



Surface Pro 7 Kickstand Replacement Guide



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This document and the information it contains are subject to change without notice. You can find the latest information on Surface device servicing and repair at <https://aka.ms/surfaceservicing>. Always consult the most up-to-date information available before performing device servicing or repair.

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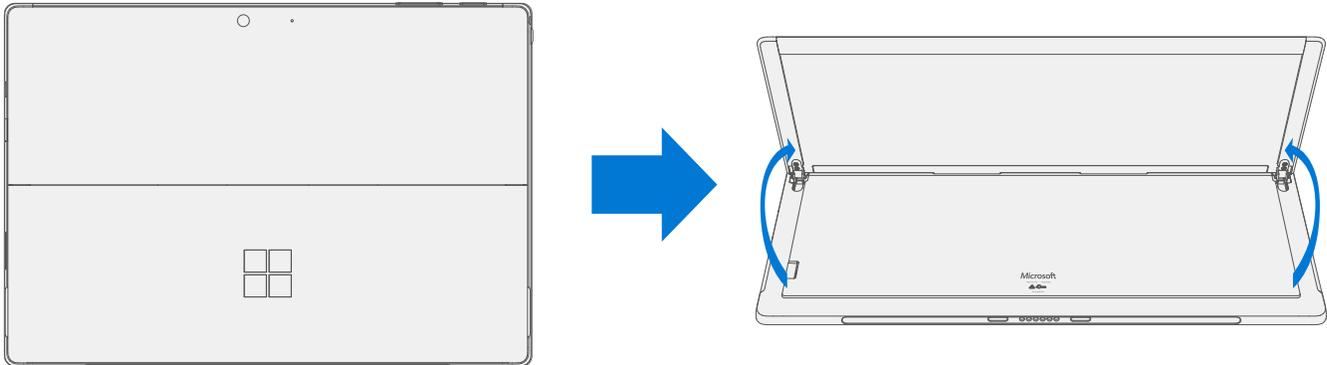
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Device Identity Information

Surface Pro 7 Models

The serial number for Surface Pro 7 is located under the kickstand on the back cover.



Glossary of Terms

The following terms are used throughout this manual:

- **SDT** – Surface Diagnostic Toolkit
- **ESD** – Electro-Static Discharge
- **IBC** – Tablet Back Cover
- **TDM** – Touch Display Module is the complete screen with all layers.
- **FRU** – Field Replaceable Units are sub-system components such as the Kickstand. FRU are available only to ASPs.
- **Commercial Spares/CRU** – Customer Replaceable Units available to commercial customers for repair by a skilled-technician.

General Information, Precautions, Warnings

 This symbol identifies important safety and health information in this manual.

Service Tools and Jigs

Standard Service Tools:

- Anti-static wrist strap (1 MOhm resistance)
- Soft Electro-Static Discharge (ESD) safe mat
- 3IP (Torx-Plus) driver
- Microfiber cloth

The tools identified on this list can be purchased from many different commercial sources, including but not limited to Amazon.com; iFixit; Chemdex, and other vendors.



General Safety Precautions

Always observe the following, general safety precautions:

- Opening and/or repairing any device can present electric shock, device damage, fire, and/or personal injury risks and other hazards. Exercise caution when undertaking these activities as described in this manual. Only skilled IT technicians to whom Microsoft has provided this manual should attempt CRU repair activities. Only Microsoft-authorized service providers should undertake FRU repair activities.
- Always select and use the appropriate AC power supply for a device. We recommend you use genuine Microsoft power supply units and AC power cords. A genuine Microsoft power supply unit is provided with every device.
- Use only AC power provided by a standard (mains) wall outlet. Do not use non-standard power sources, such as generators or inverters, even if the voltage and frequency appear acceptable.
- Improper use of device batteries may result in fire or explosion. Only open the enclosure on a device as outlined in this manual. Do not heat, puncture, mutilate, or dispose of devices or their batteries in fire. Do not leave or charge devices in direct sunlight or exposed to other extreme sources of heat for an extended period of time. Doing so may cause damage or melt the batteries.

For additional product safety information, including information about

- Hearing conservation
- Heat related concerns
- Choking hazard/small parts
- Interference with medical devices
- Broken glass
- Photosensitive seizures
- Musculoskeletal disorders

See aka.ms/surface-safety or the Surface app. To open the Surface app, select the Start button, enter Surface into the search box, then select the Surface app.

Repair-Specific Precautions and Warnings

- Prior to repairing device, ensure device is powered off and disconnected from a power supply.
- We recommend wearing protective eyewear as a safety precaution when disassembling/re-assembling a device.
- Before opening device, always check that an anti-static wrist strap is worn and work area is properly grounded to ensure electrostatic discharge (ESD) safe environment
- Check to make sure that general guidelines and ESD compliance steps are followed prior to starting activities. Refer to Prior to Device Disassembly section for details.
- As you remove each subassembly from the device, place the subassembly (and all accompanying screws) away from the work area to prevent damage to the device and to the subassembly.



Safety Policies/Procedures

Microsoft's field product safety program team is referred to as the Rapid Response Team (RRT). All device issues that may be safety related should be managed per the following instructions.

As a quick guide, any Microsoft Surface device that visually exhibits any of the following symptoms shall be immediately removed from the replacement process and delivered to your Variance Manager or IT Support Professional for notification to Microsoft RRT:

- Any burned or melted components, traces or plastic parts on the **outside** of the device, or which otherwise exhibits heat damage, including charring seen in charging and other ports;
- Any burned or melted components, traces or plastic parts on the **inside** of the device, or which otherwise exhibits heat damage.
- Any accessories exhibiting melting or heat damage that are included with the Microsoft device, such as power supplies, keyboards, mice, cables, charging connectors, etc.
- Any devices that exhibit a case that has separated apart or opened for reasons other than customer abuse (e.g., impact damage from dropping, evidence of tampering, separation caused by a malfunctioning battery).
- Any other finding that may constitute a safety hazard to the user, such as sharp edges on plastics.

The Variance Manager or IT Support Professional must send an email to Microsoft with pictures showing the damage within 24 hours of device receipt. ASP's refer to the Guidebook for the Microsoft RRT email address. Non-ASP's are to contact Microsoft Surface Support Services.

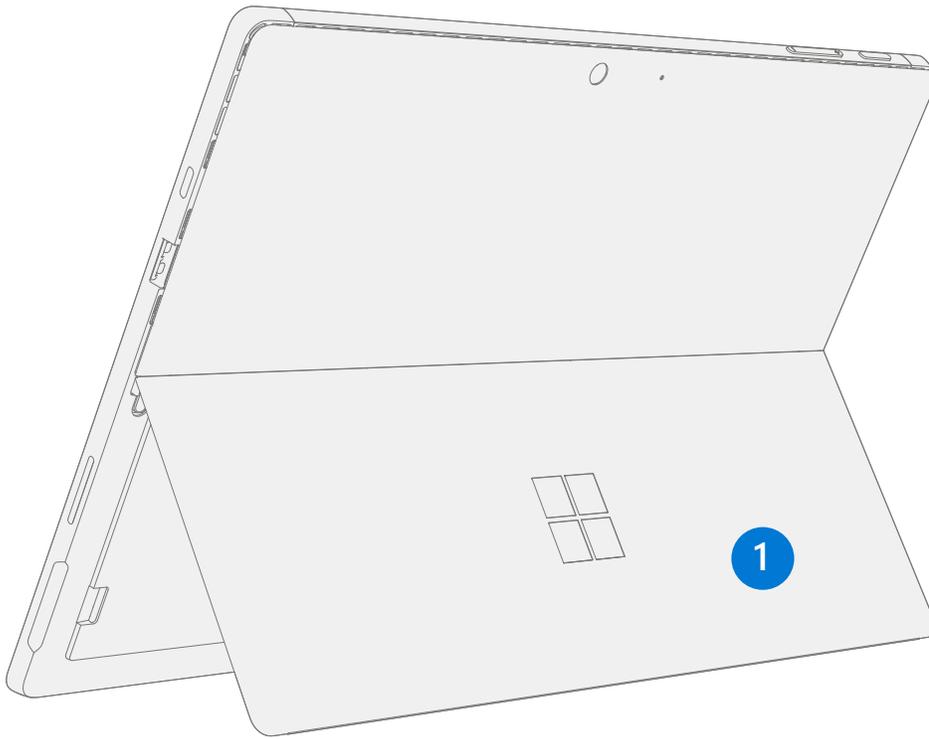
Your email should include:

- The model and serial number of the affected Microsoft Surface device and/or accessory(ies).
- The Service Request (SR) Number that the device was received under (Note as N/A if no SR exists).
- A brief description of the damage found.
- Clear photographs depicting the symptoms observed.

The Variance Manager or IT Support Specialist must await instructions from Microsoft Product Safety RRT for the affected unit before continuing with activities or returning the device to the end user.



Illustrated Device Diagram



IMPORTANT: Device service part availability is segmented into two groups. FRUs are parts available for repair activity through an Authorized Service Provider under specific contract with Microsoft. CRUs/Spares are parts available for repair activity by a skilled technician.

Item	Component	ASP / FRU Part No.	CRU Part No.
(1)	Black Kickstand	RPT-00002	I5B-00002
	Platinum Kickstand	RPT-00001	I5B-00001



Service Diagnostics/Troubleshooting Overview

- For general Surface support, visit www.support.microsoft.com
- To troubleshoot device feature/function problems or learn more about Surface Pro 7 visit www.aka.ms/SurfaceProHelp
- If you'd like to learn more about Windows, visit aka.ms/WindowsHelp
- To learn more about the accessibility features of the Surface Pro 7, go to the online user guide at aka.ms/Windows-Accessibility

Software Tools:

- How To: [Update Surface device firmware and OS](#)
- How To: [Surface Tools Video](#)
- Download: [Surface drivers and firmware](#)
- Download: [Surface Diagnostic Toolkit \(SDT\)](#)
- Download: [Surface Data Eraser](#)
- Download: [Surface Imaging Tools](#)

Troubleshooting Approach

The following approach should be considered when troubleshooting Surface devices:

- Update device to latest OS/FW versions using the SDT tool.



IMPORTANT: Device updates are required as a prerequisite to all hardware replacement.

- Verify any suspected hardware failures by setting the device in a known OS/FW version state and running SDT to verify fault:
 - a. Run SDT and verify if condition persists – Refer to Software Tools section for details on SDT.
 - i. If problem is not resolved, then re-image SSD.
 - ii. If re-mage fails replace device per established procedures.



Component Removal and Replacement Procedures

Prior to Device Disassembly:

- Before attempting any removal or replacement, always ensure device is powered off and disconnected from a power supply.
- Always ensure that the work surface is covered with an ESD-safe, soft, non-marring material.
- Work surfaces should be cleaned regularly to ensure debris/abrasive particles are not present.
- Check to make sure that general guidelines and ESD compliance steps are followed prior to opening device.



Kickstand Replacement Process

Preliminary Requirements

 **IMPORTANT:** Be sure to follow all special (bolded) notes of caution within each process section.

Required Tools and Components

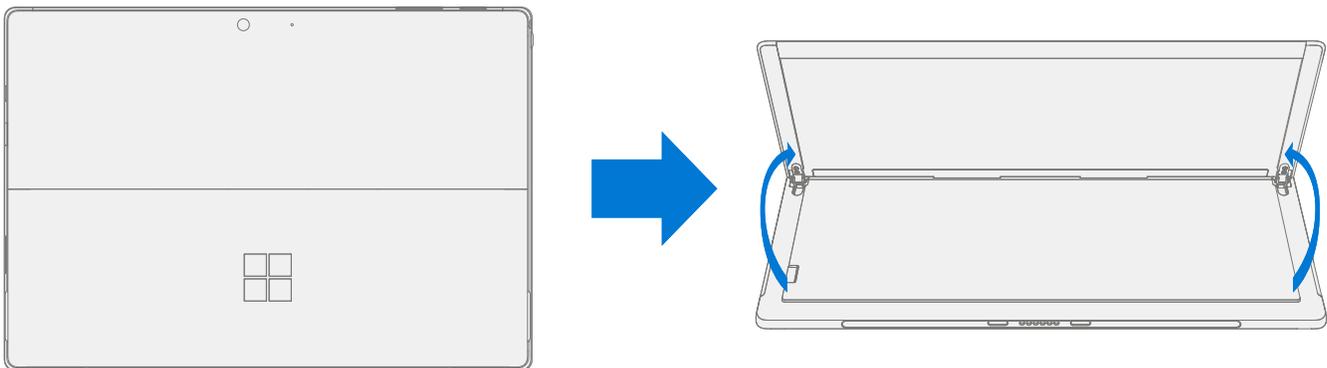
- **Tools:**
 - 3IP (Torx-Plus) driver
 - Soft ESD safe mat
 - Microfiber cloth
- **Components:**
 - Kickstand (Refer to Illustrated Service Parts List)
(Component includes new 3IP screws)

Prerequisite Steps:

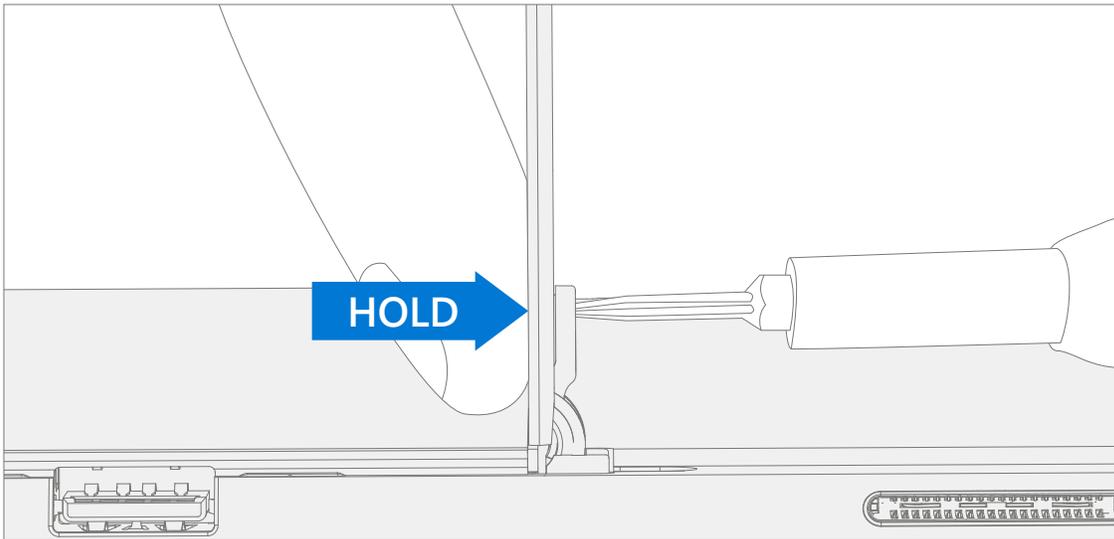
- **Power off device** – Ensure device is powered off and disconnected from a power supply.
- **General Safety** – Check to make sure that general guidelines and ESD compliance steps are followed prior to opening device. Refer to Prior to Device Disassembly section ([page 10](#)) for details.

Procedure – Removal (Kickstand)

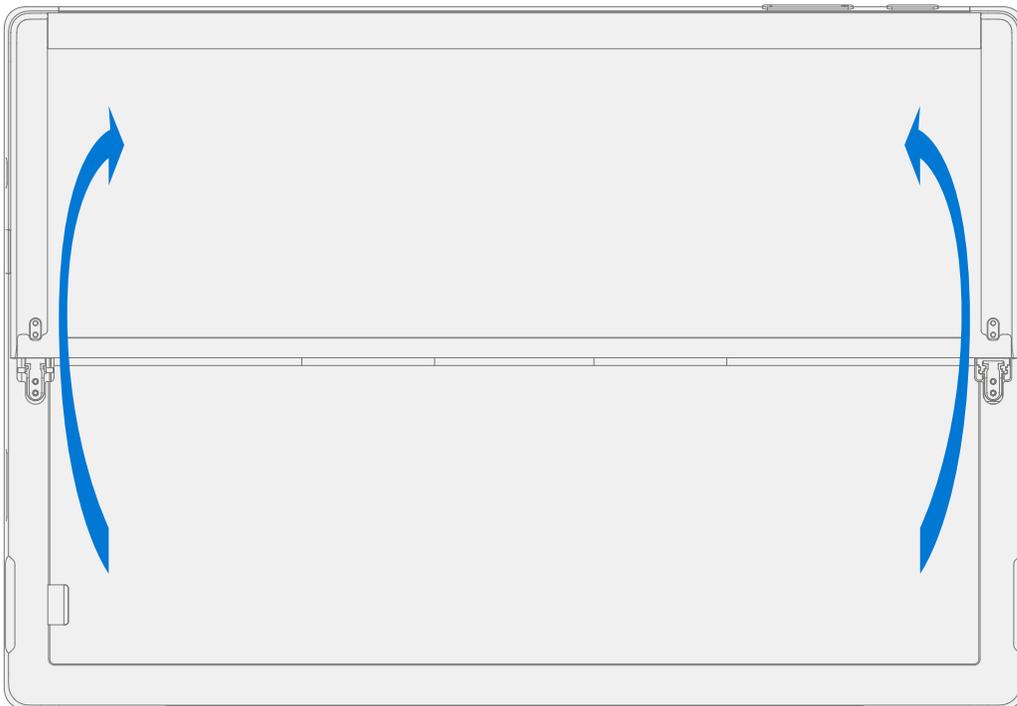
1. **Place device screen-down on soft ESD safe mat.** Ensure mat is clear of any abrasive material that may scratch the Touch Display Module (TDM) glass.
2. **Extend the kickstand to approximately 90°**



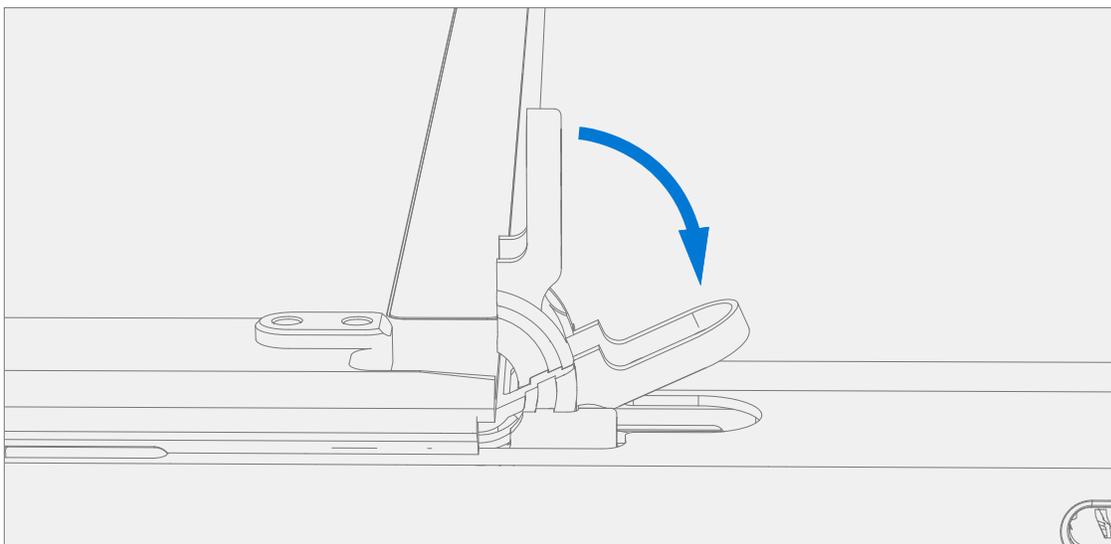
3. **Remove hinge screws** – Using the 3IP (Torx-Plus) driver, loosen all four hinge screws by 2-3 rotations. With the screws loose, use your finger to hold the back of the kickstand behind each hinge while fully removing the two hinge screws. Ensure screws do not fall into the hinge opening.



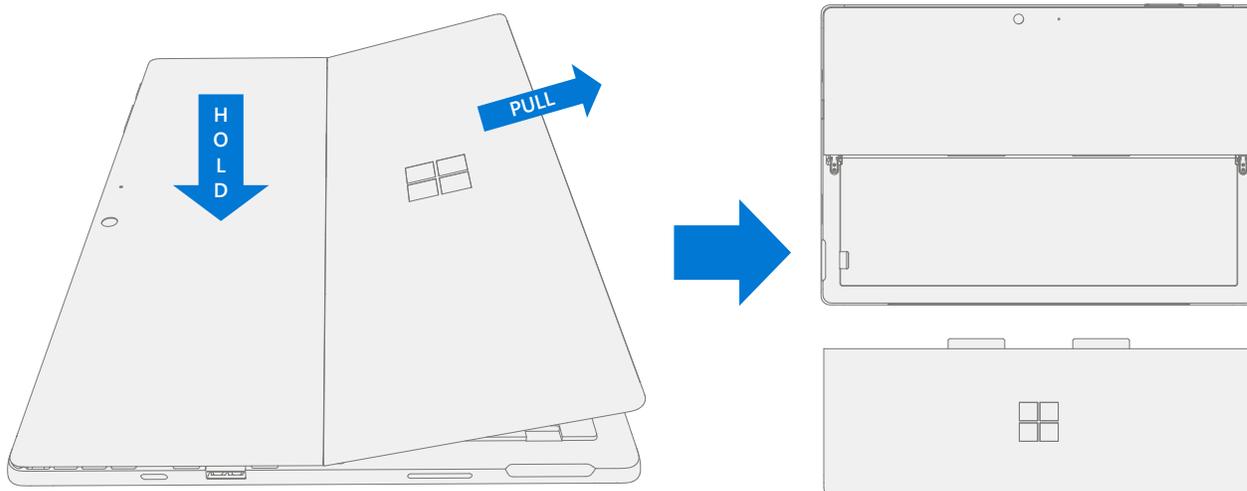
4. **Lay Kickstand Down** – Lay the kickstand flat against the IBC. Be careful not to jostle the kickstand in this position as it may cause abrasions on the IBC.



5. **Angle hinges Down** – Using your thumb or index finger, push both hinges down from 90° to approximately 30°. This will require a great deal of force. If necessary, place the microfiber cloth between your finger and the hinge for comfort. Be careful not to push the hinge all the way into the bucket as it will be difficult to pull back out.



6. **Remove Kickstand** – Using the palm of your hand, firmly hold the device down from the center of the IBC. Simultaneously, grip the kickstand off-center between your thumb and index finger and firmly pull. Pull with a moderate amount of force until the foam inserts slide out of the device. If the kickstand is stuck, ensure it is not caught on the hinges.

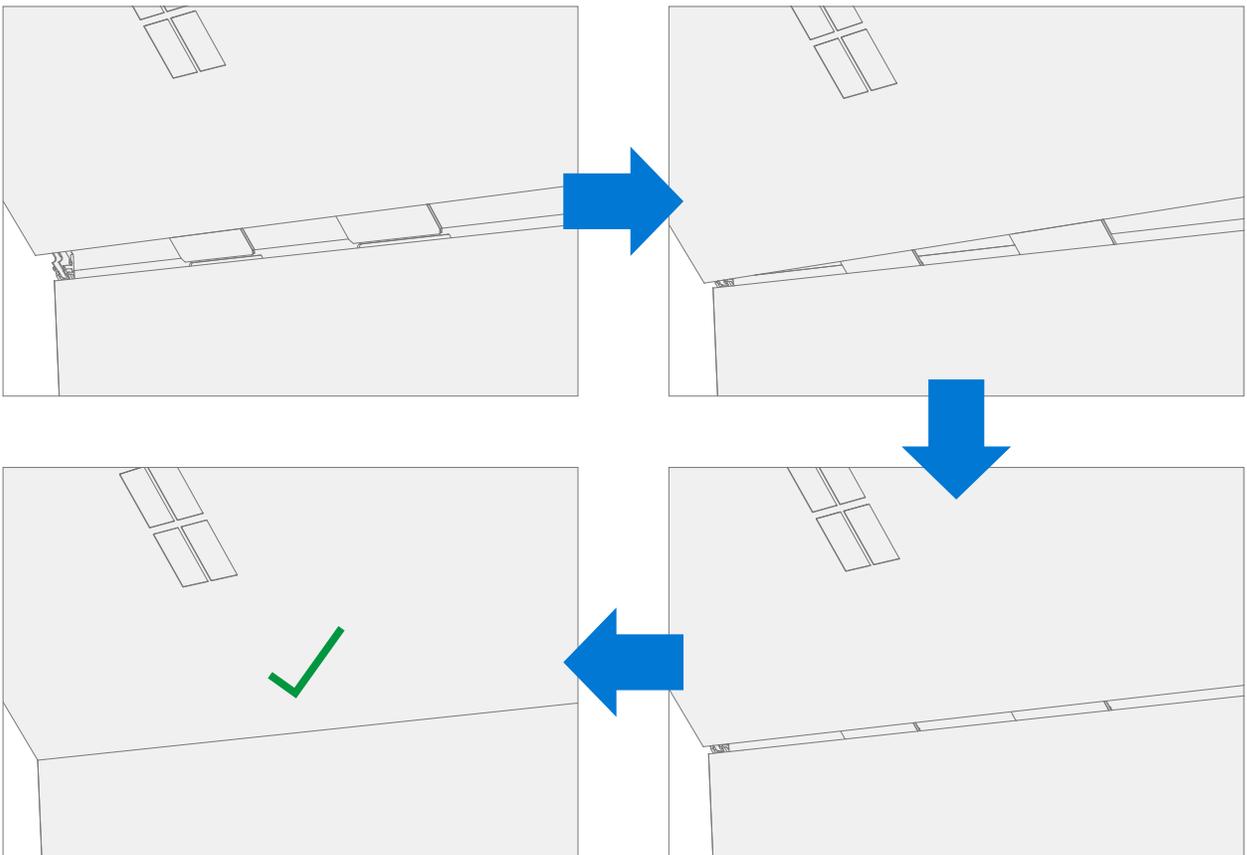


Procedure – Installation (Kickstand)

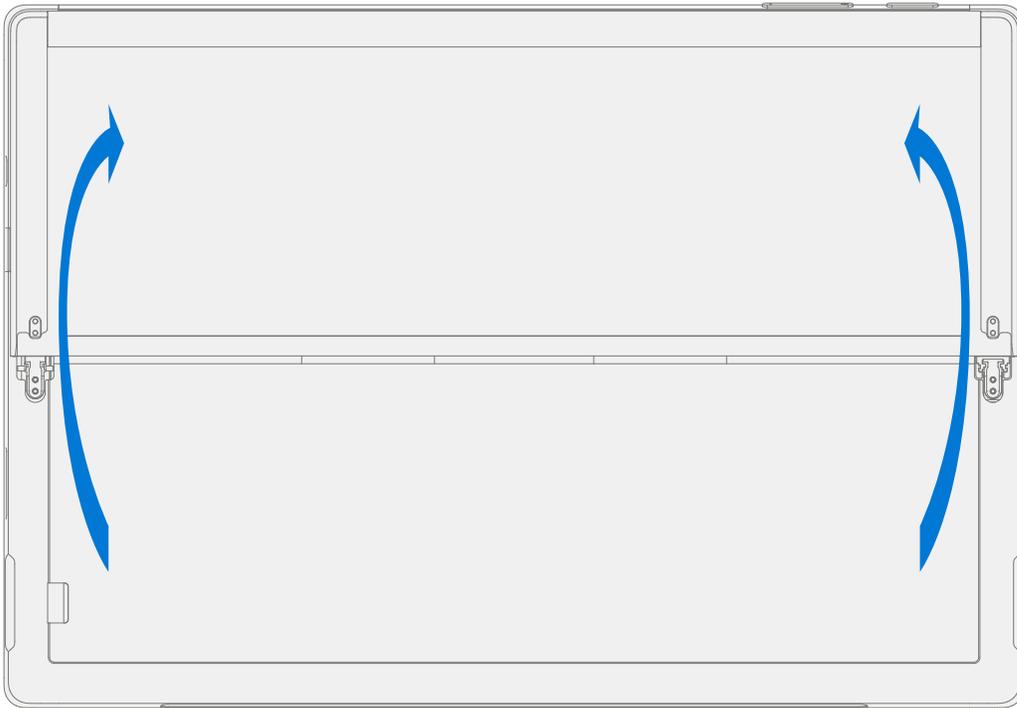
 **IMPORTANT:** Use caution when handling new kickstand assembly to avoid cosmetic damage of the kickstand and the device.

1. **Insert Foam Tabs** – With the hinges still at $\sim 30^\circ$ start to slide the new kickstand's foam tabs into the slots on the back of the IBC. Foam should slide in with minimal force—do not crumple the foam by using excess force.

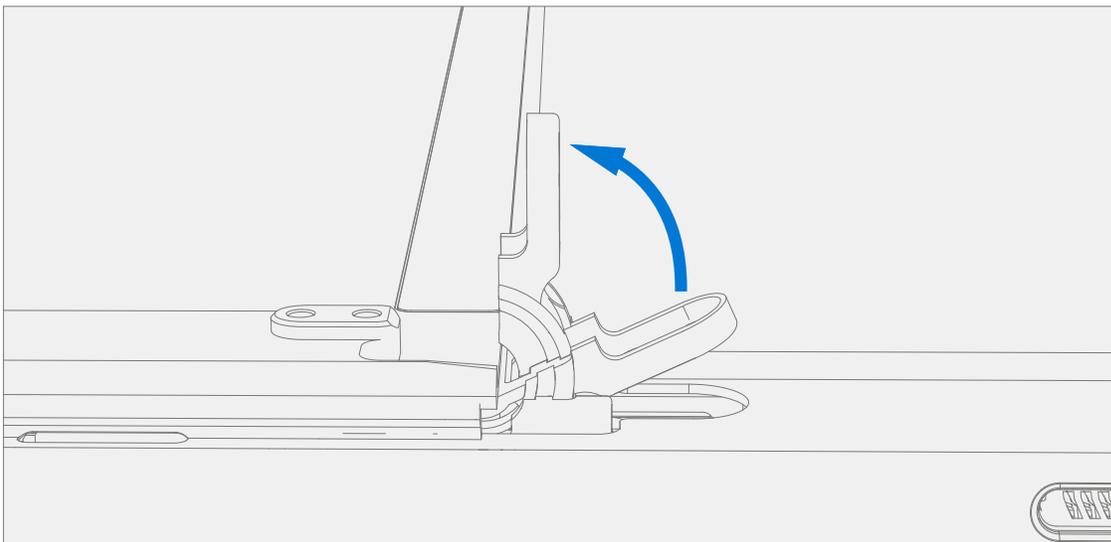
! **CAUTION:** Do not use any tool or sharp object to assist inserting the tabs into the slots. Only the tabs should be inserted. Doing so could damage to internal components.



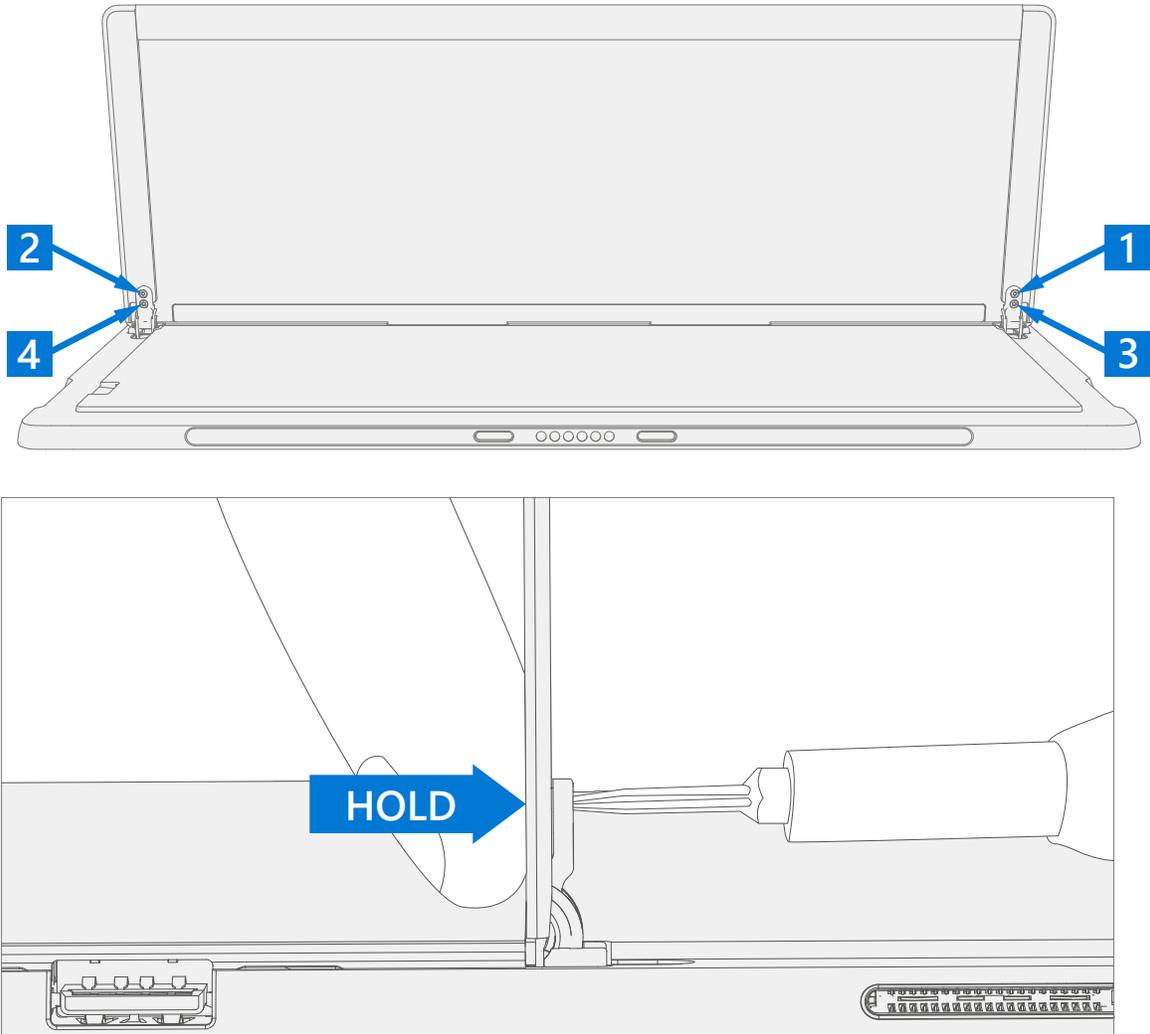
2. **Lay Kickstand Down** – Lay the kickstand flat against the IBC. Be careful not to jostle the kickstand in this position as it may cause abrasions on the IBC.



3. **Angle hinges Up** – Using your thumb or index finger, push both hinges up from 30° to approximately 90°. This will require a great deal of force. If necessary, place the microfiber cloth between your finger and the hinge for comfort.



4. **Install hinge screws** – Flip the kickstand up to approximately 90° such that the threaded holes of the kickstand align with the mounting holes of the hinge. Install the hinge screws in the order shown below with the 3IP (Torx-Plus) driver. Ensure screws do not fall into the hinge opening. Use your finger to hold the back of the kickstand behind the hinge while installing the screws until they are fully seated. Verify the kickstand is properly aligned and seated in the hinges, then tighten the screws an additional ~quarter turn (~90°).



5. **Final inspection Kickstand installation** – Fold the kickstand down and peel off protective plastic from the kickstand and logo if present. Verify the side edges of the kickstand are aligned with the midframe walls and that there are no obvious steps/gaps between the kickstand and the IBC. Wipe the device thoroughly (including under the kickstand) with the microfiber cloth to remove all fingerprints.

Environmental Compliance Requirements

All Waste Electrical and Electronic Equipment (WEEE), including waste electronic components, waste batteries, and waste electronic residuals, must be managed according to all applicable laws and regulations and H09117, "Conformance Standards for Environmentally Sound Management of Waste Electrical and Electronic Equipment (WEEE)." H09117 is available at this link: <https://www.microsoft.com/en-us/download/details.aspx?id=11691>.

In case of questions, please contact AskECT@microsoft.com

