

HONEYWELL

SPECIFYING VEHICLE MOUNT COMPUTER SOLUTIONS

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These slides will be shared after the presentation

Honeywell

THOR VM RANGE **KEY DIFFERENTIATORS**

Smart Dock

- Equip all vehicles with docks and move computers as your workload changes
- No need to disconnect power or peripherals before removing computer
- Eliminate downtime due to vehicle or computer failures
- Easily move units for maintenance



Field-Replaceable Front Panel

- Easy replacement and repair of touchscreens and keyboards
- Return computers to service in minutes
- Reduce cost by keeping spare front panels instead of spare computers
- *“Being able to fix keyboards and the touch screen myself is a huge time savings....that alone would make me buy your Thor”*



THOR VM1A

Built on the future-proof Mobility Edge platform, the Android-based Thor VM1A vehicle-mount computer is built tough to handle harsh warehouses, ports, and intermodal and manufacturing environments.

- Hits sweet spot of overall size, 8" screen & keypad
- Field Replaceable Front Panel saves on repair costs & down time
- Quick Release Smart Dock reduces down time & saves capital cost
- Mobility Edge Android 12* with VM1 accessory compatibility
- Indoor, Outdoor and Cold Store display options
- Capacitive or Resistive touchscreen options
- Software Client Pack pre-loaded and pre-licensed
- Operational Intelligence support for pro-active monitoring
- Granit XP industrial rugged scanners for barcode scanning



* Android 8 to 12 released, 13 & 14 committed pending feasibility

THOR VM3A & VM3W

Designed for use in the toughest distribution centers, manufacturing facilities and freight operations, the Thor™ VM3A computer is the industry's most capable full-sized vehiclemounted mobile computer, delivering unmatched operational efficiencies.

- Large 12" display with resistive or capacitive touch panel
- Field Replaceable Front Panel saves on repair costs and down time
- Quick Release Smart Dock reduces down time & saves capital costs
- Indoor, Outdoor and Cold Store screen options
- Capacitive or Resistive touchscreen options
- Device Client Pack pre-loaded and pre-licenced
- VM3A runs Android 12* and is part of Mobility Edge range
- VM3W runs Windows 10 Enterprise LTSC 2019
- Granit XP industrial rugged scanners for barcode scanning

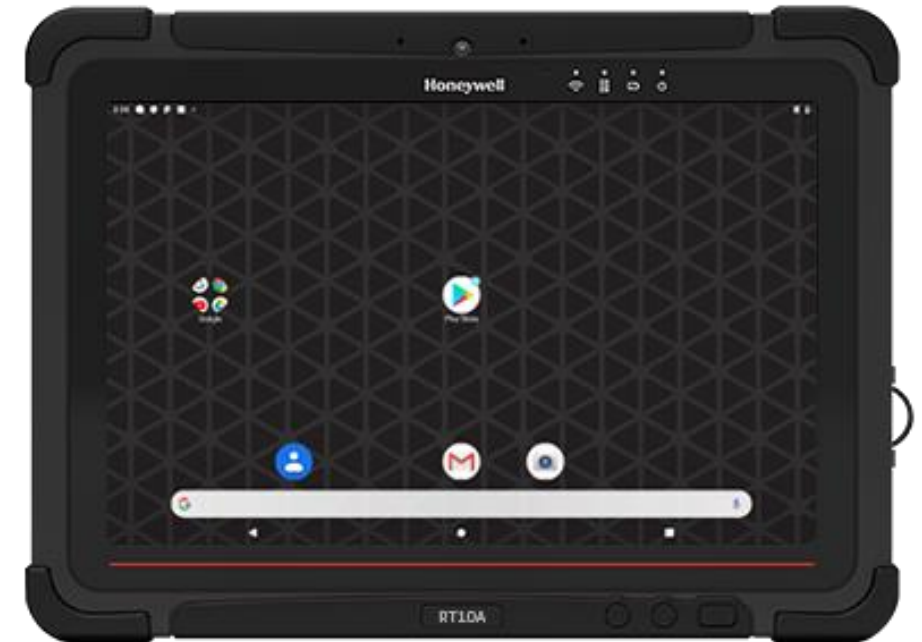


* Android 9 to 12 released, 13 & 14 committed pending feasibility

RT10A & RT10W

With its bright, high-resolution screen, perfect balance of ruggedness and lightweight design, and integrated barcode scanning, the RT10 improves worker productivity while maintaining a low total cost of ownership.

- 10.1 inch bright, hi-res, optically bonded Gorilla Glass 5 display
- Mobility Edge Android 12* or Windows 10 IoT Enterprise
- Powerful integrated barcode scanning including FlexRange option as well as high-performance standard range
- Rugged construction withstands 1.2m (4ft) drops to concrete + IP65 sealing against dust and water + MIL-STD-810G vibration
- Standard and Extended batteries for up to 20 hours use
- Range of accessories for forklift, desktop or mobile use
- Supports Honeywell Operational Intelligence



* Android 9 to 12 released, 13 & 14 committed pending feasibility

VEHICLE MOUNT COMPUTER OPTIONS

- **Operating System**

- Android vs Windows 10
 - Typically use Android unless end customer has specific requirement to run Windows apps
 - VM1A is Android only, there is no Windows version

- **Form Factor**

- Thor vs Tablet
 - Thor used on vehicle, not intended for handheld use, no built-in scanner
 - Tablets can be used away from vehicle as well as mounted on vehicle, has built-in scanner
- Thor Screen Size
 - VM1A - 8" screen, integrated keyboard, ideal for terminal emulation, smaller screen but more compact
 - VM3A/W - 12" screen, optional external keyboard, larger screen but takes up more space

- **Environment/Display**

- Indoor vs Outdoor vs Defroster (Cold Store)
 - Indoor – standard screen brightness for indoor use
 - Outdoor – brighter screen or anti-glare coating for use outdoors in sunlight
 - Defroster – includes heater for use in Cold Store/Freezer down to -30C (not available on tablets)

VEHICLE MOUNT COMPUTER OPTIONS

- **Touch Panel**
 - Resistive vs Capacitive
 - Resistive - pressure sensitive, good for gloves, only option in cold store
 - Capacitive - works like mobile phone screen, lighter touch needed, less suited to gloves
- **Wi-Fi Antenna**
 - Internal vs External (Whip or Remote)
 - Internal – nothing extra to install but less sensitive than external antennas (only choice on tablets)
 - External: Whip – simple installation on back of device, good compromise if unsure about Wi-Fi signal quality
 - External: Remote – positioned away from device for best signal, best choice if Wi-Fi signal is poor e.g. when Thor is inside enclosed metal cab that block signal
 - Need to select correct antenna option (internal vs external) up front
 - Devices with Internal antenna option cannot use External antennas (no connection to external antennas)
 - Devices with External antenna option must have two external antennas installed (they have no internal antennas)

Whip Antennas
(attach to back of Thor)



Remote Antenna
(cable attached to back of Thor,
antenna positioned at other end of cable)

VEHICLE MOUNT COMPUTER OPTIONS

Feature Type	Feature Option	VM1A	VM3A	VM3W	RT10A	RT10W
OS	Android					
	Windows 10					
Display	Indoor					
	Outdoor					
	Cold Storage	Resistive only	Resistive only	Resistive only		
Touchscreen	Capacitive					
	Resistive					
Keyboard	Integrated					
	External					
Antenna	Internal					
	External					

THOR VMCRADLE CHOICES

- **Standard or Enhanced**

- VM1D Standard in VM1001VMCRADLE etc.
- VM3D Enhanced in VM3001VMCRADLE etc.
- All VM computers work with all VM docks (despite the numbering scheme of the docks)

- **Common Features in Standard & Enhanced Docks**

- Power input 10-60 VDC via Thor power cable
- Two COM ports with DB9 connectors for e.g. connecting Granit scanners
- One USB port with DB9 connector for use with rugged keyboard or VM1052CABLE (USB host & client ports)
- CANBUS/Audio port
- Ignition control support

- **Extra Features on Enhanced Dock**

- Second USB port with DB15 connector for use with VM3052CABLE (two USB host ports)
- Standard USB-A port on top of dock, useful for support e.g. USB sticks
- Ethernet port on top of dock, useful for support or wired network for static use

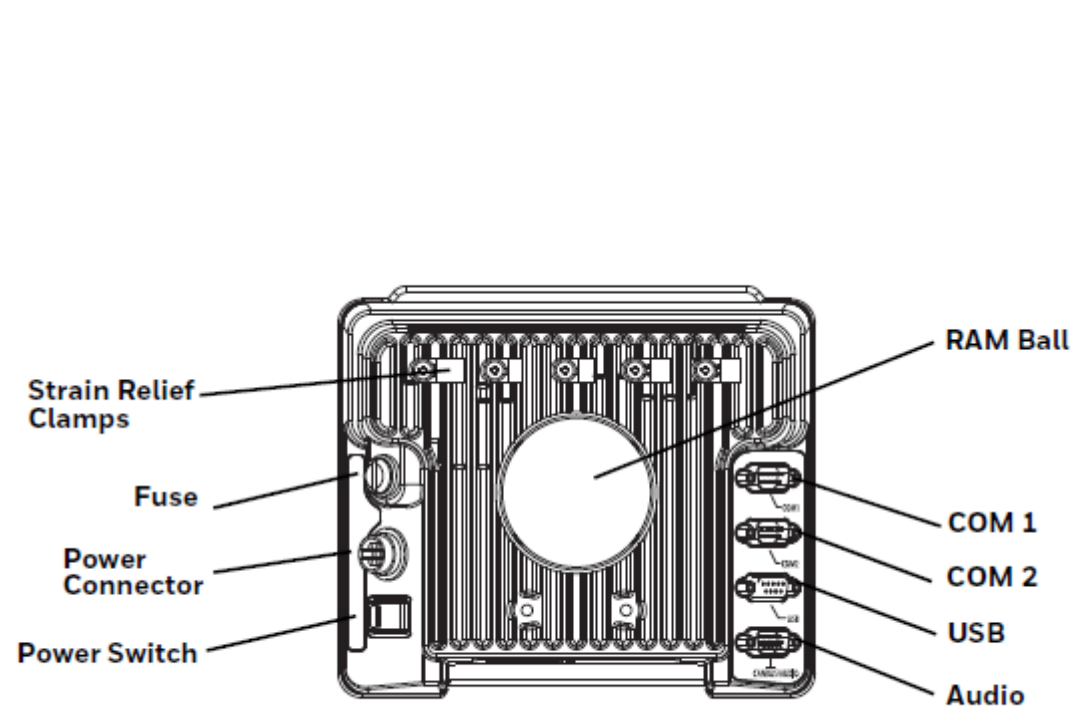


VM1001VMCRADLE

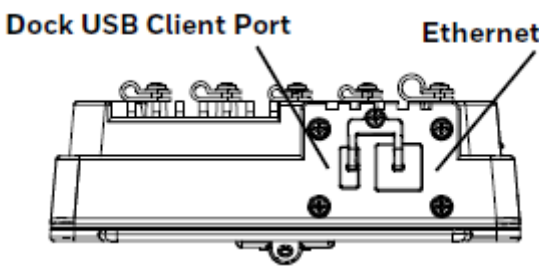
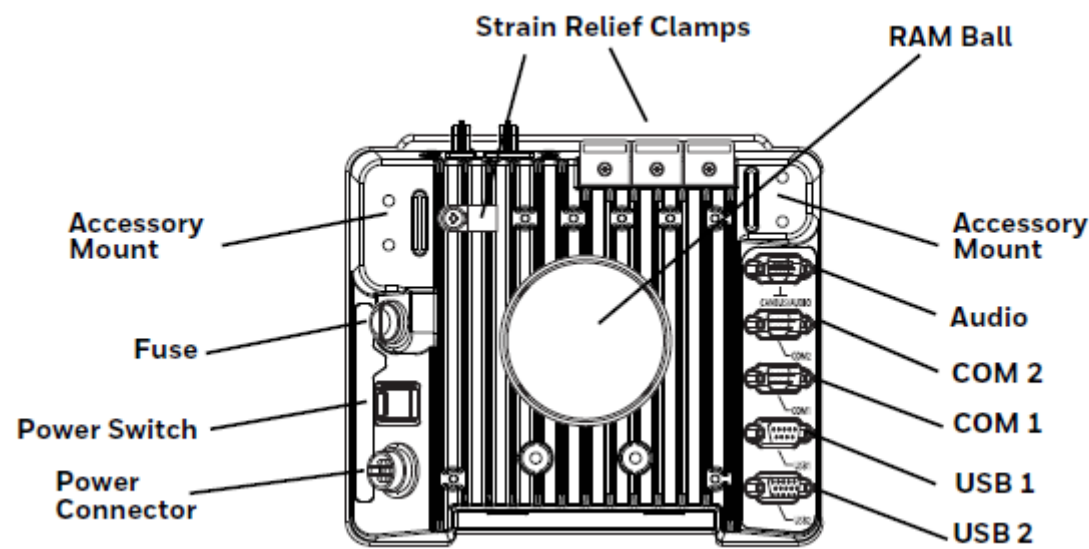


VM3001VMCRADLE

THOR VMCRADLE CHOICES



Standard Thor Dock



Enhanced Thor Dock

MOUNTING KIT COMPONENTS

- **Round Base with “D” size ball is attached to back of VM dock**
 - Base has correct hole pattern to match holes on back of VM dock
 - VM1001RAMBALL, but typically ordered as part of kit
- **Mounting Arm for “D” size balls connects balls on bases**
 - Allows very flexible positioning of VM dock
 - Three different lengths are available (short, medium, long)
- **Base with “D” size ball is attached to fork lift truck**
 - Round, Clamp and Plate bases are included in various kits
 - Other types of base, such as pipe clamp bases, are also available
- **Keyboard mounting kits**
 - These contain additional “C” size mounting parts for keyboards



MOUNTING BASES WITH “D” SIZE BALLS



Round Base

- Typically bolted to FLT
- Included in some mounting kits



Clamp Base

- Clamp around rectangular bar/strut
- Maximum 2.5" width
- Included in some mounting kits



Plate Base

- Typically bolted to FLT
- **Round Base** is attached to plate
- Included in some mounting kits



Pipe Clamp Base

- Clamp around circular bar/strut
- Pipe diameter 1.25" to 1.875"



Pipe Clamp Base

- Clamp around circular bar/strut
- Pipe diameter 2" to 2.5"



Square Base

- Typically bolted to FLT

MOUNTING ARMS FOR “D” SIZE BALLS



Short Arm (5")

- VX89A502RAMARM
- Included in some mounting kits



Medium Arm (8.5")

- VX89A501RAMARM
- Included in some mounting kits















Long Arm (13")

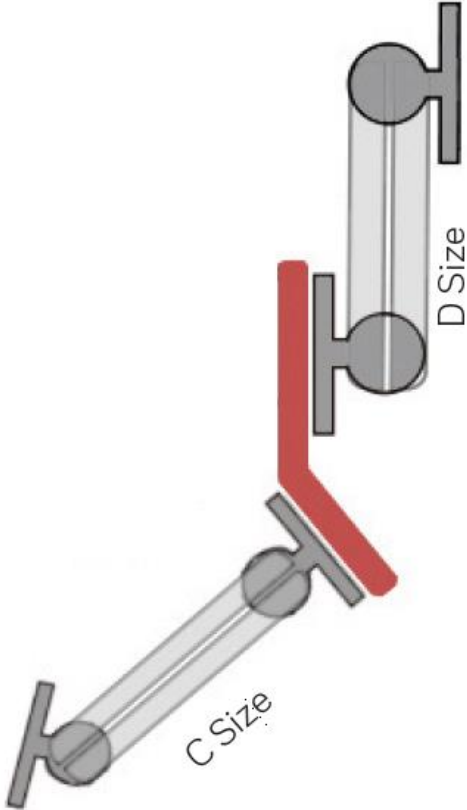
- VX89A503RAMARM
- Included in some mounting kits

MOUNTING KITS WITHOUT KEYBOARD

	Round Base	Clamp Base	Plate Base	
Short Arm 5 in/128mm	<div>VM1001BRKTKIT</div> 	<div>VM1004BRKTKIT</div> 	<div>VM1007BRKTKIT</div> 	
Medium Arm 8.5 in/215mm	<div>VM1002BRKTKIT</div> 	<div>VM1005BRKTKIT</div> 	<div>VM1008BRKTKIT</div> 	
Long Arm 13 in/330mm	<div>VM1003BRKTKIT</div> 	<div>VM1006BRKTKIT</div> 	<div>VM1009BRKTKIT</div> 	
Typical Configuration				

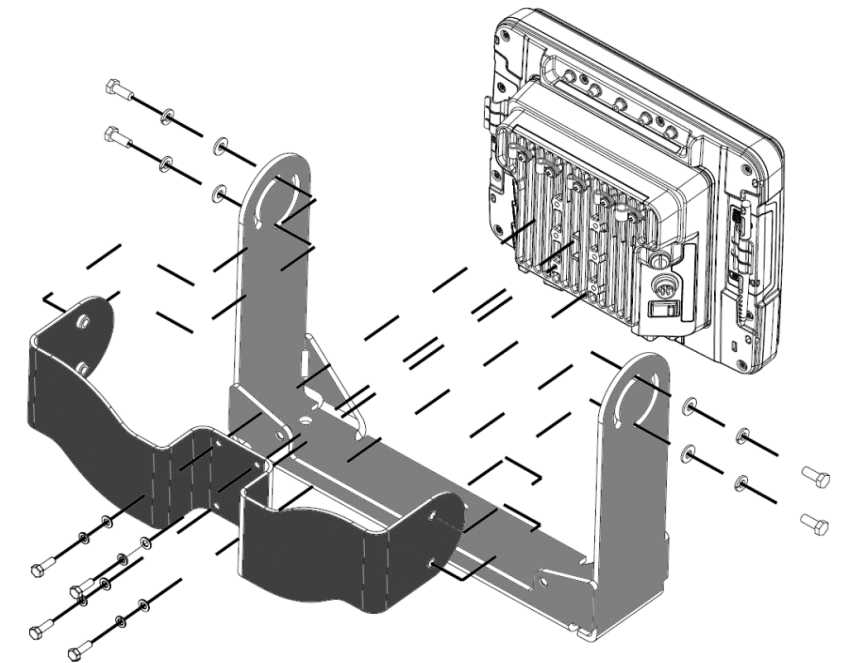
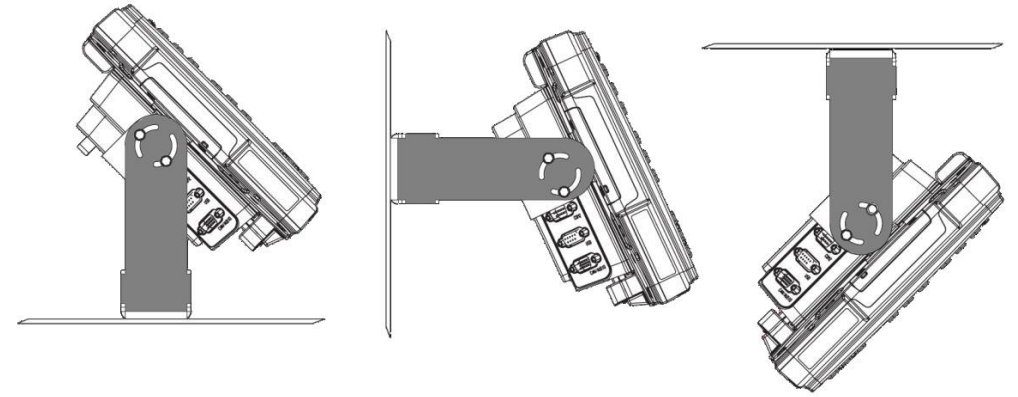
MOUNTING KITS WITH KEYBOARD

	Round Base	Clamp Base	Plate Base
Short Arm 5 in/128mm	<div>VM2011BRKTKIT</div> 	<div>VM2014BRKTKIT</div> 	<div>VM2017BRKTKIT</div> 
Medium Arm 8.5 in/215mm	<div>VM20122BRKTKIT</div> 	<div>VM2015BRKTKIT</div> 	<div>VM2018BRKTKIT</div> 
Long Arm 13 in/330mm	<div>VM2013BRKTKIT</div> 	<div>VM2016BRKTKIT</div> 	<div>VM2019BRKTKIT</div> 
Typical Configuration			



U BRACKET MOUNTING

- Alternative to Ball & Arm Mounting Kits
- VM1010BRKTKIT



THOR DC POWER

- **Power Cables & Fuses**

- VM1055CABLE is the Thor DC power cable
- VM3055FUSE is the Thor DC in-line fuse kit
- VM3054CABLE combines VM1055 + VM3055



VM1055CABLE



VM3055FUSE



VM3054CABLE

- **What is included with docks?**

- VM1001VMCRADLE comes with VM1055CABLE (cable but no fuse kit)
- VM3001VMCRADLE comes with VM3054CABLE (cable plus fuse kit)
- Other dock kits may have different or no power cables

- **DC-DC Converter**

- Thor VM docks can handle input voltage in range 10 to 60 VDC
- DC-DC converter 9000313PWRSPLY required if DC voltage is higher (60 to 150 VDC)



9000313PWRSPLY

THOR AC POWER

- **For desktop/support use on mains power**
 - VM1302PWRSPPLY is the Thor mains power supply
 - VM1078CABLE is the Thor power supply adapter cable (connects VM1302PWRSPPLY to dock)
 - 77900507E is the UK mains power cord for the power supply



VM1078CABLE



VM1302PWRSPPLY



77900507E

RT10 DOCK CHOICES

- **RT10-VC**
 - Vehicle cradle providing power only
 - 3 pin power connector for bare wires, 9-36VDC
- **RT10-VD**
 - Same as RT10-VC with addition of comms ports (4 x USB, 1 x Serial, 1 x Ethernet, 1 x GPS)
 - Serial ports are not compatible with Granit scanners as it does not provide power on pin 9
- **RT10-EVC**
 - Enhanced vehicle cradle providing power only
 - Thor power connector for Thor DC cable, 10-60VDC, includes RT10-IGNITION-CABLE
 - Thor power cable not included, order cable such as VM1055CABLE or VM3054CABLE
- **RT10-EVD** (*best choice for use with tethered Granit scanners with serial cables*)
 - Same as RT10-EVC with addition of comms ports (2 x USB, 2 x Serial, 1 x D9 USB for rugged keyboard, 1 x Ethernet)
 - Serial ports are compatible with Granit scanners as they both provide power on pin 9

RT10 DOCK CHOICES

Choose between Power Only Cradles or Vehicle Dock with I/O Communications.



PART NUMBER	DESCRIPTION
RT10-VC	Vehicle Cradle - Power Only . 3-pin terminal block 9-36V power supply. Easy insert and release with key-lock.



PART NUMBER	DESCRIPTION
RT10-VD	Vehicle Dock, 3-pin terminal block 9-36V power supply. (RS232 port NOT compatible with Granit, use RT10-EVD) Easy insert and release with key-lock. Ports: 4x USB-A, 1x RS-232, 1x RJ45 Ethernet, 1x GPS antenna



PART NUMBER	DESCRIPTION
RT10-EVC	Enhanced Vehicle Cradle - power only. VM compatible 10-60V power supply. Easy insert and release with key-lock, includes RT10-IGNITION-CABLE adapter cable which directs power to all RT10 Docks on forklifts with no separate ignition control.



PART NUMBER	DESCRIPTION
RT10-EVD	Enhanced Vehicle Dock. VM compatible 10-60V power supply. Easy insert and release with key-lock. Ports: 2x USB-A, 2x RS-232, 1x D-9 USB, RJ45 Ethernet, includes RT10-IGNITION-CABLE adapter cable which directs power to all RT10 Docks on forklifts with no separate ignition control. COM1/ COM2 RS232 Port provides +5V DC (500mA max) on Pin 9 and is compatible with Granit Scanners

RT10 DOCK MOUNTING

- **Back of RT10 docks use VESA mounting pattern**
 - Requires RT10-MNT-RAM instead of VM1001RAMBALL
- **Apart from that, mounting is same “D” size RAM kit**
 - Two kits that include keyboard mounting
 - RT10-201**2**BRKTKIT RAM mount kit, keyboard, **Round** Base, Medium arm 8.5inch
 - RT10-201**5**BRKTKIT RAM mount kit, keyboard, **Clamp** Base, Medium arm 8.5inch
 - Otherwise build from parts e.g. for install without keyboard:
 - RT10-MNT-RAM for back of RT10 dock (specific to RT10 docks)
 - VX89A501RAMARM medium RAM arm (same as used with Thor)
 - VX89A031RAMBALL clamp base (same as used with Thor)



EXTERNAL KEYBOARDS

- 9000160KEYBOARD experiencing very long lead times
- Honeywell have launched two replacements
 - **340-053-003-DB9**: Keyboard, no integrated pointing device
 - **340-053-003-DB9P**: Keyboard with integrated pointing device
 - 101 keys
 - 12 function keys
 - Integrated backlighting
 - Integrated force sensing resistor pointing device
 - Microsoft® Windows™ function keys
 - Slim, compact design
 - Cleanable and sealed
 - Storage temp: -40°C to 90°C (-40°F to 194°F)
 - Operating temp: -40°C to 70°C (-40°F to 158°F)
 - Compatible with the Thor VM1A, VM3, VM3A, and RT10 (when docked on RT10-EVD), they connect with a USB DB9. Both keyboards support Windows® and Android™.



9000160KEYBRD (no longer recommended)



340-053-003-DB9



340-053-003-DB9P

GRANIT XP **ULTRA RUGGED SCANNERS**



All scanning done within arm's length

- e.g. Shipping, Sorting, Assembly Line
- **Granit™ XP 1990/1iSR**



Snappy scanning from close up to DC top rack**

- e.g. Material handling, pallet jack, lift truck picking
- **Granit™ XP 1990/1iXR**



Maximum scan distance needed*

- e.g. Scan product label from forklift truck, high rise pallet picking
- **Granit™ XP 1990/1iXLR**

Family of purpose-built solutions optimized for price/performance

*13 mil to 2.9m (9.5'), 55 mil codes to 13.7M (45'), 100mil to 25m (81')

**13 mil to 1.5m (5'), 100 mil codes up to 10m (33')

SCANNER MOUNTING



TOOLBAL

- Take up reel/tool balancer
- Retractable line and hook



VMHOLDER2K VMHOLDER3K / VMHOLDER4K

- VMHOLDER2K Vehicle Mount holder
- Mounted on RAM "B" arm with base:
 - VMHOLDER3K – round base
 - VMHOLDER4K – clamp base

EXAMPLE SKU LIST

- Here is one example for VM1A for indoor use with Granit scanner and tool balancer
- More examples can be found in Configuration Guides for VM1A, VM3A/W & RT10

SKU	Description
VM1A-L0N-1A4A20E	VM1A with indoor screen and internal antennas
VM1001VMCRADLE	VM Standard Dock with DC power cable
VM3055FUSE	Fuse kit for dock (assuming DC power supply from forklift has no fuse)
VM1002BRKTKIT	RAM mount kit with ball for back of dock, medium arm and round base for bolting to forklift
1990IXLR-3SER-R	Granit XP 1990i XLR scanner kit with serial cable
VMHOLDER2K	Holder cup for scanner
VMHOLDER3K	RAM mount kit for scanner cup with ball for back of cup, arm and round base



INTRODUCING

SCANPAL EDA10A

10" ANDROID TABLET

SCANPAL™ EDA10A

The Honeywell ScanPal EDA10A tablet is a **rugged, yet lightweight** tablet for mobile business users who need fast, reliable mobile data access on a **high-resolution, 10-inch screen**. Featuring **5G cellular*** and **Wi-Fi 6** communications, the EDA10A provides high-speed connectivity indoors and out for users in retail, logistics, warehouse and field service.



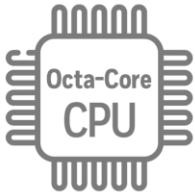
- Lightweight yet rugged
- Reliable and robust wireless connectivity
- High scanning performance and capabilities
- Extensive accessory offering and easy setup
- Android 12 with at least one upgrade

Notes:

- WWAN / cellular is not supported in North America. Only Wi-Fi SKUs are available
- Android 14 is planned, subject to confirmation of feasibility
- For a list of AER validated rugged devices, please visit <https://androidenterprisepartners.withgoogle.com/>
- Android, Bluetooth, Google, Gorilla Glass, Qualcomm, Snapdragon are trademarks or registered trademarks of their respective owners

EDA10A TABLET KEY FEATURES

ENHANCED PERFORMANCE



Big Capacity Battery
8000mAh
12 Hours +
Hot Swappable
Removable
Fast Charging 2.5 Hours

SEAMLESS CONNECTIVITY



LIGHTWEIGHT YET RUGGED



Lightweight: Gorilla Glass 5

674 gram
11.7 mm



Drop:

1.3 m (4.3 ft)
drop to concrete per
MIL-STD-810H

2.0 m (6.6 ft)
With optional boot



Vibration:

MIL-STD-810G,
Method 514.6,
Procedure I

EASY TO USE



User Friendly:

No tools
Easy-access scan button
Accessory compatibility



Glove supported

Wet Hand supported

Oily Hand supported

Perfect balance of cost and reliable Honeywell performance

Honeywell

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