products at time of shipping. Information in this manual is subject to change without notice.

# Table of Contents

## About This Manual

Related Information .....	1
Conventions.....	1

## Safety Information

Intended Use .....	2
Maintenance and Operation Overview .....	2
Safe Environments of Use.....	3
Distractions.....	3
Safety .....	3
Electrical Hazards.....	3
Security Guidelines for Mounting.....	3
Environmental.....	3
Cleaning and Servicing.....	4
Touchscreen Care .....	4
Regional Compliance .....	5

## Chapter 1. Introduction

About This Guide.....	7
Unpacking the Device.....	7
Parts List.....	8
Technical Specifications .....	9
Identifying the Device .....	10
Dimensions.....	14
Touch Screen.....	15

## Chapter 2. Getting Started

Unpacking the Device.....	16
Connecting to External Cabling .....	16
Connecting the Power Supply .....	21
Mounting Hardware .....	23

## **Chapter 3. Operations**

LED Indicators .....	24
Enabling and Disabling Black Out Function .....	24
Adjusting Volume.....	25
Adjusting Brightness.....	26
Switching Video Sources.....	27
Muting Audio.....	28
Enabling and Disabling Night Mode Function.....	28

# About This Manual

The Rugged Touch Monitor User's Manual provides instruction for qualified personnel to follow when setting up a new Rugged Touch Monitor device.

This document is intended for use by qualified personnel to compliment the training and expertise, not to replace it.

## Related Information

Current information and manuals are available for download at the following website:

<https://www.ruggon.com>

## Conventions

Bolded or Underlined text is used to emphasize the designated information.



**Note:** A Note is used to provide additional information for the device or settings.



**Caution:** A Caution is used to warn against potential hazards or to caution



**Warning:** A Warning is used to identify immediate hazards for property damage, injury or death.

# Safety Information

For important safety and health information as well as Limited Warranty terms applicable to the RuggON® Rugged Touch Monitor, read the document prior to using the device. Failure to follow the instructions, the proper setup, use, and care of this device may increase the risk of serious injury or death, or damage the device.

- Do not place anything on the power cables and make sure they are not located where it can be tripped over or stepped on.
- Use only the provided power cable for use with the device. Use of unapproved accessories or cables may result in fire or explosion.
- If the device is moved between environments with very different temperature and/ or humidity ranges, condensation may form on or within the device. Avoid damaging the device by allowing sufficient time for the moisture to evaporate before using the device. If moisture has accumulated on the device, a clean cloth can be used to wipe the surface.
- When disconnecting cables, pull on the connector or on its strain relief loop, not on the cable itself. When pulling out or plugging in the connector, keep it evenly aligned to prevent bending the connector pins.
- Directly stowing or mounting the rugged touch monitor in a vehicle airbag deployment zone might entail higher risks of life.
- Never use the touch screen monitor while driving.

## Intended Use

The Rugged Touch Monitor is designed for mobile applications for in-vehicle scenarios of all kinds.

Read the safety guidelines thoroughly before starting any servicing on the device. Read the guidelines before powering up the device, and keep this document for later use.

The operator is solely responsible for any damage resulting from unauthorized modifications to the device.

## Maintenance and Operation Overview



**Warning: Do not attempt to disassemble, open, service, or modify the product, accessories, or power supply to prevent the risk of electric shock or other hazard. Any evidence that indicates any opening or modifying of the monitor, or peeling, puncturing, or removing of the labels will void the Limited Warranty.**

The Rugged Touch Monitor is designed and manufactured according to strict controls and following the stated safety regulations. The following list identifies incorrect operating uses of the Rugged Touch Monitor. Incorrect use of the Rugged Touch Monitor can lead to hardware damage, safety issues and possible risk to personnel health:

- The Rugged Touch Monitor is under operation by untrained personnel;
- The Rugged Touch Monitor is not maintained as recommended;
- The Rugged Touch Monitor is not used as intended.

## Safe Environments of Use



**Warning:** It is recommended you **DO NOT** remove or install accessories in fueling areas, facilities for chemical transfer or storage, or areas that contain grain dust or metal powders, etc. In such environments, sparks can occur and result in an explosion or fire.



**Warning:** The use of isolators to avoid system damage while in harsh environments is recommended. Cables connected to equipment inputs and outputs are capable of picking up voltage and current noise from disturbances. As an example, cables near motors can pick up electrical fast transients (EFTs), while lightning strikes (causing surges) can couple inductively to running cables, or indirectly through power supplies.

## Distractions



**Warning:** It is not recommended to use the device while operating machinery or the use of a vehicle to prevent the occurrence of a dangerous situation. Observe the policies or regulations prohibiting the use of mobile devices.

## Safety

To prevent injury and damage, read the following safety guidelines prior to operating the device. The manufacturer assumes no liability for any and all damages arising from misuse or noncompliance with these guidelines.

## Electrical Hazards

### ***Use only Supplied Power Cables***

Use only supplied power cables from RuggON.

### ***Environmental Hazards***

Do not use the Rugged Touch Monitor in locations near/with flammable gases or vapor.

The use of electrical equipment in explosive environments can be dangerous.

- Turn off the device when near a gas station, fuel depot, chemical plant or a place where blasting operations take place.

## Security Guidelines for Mounting

- If installing in a fixed location, it is advised to properly secure the device to prevent theft of the device.

## Environmental

The Rugged Touch Monitor is not intended for use or exposure to extreme temperature

environments for an extended period of time.

## ***Connecting and Disconnecting External Devices***

To prevent damage, it is recommended to disconnect the power before removing the cables.

## ***Only Use Authorized Accessories***

Only use the supplied cables, power packs and other accessories that have been tested and approved by RuggON. Contact your local distributor for further information.

## **Cleaning and Servicing**

Turn off the device, and disconnect it from external power. Use a soft, dampened cloth (non-abrasive) with either water or a diluted mild detergent. If a mild detergent is used, ensure all soap residue is removed. Do not use chemical cleaners.

- Disconnect the Rugged Touch Monitor from power before cleaning or servicing.
- Use only a non-abrasive cloth when cleaning.
- If an alcohol solution is used, see the following:
  - a 75% alcohol solution can be used for cleaning
  - Do not spray the alcohol directly on the monitor or the panel, instead spray the solution on a cloth and use the cloth to wipe down the chassis
  - The prolonged use of alcohol on the chassis and front panel keys can lead to discoloration
  - It is recommended to not use an alcohol cleaning solution on the RuggON logo to avoid discoloration
- Never clean the Rugged Touch Monitor with compressed air, a pressure washer or a vacuum cleaner.
- Clean the surface of the Rugged Touch Monitor with a non-abrasive/non-harsh cloth or cleaning solution to prevent damage.
- Do not use cleaning solutions on the panel to prevent damaging it.
- Only use a nonabrasive cloth to clean the touch-screen.

## **Touchscreen Care**

Rugged Touch Monitor is extremely rugged, designed to withstand extreme conditions, however the proper care of the touchscreen will aid in prolonging the life of the device. To ensure utmost performance of the touchscreen, AVOID excessive or prolonged exposure to oil, dust, chemicals, abrasives, and ultraviolet light.

To help protect the screen:

- Frequent cleaning is recommended. Use water or an eyeglass cleaner to dampen the cloth. Wipe the screen with a soft, lint-free, non-abrasive cloth.



**Warning: To prevent damage, ensure all cables are secured and the device is only connected to the recommended power supply.**

- Keep the device in a carry case while in storage or in transit to prevent damage.
- Ultraviolet light and excessive heat can damage the device. To maintain the condition of the



device, keep it out of the sunlight if not in use. Do not store the RTD S11 in direct sunlight for unnecessary periods of time.

- Use a proper touchscreen tools. Use either fingers or a stylus device specifically designed for use with capacitive touchscreens to operate the touchscreen of this device. The use of ballpoint pens, metal tools or other sharp objects to operate the touchscreen have the potential to scratch and/or damage the surface of the touchscreen.
- Avoid drops, tumbles, and abrasives. Protect the monitor from impact, pressure, and abrasive substances that can scratch or crack it. The device should not be dropped to maintain the condition of the device. The use of screen protectors is recommended to keep the touchscreen clean and protected.

## Regional Compliance

### ***U.S.***

#### FCC Compliance Statement

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. 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 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 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

### ***Europe***

#### European Declaration of Conformity

According to ISO / IEC Guide 22 and EN 450 14 Manufacturer's Name: Ruggon Corporation

Manufacturer's Address: 4F, No. 298, Yang Guang St., NeiHu. Taipei, Taiwan

Declares, under our sole responsibility, that the product: Product Name: Rugged Touch Monitor, Model Number: RTDS11, conforms to the following Product Specifications:

- LVD 2014/35/EU  
EN 62368-1: 2014 +A11: 2017
- EMCD 2014/53/EU  
EN 55032/35  
EN 50498

■ E-Mark

### ***Supplementary Information***

In addition, the power supply provided with this product has been certified to IEC 62368-1: 2014 2nd edition and/ or EN 62368-1: 2014 +A11: 2017. As manufacturer, we declare under our sole responsibility that the equipment follows the provisions of the Standards stated above.

# Chapter 1. Introduction

The Rugged Touch Monitor is a large, high-brightness, 11.6” rugged monitor featuring both USB type C and HDMI interface with USB-C especially favored for smartphones with DeX and for switching to a secondary PC video source.

The Rugged Touch Monitor has been engineered and tested to meet Military Standards for Environmental Extremes (MIL- STD- 810H). The following features make it exceptionally rugged, durable and ideal for the rigors of field work:

- Complies with rugged standards in the market
- The front of the device is fully protected against solid objects and splashing of water.
- MIL-STD-810H: temperature, relative humidity, vibration and shock resistant

## About This Guide

The Rugged Touch Monitor User Manual provides instruction for qualified personnel to use as a guide to setup the device. This document is not intended to replace the training and expertise of the end-user.

## Unpacking the Device

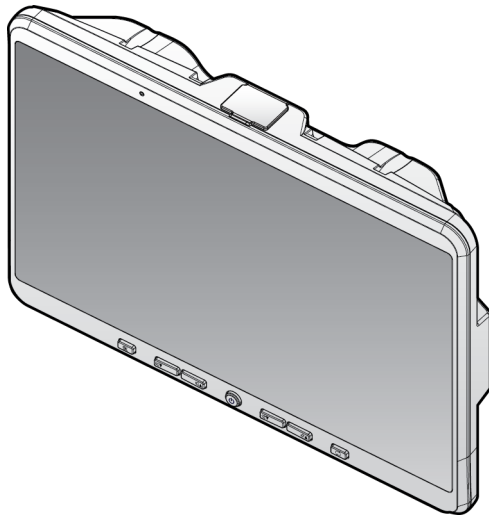
Before you begin the installation or configuration process make sure to inspect all components and accessories. Contact your representative if there are missing or damaged items. Visit the following website to contact us:

<https://www.ruggon.com/en/contact.php>

## Parts List

The Rugged Touch Monitor ships with the following accessories. For additional information, contact your local RuggON sales representative by visiting the following website:

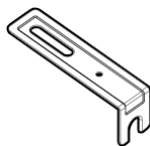
<https://www.ruggon.com/en/contact.php>



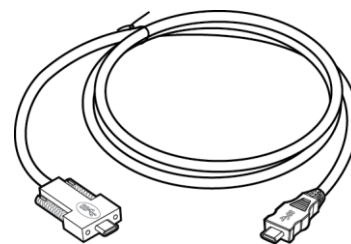
Rugged Touch Monitor



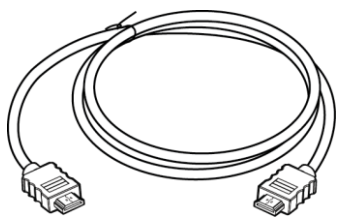
1 x Power Cable



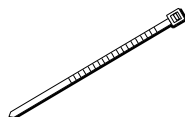
Metal Brackets for Exterior Cable Entry



1 x USB Type C to Type C Cable



1 x HDMI Cable

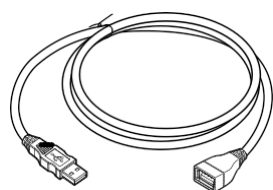


1 x Bag of Ties

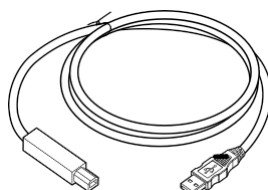


1 x Bag of Screws

### **Optional Accessories**



USB 2.0 A-Male to A-Female Extension Cable



USB 2.0 Type B to Type A Cable

# Technical Specifications

Table 1. Technical Specifications

Item	Description
Monitor	11.6" TFT LCD Full HD (1920 x 1080) Contrast Ratio: 1000:1 Viewing Angle: 85°/85°/85°/85°
Touch Screen	<ul style="list-style-type: none"> <li>■ Projected capacitive touchscreen with 10-point multi-touch</li> <li>■ Anti-reflective and anti-fingerprint coatings</li> </ul>
Brightness	1000 nits high brightness
Power Consumption	9-36 VDC @ Max 4A (12V Nominal)
<b>Mechanical</b>	
Dimensions (W x H x D)	296 mm (11.65") x 216 mm (8.50") x 43.5 mm (1.71")
Weight	1.8 kg (3.96 lbs)
Mounting	75 mm VESA
<b>I/O</b>	
USB	1 x type C 2.0 (supports Monitor Port) 5 x type A 2.0 1 x type B 2.0
DC-In	1
HDMI	1 x ver. 1.4
<b>Audio</b>	
Speakers	2 x 3W with amplifier
<b>Control Buttons</b>	
Black Out	1
Mute, Volume	1, 2
Brightness	2
Video Input Select	1
<b>Certification</b>	
EMC/Safety	<ul style="list-style-type: none"> <li>■ CE</li> <li>■ FCC Class B</li> <li>■ E-Mark</li> </ul>

Item	Description
Shock and Vibration	MIL-STD 810H
<b>Environmental</b>	
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)
Humidity	95%, non-condensing

## Identifying the Device

### Overview

Figure 1. Overview

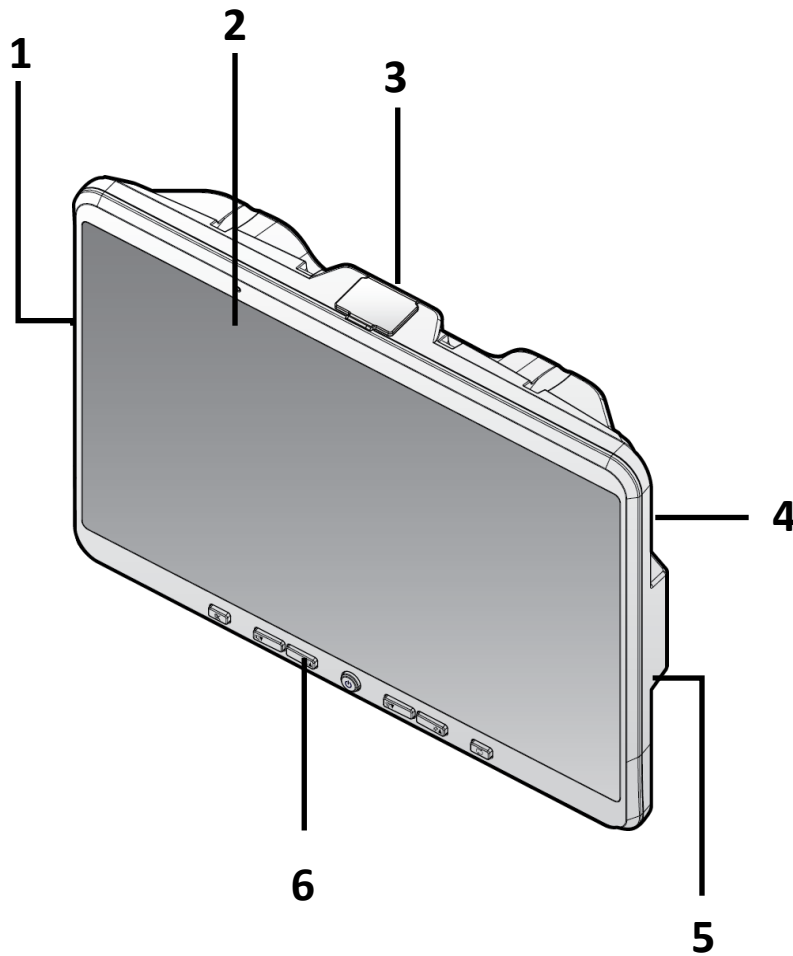


Table 2. Overview

No	Item	Description
1	Left view	Left side of the device.
2	Front view	See “Front View” on page 11 for further information.
3	Top view	See “Top View” on page 13 for further information.
4	Rear view	See “Rear View” on page 14 for further information.
5	Right view	Right side of the device.
6	Bottom view	See “Bottom View” on page 13 for further information.

## Front View

Figure 2. Front View

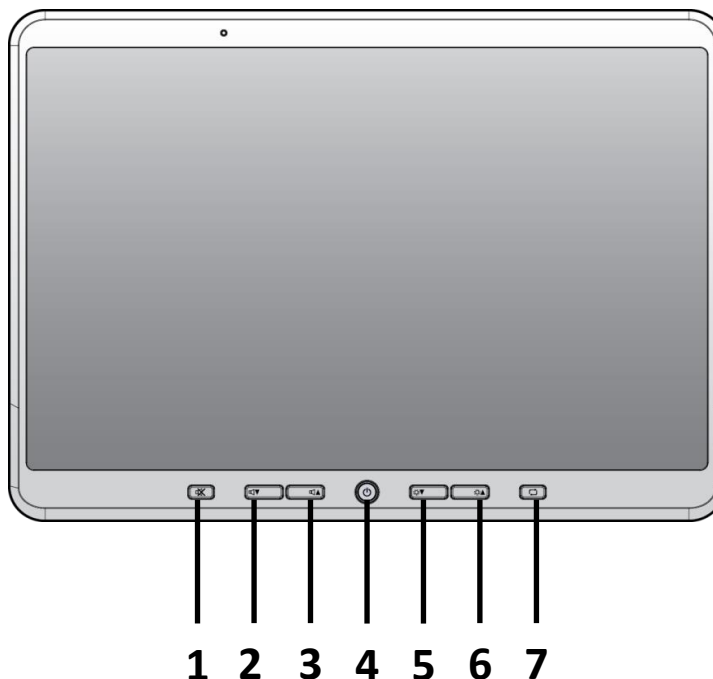


Table 3. Front View

No	Item	Description
1	Mute button with LED	Enable or disable speaker audio
2	Volume down* button with LED	Lowers audio volume Table 4 LED indicators, see page 12.
3	Volume up* button with LED	Raises audio volume Table 4 LED indicators, see page 12.
4	Black out button with LED	Click to turn on/off the monitor backlight Table 4 LED indicators, see page 12.
5	Brightness control** button with LED	Lower monitor brightness Table 4 LED indicators, see page 12.
6	Brightness control** button with LED	Raise monitor brightness. Table 4 LED indicators, see page 12.
7	Video source switch button with LED	Switch between available video sources Table 4 LED indicators, see page 12.

\* The device is designed with 10 adjustable volume levels

\*\* The device is designed with 20 adjustable brightness levels

Table 4 LED Indicators

Function	LED	Color	Description
Power off	None	Off	Device is powered off
No video source	Video source button	Green	Video signal not acquired
	Black out button	Amber	
HDMI signal	Mute button	Red	Video signal acquired
	Brightness up button		
	Brightness down button		
	Black out button		
	Volume up button		
	Volume down button		
	Video source button	Green	
No USB C signal	Video source button	Blue	USB C signal not acquired
	Black out button	Amber	
USB C signal	Mute button	Red	USB C signal acquired
	Brightness up button		
	Brightness down button		
	Black out button		
	Volume up button		
	Volume down button		
	Video source button	Blue	
Black out	Black out switch	Red	Device in black out state



## Top View

Figure 3. Top View

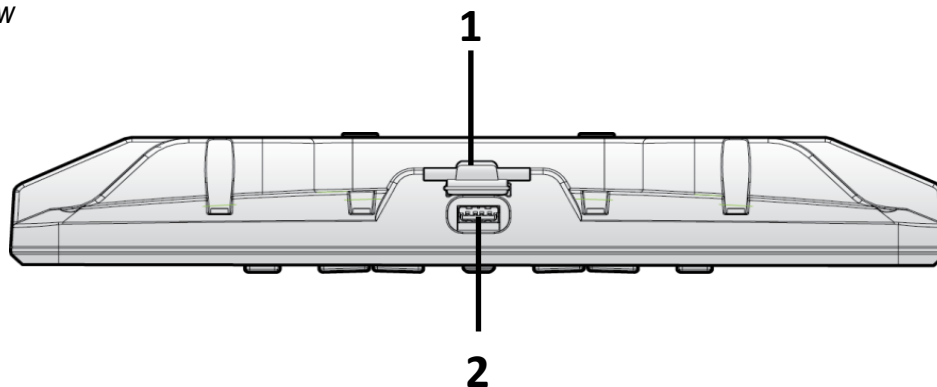


Table 5 Top View

No	Item	Description
1	USB cover	Open to access the top USB port.
2	USB 2.0 Type A	Connect USB devices to the Rugged Touch Monitor.



**Note:** The USB connector located on the top of the device is protected with a rubberized cap. Do not use excessive force when prying open the cap to prevent damaging or tearing the cap.

## Bottom View

Figure 4. Bottom View

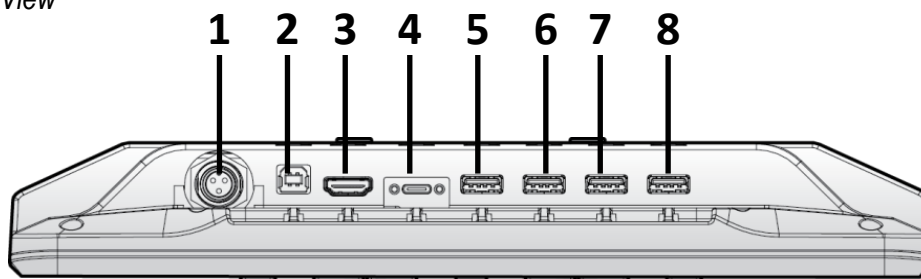


Table 6 Bottom View

No	Item	Description
1	DC IN	Insert power connector to power on device.
2	USB 2.0 type B	Connect to enable the touch function for the connected source.
3	HDMI 1.4	Connect HDMI source to the Rugged Touch Monitor.
4	USB2.0 type C	Connection (DisplayPort support) for type C device.
5	USB 2.0 type A	Connect USB devices to the Rugged Touch Monitor.
6		
7		
8		

## Rear View

Figure 5. Rear View

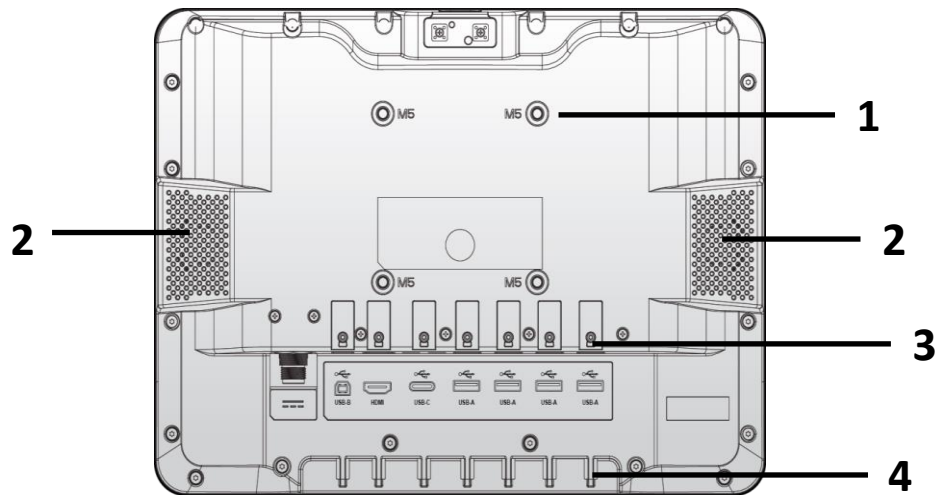


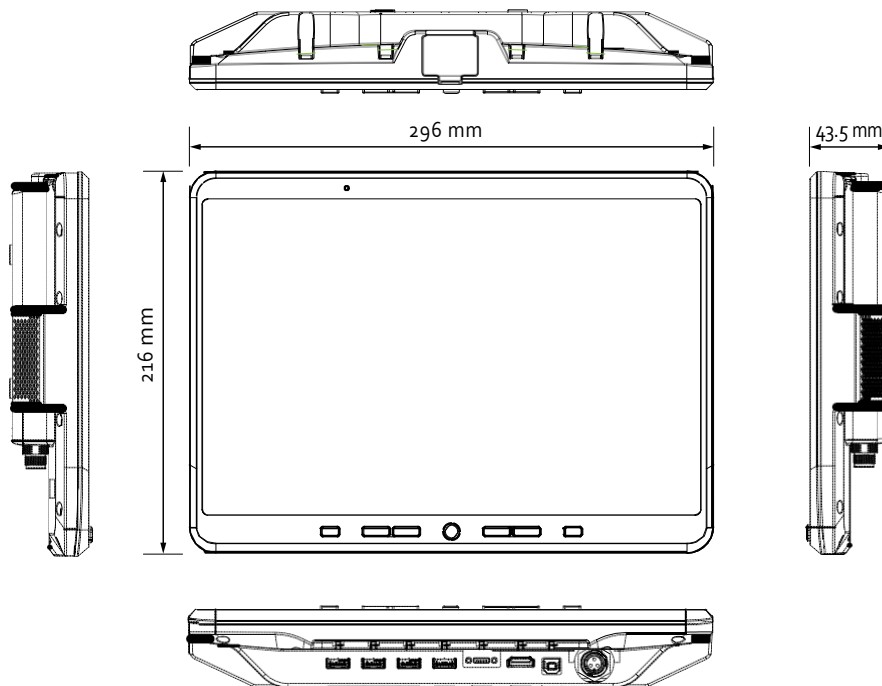
Table 7. Rear View

No	Item	Description
1	VESA mount holes	M5 screw holes for hardware mounting
2	Speaker	2 x 3W stereo speakers with amplifier
3	Bracket securing holes	Securing holes for metal bracket
4	Anchors	Strain relief anchors for zip ties

## Dimensions

The following image lists the device dimensions.

Figure 6. Front View Dimensions



## Touch Screen



**Caution:** Never use an actual pen, pencil, or sharp/abrasive object on the touch screen.



**Warning:** The screen on the device is made of glass and can, potentially, break when dropped or sustains an impact with a hard surface. In the event of screen damage, do not attempt to remove the broken glass or any shards. Misuse of the device or damage sustained as a result from misuse may not be covered under the product's limited warranty.

Touch the screen to perform an action or initiate a function. Touch function is enabled for the following sources through the respective connections:

- DeX solutions connected source through the USB type C connection
- PC connected source through an HDMI input and USB type B (type B to type A cable) connection

Depending on the host source, the following touch screen functions may be available:

- Open applications
- Choose commands in menu
- Select options in dialog box or drop-down menu
- Drag the scroll bar
- Drag across the text to select content
- Place the cursor in a text box before typing

## Chapter 2. Getting Started

This section provides an outline of the steps necessary to setup a Rugged Touch Monitor. A detailed guide follows the listed items.

For additional technical assistance, contact your RuggON representative by visiting the following website:

[HTTP://www.ruggon.com/en/contact.php](http://www.ruggon.com/en/contact.php)



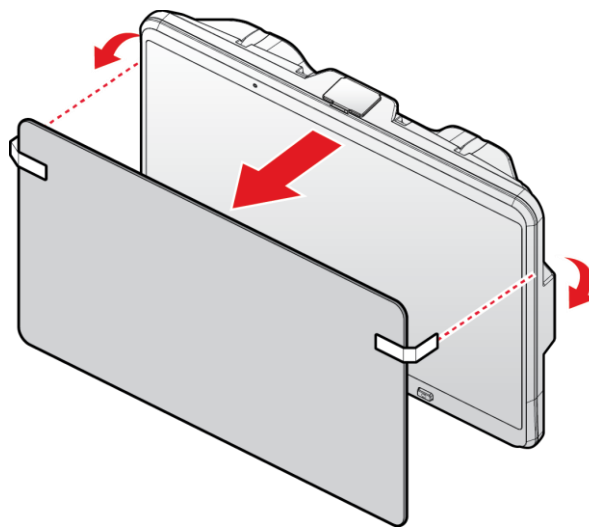
**Note:** It is recommended to installing or remove accessories on a clean, well-lit work surface. To protect yourself and the device from electrostatic discharge, wear anti-static wrist straps or place the device on an anti-static mat.

### Unpacking the Device

The device is shipped with a protective film over the monitor. Prior to first use remove the film as instructed in the following information:

1. Locate the adhesive strips securing the protective film to the device.
2. Remove them by peeling them off.

Figure 7. Removing Adhesive Strips from Protective Film



If residue from the adhesive remains on the panel, clean the panel before use.

### Connecting to External Cabling



**Note:** To prevent damage to the device, connect and secure all cabling and accessories before powering up the device.

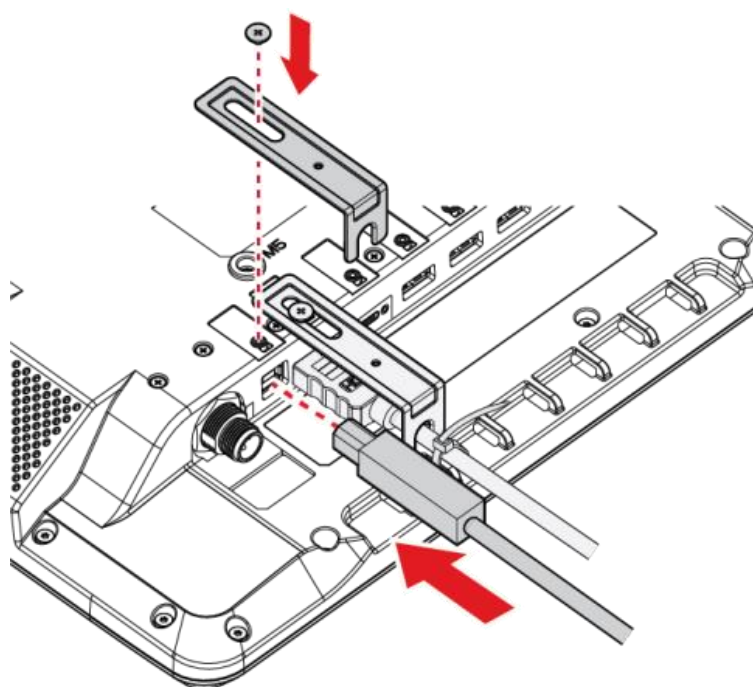
#### **Securing Cabling**

The device is designed to allow for the securing of cables to the device through a cable bracket and anchor points. See the following information for guidance on the use of both securing methods.

To secure a cable:

1. Once the cable is properly installed in the device port, gently tug on the cable to remove any excess slack.
2. Locate the bracket and position it over the intended cable.
3. Insert the bracket over the cable aligning both the grooved end over the cable and the screw slot on the bracket over the screw hole on the device. Adjust the bracket position as required to ensure the grooved end is firmly sitting over the cable.
4. Secure the bracket to the device with the provided screw (M2 x L3).

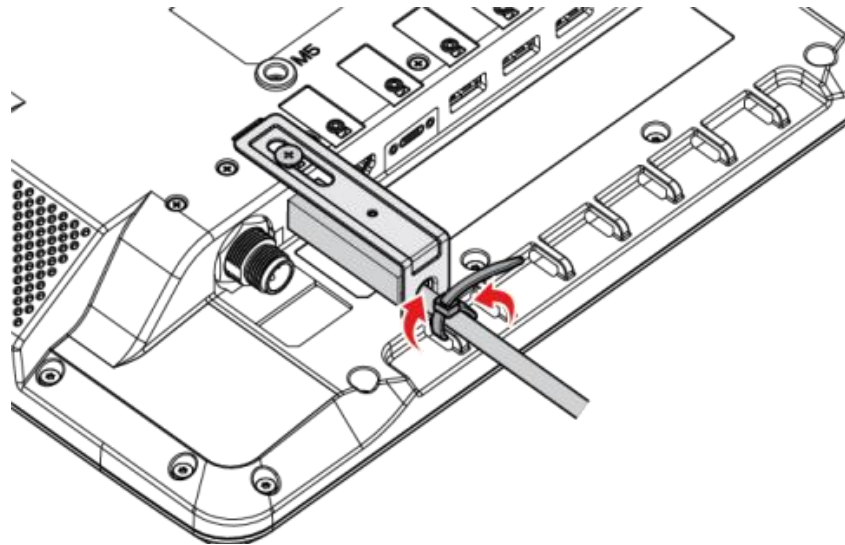
Figure 8. Secure Cable Securing Bracket



**Note:** The provided bracket screw size is as follows: M2 x L3.

5. Use the provided Zip ties to secure the cable to the strain relief anchor on the device.

Figure 9. Secure Cable to Strain Relief Anchor



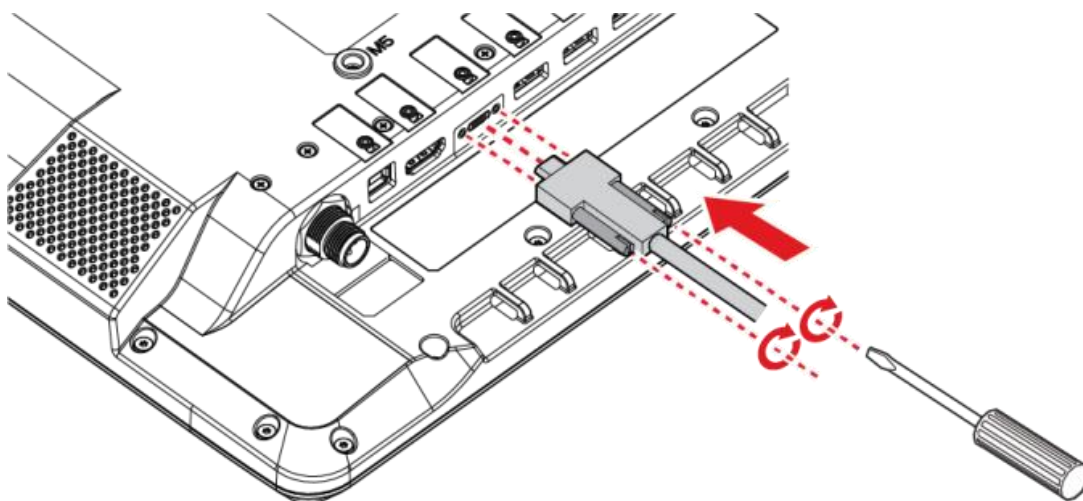
In this manner the cable can be secured in place to prevent it from accidentally being unplugged or damaging the device port.

### **Connecting to a USB Type C Device**

The Rugged Touch Monitor is designed with a USB type C connector for in-vehicle scenarios of various types.

1. Locate the bottom side of the Rugged Touch Monitor. See “Bottom View” on page 13.
2. Locate the USB type C (supports DisplayPort), see the following figure, and connect the cable to the port.
3. Tighten the captive screws on the cable connector to secure it to the device. Do NOT over tighten the screws to prevent damage to the connector.

Figure 10. Connecting a USB Type C Device

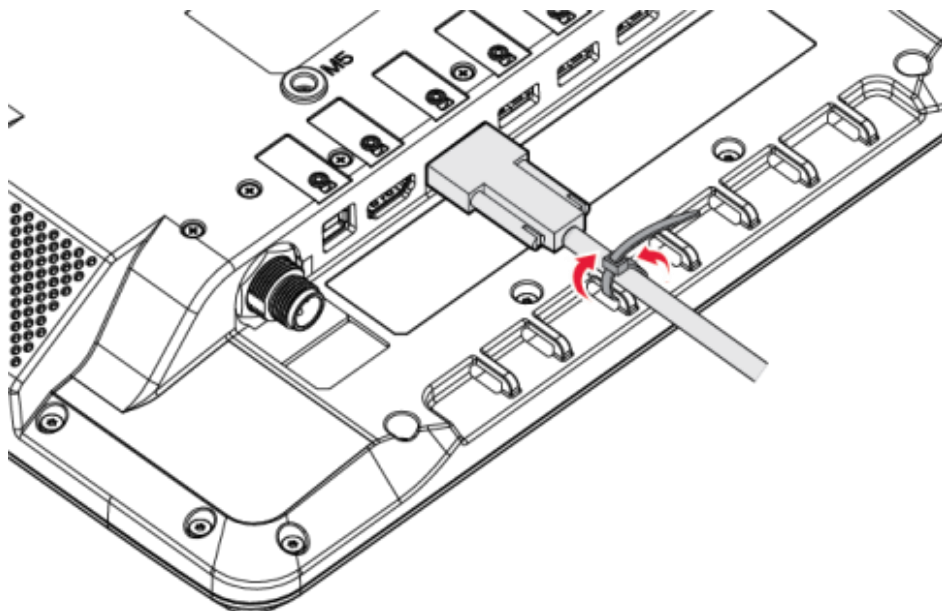




**Note:** Due to the size of the USB type C cable head design, a securing bracket is not necessary for this cable type.

4. Use the provided Zip ties to secure the cable to the strain relief anchors on the device.

Figure 11. Secure Cable to Strain Relief Anchor



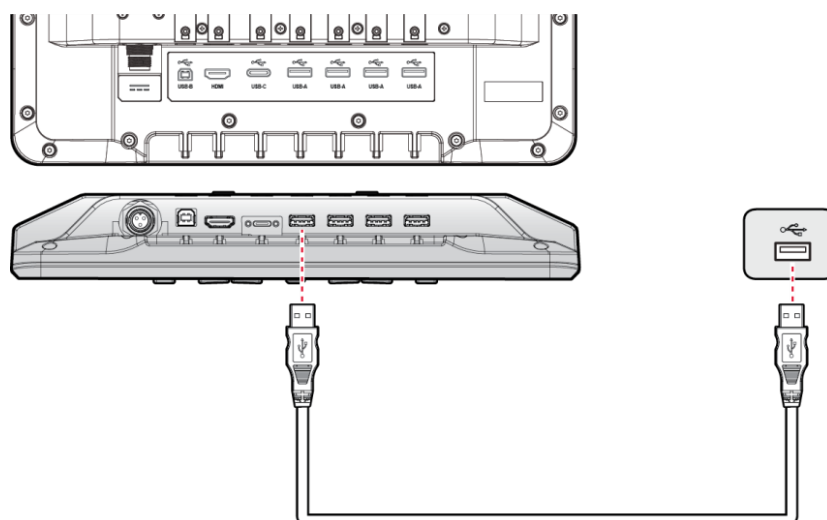
5. Connect the open end of the cable to the USB type C device.
6. Connect the device to the power source. See “Connecting the Power Supply” on page 21.

### Connecting a USB Device

The Rugged Touch Monitor has multiple USB 2.0 Type A ports located on the bottom and top of the panel for connecting USB devices, such as a keyboard.

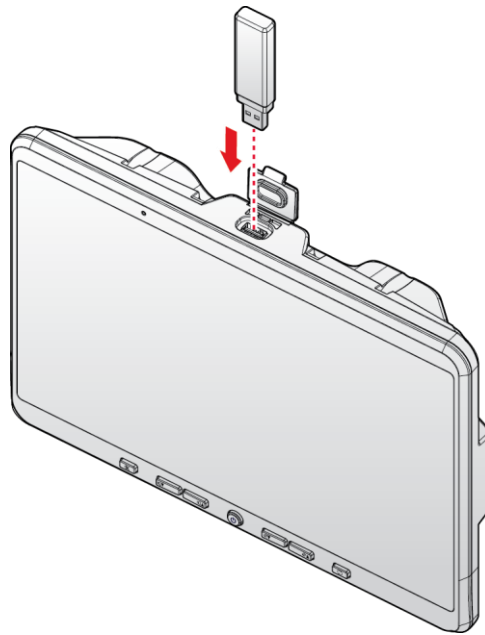
1. Locate the USB port on the Rugged Touch Monitor. See “Bottom View” on page 13 or “Top View” on page 13.
2. Locate an available USB port and connect the USB device to the monitor.

Figure 12. Connect a USB Device to Port on Bottom Side



When connecting a USB cable to the top of the panel, pry open the rubber cover over the USB port. Take care to not use excessive force on the rubber cover to prevent damaging it. The cover can be torn if pulled back too far or excessive force is used.

Figure 13. Connect a USB Device to Port on Top Side

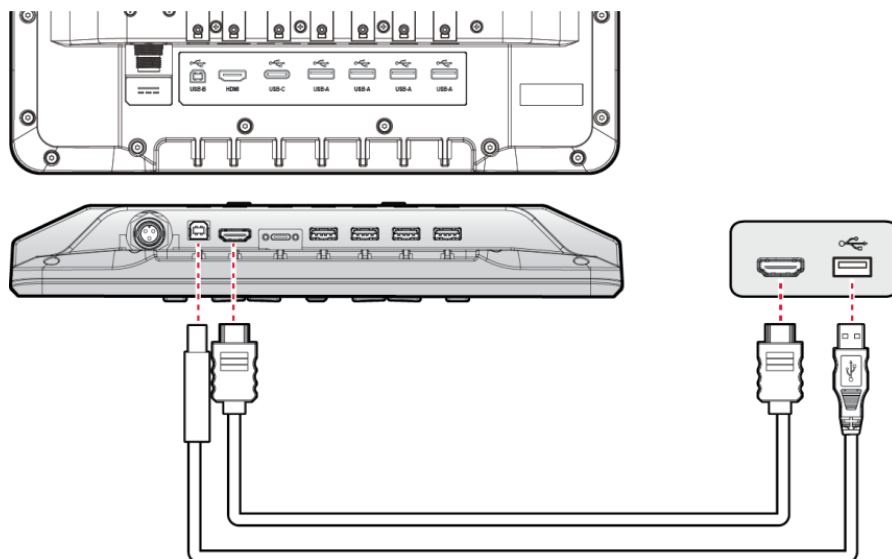


### Connecting to a Computer Source

The Rugged Touch Monitor is designed with a USB type B connector to support touch function and all USB 2.0 Type A ports when connected to a computer source. By combining HDMI and USB type B connectivity, the Rugged Touch Monitor fully supports a wide option of in-vehicle scenarios.

1. Locate the bottom side of the Rugged Touch Monitor. See “Bottom View” on page 13.
2. Locate the HDMI port on the device, see the following figure, and connect the cable to the port.
3. Locate the USB type B port on the device and insert the included cable in the port.
4. Repeat the procedure for the USB cable.

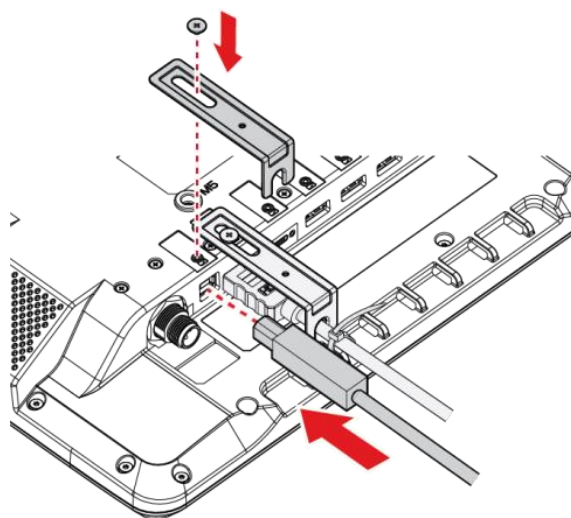
Figure 14. Connect Computer to Device





5. Locate the metal bracket and position it over the HDMI cable.
6. Insert the bracket over the cable and secure with the provided screw.
7. Use the provided Zip ties to secure the cable to the strain relief anchors on the device.

Figure 15. Secure Cable to Strain Relief Anchor



8. Connect the open end of the cable to the computer source.
9. Connect the device to the power source. See “Connecting the Power Supply” on page 21.

## Connecting the Power Supply



**Warning: Only trained service personnel are qualified to conduct installation.**



**Warning: A proper and safe device installation requires that the input power cable be connected to a fused circuit on a vehicle. On direct device to battery installations, the fuse must be installed in the positive lead within five inches of the battery positive (+) terminal.**

- For 12 VDC inputs, use a 10A fuse (slow blow fuse with a DC voltage rating greater than 12 VDC)
- For 24 VDC inputs, use a 6A fuse (slow blow fuse with a DC voltage rating greater than 24 VDC)
- The power cable should be routed away from the outside of the vehicle
- The mounting location should be located as to avoid extending the power cable outside the vehicle, providing sufficient clearance to prevent the power cable coming into direct contact with part of the vehicle
- Regularly inspect the power cable for damage, specifically in low temperature environments



**Warning: There is a potential from the battery to vent explosive gas mixtures. To prevent the ignition of a potential gas mixture, keep the working area well ventilated, and make sure NO electrical arcs or sparks caused on the battery terminals.**



**Warning: Refer to the following instructions for engines powered by an internal combustion engine:**

- + is for connection to the positive terminal
- - is for connection to the negative terminal
- GND is for connection to the vehicle chassis ground, which can also be the negative terminal on the battery.

**Warning: Refer to the following instructions for battery powered vehicles:**

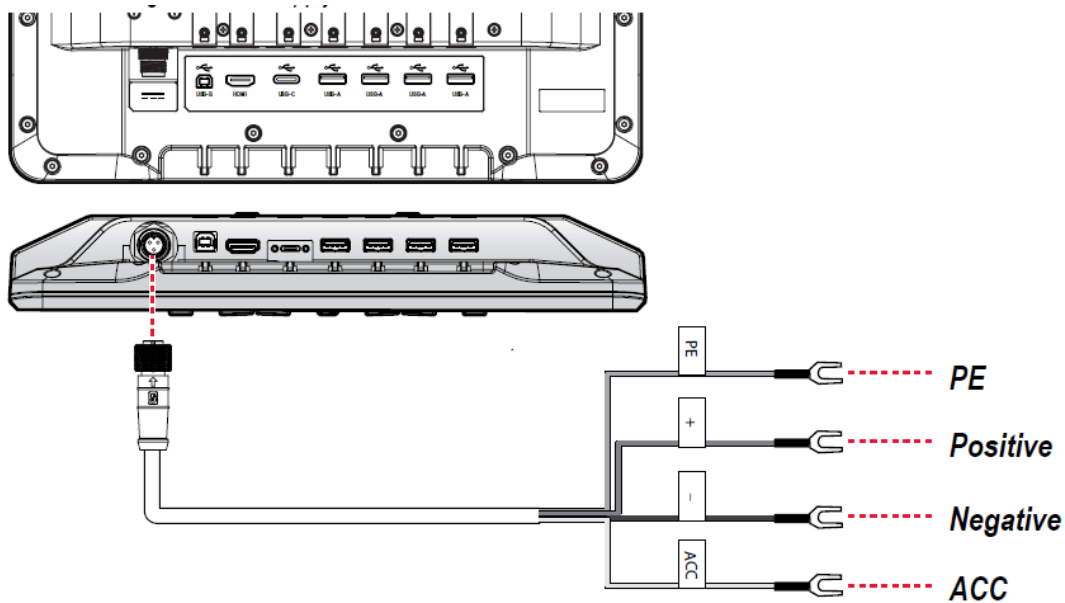
- + is for the positive battery terminal
- - is for the negative battery terminal
- GND must be connected to the vehicle chassis ground

The device is powered by connecting it directly to a vehicle. This section provides guidance to connect the power leads to the vehicle’s power system.

The provided cable leads are marked indicating the specific connection to the vehicle’s power supply.

1. Connect the cable leads to the vehicle’s power supply, each lead is labelled according to the connection type.
2. Locate the bottom side of the Rugged Touch Monitor. See “Bottom View” on page 13.
3. Locate the DC In port on the device, see the following figure, and align the notch on the power cable to the insert in the connector.
4. Connect the threaded end of the DC input cable to the Rugged Touch Monitor. If there is any resistance, remove the cable and re-align it with the port, then tighten the thumb screw to secure the cable on the device.

Figure 16. Connecting the Power Supply



The device powers on once the power on the vehicle is activated. The device’s standby mode is enabled as indicated by the LEDs on the source switch and black out buttons on the panel. See “LED Indicators” on page 24

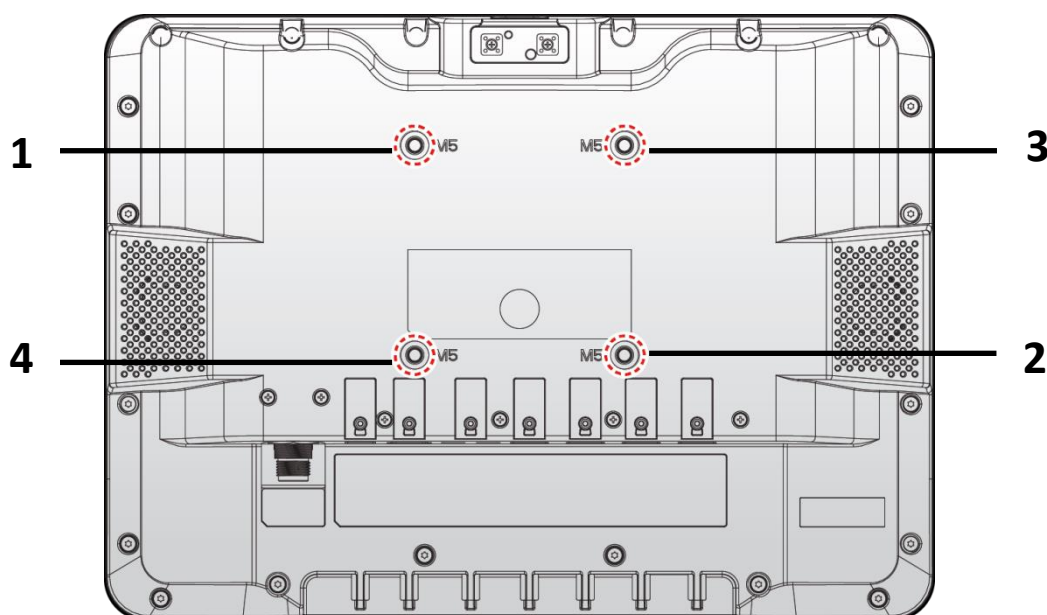
Mount the device in the vehicle using the VESA mounts. See “Mounting Hardware” on page 23

## Mounting Hardware

The Rugged Touch Monitor is designed with standard VESA mounting support. Standard M5 mounting screws are provided for the mounting installation. The screws are designed for standard mounting brackets. If a bracket design is not a standard bracket, additional screws may be required.

1. Locate the rear side of the Rugged Touch Monitor. See “Rear View” on page 14.
2. Align the VESA mounting bracket (not included) with the rear of the Rugged Touch Monitor.
3. In a sequential order (see the following figure), insert the provided screws (M5 x L16) in the mounting holes and tighten them to secure the mounting bracket to the device.

Figure 17. VESA Mounting Support



The device can now be mounted on the designated vehicle location.



**Note: The provided bracket screw size is as follows: M5 x L16**

# Chapter 3. Operations

This section provides information and guidance for the correct operation of the Rugged Touch Monitor.



**Note:** To prevent damage to the device, connect all cabling and accessories before powering up the device

**Note:** Considering RTD-S11 Rugged Touch Monitor as a passive device that requires a host system for proper operation, its self-protection mechanism includes backlight adjustment when the system is overheated.

## LED Indicators

The following LED Indicators table provides the different power status indications of the monitor when powered on with and without HDMI or USB Type C signals.

Table 8. LED Indicators

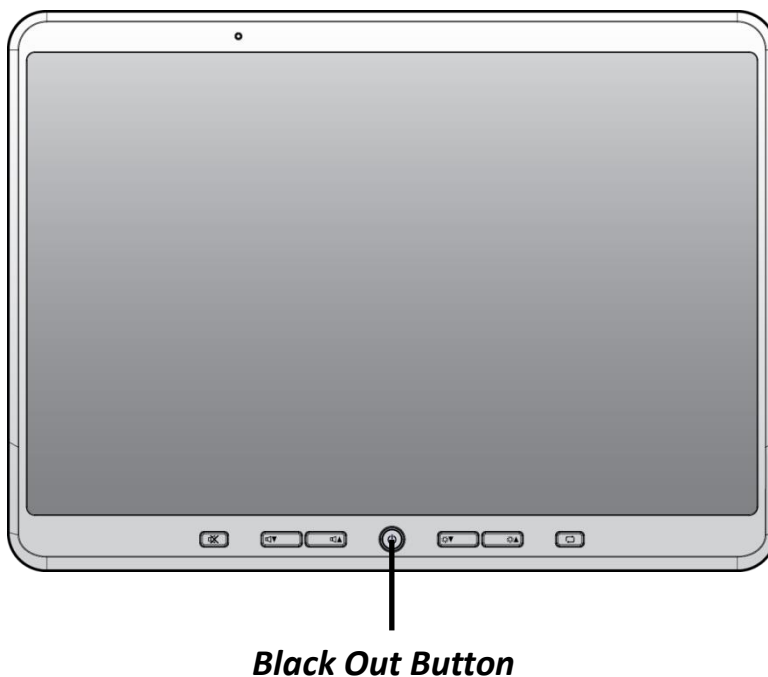
Function	LED	Color	Description
Power off	None	Off	Device is powered off
No video source	Video source button	Green	Video signal not acquired
	Black out button	Amber	
HDMI signal	Mute button	Red	Video signal acquired
	Brightness up button		
	Brightness down button		
	Black out button		
	Volume up button		
	Volume down button		
	Video source button	Green	
No USB C signal	Video source button	Blue	USB C signal not acquired
	Black out button	Amber	
USB C signal	Mute button	Red	USB C signal acquired
	Brightness up button		
	Brightness down button		
	Black out button		
	Volume up button		
	Volume down button		
	Video source button	Blue	
Black out	Black out switch	Red	Device in black out state

## Enabling and Disabling Black Out Function

1. Locate the front side of the Rugged Touch Monitor. See “Front View” on page 11.
2. Locate the Black Out button on the device.
3. Press it down once to enable the black out function. If enabled, the monitor’s back-light

quickly turns on/off. See “LED Indicators” on page 24 for further information about the LED indicator.

Figure 18. Enabling Black Out

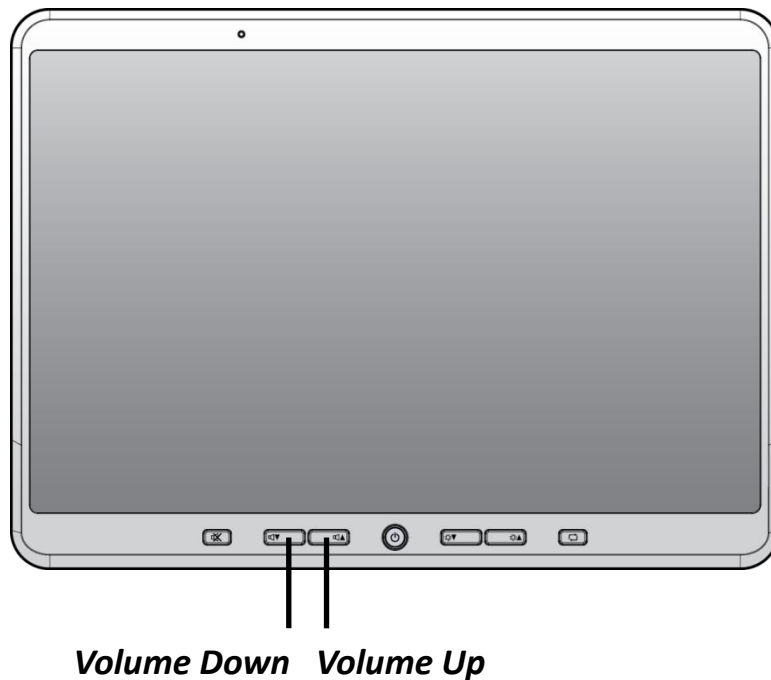


## Adjusting Volume

1. Locate the front side of the Rugged Touch Monitor. See “*Front View*” on page 11.
2. Locate the Volume buttons on the device.
3. Press the down button to lower the volume or the up button to raise the volume. The LED indicator on the button lights when activated. See “LED Indicators” on page 24 for further

information about the LED indicator.

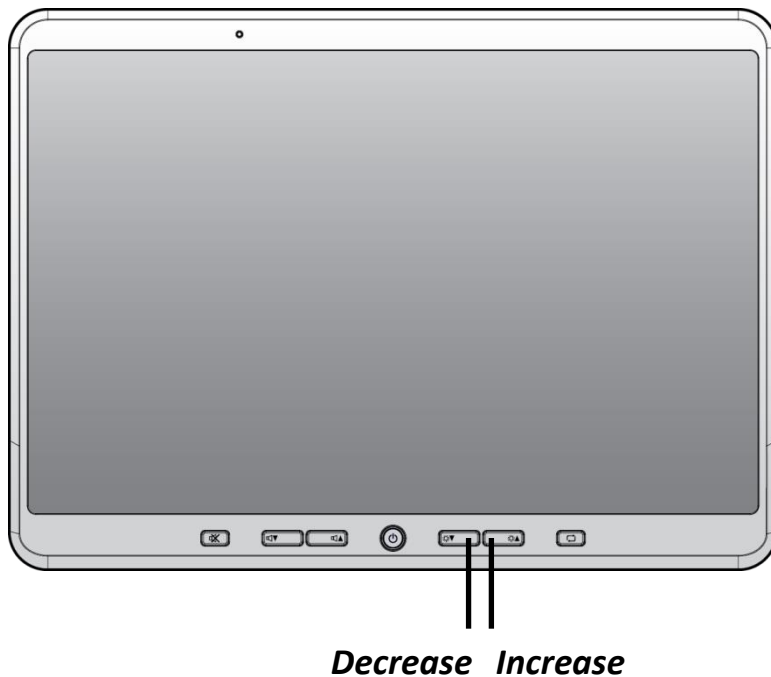
Figure 19. Adjusting Volume



## Adjusting Brightness

1. Locate the front side of the Rugged Touch Monitor. See “*Front View*” on page 11.
2. Locate the Brightness buttons on the device.
3. Press the down button to decrease the brightness or the up button to increase the brightness level. The LED indicator on the button lights when activated. See “LED Indicators” on page 24 for further information about the LED indicator.

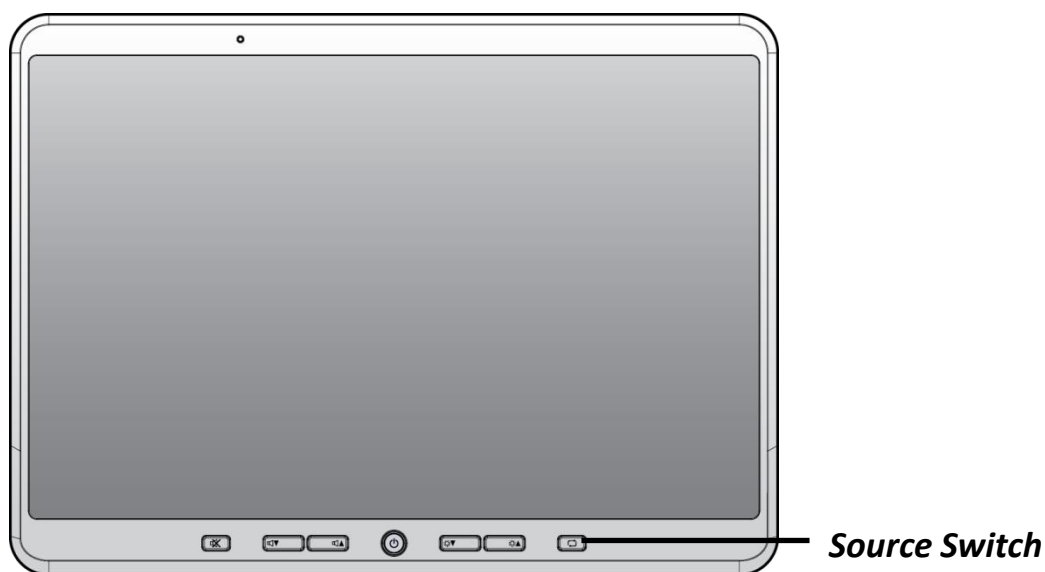
Figure 20. Adjusting Brightness



## Switching Video Sources

1. Locate the front side of the Rugged Touch Monitor. See “Front View” on page 11.
2. Locate the Source Switching button on the device.
3. Press the button once to cycle through the available sources. The LED indicator on the button lights when activated. See “LED Indicators” on page 24 for further information about the LED indicator.

Figure 21. Switching Video Sources



## Muting Audio

1. Locate the front side of the Rugged Touch Monitor. See “Front View” on page 11.
2. Locate the Mute button on the device.
3. Press the button once to enable the mute function. Press it again to disable the mute function. The LED indicator on the button lights when activated. See “LED Indicators” on page 24 for further information about the LED indicator.

## Enabling and Disabling Night Mode Function

1. Locate the front side of the Rugged Touch Monitor. See “Front View” on page 11.
2. Locate the Mute buttons on the device. See below "Figure 22"
3. Long press the button for 5 seconds to enable night mode. Once the function is enabled, the monitor’s back-lights immediately turn to red. Repeat the same step to disable the function.

Figure 22. Enabling/Disabling Mute or Enabling and Disabling Night Mode Function

