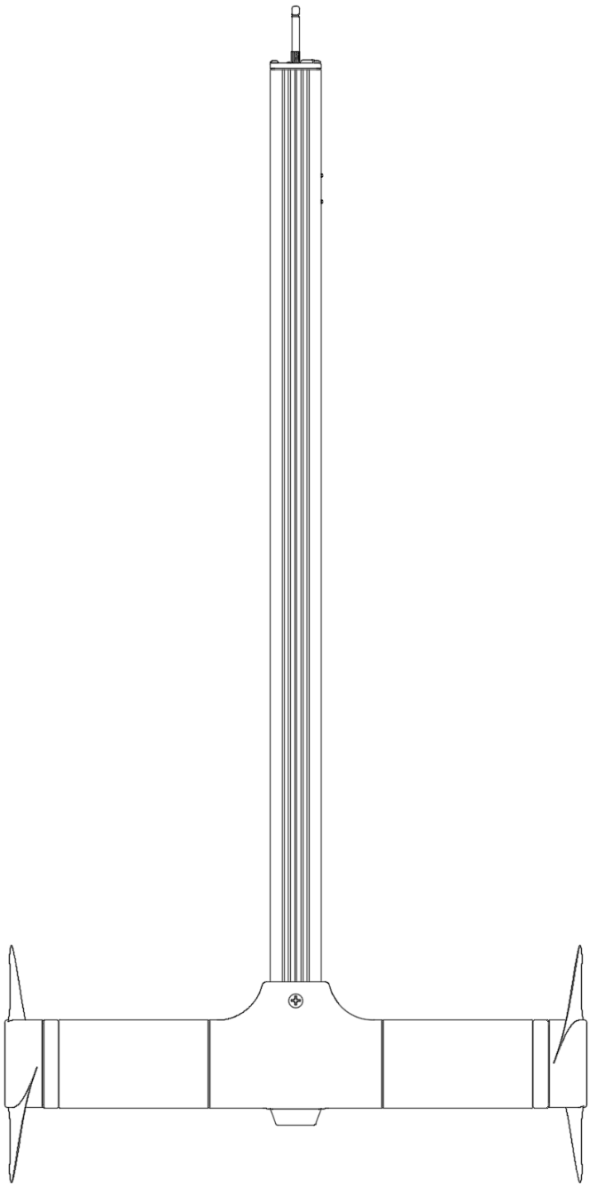
SMART THRUSTER
USER MANUAL



v. 260305

Contents

Thank you for choosing the DOCKSTAR Smart Thruster!

We're excited to be part of your boating adventures! We hope it brings you years of safe, enjoyable moments thanks to its simple, effective design.

Introduction

This manual is for boat owners who plan to prepare, operate, and maintain the DOCKSTAR Smart Thruster themselves. It provides clear, practical guidance while still covering the technical details needed for safe installation and reliable operation.

What This Manual Covers

This manual covers the operation of both **Smart Thruster Generation 1 and Generation 2**. The Operational procedures are all the same for Generation 1 and Generation 2 Smart Thrusters. The difference is the performance and physical size.

	First Generation	Second Generation
Operations & Controls	As described in the Manual	*No Change*
Motor Specs	30 Amp x2 (60 Amps total)	**42 Amp x2 (84 Amps total)**
Thrust	65 Pounds	**90 Pounds**
Weight	25.2 lbs.	27.1 lbs.
Length and Width	H: 40 Inches W: 20 Inches	H: 40 Inches W: 22 Inches
Run-time	10-minutes	*No Change*
Charge time	5 hours	*No Change*

> **Note**: This manual covers Smart Thruster operation on the Track Assembly. For Track Assembly installation instructions, visit: www.dockstarthrusters.com/manuals

Serial Number

Your Smart Thruster has a unique **Serial Number** assigned to it.

The **Serial Number** can be located inside the Thruster track above the **Thruster Jam**, approximately 4 inches below the face plate.

Please provide this number when contacting us for assistance, as it is associated with essential assembly details.

Before First Usage

1. Read this entire manual

The Smart Thruster is designed for simplicity, but this manual contains valuable safety and operational information.

2. Practice in calm conditions - Before attempting challenging maneuvers:

- Test operating the Smart Thruster in uncrowded, calm water.
- Feel how much thrust it creates and how your boat responds.
- Practice maneuvering several times.
- Verify the Remote Control works reliably from all positions on your boat.
- Test both starboard and port operation before entering confined spaces.

Safety Information

WARNING - Risks of personal injury or death

Do not deploy or operate the Smart Thruster near people swimming in the water or sitting on the dock. The spinning propeller could hurt them.

WARNING - Risks of personal injury or death

Avoid placing a **magnet** near the Smart Thruster when its power is on, as this may lead the thruster to be "armed", in which pressing any button on the Remote Control will activate it.

Caution - Potential damage to equipment

Avoid operating the boat at speeds over **3 knots** when the Smart Thruster is deployed. Going faster than 3 knots can put a lot of stress on the thruster housing. Additionally, the force combined with the cantilevered track can create quite a bit of torque on the mounting system, so it's best to keep speeds at or below this limit. Operating above this limit with the thruster deployed could cause the mount to fail and potentially damage the thruster or your boat. To help prevent this, please ensure the thruster is retracted when moving at higher speeds.

Caution - Potential damage to equipment

Never submerge the following. It is splash-proof, but not suitable for submersion.

- Entire Smart Thruster
- Faceplate of Smart Thruster
- Remote Control of Smart Thruster

Caution - Potential damage to equipment

If the Smart Thruster is dropped onto a hard surface or the faceplate is submerged, it is highly recommended to stop using the thruster until it has been thoroughly inspected and confirmed that no damage has occurred, as internal damage may not be visible from the outside. Using a damaged thruster is unsafe.

Caution - Potential damage to equipment

Stop using the Smart Thruster if one or both propellers are damaged until they are replaced.

Product Overview

Design Purpose and Advantage

The Smart Thruster is a deployable, self-contained electric thruster designed to reduce stress and increase safety during docking and low-speed maneuvering. Unlike conventional boat thrusters, which require hull modifications and dedicated electrical wiring, the Smart Thruster is battery-powered and remote-controlled, eliminating the need for an extensive installation process.

The Smart Thruster operates on a mating Track Assembly. The Track Assembly is a custom-built stainless-steel tube and T-Track system with integrated magnets, tailored to fit your boat's specific requirements.

The Smart Thruster can be retracted to be out of water after usage or completely removed from the Track Assembly to eliminate the drag that reduces the vessel performance.

The Smart Thruster can be used as a bow thruster or a stern thruster.

> **Note**: This manual covers Smart Thruster operation on the Track Assembly. For Track Assembly installation instructions, visit: www.dockstarthrusters.com/manuals

Specifications

Motor	PMDC Motor 42A 12V x2
Motor Power	1008W (1.35HP, 3-4HP gas engine equivalent) †
Thrust	90lb
Runtime	10 minutes per full charge
Battery	Lithium-ion (LFP) Battery, 12.8V, 15Ah
Battery Cycle Life	> 2500 full discharge/recharge cycles
Charging Voltage	110V
Charging time	5 hours from zero charge
Control	RF Remote Control (418MHz)
Total Weight	27.1lb
Size	(See “Dimensions” page in this manual.)
Bow/Stern	Switchable by settings at customer if necessary
Patent	U.S. Patent No. 9,975,620

† We use horsepower (HP) ratings as a 'real-world' comparison to show you the kind of performance you can expect on the water. While it’s not a direct technical measure for electric motors, it’s the easiest way to see how much easier docking will be with a DOCKSTAR Smart Thruster!

Intended Use

The Smart Thruster is best suited for:

- Recreational boats 20~50 feet length
- Sheltered harbors and marinas
- Low-speed docking and maneuvering
- Situations requiring fine lateral positioning

It is NOT designed for:

- High-speed steering
- Strong current or heavy wind control
- Offshore maneuvering
- Emergency propulsion

Always operate your boat as if the thruster could become unavailable at any time.

Safety Features and Designs

1. Motor Safety Inhibit

- Motors only operate when the Smart Thruster is fully lowered at the bottom of the Track and the embedded sensor senses it. This feature prevents accidental activation when the Smart Thruster is not deployed.
- Dual-layer protection: software monitoring and hardware inhibition.
- LED flashing pattern indicates when it is ready to operate.

2. Battery Protection

- Battery contacts are isolated by a relay when the charger is unplugged.
- Over-current protection with a self-resetting fuse.
- Over-voltage protection during charging.
- Under-voltage protection during operation.
- Lithium-ion (LFP) battery technology (one of the safest lithium chemistries).

3. Motor Protection

- Constant current monitoring.
- Automatic shutdown on overcurrent.
- Soft start/stop to prolong motor life and reduce mechanical stress.

4. Communication Integrity

- FCC-certified transmitter/receiver.
- Secure pairing code system.
- Multiple reception verification required.
- Automatic 30-second timeout on latching commands.
- Protection against spurious signals.

5. Quality Hardware

- Schaefer Marine T-track mounting system.
- Standard marine-grade stainless steel components.
- Fixtures from Suncor Marine and SeaDog Line.
- Years of proven production quality.

6. Radio Interference

The Remote Control operates on 418 MHz, an FCC-managed frequency band. While the FCC limits power to prevent interference, radio disruption is possible in rare cases. If communication issues occur:

- Retract and turn off the Smart Thruster
- Contact us for assistance
- Do not use Smart Thruster if interference persists

Regulatory Information
USA - Federal Communications Commission (FCC) This product contains a radio transmitter module that has been certified by the FCC. Contains FCC ID: OJM-CMD-HHCP-XXXB This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. ⚠ CAUTION: Changes or modifications to this unit not expressly approved by DOCKSTAR LLC or the party responsible for compliance could void the user's authority to operate the equipment.
Canada - Innovation, Science and Economic Development (ISED) This product contains a radio transmitter module that complies with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Contains IC: 5840A-HHCP418B Operation is subject to the following two conditions: 1. This device may not cause interference. 2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Key Limitations

1. Speed and Deployment

- Must be retracted above water when cruising at speed to avoid damaging it.
- May require complete removal from the Track during rough sea conditions to avoid damaging it.
- Not suitable for mounting on fast-moving V-hull boats where it cannot be raised above the waterline.

- Pontoon boats are typically compatible as they allow retraction above deck level.

2. Environmental Factors

Smart Thruster is a helpful aid, but has limitations against:

- Strong winds
- Fast-moving currents

Practice in light winds and gentle currents first to understand how it works with your main engine.

3. Operator Responsibility

- Smart Thruster does not replace proper boat handling skills.
- Always operate carefully to avoid damaging your boat, other vessels, or docks.
- Be prepared to dock safely without the thruster if issues occur.
- Installation integrity is the boat owner's responsibility.

Getting Started

What's in the Box

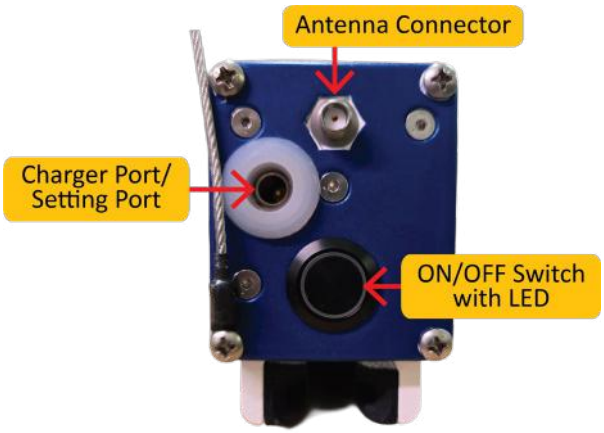
- DOCKSTAR Smart Thruster (Generation 2)
  - Harness Lanyard with Pully (Attached to Smart Thruster)
- Remote Control (RF 418MHz. RC2032 coin cell installed)
  - Remote Control Rubber Cover (Remote Control accessory)
  - Remote Control Lanyard (Remote Control accessory)
- Battery Charger (4 Amp, LFP-specific)
  - Removable power cable (Attached to Battery Charger)
- Antenna (RF 418MHz)
- Propellers (x2)
- Drive Pins (x2) (Propeller installation parts)
- Toothed Washers (x2) (Propeller installation parts)
- Prop Nuts (x2) (Propeller installation parts)
- Rope
- Pairing Plug
- Top Cover
- Quick Start Guide

First-Time Setup

Faceplate Preparation

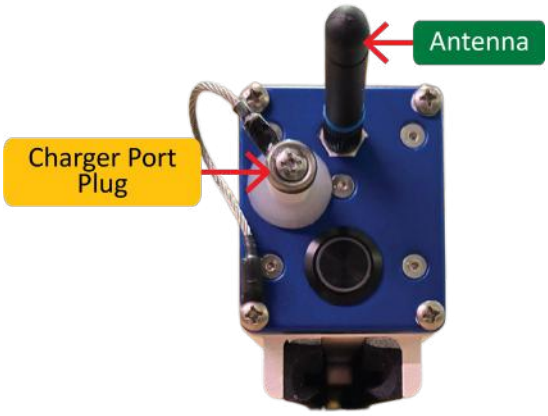
The Faceplate has three important components:

- **Antenna Connector**: Connector to install the Antenna.
- **Charger Port/Setting Port**: Port to receive 1) Battery Charger Plug for charging, or 2) Paring Plug for "Pairing".
- **ON/OFF Switch with LED**: A mechanical latching switch with an integrated LED. The LED's flashing pattern indicates the system status; for a detailed guide, refer to the "LED Flashing Patterns" section at the end of this manual.



The Smart Thruster is delivered to you without the **Antenna** installed to avoid damage during transportation.

Install the **Antenna** finger-tight onto the Antenna Connector on the Faceplate.



TIP: Always install the **Antenna** during operation for maximum range. Without the **Antenna**, the range is VERY limited.

TIP: Cover the **Charger Port/Setting Port** with the **Charger Port Plug** when not charging or pairing to protect it from water or debris.

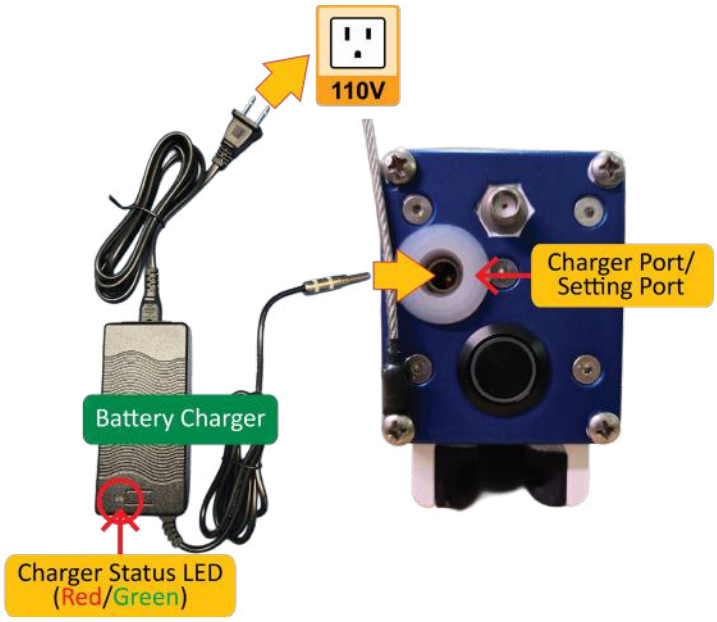
TIP: Cover the Faceplate with the **Top Cover** to protect it from splashing water or weather.

Battery Preparation

The Smart Thruster is delivered to you with its battery in a low state of charge for safety during transportation.

To charge the Smart Thruster, connect the **Battery Charger** to a 110V power outlet and insert the **Charger Plug** into the **Charger Port/Setting Port**.

It takes about five (5) hours to fully charge the Smart Thruster from the low charge state.



TIP: Make sure you FIRMLY insert the Charger Plug into the Charger Port. It will not charge properly if it is only partially inserted.

Charger Status LED

LED Color	Charger Status
(No Light)	Charger is not charging. Charger is not active.
GREEN	Charger is ready to charge. Smart Thruster is balancing after charging.
RED	Charger is charging the Smart Thruster.

To know the level of charge of the battery, see “LED Flashing Pattern” page at the end of this manual.

TIP: For maximum Battery life, allow the Smart Thruster to fully charge and balance after no more than a total of 10 minutes of operation.

For maximum motor performance, fully charge the Smart Thruster before use.

Propeller Installation

The Smart Thruster is delivered to you without the **Propellers** attached to the motors to prevent damage during transportation.

Please assemble them following the instructions below.

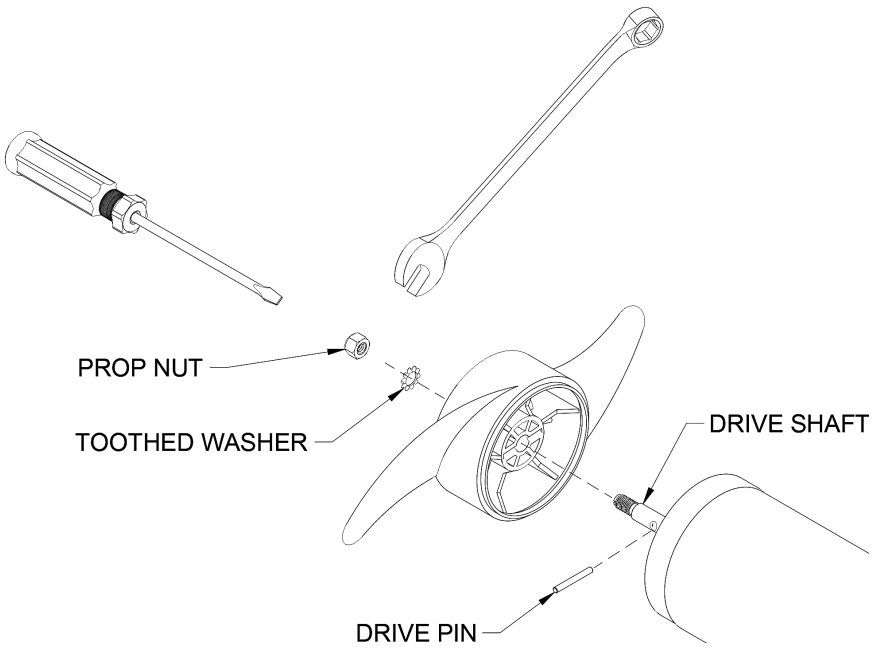
1. Propeller Installation Instructions

Contents of the Propeller Kit Bag in the delivery package:

- Propeller x2
- Prop Nut x2
- Toothed Washer x2
- Drive Pin x2

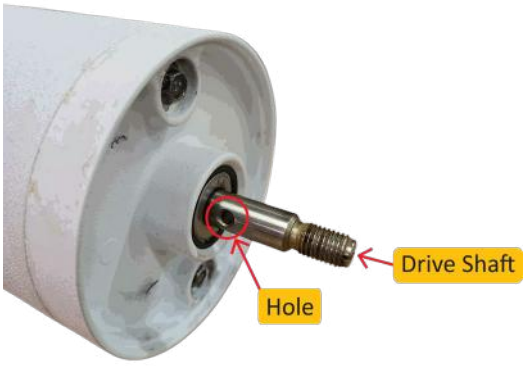
Tools you need to prepare:

- Wrench
- Flathead Screwdriver



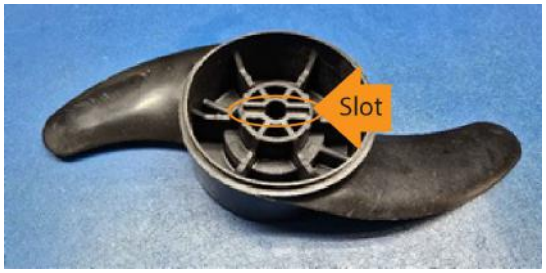
2. Insert Drive Pin

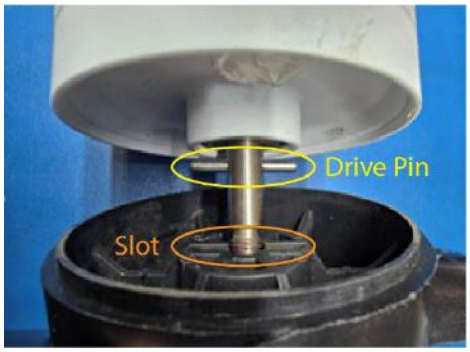
a. The Drive Shaft has a hole for the Drive Pin.
b. Insert a Drive Pin into the Drive Shaft.
c. Rotate the Drive Shaft so the Drive Pin is horizontal to prevent falling out.
d. Ensure the Drive Pin is centered on the Drive Shaft.



3. Align Propeller

a. Locate the Slot on the back of the Propeller.
b. The Drive Pin slides into this Slot.
c. Align the Slot with the Drive Pin as you slide the Propeller onto the Drive Shaft.





4. Verify Engagement

a. Twist the Propeller back and forth.
b. Verify the Drive Pin is properly engaged.
c. Confirm that the Drive Shaft moves with the Propeller.

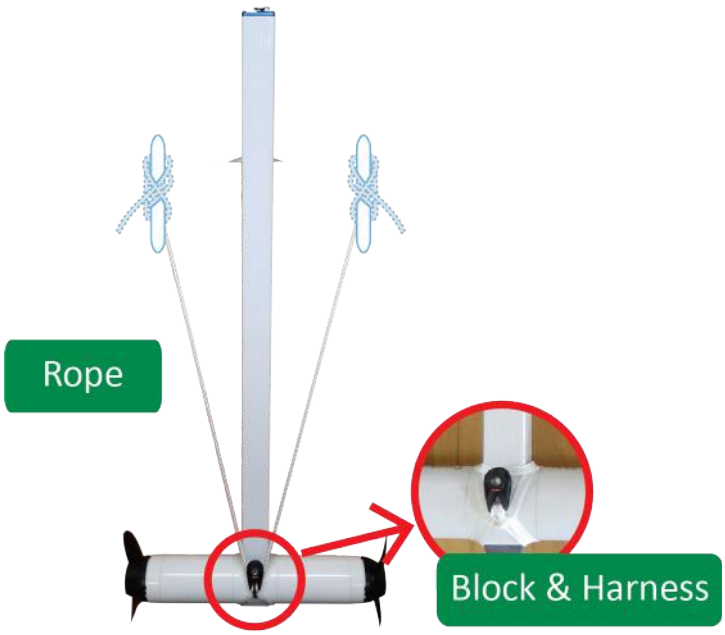
5. Secure Propeller

a. Screw on the Toothed Washer.
b. Screw on the Prop Nut.
c. Tighten 1/4 turn past snug.
d. Do not over-tighten - this can damage the propeller.

TIP: There should be little resistance until the Prop Nut contacts the Propeller. If you feel resistance earlier, the Prop Nut may not be aligned with Drive Shaft threads. Unscrew and try again.

Rope Installation

Insert the **Rope** into the **Pully Block** attached to the Smart Thruster with **Harness Lanyard**. The Rope is used to lower/raise the Smart Thruster on the Track.



Mount Installation

The Smart Thruster requires a mating **Track Assembly** that is attached to the boat to be used and operated.

For the mount installation guides, visit: www.dockstarthrusters.com/manuals

Operation

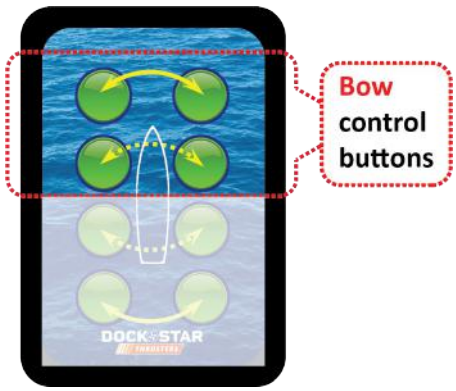
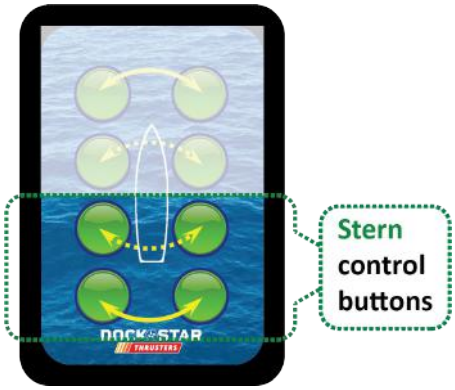
Remote Control

The Smart Thruster is operated and controlled by receiving commands from the paired **Remote Control**.

TIP:

- You can have multiple numbers of Remote Control to control your Smart Thruster. (Your Smart Thruster comes with one Remote Control. Additional Remote Controls are sold separately.)
- A single Remote Control can operate multiple Smart Thrusters once properly "paired".

1. Button Layout

BOW Thruster Control	**STERN** Thruster Control
If you use the Smart Thruster as a **BOW** thruster, use only the top four (4) buttons. 	If you use the Smart Thruster as a **STERN** thruster, use only the bottom four (4) buttons. 

Note: The BOW buttons do not affect the STERN motors and vice versa.

Note: If you have two Smart Thrusters and use them as a BOW and a STERN thruster on your boat, you can operate both with a single Remote Control, using all the 8 buttons.

2. Button Types

"Momentary" buttons

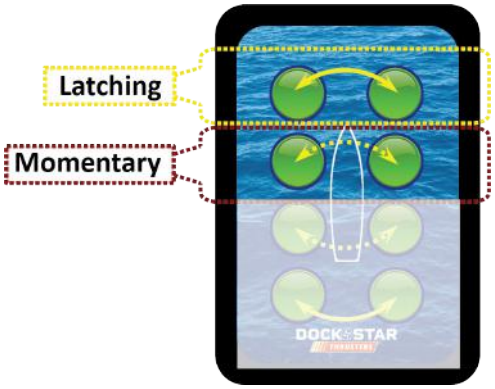
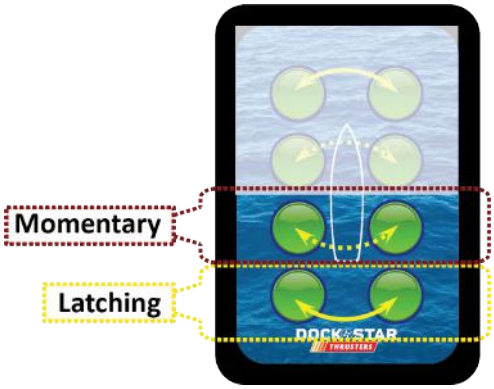
The inner buttons with dotted arrows are for the momentary action.

- The Smart Thruster's motors turn while the button is pressed.
- Press and hold the button for at least 0.5 seconds.
- Release the button to stop the action.

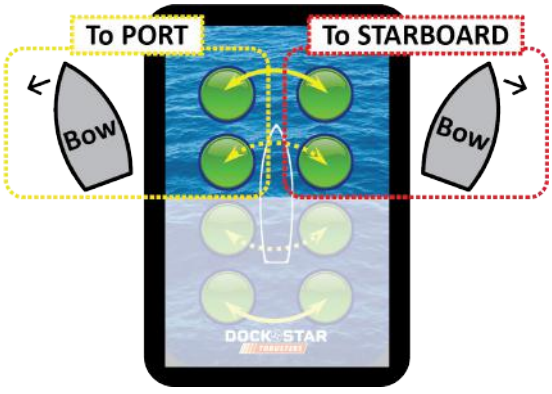
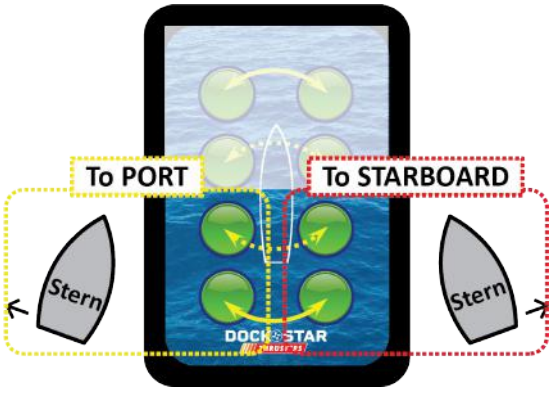
"Latching" buttons

The outer buttons with solid arrows are for latching action.

- The Smart Thruster's motors turn on as soon as the button is pressed and stay on even after being released.
- The latching action continues for 30 seconds after the last button push and automatically stops.
- To stop the latching action before 30 seconds pass, press either of the momentary buttons, corresponding or opposite.
- To "retrigger" the latching action before 30 seconds pass, press the same button.

BOW Thruster Control	**STERN** Thruster Control
	

3. Direction

BOW Thruster Control	**STERN** Thruster Control
Buttons on the Left side: Push BOW to port. Buttons on the Right side: Push BOW to starboard. 	Buttons on the Left side: Push STERN to port. Buttons on the Right side: Push STERN to starboard. 

4. Range

Remote Control's nominal line-of-sight transmission range is up to 100 feet. Please note that, depending on the surrounding environment, this range may be shorter. The maximum range requires the **Antenna** installed on the Smart Thruster.

5. Battery Replacement of Remote Control

Your **Remote Control** comes with a battery already installed.
Remove the plastic battery pull tab before using it.
The Remote Control uses a standard **CR2032 battery**.
To replace the battery, remove the access cover on the back by pressing firmly on the label area and sliding it off. Once the unit is open, remove the battery by sliding it from beneath the holder.

TIP: It is recommended to replace the battery **every year**, **or sooner** if you are an active boater.

TIP: The Remote Control should be stored at room temperature when not in use. Exposure to prolonged cold may cause the plastic to become brittle.

6. Unique Code assigned to Remote Control

Your **Remote Control** has a unique code assigned corresponding to your Smart Thruster's **Serial Number**. It is "paired" with your Smart Thruster before shipping. Your Smart Thruster only responds to the command from your **Remote Control**.

Pre-Deployment Checks

- ☐ Verify Battery is at least **50% charged**. To know it, press the **ON/OFF Switch** and read the LED flashing pattern.
- ☐ Check the **Propellers** for damage or debris.
- ☐ Confirm the Smart Thruster slides smoothly on the **Track**.
- ☐ Ensure the **Track** can withstand forces during deployment and underway operation.
- ☐ Test the operation with the **Remote Control**.

Understanding the System Inhibition

The Smart Thruster travels along the **Track** and is lowered manually using a **Rope** and **Lanyard**. Only when the Smart Thruster is FULLY lowered on the Track, does the system detect engagement and becomes ready to operate.

IMPORTANT!
• Motors will not run unless the Smart Thruster is fully lowered on the Track and deployed. • The sensor prevents accidental dry operation when the Smart Thruster is not deployed. • Do not drop the Smart Thruster down the track to avoid shock. Lower it in a controlled manner.

Deployment

1. Place the Smart Thruster ready at the top of the **Track**. Press the **ON/OFF Switch** to activate the Smart Thruster. See the LED comes on and shows one of the Normal Operation flashing patterns. (Refer the "LED Flashing Pattern" at the end of this manual.)
2. Untie the **Rope** from a secure point (a rail or a cleat), lower Smart Thruster slowly and carefully down the **Track**. Avoid dropping the Smart Thruster. Sudden impact can damage the Smart Thruster or your boat.

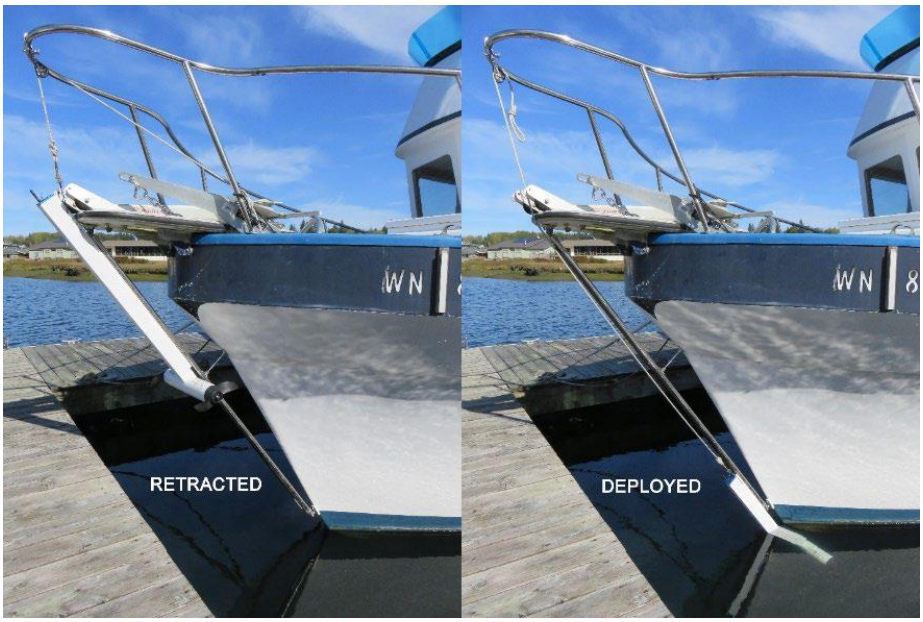


Figure: Smart Thruster retracted and thruster deployed (Bow thruster)

3. Ensure the Smart Thruster is fully lowered on the **Track** to hit its bottom. See the LED flashing pattern changes to a rapid, uniform blinking, indicating the Smart Thruster is ready to operate.
4. Carefully tie the **Rope** to a secure point to hold the Smart Thruster in the deployed position.
5. Have the **Remote Control** in your hand to operate the Smart Thruster. Press the button to maneuver the boat as you want. (To know the details of how to use the Remote Control, see the "Remote Control" section in this manual.)
6. Once operating the Smart Thruster to maneuver the boat is done, retract it to the top of the **Track** by pulling the **Rope** and remove the Smart Thruster out of the water. Carefully tie the **Rope** to a secure point to hold the Smart Thruster in the retracted position. Remember to keep the Smart Thruster out of the water when going faster than 3 knots.

7. After finishing using the Smart Thruster, remove it completely from the **Track**. Rinse it off with water (avoid splashing water on the Faceplate!) and check for any damage is a good habit. Store it in a dry space and fully charge it for the next use.

TIP: Cover the Faceplate with the **Top Cover** to protect it from splashing water or weather.

TIP: For maximum Battery life, allow the Smart Thruster to fully charge and balance after no more than a total of 10 minutes of operation.

For maximum motor performance, fully charge the Smart Thruster before use.

Maintenance

Regular Maintenance

Frequency	Part	Recommendation
Routine/Every Usage	Thruster	Rinse the entire Smart Thruster with freshwater. Then gently wipe it with a cloth dampened with an aqueous-based silicone spray. Be careful not to spray water into the Faceplate parts (ON/OFF switch, Antenna Connector, Charger Port/Setting Port) at the top of the Smart Thruster.
	Propellers	Give the **Propellers** a quick inspection and remove any weeds or fishing line to keep everything running smoothly.
	Battery	For maximum **Battery** life, allow the Smart Thruster to fully charge and balance after no more than a total of 10 minutes of operation. For maximum motor performance, fully charge the Smart Thruster before use.
Periodical	Track	The **Track Assembly** should be cleaned and lubricated regularly to ensure smooth retraction and deployment. A light spray of water-based silicone will help protect the parts and keep the thruster working well on the track.
	Propellers	To keep the **Propellers** working at their best, ensure the blade edges stay smooth. If they become rough or nicked, gently sand them with fine sandpaper to restore their smoothness. Verify that the **Prop Nuts** securely hold the Propellers.
	Antenna	The **Antenna** and its base threads require periodic cleaning and lubrication to prevent seizing. A thin coating of an aqueous-based silicone spray will help to protect components.
	Charging Port/Setting Port	Regularly check the **Charging Port/Setting Port** and keep it dry, free of corrosion, and free of debris.
	Harness Lanyard	The Smart Thruster is held up out of the water by the **Harness Lanyard** when retracted. Please regularly check it. If you notice any frayed lines, replace the lanyard promptly.
Annually	Remote Control	Replace the battery in the **Remote Control** each year, or sooner if you're often out on the water. It is a CR2032 Coin Cell Battery. A weak battery can cause communication issues with the Smart Thruster and pose safety concerns. Find the instructions to replace the battery in the "Remote Control" section in this manual.
When storing	Thruster	Lightly spray all metal parts of the Smart Thruster with a water-based silicone spray to protect them. Keep it in a dry space.

Special Maintenance – Smart Thruster Pairing

What is "Pairing"?

Your Smart Thruster is "paired" with your **Remote Control** at our shop before shipping. The Smart Thruster ONLY responds to the commands from the "paired" **Remote Control**.

The **Pairing Plug** is the key to reprogramming this "pairing" on your Smart Thruster and to changing its configuration between Bow and Stern.

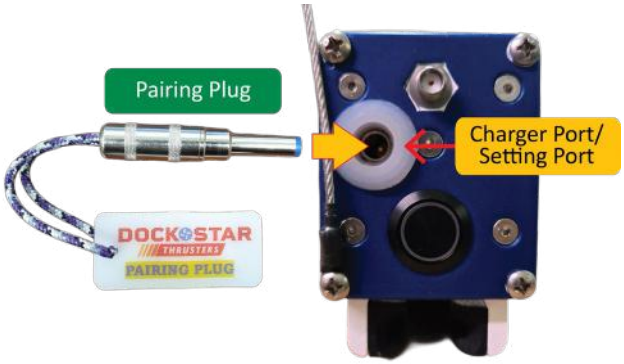
Possible scenarios for using it include, but are not limited to, the following, which are unlikely to occur in normal usage. Please consult with us if you think you need "pairing".

- You bought the Smart Thruster as a bow thruster from us, but you now want to change it to a stern thruster.
- You need to pair your **Remote Control** with your Smart Thruster for some special reason.

Pairing Instruction

What you need for Paring	Smart Thruster, Remote Control, and Pairing Plug

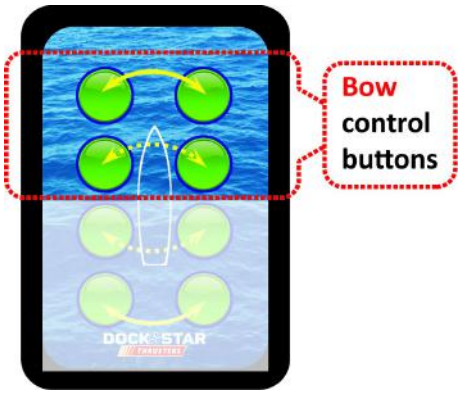
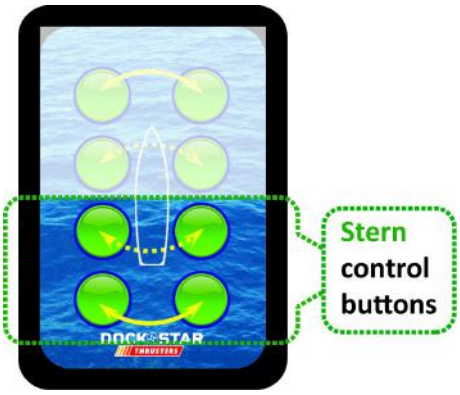
1. Insert the **Pairing Plug** into the **Charger Port/Setting Port** of the Smart Thruster.



TIP: Make sure you FIRMLY insert the Pairing Plug into the Setting Port. It will not pair properly if it is only partially inserted.

2. Press the **ON/OFF Switch** of the Smart Thruster to turn it on.

3. Observe the LED flashing pattern is "Waiting to be paired". (Refer to the table below)

To pair and configure your Smart Thruster as a **BOW thruster**	To pair and configure your Smart Thruster as a **STERN thruster**
Press and hold one of the four **BOW control buttons** for up to **30 seconds** until the LED flashing pattern switches to **solid on**. Release the button.	Press and hold one of the four **STERN control buttons** for up to **30 seconds** until the LED flashing pattern switches to **solid on**. Release the button.
	

4. Once the LED flashing pattern switches from the "Waiting to be paired" to a solid on.
5. Press the **ON/OFF Switch** to turn the Smart Thruster OFF. Unplug the **Pairing Plug**.
6. Now the Smart Thruster is properly paired and configured.
7. To verify the update, test operating the Smart Thruster with the paired **Remote Control** and see if it works as you desired.

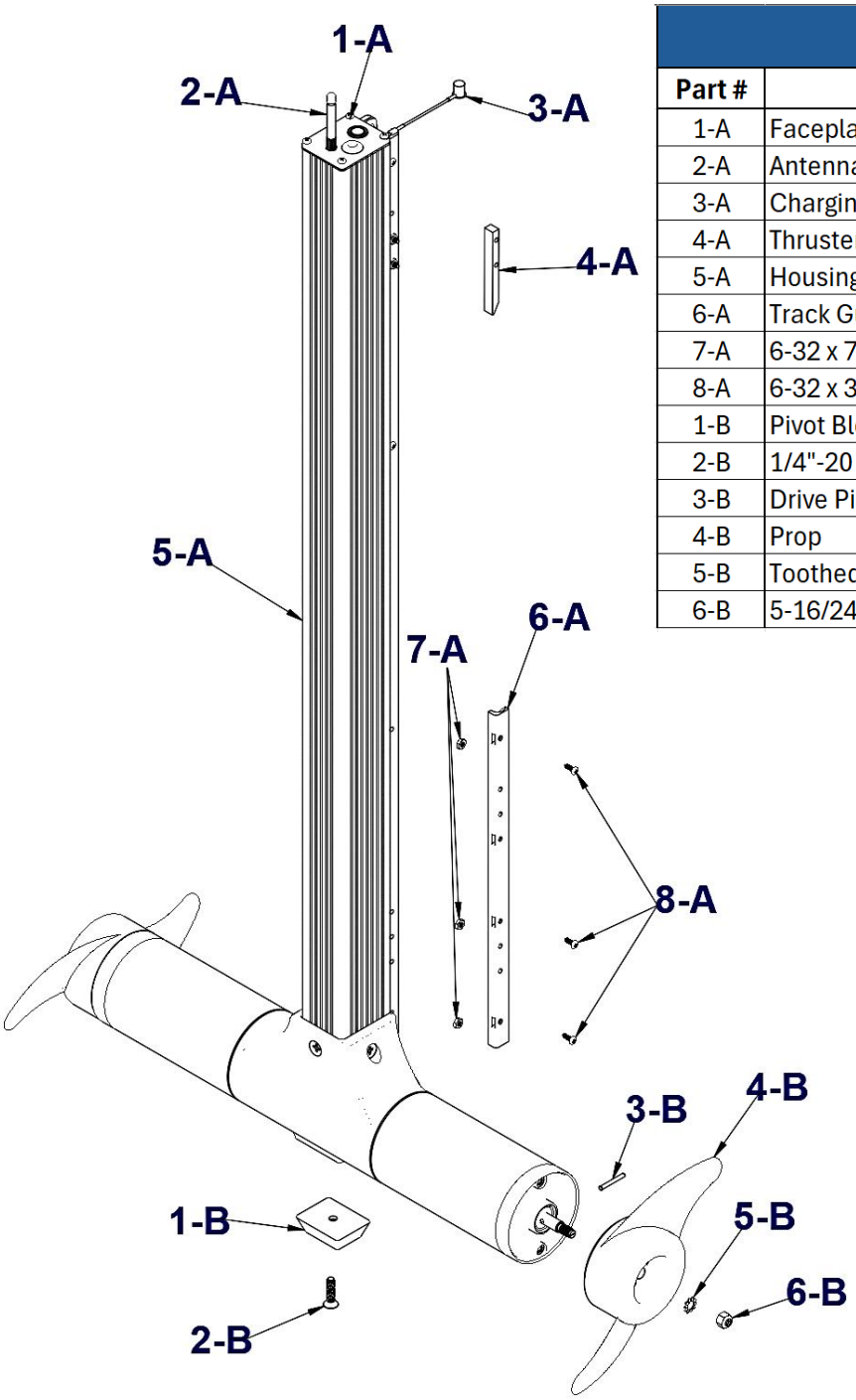
Pairing Mode Flashing Pattern on ON/OFF Switch (The LED flashing patterns repeat every 1.5 sec)

Troubleshooting

Symptoms	To do
Smart Thruster fails to run or lacks power.	o Make sure that the Smart Thruster is fully seated at the bottom of the Track assembly and that the LED flashing pattern indicates that the thruster is armed for operation. o Read the LED flashing pattern and see if the battery is charged to at least 50%. o Make sure the Remote Control has been paired with the Smart Thruster. o Make sure that the battery in the Remote Control has enough charge.
Smart Thruster loses power after a short running time or feels very weak.	o Read the LED flashing pattern and see if the battery charge level. If low, use the Charger to charge fully.
Smart Thruster is difficult to lower to the bottom of the Track.	o Verify that the Track assembly is straight and free of damage. If the Track is damaged or bent, do not use the Smart Thruster before repairing or replacing the Track assembly. o Verify that the Smart Thruster's Track Guides are fully installed, straight and free of damage. i. If the Track Guides of the Smart Thruster are missing or damaged, do not use the Thruster. Repairing or replacing the Track Guide is necessary. Contact us. ii. If the Track Guides are misaligned, the components can be loosened. Retighten them so they are properly aligned. iii. If the Track Guides are gripping the Track Assembly too tightly, the back of the Track Guides may need to be lightly sanded to allow the Smart Thruster to slide freely on the Track Assembly. o Lubricate the Track Assembly and Track Guides of the Smart Thruster with an aqueous-based silicone spray.
You experience propeller vibration during regular operation.	o Remove and rotate the Propeller 180°. See the Propeller assembly instructions in the "Propeller Installation" section in this manual. o Check that the Propeller cap and blades are free from damage and debris.

Smart Thruster is not charging.	○ Make sure that the Charger's Charging Plug is fully inserted in the Charging Port. ○ Observe that the LED on the Charger changes from GREEN to RED when plugged into the Smart Thruster. i. If the LED is not lit, either GREEN or RED, then verify that the outlet the Charger is plugged into is operational. ii. If the LED is not lit, either GREEN or RED, then verify the removable cord is fully inserted in the body block of the Charger and that the receiving port is free of debris and corrosion. iii. If the LED is lit, but does not change from GREEN to RED, verify that the outlet is supplying a clean signal natural sinewave 110-120 VAC, 60Hz, 4-amp output to the Charger.
Smart Thruster fails to run, or runs erratically, and the LED flashing pattern is not recognized from the Table "LED Flashing Pattern" at end of this manual.	Please record a 20, or more, second long video of the LED flashing pattern or erratic operation, and submit it to info@dockstarthrusters.com or (360) 930-6622. Do not use the Smart Thruster until this problem is resolved.

Diagram and Parts List

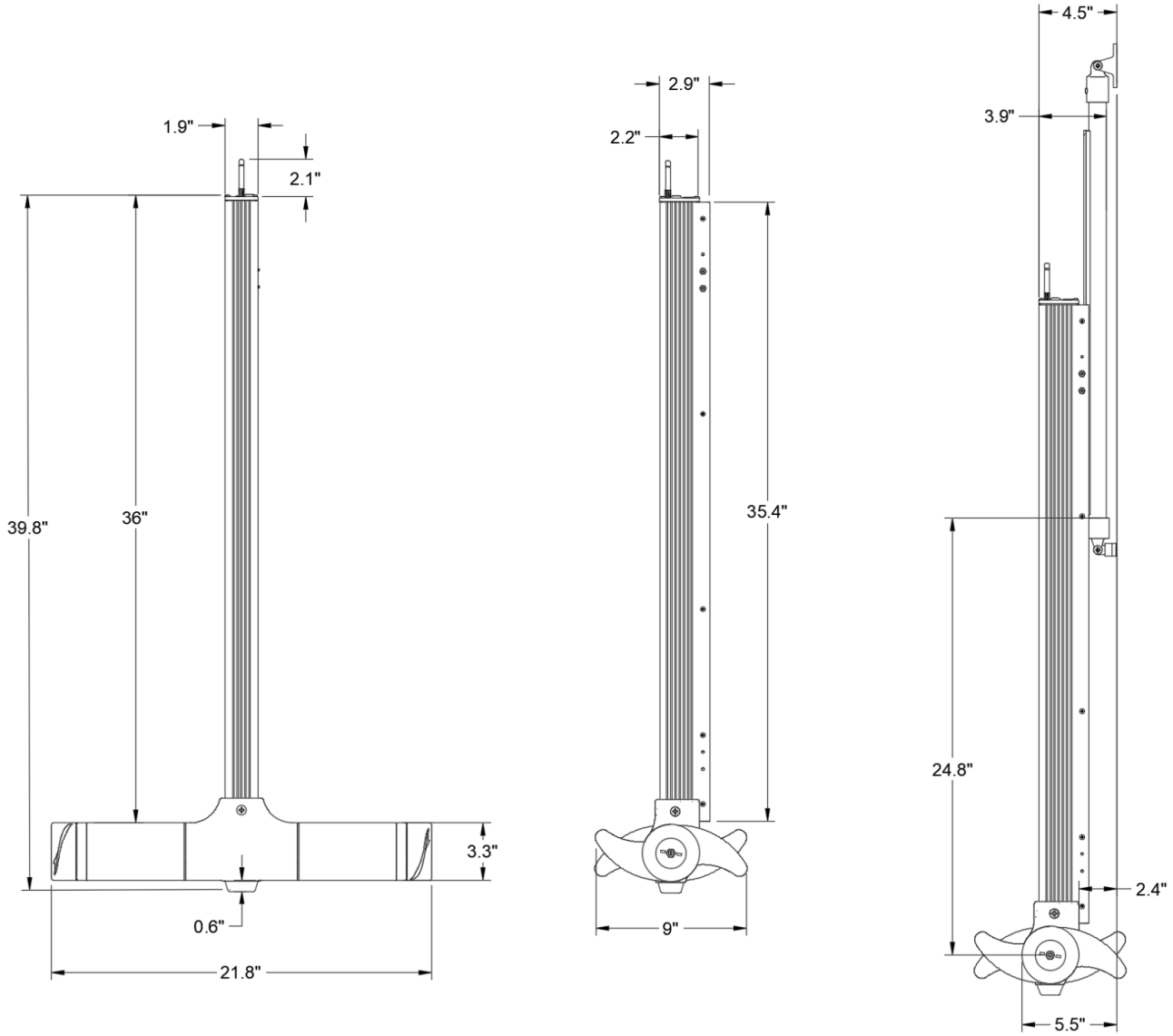


Parts List		
Part #	**Part Name**	**QTY.**
1-A	Faceplate	1
2-A	Antenna	1
3-A	Charging Port Plug	1
4-A	Thruster Jam	1
5-A	Housing	1
6-A	Track Guide	4
7-A	6-32 x 7/6" Nut	10
8-A	6-32 x 3/8" Pan Head Screw	10
1-B	Pivot Block	1
2-B	1/4"-20 x 1" Flat Head Screw	1
3-B	Drive Pin	2
4-B	Prop	2
5-B	Toothed Washer	2
6-B	5-16/24 Prop Nut	2

Note: The diagram depicts the Generation 2 model. For Generation 1, please note the following differences:

- Track Guide (6-A): Integrated and non-removable.
- Hardware (2-B, 5-B, 6-B): different types are used.

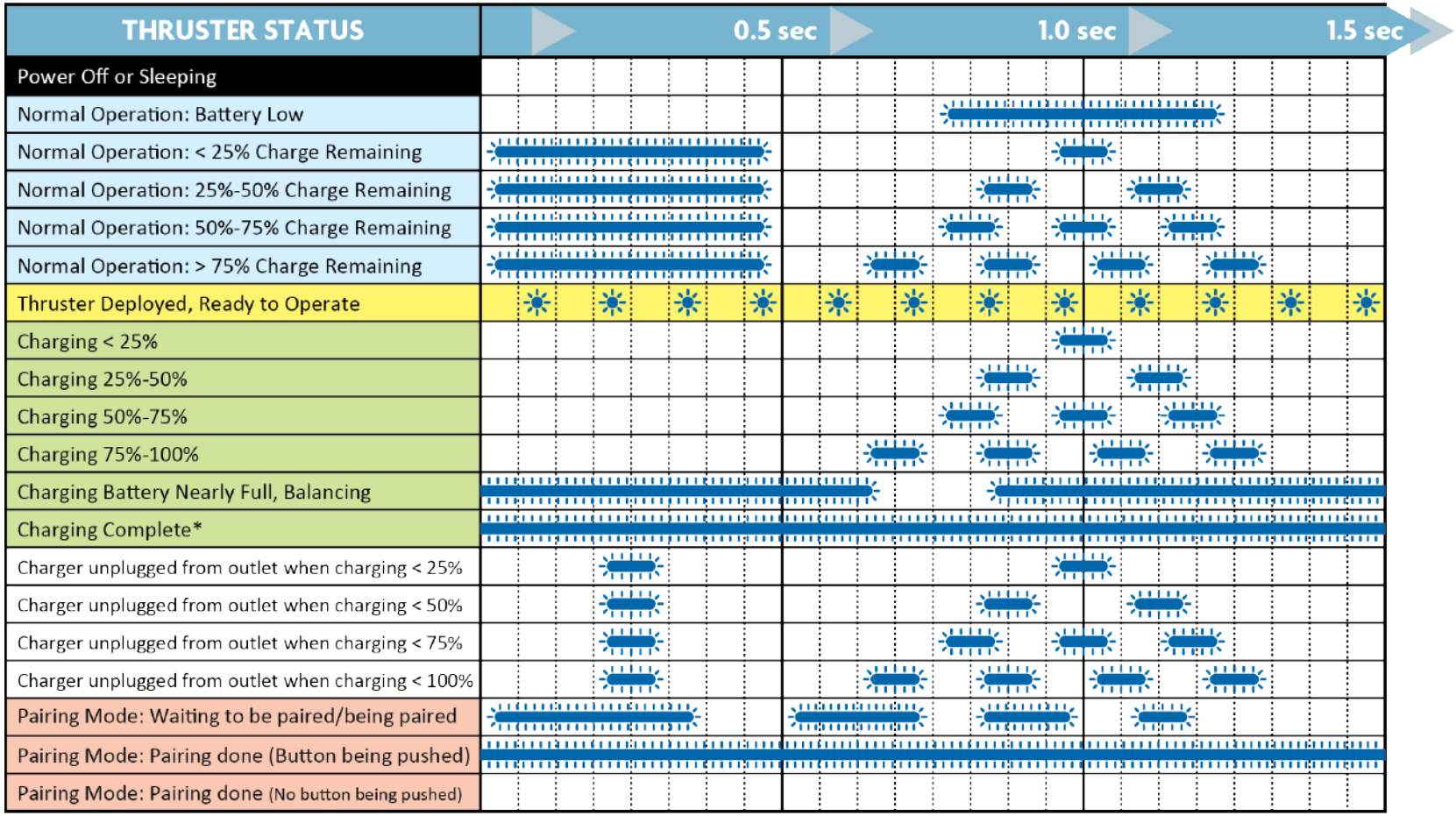
Dimensions



Note: The **Track Assembly** shown in the image furthest to the right is a Standard Stern Mount with standard hull mounting brackets. Exact dimensions pertaining to clearances between your thruster and your boat's hull will vary based on mounting surfaces and possible additional/differing mounting hardware used, depending on your order.

LED Flashing Patterns

The LED flashing patterns repeat every 1.5 seconds



*After the "Charging Complete", the LED light stays on for two (2) hours.

Contact Us

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