Owner's Manual
Havis Docking Station
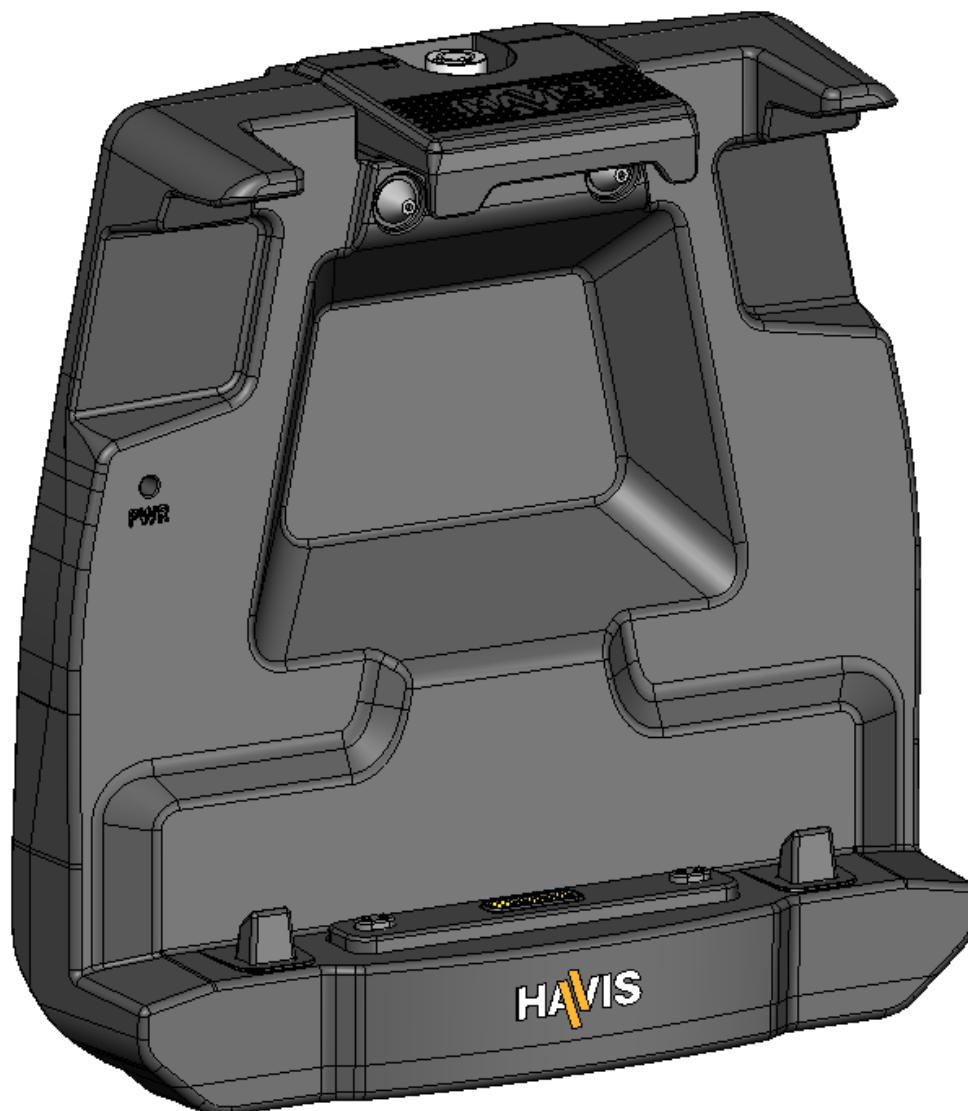# For Dell Latitude 7230 Rugged Extreme Tablet

DS-DELL-900 Series

DS-DELL-901

DS-DELL-901-4

DS-DELL-902

DS-DELL-902-4

DS-DELL-903

DS-DELL-903-4

DS-DELL-904

DS-DELL-904-4

DS-DELL-907

DS-DELL-907-4

Before Beginning

Havis is pleased to provide this Owner's Manual to aid in the proper installation and use of the DS-DELL-900 Series Docking Station for the 7230 Latitude Rugged Extreme Tablet
For questions regarding the set-up of your DS-DELL-900 Series Docking Station, please contact Havis at 1-800-524-9900 or visit www.havis.com for additional product support and information.

This Owner's Manual applies to the following Part Numbers:

DS-DELL-901	DS-DELL-902	DS-DELL-903	DS-DELL-904	DS-DELL-907
DS-DELL-901-4	DS-DELL-902-4	DS-DELL-903-4	DS-DELL-904-4	DS-DELL-907-4

⚠ WARNING

- NEVER STOW OR MOUNT THE DOCKING STATION DIRECTLY IN A VEHICLE AIRBAG DEPLOYMENT ZONE.
- DO NOT USE THE COMPUTER WHILE DRIVING.
- NE JAMAIS PLACER OU MONTER LA STATION D'ACCUEIL DIRECTEMENT DANS LA ZONE DE DÉPLOIEMENT DES COUSSINS GONFLABLES D'UN VÉHICULE.
- NE PAS UTILISER L'ORDINATEUR EN CONDUISANT.

⚠ CAUTION

- READ ALL INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION.
- DO NOT STORE, INSTALL, OR OPERATE THE DOCKING STATION WHERE WATER, MOISTURE, STEAM, DUST, ETC. ARE PRESENT
- FOR THE DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4, DOCKING STATIONS: DO NOT CONNECT DIRECTLY TO VEHICLE VOLTAGE SOURCE: This product requires a certified, automotive grade, Dell/Havis approved power supply with a 19.5 V power output, such as the LPS-185, or an appropriate isolated power supply such as the LPS-186 or LPS-187. Failure to comply with this requirement will cause product damage that is NOT repairable and is NOT covered under warranty.
- LISEZ ATTENTIVEMENT TOUTES LES INSTRUCTIONS AVANT DE PROCÉDER À L'INSTALLATION.
- NE PAS ENTREPOSER, INSTALLER OU UTILISER LA STATION D'ACCUEIL DANS UN ENDROIT OÙ L'EAU, L'HUMIDITE, LA VAPEUR, LA POUSSIERE, ETC. SONT PRÉSENTS.
- POUR LES STATIONS D'ACCUEIL DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4 : NE PAS CONNECTER DIRECTEMENT A LA SOURCE DE TENSION DU VEHICULE : Ce produit requiert un source de courant certifié, de qualité automobile et approuvé par Dell/Havis, pour une puissance de sortie de 19.5 V, comme le LPS-185, ou une alimentation isolée appropriée comme le LPS-186 ou le LPS-187. Le non-respect de ces exigences entraînera des dommages au produit qui ne seront PAS réparables et ne seront PAS couverts par la garantie.

NOTICE

- FOR THE DS-DELL-901, DS-DELL-901-4, DS-DELL-902 & DS-DELL-902-4, DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4: DO NOT CONNECT THE TABLET TO MULTIPLE POWER SUPPLIES. PRIOR TO DOCKING THE TABLET INTO THE DOCKING STATION, ENSURE THAT THERE IS NO POWER CABLE ATTACHED TO THE TABLET.

EC DECLARATION OF CONFORMITY in accordance with EN 50498

Manufacturers Name: Havis, Inc.
Manufacturers Address: 75 Jacksonville Road, Warminster, PA 18974 USA
Declares under our sole responsibility that the product:
   Product name: Havis Docking Station For 7230 Latitude Rugged Extreme Tablet
   Model: DS-DELL-90X, where 'X' may be any alphanumeric character which describes product options.
                      May be followed by any alphanumeric characters which describe product options.
   Product Options: This declaration covers all options of the above product which bear the CE Marking.
Is in conformity with the following standards or other normative documents:
   Automotive EMC Directive   EN 50498:2010, Electromagnetic compatibility (EMC) -
   2004/108/EC: Product family standard for aftermarket electronic equipment in vehicles
   Directive 2011/65/EU   Restriction of the use of certain hazardous substances (RoHS)
Supplementary Information:
The product herewith complies with the requirements of the Automotive EMC Directive 2004/108/EC, Annex I, 6.5, 6.6, 6.8, and 6.9. This product requires the use of a recommended e-Marked automotive power supply when used within vehicles.

Warminster, PA, USA   December 4, 2017   Bruce Jonik, Director of Engineering , Havis, Inc.

FCC 47CFR, Part 15 compliance: This is an FCC Class B device. Any changes or modifications to the model DS-DELL-90X-(X) not expressly approved by Havis, Inc. could void the user's authority to operate this equipment.
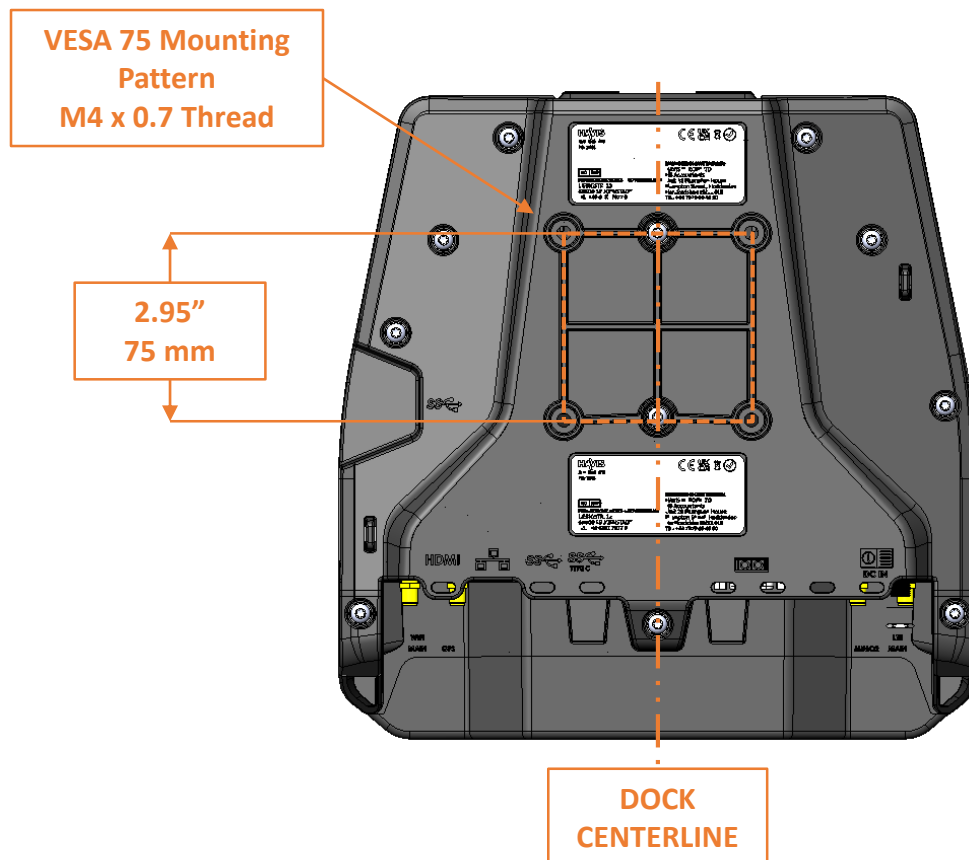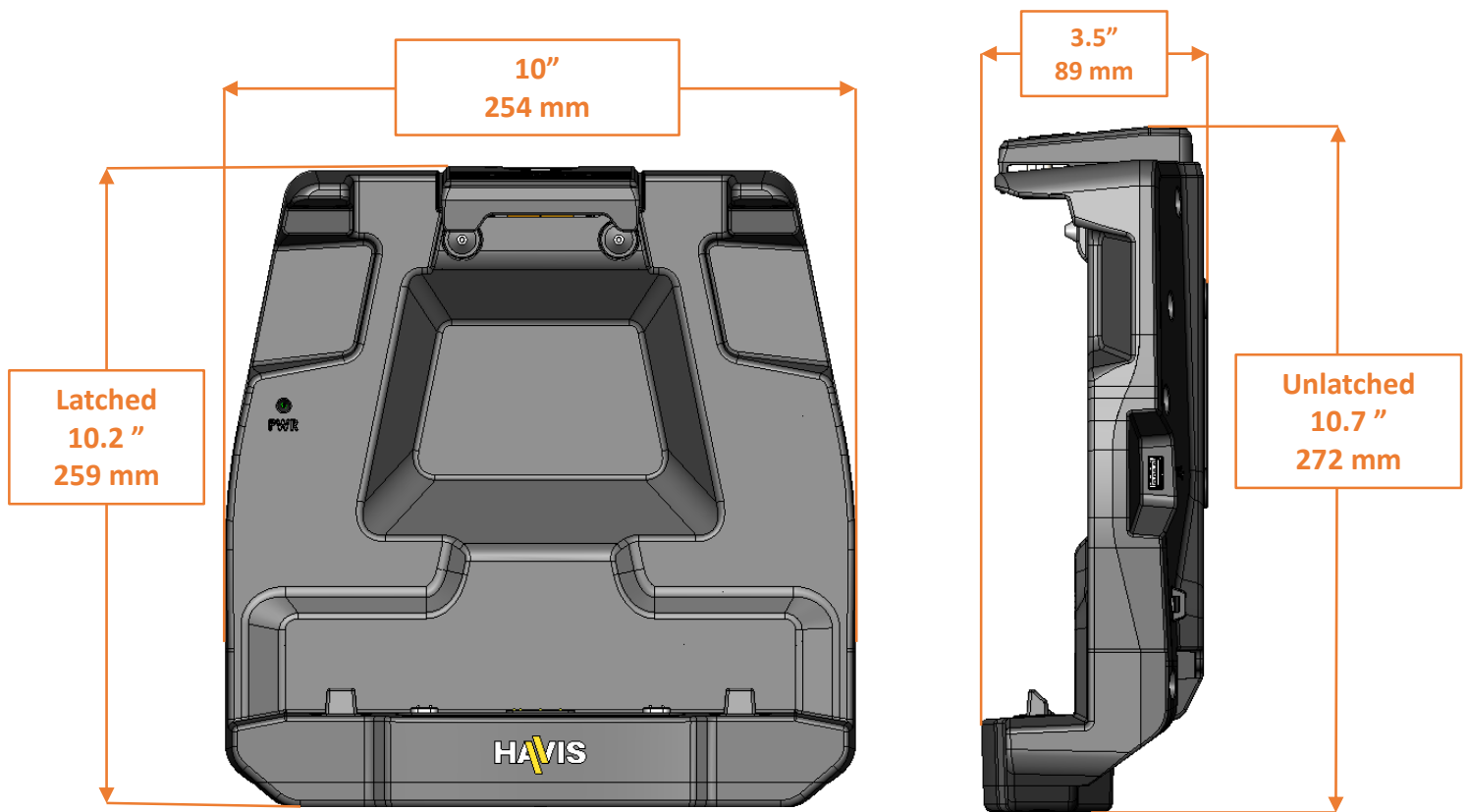
Table of Contents

Precautions

- Do not place metal objects or containers of liquid on top of the Docking Station
- If a malfunction occurs, immediately unplug the power cable and remove the tablet
- Use only Dell/Havis approved power cables and power supplies with this Docking Station
- Do not connect cables into ports other than what they are specified for
- Do not leave the Docking Station in a high temperature environment (greater than 85°C, 185°F) for a long period of time
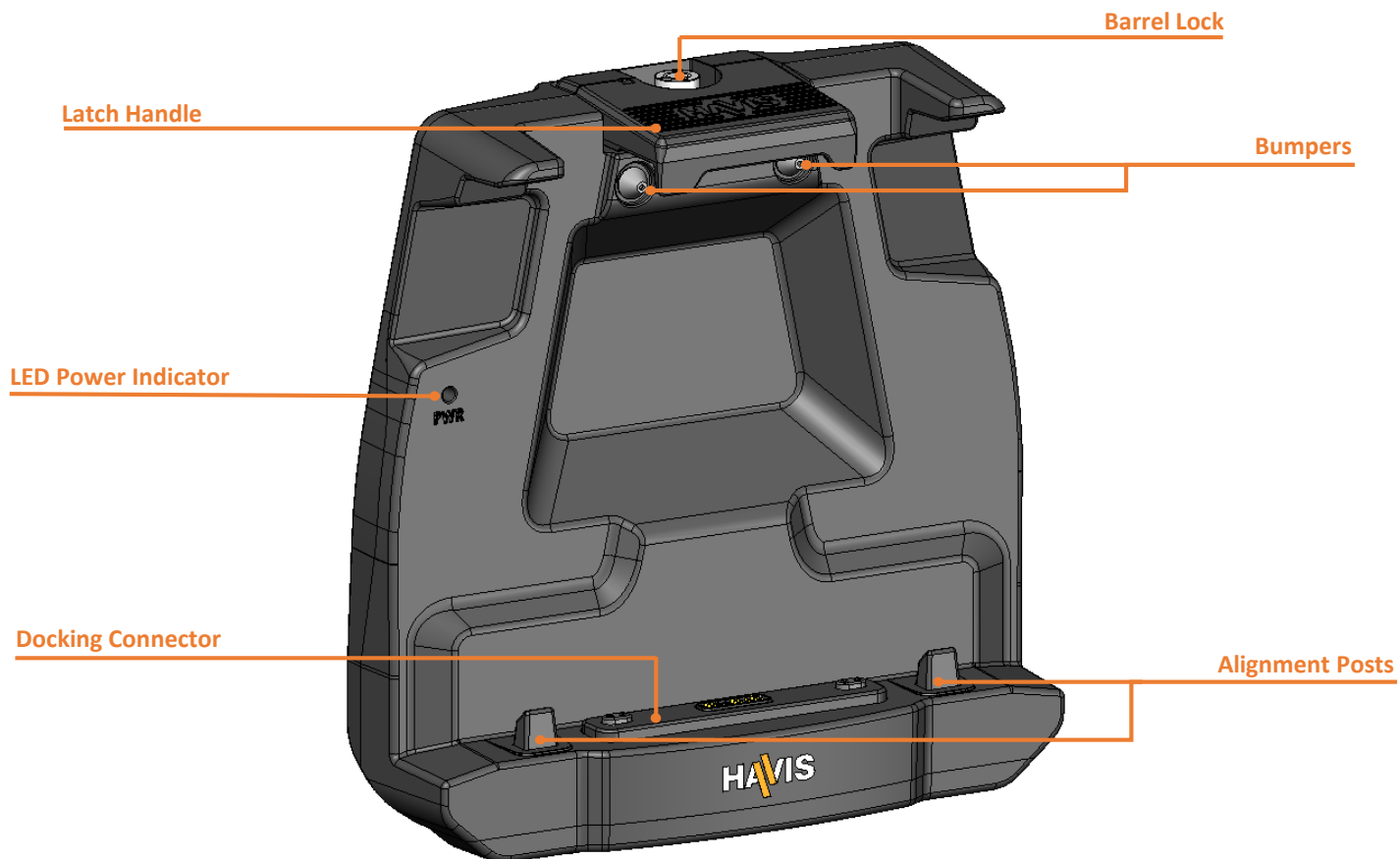- Do not attempt to dock the tablet backwards, or damage may result (See page 12)

Specifications

	Configuration	Description	Power Options	Dock Voltage Requirement
Docking Station Information	DS-DELL-901 DS-DELL-901-4 DS-DELL-902 DS-DELL-902-4	Standard Electronics with Internal Power Supply Standard Electronics with Internal Power Supply and Quad RF Advanced Electronics with Internal Power Supply Advanced Electronics with Internal Power Supply and Quad RF	DS-DA-339 Power Cable	12 VDC IN NOM (9-36 VDC-in)
	DS-DELL-903 DS-DELL-903-4	No Electronics No Electronics with Quad RF	None	None
	DS-DELL-904 DS-DELL-904-4 DS-DELL-907 DS-DELL-907-4	Standard Electronics Standard Electronics with Quad RF Advanced Electronics Advanced Electronics with Quad RF	External Power Supply	19.5 VDC IN NOM
Dimensions	10.2" (25.9 cm) H x 10" (25.4 cm) W x 3.5" (8.89 cm) D			
Weight	2.75 lbs. (1.25 kg)			
Operating Environment	-30° C to 63° C (-22° F to 145° F)			
Storage Environment	-40° C to 85° C (-40° F to 185° F)			

Specifications

10"
254 mm

3.5"
89 mm

Latched
10.2 "
259 mm

Unlatched
10.7 "
272 mm

PWR

HAVIS

VESA 75 Mounting
Pattern
M4 x 0.7 Thread

2.95"
75 mm

HDMI

DOCK
CENTERLINE

Specifications

Barrel Lock

Latch Handle

Bumpers

LED Power Indicator

Docking Connector

Alignment Posts

Strain Relief

VESA 75 Mounting

Side USB Port

Ports

Strain Relief

Antenna Ports (SMA)
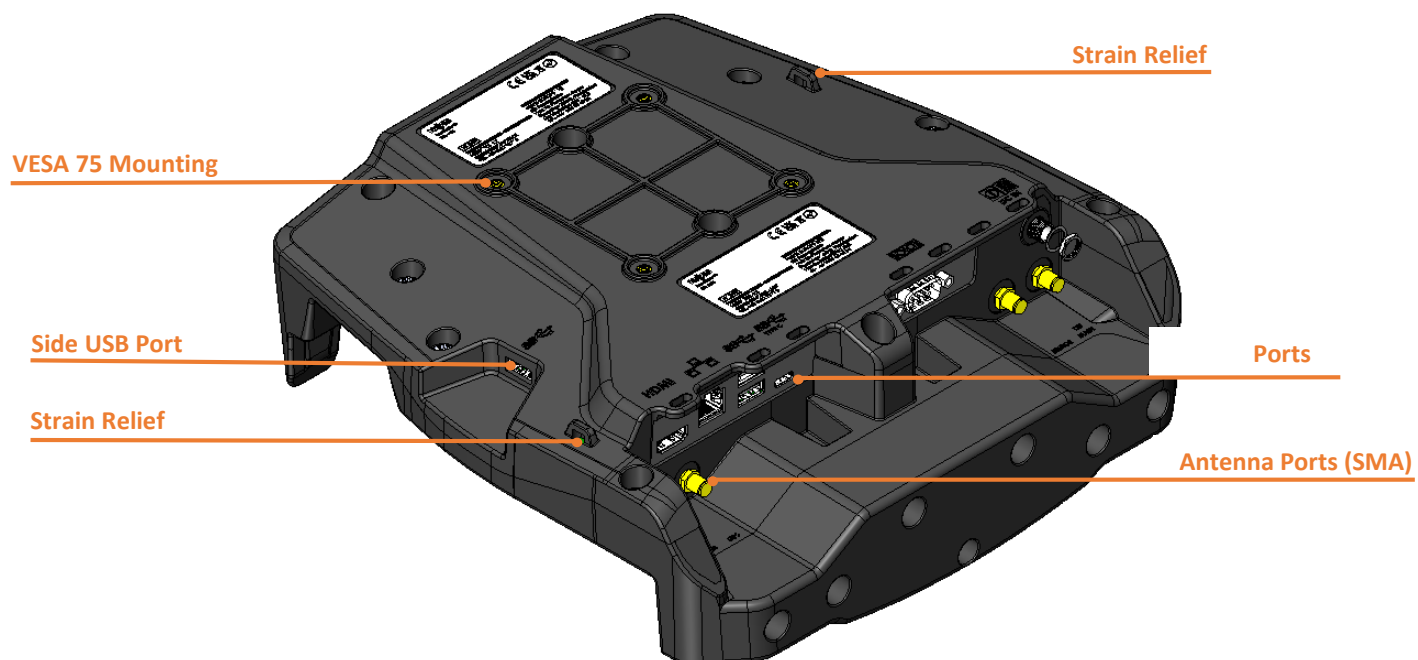
Parts Included *(continued)*

Hardware Kit *(HWK-0031)*

This Hardware Kit includes:
1. Zip Ties (4)
2. Keys (2)
3. M4 x 0.7 x 20mm long Pan Head Screws (5)
4. Split Lock Washers (5)
5. Washers, M4 (5)

Tools required for installation:
- #2 Phillips (For M4 Pan Head Screws)

① ② ③ ④ ⑤
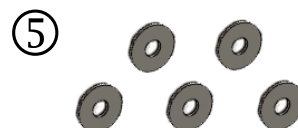
Antenna Identification

DS-DELL-901-4, DS-DELL- 902-4 [SHOWN], DS-DELL-903-4, DS-DELL-904-4, DS-DELL-907-4

LTE MAIN **A** **B** MIM02   GPS **C** **D** WIFI MAIN

Front View of Docking Station

C GPS (SMA)   MIM02 (SMA) **B**

D WIFI MAIN (SMA)   LTE MAIN (SMA) **A**
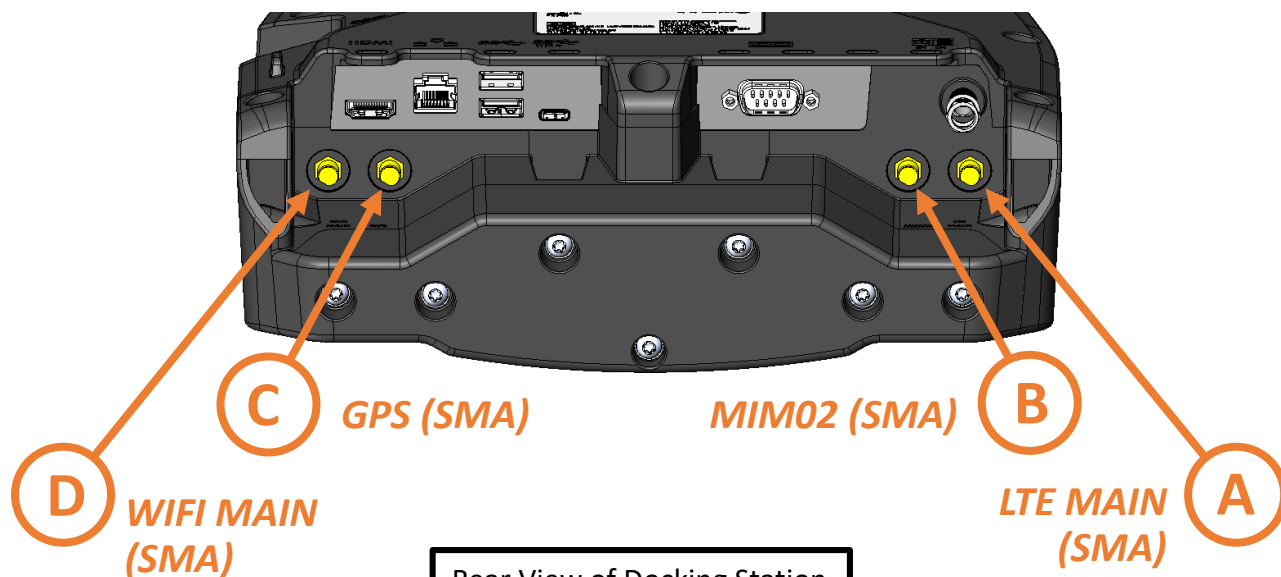
Rear View of Docking Station

Port Replication Capability

Rearward Facing Ports – Advanced Electronics
DS-DELL-902, DS-DELL-902-4 [SHOWN], DS-DELL-907, DS-DELL-907-4

Display Output	Ethernet *RJ45**	USB 3.0 *(2X)*	USB *TYPE-C*	Serial	Power *Input*
HDMI		SS←	SS← TYPE C	IOIOI	DC IN
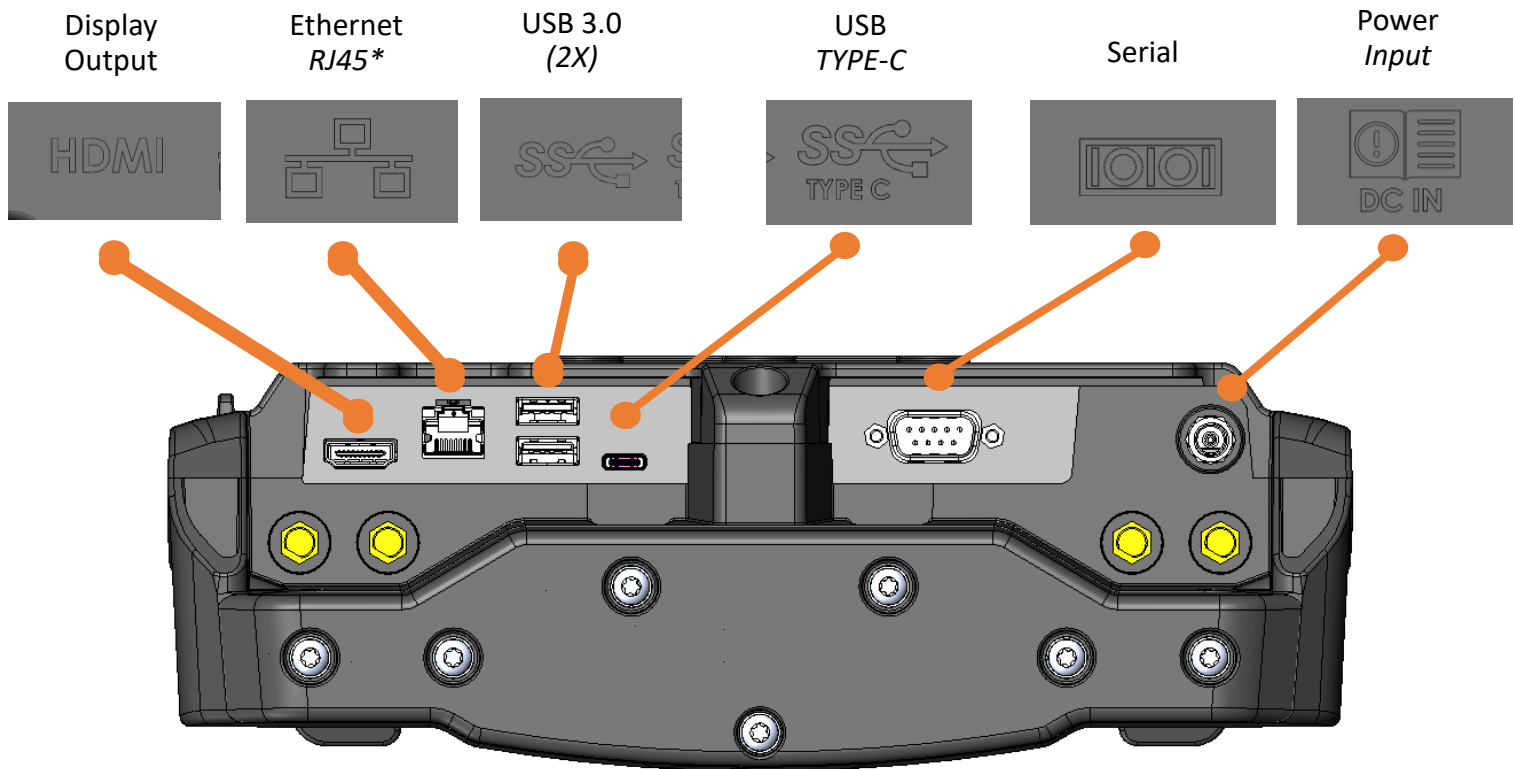
Rearward Facing Ports – Standard Electronics
DS-DELL-901, DS-DELL-901-4 [SHOWN], DS-DELL-904, DS-DELL-904-4

Ethernet *RJ45**	USB 3.0 *(2X)*	USB *TYPE-C*	Serial *5V*	Power *Input*
	SS←	SS← TYPE C	IOIOI	DC IN
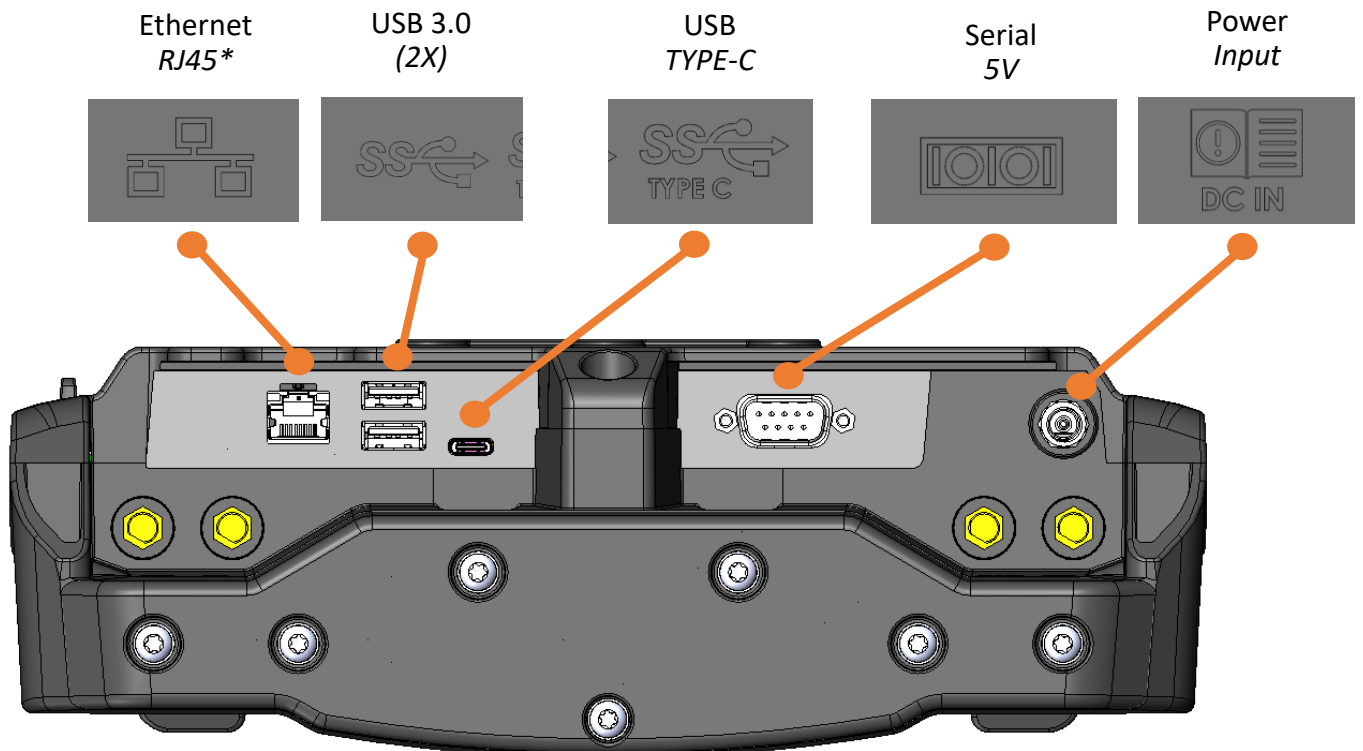
- PXE feature is not supported.
- Wake-On-LAN (WOL) feature is not supported from S4/S5 states.

Port Replication Capability

Side Facing Ports
DS-DELL-901, DS-DELL-901-4, DS-DELL-902, DS-DELL-902-4; DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4
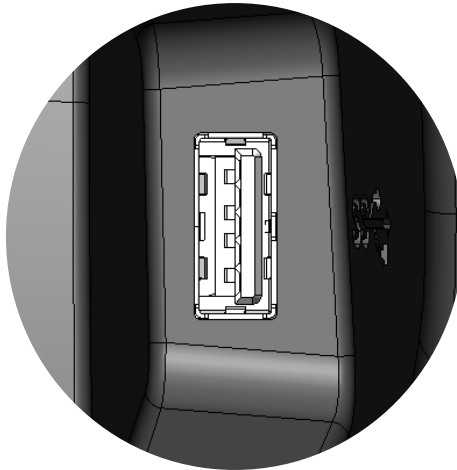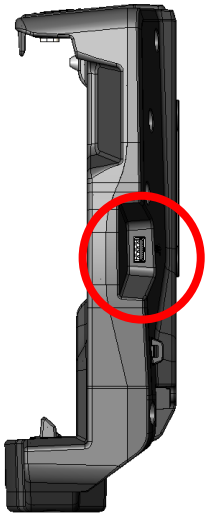
USB 3.0
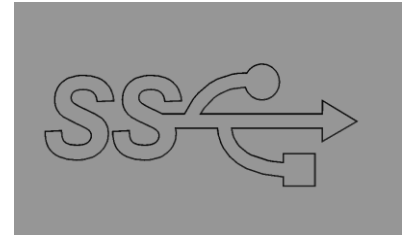
NOTICE

DO NOT CONNECT ANY ADDITIONAL POWER SUPPLY TO THE TABLET WHEN IT IS DOCKED. MULTIPLE POWER SUPPLIES WILL CAUSE DAMAGE TO THE TABLET
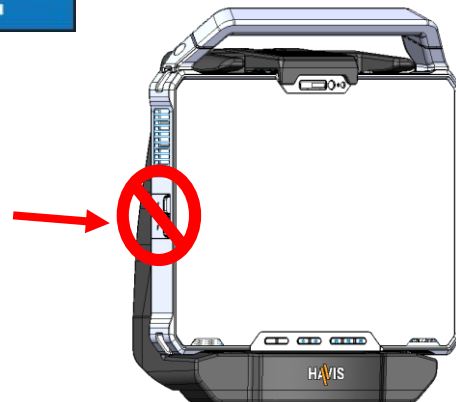
NOTE: THIS DOES NOT APPLY TO THE DS-DELL-903 & DS-DELL-903-4 CONFIGURATION (THESE DO NOT HAVE AN INTERNAL SUPPLY AND NEED TO BE POWERED WITH THE EXTERNAL PORT WHEN DOCKED).

Installation

1. Align Docking Station mounting holes with the hole pattern on mounting device. Use the (4) Pan Head screws with washers and lock washers from the hardware kit (HWK-0031) to fasten the docking station to the motion device (Hardware Kit Items 3, 4, 5). Torque screws to 12-15 in-lbs (1.4-1.7 Nm).

## A) HAVIS In-vehicle mounting system installation (Sold separately)

Hardware Kit Item Numbers
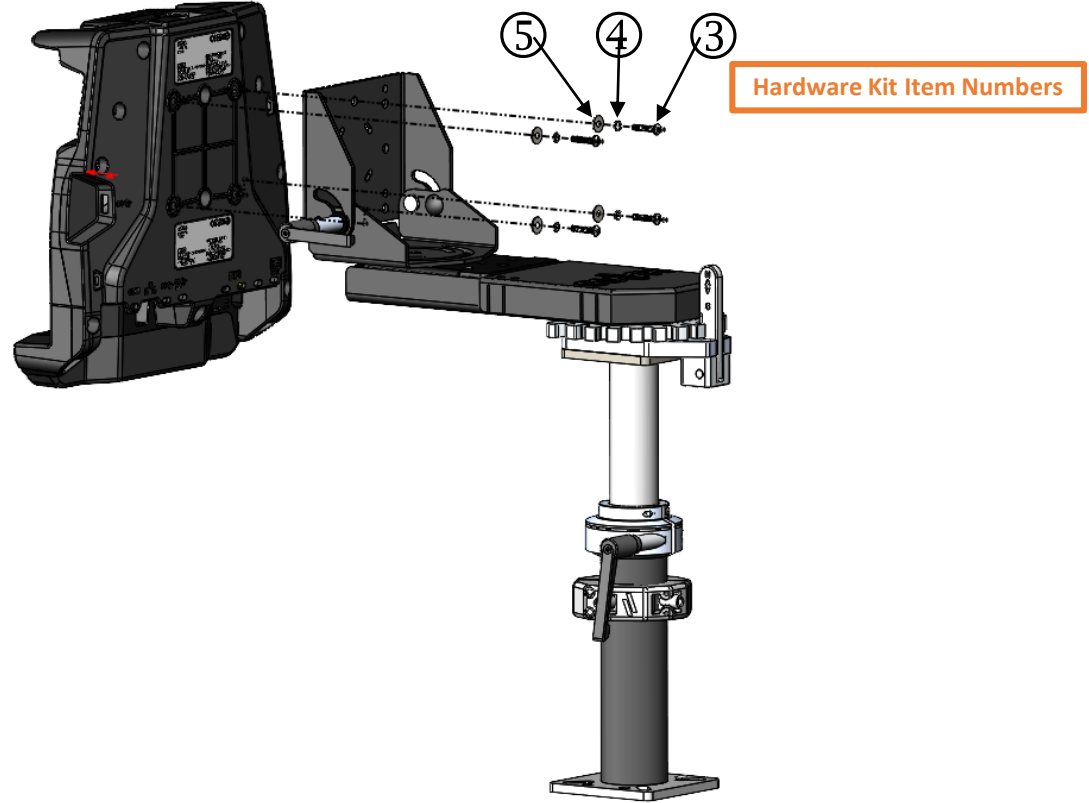
B) HAVIS Desktop Stand installation (Sold separately)

Hardware Kit Item Numbers
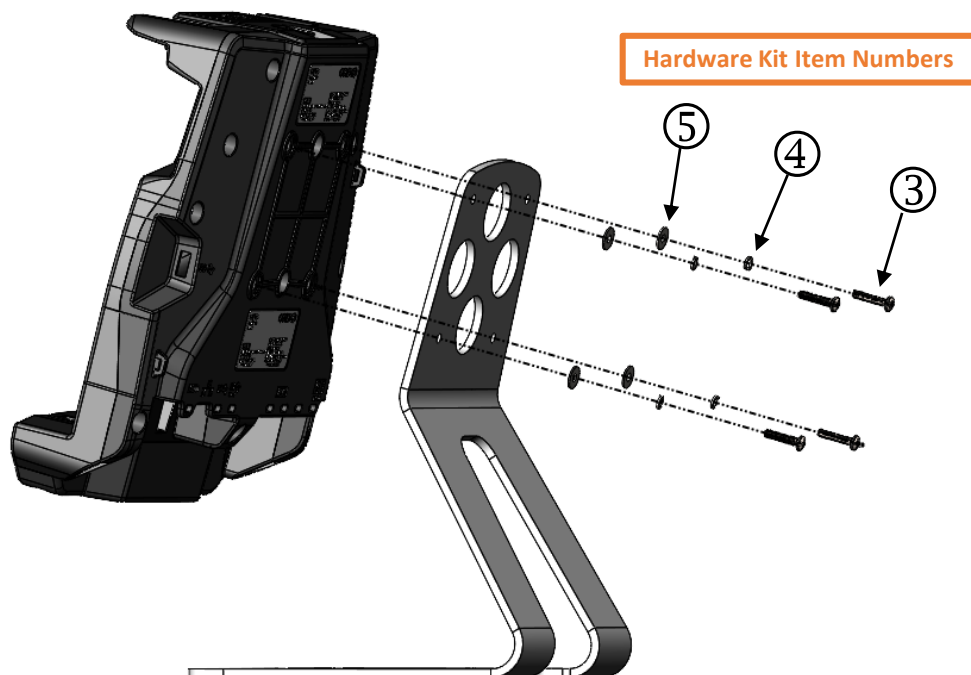
Cable Management

2. Install all of the cables that are necessary for your computing needs. Use zip ties (Hardware Kit Item 1) to strain relieve cables to strain relief points, routing all cables together so they can be attached to the mounting system
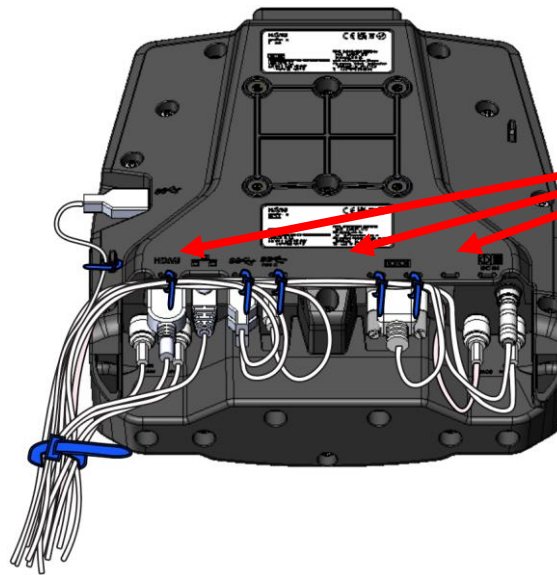
Use as many zip ties as necessary to secure cables

3. Create a service loop with cable bundle to ensure no tension is on the connectors and to enable intended motion.
4. Tie off cables onto a stationary part of the mounting system
    (Mounting system not included with the docking station)
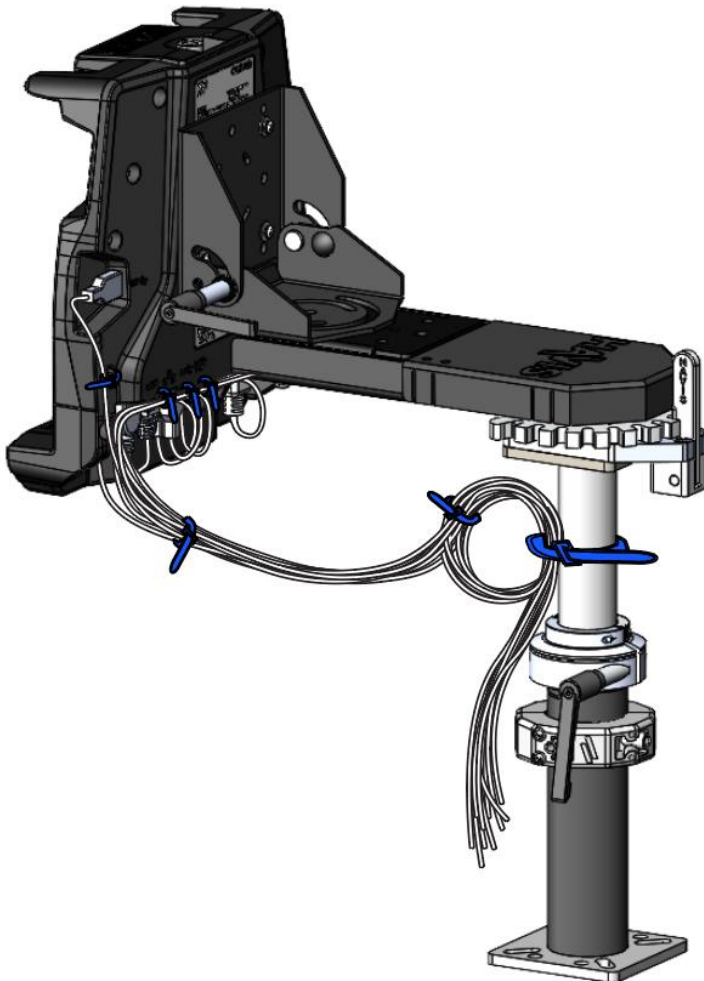
Zip tie cables onto mounting device as shown. Leave additional slack to allow motion device to move freely without stressing cables. Create a service loop if there is excess cable

Power Input Configuration

There are several different power supply options for the DS-DELL-900 Series Docking Station. Below are diagrams showing the power input set up for each specific configuration of the dock.
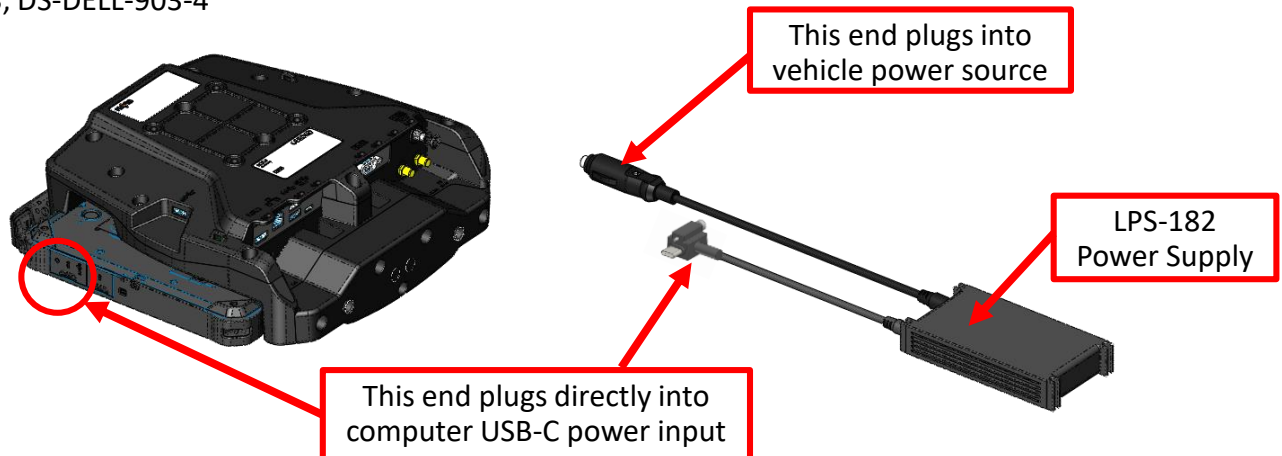
Internal Power Supply Configurations
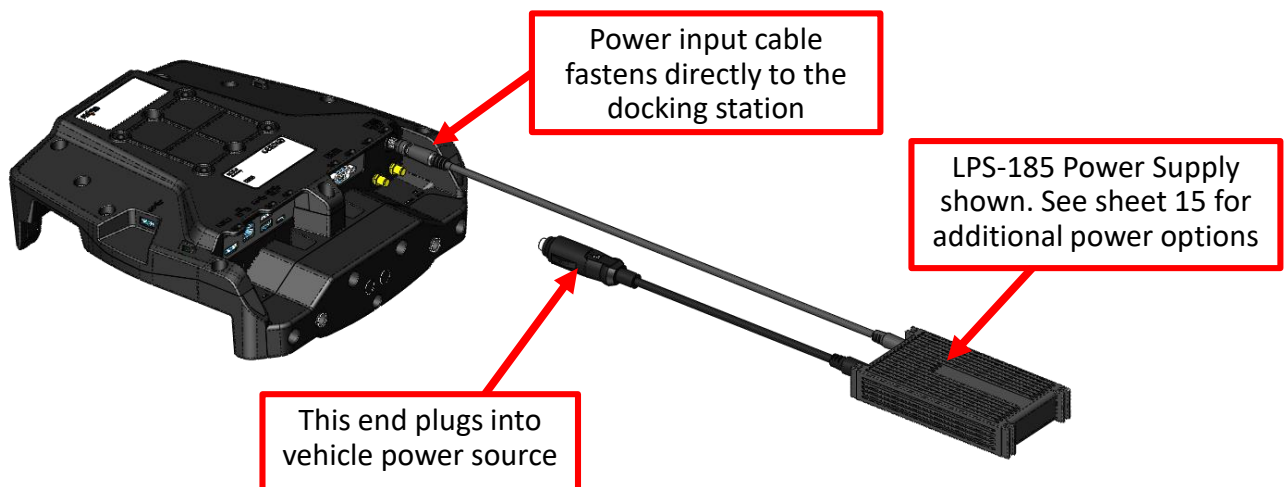DS-DELL-901, DS-DELL-901-4, DS-DELL-902, DS-DELL-902-4

DS-DA-339 power cable fastens directly to the docking station

This end plugs into vehicle power source
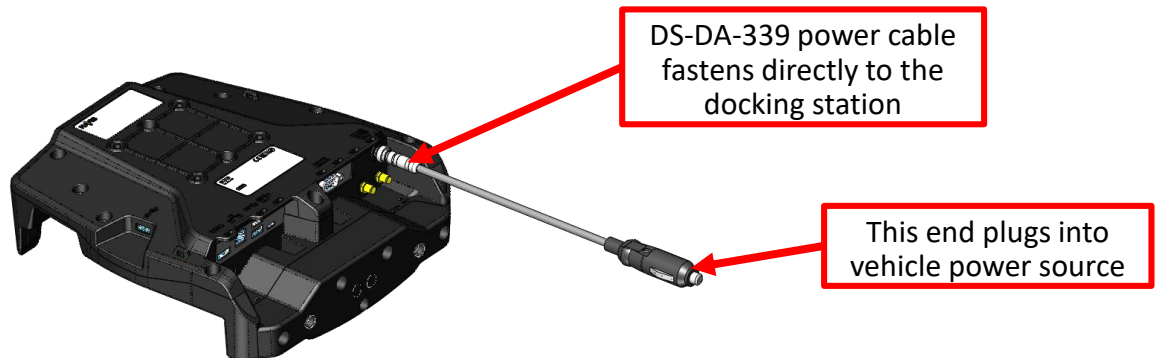
Cradle Only Configurations
DS-DELL-903, DS-DELL-903-4

This end plugs into vehicle power source

LPS-182 Power Supply

This end plugs directly into computer USB-C power input

External Power Supply Configurations
DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4

Power input cable fastens directly to the docking station

LPS-185 Power Supply shown. See sheet 15 for additional power options

This end plugs into vehicle power source
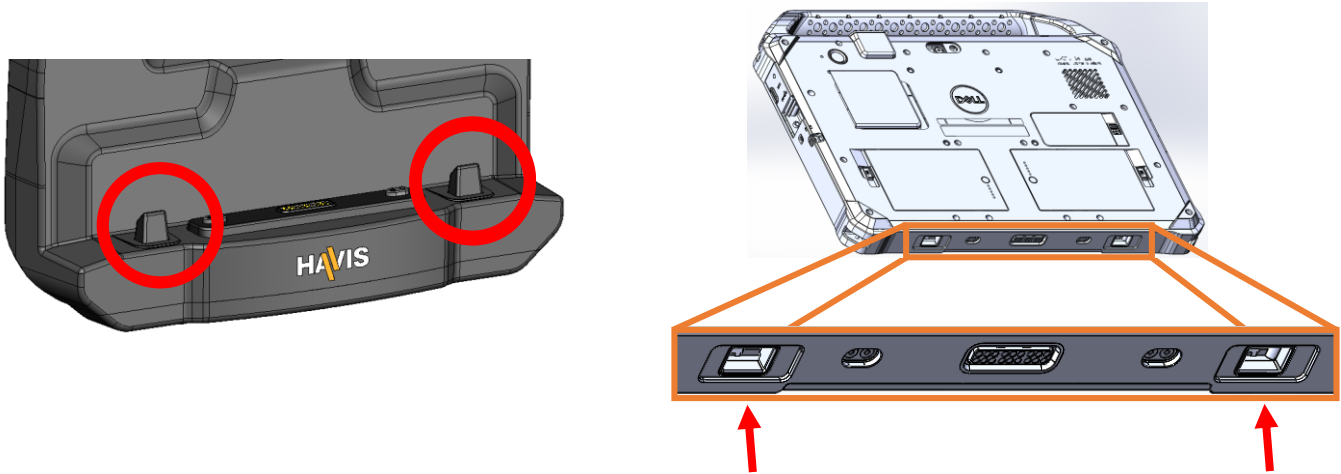
*** For clarity, all input/output power cables are shown shorter than their actual lengths

Operation - Docking

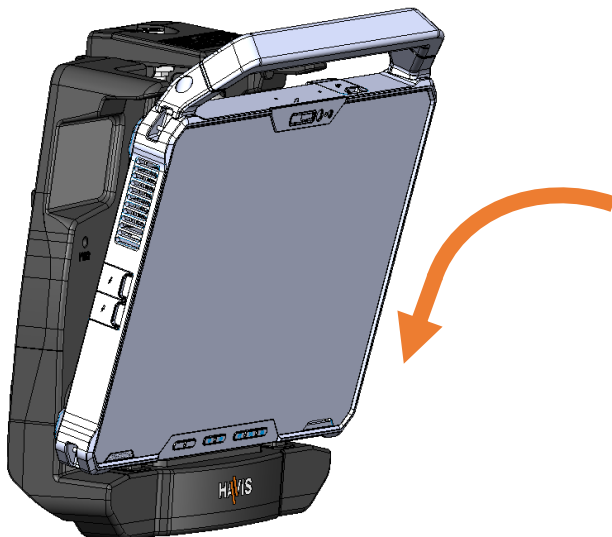1. Ensure docking station is unlatched by pressing the lock button on the top of the docking station.
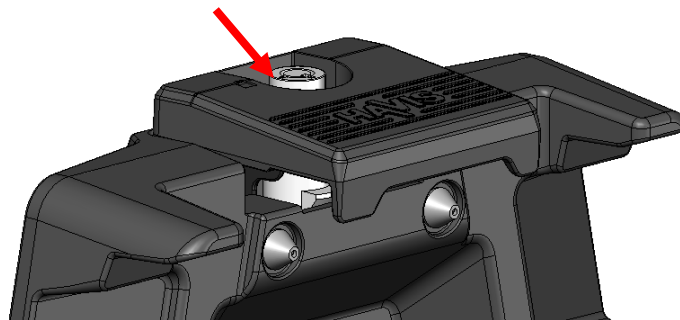
2. Hold the tablet in the landscape orientation, with the bottom side angled towards the docking station. Lower the tablet onto the docking station by aligning the tablet alignment sockets with the alignment posts on the docking station.
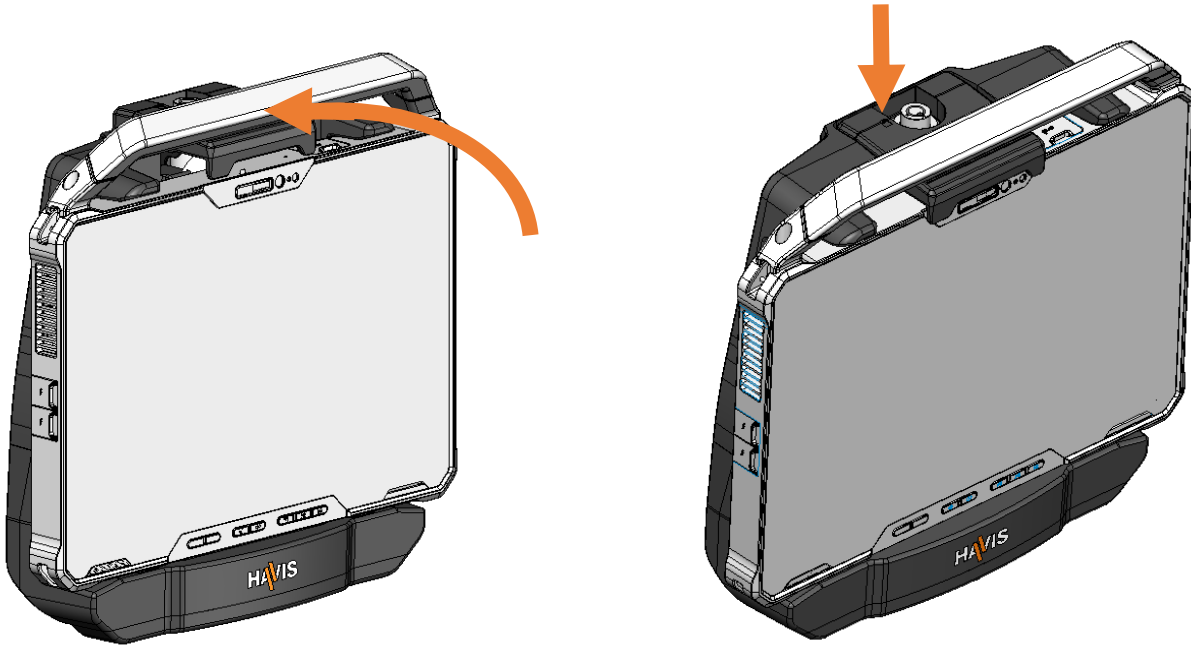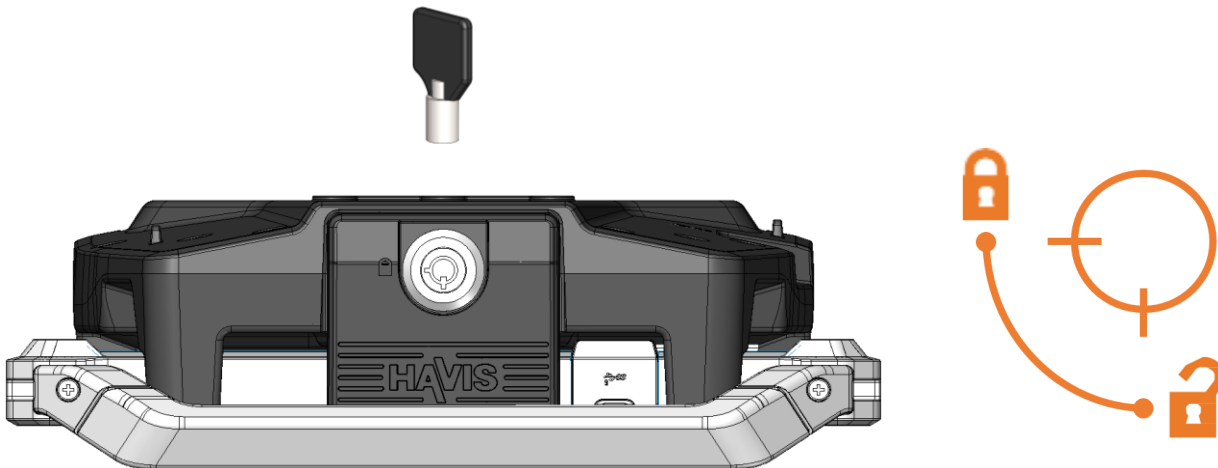
3. Pivot the top of the tablet into the docking station and apply light rearward pressure to the top center of tablet or handle. Apply pressure until the tablet is fully seated. Secure tablet by closing the latch, push downward until you hear the click of the latch which indicates the latch is securely closed.
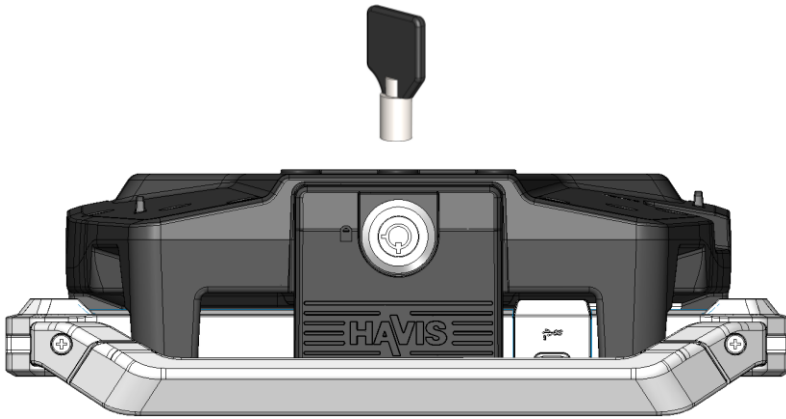

4. For theft deterrence, secure tablet by locking the docking station with the supplied key (Hardware Kit Item 2)
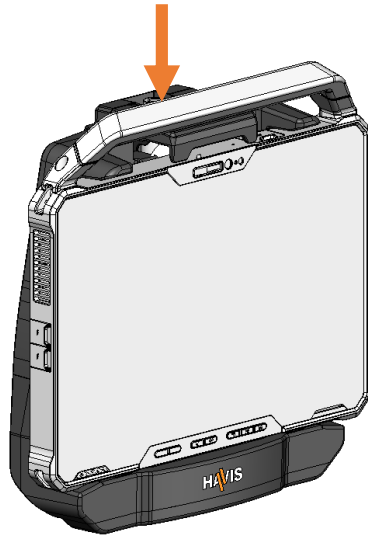
Operation - Undocking

1. If previously locked, unlock Docking Station using the supplied key.

2. While securely holding the tablet, push the lock button on the top of the docking station until the latch hook releases.

3. Once unlatched, remove the tablet by rocking the top of the tablet away from the docking station and carefully lift out of the docking station, top end first.
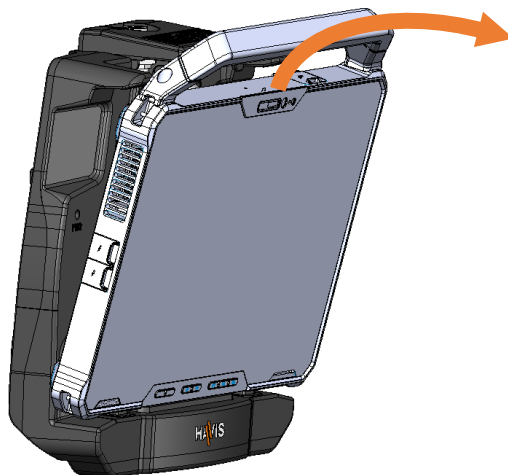
Related Products

Havis offers a wide variety of accessory products specifically for use with your Docking Station. For more information or to order, please visit ***www.havis.com***.

DS-DA-339
Power Cable

Power cable for DS-DELL-901, DS-DELL-901-4, DS-DELL-902, DS-DELL-902-4 Docking Stations.

DS-DA-218
Desktop Stand

Durable stand for mounting the DS-DELL-900 Series Docking Station in the home or office.

DS-DA-502
Replacement Keys

Set of (2) replacement keys for DS-DELL-900 Series Docking Stations

Power Supplies (for DS-DELL-904, DS-DELL-904-4, DS-DELL-907, DS-DELL-907-4)

LPS-185
Power Supply w/Cigarette Input Cable

LPS-186
Isolated Power Supply w/Hardwired Input Cable (12-32VDC)

LPS-187
Isolated Power Supply w/Hardwired Input Cable (20-60VDC)

LPS-188
Isolated Power Supply w/Hardwired Input Cable (70-110VDC)

LPS-181
AC Power Supply w/Hardwired Output Cable

Power Supplies (for DS-DELL-903, DS-DELL-903-4)

LPS-182
Power Supply w/USB-C Power Output Cable