

# ARP992/ ARP992-B User Reference Manual





# SPECIFICATIONS

Model No	ARP992	ARP992-B
<b>CPU</b>	Intel Core i5-7440EQ, 2.90GHz Processors Option: Intel Core i7-7820EQ, 3.0 GHz	
<b>Chipset</b>	Intel® 7th Gen. Core™ i5 /i7 processors with Intel® CM238	
<b>Operating System</b>	Support: Windows 10 (64-bit), Linux Fedora (64-bit) & Ubuntu (64-bit)	
<b>Slot</b>	2x PCI, 1PCI-E (x16) full-size expansion slots, 1x M.2 (M2280) Option: 3x PCI-E (x16, x1, x1) full-size expansion slots, 1x M.2 (M2280) Option: 3x PCI full-size expansion slots, 1x M.2 (M2280)	
<b>Display</b>	17.3" LCD display, 1920x 1080	
<b>Graphics</b>	HD graphics integrated into the processor	
<b>Memory</b>	2x 8GB DDR4	
<b>HDD</b>	1x 240GB SSD Support 2x 2.5" removable SATA	
<b>CDROM</b>	1x Slim DVD-RW	
<b>Interfaces</b>	2x DB9 for COM1, COM2, DVI-D, HDMI, DP connector, 6x USB 3.0 connector 2x Gbit LAN RJ-45, RCA Jack 3x1 for HD audio	
<b>LAN</b>	Intel® I219LM GbE LAN Intel® I211AT PCIe GbE LAN	
<b>Audio</b>	Realtek ALC892	
<b>Speaker</b>	Built-in amplified 2x 3W speakers	
<b>KB/MS</b>	Industrial keyboard with touchpad Keyboard layout: CH, FR, GR, KR, RU, SP, UK, US	
<b>Power Supply</b>	250W, 100~240 VAC, Auto switch	2x 95W Li-ION battery Packs (Hot-Swappable), 100W AC Adapter, up to 4 hours battery life
<b>Construction</b>	Rugged Aluminum Construction with shock absorbing rubber corners	
<b>Dimension</b>	418x 352x 166 mm (Wx Hx D)	
<b>Weight</b>	7.6 kgs	
<b>Carrying Case</b>	Padded carrying case with wheels	

# ENVIRONMENTAL FACTORS

	Operating	Non-Operating
<b>Temperature</b>	0°C~50°C	-20°C~60°C
<b>Relative Humidity</b>	10%~90%	10%~95%
<b>Shock</b>	10g, 11ms, half-Sine	30g, 11ms, half-Sine
<b>Vibration</b>	10-500Hz (0.4 Grms)	10-500Hz (1.12 Grms)
<b>Approval</b>	CE, FCC, RoHS	

# OPTIONS

<b>Power Supply</b>	
	ARP992: 250W, 100~240 VAC, Auto switch
	ARP992-B: 2x 95W Li-ION battery Packs (Hot-Swappable)
<b>Processor</b>	
	<ul style="list-style-type: none"> <li>Intel Core i5-7440EQ, 2.90 GHz Processors</li> <li>Intel Core i7-7820EQ, 3.0 GHz Processors</li> </ul>
<b>Expansion slot</b>	
	<ul style="list-style-type: none"> <li>2x PCI, 1PCI-E (x16) full-size slots</li> <li>3x PCI-E (x16, x1, x1) full-size slots</li> <li>3x PCI full-size slots</li> </ul>

# Standard Accessory Kits

<b>ARP 992</b>			
<b>Model</b>	<b>Accessory Kit SKD</b>		<b>Qty</b>
<b>ARP992</b>	<b>1</b>	ARP992 Portable Computer system	1
	<b>2</b>	Carrying Case with wheels	1
	<b>3</b>	Driver CD	1
	<b>4</b>	User's Manual	1
	<b>5</b>	Power Cord	1
	<b>6</b>	Anti-Static Bag	1
	<b>7</b>	Screw Pack (stabilizer)	1
	<b>8</b>	Stabilizer Supports Pack	1
	<b>9</b>		



Carrying Case with Wheels

## ARP 992 features:

- All-in-one design rugged portable computer
- Rugged Aluminum Construction with shock absorbing rubber corners
- Compact Size Lightweight Design
- Built-in 17.3" LCD display, 1920x 1080
- Intel® 7th Gen. Core™ i5 /i7 processors with Intel® CM238
- Mini-ITX MB, Intel Core i5-7440EQ or i7-7820EQ Processors
- 2 PCI, 1x PCI-E (x16) full-length expansion slots, 1x M.2 (M2280)  
Option1: 3x PCI-E (x16, x1, x1) full-length expansion slots, 1x M.2 (M2280)  
Option2: 3x PCI full-length expansion slots, 1x M.2 (M2280)
- 250W PSU or 2x 95W Li-ion battery packs, up to 4 hours battery life
- Built-in 240GB SSD, Support 2x 2.5" removable SATA
- Dual Gigabit Ethernet Support
- Industrial Keyboard multi-language with touchpad
- Keyboard is integrated with the portable to allow closing against the portable for both convenience and protection in transportation
- Large handle provide convenience transportation of the portable with comfort and ease
- Carrying case to manage portable PC with ease

The ARP992 is a lightweight portable systems, ARP992 is AC 250W power supply mode, and ARP992-B is portable system integrated battery packs, ARP992/ ARP992-B are robust field portable with 2x PCI, 1PCI-E (x16) or option: 3x PCI-E (x16, x1, x1) or option: 3PCI slots platform built using heavy duty metal to provide tough, go-anywhere unit ideally suitable for harsh/severe environments and mission critical applications. ARP992 is designed for harsh environment operations; Every ARP992 is constructed with easy access to its expansion ports for immediate system upgrade or maintenance. Functional practicality combined with the simple and polished design, the ARP992 with its extra-rugged construction to sustain bumps and impacted blows, is the most cost-effective, durable and efficient portable solution for your mission critical applications.

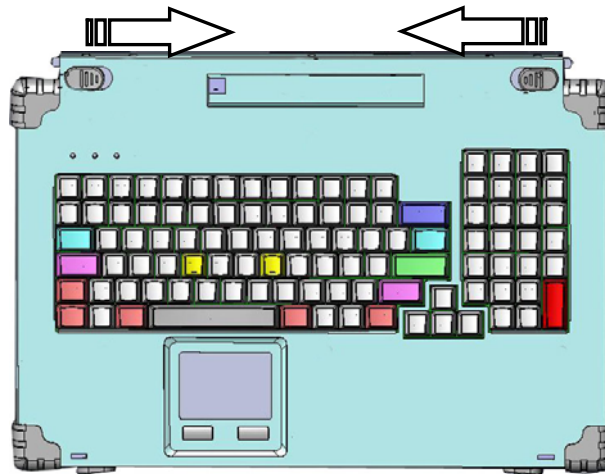
Applications: Military, Industrial automation, Digital TV test & analysis, Mobile Computing, Outdoor Computers, video conferencing, E-learning, Speech Technologies, Portable Workstation, Telemedicine, Multimedia, Mission Critical Computing

## 2.0 Operation

1. Releasing Keyboard by pushing the 2 taps located on top side of the chassis to release the locking mechanism, and then pull out the keyboard.



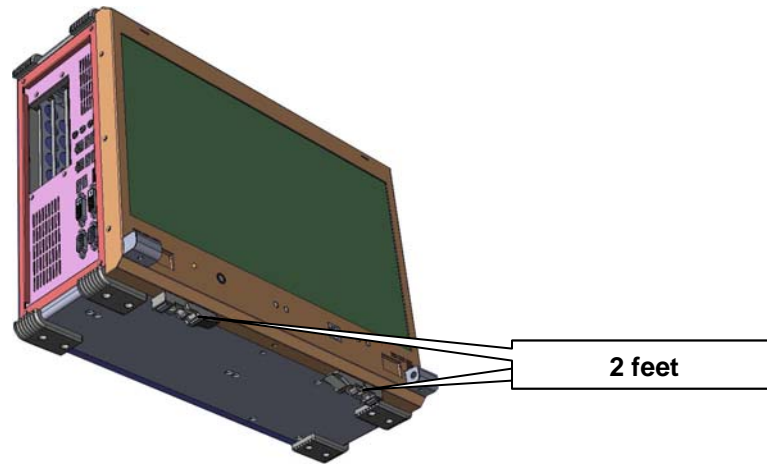
2. You have the option of leaving the keyboard attached to the chassis or they can be release independently from the chassis by pushing the two levers inward to release the lock.



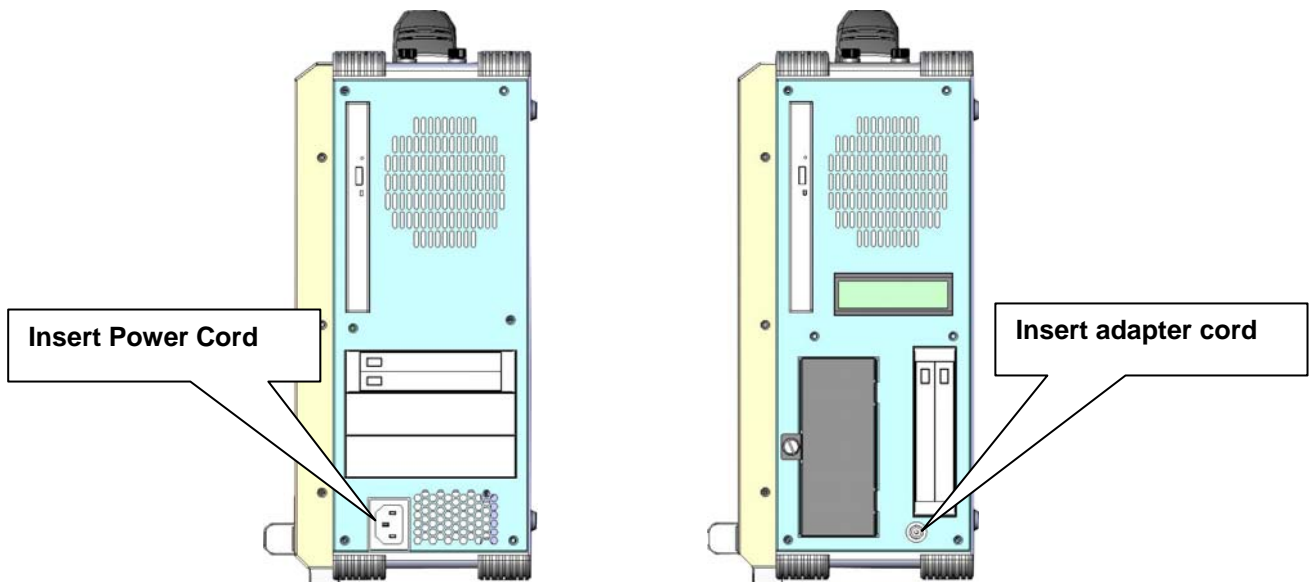
3. Connect the RJ-45 keyboard/touchpad cable to the front bottom right corner of the computer. Make sure the pin direction is correct when inserting.



4. You can flip the 2 feet located underneath the computer outward to help create an angle for the computer for viewing comfort.



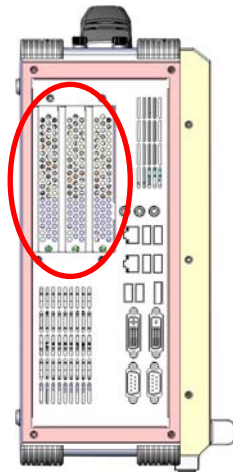
5. Connect the power cable outlet into the AC power supply unit or insert the adapter cord into power DC jack for recharging



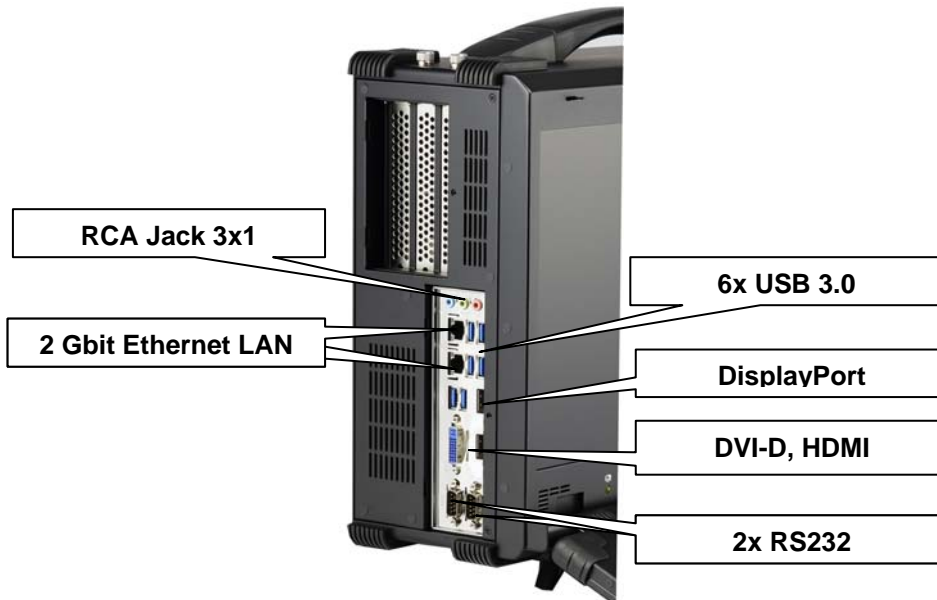
6. Press the power switch located on the front panel of the computer to power up the unit. There are indicator HDD LED light, brightness adjustment and sound adjustment located on the front panel



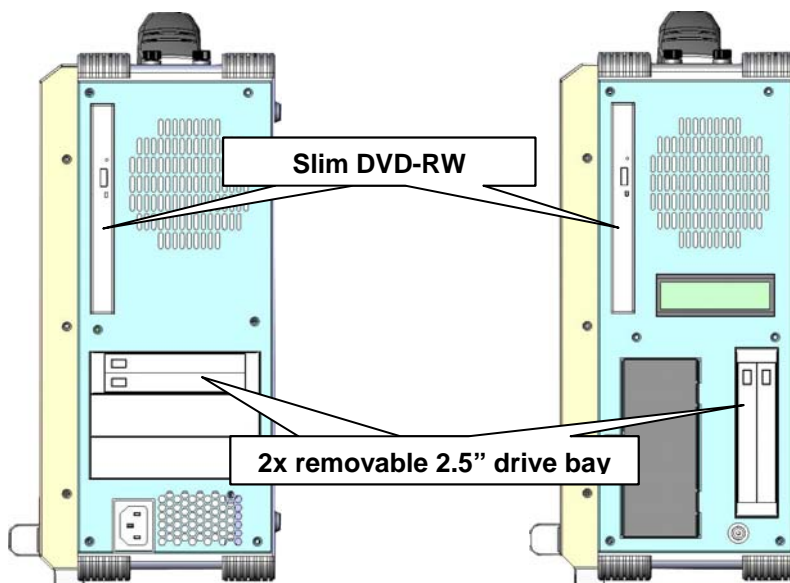
7. Access the available expansion slots on the left side of the computer.



ARP992 provides the system I/O port, include: 2x DB9 for COM1, COM2, DVI-D, HDMI, DP connector, 6x USB 3.0 connector, 2x Gbit LAN RJ-45, RCA Jack 3x1 for HD audio



8. Slim DVD-RW and 2x removable 2.5" drive bay on the right side of the computer.

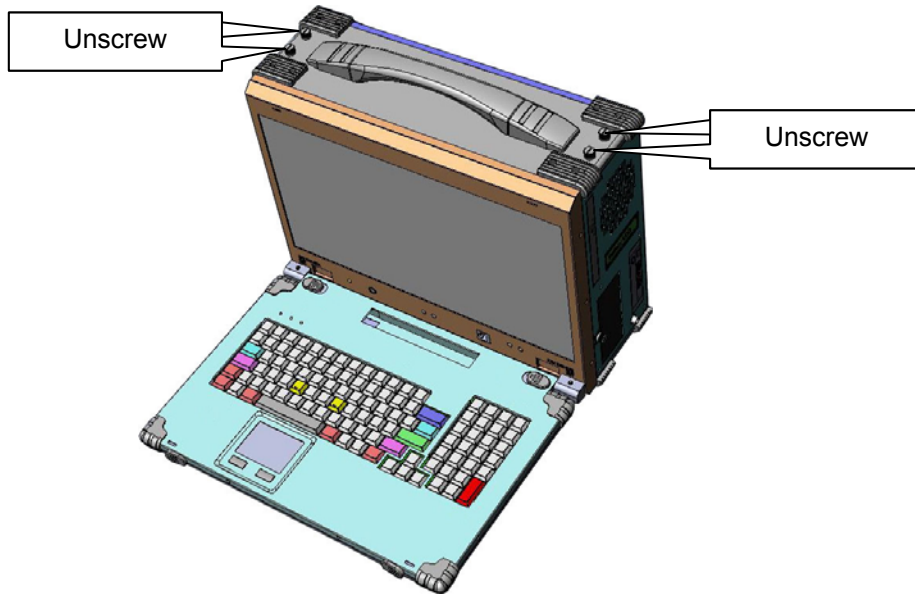




### 3.0 Internal Hardware Access

**Be sure power cable is not connected to the system before proceeding**

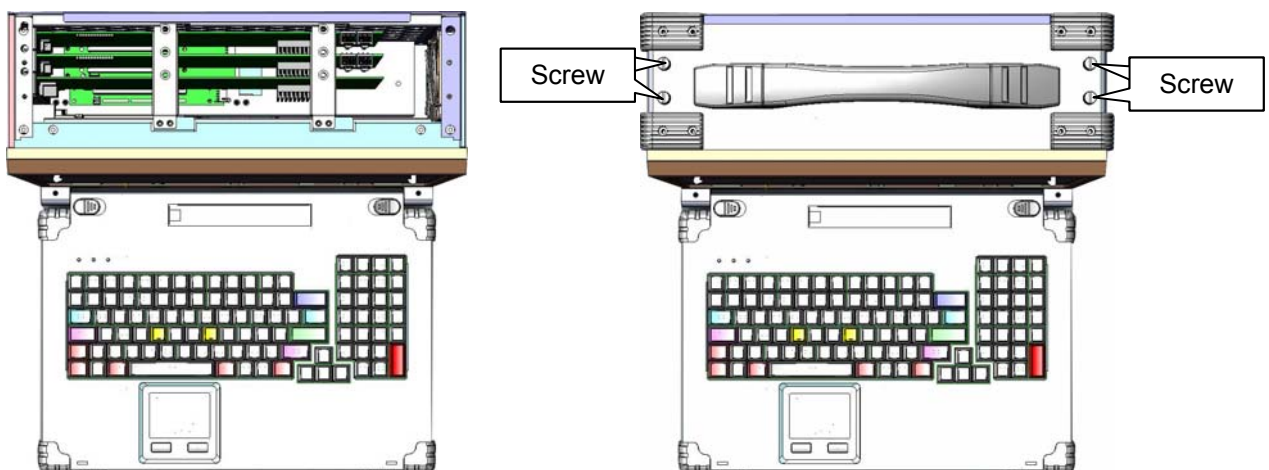
**1. Unscrew the top 4 thumb screws to release the top computer cover.**



**2. Remove the top cover, and 2x card stabilizer bars, install add-in card into the slot.**



**3. Install 2x card stabilizer bars, and close the top cover.**





## 4.0 Battery Pack (ARP992-B)

### 1. Battery Pack

The lithium ion battery pack is on the right side of the computer.



### 2. AC Operation / Battery Charging

Insert the adapter cord into the Power DC jack for recharging



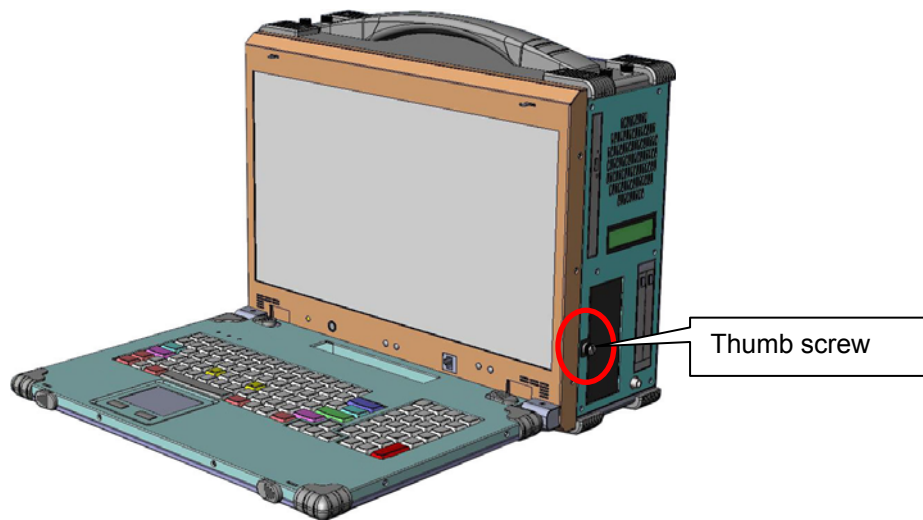
### 3. LCD panel for battery capacity

The LCD display shows battery array fuel gauge, power, current, charge/ discharge state, time to fully charged, time to empty.



#### 4. Replacing the battery

##### 4.1 Release the thumb screw of the battery cover



##### 4.2 Pull out the battery connector from the slot and replacing new batteries into slots



## 5.0 Software Installation

You can use the built-in DVD-RW to load operating system and additional applications software into the system. Available medium from USB or download can also be possible.

**DOS Boot up:** DOS boot up requires you to have a version of the DOS installed on hard disk drive or floppy. Depending on the execution sequence you have set in the batch file, you will usually get a DOS prompt after loading.

**Window Boot up:** Windows boot up requires you to have Windows installed in the hard disk drive. During Windows boot up, you will see a sequence of access to your hard disk drive which will eventually take you into a graphical user interface environment.

**Other O/S description:** Many other operating systems are available in the market, such as Linux, Windows, Solaris and DOS. These operating systems will behave differently and you should react accordingly.

## 6.0 Troubleshooting

### 1. Installation problem:

1. Normally problem with a fail start up is due to installation problem.
2. Double check all the peripheral cards or items you have added to the ARP.
3. Are all the items seated properly?
4. Are all the cables connected back to its original or correct position?
5. Are the items you have added compatible?
6. Before you check for these, turn the computer off and unplug the power cord.
7. Check for 1 thru 5 and then re-power up the computer.
8. Remove all items that were added and re-try system power up.
9. If the system starts now, try inserting 1 new item in at a time and try powering up.
10. Repeat this step until you get the desired result.

### 2. BIOS Beep Code:

The BIOS beep code indicates error in system initialization. The BIOS of the system board will associate with video and memory error. Please check your video card is properly seated and your memory is installed properly.

### 3. System Fails to power up:

1. Check you power connection first.
2. Check the main power switch is in the ON positions (I) \*If cold switch is available.
3. Press the power button located on the machine.

### 4. No display (LCD):

1. Check all the proper power up procedure has been taken.
2. Hook up an external LCD to the VGA port, to check if video is present.
3. If video is present on external LCD, check the internal LCD cable connection.
4. Or check your VGA setting to make sure LCD video is enabled.
5. If there is no video on external, check your system to make sure everything is seated properly.
6. If everything is seated properly and still no video, call us for further assistance.

### 5. External LCD no display:

1. Check to see if you have internal LCD video.
2. Check if your LCD is functioning properly.
3. Check your VGA setting to make sure external video is enabled.

### 6. Keyboard fails:

1. Make sure the keyboard plug is inserted completely into the portable.
2. Make sure you do not have another keyboard connected to the side I/O PS/2 port.

### 7. TOUCHPAD fails:

1. Make sure the keyboard plug is inserted completely into the portable.
2. If you have an external PS/2 mouse hook up on the side I/O PS/2 port, the touch pad will not function simultaneously.
3. If your operating system requires and does not load the mouse driver automatically, make sure you have the proper mouse driver loaded.

### 8. DVD-RW fails:

1. Make sure the CD/DVD is readable.
2. If DVD-RW fails to be recognized during POST, check internal cable fit.