

Spot[®] Dock Instructions for Use

Safety and Operations Manual

Version 5.1 Original Instructions
December 2025



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Boston Dynamics Support Center homepage: <https://support.bostondynamics.com>

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1. Introduction

1.1. About this document

This document contains critical safety information for the operation and use of the Spot Dock recharging station for the Spot robot.

Responsible use of Spot and the Spot Dock is crucial to prevent dangerous conditions for those in close proximity to Spot or the Spot Dock. Read, understand, and comply with this document before initial use of the Spot Dock to reduce the risk of injuries or damage to yourself, the Spot robot, the Spot Dock, or other property.

Keep a copy of this document in a readily accessible location. Complete user and developer documentation on the Spot robot platform, including a digital version of this document, is available online in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).

This document is valid for the following designations of the Spot Dock and Spot robot:

Dock hardware model (P/N):	04-00150139-001
Robot hardware model (P/N):	04-00143531-001
	04-00143531-101
	04-00143531-401
	04-00143531-501
	04-00143531-601
	04-00143531-611
	04-00143531-701
	04-00143531-711
Robot software version:	5.1

1.2. Manufacturer information

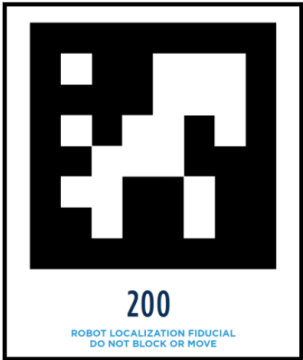
The Spot Dock is manufactured by:

Boston Dynamics, Inc.
200 Smith St.
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1.3. Key terminology

Term	Definition
Spot	A legged robot capable of mobility on a variety of terrains. Spot uses multiple sensors and three motors in each leg to navigate in indoor and outdoor environments, maintain balance and attain postures. Spot is capable of carrying and powering attachments.
Spot Dock	A recharging station for compatible models of the Spot robot. The Spot Dock automatically supplies power to recharge Spot's batteries when the robot is seated correctly on the dock connectors.
Operator	Any person trained and authorized to manually operate, repair, handle, or supervise the automatic operation of Spot. This definition corresponds to the terms "Qualified person" and "Authorized person" as defined in ISO/TR 22053:2021, Clause 3.4.
Bystander	Any person who can be reasonably expected to be near Spot, but is not an operator. This definition corresponds to the term "Affected person" as defined in ANSI B11.0-2020, Clause 3.4.
Task	An activity performed by a person, including manual operation of Spot.
Operation	An activity performed by Spot, whether as a result of manual or automatic operation.
Mission	A set of instructions and map data that allows Spot to navigate automatically along a known route while performing data capture actions and other operations. The features that allow Spot to record and replay missions are collectively called "Autowalk".
Action	A predefined operation that can be performed during a mission. The Spot software includes several preset Actions, such as capturing images from robot cameras and docking with a Spot Dock. Custom Actions can be created using Spot's software development tools.
Attachment	Any device or piece of hardware that is affixed to Spot to enhance or expand Spot's functionality. Attachments for Spot are commonly called "payloads".

Term	Definition	
Fiducials	 200 ROBOT LOCALIZATION FIDUCIAL DO NOT BLOCK OR MOVE	Specially designed images similar to QR codes that Spot uses to match its internal map to the world around it. Fiducials are required at the beginning of every mission. Spot recognizes AprilTag fiducials that meet the following requirements: • AprilTags in the Tag36h11 set. • The default Image size: 146 mm square. • Printed on white non-glossy U.S. letter-size sheets (preferably rigid).

1.4. Legend of Hazard Labels



DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE

Indicates information considered important, but not hazard related.

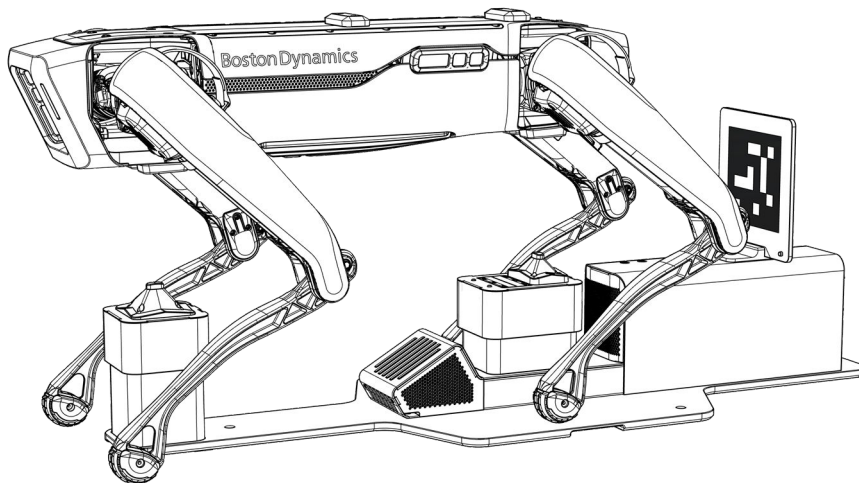


REQUIRED READING

Indicates a mandatory reading of Instructions for Use or other safety-related documentation.

1.5. About the Spot Dock Self-Charging Station

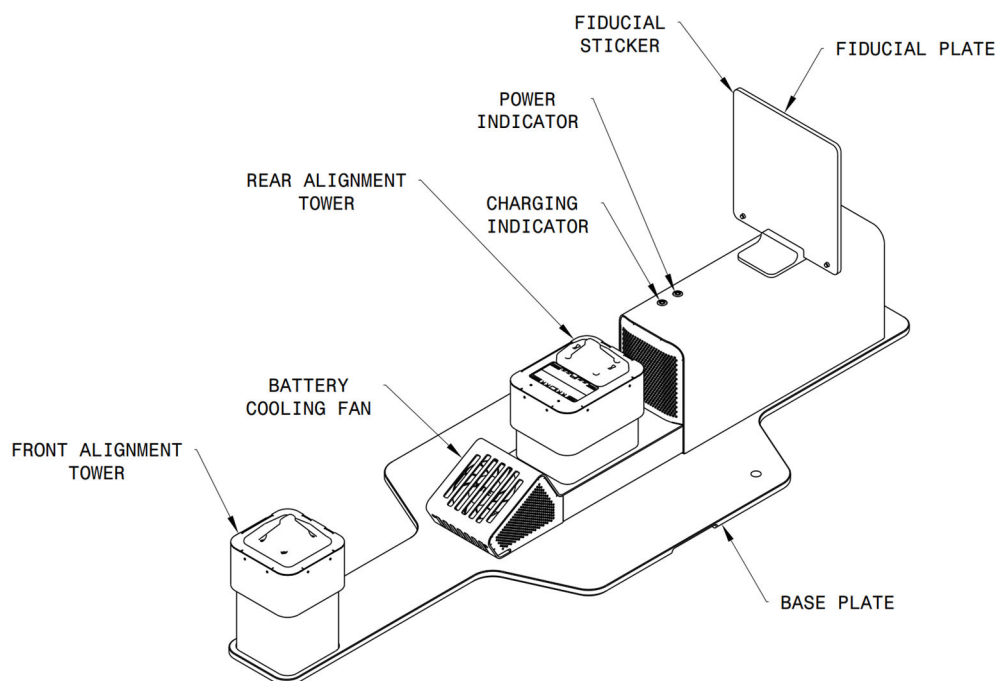
1.5.1. Description of the machinery



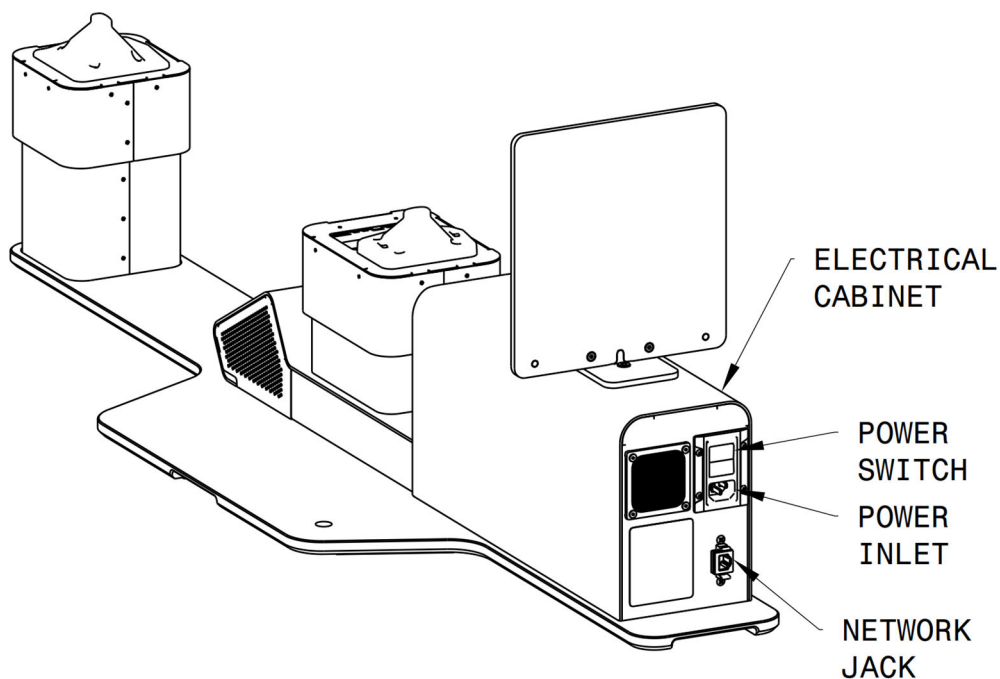
Spot standing over the Spot Dock

Spot Dock is a recharging station for compatible versions of the Spot robot.

Spot Dock automatically supplies power to recharge Spot's batteries through a dedicated connection on the rear alignment tower. Charging is automatically enabled by the Spot robot after properly sitting on the dock and activating the power flow.



Isometric front view of the Spot Dock

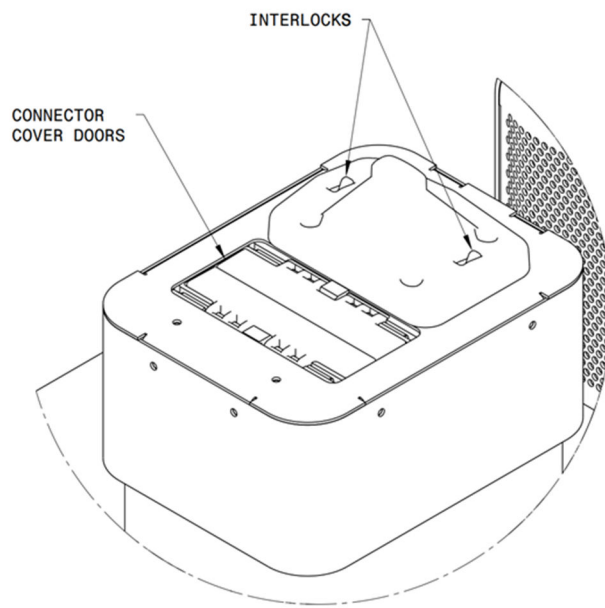


Isometric rear view of the Spot Dock

Spot Dock consists of a flat metal base plate that flares wide in the middle, onto which are mounted (from front to back):

- The front alignment tower
- A battery cooling fan
- The rear alignment tower
- The electrical cabinet

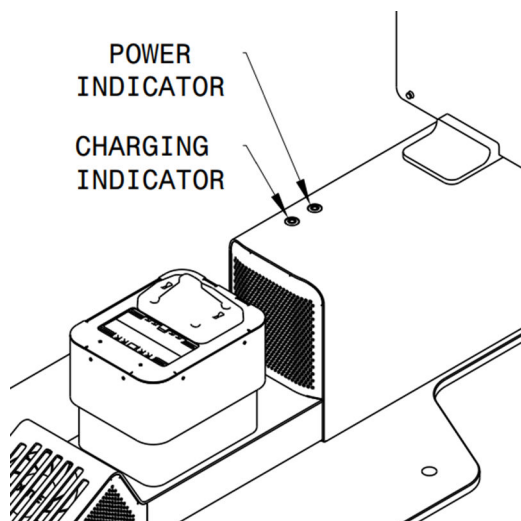
Indicator lights for power and charging are set into the top of the electrical cabinet. A fiducial plate with a dedicated dock fiducial sticker is mounted atop the electrical cabinet at the rear of the dock. On the rear face of the electrical cabinet are the power switch, power inlet, and network jack.

*Rear alignment tower detail*

When Spot is correctly aligned and sits down on the dock, the top section of the rear alignment tower is pushed downward, opening the connector cover doors and exposing a connector inside the dock that mates to a connector on the underside of the robot.

Before power flows, an interlock circuit is completed and then the output power from the dock turns on. When the robot stands to walk away, the interlock circuit is broken and power from the dock charger is turned off.

1.5.1.1. Status lights

*Indicator lights detail*

The Spot Dock power indicator light illuminates whenever the dock is connected to an electrical outlet and switched on. Because the dock is designed for Spot to automatically dock and recharge as needed

during operation, it is generally not necessary to switch the dock off when not in use. Keeping the dock switched on ensures that power is available to Spot when needed.

The Spot Dock charging indicator light illuminates red while Spot is charging, and turns green when Spot's battery is fully charged.



NOTICE

Spot's front status lights also indicate the robot's charging status while docked. For a complete description of robot status light patterns and their meanings, refer to *Spot Instructions for Use* or additional documentation in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).

1.5.2. Specifications

Specification	Value
Length	1200 mm
Width	420 mm (widest part of base plate)
Height	420 mm (including dock fiducial) 230 mm (to top of rear alignment tower)
Spot Dock weight	22 kg
Power	Input: 100-240V 50/60Hz 8A Output: 58V at 12A
Operating temperature	0°C to 35°C
Network	RJ45 Ethernet port (pass-through)
Software license	Spot Enterprise license required
Ingress protection	IP54

1.5.3. Expected robot recharge time

Estimated time to recharge the Spot Battery using Spot Dock:

Ambient temp	80% charge	100% charge
25°C	50 min	2 hours
35°C	2.5 hours	3.5 hours

2. Product Safety Overview

2.1. General principles

Spot Dock is a recharging station for the Spot robot. The Spot Dock automatically supplies power to recharge Spot's batteries when the robot is seated correctly on the dock connectors. Power flows by means of an interlock circuit, which is broken when Spot stands to undock.

Docking and undocking involve automatic robot locomotion and physical contact between Spot and the Spot Dock.

REQUIRED READING



For a complete description of Spot behavior and hazards during docking and undocking, refer to "Spot Instructions for Use" in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).

2.2. Intended use

Spot Dock is intended for use as an automated recharging station for the Spot robot. No manual intervention with the equipment is required during operation.

Spot Dock is intended to be used in a dedicated sheltered indoor area within Spot's operating environment, where access is restricted to trained operators.

REQUIRED READING



For an overview of the generic environmental conditions specified for Spot, review *Spot Instructions for Use* in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).

Spot Dock must only be used with compatible models of the Spot robot.

Explicitly prohibited uses include:

- Tampering with the dock charger.
- Tampering with the dock charger connector output pins.
- Trying to access the restricted area dedicated to Spot Dock.
- Any use other than charging Spot.

2.3. EM radiation considerations

Spot and the Spot Dock meet the requirements for unintentional radiators according to electromagnetic compatibility (EMC) standards related to heavy industrial environments (IEC 61000-6-2 and IEC 61000-6-4) and are able to withstand EM disturbances typically found in industrial environments (immunity) within standardized limits.



WARNING

Using Spot with the Spot Dock in environments with exceptionally high EM disturbances, or integrating high-emission attachments, may result in unexpected behavior from Spot and/or the Spot Dock.

2.4. Noise

Spot Dock generates a minimal amount of noise. The dock has two cooling fans, and it is normal to hear the fans spinning while the dock is operating.

No special PPE is required as a result of the noise generated by the Spot Dock.

2.5. Fire, Explosion, and Hazardous Materials

There are no known significant risks associated with Spot's lubricants.

The Spot battery pack contains cells that have electrolytes. All cells are fully enclosed in a sealed enclosure that has passed UN 38.3 transportation testing. In addition, the pack has CB Certification to IEC 62133 and has passed drop testing with no leakage of electrolyte.



DANGER

In the unlikely event of damage with visible breakage of any part of Spot or its batteries, **DO NOT** touch or attempt any recovery.

It is extremely unlikely that the battery generates fire under normal conditions of use and environment. If the battery catches fire, do not try to put it out. Evacuate to a safe area and call the fire department. Battery fires create toxic fumes and cannot be put out with conventional fire extinguishers or water.

2.6. General warnings

- Get help when moving the Spot Dock. The dock is a two-person lift due to its size and weight.
- Spot Dock must be installed inside a structure that prevents it from being exposed to rain, sea spray, wind-driven rain, or excessive dust.

- Spot Dock must be protected from spills and exposure to excessive humidity.
- Spot Dock must be protected from exposure to temperature extremes outside its general range.
- Do not manually disable the rear tower interlocks. This exposes a potential electrical hazard.
- Only trained service personnel should access the electrical cabinet.
- Keep hands and body away from Spot during docking and undocking.

3. Transport, Handling, and Storage

3.1. Transport

Spot Dock is transported in an ordinary cardboard box.

3.2. Safe handling

Unpacking and moving the Spot Dock is a two-person task. The dock weighs 22 kg. Spot Dock must always be carried by two people prior to installation.

**WARNING**

Do not handle the Spot Dock after putting it into service. Never handle the Spot Dock while it is powered on or while the robot is docked.

3.2.1. Personal Protective Equipment (PPE)

While handling Spot Dock, it is recommended to wear safety footwear. Check for additional PPE that may be required in the application environment.

4. Setup

Ideal dock locations are level, spacious, well-lit, protected from the elements, and centered within Spot's operating area. At larger sites, additional docks can be placed strategically to extend Spot's operating range.



NOTICE

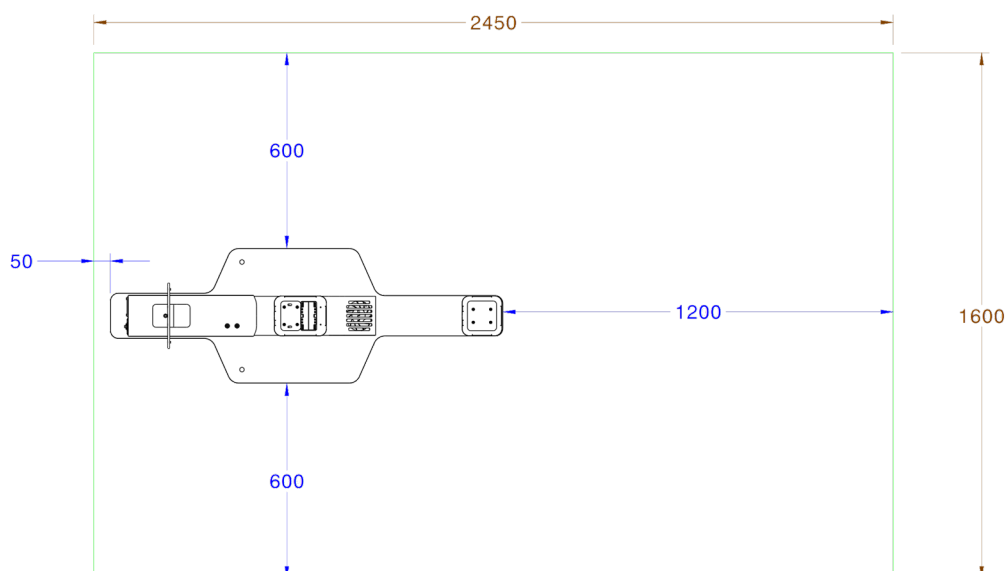
Do not install Spot Dock in a location enclosed by metal walls, fencing, or other structures that could disrupt WiFi signals to or from Spot. Loss of comms could prevent Spot from successfully docking, undocking, or launching or completing Autowalk missions.

4.1. Required clearances

Spot dock must be installed in a dedicated area with sufficient space for Spot to approach, turn, and navigate itself automatically onto and off of the dock.

Clearance requirements:

- Front: 1200 mm
- Sides: 600 mm
- Rear: 50 mm

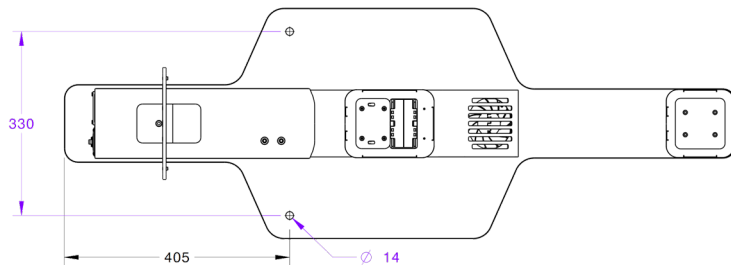


Spot Dock required clearances, in millimeters

4.2. Mount Spot Dock to the floor

Spot dock must be installed on flat and level ground and remain stable once deployed.

Affix the Spot Dock to the ground using M12 bolts set 330 mm apart, as shown here:



Spot Dock mount point locations and dimensions, in millimeters

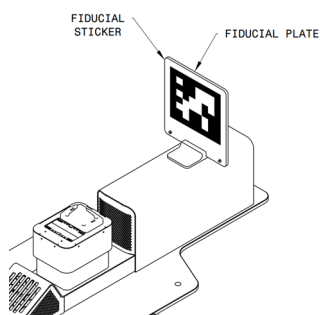
Installed bolt heads should not protrude more than 25.4 mm above the base plate to avoid presenting a tripping hazard.

After installation, check that mounting bolts are tight and that the base plate is not loose. Confirm that the dock is level.

4.3. Install the fiducial plate

Mount the fiducial plate to the bracket on top of the electrical cabinet using the included fasteners, then apply a fiducial sticker.

The plate and sticker must be mounted so the fiducial faces toward the front of the dock.



A correctly mounted Spot Dock fiducial plate

4.4. Dock fiducial requirements

Spot reserves AprilTag fiducials in the range of 520-549 for Spot Dock self-recharging stations. The dock is shipped with 30 fiducial stickers covering this range. Every Spot Dock you install in Spot's operating area must use a unique dock fiducial.

- The fiducial sticker must be applied so that it faces toward the front of the Spot Dock.
- Sufficient light is required for the robot to correctly recognize the fiducial. Position the dock so that it receives even, uniform, consistent, and bright artificial lighting.
- Avoid strong backlighting or sun glare. In changing lighting or sunlight, the robot may not be able to recognize the fiducial.
- The fiducial must be in good condition. Damaged fiducials should be replaced.
- To change a dock fiducial, first remove the existing sticker before applying a new one.

4.5. Connect Spot Dock to power and Ethernet

In addition to charging Spot's battery, the Spot Dock can provide a pass-through connection for Spot's rear Ethernet port. This allows Spot to connect to your wired network while docked, for instance to upload inspection data or performance logs.

To connect the Spot Dock to power and Ethernet:

1. Connect the socket end of the dock power cable to the power inlet on the rear panel of the dock's electrical cabinet, then connect the plug end to an electrical outlet.
2. Connect one end of an Ethernet cable to the Ethernet port on the rear panel, then connect the other end to an Ethernet outlet for your network.
3. On the rear panel, move the power switch to the "on" position. Verify that the power indicator light on the top of the electrical cabinet is illuminated.



NOTICE

Switching on the power will not supply power to the terminal connectors.

The Spot Dock provides only pass-through Ethernet. The dock itself is not a network endpoint. For instructions on configuring Ethernet access for Spot, refer to documentation in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).



NOTICE

Spot supports only one Ethernet interface at a time. Connect Spot using either the Spot Dock's Ethernet passthrough or the Ethernet port on Spot's rear panel, but not both. These interfaces are electrically identical, and using both at once will cause networking issues for Spot.



CAUTION

Make sure that all cords are properly stowed to avoid presenting an entanglement hazard for Spot during docking and undocking.

**WARNING**

To reduce the risk of electric shock and fire:

- Use a properly grounded outlet. Do not use ground adapters or replace the plug.
- Do not touch uninsulated parts of the output connector or battery terminals.
- Do not open or disassemble the dock charger.
- Do not use if the AC cord is damaged.

5. Use of the Machine

5.1. Dock and undock Spot

Spot Dock is designed to facilitate automatic recharging by Spot. No manual intervention with the equipment is required during operation.

Docking and undocking can be initiated by an operator during manual operation, or automatically by Spot when replaying an Autowalk mission. For complete instructions on docking and undocking Spot, refer to *Spot Instructions for Use* or additional documentation in the Boston Dynamics Support Center (see [Appendix A: Supplemental information](#)).

During docking, Spot:

1. Orients itself in front of the Spot Dock with its rear facing the dock.
2. Walks backward to position itself over the dock.
3. Aligns its body with dock fixtures.
4. Lowers its body to connect to the charging pins on the rear tower.
5. Lifts its legs and powers off its motors.

During undocking, Spot:

1. Starts its motors, if they are not already started.
2. Slowly unfolds and lowers its legs, then stands up.
3. Walks forward until its rear legs are clear of the Spot Dock.

Spot uses its perception system to recognize the Spot Dock and navigate automatically during docking and undocking.



NOTICE

Before docking or undocking Spot, ensure that the Spot Dock has been installed correctly and is in usable condition. See [Setup](#).

The Spot Dock may become damaged during docking and undocking. Periodically check the dock for signs of damage, including the pins that connect Spot to power and Ethernet.



CAUTION

Do not operate Spot with a visibly damaged Spot Dock. For details on what to do with a damaged dock, see [Maintenance](#).

Docking and undocking involve automatic robot locomotion and physical contact between Spot and the Spot Dock.

**WARNING**

- Spot could trip on the Spot Dock and fall.
- The layout of the Spot Dock and its surroundings (e.g. inclines, etc.) could cause Spot to be unstable.
- In case of a fall or lateral displacement, sensitive equipment could be damaged.

Ensure the area around the Spot Dock is clear and remove any sensitive electrical equipment.

Do not try to recover Spot from any instability. Do not approach Spot in any circumstance to attempt any troubleshooting during docking and undocking.

6. Maintenance

6.1. Service and repair

Do not attempt to service or repair Spot or the Spot Dock yourself. If errors or other issues persist during charging or docking and undocking, Spot or the Spot Dock may need attention from Boston Dynamics Support engineers. Include the following information when contacting Support:

- Spot serial number
- Spot Dock serial number
- Description of the issue

To contact Boston Dynamics Support, visit: <https://support.bostondynamics.com/s/contactsupport>.

6.2. Periodic inspection

To confirm that the dock is operating correctly, perform periodic inspections to check that when Spot is docked:

- The controller shows the robot's status, including charge level and dock ID.
- The Spot Dock charging indicator light illuminates red while charging and turns green when the robot is fully charged.

6.3. Clean and maintain the Spot Dock

The Spot Dock requires regular cleaning and basic preventive maintenance. Do not perform cleaning or maintenance while Spot is docked.



DANGER

In order to avoid exposure to electrical voltages and currents that could cause an electric shock, the dock must be switched off and the dock power cord must be removed from the dock before conducting cleaning or maintenance operations.



WARNING

Damage or ingress of foreign objects to the connector inside the rear charging tower may result in electrical hazards. Do not operate the Spot Dock or attempt to dock Spot if there is visible damage or foreign objects are present.

6.3.1. Exterior cleaning

When cleaning the exterior of Spot Dock:

- Use a vacuum with a brush attachment to remove dust from vents and filters.
- Use a dry or lightly dampened cloth to wipe down exterior surfaces.
- Keep moisture away from ports. Use extra caution around the connector door covers on the rear alignment tower, so moisture does not reach the charging connectors inside.
- Do not use bleach.
- Do not use strong solvents.
- Do not spray or submerge Spot Dock in water. Exposure to excessive moisture will permanently damage Spot Dock.

6.3.2. Inspect and clean the charging connector

The Spot Dock charging connector is located inside the rear alignment tower, beneath the connector cover doors.



DANGER

To avoid the risk of electric shock, disconnect the Spot Dock from power and wait at least 30 seconds for the power indicator light to turn off before beginning maintenance.

To clean the charging connector:

1. With Spot off the dock, locate the interlock tabs on the rear alignment tower, one on either side of the pyramid structure.
2. Press both interlock tabs back toward the rear of the dock, and then downward. This will cause the top section of the tower to descend, opening the connector cover doors and exposing the connector block. Maintain pressure on the interlock tabs to keep the pins exposed during cleaning.



NOTICE

The top section of the tower can be secured in the lowered position by wrapping a flat strap under the dock base plate and across the front edge of the top of the tower. This requires lifting the dock, which is a two-person task.

3. Inspect the connector pins and surrounding area for debris or signs of damage. Inspect the metal surfaces of the connector pins for any corrosion or discoloration.
4. If there is corrosion or discoloration on the connector pins, use a small nylon brush to remove it. To avoid scratching the pins or housing, do not use a brush with metal bristles. Do not use liquids or other cleaners.
5. Use a vacuum to clear dust and debris from around the charging pins. Use compressed air to blow out any remaining debris found in the charging port.

- 6.** After cleaning, examine the connector and charging port again for any damage such as bent, missing, or broken components.

If any damage is found during periodic maintenance, contact Boston Dynamics Support.

7. Declarations and marking

7.1. EU Declaration of Conformity

This is a copy of the signed document prepared in accordance with Low Voltage Directive 2014/35/EU, Annex III and supplied separately.

Manufacturer
Boston Dynamics, Inc. 200 Smith Street Waltham, MA 02451 USA

Person authorised to compile the Technical File, established in the Community
Alura Group BV Kroonwiel 2 6003 BT Weert The Netherlands

Description and identification of the product		
Product and function: This is a power supply used as a charging dock for the Spot robot.		
Spot Dock	Model: 04-00150139-xxx where xxxx may be any letter A to Z, number 0 to 9 or blank denoting country or cosmetic differences	s/n:BD-<Y><#####> Y =last digit of the year <#####> = 0010001 or higher

Declarations
It is declared that the above product, for what is supplied, fulfills all the relevant provisions of the following directives: Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.
Harmonized Standards Used, as referred to in: LVD: EN 61558-1:2019, EN 60204-1:2018 EMCD: EN 61000-6-4:2007/A1:2011, EN 61000-6-2:2005/AC:2005
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Authorised Representative
Jason P. Fiorillo, V.P. and General Counsel

Authorised Representative
Waltham, MA (USA) July 6, 2022

7.2. Labels

The following labels and nameplates appear on Spot Dock. Labels are located on the rear face of the dock electrical cabinet.



Spot Dock nameplate and label

8. Appendix A: Supplemental information

Additional information and resources about Spot are available online at the following URLs:

Resource	Section	URL
<i>Spot Instructions for Use</i>	About this document General principles Intended use Dock and undock Spot	https://support.bostondynamics.com/s/spot-product-safety
Connect Spot to Your Ethernet Network	Setup	https://support.bostondynamics.com/s/article/Connect-Spot-to-Your-Ethernet-Network-49938
Dock and Undock Spot	Dock and undock Spot	https://support.bostondynamics.com/s/article/Dock-and-Undock-Spot-49947
Spot Anatomy	About the Spot Dock Self-Charging Station	https://support.bostondynamics.com/s/article/Spot-Anatomy-49915