Owner's Manual
Havis Docking Station
For Dell Latitude Rugged Notebooks

DS-DELL-420 Series

DS-DELL-421
DS-DELL-421-3
DS-DELL-422
DS-DELL-422-3
DS-DELL-423
DS-DELL-423-3
DS-DELL-425
DS-DELL-425-3
DS-DELL-426
DS-DELL-426-3
DS-DELL-428
DS-DELL-428-3



Havis, Inc.
75 Jacksonville Road
Warminster, PA 18974

DS-DELL-420-SERIES_OMN_2-23

Before Beginning

Havis is pleased to provide this Owner's Manual to aid in the proper installation and use of the DS-DELL-420 Series Docking Station for the Dell Latitude Rugged Notebooks.
For questions regarding the set-up of your DS-DELL-420 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 Product ID's:

DS-DELL-421	DS-DELL-423	DS-DELL-426
DS-DELL-421-3	DS-DELL-423-3	DS-DELL-426-3
DS-DELL-422	DS-DELL-425	DS-DELL-428
DS-DELL-422-3	DS-DELL-425-3	DS-DELL-428-3

⚠WARNING

- **NEVER STOW OR MOUNT THE DOCKING STATION DIRECTLY IN A VEHICLE AIRBAG DEPLOYMENT ZONE.**
- **DO NOT USE COMPUTER WHILE DRIVING.**

⚠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-421, DS-DELL-421-3, DS-DELL-422, DS-DELL-422-3, DS-DELL-425, DS-DELL-425-3, DS-DELL-426, & DS-DELL-426-3 DOCKING STATIONS: DO NOT CONNECT DIRECTLY TO VEHICLE VOLTAGE SOURCE: This product requires a certified, automotive grade, Dell approved 90W power source rated for a continuous, regulated 19.5VDC output (*Havis Part Number LPS-137 or equivalent*). Failure to comply with this requirement will cause product damage that is NOT repairable and is NOT covered under warranty.**

NOTICE

- **FOR DOCKING STATION MODELS EQUIPPED WITH A BUNDLED POWER SUPPLY (DS-DELL-422, DS-DELL-422-3, DS-DELL-426, DS-DELL-426-3, DS-DELL-428, DS-DELL-428-3) REFER TO THE SUPPLIED LIND POWER SUPPLY REFERENCE GUIDE.**

Precautions

- Do not place metal objects or containers of liquid on top of the Docking Station.
- If a malfunction occurs, immediately unplug the Power Supply and remove the laptop.
- Use only the specified Power Supply (Part # LPS-137, LPS-126, or LPS-127) with this Docking Station, or Internal Power Supply Cable (Part # DS-DA-316) with Internal Power Supply Docking Stations.
- 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 71°C, 160°F) for a long period of time.

Specifications

Power Supply Input/Output	External Power Supply	INPUT	OUTPUT
	LPS-137 DC-DC	12-16V DC-In	19.5V DC
	LPS-126 (Isolated)	20-60V DC-In	19.5V DC
	LPS-127 (Isolated)	12-32V DC-In	19.5V DC
Dimensions	10.60” (26.91 cm) H x 12.40” (31.48 cm) W x 2.73” (6.94 cm) D		
Weight	4.6 lbs (2.08 kg)		
Operating Environment	-20° C to 60° C (-4° F to 142° F)		
Storage Environment	-40° C to 85° C (-40° F to 185° F)		

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 Dell Latitude Rugged Extreme Notebooks
Model: DS-DELL-42X, where ‘X’ may be any alphanumeric character and 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:

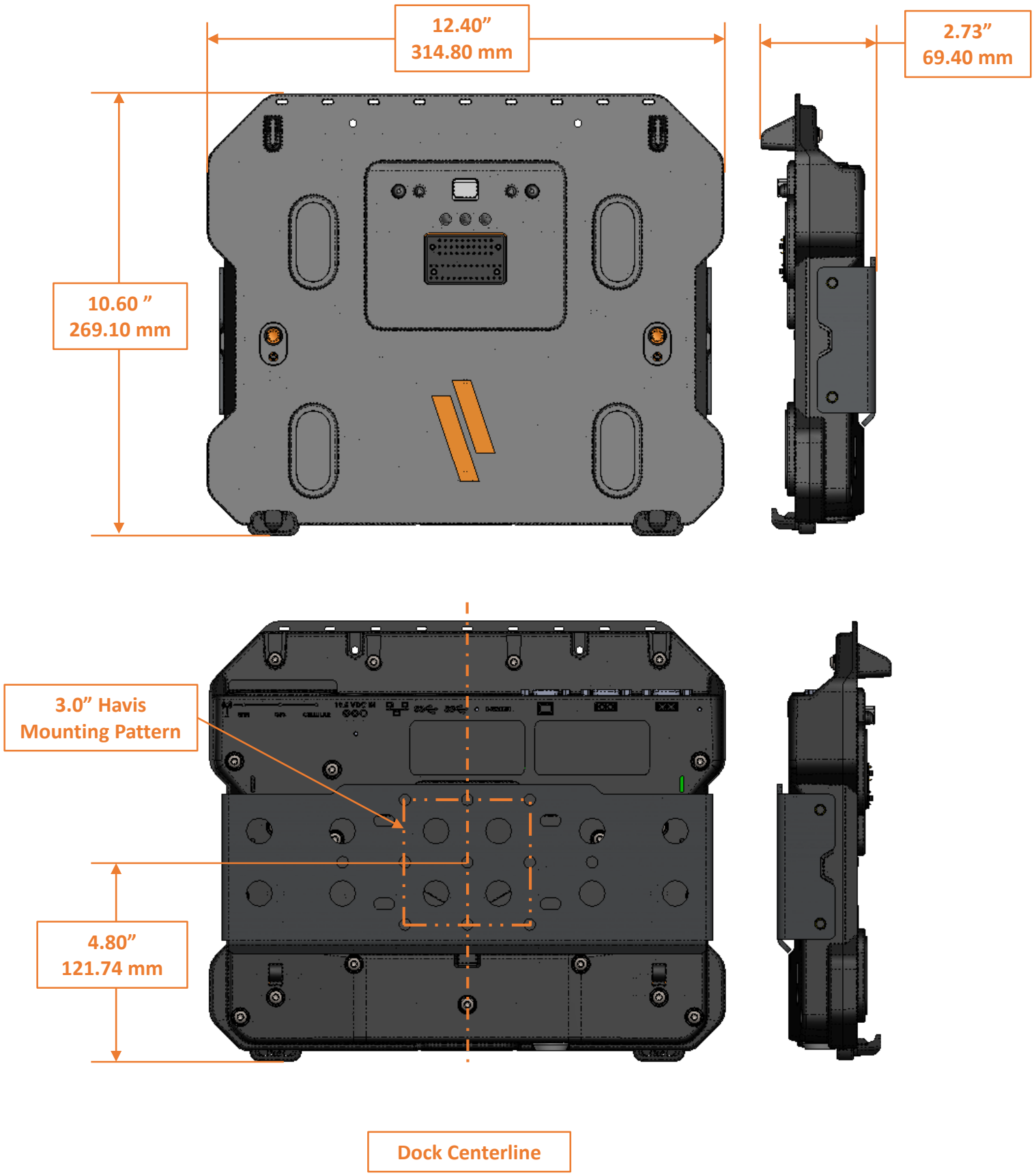
Automotive EMC Directive 2004/108/EC:	EN 50498:2010, Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles
Directive 2011/65/EU	Restriction of the use of certain hazardous substances (RoHS)

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 June 30, 2021 Bruce Jonik, Director of Engineering , Havis, Inc.

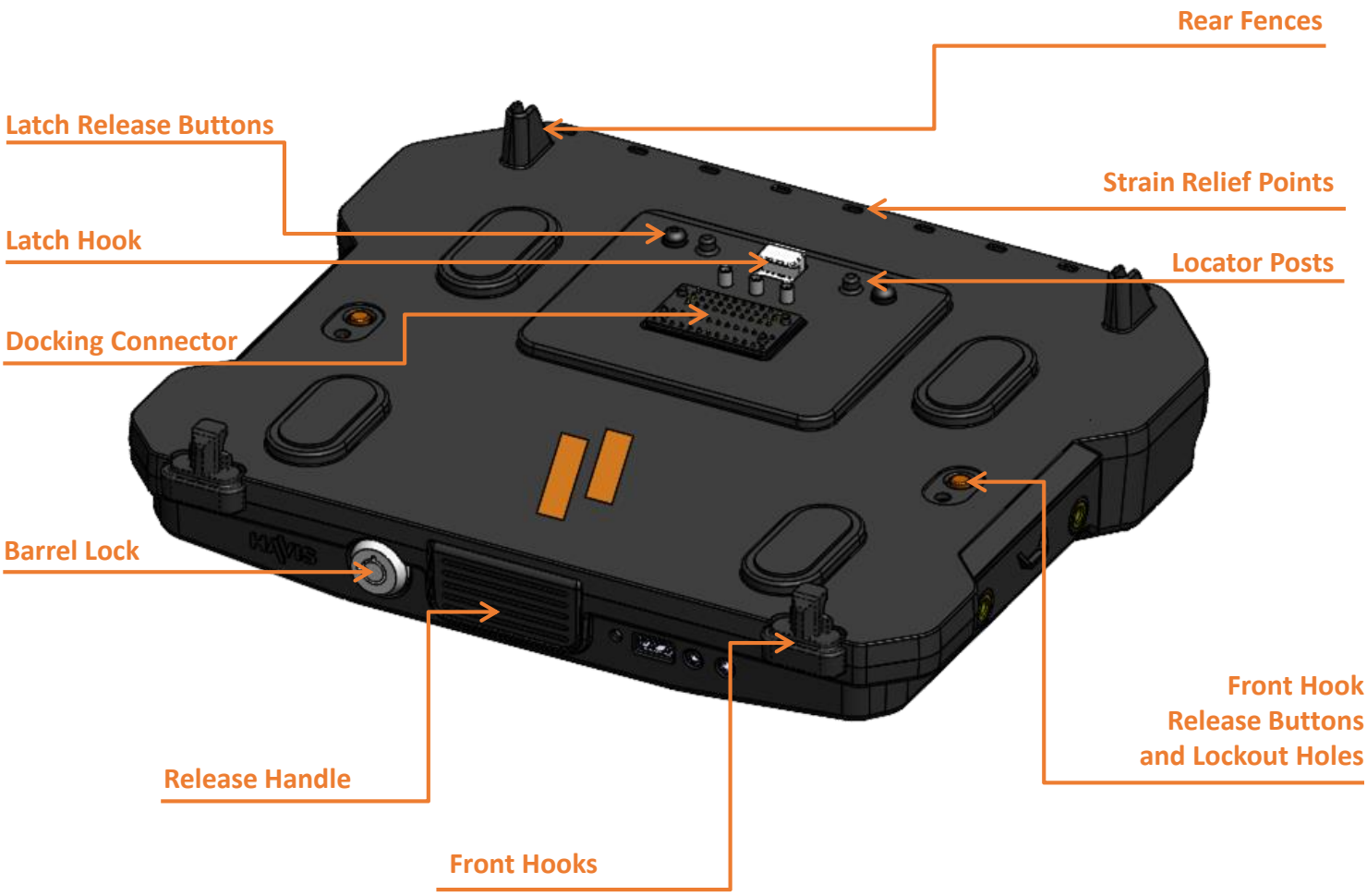
FCC 47CFR, Part 15 compliance: This is an FCC Class B device. Any changes or modifications to the model DS-DELL-42X not expressly approved by Havis, Inc. could void the user's authority to operate this equipment.

Specifications

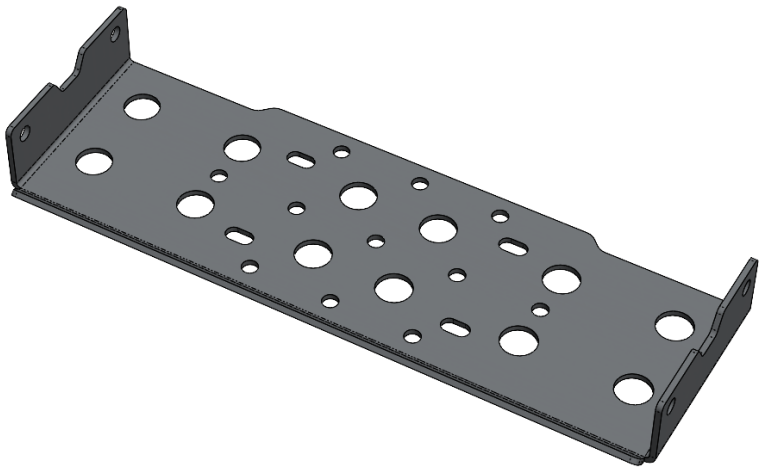


Parts Included

Docking Station



Mounting Bracket

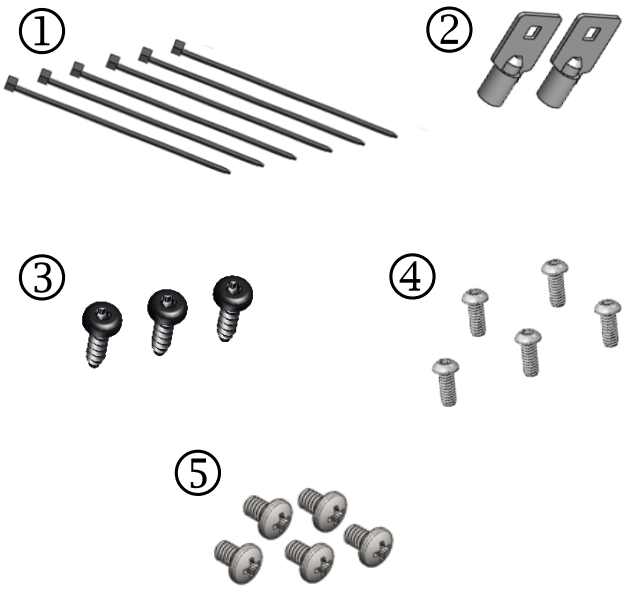


Parts Included *(continued)*

Hardware Kit *(No. 25296)*

This Hardware Kit includes:

1. Zip Ties (4)
2. Keys (2)
3. 12mm long Pan Head Lockout Screws (3)
4. 1/4” – 20 x 5/8” Long Button Head Screws (5)
5. 1/4” – 20 x 3/8” Long Pan Head Screws (5)



Tools required for installation:

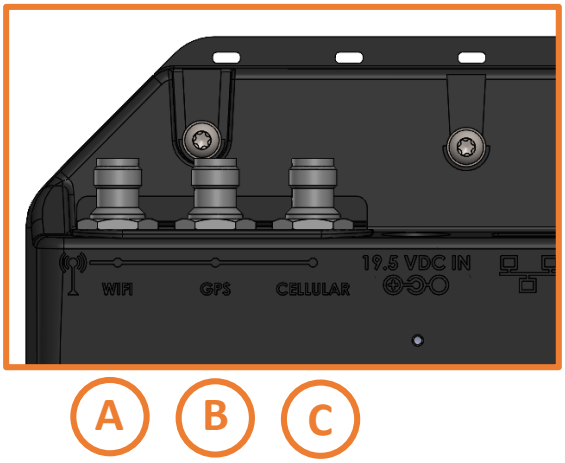
- 5/32” Hex Drive
  (For attaching Mounting Bracket to Motion Device with Button Head ¼”-20 Screws)
- #3 Phillips Drive
  (For attaching Docking Station to Mounting Bracket with Pan Head ¼”-20 Screws)
- T10 Torx Drive
  (For 12mm long Lockout Screws)

Antenna Identification

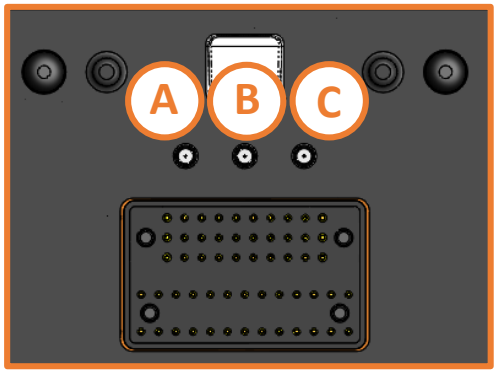
DS-DELL-421-3, DS-DELL-422-3, DS-DELL-423-3, DS-DELL-425-3, DS-DELL-426-3, DS-DELL-428-3

A – WIFI
B – GPS
C – CELLULAR

Rearward Facing
Antenna Connectors (TNC)



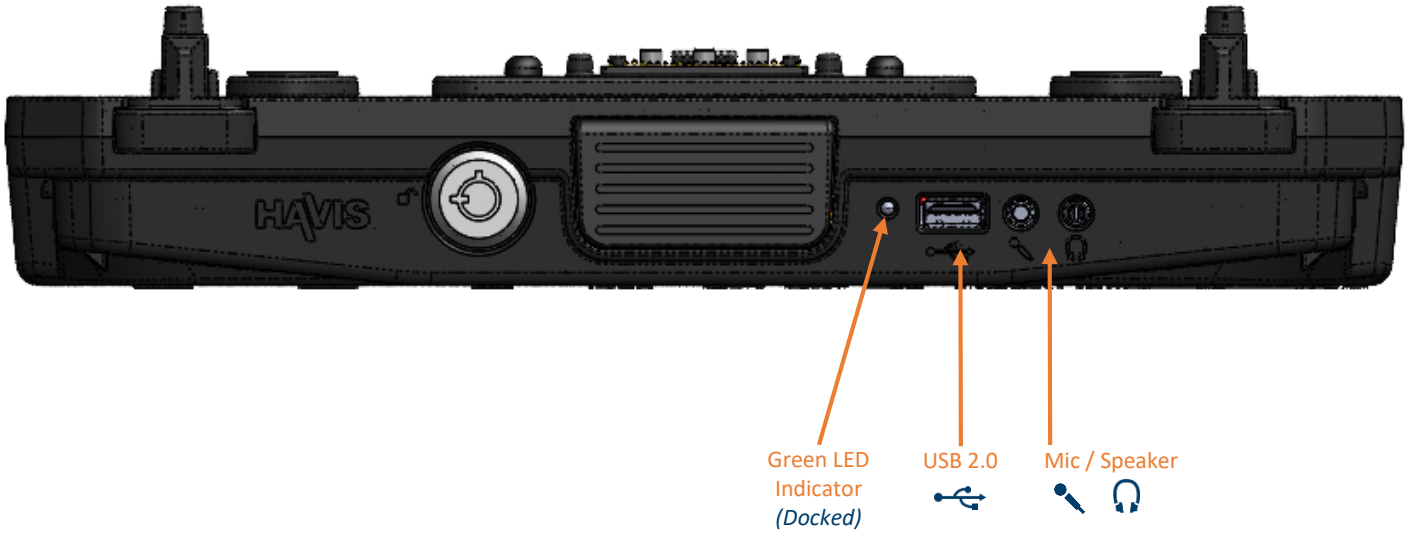
Laptop Interface



Port Replication Capability

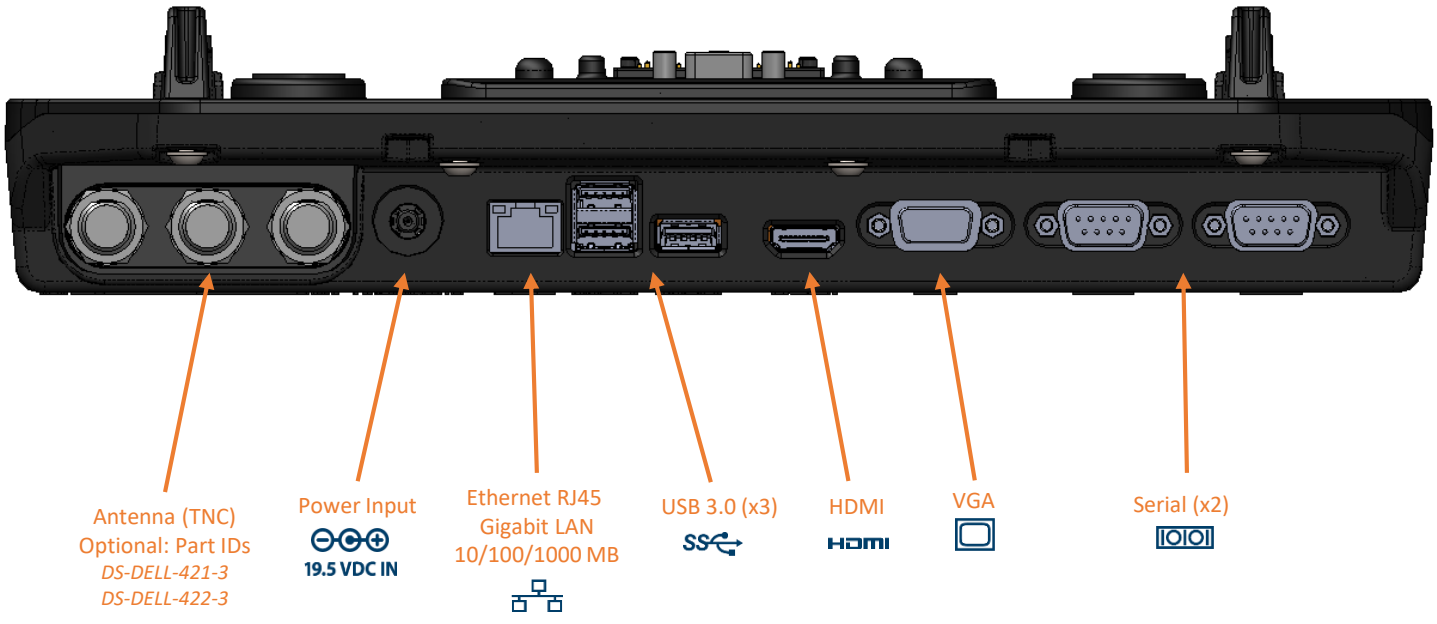
Forward Facing Ports

(DS-DELL-421, DS-DELL-421-3, DS-DELL-422, DS-DELL-422-3, DS-DELL-425, DS-DELL-425-3, DS-DELL-426, DS-DELL-426-3)

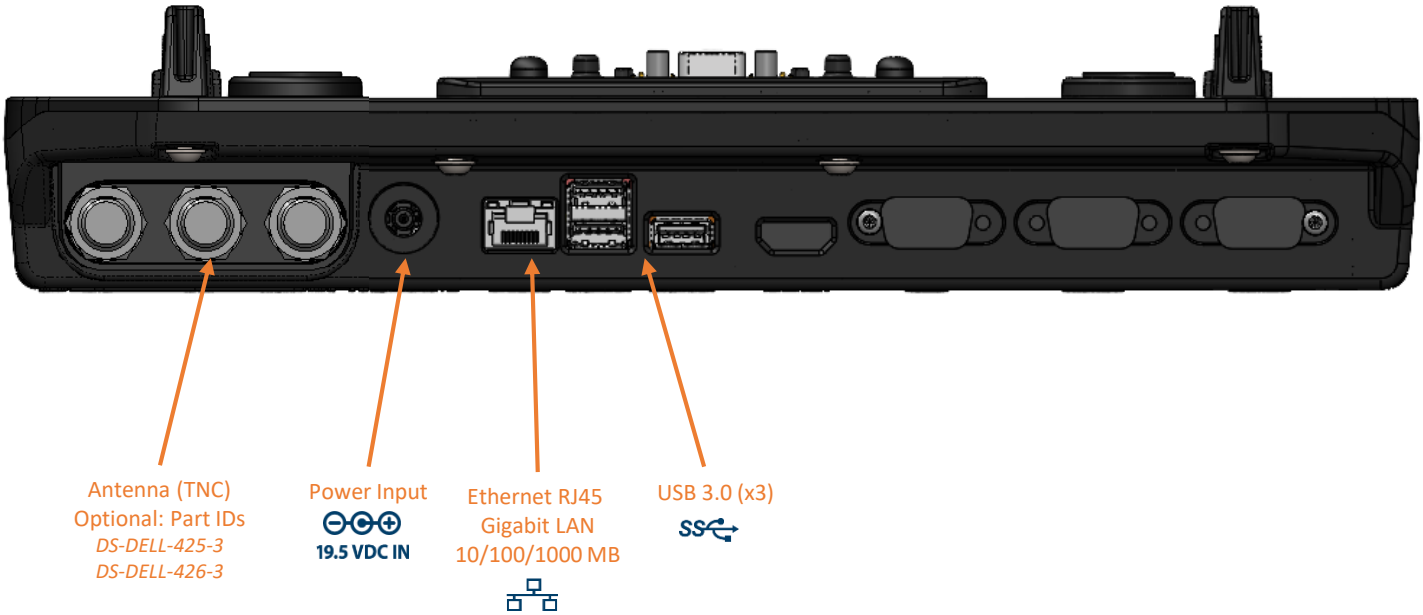


Rearward Facing Ports – Advanced Port Replication

(DS-DELL-421, DS-DELL-421-3, DS-DELL-422, DS-DELL-422-3)

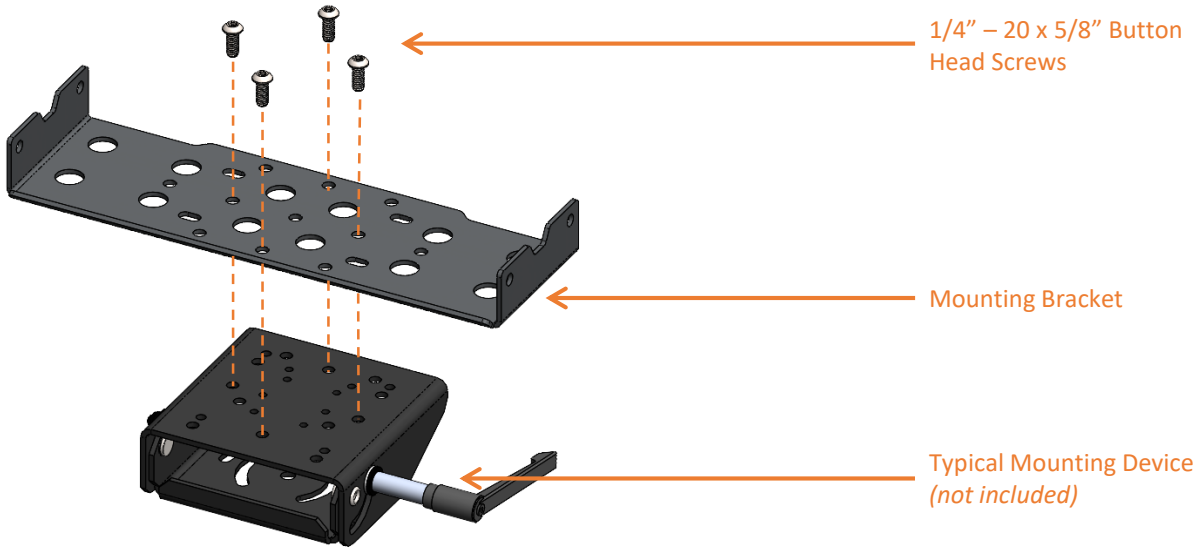


Rearward Facing Ports – Basic Port Replication
(DS-DELL-425, DS-DELL-425-3, DS-DELL-426, DS-DELL-426-3)



Installation

1) Remove the Mounting Bracket from the packaging. Install the Mounting Bracket to the Motion Device using (4) 1/4“-20 x 5/8” long button head screws (Hardware Kit Item 4). Torque screws to 80 in-lbs (9.0Nm) ± 10%.
   NOTE: Numerous hole patterns present in Mounting Bracket will accommodate Havis Motion Devices as well as most competitors’**.**



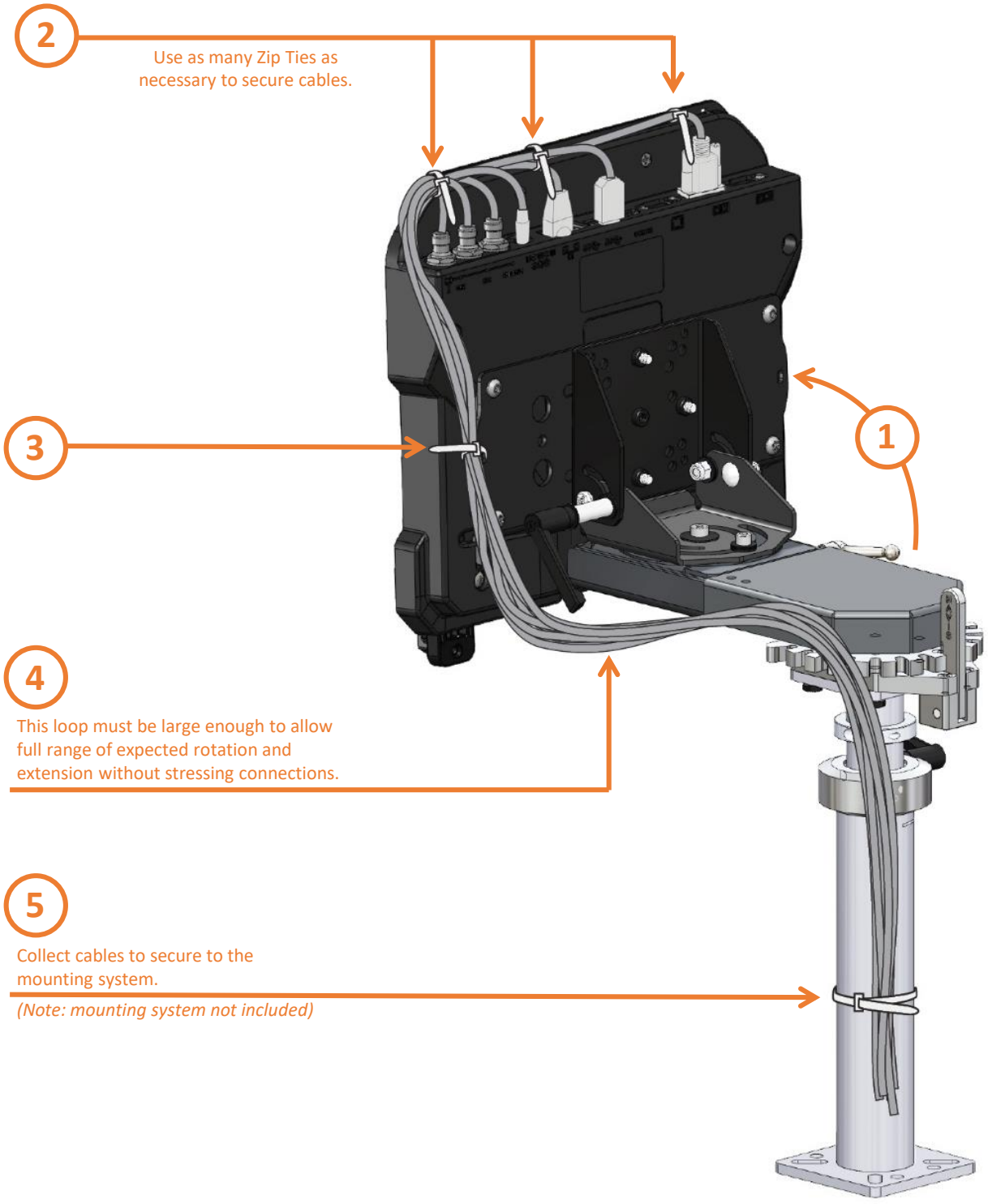
NOTE: We recommend applying a drop of medium strength (blue) thread locking adhesive to the threads of all fasteners.

2) Lower the Docking Station to the Mounting Bracket as shown and secure with (4) 1/4”-20 x 3/8” long pan head screws (Hardware Kit Item 5). Torque screws to 80 in-lbs (9.0Nm) ± 10%.



Cable Management

1) Orient the Docking Station in a position that is comfortable to work with.
2) Install all cables that are necessary for computing needs.
3) Use Zip Ties (Hardware Kit Item 1) to strain relieve cables to the Strain Relief Points, routing all cables together to the front of the Docking Station.
4) Secure cable bundle to the Mounting Bracket with a supplied Zip Tie.
5) Create a service loop with cable bundle to ensure that no tension is on the connectors and to enable intended motion.
6) Tie off cables onto a stationary part of the mounting system.
   (Mounting system not included with Docking Station)



Operation – Initial Laptop Adjustment

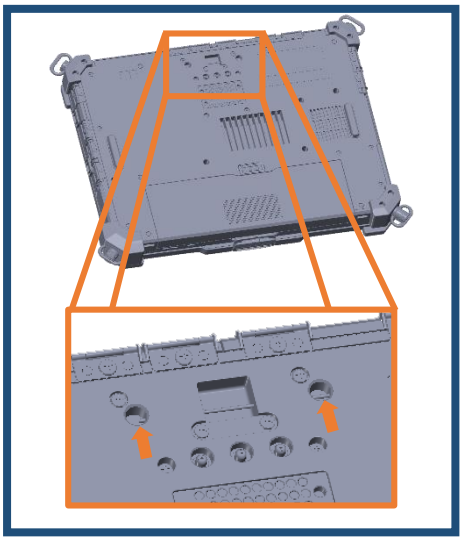
CAUTION

BECAUSE DOCKING STATION IS COMPATIBLE WITH MULTIPLE COMPUTER MODELS, FAILURE TO PROPERLY ADJUST FOR YOUR SPECIFIC COMPUTER MODEL MAY RESULT IN LOSS OF PROPER FUNCTION OR DAMAGE TO LAPTOP OR DOCKING STATION.

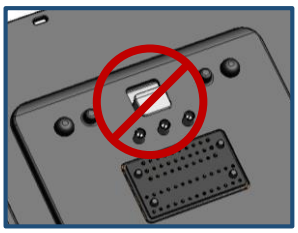
DO NOT FORCE LAPTOP ONTO DOCKING STATION. IF THERE IS RESISTANCE, CHECK THE ALIGNMENT OF LAPTOP ON DOCKING STATION.

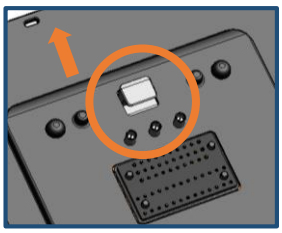


Your notebook's Alignment Sockets will align with the Docking Station's Locator Posts.



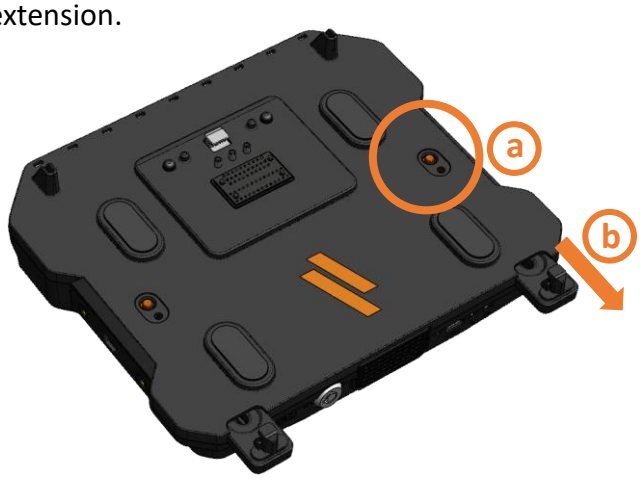
1) Ensure the Rear Latch is in the correct orientation prior to docking. Hook should be towards the rear of the docking station. If hook is not in the correct orientation, depress the Release Handle.





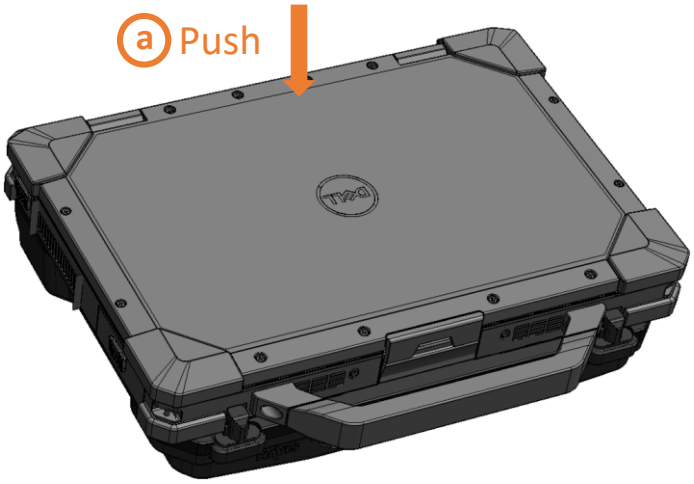
2) Release each Front Hook individually by; (a) - pressing and holding the Front Hook Release Button and, (b) - pulling the Front Hook to its fullest extension.





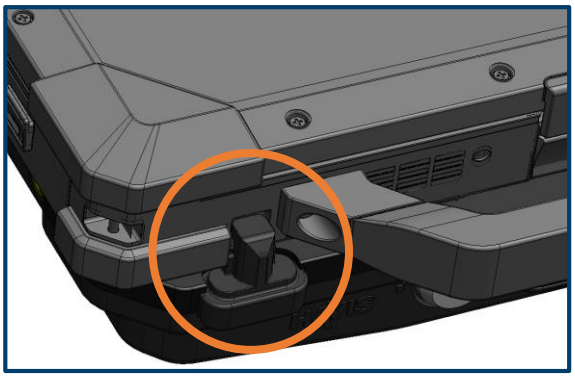
Operation – Initial Laptop Adjustment *(continued)*

3) Lower the laptop onto the Docking Station, ensuring Docking Connector and Locator Posts are aligned. Engage the Rear Hook by; (a) - applying firm, downward pressure to rear center of laptop until Rear Hook is fully engaged.

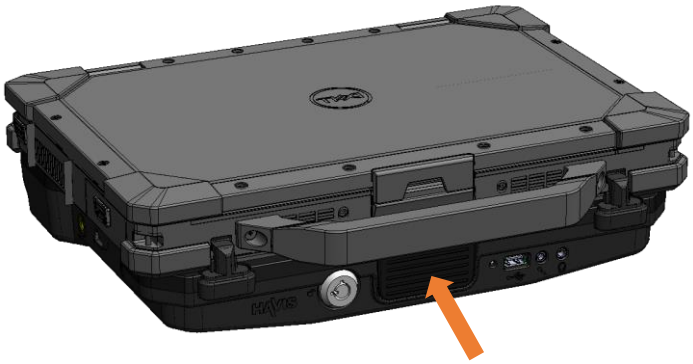


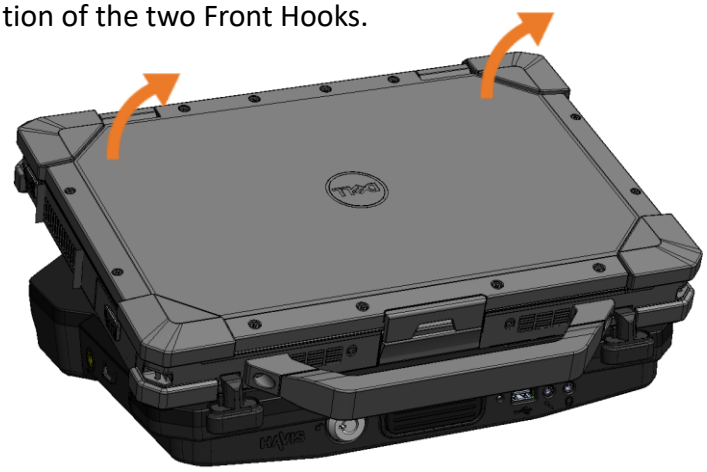
4) Press in the Front Hooks until each hook is secure in the computer recess. You will hear an audible clicking noise as the Front Hooks ratchet into engagement. Complete process for both Front Hooks. DO NOT force Front Hooks into the computer recess, as this may result in improper setting.





5) Remove the Laptop from Docking Station by depressing in the Release Handle to release the Rear Hook. Once Rear Hook is released, grab both sides of the laptop and lift out of Docking Station, rear end first. Be careful not to change the adjusted position of the two Front Hooks.





6) This step is optional. Set the Front Hooks in place to avoid movement during Docking and Undocking by inserting (2) 12mm long Pan Head Lockout Screws (Hardware Kit Item 3) into the Lockout Holes. Torque to 6 in-lbs (0.7Nm) ±10%.
CAUTION: DO NOT OVERTIGHTEN OR DAMAGE MAY OCCUR

Your Docking Station is now configured to secure your computer model. No further adjustments are necessary unless you switch computer models. If you change computer models, return to Step 1 of Initial Laptop Adjustment



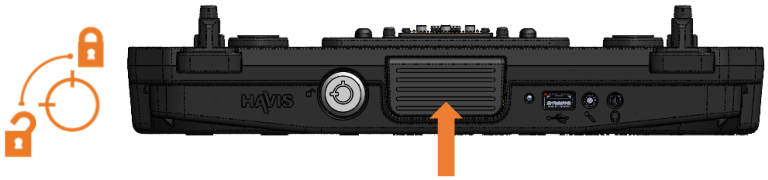


Operation – Docking

⚠CAUTION

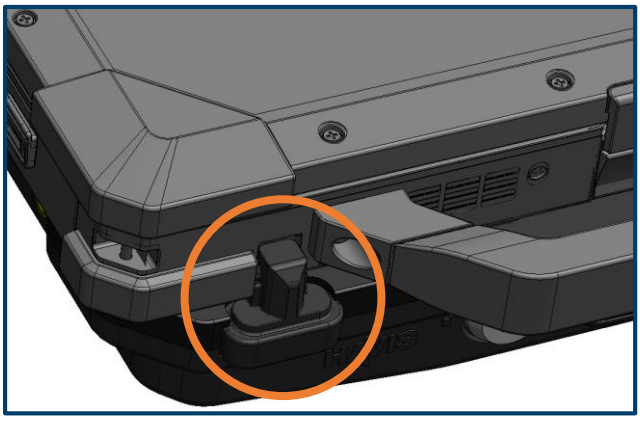
DO NOT FORCE LAPTOP ONTO DOCKING STATION. IF THERE IS RESISTANCE, CHECK THE ALIGNMENT OF LAPTOP ON DOCKING STATION.

1) Once Docking Station is adjusted to your computer model, ensure the Rear Hook is in the fully released position by depressing in the Release Handle.



2) With rear of computer elevated, load front of computer into Docking Station by aligning Front Hooks with the appropriate recesses in the computer.





3) Slowly lower back of laptop onto the Docking Station, ensuring Docking Connector and Locator Posts are aligned.

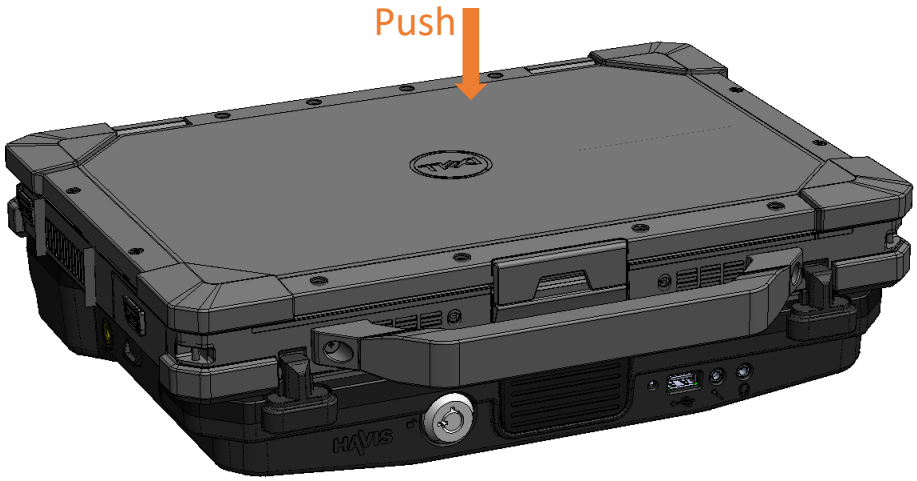


Operation – Docking

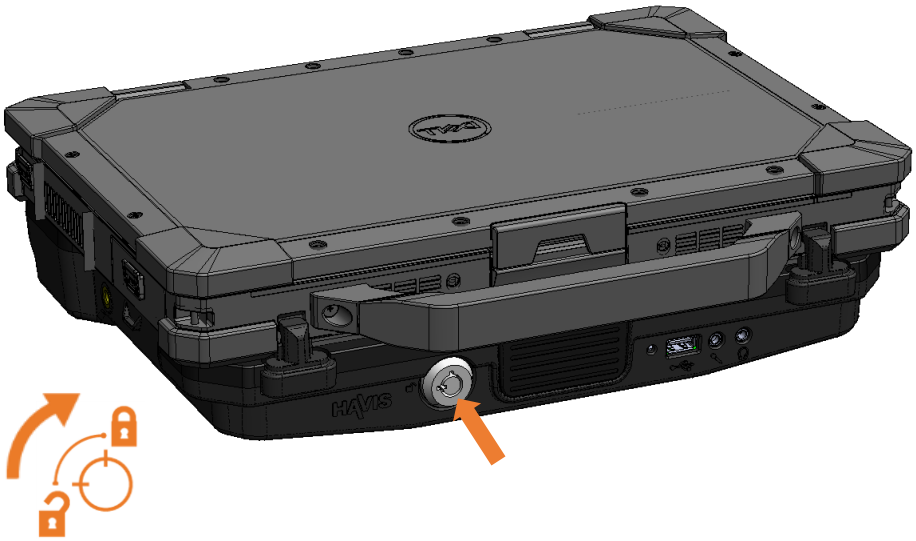
CAUTION

DO NOT FORCE LAPTOP ONTO DOCKING STATION. IF THERE IS RESISTANCE, CHECK THE ALIGNMENT OF LAPTOP ON DOCKING STATION.

4) With computer seated on the Docking Station; apply downward pressure to rear center of laptop until Rear Hooks engage.

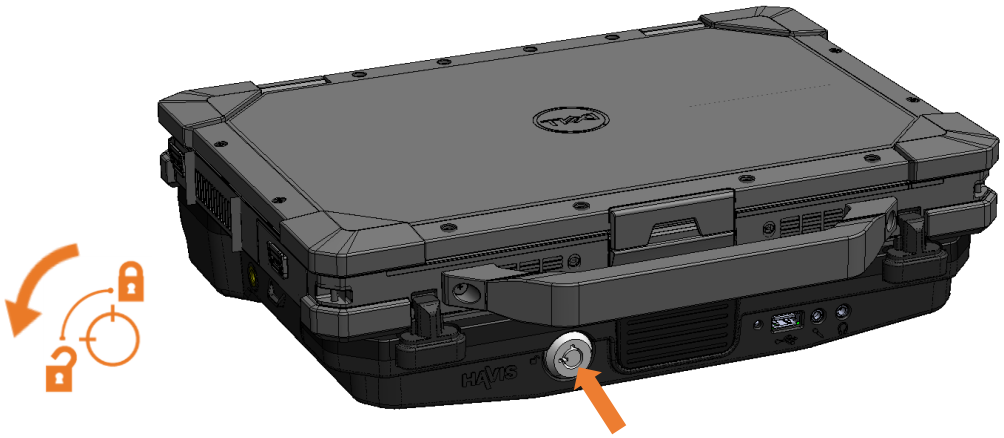


5) For theft deterrence, secure laptop by locking Docking Station with supplied key (Hardware Kit Item 2).

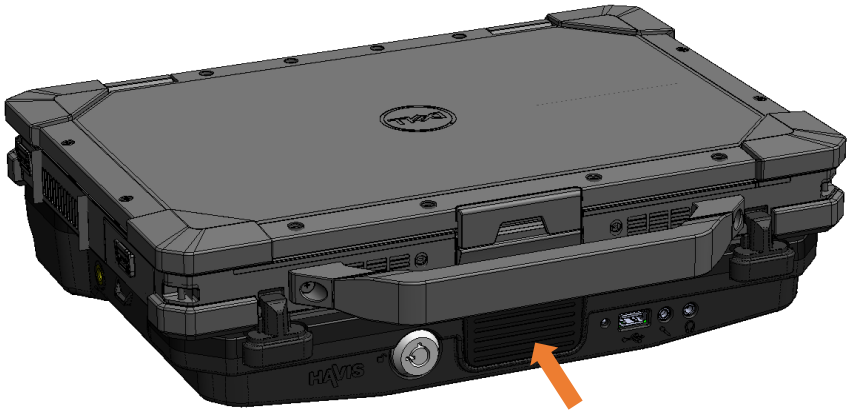


Operation - Undocking

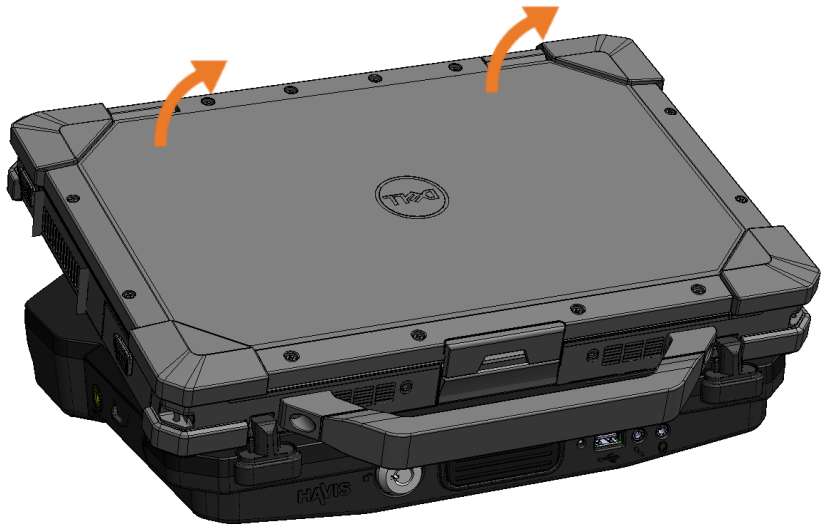
1) If previously locked, unlock Docking Station using supplied key.



2) To release Latch Hook, press in the Release Handle until it locks into position.



3) Once Latch Hook is released, grab both sides of laptop and lift out of Docking Station, rear end first.
CAUTION: Laptop must be tilted as shown before removal from Docking Station.
Do not pry the laptop off or damage to Docking Station may result.



Related Products

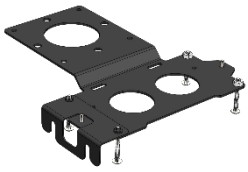
Havis offers a wide variety of accessory products specifically for use with your Docking Station. For more information or to order, please visit ***www.havis.com***.



LPS-126, LPS-127
Isolated External Power Supplies
Isolated external power supply and cable for Dell Laptops with cigarette lighter adaptor for DS-DELL-421, DS-DELL-421-3, DS-DELL-425, and DS-DELL-425-3 Docking Stations. Visit *www.havis.com* for specific information on Power Supply options.



LPS-137
External Power Supply
External power supply and cable for Dell Laptops with cigarette lighter adaptor for DS-DELL-421, DS-DELL-421-3, DS-DELL-425, and DS-DELL-425-3 Docking Stations. Visit *www.havis.com* for specific information on Power Supply options.



LPS-211
Power Supply Mounting Bracket
Mount a power supply directly to your Docking Station with this versatile bracket. For use with LPS-137.



DS-DA-102
Night Eyes II
In-vehicle night time viewing from six long lasting, soft true, red LED lights on a flexible steel gooseneck.



DS-DA-412
Screen Support
Secure your laptop screen to prevent excess wear and reduce vibration while in use.



DS-DA-501
Replacement Keys
Set of two (2) replacement keys for DS-DELL-420 Series Docking Stations.