

Instruction Manual

Human-Machine Interface

R05+DC220



Read Carefully Before Handling and Keep Handy for Future Reference

Comprehend Completely with the Details Provided by Other Cycle Part Manufacturers

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1. Introduction

1.1 About Ananda

"Ananda" is a Sanskrit word that means "peaceful bliss", which describes a state of inner joy and contentment that one may experience while cycling.

As a brand, we are dedicated to electric drive systems and solutions, boasting reliability, efficiency, and quality.

1.2 About This Manual

- This manual aims to help you understand this product for various purposes, such as:
 - ◆ Knowing what to do and what should never be done with or to this product
 - ◆ Handling this product in the correct way at the appropriate time
 - ◆ Selecting or configuring other products to be used with this product
 - ◆ Composing your Owner's Manual for an e-cycle that uses this product
- This manual is **NOT** subject to pre-customization, i.e., customization of this product **BEFORE** manufacturing.
 - ◆ **ALL** specifications, illustrations, and other descriptions herein **ONLY** refer to this product in its **ORIGINALLY** designed state **WITHOUT** any **CUSTOM** parts or functions, i.e., the **NON-CUSTOM** version.
 - ◆ For any custom batches, refer to separate instructions provided in any form.
- Read this manual completely and carefully **BEFORE** handling this product.
- Pay particular attention to **ALL** safety instructions to prevent personal injury and property damage that may happen during setup, use, transit, etc.
- Be sure to clearly understand this manual for the best possible production, commercial, or user experience.
- This manual is primarily intended for e-cycle manufacturers, dealers, and users.
 - ◆ **EVEN** if you are professional, read and understand this manual to be better prepared for possible issues.
 - ◆ If you are non-professional, consult your e-cycle manufacturer, dealer, trained technicians, or experienced cyclists as needed.
- For **ANY** unclear or confusing point herein:
 - ◆ Contact Ananda if you are Ananda's corporate customer.
 - ◆ Contact your e-cycle manufacturer if you are a cycle dealer but **NOT** Ananda's customer.
 - ◆ Consult your e-cycle dealer or manufacturer if you are an end user.
- This manual is **NOT** a substitute for personal training.
- Keep this manual in a clean, safe, and convenient place so that you can easily find it if needed in the future.
- Hand over **ALL** necessary safety precautions and operations included herein if you give this product or your e-cycle equipped with this product to **ANY** third party.
- **ALL** illustrations herein **ARE** schematic, exemplary, and intended to help you understand this product more easily and clearly, which may appear slightly different from the actual product you received.
- **ALL** cycle parts shown herein may differ from those on your cycle.
HOWEVER, they will be similar enough to assist you in understanding the instructions.

1.3 Additional Valid Instructions

- This manual can be part of the various forms of instructions related to this product.
- Pay attention to any other instructions that may appear on this product, its packaging, accessories (if any), and the Internet.
- Take notice of any additional or supplementary documents and media for this product, such as computer-aided (CAD) drawings, labels, test reports, and video tutorials.
- Be sure to thoroughly understand the instructions for any other Ananda products used with this product.
- Read, understand, and follow third parties' separate instructions for the following issues:
 - ◆ Other cycle parts used with this product
 - ◆ Accessories used with this product
 - ◆ Entire cycles using this product

1.4 Subject to Change

- The content of this manual reflects the information approved at the time of composition.
- Any significant changes will be included in future versions of this manual.
 - ◆ If you are Ananda's corporate customer, pay attention to notifications from Ananda via email, etc.
 - ◆ If you are an end user, pay attention to notifications in any form from your e-cycle dealer and to separate instructions updated by your e-cycle manufacturer.

1.5 Symbol Guide

These symbols can be found on or with Ananda products (**not limited to this product**) and their packaging, labeling, drawings, manuals, etc.

Note: Batches can vary depending on product categories, pre-customization, as well as local authorities and regulations in different countries and regions.

Symbol	Indication
 DANGER	Indicates a hazardous situation which, if NOT avoided, WILL result in serious injury or even death and/or property damage.
 WARNING	Indicates a hazardous situation which, if NOT avoided, could result in serious injury or even death and/or property damage.
 CAUTION	Indicates a hazardous situation which, if NOT avoided, could result in minor or moderate injury and/or property damage.
	Indicates the risk of electric shock.
	Indicates the risk of fire.
	Indicates the risk of explosion.
	Indicates the risk of getting injured by heat.
	Indicates the importance of no open flames or other heat sources nearby.
	Indicates the importance of no pressurized spray or rinsing.
	Indicates the importance of reading instructions thoroughly and attentively.
	Indicates the importance of wearing eye protection.
	Indicates the importance of wearing hand protection.
	Indicates the importance of keeping children away.

Symbol	Indication
	Indicates electric grounding (earthing).
$\varnothing$	Indicates the diameter of a round part.
	Indicates the depth of a hole.
	Indicates that electrical appliances MUST NOT be disposed of with unsorted municipal waste and MUST be discarded at suitable collection points for environment-friendly recycling.
	Indicates that a product complies with the regulatory requirements for safety, health, and environmental protection in the United Kingdom (UK).
	Indicates that a product meets all applicable requirements of the relevant European Union (EU) directives.
RoHS	Indicates that a product contains no restricted substances according to Restriction of Hazardous Substances Directive.
	Indicates that a product meets the EU's regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) to ensure minimal risk to human health and the environment.
	Indicates that a product has been tested and meets specific standards set by Underwriters Laboratories (UL) for use in the United States and Canada, and has been evaluated for potential hazards related to electrical, fire, or mechanical safety.

2. Specifications

Note: The listed data and features **ONLY** aim to help you understand this product and may be important factors you need to consider when pairing other cycle parts with this product.

- **HOWEVER**, technical data can **VARY** depending on pre-customization.
- For **SPECIFIC** batches, the corresponding CAD drawings, test reports, etc. shall **PREVAIL**.



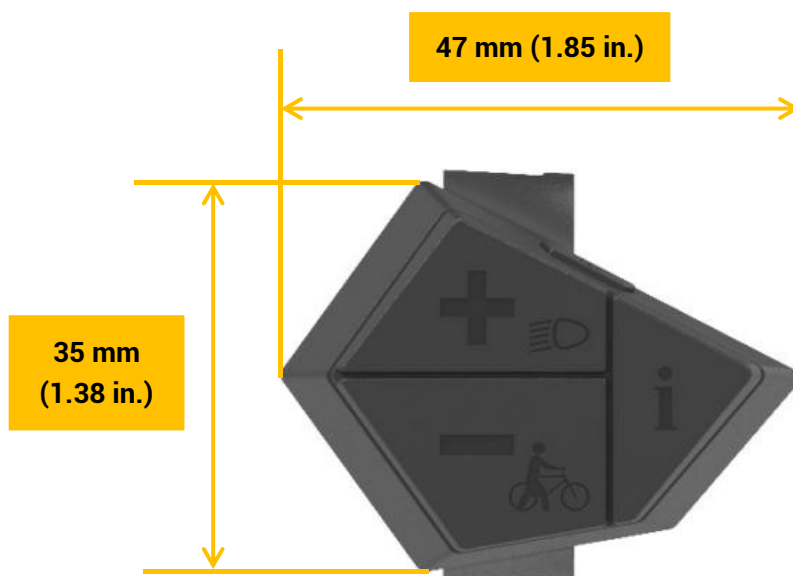
2.1 Technical Data

Product			Human-Machine Interface (HMI) for Electric Cycles			
Model Name	Control Panel		R05			
	Display Unit		DC220			
Input Voltage			24 V (DC)	36 V (DC)	48 V (DC)	52 V (DC)
Rated Current			≤ 50 mA	≤ 40 mA	≤ 35 mA	≤ 30 mA
Weatherproof Rating			IPX6			
Storage Temperature Range			-20 to 60 °C (-4 to 140 °F)			
Compatible Handlebar Diameter	Control Panel		22.2 mm (0.874 in.)			
	Display Unit	Default	31.8 mm (1.25 in.)			
		With Fillers	22.2 mm (0.874 in.), 25.4 mm (1 in.)			
Control Cable Length			23 cm (9 in.)			
Screen Type			Liquid Crystal Display (LCD), 3.5 in.			
Communication Protocol	Option 1		Universal Asynchronous Receiver-Transmitter (UART)			
	Option 2		Controller Area Network (CAN)			
USB Port	Type		C			
	Output		5 V, ≤ 0.5 A			

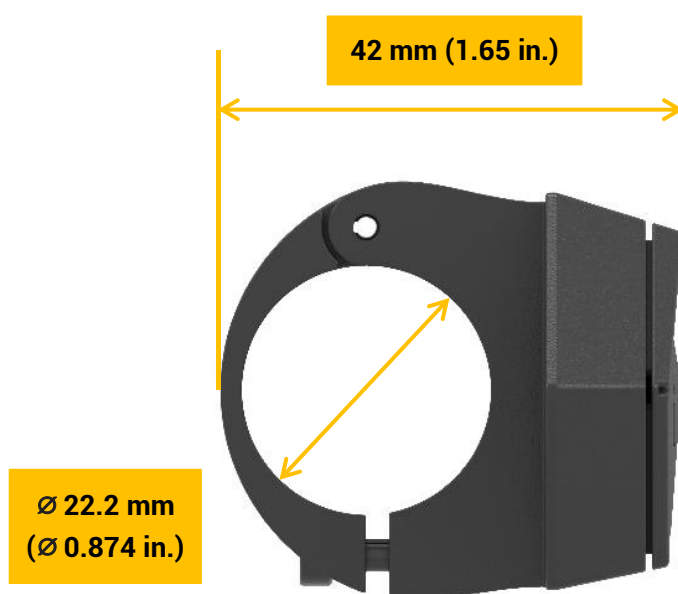
2.2 Dimensions

2.2.1 Control Panel

Front View



Side View

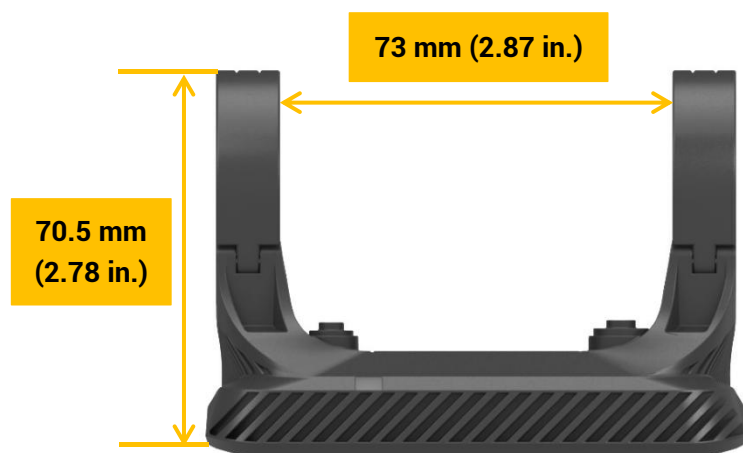


2.2.2 Display Unit

Front View



Top View



Side View



3. Product Diagrams

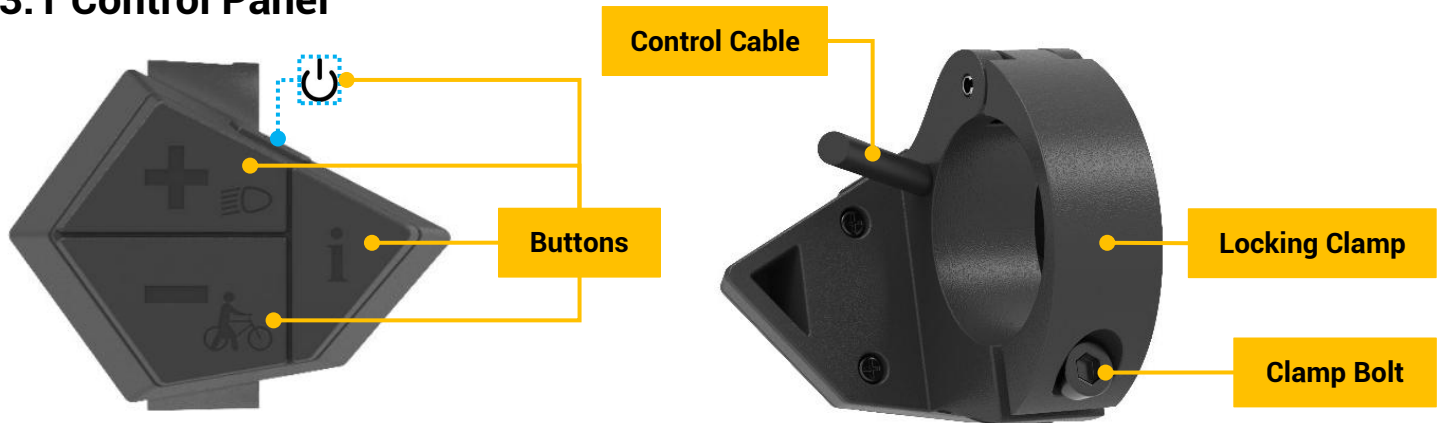
Note: These diagrams **ONLY** aim to help you understand this product.

HOWEVER, the entity you actually received may differ depending on pre-customization.

- For **SPECIFIC** batches, refer to the corresponding CAD drawings and other valid instructions.
- If you are an end user, consult your e-cycle manufacturer and dealer.



3.1 Control Panel



Buttons			Toggles the variable display in order when pressed.
			Activates/Deactivates the HMI when held.
	+		Upshifts the PAS level, disables the push assist, increases values, or toggles menus/settings when pressed.
			• Activates/Deactivates your main lighting when held alone. • Discards your change/Cancels your choice in a function menu, exits the main menus, or leaves the submenus for the main menus when held together with - . • Activates/Deactivates automatic operation of your main lighting when held together with i .
	-		Downshifts the PAS level, enables the push assist, decreases values, or toggles menus/settings when pressed.
			• Activates the push assist when held alone. • Discards your change/Cancels your choice in a function menu, exits the main menus, or leaves the submenus for the main menus when held together with + .
	i		Toggles the variable display in reverse, opens a function menu, or confirms a digit when pressed.
			• Accesses/Exits the function menus or saves your change/confirms your choice in a menu when held alone. • Activates/Deactivates automatic operation of your main lighting when held together with  .
Control Cable			Connects the control panel to the display unit, enabling command transfer.
Locking Clamp			Locks the control panel on standard cycle handlebars (Ø 22.2 mm).
Clamp Bolt			Secures the clamp, featuring M3×8 threads and matching 2.5 mm hex wrenches (Allen keys) with a tightening torque capacity of 0.8 N•m (7 in-lbf) .

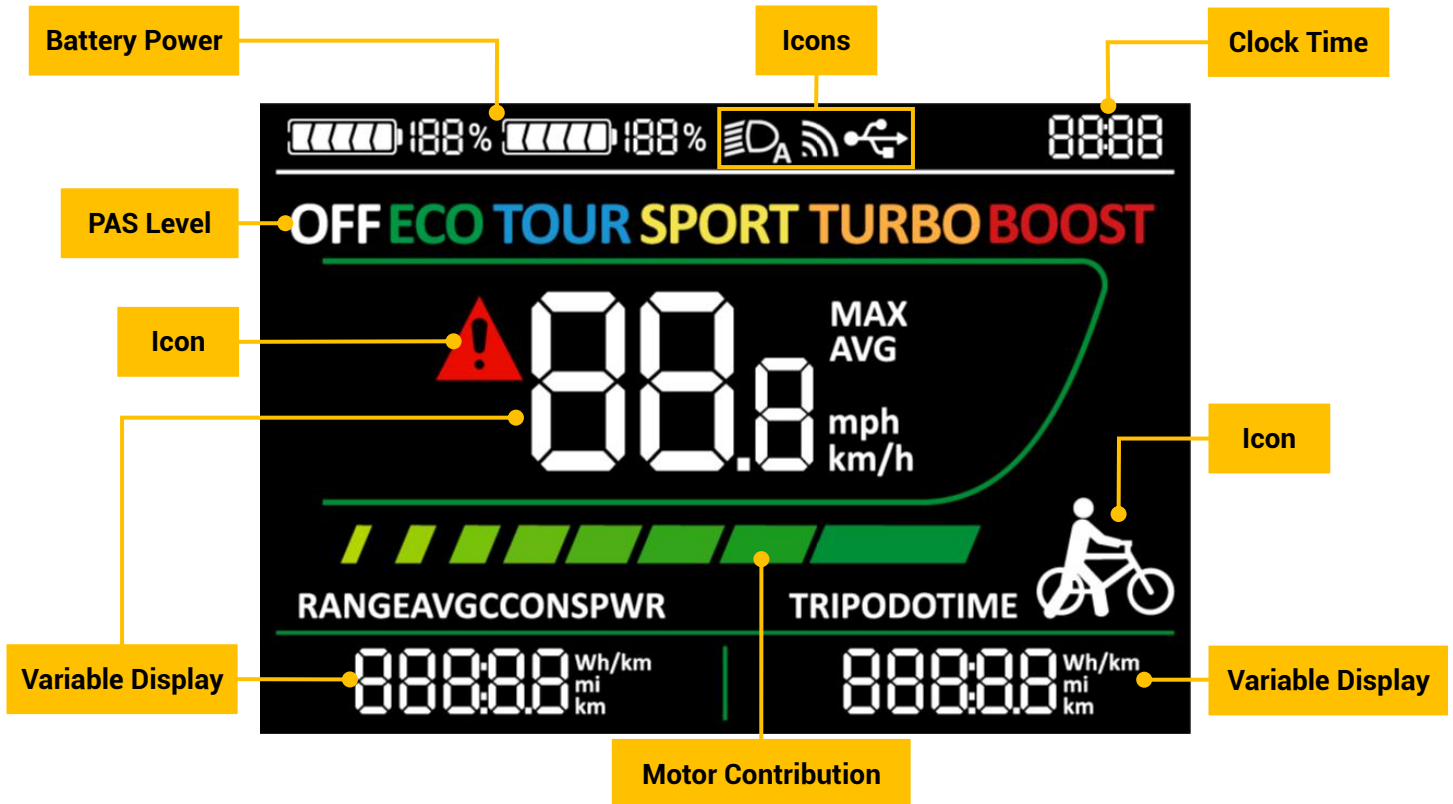
3.2 Display Unit

3.2.1 External Hardware



Ports	CommPower	Receives power from and exchanges data with your controller. Note: "CommPower" herein stands for "Communication and Power".
	RC	Receives commands from the control panel. Note: "RC" herein stands for "Receiving Commands".
	USB-C	Charges mobile devices through a compatible USB cable.
Screen		Shows the settings and status of the HMI and your e-drive system.
Locking Clamps		Lock the display unit on standard cycle handlebars (Ø 31.8 mm by default).
Clamp Bolts		Secure the clamps, featuring M3×12 threads and matching 2.5 mm hex wrenches (Allen keys) with a tightening torque capacity of 0.8 N•m (7 in-lbf) .

3.2.2 Digital Display



Display Areas	Battery Power		Shows the remaining battery power level.
	Clock Time		Shows the current time alongside standard clocks.
	PAS Level		Shows the current PAS level (OFF , ECO , TOUR , SPORT , TURBO , or BOOST).
	Motor Contribution		Shows the real-time share of total output provided by your motor. <i>Formula: Motor P_Out / (Motor P_Out + Human P_Out)</i>
	Variable Display	Upper	Shows the current cycle speed, cycle top (maximum) speed (MAX), average cycle speed (AVG), or an error code (Err).
		Lower Left	Shows the remaining range (RANGE), average energy consumed (AVGC), real-time energy consumed (CONS), or real-time motor power output (PWR).
Lower Right		Shows the current trip distance (TRIP), total distance traveled (ODO), or length of riding time (TIME).	
Icons			Indicates the push assist is enabled when static.
			Indicates the push assist is operating when flashing.
			Indicates an error code is displayed.
			Indicates your main lighting is on in manual mode.
			Indicates optical sensing is active, setting your main lighting to smart mode.
			Indicates HMI- Ananda Ride app connection is active.
		Indicates USB charging is operating.	

3.3 CommPower Port

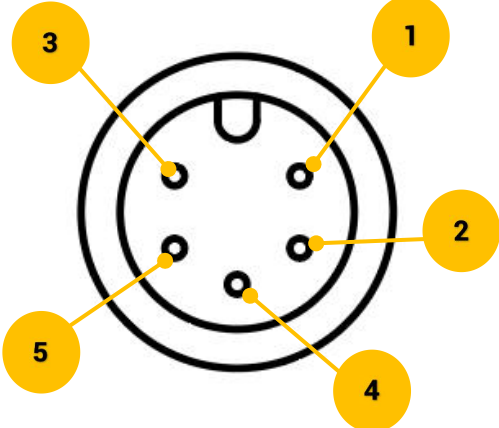
⚠ CAUTION

- **DO NOT** connect this port to or disconnect it from your controller **WHILE** your e-drive system remains powered on.
- **ALWAYS** keep this port clean and away from liquids or wet objects.

Note:

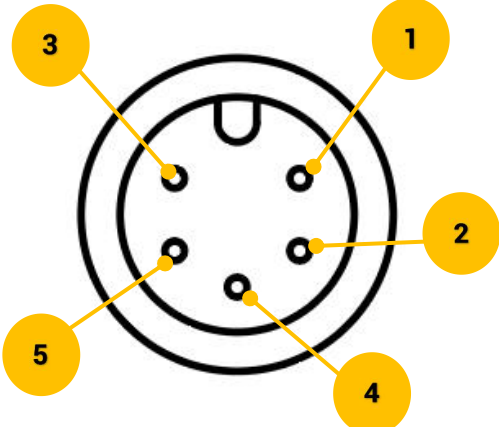
- The port type is determined by the pre-customized communication protocol.
- "Color" concerns the internal wire cable connected to a pin.

3.3.1 UART Protocol

	Pin	Color	Definition	
	1	Red	VCC	Power Supply
	2	Blue	SW/Key	Power Switch
	3	Black	GND	Ground (Earth / $\perp$)
	4	Green	RX	Data Receiver
	5	Yellow	TX	Data Transmitter

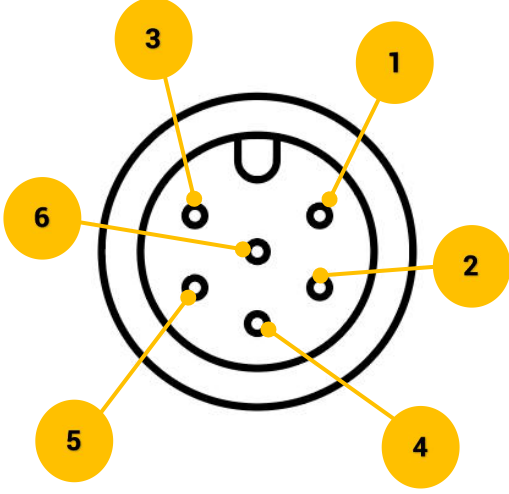
3.3.2 CAN Protocol

3.3.2.1 Five-Pin

	Pin	Color	Definition	
	1	Red	VCC	Power Supply
	2	Blue	SW/Key	Power Switch
	3	Black	GND	Ground (Earth / $\perp$)
	4	Green	CAN H	Data Transmission with a High Voltage
	5	Yellow	CAN L	Data Transmission with a Low Voltage

3.3.2.2 Six-Pin

Note: This design enables your battery to activate the HMI directly.



Pin	Color	Definition	
1	Red	VCC	Power Supply
2	Blue	SW/Key	Power Switch
3	Black	GND	Ground (Earth / $\perp$)
4	Green	CAN H	Data Transmission with a High Voltage
5	Yellow	CAN L	Data Transmission with a Low Voltage
6	White	Wake	HMI Activation by Battery

3.4 Labeling

Note:

- ALWAYS maintain the label to be prepared for after-sales service specified in **Section 13**.
- AN and SN represent **Article Number** and **Serial Number** respectively.

Example

Model Name

DC220

Customer AN
(Optional)

A9256731-F

Ananda AN

1250500094

PC5BU3/DG0000

Firmware Code

24031756

Scan for AN, SN, etc.

P	C	5	B	U3
Wake Fn. P: Yes No P: No	Comm. U: UART C: CAN	Control Code	Wireless BT Con.	USB Port Type U1: A U2: B U3: C

SN

24	03	1756
Year of Prod. 24: 2024	Week of Prod. 03: 3rd Week	Seq.

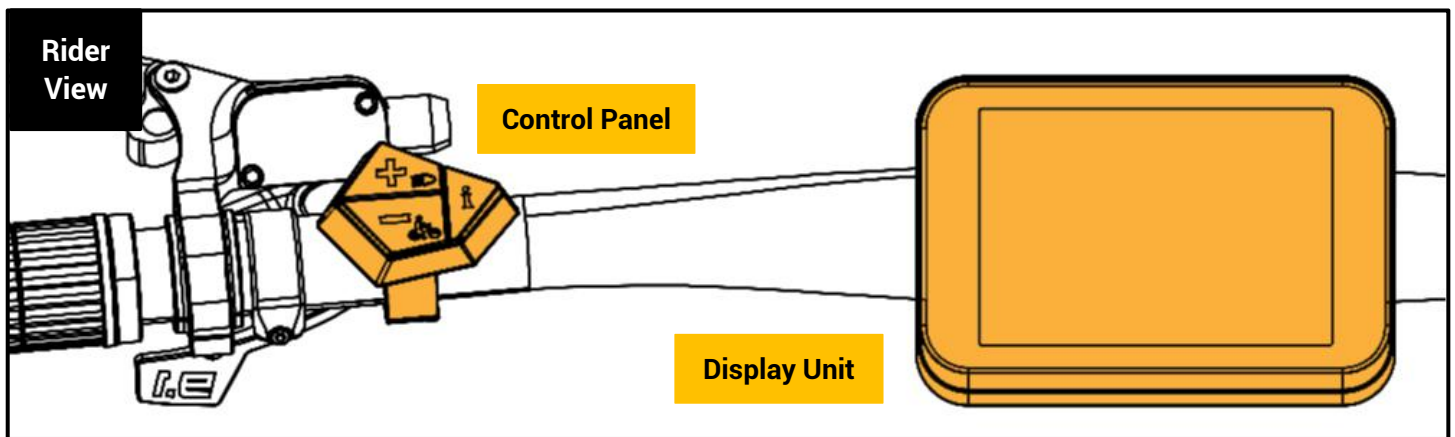
4. Installation

⚠ WARNING

Read and follow **ALL** related instructions in **Safety Information**.
In particular, take care **NOT** to get injured by **ANY** pinch points.



4.1 Preview



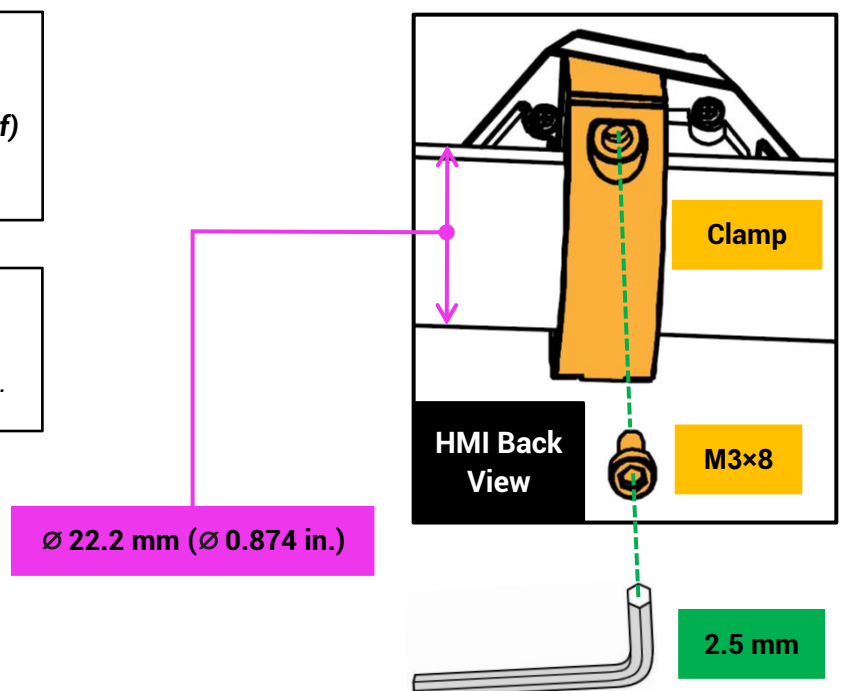
4.2 Installing the Control Panel

⚠ CAUTION

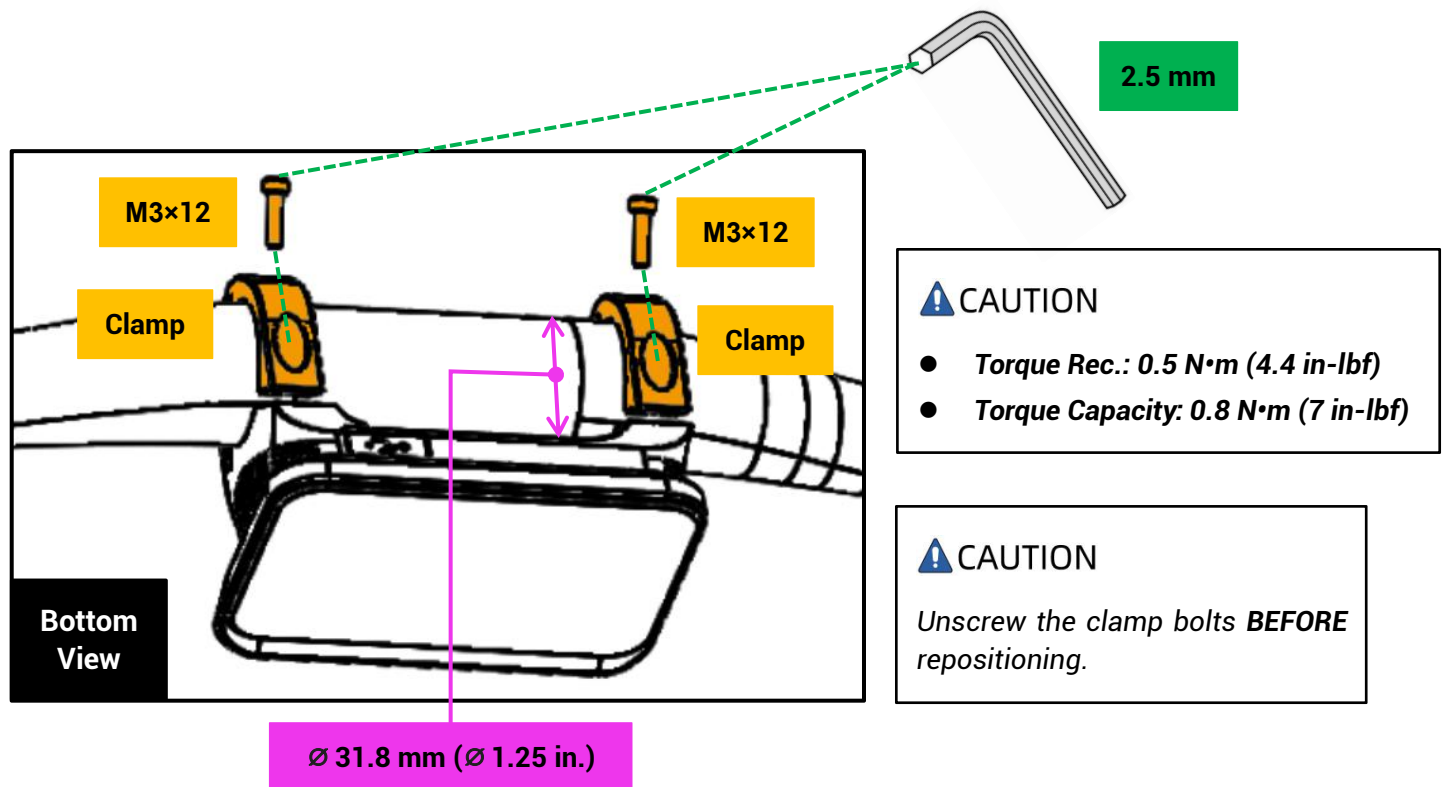
- Torque Recommended: 0.5 N•m (4.4 in-lbf)
- Torque Capacity: 0.8 N•m (7 in-lbf)

⚠ CAUTION

Unscrew the clamp bolt **BEFORE** repositioning.

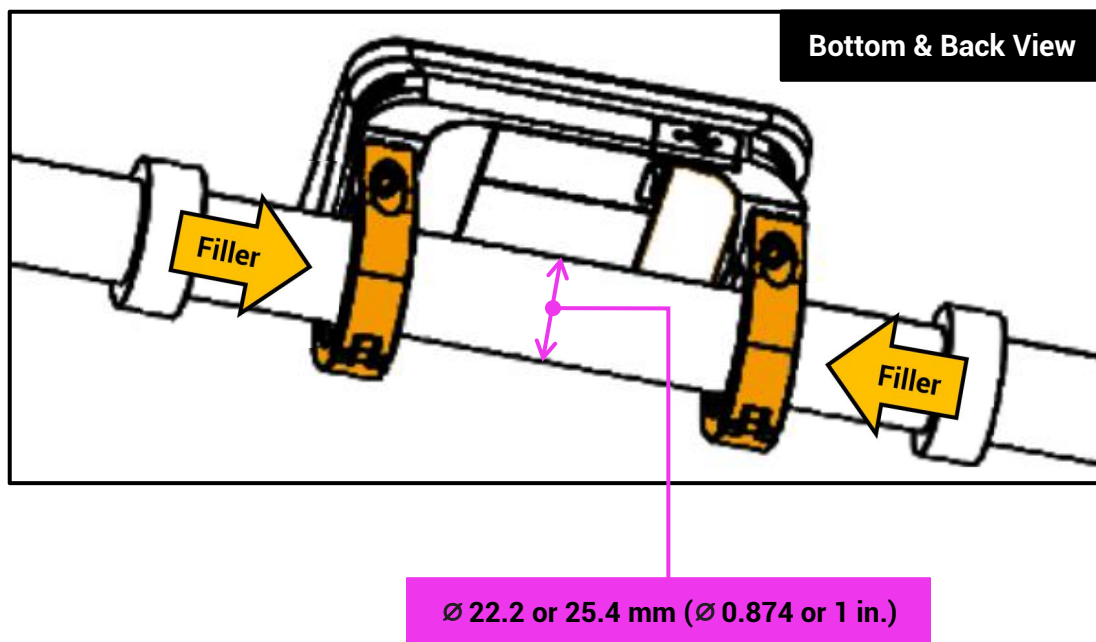


4.3 Installing the Display Unit



If your handlebars' diameter does NOT fit the locking clamps:

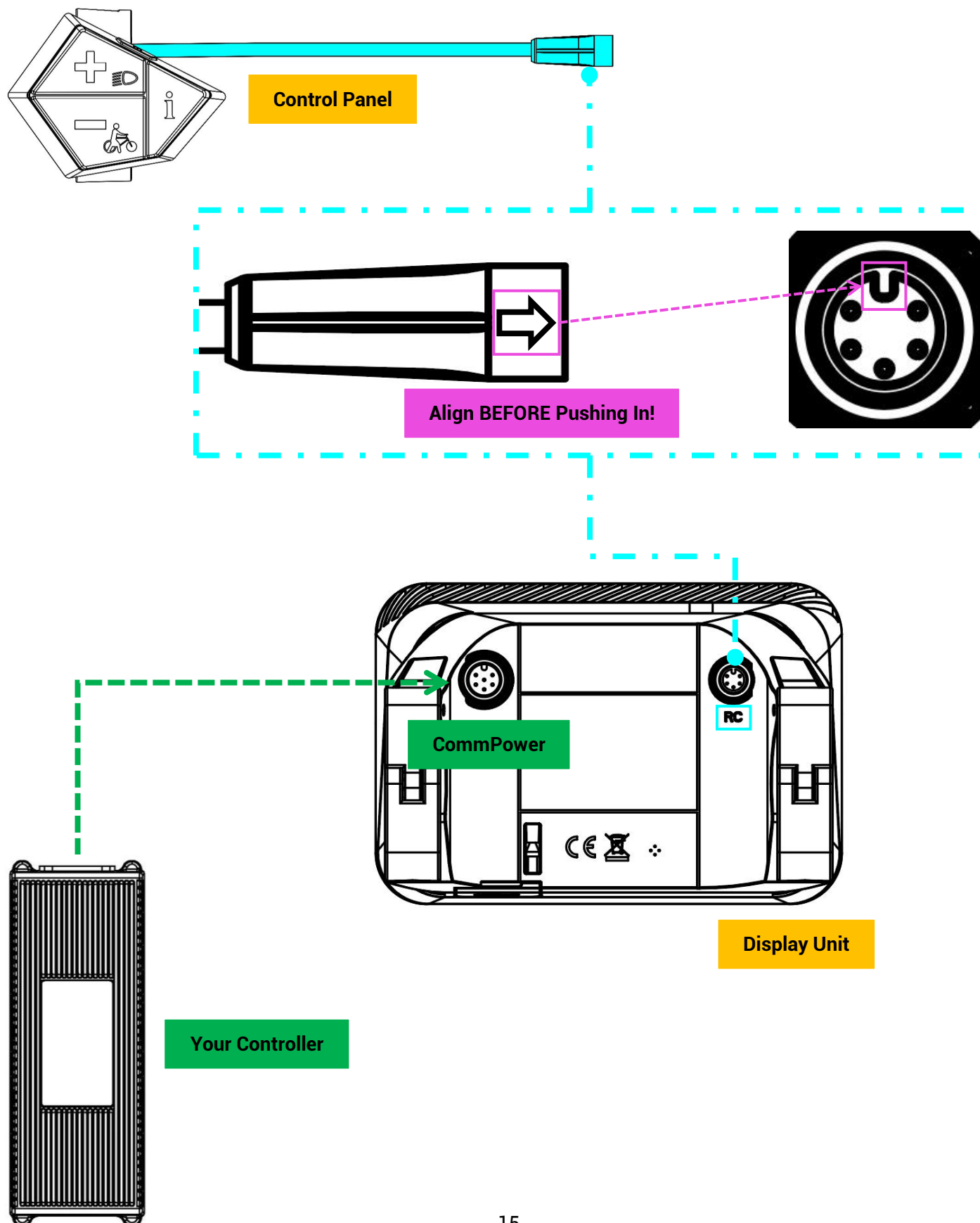
Fill the **CLAMP GAPS** with proper materials **BEFORE** screwing in the bolts.



4.4 Connecting the Cables

CAUTION

*Ensure that your controller has been **POWERED OFF BEFOREHAND**.*



5. Operation

⚠ WARNING

Read and follow **ALL** related instructions in **Safety Information**.

In particular:

- Make sure **ALL** your e-cycle parts **ARE** compatible with the HMI.
- **ALL** electronic components display **NO** signs of damage or electrical hazards.



Note: The following instructions are **ONLY** an introduction to the HMI in a **NON-CUSTOM** state.

HOWEVER, steps, parameters, and functions can vary depending on pre-customization and your e-cycle.

- For specifics, refer to additional valid instructions if any.
- If you are an end user, refer to the separate instructions provided by your e-cycle manufacturer or dealer.

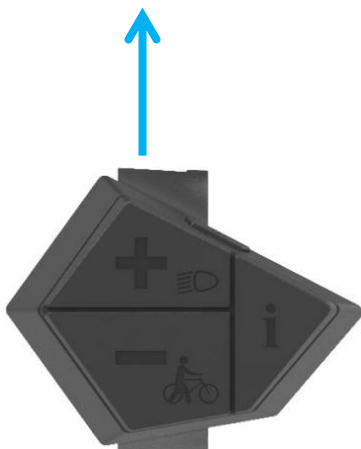
Note: Another **DC220** package includes the **R03** control panel instead of this **R05** model.

HOWEVER, BOTH panels **ONLY** work with the display units included in their respective packages and **CANNOT** be used interchangeably.

For specifics on **DC220** with **R03**, refer to the separate **R03+DC220 HMI** manual or other valid instructions.



DC220



R05



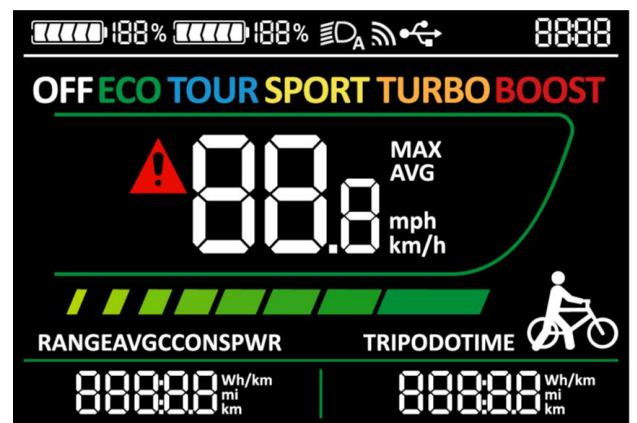
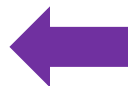
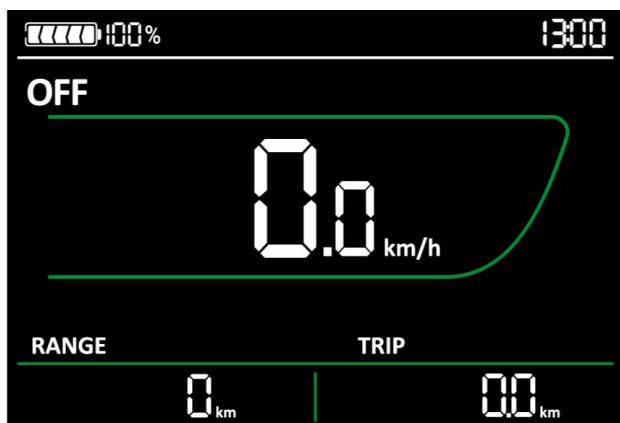
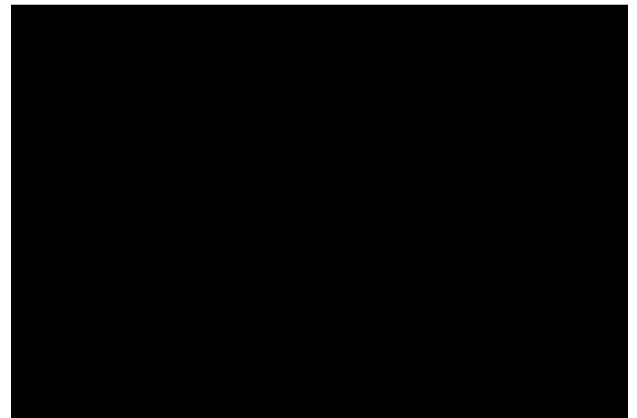
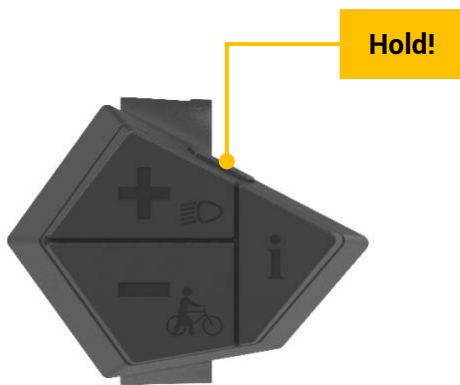
R03

5.1 Turning ON the HMI

Hold  until the screen lights up.

Note:

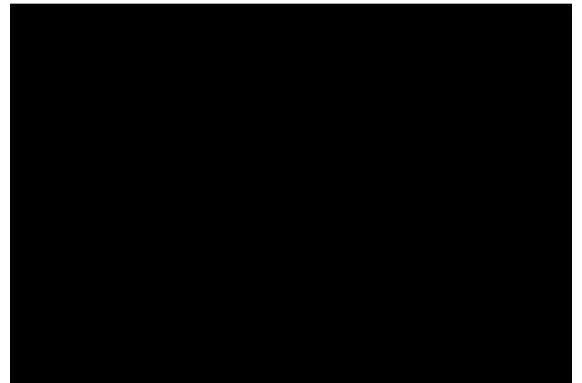
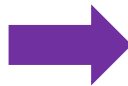
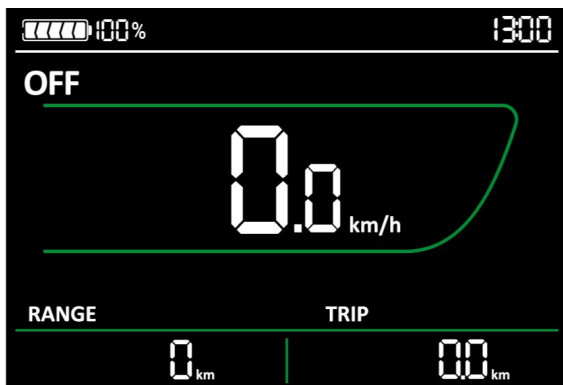
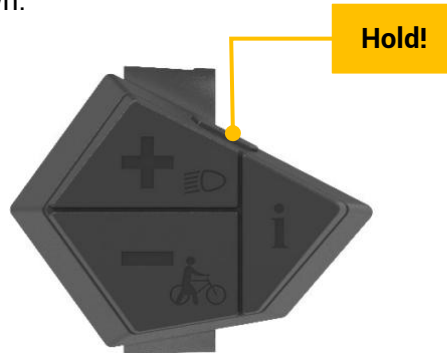
- Ensure that power is enabled for the HMI:
 - ◆ Your battery remains in place on your e-cycle.
 - ◆ Your battery has sufficient power.
 - ◆ Your battery and other required parts are active.
 - ◆ All wiring is intact and securely connected.
- For batches labeled with **P** and equipped with a **SIX-PIN** CommPower port, simply turning on your battery can activate the HMI directly.
For details, refer to **Sections 3.3.2.2 & 3.4** on **Page 12**.
- You need to enter the correct password if you have already set and enabled one.



5.2 Turning OFF the HMI

5.2.1 Standard Procedure

Hold  until the screen shuts down.



WARNING

- **ALWAYS** turn off the HMI **BETWEEN** uses, especially **BEFORE** performing maintenance.
*Failure to do so **WILL** cause unintentional motor start, posing various risks that could invite accidents.*
- It is strongly recommended to turn off the HMI **AFTER** you have properly parked your e-cycle.
NEVER do so to deactivate **ANY** HMI functions **WHILE** you need to continue your e-drive on the way.
*Failure to follow this **WILL** cause unintentional motor shutoff, risking accidents, injuries, and damages.*

CAUTION

DO NOT turn off the HMI in **EITHER** way, as such abrupt cut of power risks circuit damage.

- Disconnect your controller cable from the CommPower port.
- Deactivate or remove your battery.

Unplug!



Note: Holding  will **NOT** turn off the HMI when:

- A **FUNCTION MENU** remains open.
Solution: Simply exit **ALL** menus **BEFORE** using  for deactivation.
- The HMI is locked by password protection.
Solutions:
 - ◆ Enter the correct password to unlock the HMI **BEFORE** deactivation.
 - ◆ If you forget your password, the **ONLY** way to deactivate the HMI is to cut the power.

5.2.2 Automatic Shutdown

Note: Automatic shutdown **WILL** fail if it is already disabled **OR** if the HMI is locked by password protection, **EXCEPT** in the case of power exhaustion.

- After a period of idleness, the HMI will automatically enter sleep mode.

- ◆ The preset period is **10 minutes**.

Note: Refer to **SLP** in **Section 6.2.4.3** on **Page 35** for how to adjust or disable this function.

- ◆ The screen should go off **WHILE** other functions remain on standby.

- ◆ To waken the HMI, hold  until the screen lights up again.

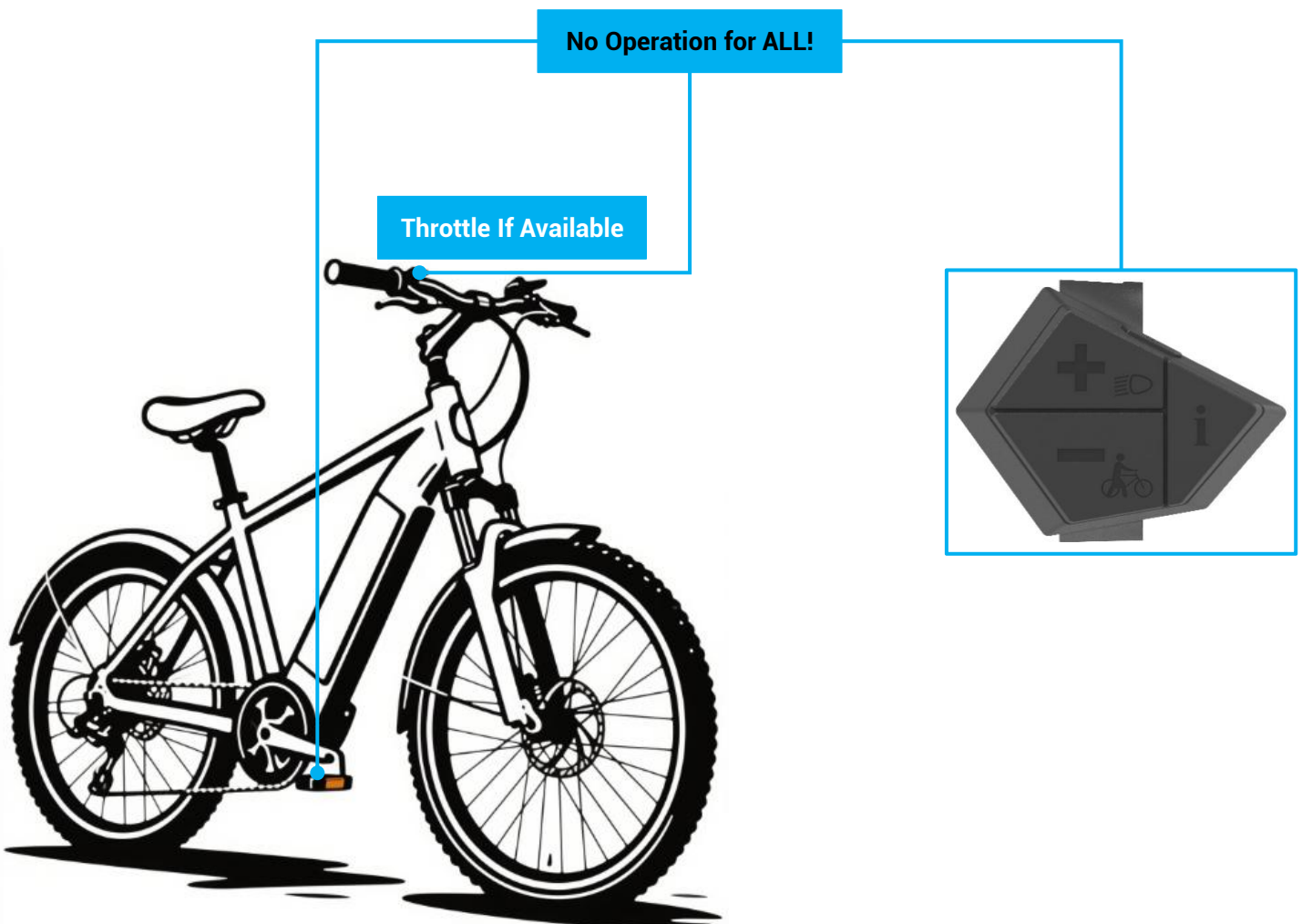
- After a longer period of idleness, the HMI will automatically shut down.

- ◆ The preset period is **15 minutes** (5 minutes after 10 minutes of idleness).

- ◆ Such a shutdown means a **COMPLETE** cessation of operation.

- ◆ Batteries can automatically deactivate at the same time for batches labeled with **P** and equipped with a **SIX-PIN** CommPower port. (See **Sections 3.3.2.2 & 3.4** on **Page 12**.)

- ◆ To reactivate the HMI, simply reactivate your battery **OR** hold  again after battery reactivation.

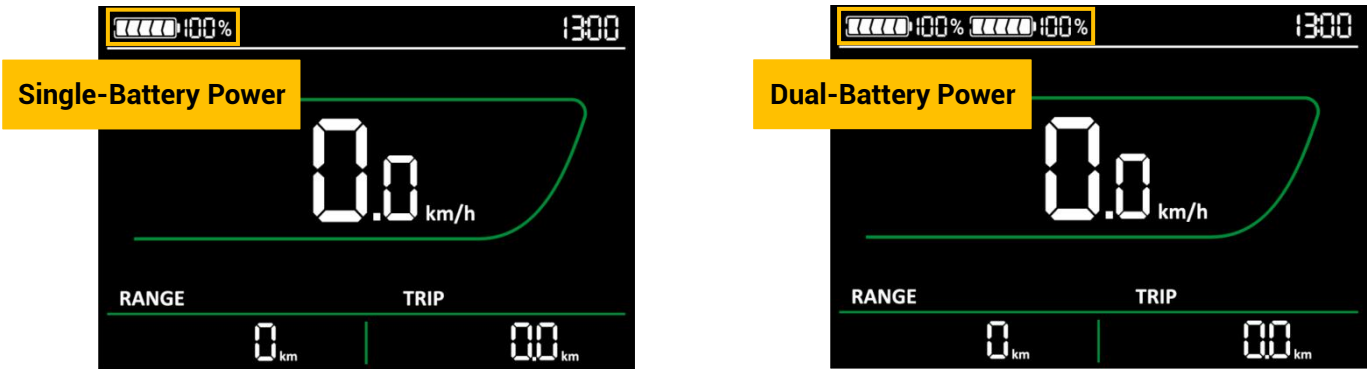


5.3 Checking the Battery Power

When your battery system functions, you can check the current power level (**State of Charge** or **SoC**) at the screen's upper left corner.

- The HMI can read dual-battery systems if **BOTH** support **CAN**. (See **Section 3.4** on **Page 12**).

For a single-battery system, **ONLY** one power indicator should be present.



- The percentage display operates as long as battery communication remains effective.

In the event of a battery communication fault or failure, the display will switch to an analog reading **WITHOUT** percentage values, **PROVIDED THAT** the VCC line remains functional.

Battery Communication		
Battery Power Indicator		

WARNING

DO NOT continue charging if the battery power indicator reads "100%" or an analog equivalent.

Note:

- Properly recharge your battery if the remaining power may **NOT** sustain your ride.
Follow **ALL** separate instructions provided by your battery manufacturer or e-cycle manufacturer/dealer.
- **DO NOT** allow **COMPLETE** battery drainage, as it can reduce the lifespan of your battery system and **EVEN** make it difficult to reactivate, **THUS** disabling the HMI and your e-drive system.
- Your battery **MUST** be recharged if **ONLY** one bar is left in the battery power indicator.

5.4 Turning ON/OFF Your Main Lighting

⚠ WARNING

In the dark, cycling **WITHOUT** lights on invites accidents.

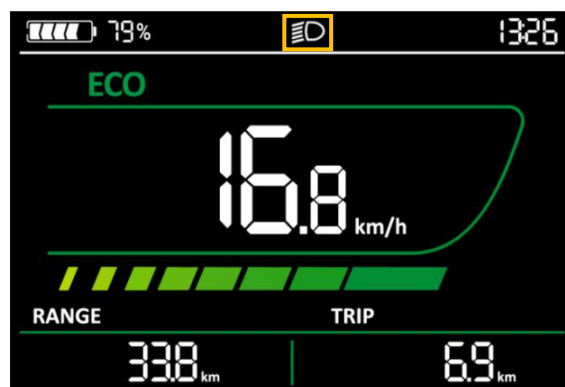
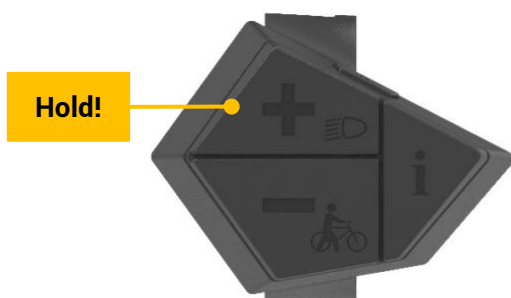
Note:

- Main lighting typically refers to headlights and taillights, **EXCLUDING** turn signals.
- Lighting activation and deactivation are **DISABLED** when you stay in the function menus.

5.4.1 Manual Mode

This allows your main lighting to be **FULLY** controlled by you with the control panel.

- To turn on your main lighting, hold  (+) until it comes on.
The  icon should be present in the top display.
- To turn it off, hold  (+) again until it goes off.
The  icon should disappear.

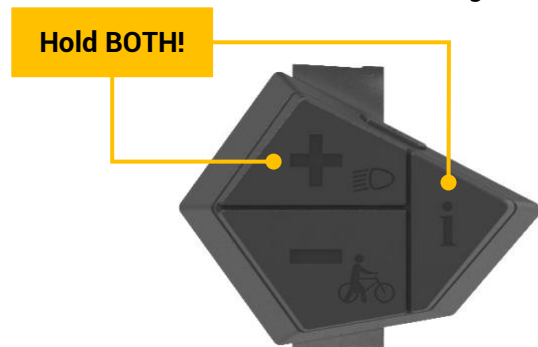


5.4.2 Smart Mode

This allows your main lighting to automatically turn on or off in response to the dynamic ambient brightness.

Note: Refer to **Auto** in Section 6.3.4.4 on Pages 51–52 for how to configure this mode.

- To activate the mode, hold  (+) and  simultaneously until  appears.
- To deactivate it, hold **BOTH** buttons again until  shifts to  (Manual Mode).



5.5 Selecting a PAS Level

The pedal assist system (PAS) requires you to continue using the pedals to keep your motor active while providing additional speed and strength as you ride.

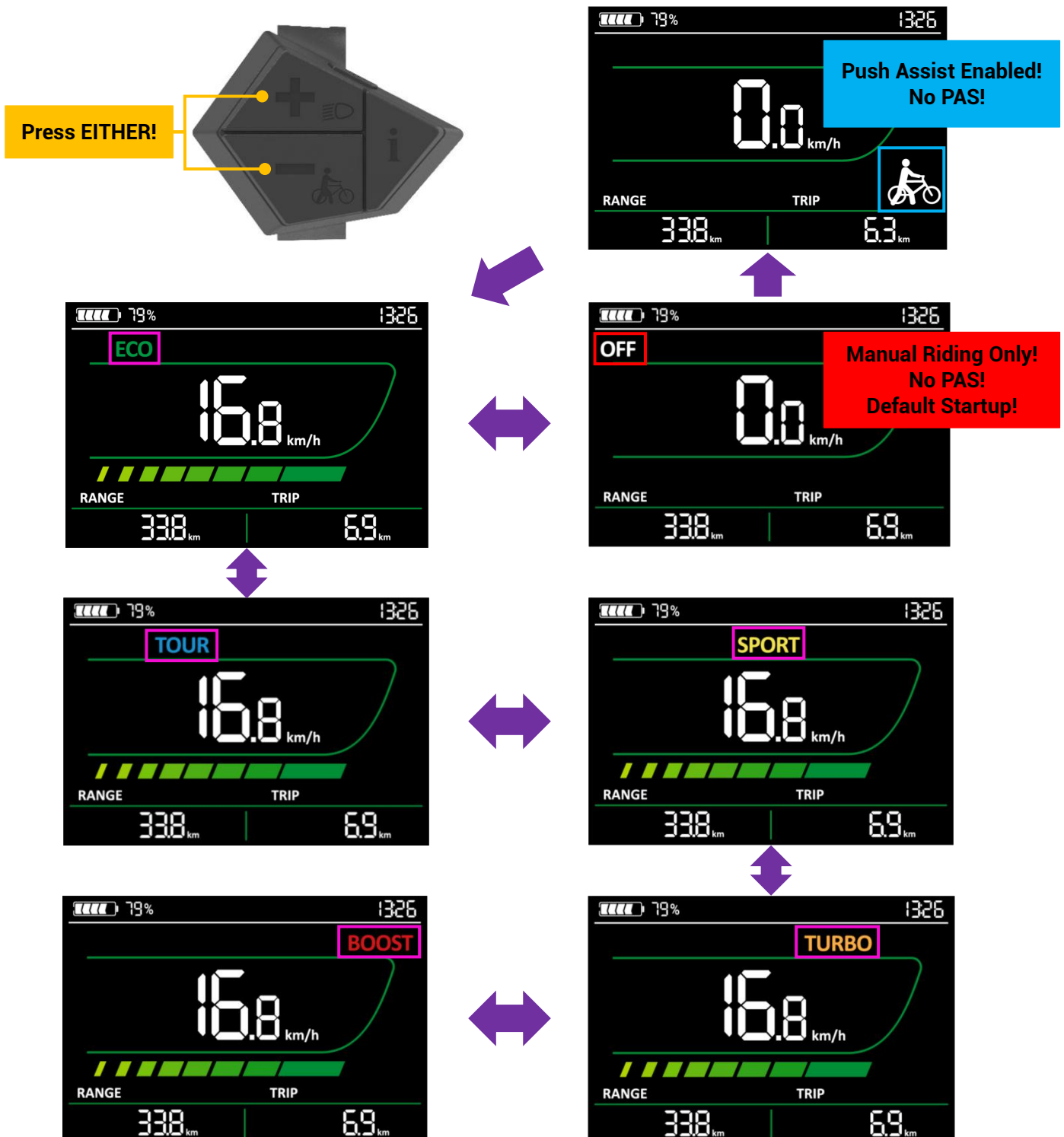
- The PAS has five effective levels from low to high: **ECO**, **TOUR**, **SPORT**, **TURBO**, and **BOOST**.
- Press + (⚡) for **HIGHER** levels and - (🚲) for **LOWER** levels.

Note: DO NOT hold + for another second, which can activate your main lighting.

- Downshifting the PAS to **OFF** disables the PAS and enables manual riding only.

Note: The PAS is also **DISABLED when you stay in the function menus.**

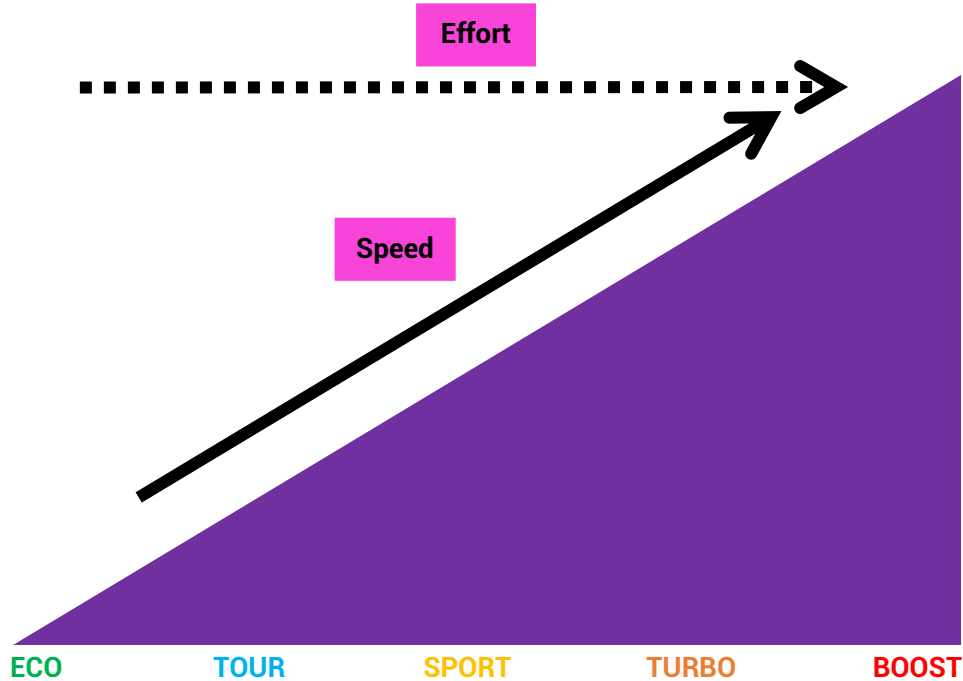
- Toggling **OFF** to 🚲 enables the push assist mentioned in **Section 5.6 on Page 24**.



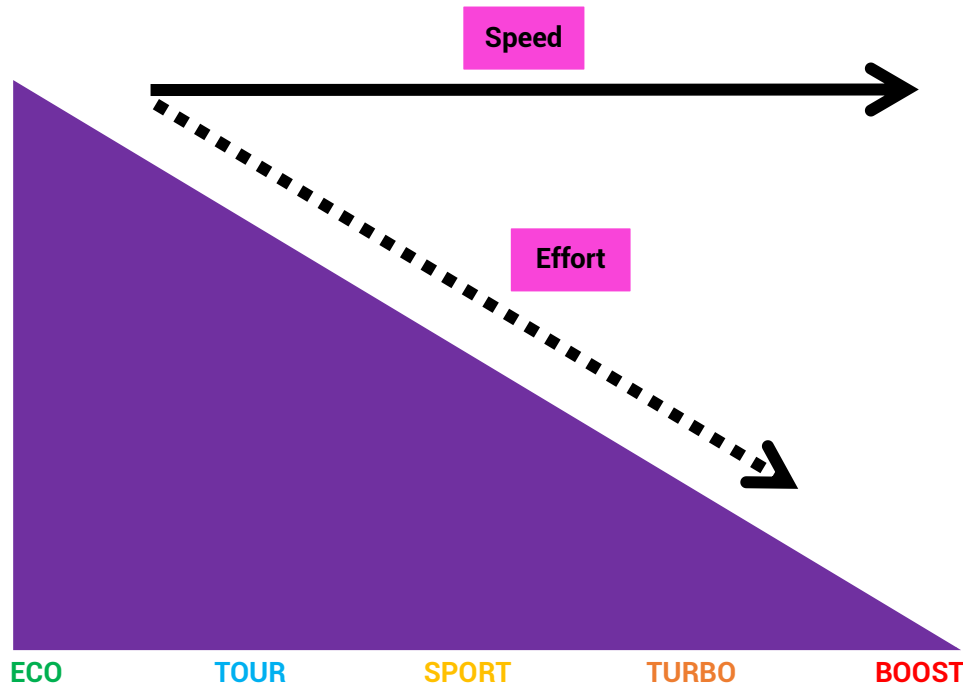
- Configure your controller to define different levels that bring different riding experiences.

Note: Consider various factors such as **Assist Ratio**, **Motor Power Output**, **Current Limit**, **Torque Response**, **Cadence Detection**, **Battery Management System (BMS)**, and **Software Algorithm**.

- ◆ (Example 1) The **HIGHER** the level, the **FASTER** your e-cycle will go with the same effort.



- ◆ (Example 2) The **HIGHER** the level, the **LESS** pedaling will be required to activate the PAS and the **EARLIER** your e-cycle will achieve the target speed.

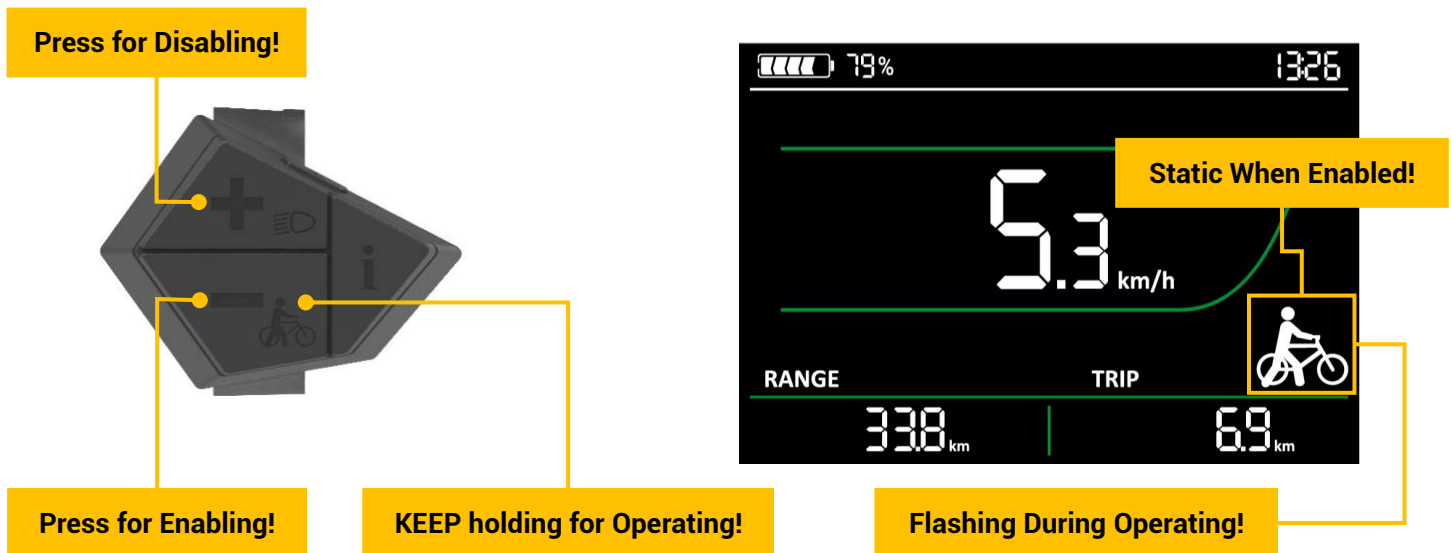


5.6 Turning ON/OFF the Push Assist

The push (walk) assist system provides additional strength as you push your e-cycle for a walk or climb.

- To enable the push assist, press - (🚲) until **OFF** is toggled to the 🚲 icon.
🚲 should be static.
- To turn it on, hold 🚲 (-) while pushing your e-cycle forward.
 - ◆ 🚲 should be flashing throughout the process.
 - ◆ Your motorized wheel should run at a very low speed around **6 km/h (4 mph)**.
- To turn it off, simply release 🚲 (-).
🚲 should stop flashing.
- To disable it, press + (⚙️) as needed, toggling 🚲 to **ECO**, **TOUR**, or any other effective PAS level mentioned in **Section 5.5** on **Page 22**.

Note: Pressing + indeed skips **OFF** and jumps to **ECO** directly.



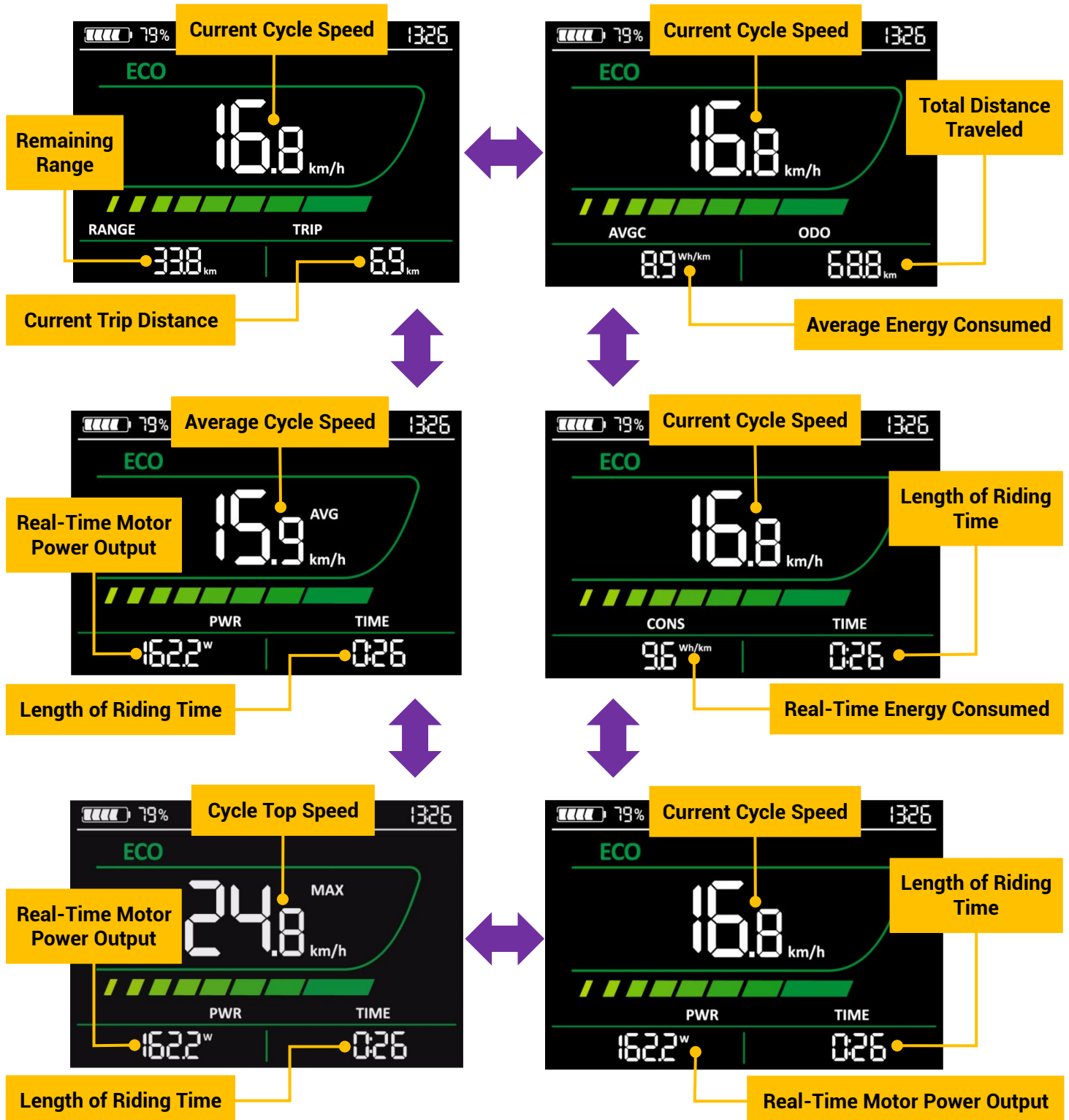
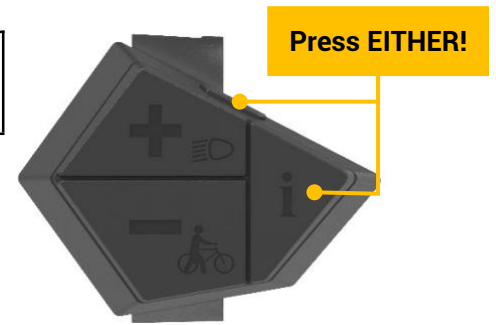
⚠️ WARNING

- Walk beside your e-cycle, **FIRMLY** grasping the handlebars with **BOTH** hands **THROUGHOUT** the process.
- **NEVER** activate your throttle (if available) while using the push assist to prevent unintentional switch to throttle control, **UNLESS** the throttle is superseded by the push assist.
- Push assist control is **NOT** recommended in the following conditions:
 - ◆ You are going down steep inclines.
 - ◆ You are going up inclines exceeding your e-cycle's capacity.
 - ◆ You are navigating through crowded or confined areas.
 - ◆ You are walking over rough terrains or obstacles.
 - ◆ You are walking near precipices or waters (**whether fenceless or not**).

5.7 Toggling the Variable Display

Press  or  to toggle among the following parameters in order or reverse.

Note: *DO NOT* hold either button for another second, which can turn off the HMI or access the function menus.

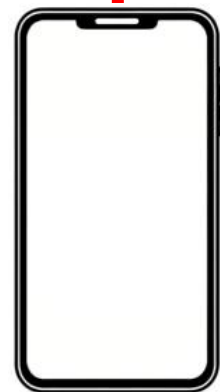
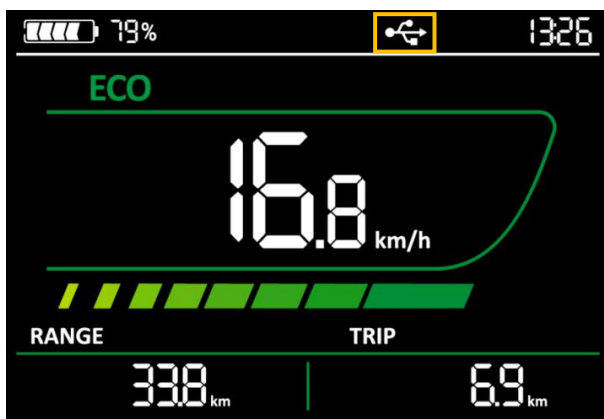


5.8 Charging Your Device



Note: Check that your device is secured **BEFOREHAND**.

USB Cable



Note: Ensure that USB charging is enabled under **USb** mentioned in **Section 6.3.4.2** on **Pages 46–47**.

1. Pull open the cover of the **USB-C** port.
2. Connect your device to the port using a compatible USB cable.
 should be present and charging begin.
3. When finished, simply unplug your device from the HMI.
 should disappear.
4. Replace the port cover for complete sealing.

WARNING

- **NEVER** charge **NON-RECHARGEABLE** devices, as this can lead to fires or explosions.
- **DO NOT** overcharge **ANY** devices, as this can cause equipment damage and safety hazards.
- **DO NOT** connect or disconnect USB devices while riding, as this can invite accidents.

CAUTION

Failure to cover the USB port when it is idle may cause liquids or foreign objects to enter the display unit, posing the risk of product damage.

6. Function Menus

Note: The following instructions are **ONLY** an introduction to the HMI in a **NON-CUSTOM** state.

HOWEVER, displayed contents and available functions can vary depending on pre-customization.

- For specifics, refer to additional valid instructions if any.
- If you are an end user, refer to the separate instructions provided by your e-cycle manufacturer or dealer.

6.1 Overview

WARNING

ALWAYS stop cycling in a **SAFE** place **BEFORE** operating the function menus.

Note: **BEFORE** you exit these menus:

- Holding  will **NOT** turn off the HMI.
- Holding  (+) alone or together with **i** will **NOT** operate your main lighting.
- Your electric assist will be **DISABLED**, with manual riding allowed only.

The HMI contains:

- Five **Main Menus** that you can access directly
- Six **Hidden Submenus** that you cannot access directly

Note: To view a menu instantly, click or tap on your desired menu name to jump to the corresponding page if enabled by your e-reader.

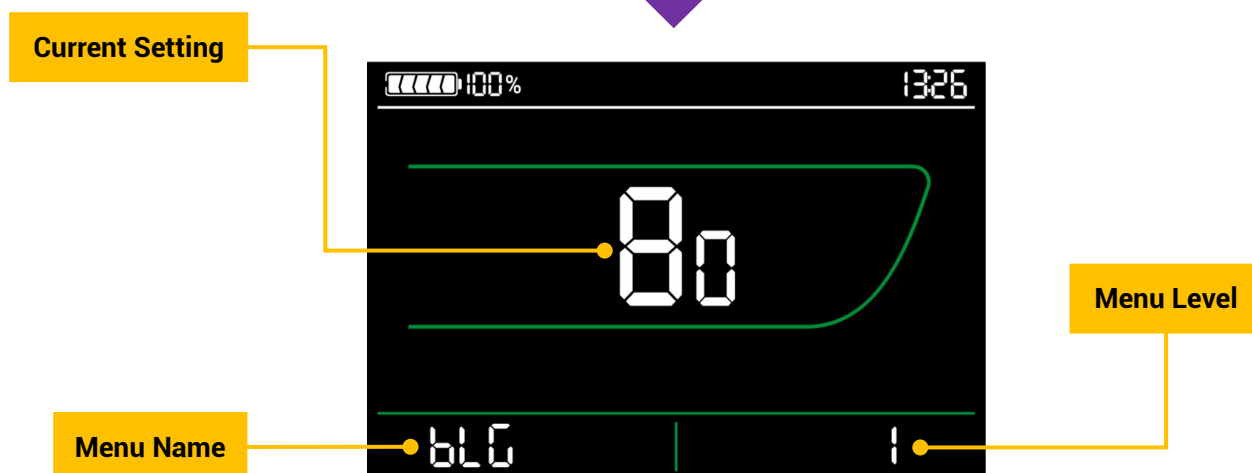
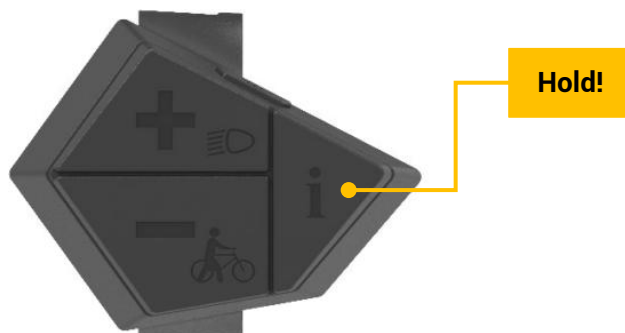
Main Menu	Indication			Page(s)
bLG	Backlight			31–32
Unt	Units of Measurement			33–34
SLP	Sleep Mode			35–36
CLr	Current Trip Distance			37–38
dIA	Wheel Outer Diameter			39
PaSS	Hidden Submenus	Frt	Factory Settings	44–45
		USb	USB Charging	46–47
		CLoCK	Clock Time	48–50
		Auto	Smart Mode for Main Lighting	51–52
		bLE	Wireless BT Connectivity	53–55
		PSd	Password Protection	56–60

6.2 Main Menus

6.2.1 Accessing the Menus

Hold **i** until the main menus are accessed.

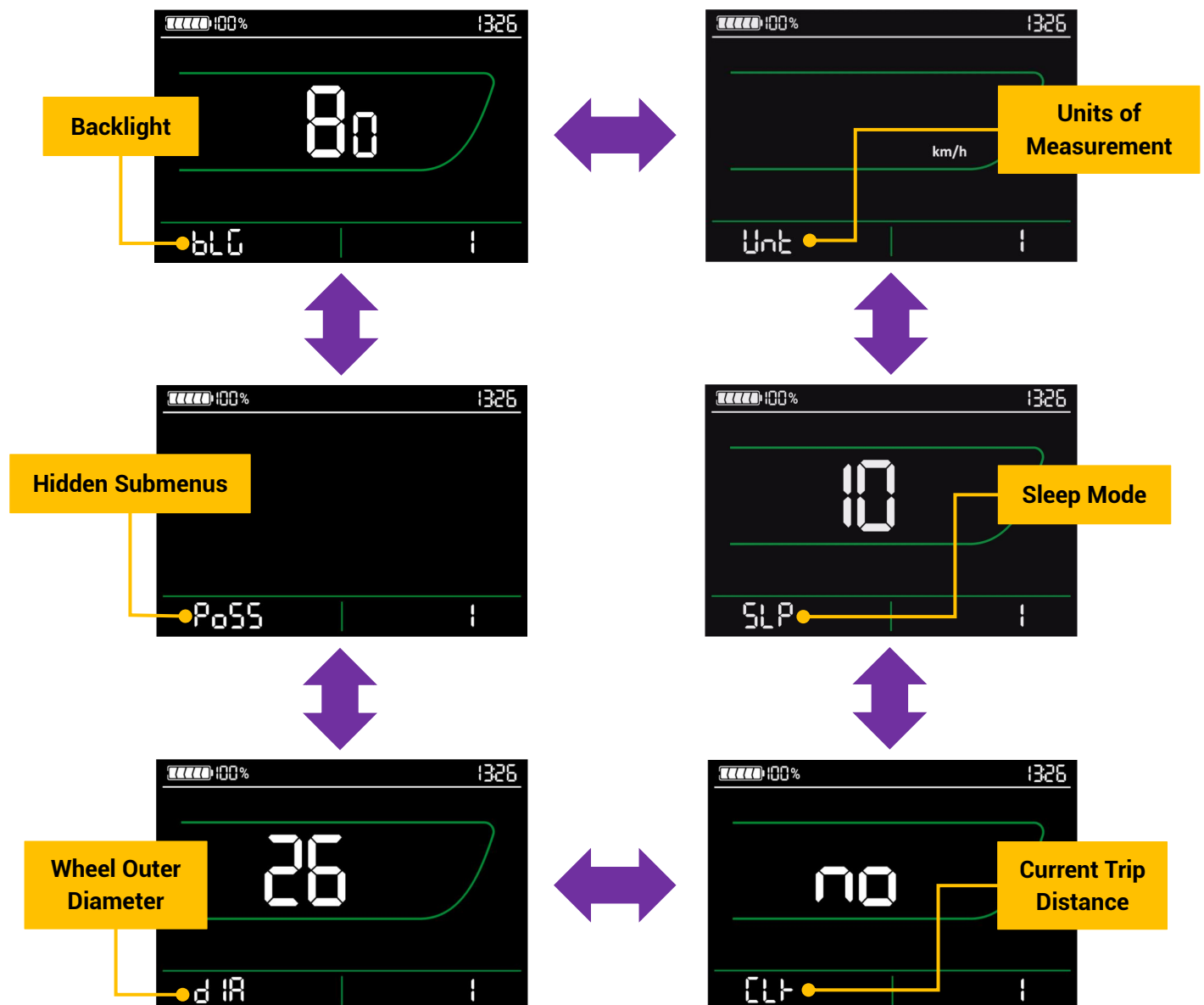
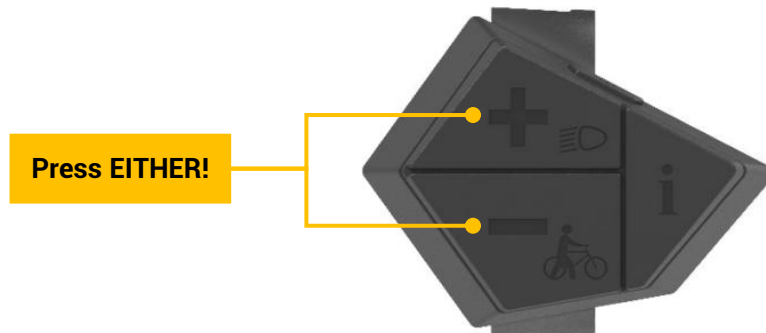
You will automatically start with **bLG** (Backlight).



6.2.2 Selecting a Menu

Press + or - to cycle through the menus.

Note: Ensure that the current setting remains **STATIC**.



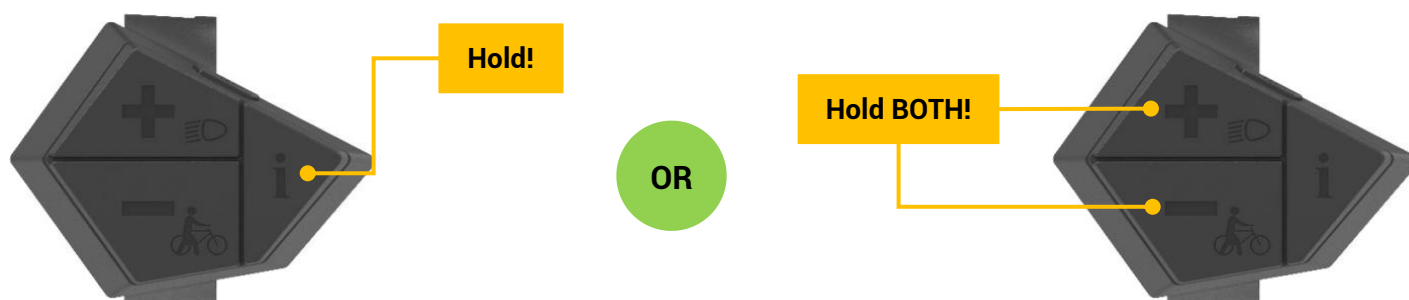
6.2.3 Exiting the Menu

Ensuring that the selected menu is **NOT** open (**NOT** flashing):

- (Method 1) Hold **i** until the digital display resets, which will take **5 SECONDS**.
- (Method 2) Hold **+** and **-** simultaneously until the display resets, which will take **3 SECONDS**.

Note:

- When the selected menu is open (flashing):
 - ◆ Holding **i** for **3 SECONDS ONLY** will save your change or confirm your choice, **WHILE** remaining in these menus (**NOT** flashing).
 - ◆ Holding **+** and **-** simultaneously will **NOT** exit these menus directly either, **BUT WILL** do so as long as you continue holding, **WHILE** discarding your change or canceling your choice.
- **DO NOT** attempt to exit by turning **OFF** the HMI, as  is **NOT** functional at this time.

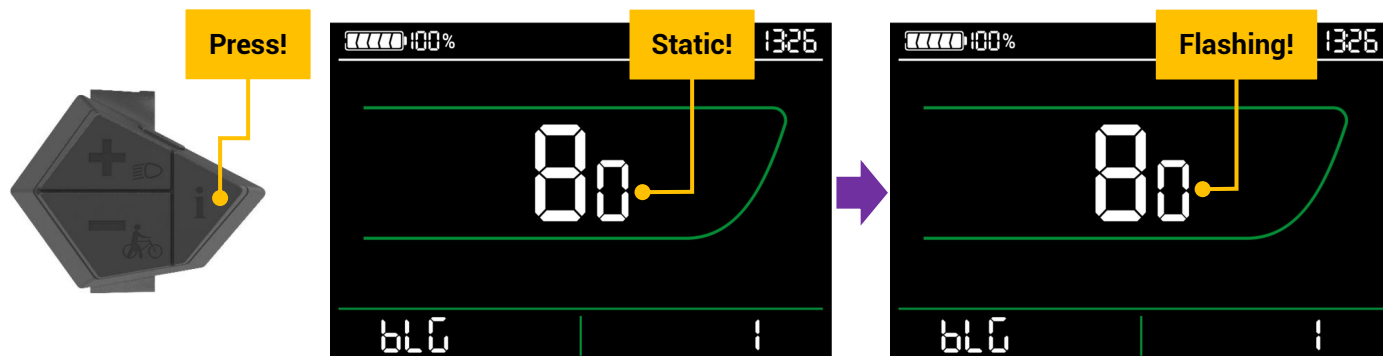


6.2.4 Operating the Menu Contents

6.2.4.1 Backlight (bLG)

1. Select **bLG**, which adjusts the luminance of the LCD screen's backlight.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.

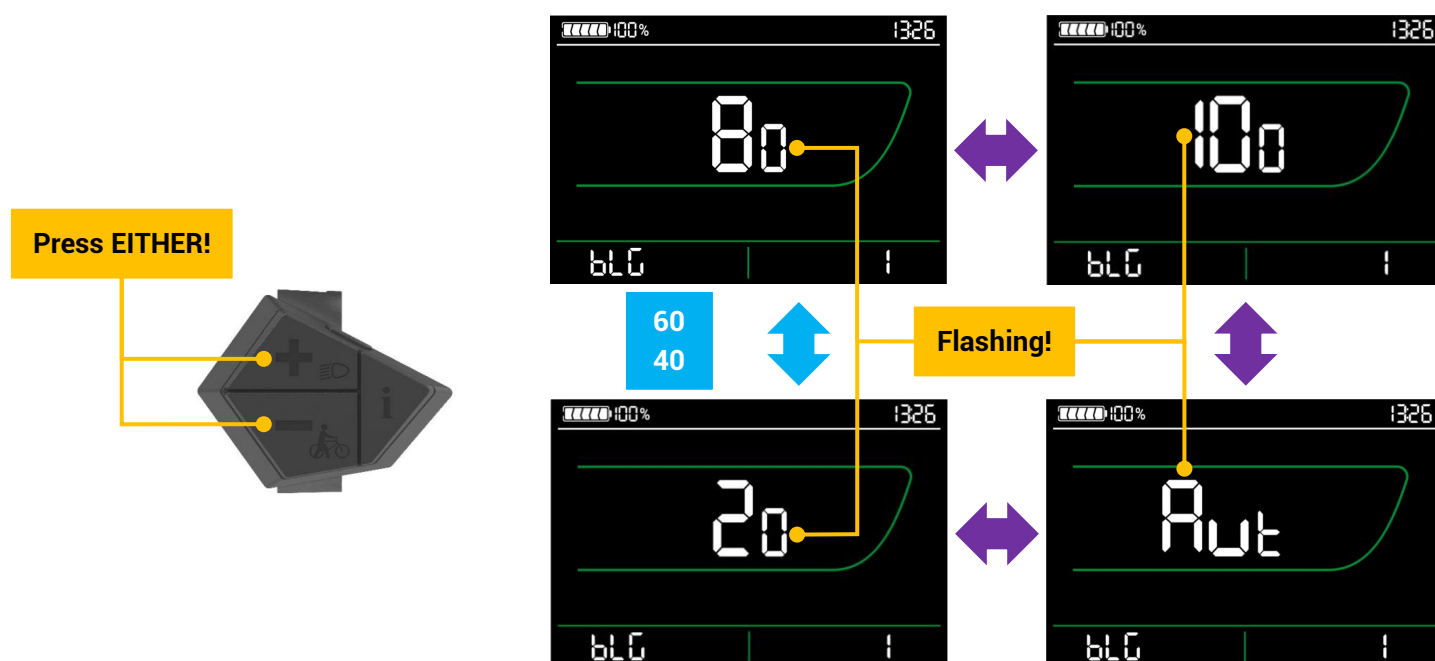


3. Press **+** or **-** to change the setting.

Each press shifts the setting by **20** or toggles between Setting **Aut** and Setting **20** or **100**.

- Setting **20** is the dimmest.
- Setting **80** is the factory preset.
- Setting **100** is the brightest.
- Setting **Aut** allows automatic adjustment in response to the ambient brightness changes.

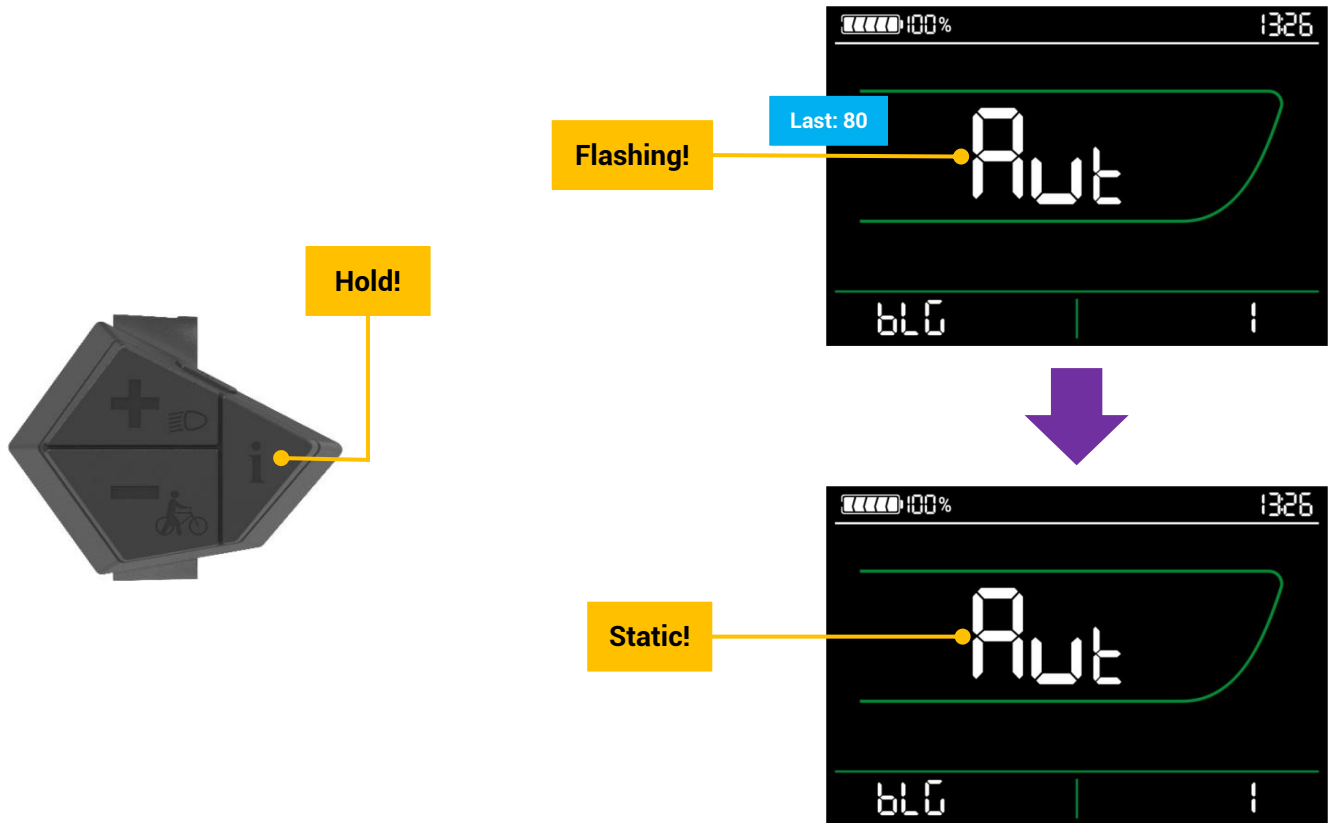
Tip: Use the minimum setting that is clearly visible, prolonging your battery life and contributing to minimal distraction in low light conditions.



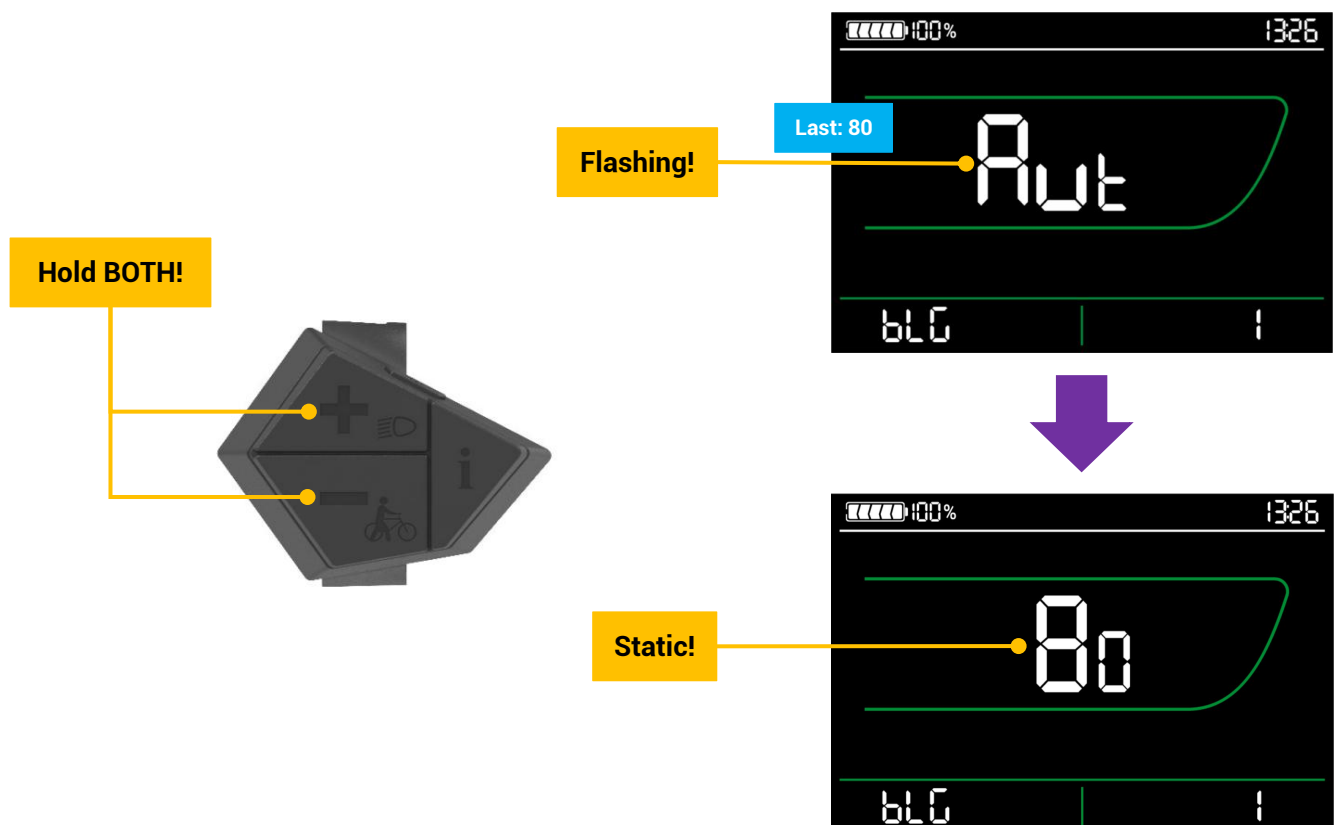
4. Decide your change.

Note: When finished, you can use + or - to cycle through the other main menus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.



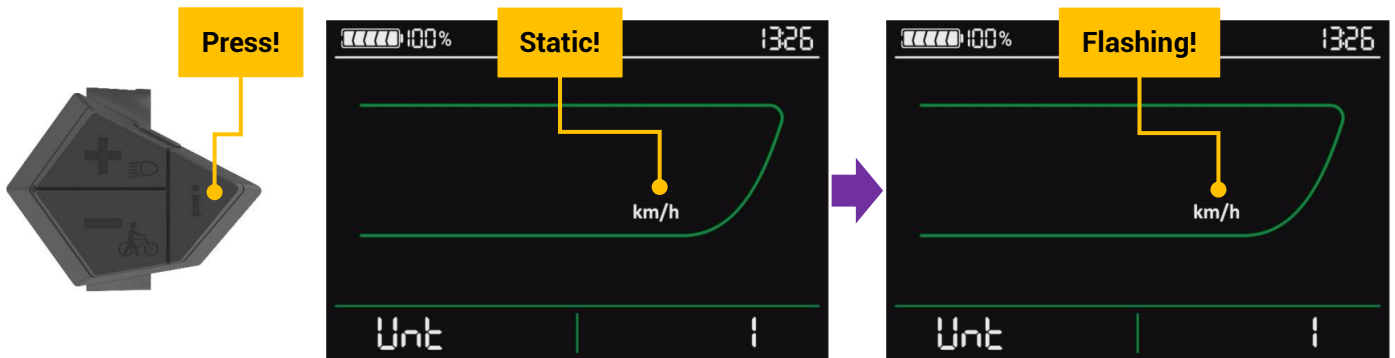
- To **DISCARD**, hold **+** and **-** simultaneously until the previous setting is resumed and then remains static.



6.2.4.2 Units of Measurement (Unt)

1. Select **Unt**, which toggles between metric and imperial units for speeds and distances being displayed.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.

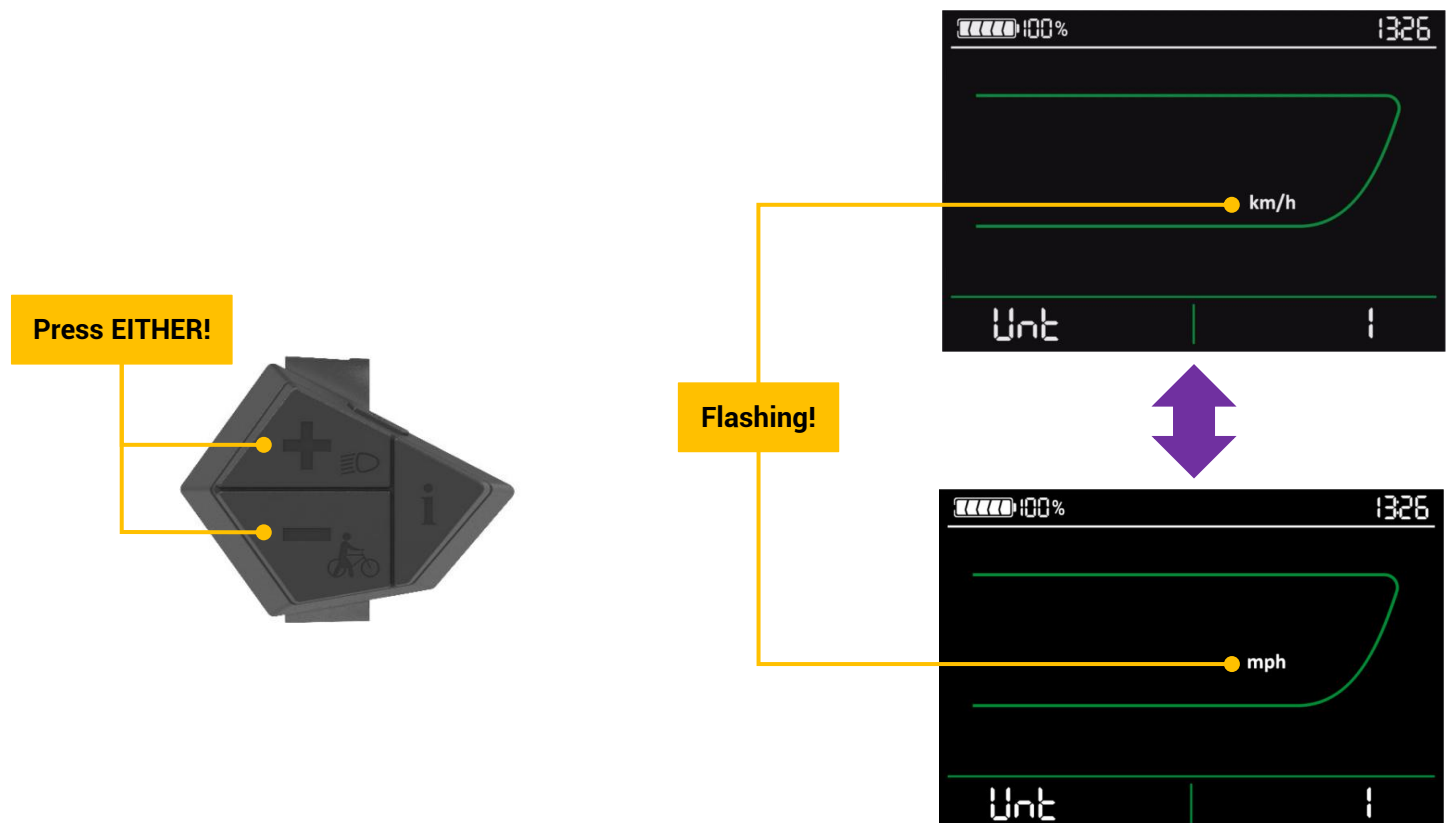


3. Press **+** or **-** to change the setting.
 - For km/h and km, select **km/h**.
 - For mph and mile, select **mph**.

⚠ WARNING

DO NOT mix up the metric and imperial readings.

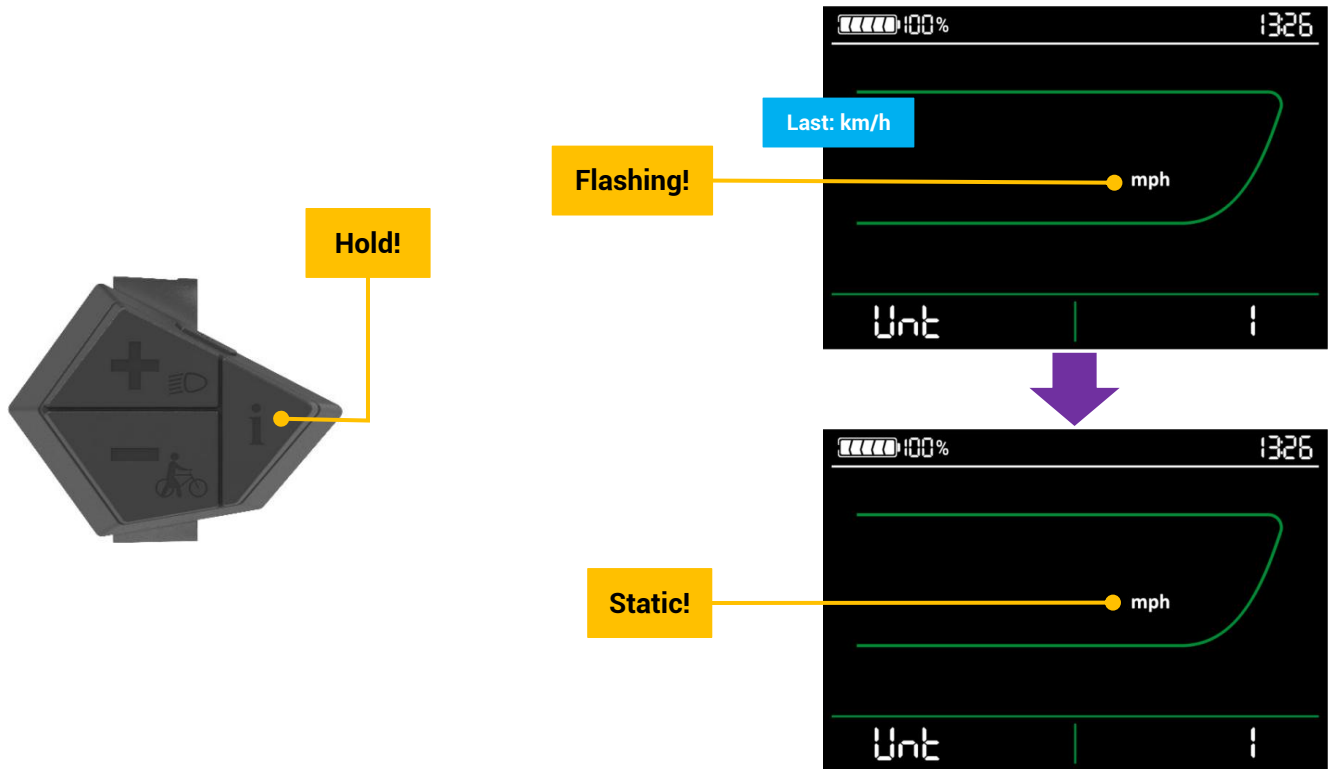
Failure to follow this can lead to misjudgments posing risks of accidents.



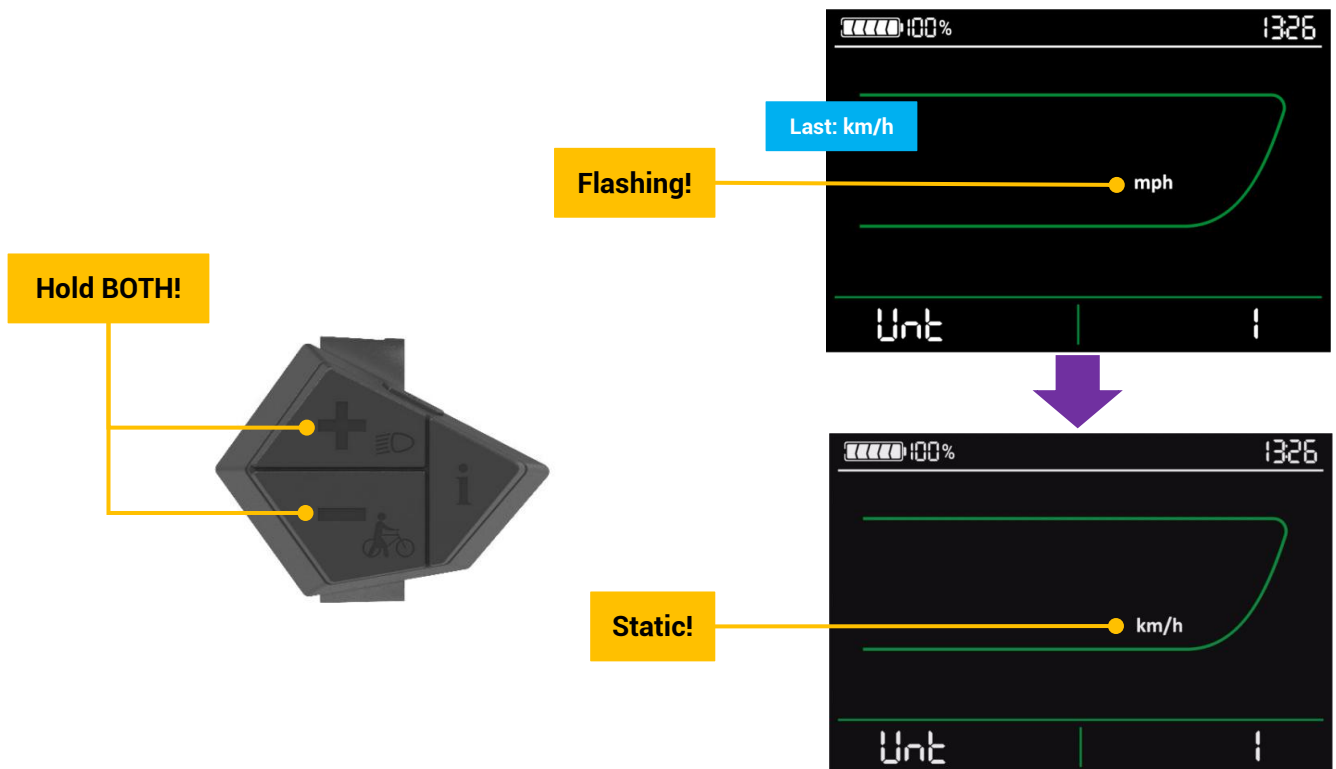
4. Decide your change.

Note: When finished, you can use + or - to cycle through the other main menus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.



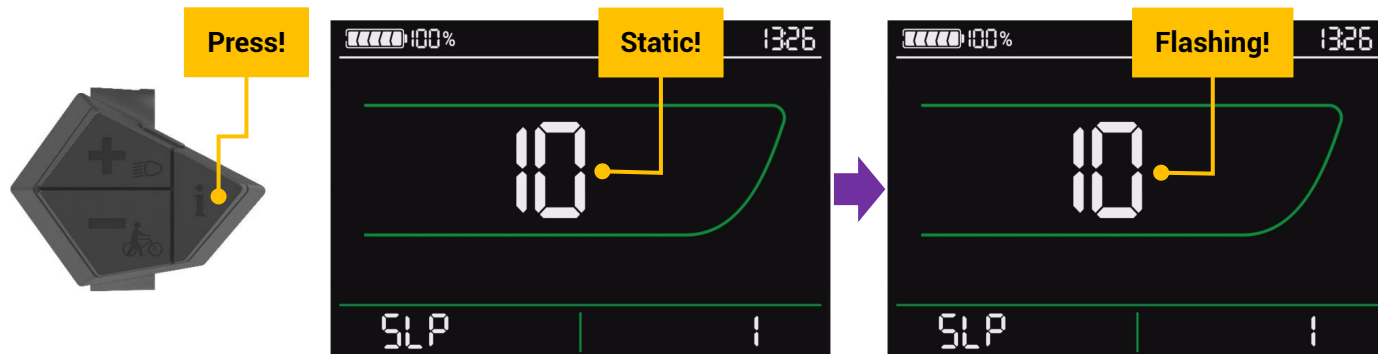
- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.



6.2.4.3 Sleep Mode (SLP)

1. Select **SLP**, which adjusts the period of idleness after which the HMI will automatically enter sleep mode.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.

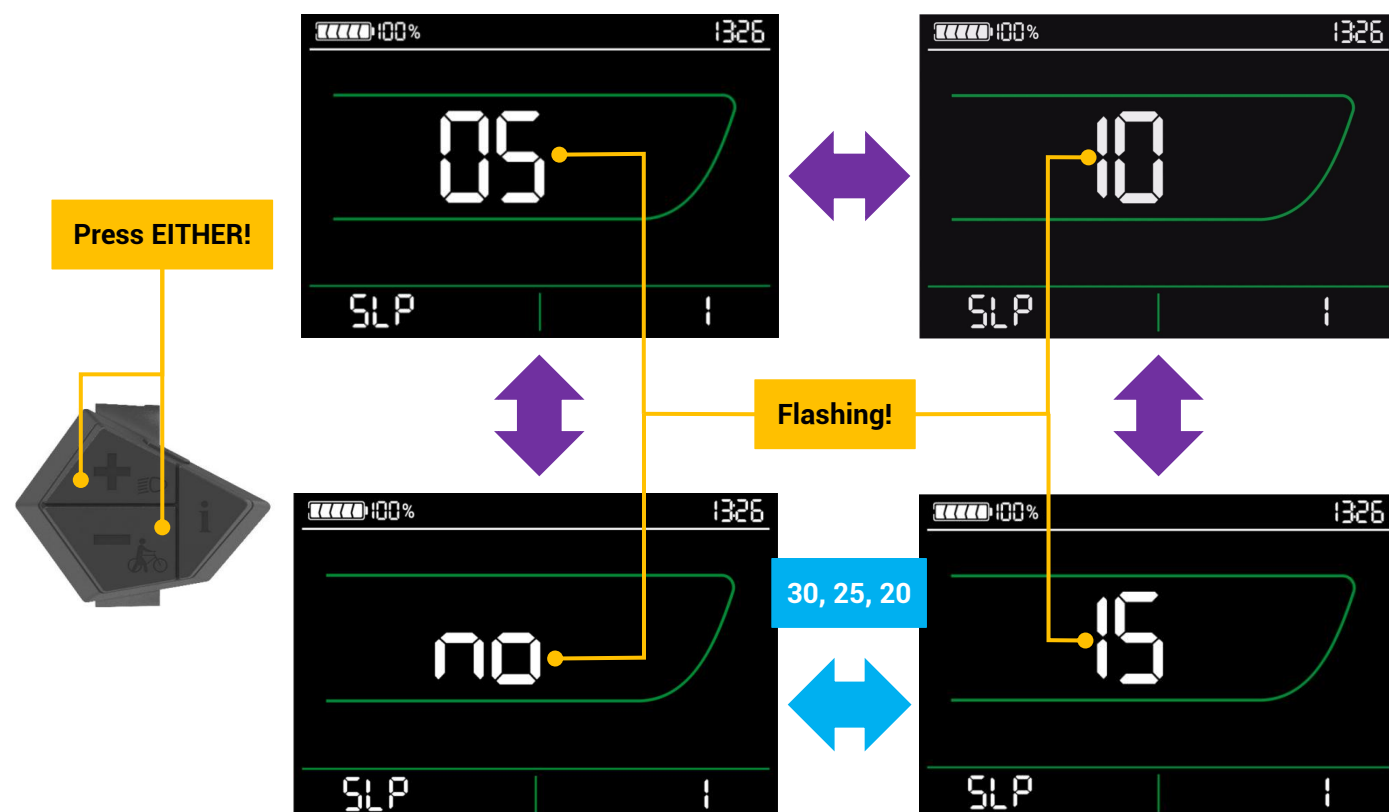


3. Press **+** or **-** to change the setting.

Each press shifts the setting by **5** or toggles between Setting **no** and Setting **5** or **30**.

- Setting **05** is 5 minutes and the shortest.
- Setting **10** is 10 minutes and the factory preset.
- Setting **30** is 30 minutes and the longest.
- Setting **no** disables sleep mode, allowing the HMI to remain active indefinitely as long as it is powered on.

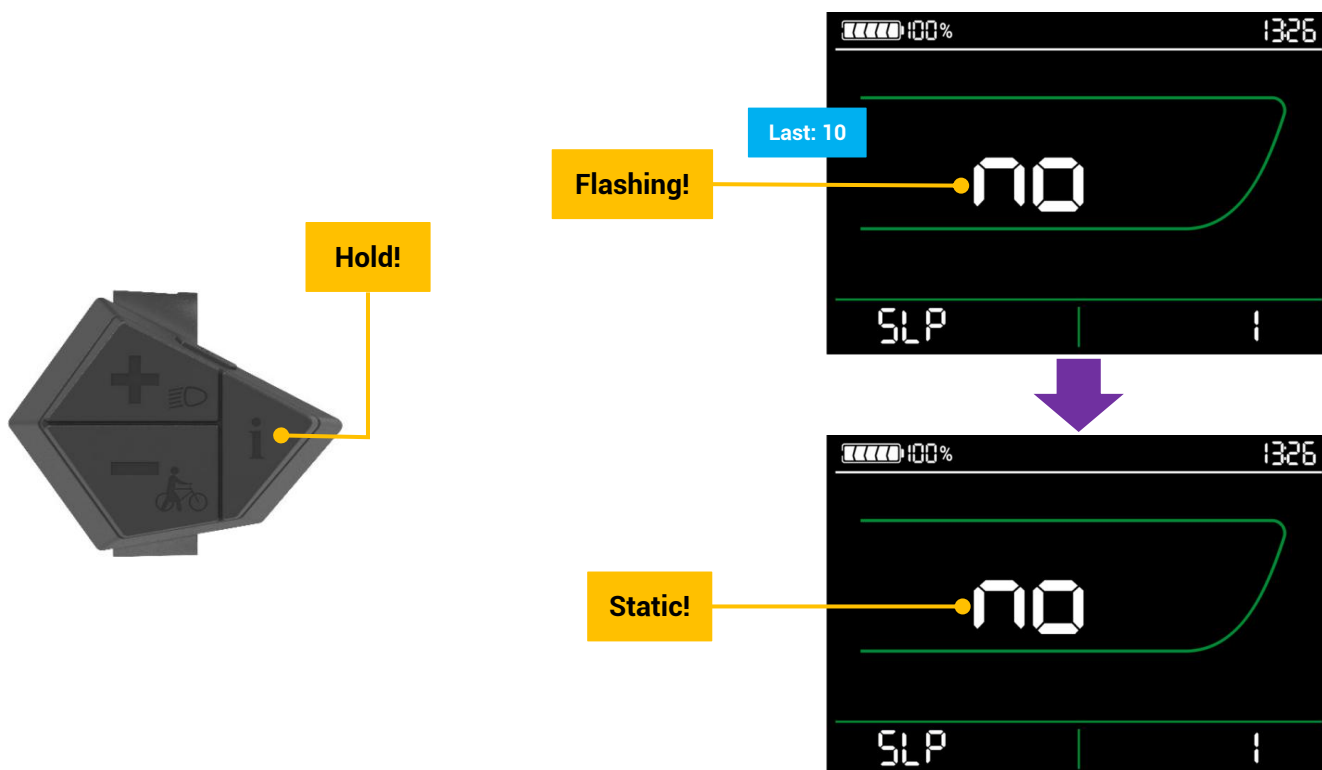
Note: Automatic shutdown remains **5 min. AFTER** such idleness **UNLESS** disabled alongside sleep mode.



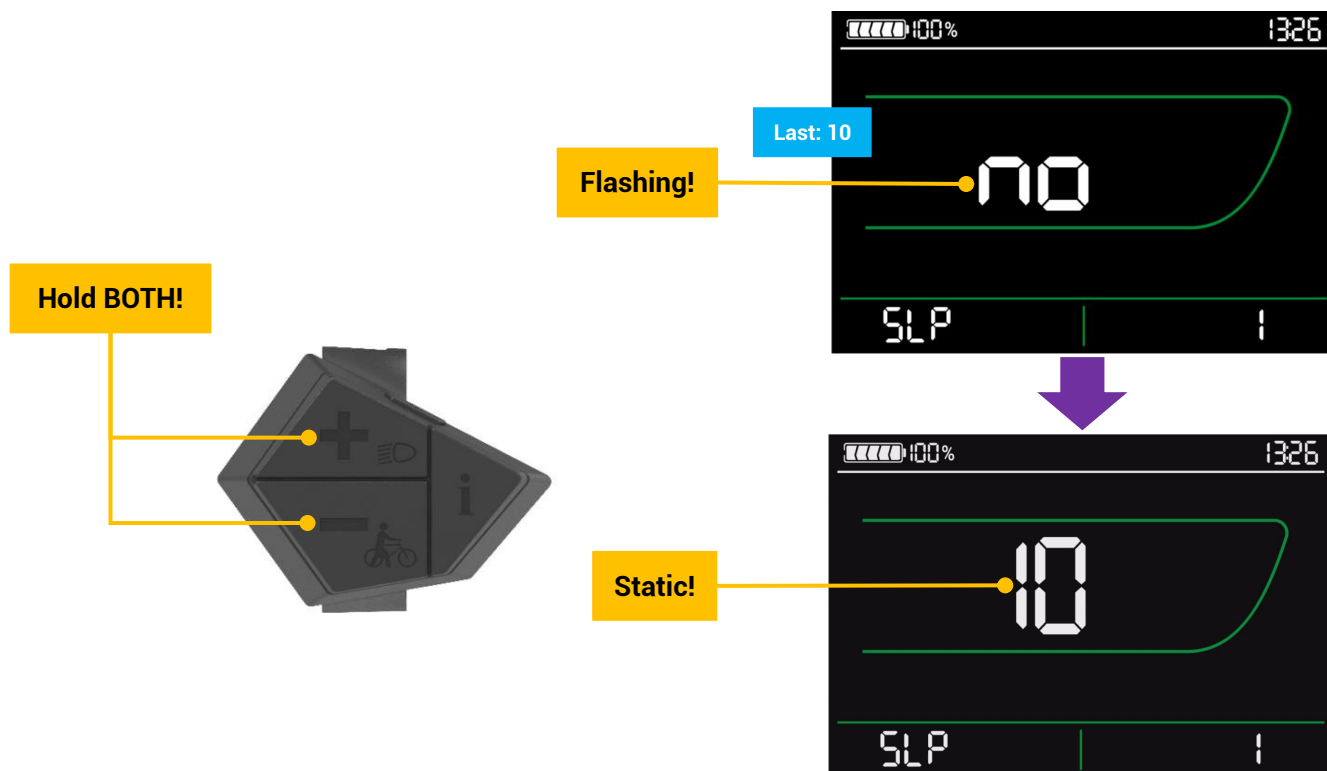
4. Decide your change.

Note: When finished, you can use + or - to cycle through the other main menus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.



- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.

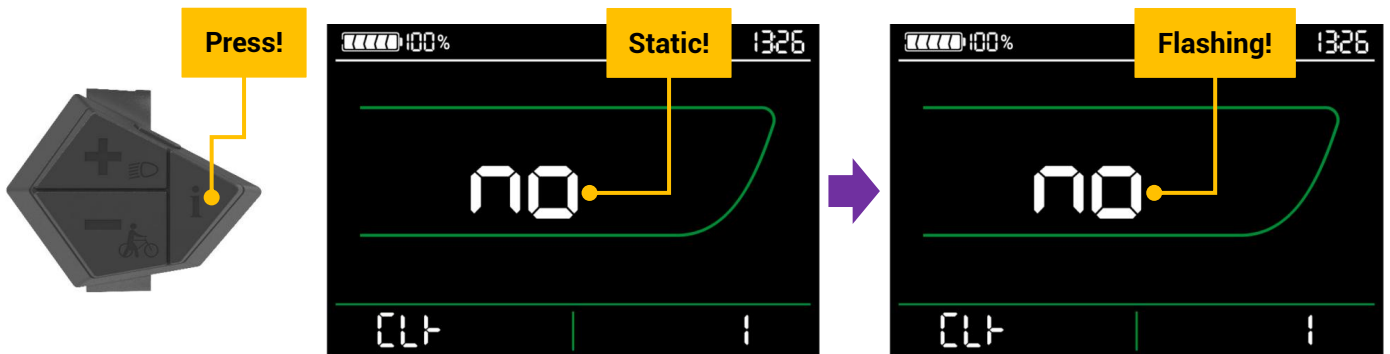


6.2.4.4 Current Trip Distance (CLr)

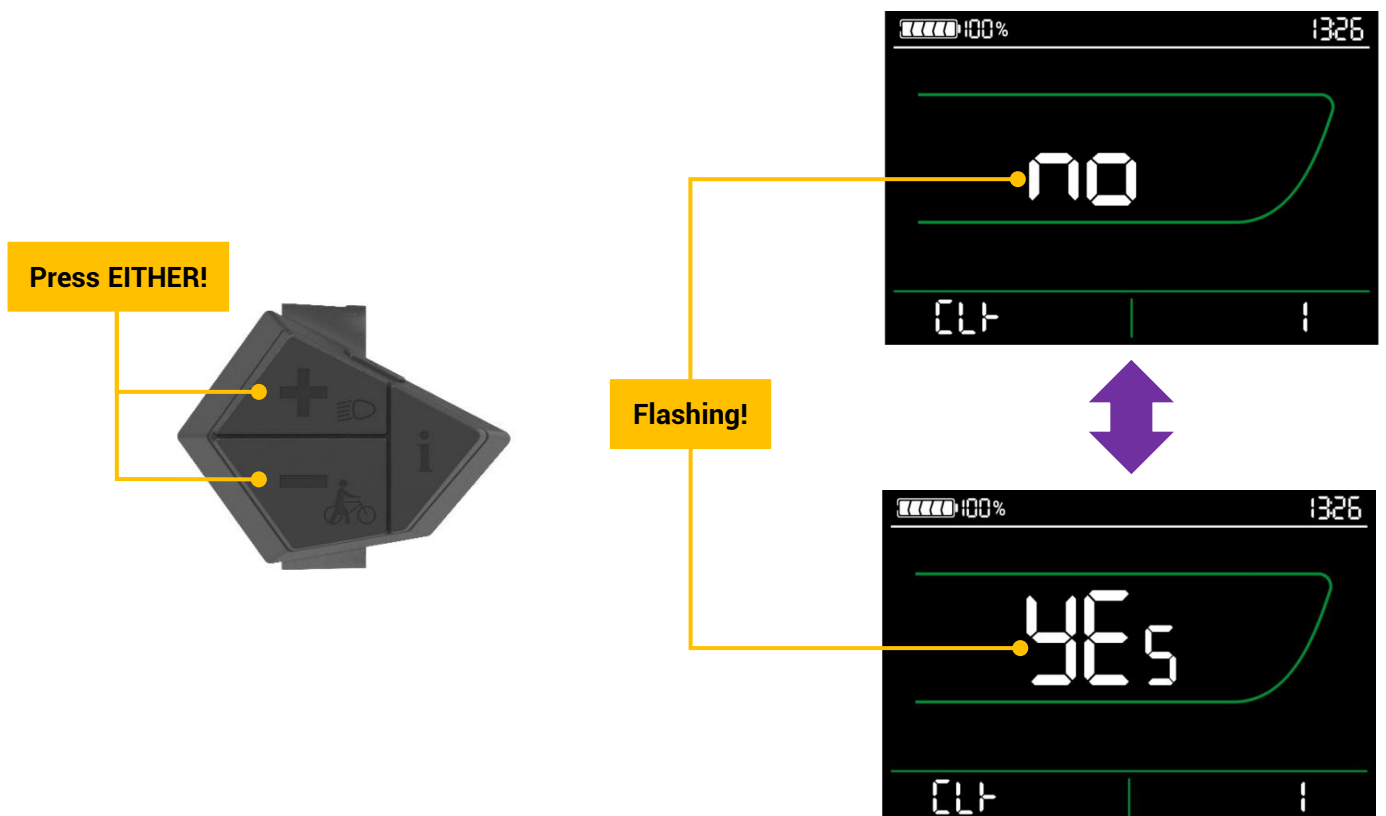
Note: Your total distance traveled (**ODO**) is **NOT** clearable by the HMI itself.
If needed, Ananda's corporate customers can try upgrading the firmware via **Ananda Link** mentioned in **Section 13.2.1** on **Page 84**.

1. Select **CLr**, which concerns the reading of your current trip distance (**TRIP**) in the variable display.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



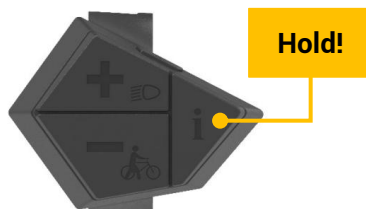
3. Press **+** or **-** to make a choice.
 - To retain the reading, select **no**.
 - To clear the reading, select **yES**.



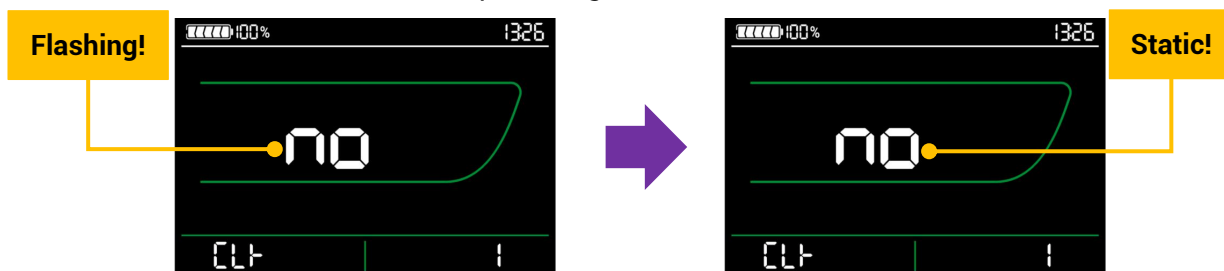
4. Decide your choice.

Note: When finished, you can use + or - to cycle through the other main menus, **UNLESS** you confirm **yES**.

- To **CONFIRM**, hold **i**.

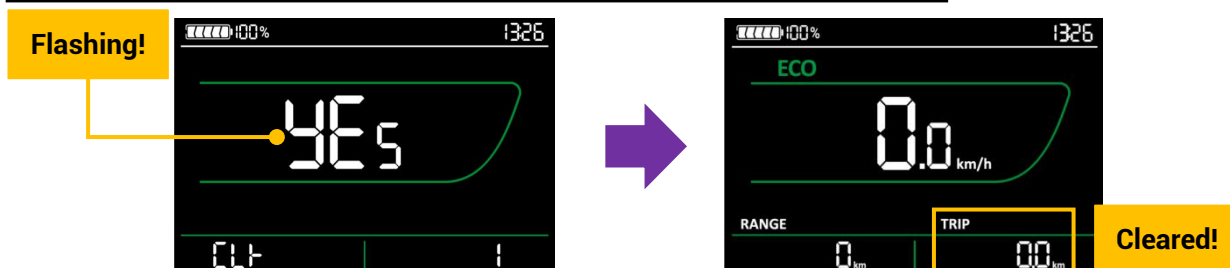


- If **no** has been selected, **no** should stop flashing soon.

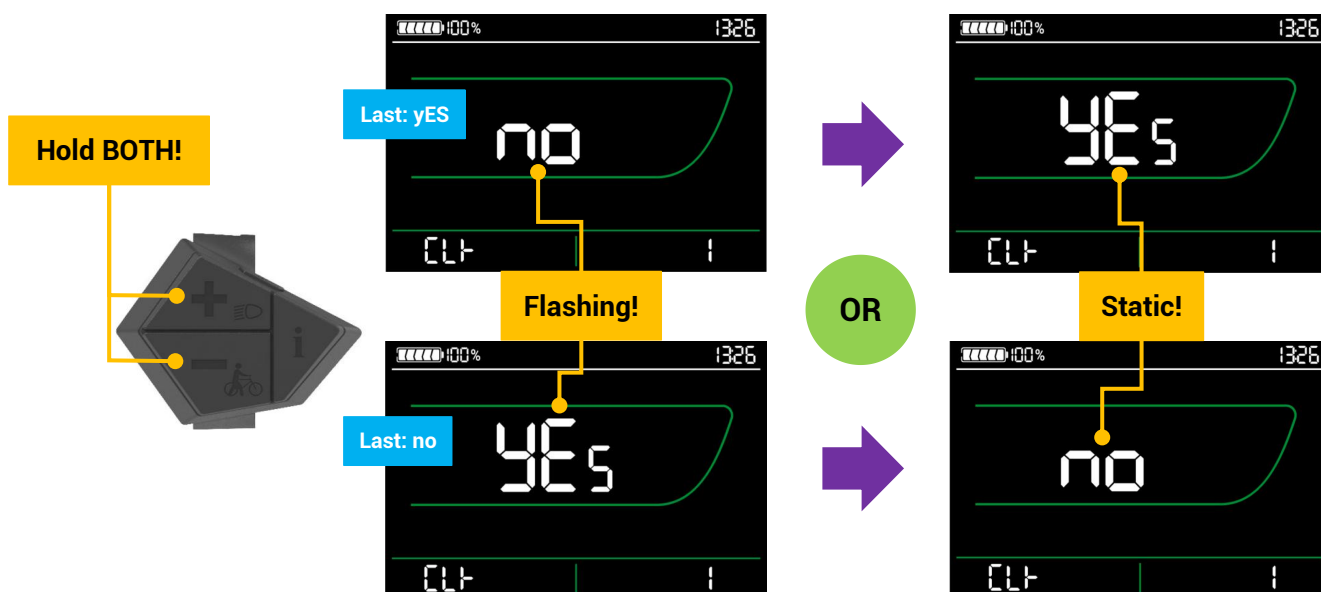


- If **yES** has been selected, the digital display should reset and **TRIP** read "0.0".

Note: It is your **CONTROLLER** that decides whether **RANGE**, **AVGC**, and other correlatives **ARE** cleared at the same time.



- To **CANCEL**, hold **+** and **-** simultaneously until the previous setting is resumed and then remains static.



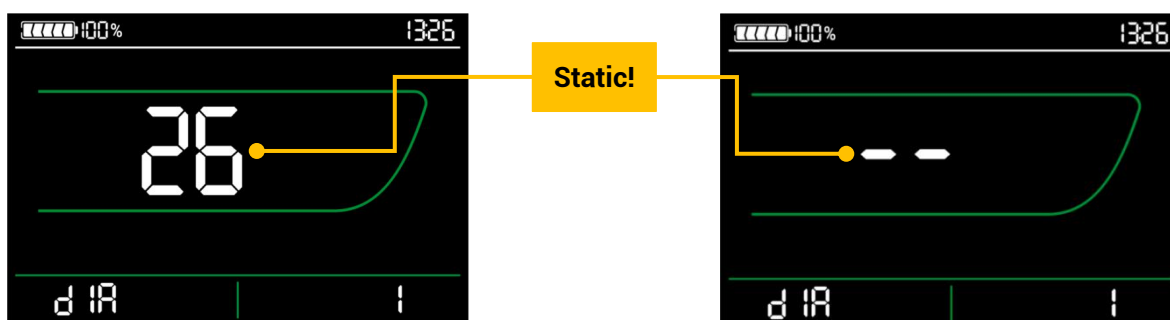
6.2.4.5 Wheel Outer Diameter (dIA)

1. Select **dIA**, which displays your controller's requirement for your wheel outer diameter including its tire's.
 - Setting **26** refers to 26 inches.
 - Setting **--** indicates **NO** requirement or data input.

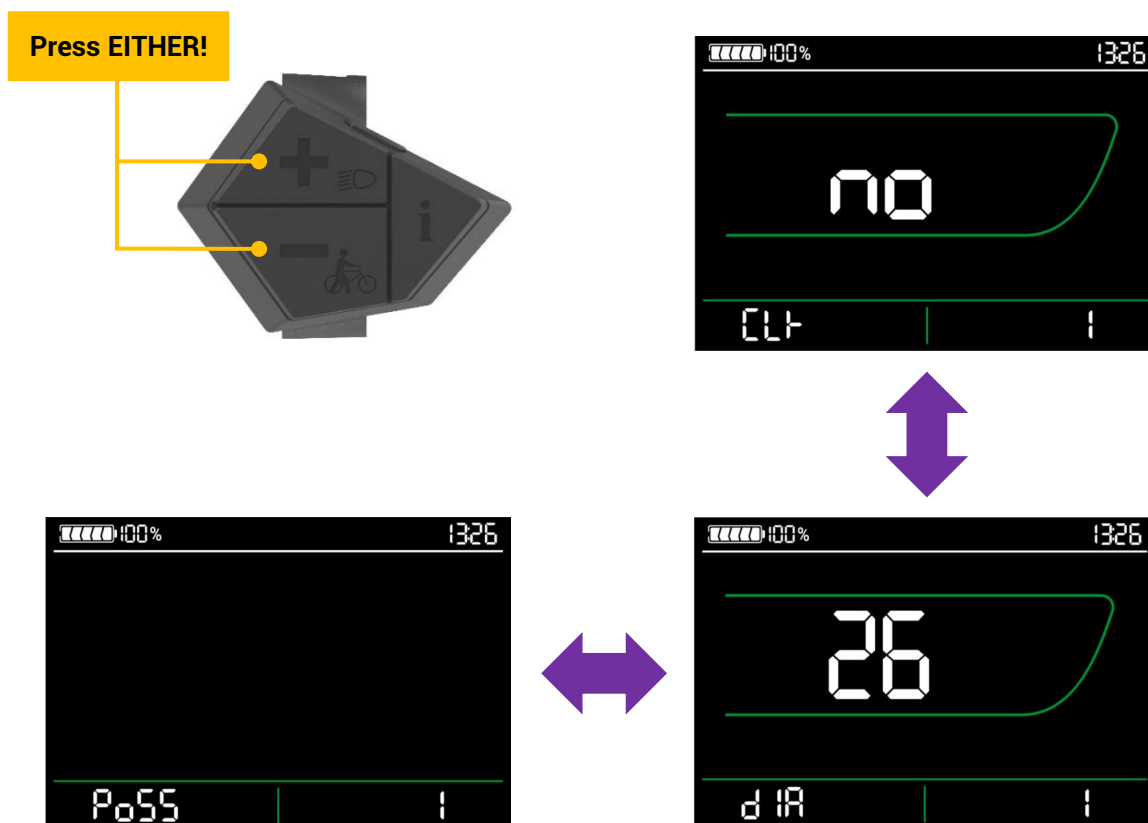
⚠ WARNING

When selecting a wheel, obey the **dIA** reading to ensure **FULL** compatibility with your motor settings. Failure to do so can cause inaccurate speed and distance readings, leading to misjudgments posing risks of accidents.

Note: The **dIA** menu is **NON-ADJUSTABLE** and for **READING** only.



2. To exit **dIA**, simply press **+** or **-** to cycle through the other main menus.



6.3 Hidden Submenus

6.3.1 Accessing the Submenus

1. Press **+** or **-**, toggling the main menu (1) to **PaSS**.



2. Press **i**, toggling **PaSS** to **P0000**.

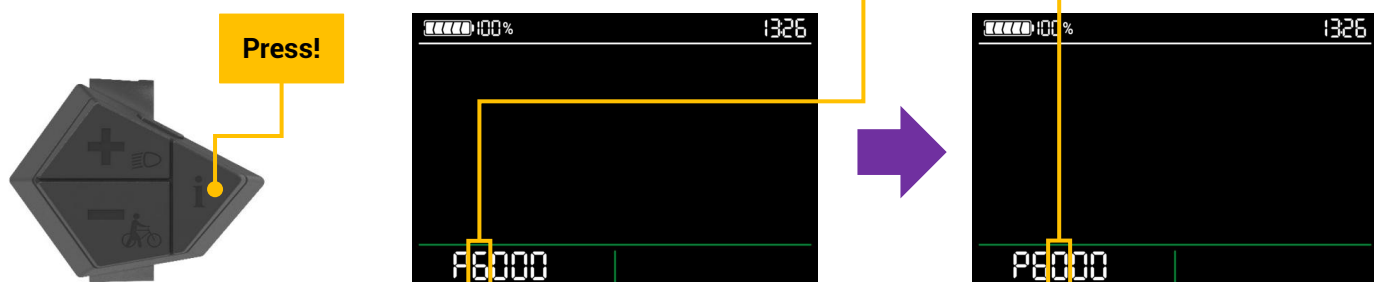
The first digit (0) after **P** should begin to flash.



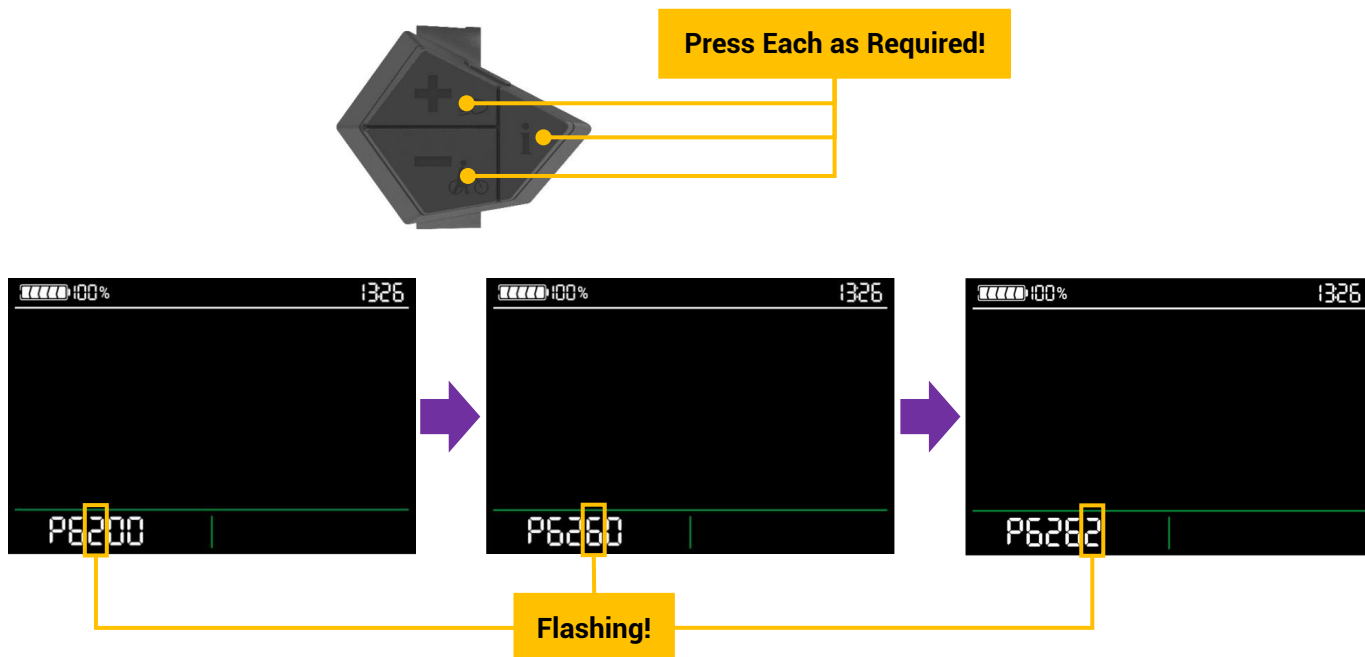
3. Press **+** or **-**, entering **6** as the first digit.



4. Press **i** to confirm and move on to the second digit (0).



5. Enter 2, 6, and 2 as the remaining digits following Steps 3–4.

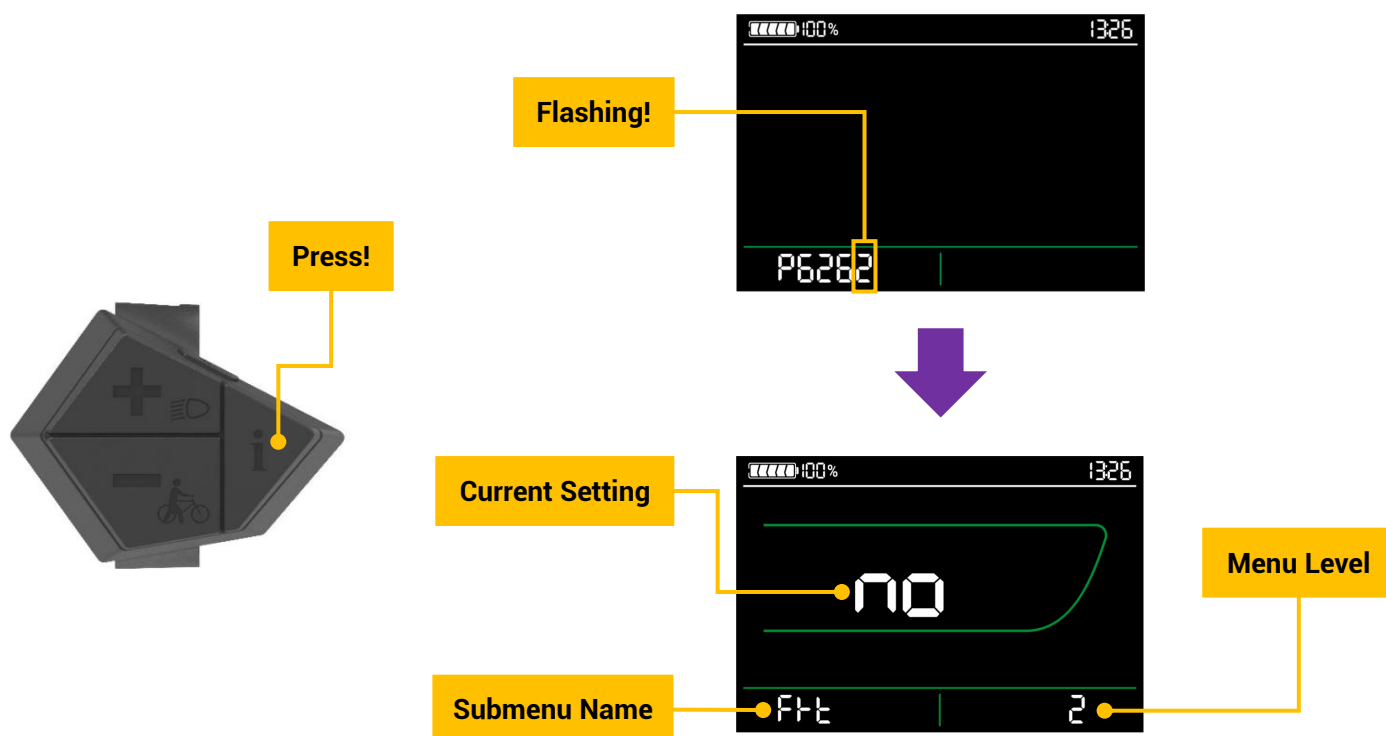


6. When finished with 6262, press **i** to access the submenus (2).

You will automatically start with **Fr**t (Factory Settings).

Note:

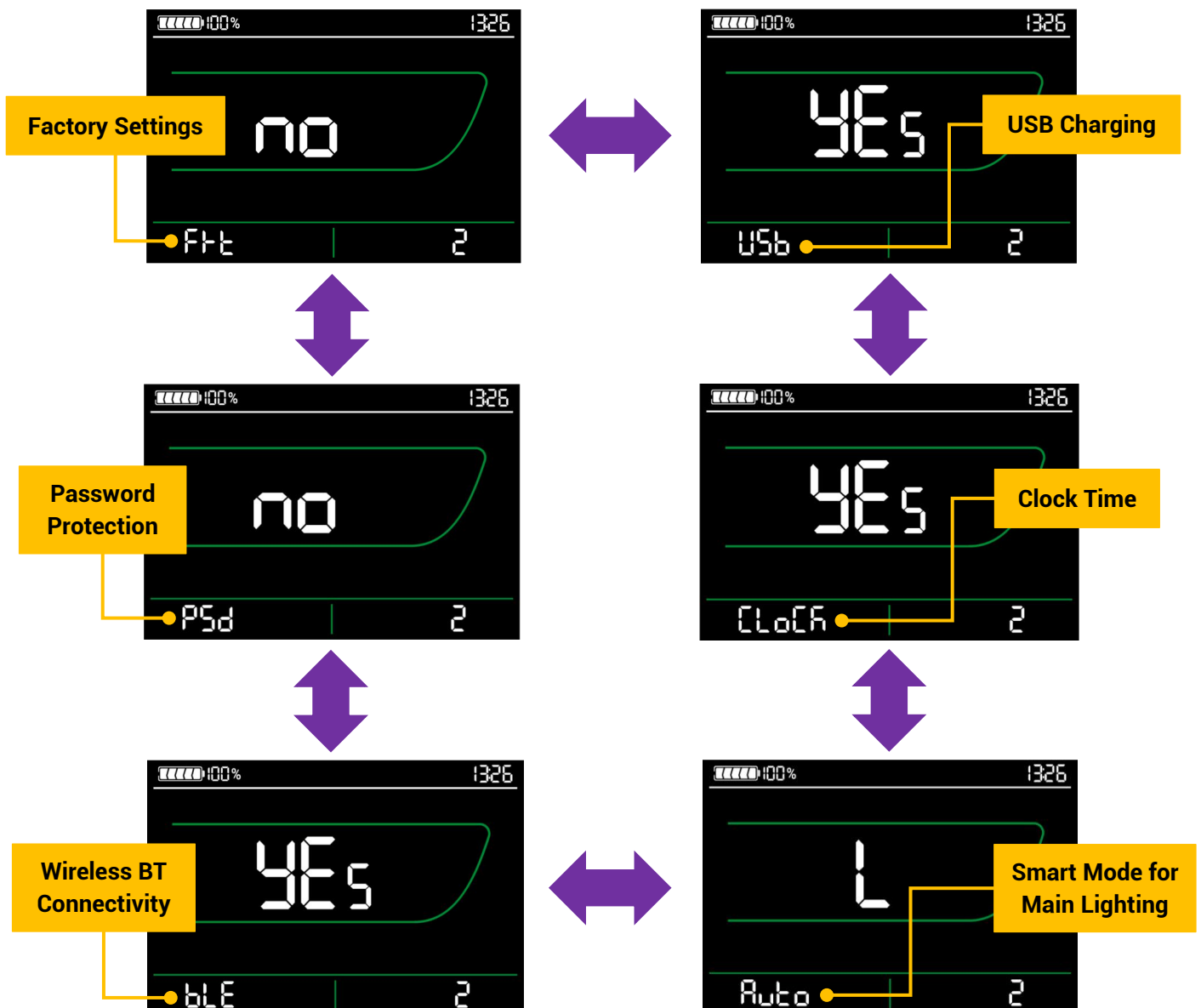
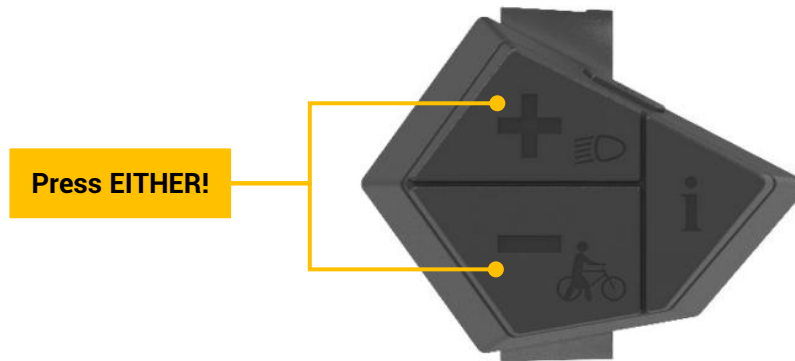
- If **ANY** digit input is wrong, repeatedly press **i** until this digit flashes **BEFORE** a re-entry.
- Such **6262** will **NOT** be affected by **ANY** reconfiguration of password protection (**Mdy** under **PSd**) mentioned in **Section 6.3.4.6.2 on Pages 58–59**.



6.3.2 Selecting a Submenu

Press + or - to cycle through the submenus.

Note: Ensure that the current setting remains **STATIC**.



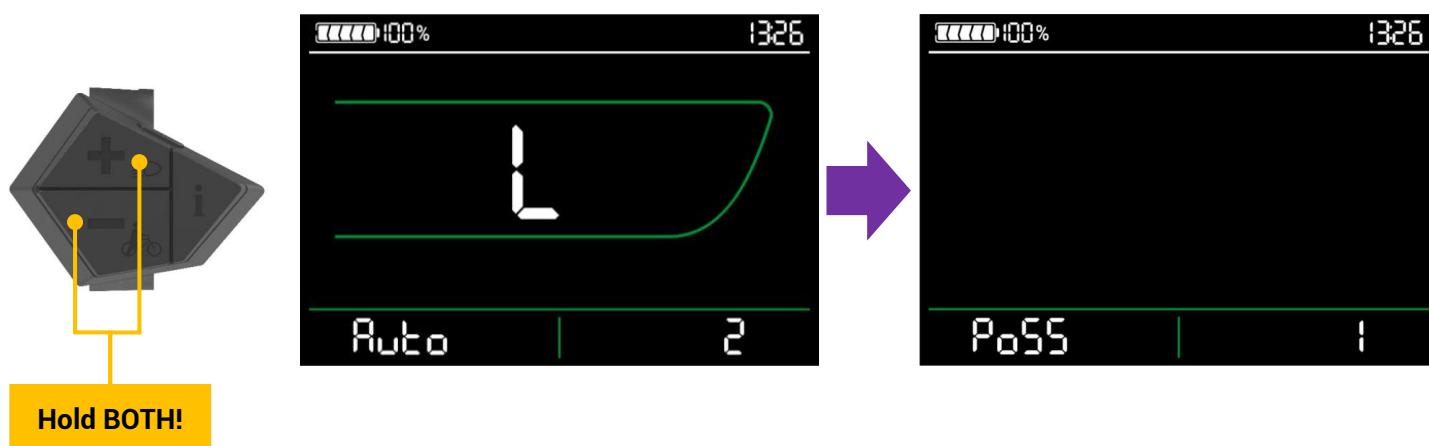
6.3.3 Exiting the Submenus

6.3.3.1 Returning to the Main Menu (Option A)

Hold **+** and **-** simultaneously until **PaSS** with **1** is resumed, which will take **3 SECONDS** if the selected submenu is **NOT** open (**NOT** flashing).

Note:

- When the selected submenu flashes, holding **+** and **-** simultaneously will **NOT** exit the submenus directly **BUT WILL** do so as long as you continue holding, **WHILE** discarding your change or canceling your choice.
- When finished, you can use **+** or **-** cycle through **bLG**, **Unt**, **SLP**, **CLr**, and **dIA**.

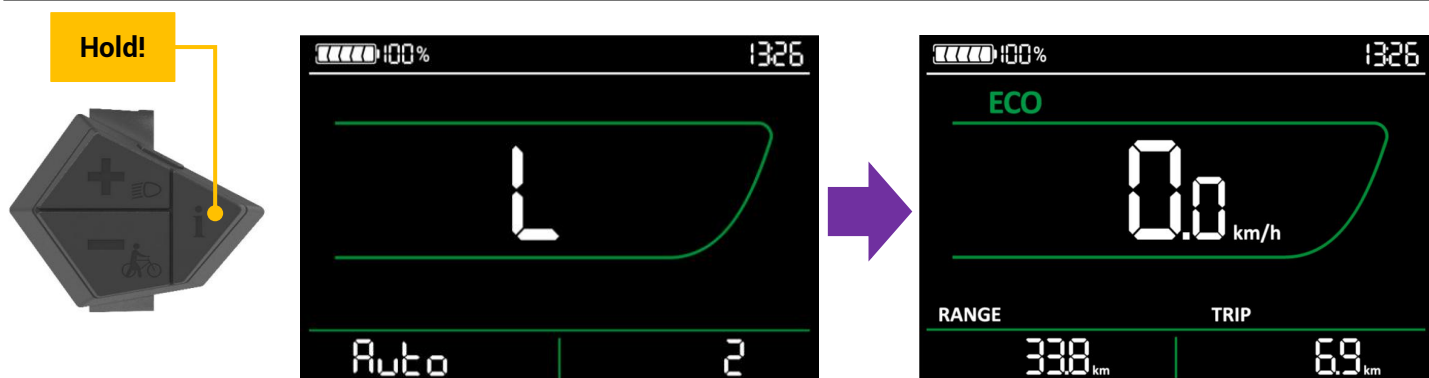


6.3.3.2 Leaving All Function Menus (Option B)

Hold **i** until the digital display resets, which will take **5 SECONDS** if the selected submenu is **NOT** open (**NOT** flashing).

Note:

- When the selected submenu is open (flashing), holding **i** for **3 SECONDS ONLY** will save your change or confirm your choice, **EXCEPT** for **yES** under **FrT**, which will allow you to exit all menus immediately.
- Alternatively, continue holding **+** and **-** after **PaSS** with **1** is resumed as mentioned above.
- **DO NOT** attempt to leave by turning **OFF** the HMI, as **⏻** is **NOT** functional at this time.



6.3.4 Operating the Submenu Contents

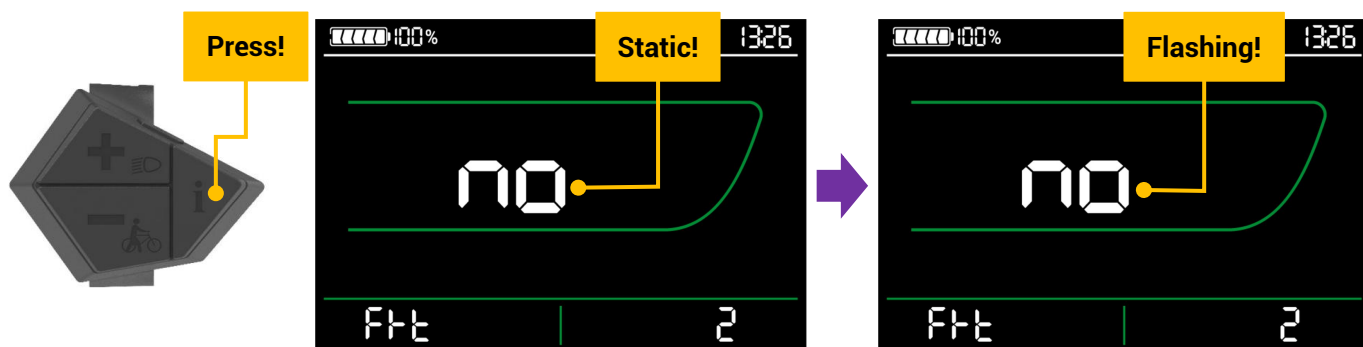
6.3.4.1 Factory Settings (Frt)

1. Select **Frt**, which allows you to revert **ALL** custom settings in the function menus to their presets.

Exception: The clock time (**CLoCK**) will **NOT** be affected.

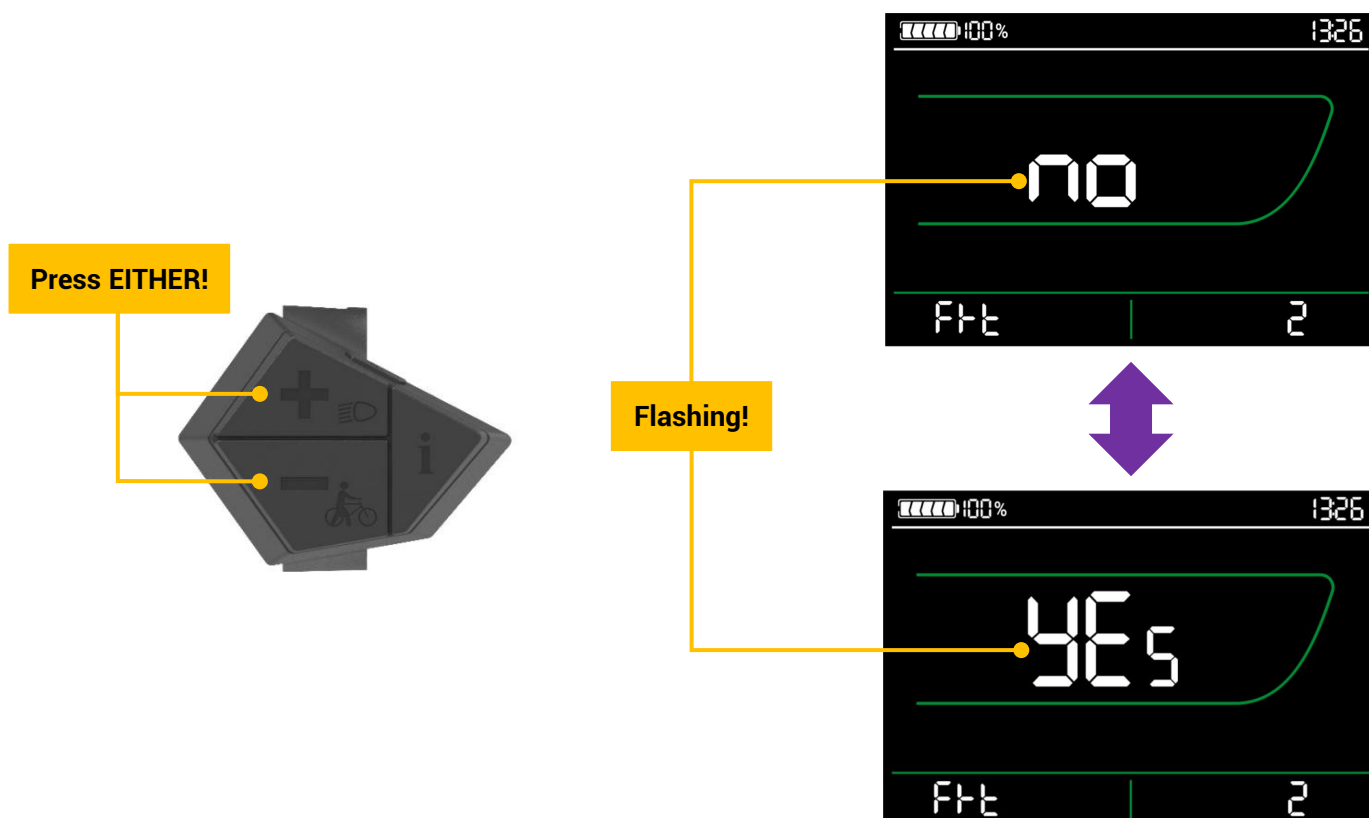
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



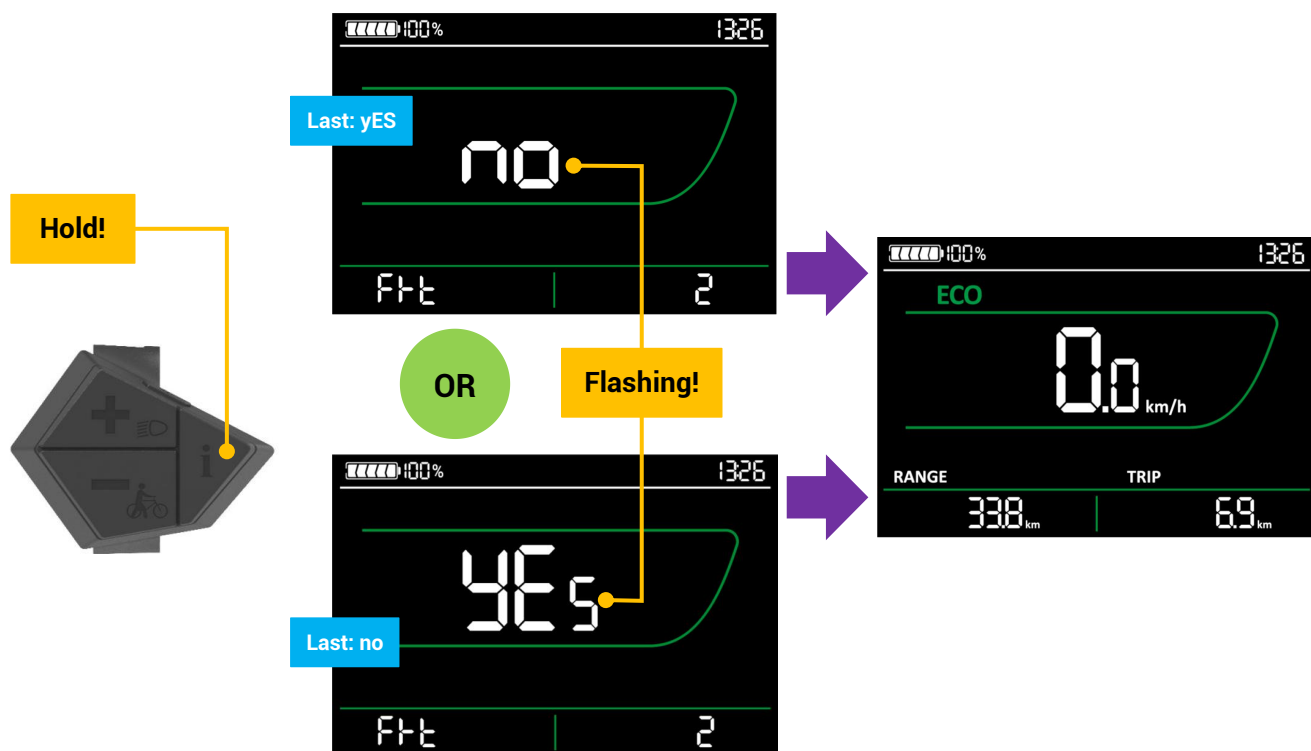
3. Press **+** or **-** to make a choice.

- To retain your custom settings, select **no**.
- To restore the factory settings, select **yES**.



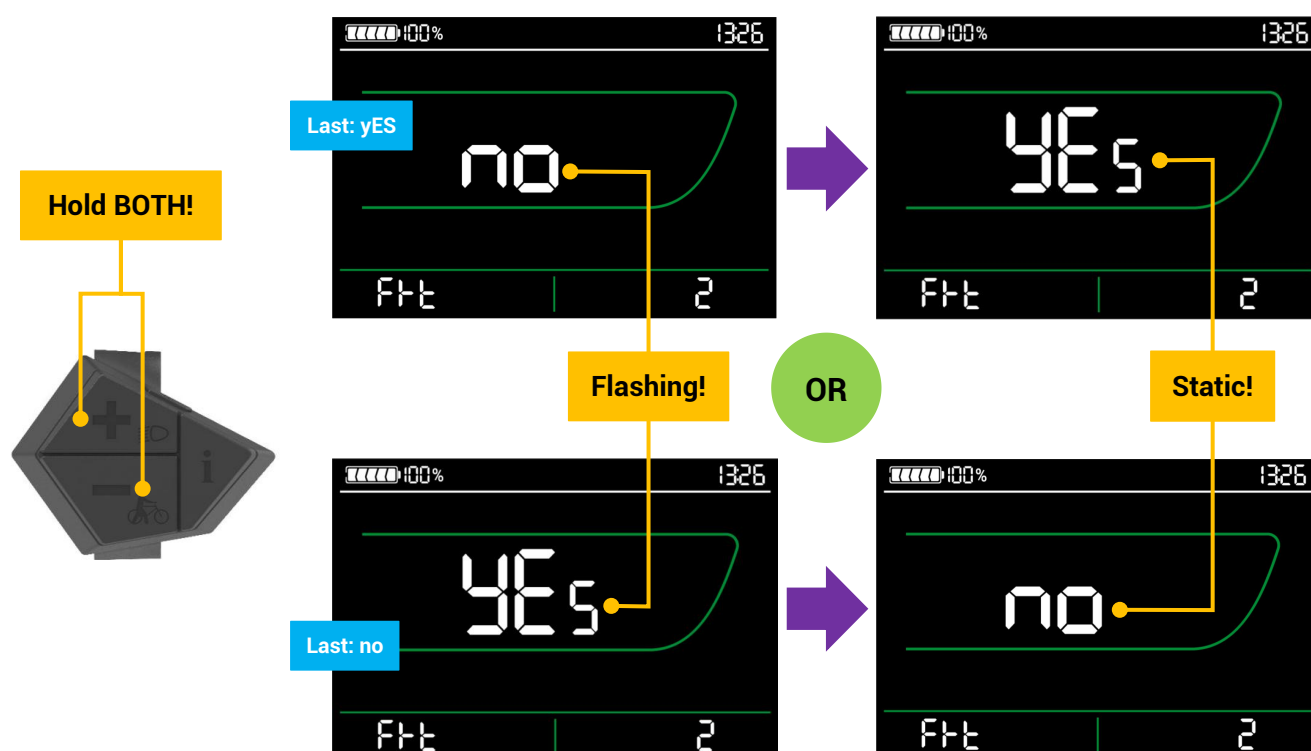
4. Decide your choice.

- To **CONFIRM**, hold **i** until the digital display resets.



- To **CANCEL**, hold **+** and **-** simultaneously until the previous setting is resumed and then remains static.

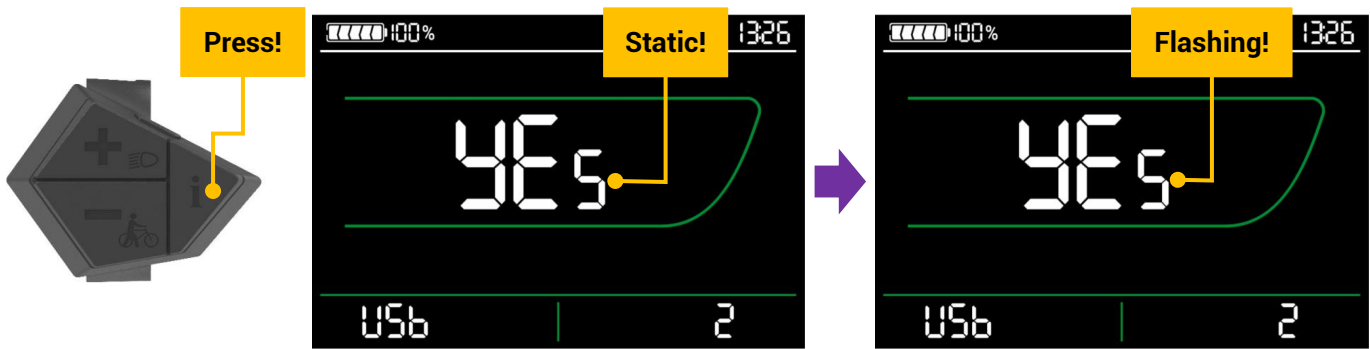
Note: Then, you can use **+** or **-** to cycle through the other submenus directly.



6.3.4.2 USB Charging (USb)

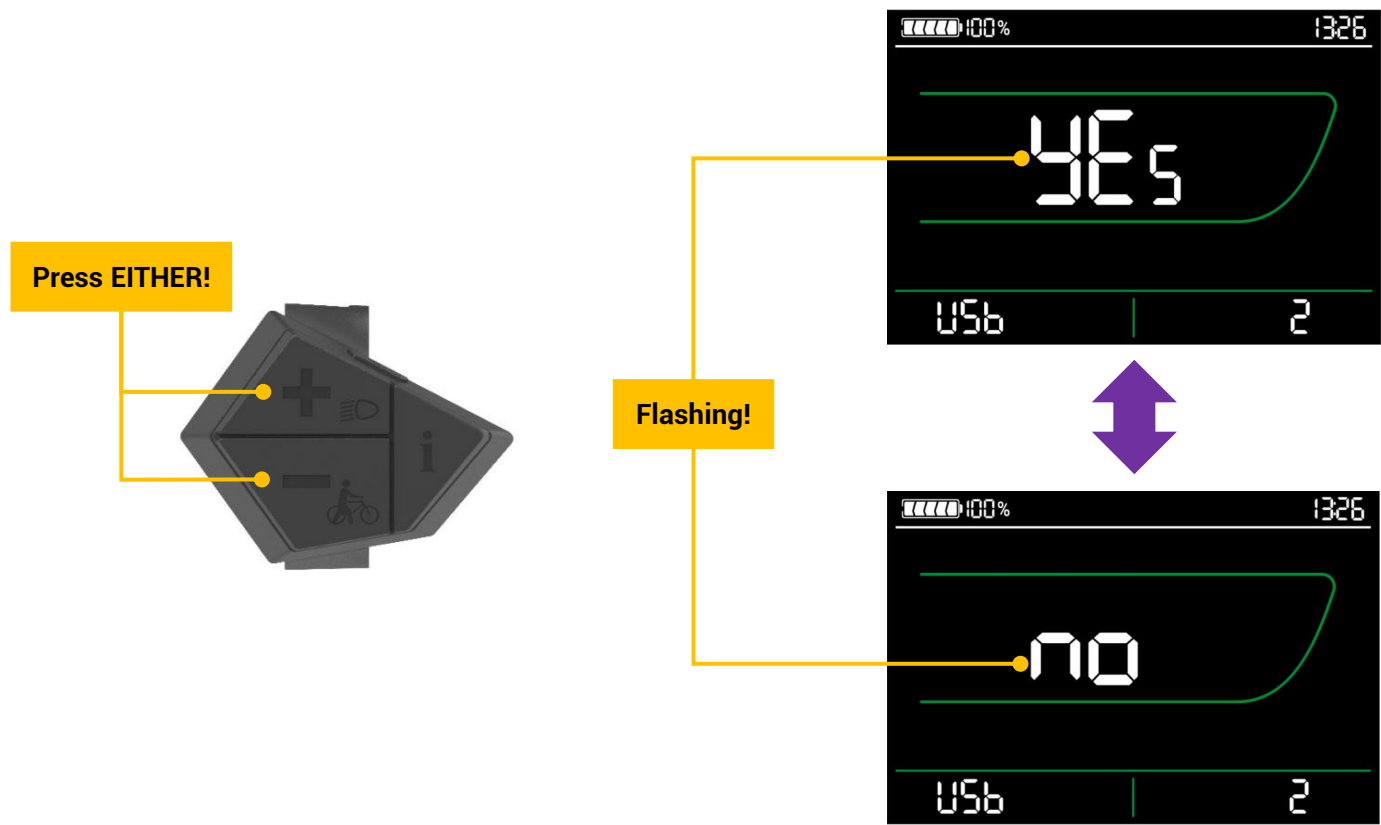
1. Select **USb**, which concerns the functionality of the HMI's USB-C port.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



3. Press **+** or **-** to make a choice.
 - To disable USB charging, select **no**.
 - To re-enable it, select **yES**.

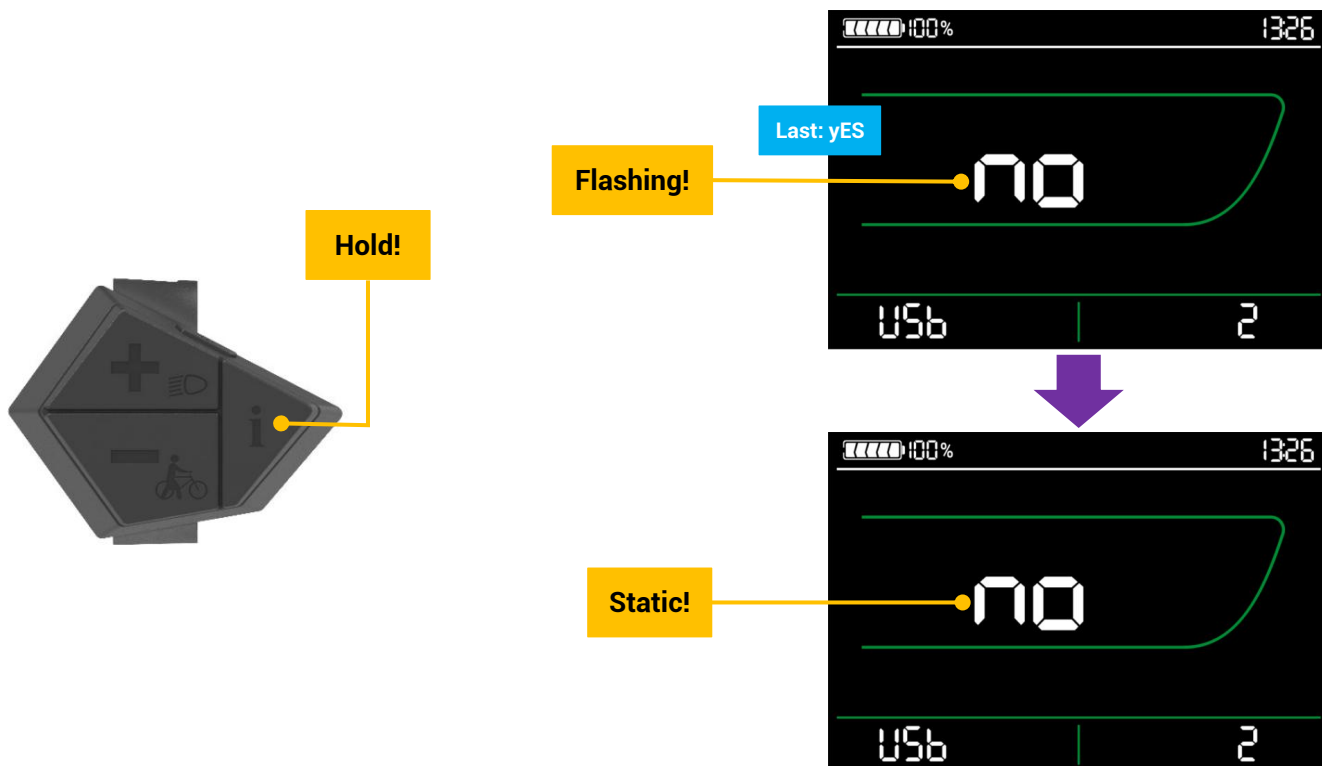
WARNING
***DO NOT** apply this port to **NON-RECHARGEABLE** devices, **EVEN IF** you assume that charging has been disabled.*



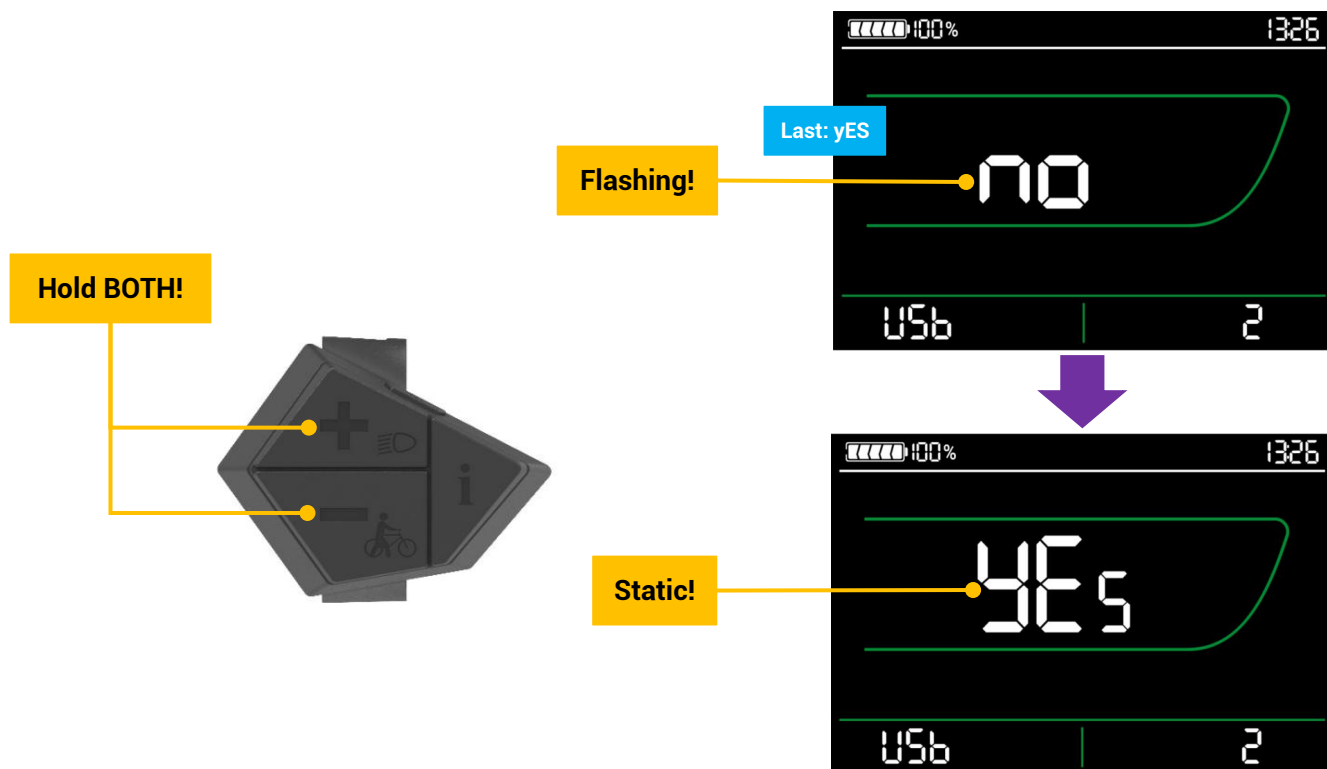
4. Decide your choice.

Note: When finished, you can use + or - to cycle through the other submenus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.



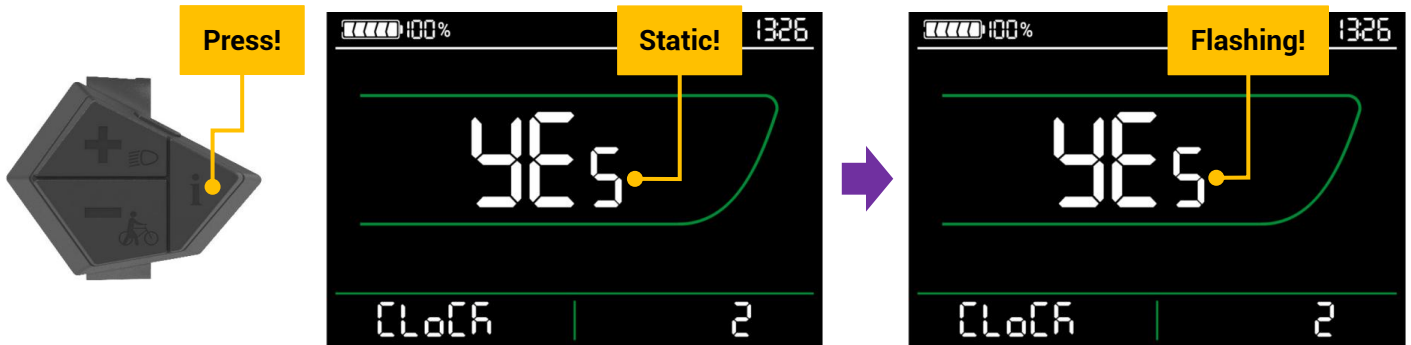
- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.



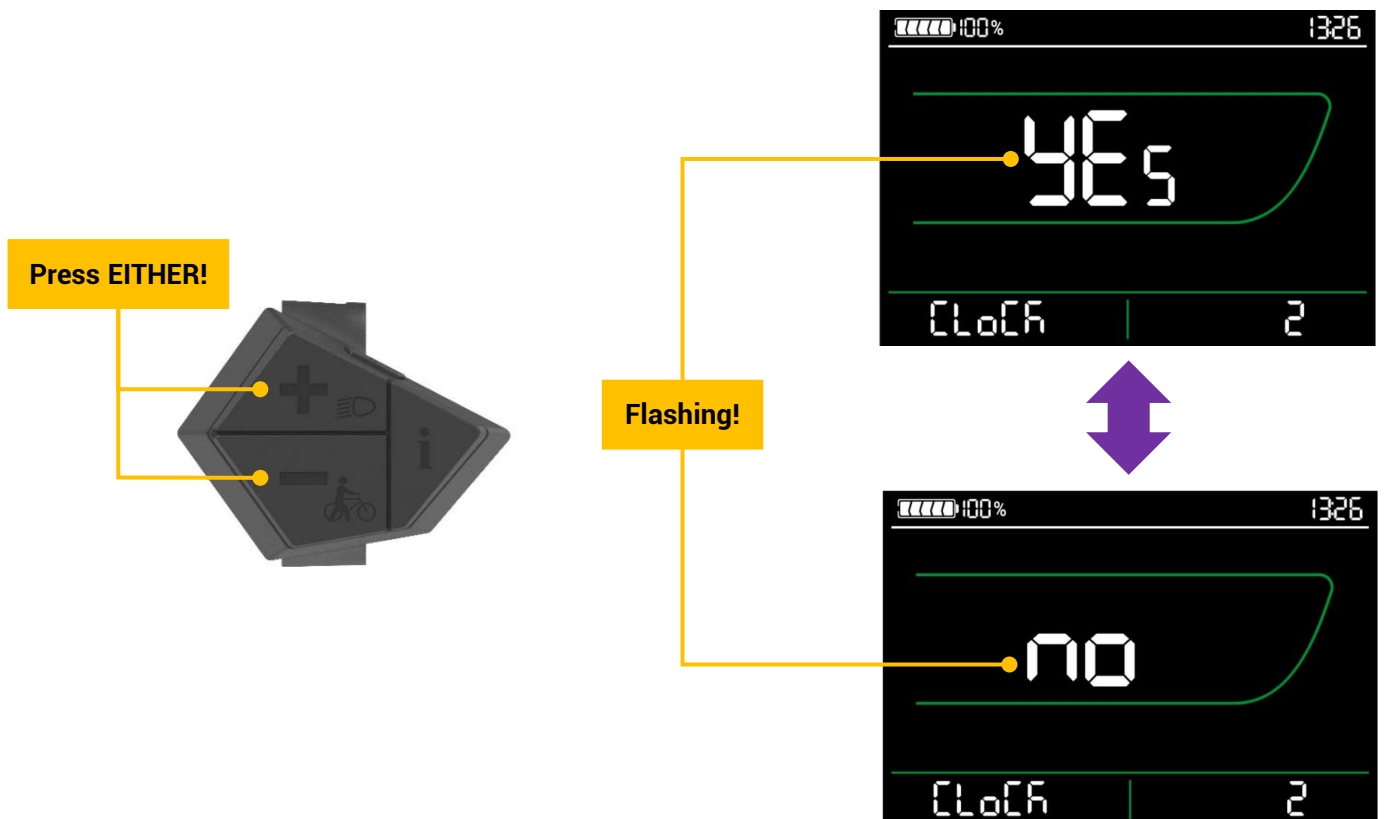
6.3.4.3 Clock Time (CLoCK)

1. Select **CLoCK**, which concerns the clock time displayed in the screen's top right corner.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



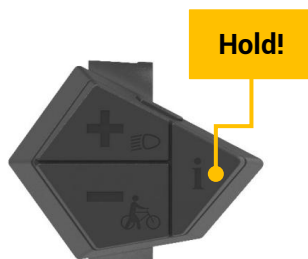
3. Press **+** or **-** to make a choice.
 - To disable clock time display, select **no**.
 - To re-enable it, select **yES**.



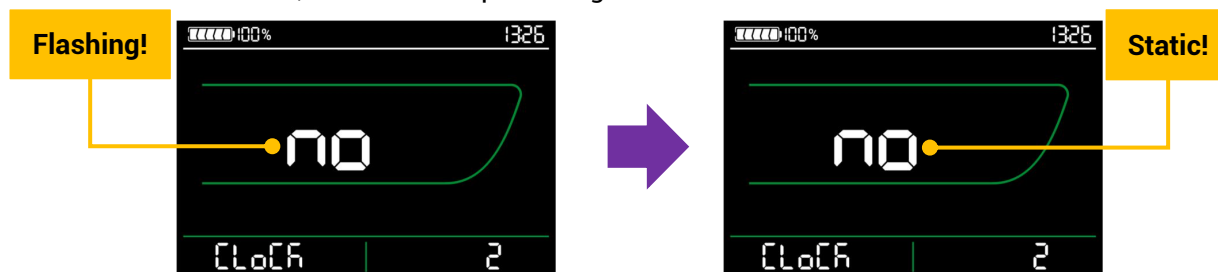
4. Decide your choice.

Note: When finished, you can use + or - to cycle through the other submenus.

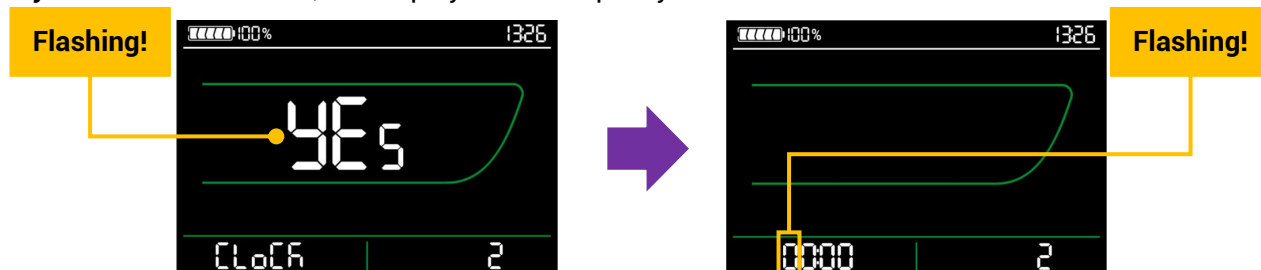
- To **CONFIRM**, hold **i**.



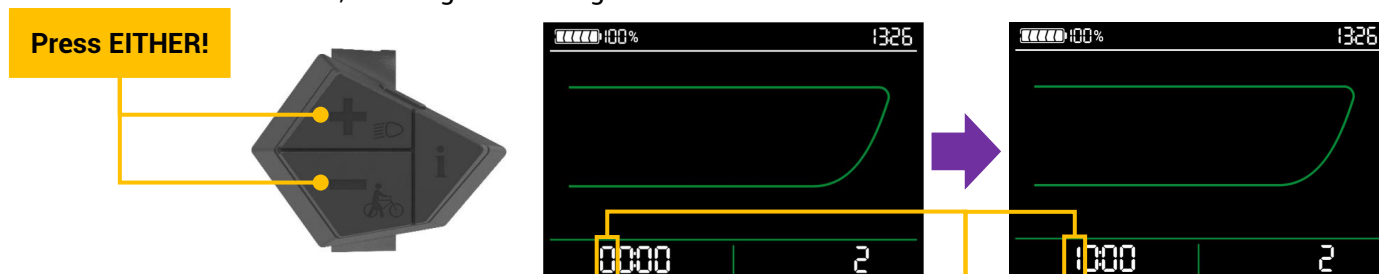
- ◆ If **no** has been selected, **no** should stop flashing soon.



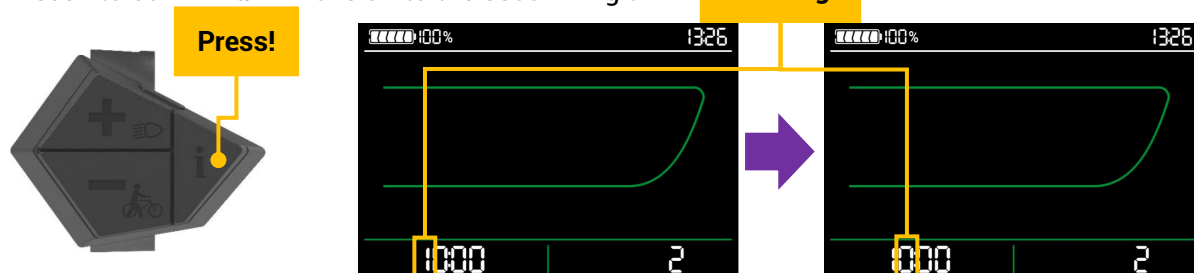
- ◆ If **yES** has been selected, the display should require you to reset the clock time.



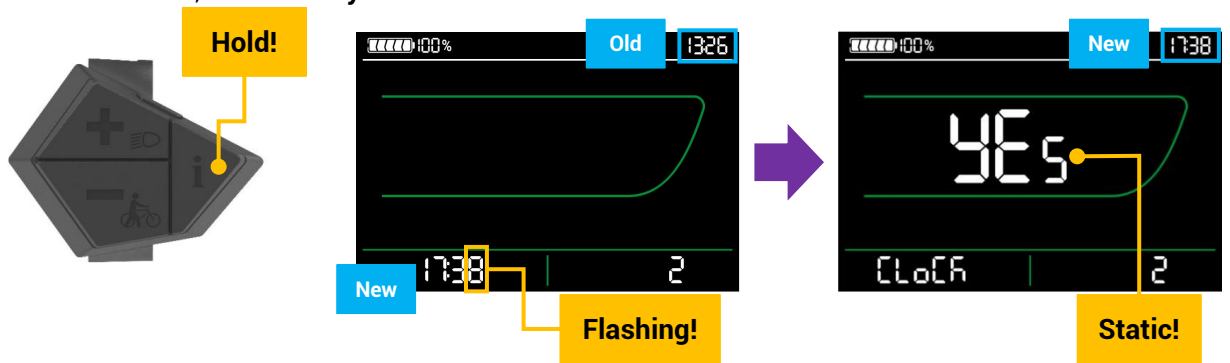
- a. Press + or -, entering the first digit.



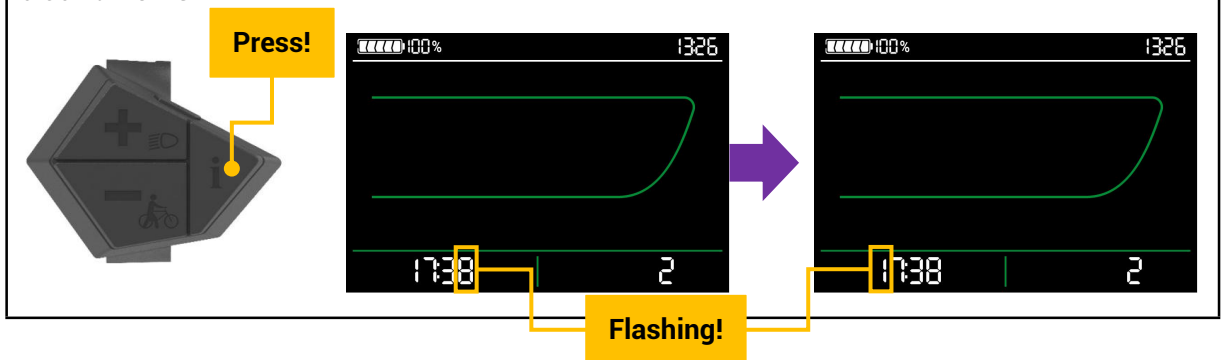
- b. Press **i** to confirm and move on to the second digit.



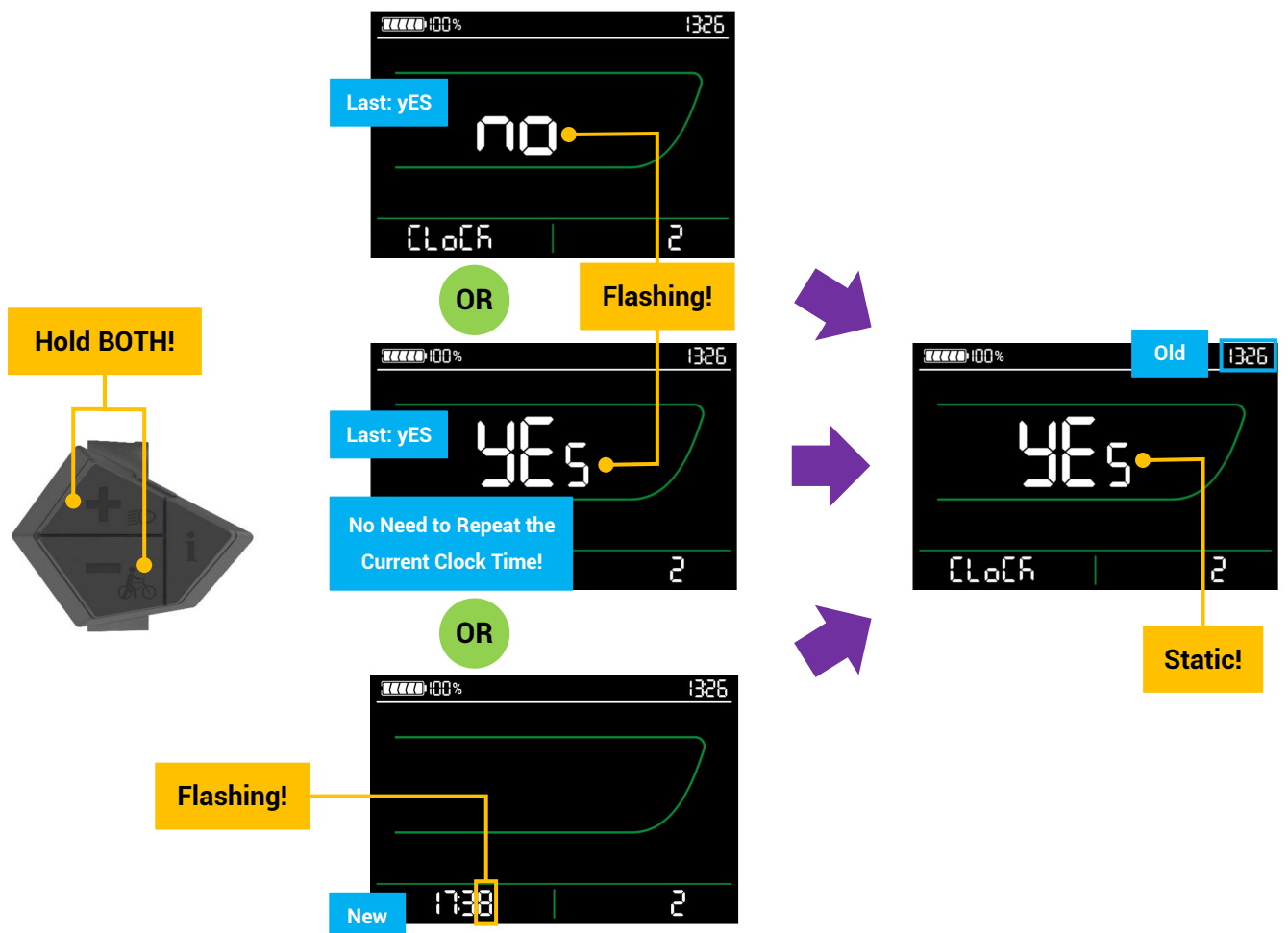
- c. Enter the remaining digits following **Steps a–b**.
- d. When finished, hold **i** until **yES** is resumed and then remains static.



Note: When the last digit flashes, pressing **i** returns to the first digit and allows you to reset the clock time **AGAIN**.



- To **CANCEL**, hold **+** and **-** simultaneously until the previous setting is resumed and then remains static.



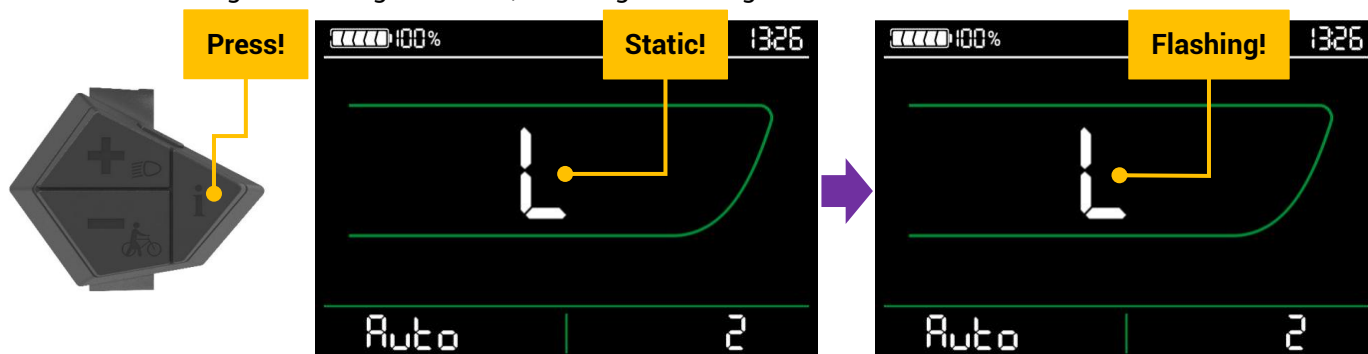
6.3.4.4 Smart Mode for Main Lighting (Auto)

1. Select **Auto**, which adjusts the ambient brightness threshold, below which your main lighting turns on automatically and above which it turns off automatically.

Note: For details of such smart mode (EDA), refer to **Section 5.4.2 on Page 21**.

2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



3. Press **+** or **-** to change the setting.

- Setting **L** stands for **LOW** and is the factory preset.

Scene: In a dimly lit garage / In the pale glow of a street lamp

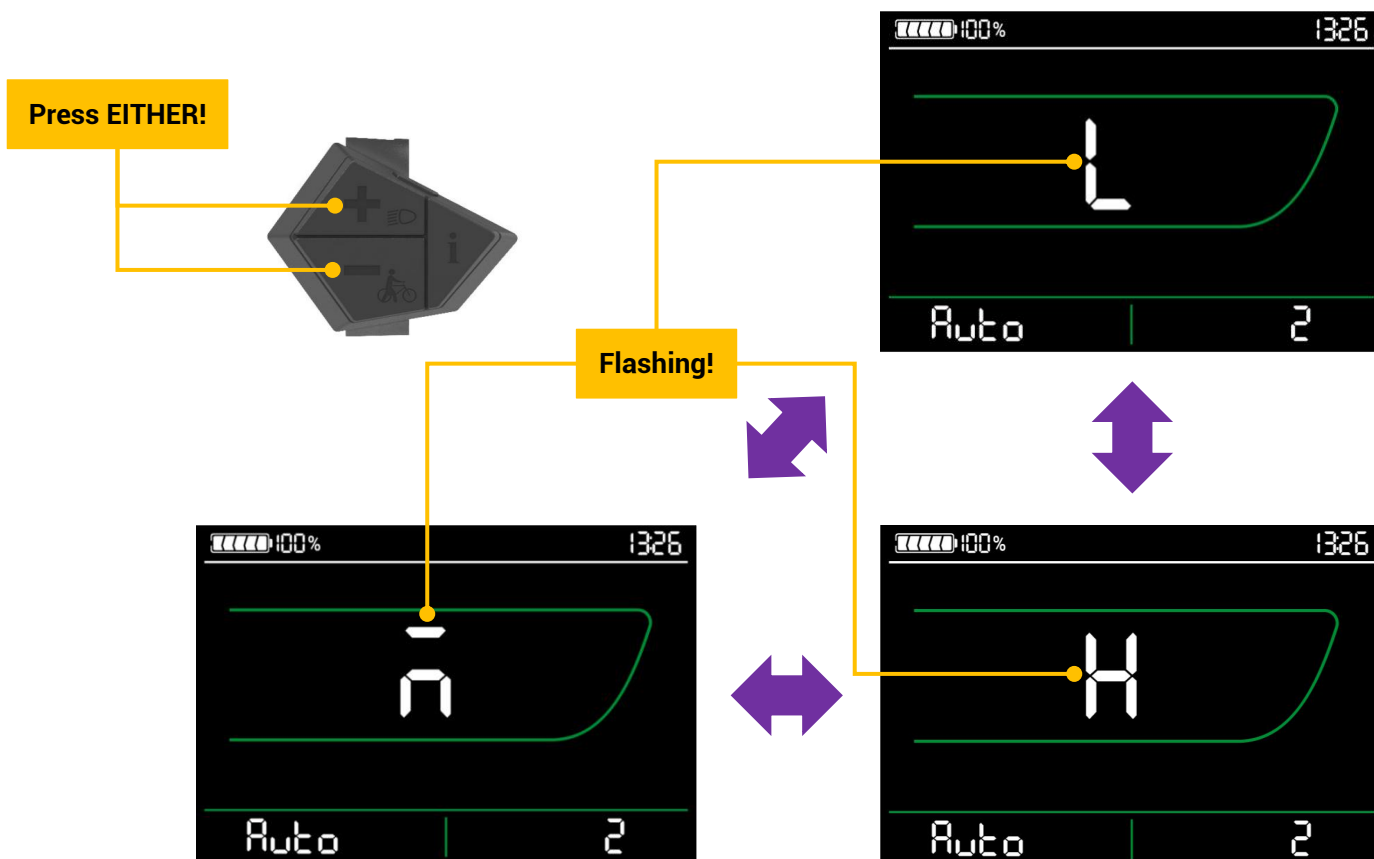
- Setting **M** stands for **MEDIUM**.

Scene: In a moderately lit garage

- Setting **H** stands for **HIGH**.

Scene: In the glare of a street lamp

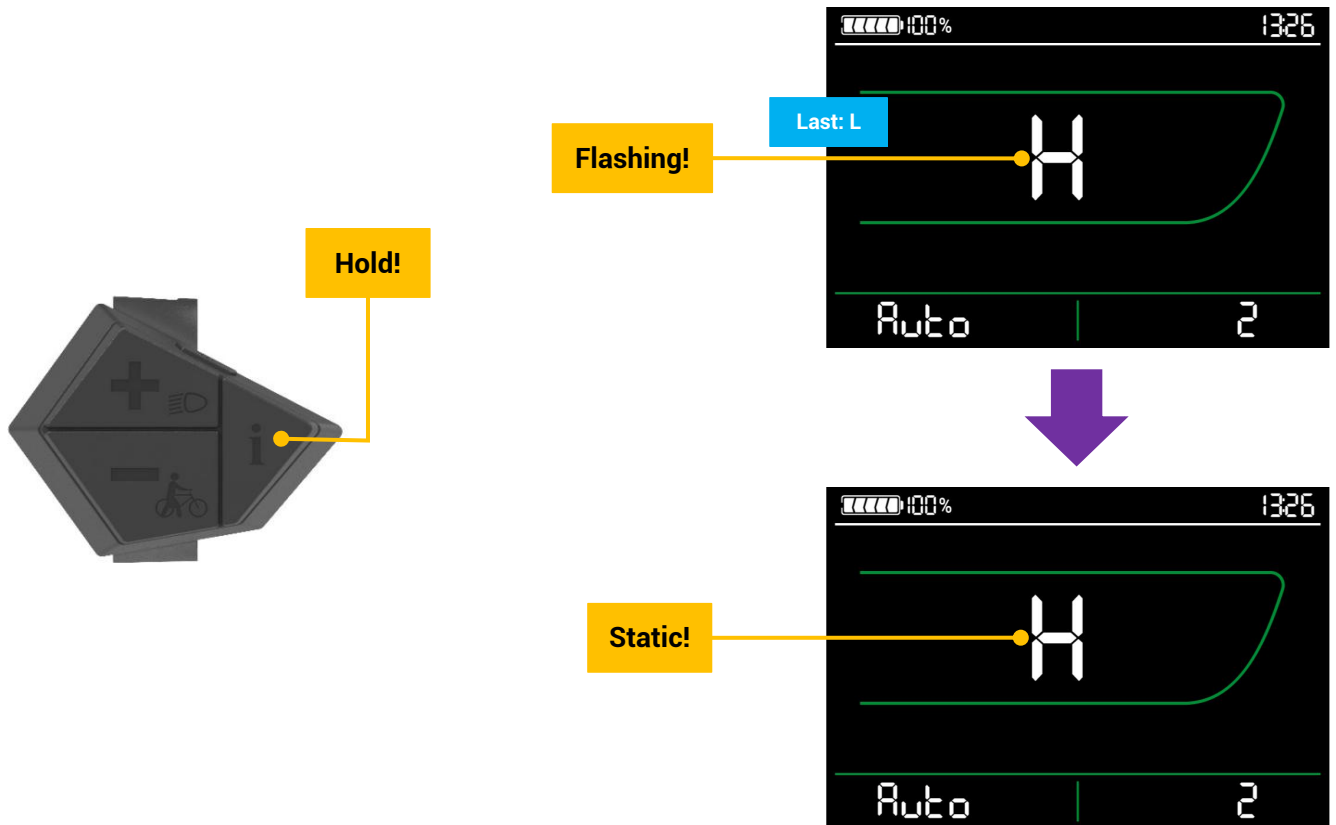
Note: Scenes may **DIFFER** due to environmental and perceptual variables.



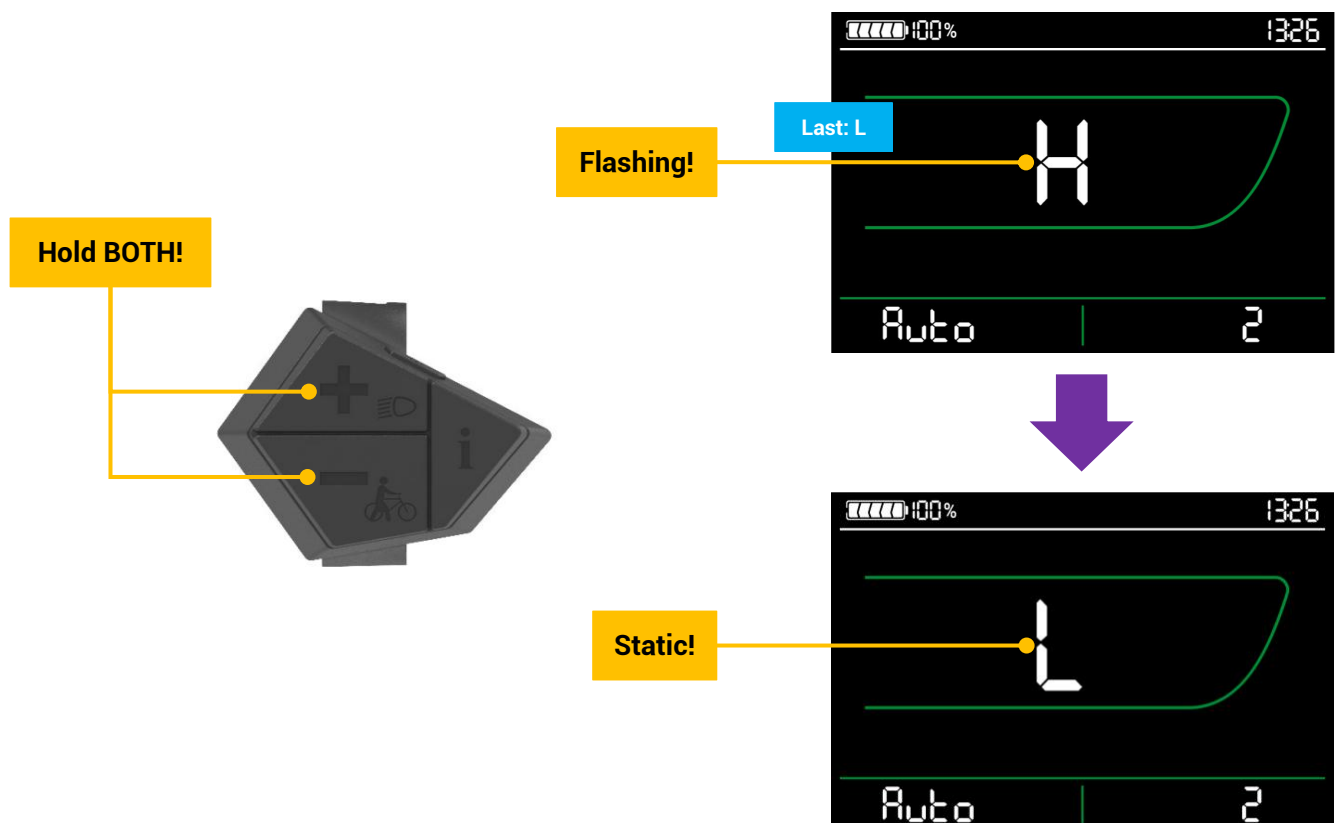
4. Decide your change.

Note: When finished, you can use + or - to cycle through the other submenus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.

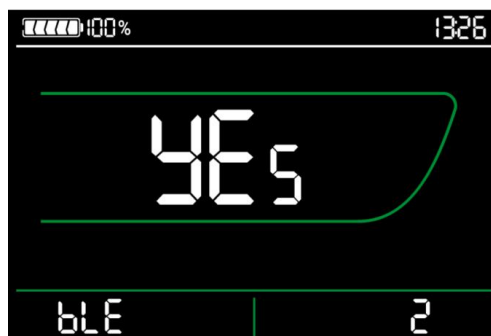


- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.



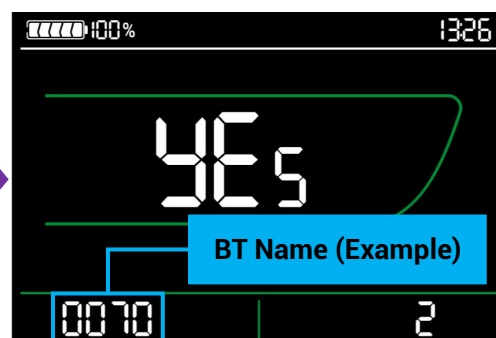
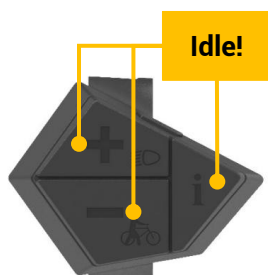
6.3.4.5 Wireless BT Connectivity (bLE)

1. Select **bLE**, which concerns wireless communication between the HMI and your smart device.



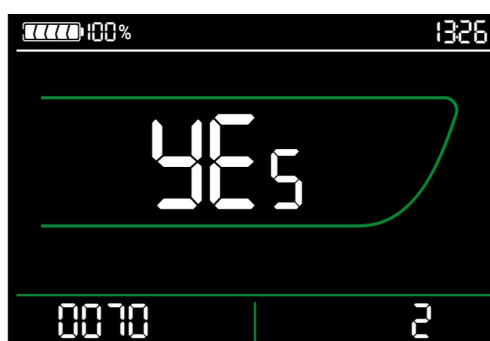
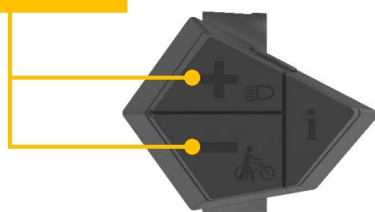
Note: BT is **REQUIRED** for the use of **Ananda Ride** mentioned in **Section 7** on **Pages 61–62**.

Note: Then, **NO** press of **+**, **-**, or **i** for a few seconds toggles **bLE** to the last 4 digits of the HMI's BT name (starting with "Ar"), as long as the current setting is **yES**.



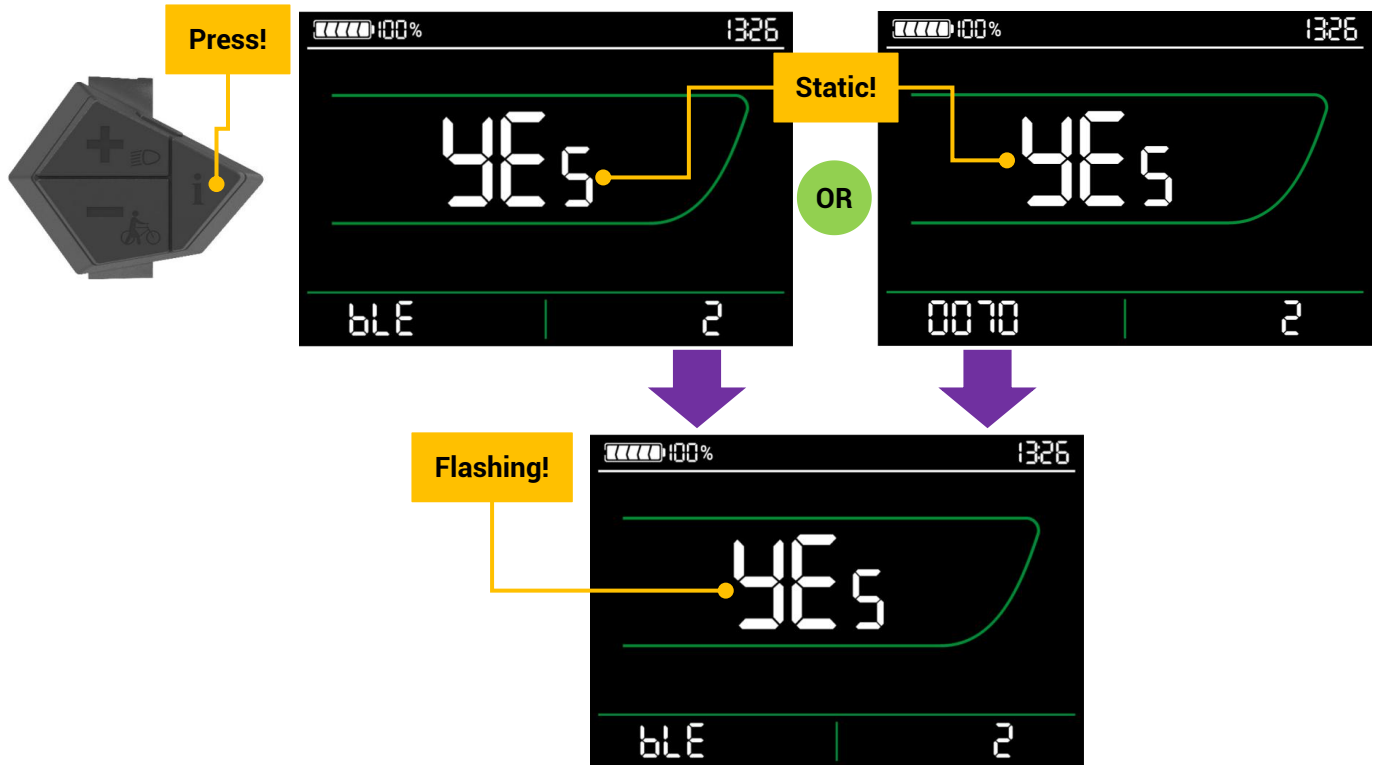
Note: When the BT name remains present, you can press **+** or **-** to cycle through the other submenus.

Press EITHER!



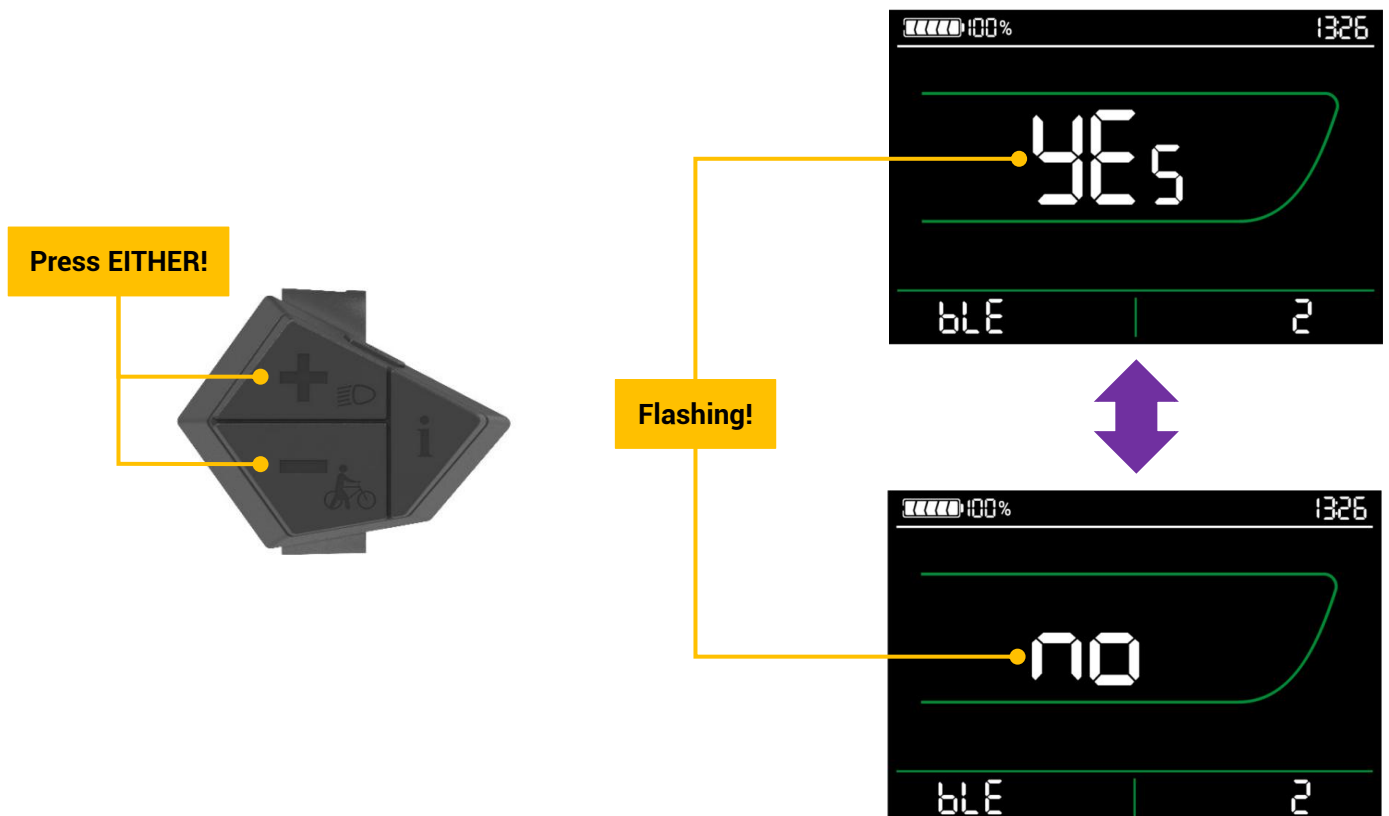
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.



3. Press **+** or **-** to make a choice.

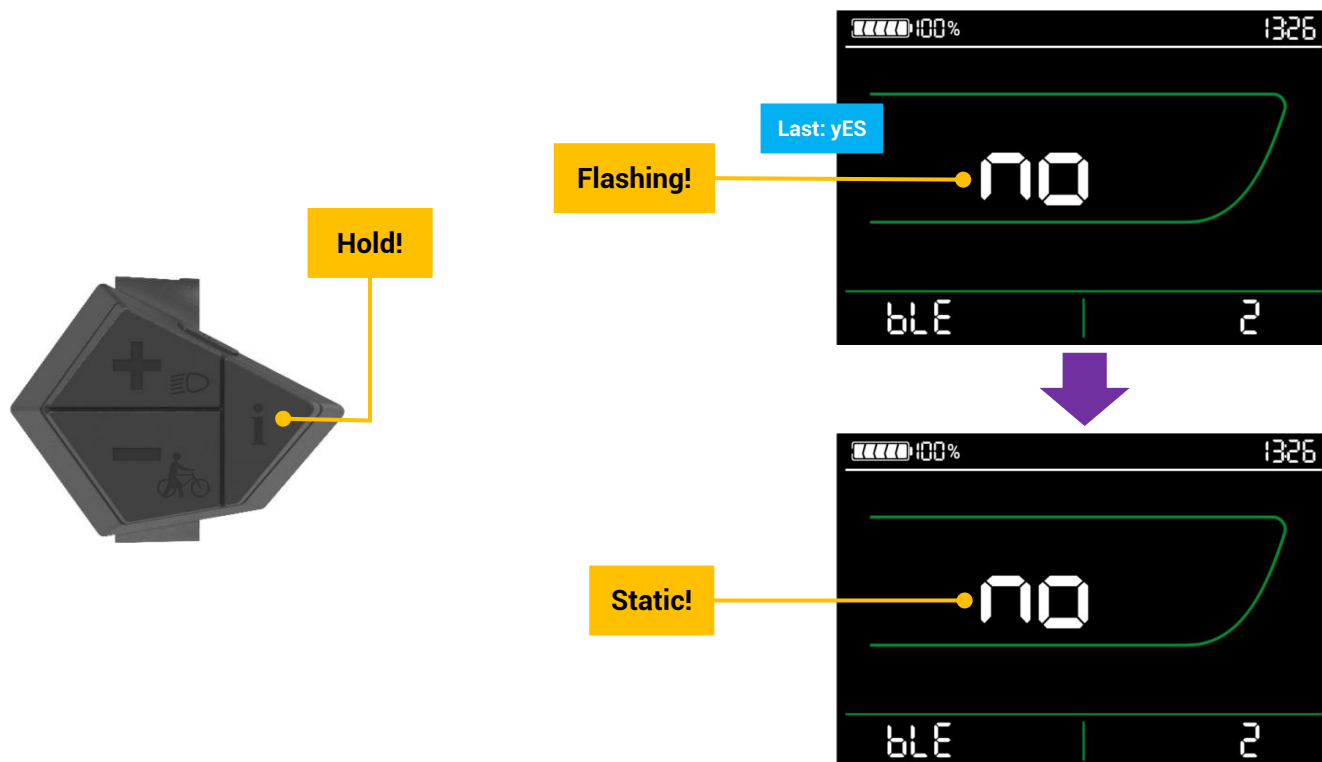
- To disable BT, select **no**.
- To re-enable it, select **yES**.



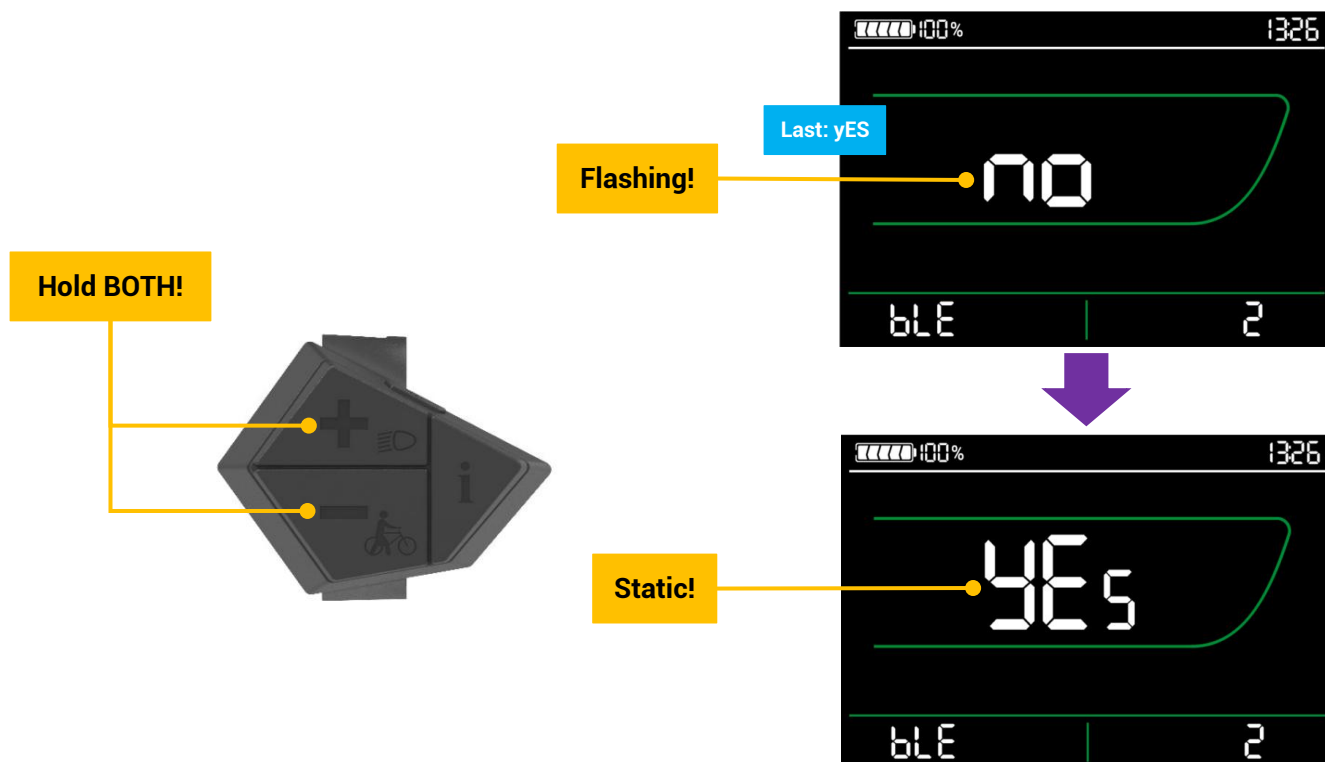
4. Decide your choice.

Note: When finished, you can use + or - to cycle through the other submenus directly.

- To **SAVE**, hold **i** until the selected setting stops flashing.



- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.

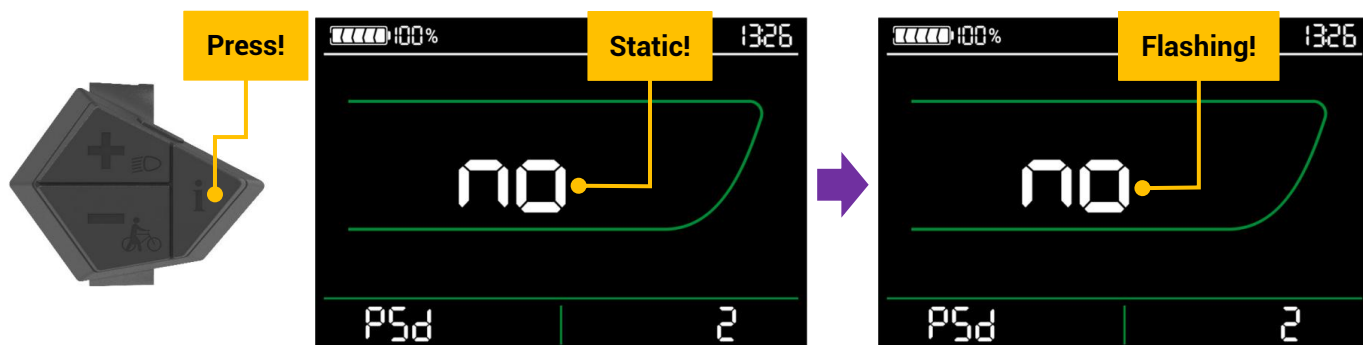


6.3.4.6 Password Protection (PSd)

6.3.4.6.1 Enabling/Disabling Password Protection

1. Select **PSd**, which allows the HMI to be locked unless a correct password is entered.
2. Press **i** to open the menu.

The current setting should begin to flash, allowing for changes.

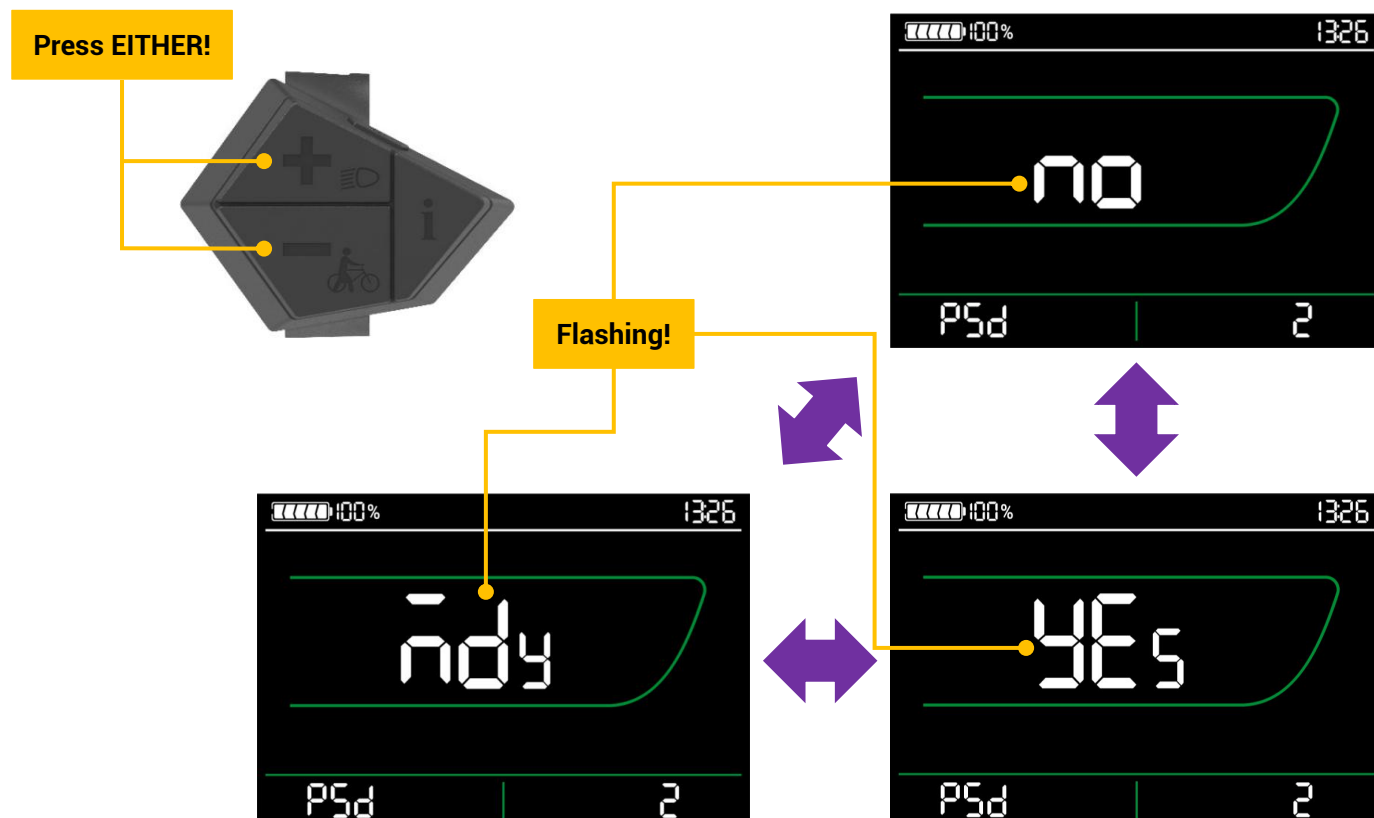


3. Press **+** or **-** to make a choice.
 - To disable password protection, select **no**.
 - To re-enable it, select **yES**.

Note: If you have **NEVER** set a password, the default **6262** will suffice.

- To set a new password, select **Mdy**.

Note: Refer to **Section 6.3.4.6.2 on Pages 58–59** for details.

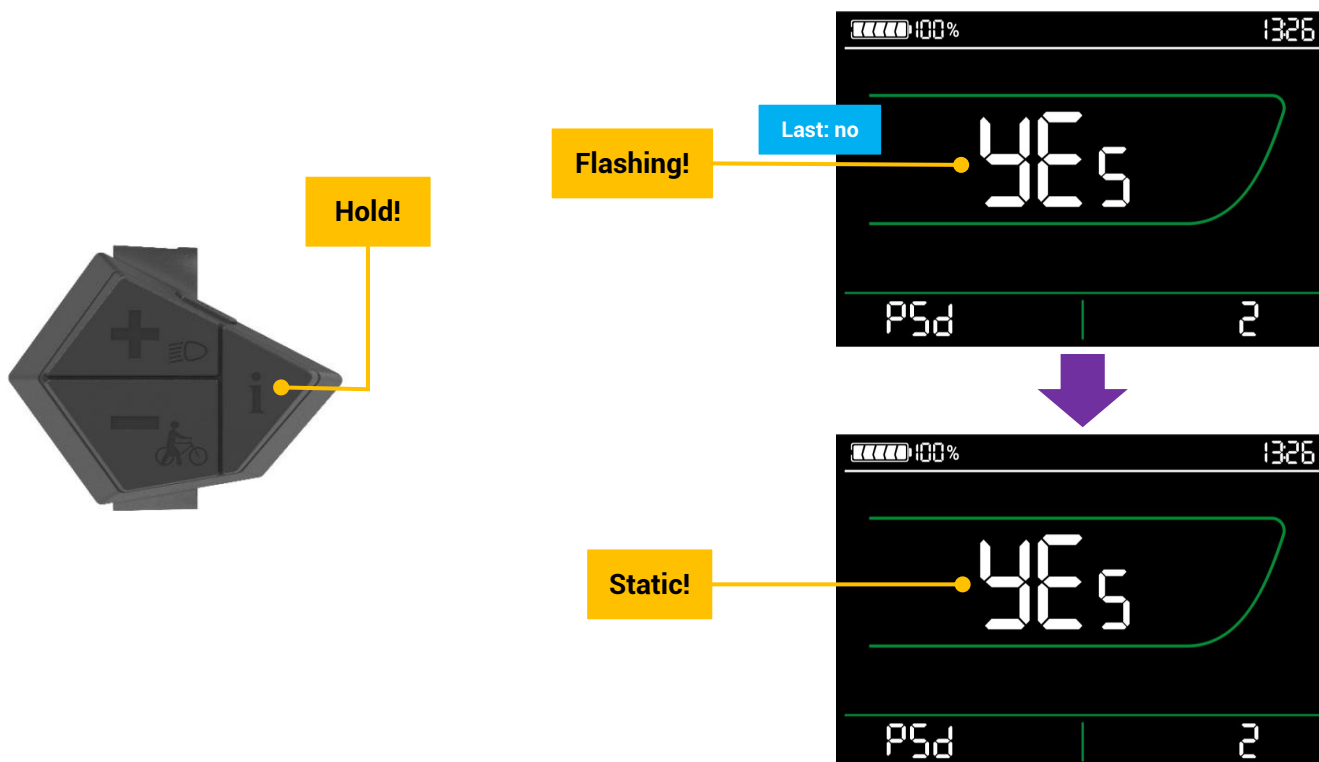


4. Decide your choice.

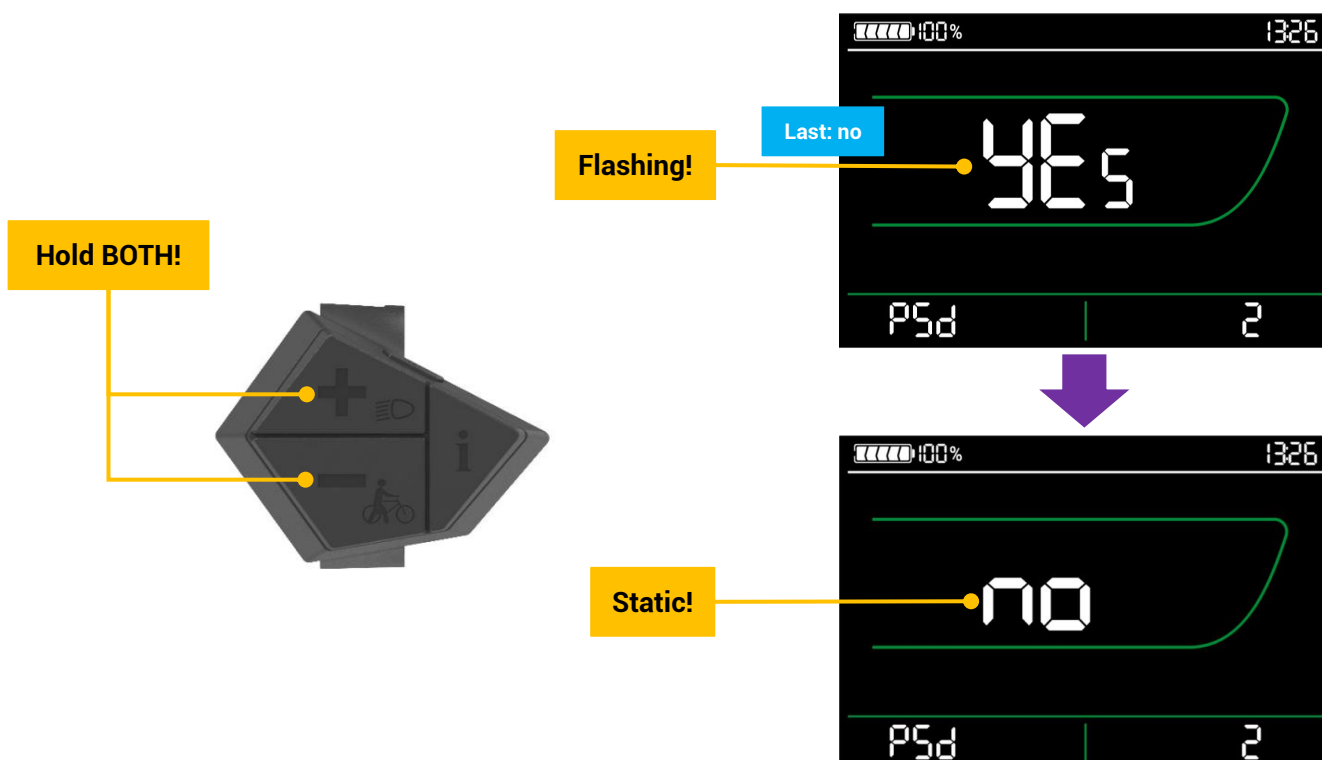
Note:

- When finished, you can use + or - to cycle through the other submenus directly, **EXCEPT** for **Mdy**.
- If you have selected **Mdy**, **SKIP THIS STEP** and refer to **Section 6.3.4.6.2** on **Pages 58–59**.

- To **SAVE**, hold **i** until the selected setting stops flashing.



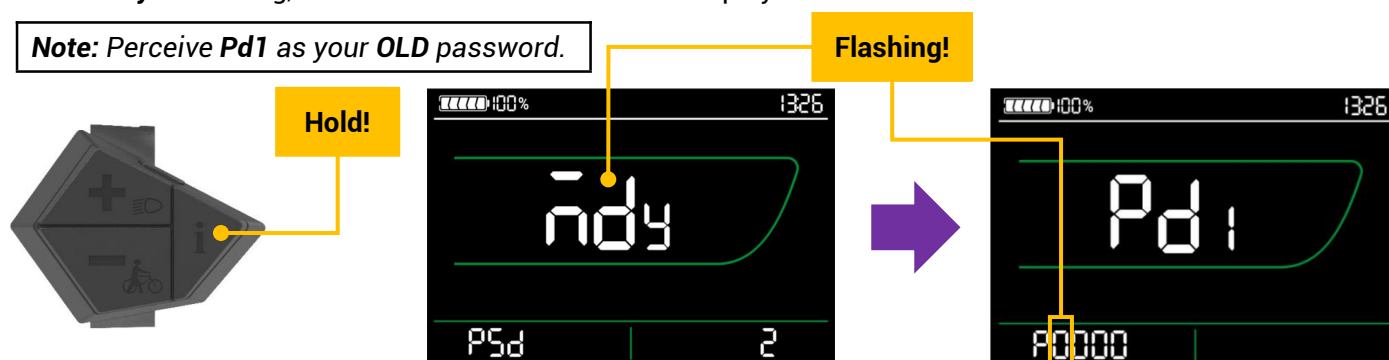
- To **DISCARD**, hold + and - simultaneously until the previous setting is resumed and then remains static.



6.3.4.6.2 Setting a New Password

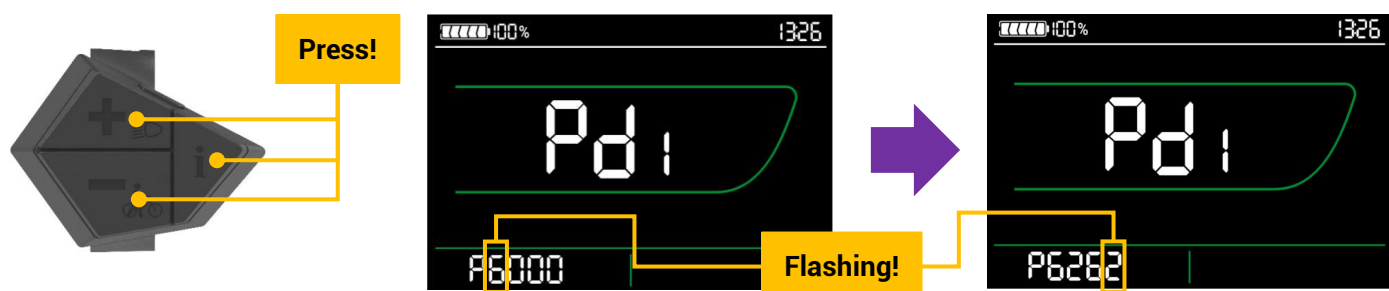
1. When **Mdy** is flashing, hold **i** until **Pd1** and **P0000** are displayed.

Note: Perceive **Pd1** as your **OLD** password.



2. Use **+**, **-**, and **i** to enter your old password in the same way as Section 6.3.1 on Pages 40–41.

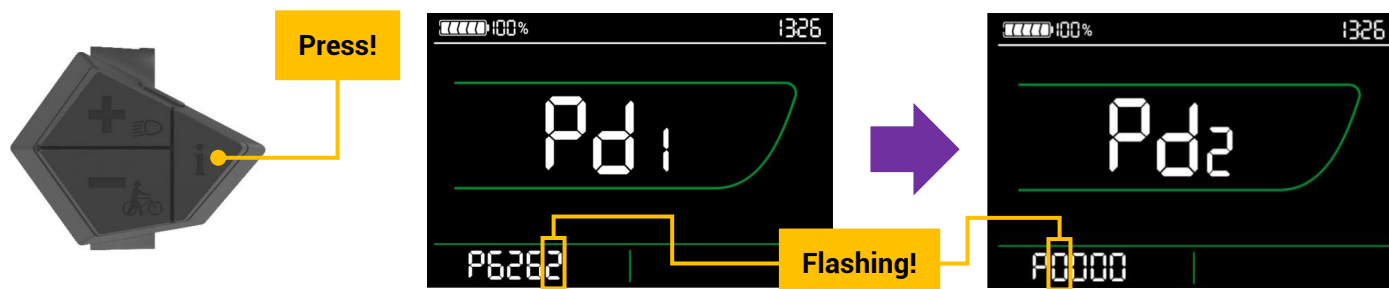
Note: Enter **"6262"** if you have **NEVER** set one.



3. Press **i** to confirm your entry, switching **Pd1** to **Pd2**.

Note:

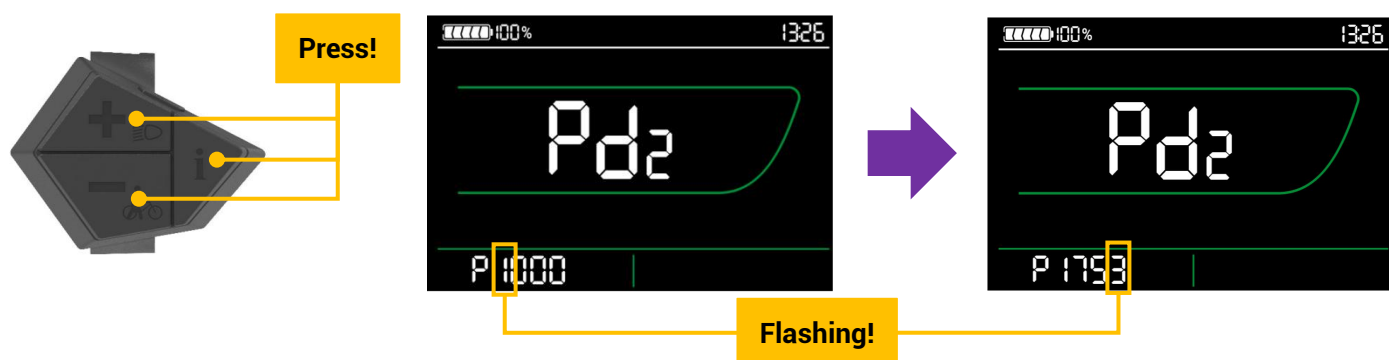
- Perceive **Pd2** as your **NEW** password.
- If your **Pd1** entry is wrong, a re-entry will be required.



4. Use **+**, **-**, and **i** to enter each digit, creating a new password.

For best results:

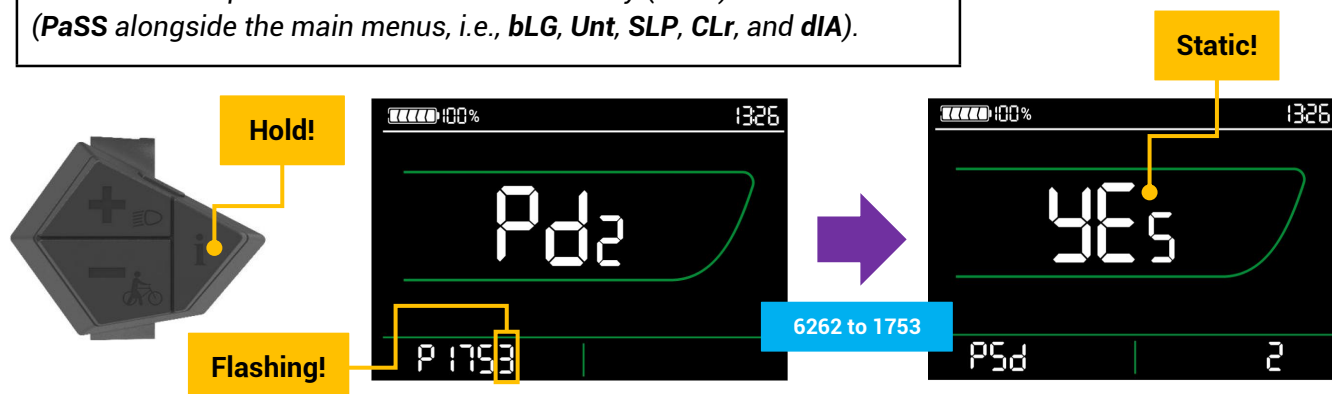
- Avoid setting an overly **SIMPLE** password, such as **"0000"** and **"1234"**, as this can lead to an easy guess.
- **TAKE NOTES IMMEDIATELY** in case you forget the password.



5. When finished with the last digit, decide your new password.

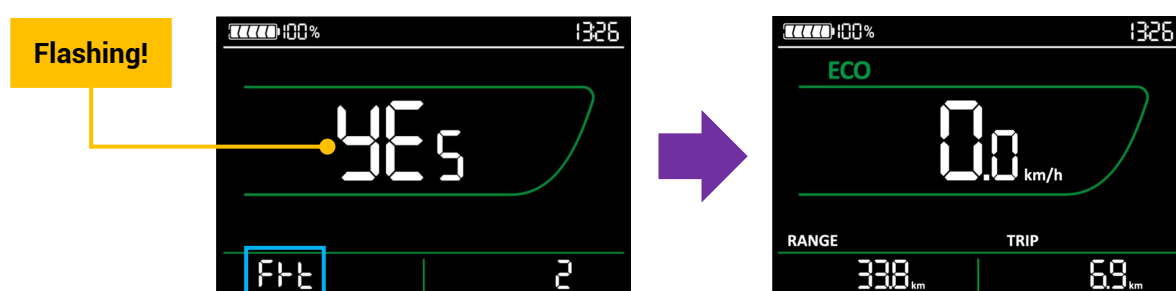
- To **SAVE**, hold **i** until **PSd** with **yES** is displayed, activating password protection with this new password.

Note: This new password **NEVER** affects the key (**6262**) to the submenus (**PaSS** alongside the main menus, i.e., **bLG**, **Unt**, **SLP**, **CLr**, and **dIA**).

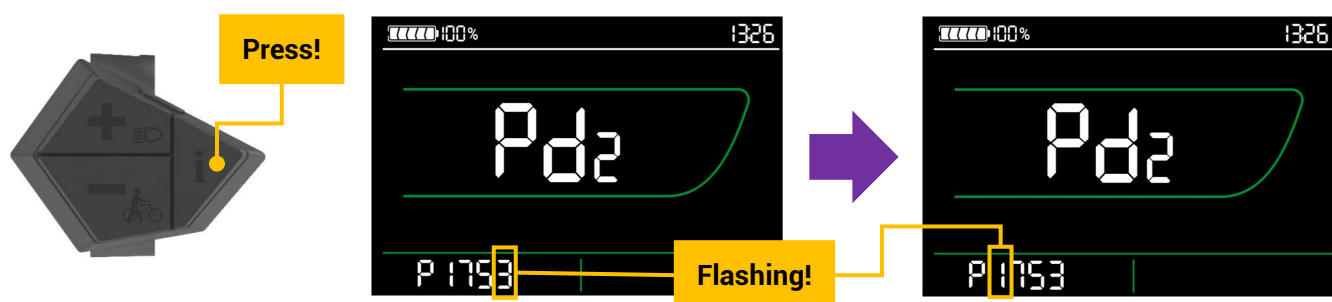


Tip: If you forget and have **NO** notes for this new password at this moment, **IMMEDIATELY** restore the factory settings under **FrT** following **Section 6.3.4.1** on **Pages 44–45**.

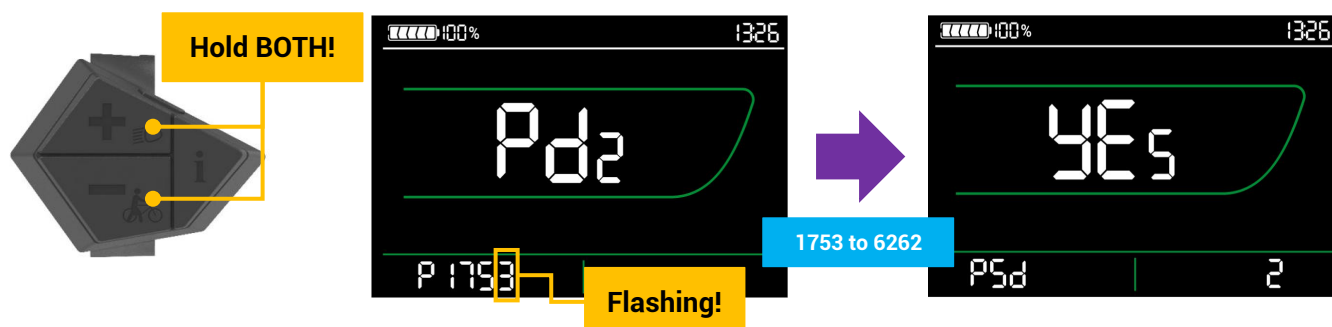
Then, the HMI deactivates password protection and rolls the password back to **6262**.



- To **RESET**, press **i**, going back to the first digit for a re-entry.



- To **DISCARD**, hold **+** and **-** simultaneously until the display resumes **yES** above **PSd**.

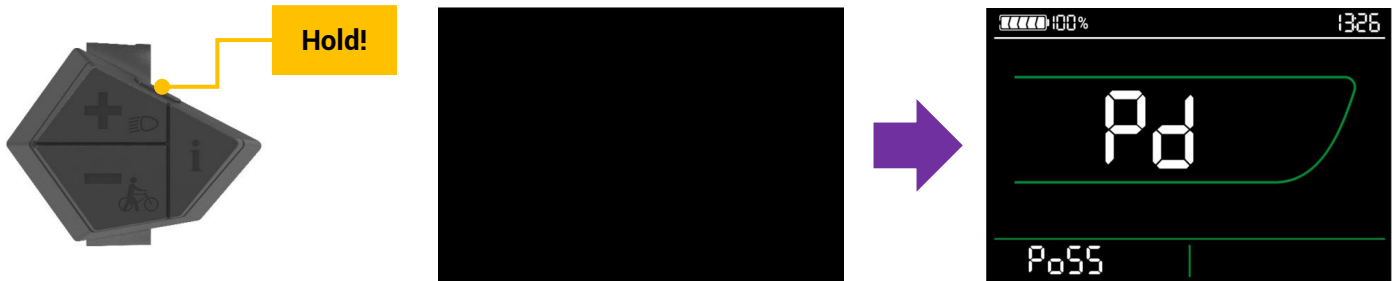


6.3.4.6.3 Unlocking the HMI with a Password

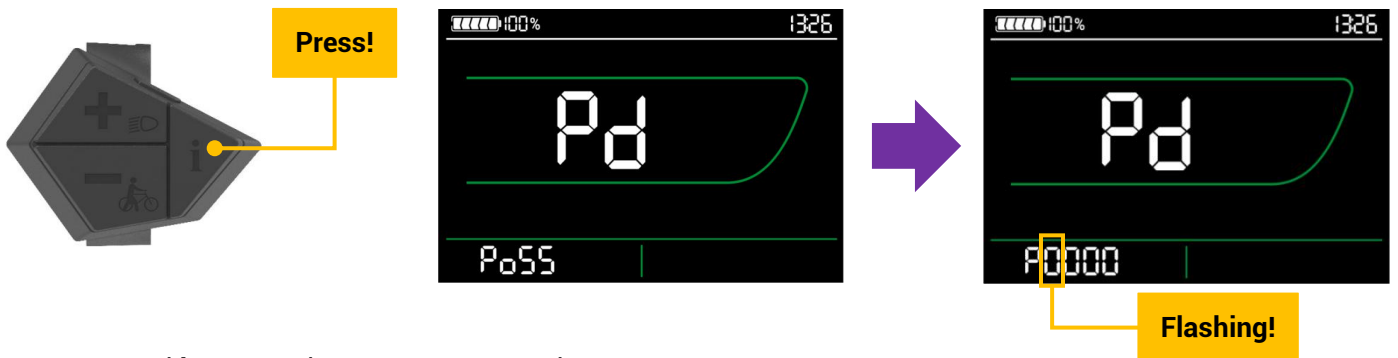
1. Turn on the HMI by holding  OR activating your battery.

Pd and **PaSS** should be displayed, indicating that the HMI system is locked by password protection.

Note: *BOTH manual and automatic shutdowns are **DISABLED** at this moment.*

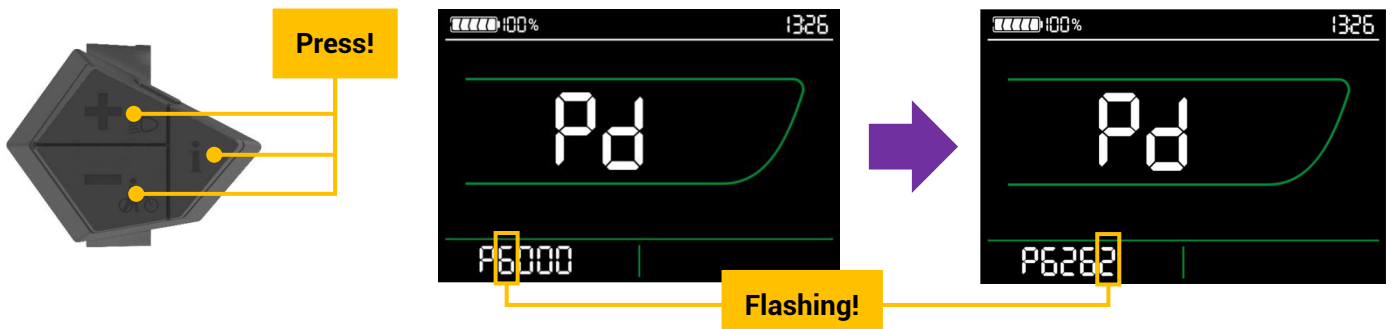


2. Press **i**, switching **PaSS** to **P0000**.

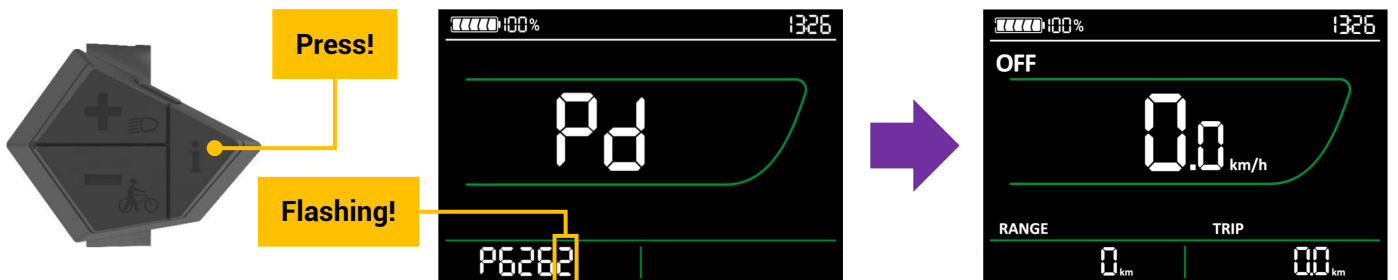


3. Use **+**, **-**, and **i** to enter the correct password.

Note: *If your digit input is wrong, a re-entry will be required.*



4. When finished with the last digit, press **i** to unlock and access the HMI system.



Note: *In the event that you forget your password:*

- If you are Ananda's corporate customer, try upgrading the HMI's firmware via **Ananda Link** to reset the HMI, disabling password protection and re-enabling the default password (**6262**).
- If you are an end user, contact your e-cycle manufacturer or dealer.

7. App Control

7.1 Overview

Ananda Ride is a mobile app designed to enhance the riding experience, serving as a digital companion that connects riders to their e-cycles and enabling seamless control, real-time monitoring, and intelligent insights for a more connected and informed journey.

Key Functions:

- E-cycle location finder
- Real-time ride monitoring
- Ride history and analysis
- E-drive unit information
- Performance customization
- System diagnosis
- Troubleshooting
- Notifications and updates



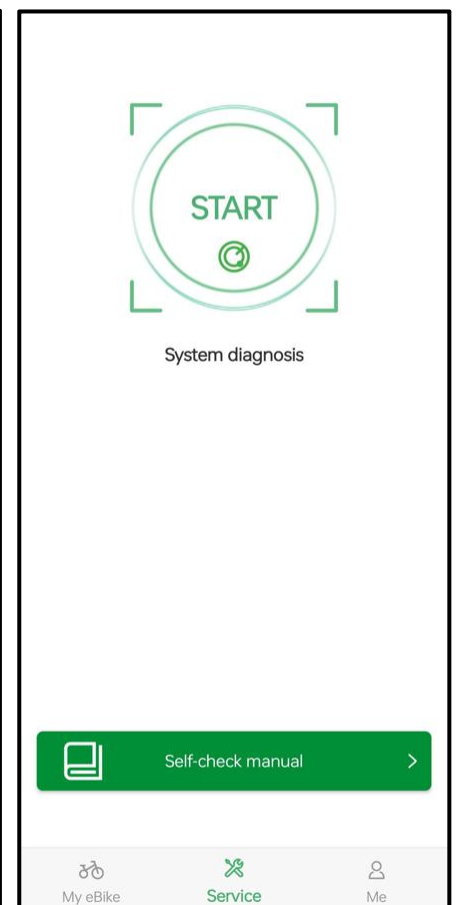
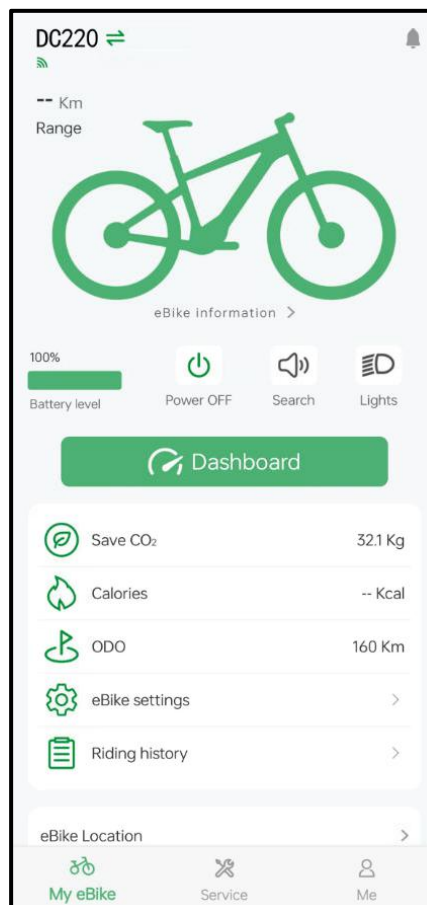
Note: The app features are **EVOLVING** with ongoing **UPDATES** to **Ananda Ride**.

For optimal riding, download **Ananda Ride**.

Android



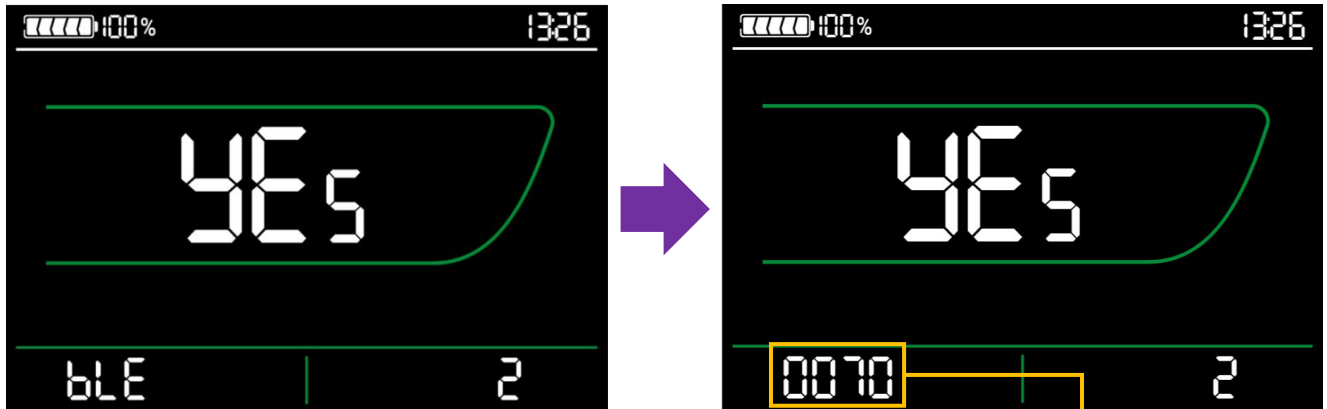
iOS



7.2 User Guide

- Before each use:

1. Set **bLE** to **yES** and get the last 4 digits of the HMI's BT name following **Section 6.3.4.5** on **Pages 53–55**.



2. Activate your smartphone BT.
3. Place your phone close to the HMI, searching for the full BT name.
4. Tap this name on your phone, setting up the HMI-phone connection.
5. Go to your **Ananda Ride** following the separate app instructions.

When  appears, you can use **Ananda Ride** to work with your e-cycle.



- For detailed instructions:

- ◆ Contact Ananda if you are Ananda's corporate customer.
- ◆ Contact your e-cycle dealer or manufacturer if you are an end user.

8. Troubleshooting

⚠ WARNING

- Read and follow **ALL** related instructions in **Safety Information**.
- Seek professional assistance from authorized trained technicians as needed.
- If you are an end user, stop using the HMI **UNTIL** any problem is **FULLY** addressed.



Note:

For **SOFTWARE** issues, Ananda's corporate customers can try self-service support by visiting **Ananda Link** mentioned in **Section 13.2.1** on **Page 84**.

**Ananda Link
Toolkit**



8.1 Common Problems

Note:

The following solutions are for reference only and may **NOT** address all causes listed herein or otherwise. Use your judgment, knowledge, and common sense at **ALL** times and seek professional service as needed.

Problem	Possible Cause(s)	Recommended Solution(s)
HMI Looseness	● Loose Locking Clamp(s) ● Handlebar Issue	● Retighten the HMI's clamp bolt(s). ● Ensure your handlebar suit the HMI's clamps. ● Fill in the clamp gap(s) with proper materials.
Startup Failure	● Power Supply Issue ● External Wiring Issue ● Short Circuits	● Match your battery with the HMI in rated voltage and communication protocol. ● Reinstall or reactivate your battery. ● Recharge your battery if over-discharge protection has occurred. ● Replace your battery if it is damaged or dead. ● Clean or retighten your control panel-display, display-controller, and controller-battery connections. ● Seek authorized service if the control cable frays. ● Eliminate short circuit faults in your e-drive system.

Problem	Possible Cause(s)	Recommended Solution(s)
Manual Shutdown Failure	● Function Menu Open ● Password Protection	● Exit the function menus. ● Enter the correct password to access the HMI system.
Automatic Shutdown Failure	● Menu Setting Issue ● Password Protection	● Ensure SLP has NOT been set to no. ● Enter the correct password to access the HMI system.
Sudden Shutdown	● Auto Shutoff for Idleness ● Power Supply Issue ● External Wiring Issue ● Short Circuits	● Reactivate the HMI. ● Reinstall or reactivate your battery. ● Recharge your battery if over-discharge protection has occurred. ● Replace your battery if it is damaged or dead. ● Clean or retighten your display-controller and controller-battery connections. ● Eliminate short circuit faults in your e-drive system.
Display Ghosting or Image Retention	● Extreme Ambient Temperature	● Use in warmer or cooler conditions.
Visual Discomfort	● Menu Setting Issue	● Readjust BLG, resetting the screen's backlight.
Button Failure	● Obstruction Interference ● Cable Issue ● Liquid Ingress	● Clear debris or dirt around the problematic button. ● Clean or retighten the control panel-display connection. ● Seek authorized service if the control cable frays. ● Deactivate and power off the HMI, allowing it to dry completely and seeking authorized service as needed.
USB Charging Failure	● Inactive HMI ● Menu Setting Issue ● Obstruction Interference ● Power Supply Issue ● Your Device Issue	● Ensure the HMI is active. ● Ensure USb has been set to yES. ● Clear debris or dirt inside the USB-C port. ● Ensure sufficient battery power. ● Ensure your device is chargeable. ● Clean or retighten your device's cable connection to the USB-C port. ● Replace your USB cable if it is damaged.

Problem	Possible Cause(s)	Recommended Solution(s)
Lighting Failure Despite Correct Icon Display	● Lighting Fixture Issue ● External Wiring Issue ● System Incompatibility	● Ensure your lighting is functional. ● Clean, correct, or retighten your lighting wire connection(s). ● Match your controller with your main lighting.
Lighting Failure w/o Icon Display	● Function Menu Open	● Exit the function menus.
Push Assist Failure Despite Correct Icon Display	● External Wiring Issue ● System Incompatibility ● Faulty Controller or Motor	● Clean, correct, or retighten your motor-controller connection. ● Re-pair your controller with your motor. ● Repair or replace your controller and/or motor.
Push Assist Failure w/o Icon Display	● Push Assist Disabled	● Toggle the PAS to  BEFORE holding  (-).
No Electric Assist Despite an Effective PAS Level	● Function Menu Open ● External Wiring Issue ● System Incompatibility ● Faulty Controller or Motor	● Exit the function menus. ● Clean, correct, or retighten your motor-controller connection. ● Re-pair your controller with your motor. ● Repair or replace your controller and/or motor.
No Percentage Value for Battery Power	● Battery Communication Issue	● Reactivate your battery and the HMI. ● Match your battery with the HMI in rated voltage and communication protocol. ● Clean, correct, or retighten your battery-controller communication connection. ● Reinstall, repair, or replace your battery.
2nd Power Indicator Reading "0%" for a Fully Charged Dual-Battery System	● External Wiring Issue ● Communication Protocol Issue	● Clean, correct, or retighten your battery-controller connection(s). ● Ensure the HMI as well as your battery and controller support CAN.
No dIA Value ("—")	● External Wiring Issue ● Controller Issue	● Clean or retighten your display-controller connection. ● Check your controller settings.

Problem	Possible Cause(s)	Recommended Solution(s)
Incorrect Speed or Distance Reading	● System Incompatibility ● Speed Sensor Issue ● Faulty Controller ● HMI Software Issue	● Ensure your wheel outer diameter matches your controller's requirement (dIA). ● Properly reinstall or repair your speed sensor. ● Repair or replace your controller. ● Upgrade the HMI's firmware via Ananda Link.
Incorrect Clock Time Reading	● HMI Software Issue	● Reset CLOCK. ● Upgrade the HMI's firmware via Ananda Link.
Wireless BT Connectivity Failure	● BT Disabled ● Magnetic Interference	● Ensure bLE has been set to yES. ● Avoid sources of magnetic interference.
Ananda Ride App Control Failure	● BT Connectivity Failure ● Smartphone Issue ● Magnetic Interference ● App Issue	● Re-pair and/or re-link your smartphone with the HMI via BT. ● Re-pair and/or re-link Ananda Ride with the HMI (). ● Reactivate your smartphone and the HMI or simply their BT. ● Have your smartphone repaired. ● Avoid sources of magnetic interference. ● Update or reinstall Ananda Ride.
Password Failure	● Password Forgotten	● Check notes if you have taken any. ● Upgrade the HMI's firmware via Ananda Link, resetting the system, disabling password protection, and re-enabling the default password (6262). ● Seek authorized professional service if you are an end user or NOT Ananda's corporate customer.

8.2 Error Codes

Your e-drive parts are automatically and continuously monitored as long as the HMI is active.

When a fault is detected,  and **Err** will be displayed, along with an error code listed below.



WARNING

- If your e-drive is disabled automatically, you can continue to ride manually **BUT MUST** have your e-cycle checked **BEFORE** a new trip.
- If your e-drive continues operating, it is recommended to park in a safe location and address the issue as soon as possible.

If necessary, continue to ride manually and have repairs performed by authorized trained technicians as instructed by your cycle dealer.

Note:

- **ALL** error codes listed herein **ARE** applicable to systems using **ANANDA CONTROLLERS** only, **EXCEPT "30"** reported by the HMI itself.

If the HMI is used with a third-party controller, refer to the separate third-party instructions.

- The following solutions are for reference only and may **NOT** be executable by non-professional end users **OR** technicians unfamiliar with the HMI and related cycle parts.

*Use your judgment and technical expertise at **ALL** times and seek professional service as needed.*

- Reconfigurations and repairs to **ANY** Ananda products used with the HMI **WITHOUT** Ananda's prior authorization **WILL** void **ALL** warranties stated or implied, including but not limited to Ananda controllers.

Code	Implication	Recommended Solution(s)
01	Phase Overcurrent	● Avoid prolonged high-load conditions, such as climbing steep hills, running over rough terrain, and carrying heavy loads. ● Correct or retighten ALL external wire connections. ● Address damaged controller or motor wiring. ● Eliminate short circuit and ground faults.
02	Bus Overcurrent	● Ensure your battery remains intact, supplies stable voltage, and matches your controller and motor. ● Equip your battery with an advanced BMS. ● Realign, recalibrate, repair, or replace your controller and motor, ensuring integrity, compatibility, and sufficient ratings.

Code	Implication	Recommended Solution(s)
03	Hall Effect Fault	● Clean, correct, or retighten ALL external wire connections. ● Address damaged controller or motor wiring. ● Avoid sources of magnetic interference. ● Eliminate short circuit and ground faults. ● Realign, recalibrate, repair, or replace your controller and motor, ensuring integrity, compatibility, and sufficient ratings.
04	Brake Fault	● Clean or retighten the wire connection(s) of your brake system(s). ● Clean or readjust your brake components. ● Replace your worn or damaged brake components.
05	Controller Overheating	● Allow your e-drive system to rest and cool down before reactivation. ● Avoid riding in extremely hot weather. ● Avoid prolonged high-load conditions, such as climbing steep hills, running over rough terrain, and carrying heavy loads. ● Address damaged controller or motor wiring. ● Eliminate short circuit and ground faults. ● Ensure your battery remains intact, supplies stable voltage, and matches your controller and motor. ● Clean the external surface of your controller and motor. ● Ensure adequate ventilation or cooling for your controller and motor. ● Reconfigure your controller, reducing power output when necessary. ● Realign, recalibrate, repair, or replace your controller and motor, ensuring integrity, compatibility, and sufficient ratings. ● Equip your e-drive system with temperature sensing. ● Address mechanical resistance within your drivetrain.
06	Motor Overheating	
08	Controller Communication Fault	● Match your controller and battery with the HMI in rated voltage and communication protocol. ● Turn off and reactivate the HMI and your e-drive system. ● Clean, correct, or retighten your controller's external wire connections. ● Address your damaged controller wiring. ● Avoid sources of magnetic interference. ● Reconfigure, repair, or replace your controller.

Code	Implication	Recommended Solution(s)
09	Mild Undervoltage	● Ensure your battery remains intact, supplies stable voltage, and matches your controller's rated voltage. ● Equip your battery with an advanced BMS. ● Recharge your battery if it is low. ● Clean, correct, or retighten ALL external wire connections. ● Address your damaged external wiring. ● Reconfigure or replace your controller, ensuring integrity, compatibility, and sufficient ratings.
20	Push Assist or Power Button Fault	● Clear debris or dirt around the problematic button. ● Turn off and reactivate the HMI and your e-drive system. ● Seek authorized professional service for the HMI.
30	HMI Communication Fault	● Match your controller and battery with the HMI in rated voltage and communication protocol. ● Turn off and reactivate the HMI and your e-drive system. ● Clean or retighten your HMI-controller connection. ● Replace the damaged controller wiring to the HMI. ● Avoid sources of magnetic interference. ● Repair or replace your damaged or faulty controller. ● Have the HMI serviced by authorized trained technicians.
31	Controller Reference Voltage Fault	● Repair or replace your damaged or faulty controller.
36	Torque Circuit Fault	● Match your controller with your torque sensor. ● Clean, correct, or retighten your torque sensor-controller connection. ● Repair or replace your damaged torque sensor or controller.
37	Speed Sensing Fault	● Match your controller with your speed sensor. ● Try magnet rearrangements for your speed sensor. ● Repair or replace your damaged speed sensor or controller.
38	Controller Temperature Sensing Fault	● Match your controller with your temperature sensor. ● Address your controller's temperature sensor wiring. ● Repair or replace your damaged temperature sensor or controller.

Code	Implication	Recommended Solution(s)
39	Mild Overvoltage	● Ensure your battery matches your controller's rated voltage. ● Equip your battery with an advanced BMS. ● Eliminate short circuit and ground faults. ● Clean, correct, or retighten ALL external wire connections. ● Address your damaged external wiring. ● Reconfigure or replace your controller, ensuring integrity, compatibility, and sufficient ratings.
40	Current Feedback System Fault	● Turn off and reactivate the HMI and your e-drive system. ● Reconfigure, repair, or replace your battery, controller, motor, etc.
41	Motor Drive Voltage Fault	● Ensure your battery remains intact, supplies stable voltage, and matches your controller and motor. ● Equip your battery with an advanced BMS. ● Eliminate short circuit and ground faults. ● Clean or retighten your motor's external cable connection. ● Address damaged motor wiring. ● Reconfigure, repair, or replace your motor, ensuring integrity, compatibility, and sufficient ratings. ● Reconfigure your controller, enhancing motor power regulation.
42	Motor Drive Current Fault	
43	Motor Phase Loss	● Allow your e-drive system to rest and cool down before reactivation. ● Ensure adequate ventilation or cooling for your motor. ● Clean or retighten your motor's external cable connection. ● Address damaged motor wiring. ● Realign, recalibrate, repair, or replace your controller and motor, ensuring integrity, compatibility, and sufficient ratings.
44	Motor Temperature Sensing Fault	● Realign or recalibrate your controller with your temperature sensor. ● Repair or replace your controller or motor's temperature sensor.

Code	Implication	Recommended Solution(s)
45	Severe Undervoltage	● Repair or replace your battery, controller, motor, etc.
46	Severe Overvoltage	● Eliminate short circuit and ground faults. ● Replace your battery, controller, motor, etc.
47	Controller MOSFET Failure	● Repair or replace your damaged controller.
50	Throttle Fault	● Match your controller with your throttle. ● Clean, correct, or retighten your throttle-controller connection. ● Repair or replace your damaged throttle or controller.
60	HMI Reference Voltage Fault	● Seek authorized professional service for the HMI.
70	HMI-IoT Communication Fault (Applicable to Some Custom Batches Only)	● Reactivate, repair, or replace your IoT device. ● Avoid sources of magnetic interference.

9. Maintenance

⚠ WARNING

- Read and follow **ALL** related instructions in **Safety Information**.
- Pay particular attention to the safety details listed below.
- If you are an end user, these instructions can be more closely related to you.



9.1 Cleaning

Clear any dust or stains off the HMI's external surface as needed.

- Make sure the screen is so clean that **ALL** displayed contents **ARE** visible.
- Remove **ANY** foreign objects that interfere with the buttons or ports.
- **Recommended Tools:**
 - ◆ Soft dry cloth
 - ◆ Cool compressed air at levels compliant with your local authorities (incl. ANSI, OSHA, BSI, CE, etc.)

⚠ WARNING

- To prevent electric shock, turn and power off the HMI **BEFOREHAND**.
- **DO NOT** get the HMI wet, which may damage the electronic components and pose various electrical hazards.

In particular:

- ◆ **DO NOT** use direct pressurized spray.
- ◆ **DO NOT** flush or soak the HMI in **ANY** cleaning fluid.
- ◆ If a damp cloth is necessary, **ONLY** use water and wring it out **BEFOREHAND**.
- ◆ If any e-components accidentally become wet, allow them to **FULLY** dry **BEFORE** resuming use.



⚠ CAUTION

DO NOT clean in **ANY** following way, as they can cause irreparable product damage.

- Apply abrasive or caustic chemicals.
- Blow the HMI with hot or high-pressure air.
- Poke the USB-C, CommPower, or **RC** port with hard sharp tools, such as a needle.

9.2 Checks

- Check that the HMI remains tightly secured to your e-cycle **BETWEEN** uses.

Properly retighten its clamp bolts with a **2.5 mm** hex wrench (**not included**) as needed.

CAUTION

- **ALWAYS** be gentle and slow when applying **ANY** force.
- If any clamp bolt is missing, **ONLY** use an identical replacement.
- Use the appropriate torque and bolts specified in **Sections 4.2 & 4.3** on **Pages 13–14**.



- Check **ALL** external parts of the HMI for any loss, wear, and damage **BETWEEN** uses.

Replenish, repair, or replace any problematic parts **BEFORE** further use.

In particular:

- ◆ Inspect the screen and housing for **ANY** cracks.
- ◆ Test **ALL** buttons, seeing that they can be pressed smoothly.
- ◆ Examine the external cable connections, ensuring **NO** looseness, blockage, or breakage.

CAUTION

- **ONLY** use identical and authorized replacements.
- **DO NOT** open or dismantle the HMI to reach its internal components.
- **DO NOT** attempt to modify the HMI's appearance or structure.
- **DO NOT** attempt to remove the control cable from the control panel.
- Have the issues addressed by authorized trained technicians as needed.

- If the HMI has been and is to be idle for an extended period, **REGULARLY** reactivate it and check **ALL** functions.

Make sure the digital display is clear and **ALL** buttons operate the system correctly.

CAUTION

- **ALWAYS** remember to deactivate and power off the HMI **AFTER** check.
- Have the issues addressed by authorized trained technicians as needed.

9.3 Storage

If the HMI is **NOT** to be used for a prolonged period, you can:

- Leave the HMI on your e-cycle if the e-cycle is also to be stored.
- Remove the HMI from your e-cycle if required to do so for the use of another HMI.

Obey the following requirements to ensure optimal safety and future use.

CAUTION

ALWAYS avoid storing the HMI inside a plastic bag, which might allow humidity to build up over time, harming its electronic components.

9.3.1 On-Board Requirements

- The USB port is **COMPLETELY** closed.
- The HMI has been **FULLY** powered off.
- The HMI is dust-free and properly covered.
- The HMI remains secured and load-free.
- The HMI is adequately protected against abrasions, impacts, and liquid ingress.
- Your battery has been deactivated or removed.
- Your e-cycle has been securely parked.
- Your e-cycle is placed in a clean, cool, and dry location.
- Your e-cycle is far away from heat sources, flammables, explosives, and caustics.
- Your e-cycle is **ENTIRELY** well protected from the elements.
- Your e-cycle is inaccessible to children or pets and against unauthorized adult use.



9.3.2 Off-Board Requirements

- The USB port is **COMPLETELY** closed.
- The CommPower port is **FULLY** disconnected from your controller.
- The clamp bolts remain on the locking clamps to prevent loss.
- The control cable is neatly arranged, posing **NO** tripping hazards **OR** risks of being caught or cut.

CAUTION

ONLY remove the control cable from the display unit **RATHER THAN** from the control panel. Failure to follow this **WILL** damage this product, voiding **ALL** warranties stated or implied.

- The HMI remains load-free.
- The HMI is dust-free and properly covered.
- The HMI is placed in a clean, cool, and dry location.
- The HMI is in an area clear of clutter.
- The HMI is easy to be found for future use.
- The HMI is far away from heat sources, flammables, explosives, and caustics.
- The HMI is **ENTIRELY** well protected from the elements.
- The HMI is inaccessible to children or pets and against unauthorized adult use.



10. Transport

WARNING

- Read **ALL** related instructions in **Safety Information** carefully **BEFOREHAND**.
- **ALWAYS** obey **ALL** applicable laws and regulations **THROUGHOUT** the process.



10.1 On-Board Requirements

- The USB port is **COMPLETELY** closed.
- The HMI has been **FULLY** powered off.
- The HMI is dust-free and properly covered.
- The HMI is adequately protected against abrasions, impacts, and liquid ingress.
- The HMI remains secured and load-free.
- Your battery has been deactivated (if undamaged).
- Your battery has been removed (if your e-cycle is carried outside your vehicle, e.g., on a car rack).
- Your e-cycle has been properly secured to your vehicle and risks **NO** falls.
- Your e-cycle is **ENTIRELY** well protected from the elements.
- Your e-cycle is away from heat sources, flammables, explosives, caustics, and other prohibited articles.

10.2 Off-Board Requirements

- The USB port is **COMPLETELY** closed.
- The CommPower port is **FULLY** disconnected from your controller.
- The control cable is neatly arranged, posing **NO** risks of being caught, pressed, or cut.
- **NO** dropping, sliding, or throwing is performed.
- The carrying bag or box is intact, closed, clean, dry, robust, durable, and waterproof.
- The bag or box is firmly secured and risks **NO** falls.
- The bag or box is **ENTIRELY** well protected from the elements.
- The HMI is load-free and shockproof inside the bag or box.
- The HMI, bag, and/or box is away from heat sources, flammables, explosives, caustics, and other prohibited articles.



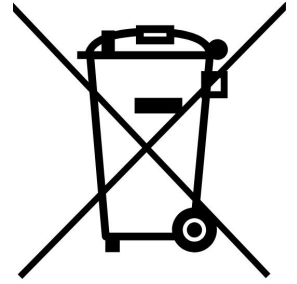
11. Disposal

Electrical and electronic products, including e-cycle drive units, should **NOT** be disposed of together with household waste.

In the EU and UK, the European Directive 2012/19/EU mandates that used electrical and electronic equipment (EEE) **MUST** be separately collected and disposed of at designated collection points.

Locations in Australia, Canada, and the United States of America may have similar regulations.

Contact your local authorities or dealer for disposal and recycling advice.



12. Safety Information

12.1 General Instructions

- Read **ALL** these instructions carefully and completely **BEFORE** handling this product.
- For **ANY** unclear or confusing point, consult Ananda or your e-cycle dealer or manufacturer.
- Save these instructions properly for future reference.
- Provide these instructions to anyone who will install, operate, maintain, or service this product.
- Provide these instructions with this product if it is ever given or sold to a third party.
- **ONLY** install, operate, and maintain this product in accordance with these instructions.



Failure to do so may lead to property damage and personal injury, voiding **ALL** warranties stated or implied.

- If this product is to be used with **ANY** other products, read and follow separate instructions while receiving local or online training as needed.
- Use of electrical and electronic equipment carries inherent risks.
 - ◆ It might be impossible for these instructions to cover all safety precautions.
 - ◆ Use your technical expertise, common sense, and good judgment at **ALL** times.
 - ◆ Seek authorized professional assistance as needed.

12.2 Electricity

WARNING

ALWAYS be aware of electrical safety when handling the HMI.

Failure to obey the following instructions can result in corrosion, short circuits, electric shock, and/or **EVEN** fire, causing the HMI to malfunction or break while posing the risks of personal injury and property damage.



- **ONLY** use the HMI with compatible batteries in terms of voltage, current, communication protocol, etc.
- **NEVER** connect the HMI to incompatible power sources including but not limited to:
 - ◆ Batteries of incompatible voltages, currents, communication protocols, etc.
 - ◆ Alternators, solar panels, wind generators, and other non-designated or inappropriate direct current (DC) power sources or devices that are providing DC
 - ◆ Alternating current (AC) power sources such as wall outlets (sockets), power strips, and extension cords
 - ◆ Power distribution units (PDU) of all kinds
- **ONLY** make the electrical connection for the HMI's CommPower port according to the separate instructions provided by your e-cycle manufacturer or dealer if you are an end user.
- **ALWAYS** ensure that the control cable is intact and firmly connected to the display's **RC** port **BEFORE** use.
- **ALWAYS** ensure that **NO** bare wires **ARE** exposed from the control cable housing.

If they cannot be avoided, wrap them with electrical tape or other appropriate insulation.

- If the control cable is broken, stop use and disconnect power.
The control panel **MUST** be scrapped or be repaired by authorized trained technicians.
- **NEVER** abuse the control cable in **ANY** way.
 - ◆ **NEVER** attempt to disconnect this permanent cable from the control panel.
 - ◆ **DO NOT** remove or relocate the HMI by pulling on this cable.
 - ◆ **DO NOT** hang **ANY** objects on this cable.
 - ◆ **ALWAYS** keep this cable away from heat, fire, oil, sharp edges, and moving parts.
- **NEVER** abuse your controller cable connected to the HMI's CommPower port.
- **ONLY** use the HMI **AFTER** checking that **ALL** electrical wiring is correct, intact, and firmly connected.
- If **ANY** electrical wiring is damaged, stop use and disconnect power **UNTIL** such an issue is **FULLY** addressed.
- **DO NOT** plug in or unplug the HMI **WHILE** your controller remains powered on.
- **DO NOT** use the USB port to charge **ANY** non-rechargeable devices.
- **DO NOT** use the USB port to overcharge **ANY** rechargeable devices.
- **NEVER** attempt to dismantle the HMI **OR** modify its internal electronic components for **ANY** reason.
- **ONLY** allow authorized trained technicians to access and service the electronic components inside the HMI when inspection or repair is necessary.
- **NEVER** touch **ANY** electronic components exposed due to housing or screen breakage with bare skin or conductors while the HMI is connected to power.
- Despite the weatherproof rating, take **ALL** necessary measures to prevent liquid from entering the HMI.
 - ◆ **NEVER** submerge the HMI in water or other liquids for **ANY** reason.
 - ◆ **NEVER** rinse the HMI with **ANY** cleaning fluid.
 - ◆ **NEVER** wipe the HMI with a damp cloth that has **NOT** been wrung out.
 - ◆ **NEVER** operate the HMI with wet hands or equipment.
 - ◆ **NEVER** connect any wiring to the USB, CommPower, or RC port when it is wet.
 - ◆ **ALWAYS** avoid direct pressurized spray towards **ANY** part of the HMI.
 - ◆ **ALWAYS** avoid exposing the HMI to rain, snow, or other highly humid conditions for prolonged periods.
 - ◆ **ALWAYS** stop use and seek appropriate remedies if the screen or housing is broken and exposing **ANY** internal electronic components.
- In the event of signs indicating that **ANY** electronic component becomes wet accidentally:
 - ◆ Disconnect the HMI from power **IMMEDIATELY**.
 - ◆ Allow time for the component to **FULLY** dry **BEFORE** resuming use.
- In the event that the HMI accidentally drops into **ANY** liquid while being connected to power:
 - ◆ **NEVER** touch the HMI or liquid with bare skin or conductors.
 - ◆ Cut power **BEFORE** taking **ANY** countermeasures.
 - ◆ Wear **INSULATED** protection or use **INSULATED** tools if touch is necessary with power being left on.
- **DO NOT** leave the HMI connected to power when performing **ANY** maintenance tasks **EXCEPT** for checks that require power-on.



- For **ALL** authorized trained technicians:
 - ◆ **INSULATED** protection is required if it is necessary to access electronic components for **ANY** purposes requiring power connection.
 - ◆ Component replacement **MUST** be undertaken **AFTER** power is cut to the HMI.
- In the event of a severe electrical accident, seek **IMMEDIATE** assistance from your local medical and emergency services as soon as possible.

12.3 Surroundings

DANGER

- **NEVER** operate the HMI in the presence of sparks and flammable or explosive gases.
- These dangerous gases include acetylene, hydrogen, methane, ethane, propane, flour, metal powders, etc.
- **ALWAYS** refrain from use in the vicinity of gas stations and chemical plants.
- **NEVER** use the HMI's wireless communication in airplanes or near medical devices **WHERE** signal interference can invite **FATAL** consequences.
- Pay attention to other hidden dangers that seriously preclude safe use of the HMI.



WARNING

- **DO NOT** use the HMI with your e-cycle **WHERE** doing so violates laws and regulations, such as roads prohibited to e-cycles.
- **DO NOT** use the HMI with your e-cycle **WHERE** doing so is easy to invite accidents such as:
 - ◆ Crowded or confined areas
 - ◆ Locations near precipices
 - ◆ Rough terrains with obstacles
 - ◆ Steep downhill surfaces
 - ◆ Uphill slopes exceeding your e-cycle's capacity
- **DO NOT** use the HMI's wireless communication **WHERE** doing so could potentially harm or irritate humans or animals, especially those with medical or other specialized devices.
- Pay attention to other hidden hazards that preclude safe use of the HMI.

CAUTION

- **DO NOT** expose the HMI to **OR** place it near radiation, excessive pressure, hard/sharp objects, corrosive substances, or sources of heat and ignition, such as:
 - ◆ Operating X-ray machines, microwave ovens, and strong radio transmitters
 - ◆ Body parts or heavy objects causing excess force or weight
 - ◆ Axes, knives, needles, saws, scissors, stones, swords, and thorns
 - ◆ Alcohol, diesel, gasoline (petrol), acids, bases, salt solutions, and strong solvents
 - ◆ Open flames, irons, firecrackers, fireplaces, fryers, griddles, and stoves
- **ALWAYS** take care to avoid incidental breakage if the above items **ARE** unavoidable.
- **DO NOT** use or place the HMI **WHERE** the ambient temperature is **BEYOND** the ranges specified in **Section 2.1** on **Page 5**.
- Pay attention to other hidden risks that could potentially damage the HMI.



12.4 Users Allowed

WARNING

- **DO NOT** allow use of your e-cycle with the HMI by people who are:
 - ◆ Age-inappropriate as specified in laws and regulations
 - ◆ Possessing mental or physical impairments precluding safe use
 - ◆ Tired or under the influence of drugs, alcohol, or strong medication
 - ◆ Unfamiliar with these instructions, the HMI, or your e-cycle
- People with pacemakers, hearing aids, or other medical devices **MUST** obey the following instructions:
 - ◆ Consult a doctor **BEFORE** use.
 - ◆ Conduct trials in a controlled environment **UNTIL** safe use is verified.
 - ◆ **ALWAYS** avoid cycling alone.
 - ◆ Stop use **IMMEDIATELY** once feeling **ANY** discomfort.

12.5 Pre-Use Checks

WARNING

- **ALWAYS** check that the HMI meets the following conditions **BEFORE** each ride:
 - ◆ Securely installed on your e-cycle
 - ◆ Compatible with other cycle parts
 - ◆ Clean, intact, uncovered, and accessible
 - ◆ **RC** port firmly connected to the control panel
 - ◆ CommPower port properly connected to your controller
 - ◆ Responsive and correct for controlling your e-cycle
 - ◆ Displayed contents visible and comfortable for your eyes
 - ◆ All settings compliant with laws and regulations and appropriate for your e-cycle and riding
- **DO NOT** ride your e-cycle if the HMI shows **ANY** signs of looseness, damage, or malfunction.
 - ◆ Refrain from using the HMI and your e-cycle **UNTIL** the issue is **FULLY** addressed.
 - ◆ Seek authorized professional assistance as needed.
- **DO NOT** ride your e-cycle with the HMI if the cycle is problematic.
 - ◆ Retighten **ANY** loose parts.
 - ◆ Readjust **ANY** unfitted parts.
 - ◆ Replenish **ANY** missing parts.
 - ◆ Repair or replace **ANY** broken parts.

12.6 Sensible Use

WARNING

- **ONLY** use the HMI for its intended purpose, enabling and controlling the e-drive system for your cycle, which **MUST** be compatible with the HMI.
 - ◆ The HMI is **NOT** a toy and should **NOT** be used playfully or carelessly.
 - ◆ Any other use **NOT** specified herein could potentially pose risks, voiding **ALL** warranties stated or implied.
- **ALWAYS** familiarize yourself with **ALL** controls, functions, and indications on the HMI and your e-cycle **BEFORE** setting off.
- **ALWAYS** use the HMI to keep your lighting on when cycling in the dark.
- **DO NOT** mix up the metric (**km** and **km/h**) and imperial (**mi** and **mph**) readings.

To prevent misjudgments, select the one applicable in your jurisdiction or that you are more familiar with.
- **DO NOT** use wheels that do **NOT** match the **dIA** reading, as this can cause misreadings of speed and distance, leading to misjudgments and various risks.
- For optimal safety, take a **TEST** ride in a safe place **BEFORE** each real ride.
- **DO NOT** use higher PAS settings **UNTIL** you are **FULLY** familiar with your e-drive system, your cycle, and the area where you are going to ride.

EVEN if you are familiar with everything, **ALWAYS** be mindful of your setting, being sure to be comfortable with your e-drive experience and/or have sufficient room to brake in an emergency.
- **ONLY** use the push assist to help push your e-cycle, typically when climbing a slope within the capacity.
 - ◆ When using the push assist, securely hold your e-cycle with **BOTH** hands **WHILE** keeping the wheels in contact with the ground and maintaining your balance.
 - ◆ The push assist is **NOT** recommended if you need to push your e-cycle for an extended period.
 - ◆ **DO NOT** propel yourself with the push assist while sitting on your e-cycle.
- **DO NOT** focus on the HMI for an extended period while riding, as such distraction can invite accidents.
- **DO NOT** adjust the HMI frequently while riding.
- For best results, park your e-cycle in a safe place **BEFORE** reconfiguring the settings.
- Despite the automatic shutdown, **DO NOT** leave the HMI unattended as long as it is activated or powered on.
- If an error code is displayed, refrain from riding **BEFORE** the code disappears with the issue **FULLY** addressed.
- In the event of a breakage on the HMI during use:
 - ◆ Discontinue use and have the HMI repaired or replaced.
 - ◆ Clear off fragments while exercising caution with sharp edges.
 - ◆ Avoid exposure to chemical materials posing health risks if inhaled or ingested.
 - ◆ Dispose of any wreckage according to laws and regulations.

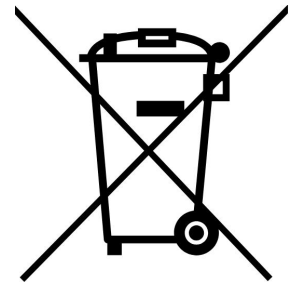
CAUTION

- **DO NOT** twist or attempt to relocate the HMI **BEFORE** removing its clamp bolts.
- **DO NOT** exceed **0.8 N•m (7 in-lbf)** when tightening the clamp bolts.
- **DO NOT** abrade or impact the HMI in **ANY** way.
- **DO NOT** use the HMI as a handle to move your e-cycle.
- **DO NOT** use the HMI to support **ANY** body parts or other objects.
- **DO NOT** allow **ANY** foreign objects to enter the USB, CommPower, or **RC** port.
- **DO NOT** leave the USB port open when it is left idle.

12.7 After Use

WARNING

- To prevent accidents due to unintentional motor start, turn and power off the HMI **BEFORE**:
 - ◆ Being finished with using your e-drive system
 - ◆ Parking your e-cycle and planning to keep it idle for an extended period
 - ◆ Cleaning or inspecting the HMI and/or your e-cycle
 - ◆ Disassembling, reassembling, or readjusting your e-cycle
 - ◆ Having your e-cycle components serviced, **EXCEPT** for tasks requiring reactivation
 - ◆ Transporting or storing your e-cycle with the HMI
- To prevent accidents due to unauthorized use:
 - ◆ Activate password protection with a password that is **NOT** as simple as "0000" or "1234".
 - ◆ Securely lock your e-cycle to a permanent facility.
 - ◆ Store your e-cycle or the separate HMI in locations inaccessible to other people.
- Disposal of the HMI **MUST** comply with local and national laws and regulations.



CAUTION

- **DO NOT** turn off the HMI in **EITHER** way, as such an abrupt power cut may damage the its electronic components or shorten their lifespans.
 - ◆ Unplug the CommPower port.
 - ◆ Deactivate or remove your battery.
- **DO NOT** attempt to modify the HMI's physical appearance or structure.
- **ALWAYS** avoid leaving the HMI on your e-cycle during disassembly or reassembly.
If it is necessary to do so, cover the HMI with sufficient protection **BEFOREHAND**.
- **ALWAYS** take care to avoid pinch-point injuries when removing or reinstalling the HMI.
- **DO NOT** invert your e-cycle with the HMI touching the ground or any other hard surfaces.
- **DO NOT** expose the HMI to direct sunlight for an extended period.
- **DO NOT** maintain the HMI with harsh abrasives or caustic chemicals.
- **DO NOT** clear foreign objects off the HMI's USB, CommPower, or **RC** port by poking with a needle or other hard sharp tools.
- **DO NOT** use nonidentical or unauthorized replacements, including the main parts and fasteners.
- **ONLY** allow servicing by authorized trained technicians.
 - ◆ Consult Ananda if you are Ananda's corporate customer.
 - ◆ Consult your e-cycle dealer if you are an end user.



13. After-Sales Service

Thank you for choosing Ananda products!

We are pleased to address issues as soon as possible if you have questions or need help.

13.1 Policies

The after-sales policies are stated on Ananda’s official website: <https://www.ananda-drive.com>.

- 1. Visit **Service Policy** in either way:
 - Click on <https://www.ananda-drive.com/service-policy>.
 - Scan the following QR code.



- 2. Select **Warranty**, **Warranty Exclusions**, **RMA**, or others as needed.

1. Warranty	▼
2. Warranty Exclusions	▼
3. RMA(Return Material Authorization)	▼
4. Important notice	▼

13.2 Purchasers and Dealers

Purchasers (brands) and dealers can file requests and receive online technical support on Ananda's official website: <https://www.ananda-drive.com>.

13.2.1 Ananda Link

Ananda Link is a comprehensive platform incorporating not only request collection but also product diagnoses, software upgrades, riding data analyses, etc.

1. Visit **Ananda Link** in either way:

- Click on <https://www.ananda-drive.com/innovative-R&D/ananda-link>.
- Scan the QR code on the right.



2. Log into your **Ananda Link** account and continue as instructed by the platform.

European countries users login service platform :

[Click to enter \(eu.ananda-service.com\)](https://eu.ananda-service.com)

China users login service platform :

[Click to enter \(cn.ananda-service.com\)](https://cn.ananda-service.com)

American countries users login service platform :

[Click to enter \(na.ananda-service.com\)](https://na.ananda-service.com)

Operating Instructions

Manual (EN) →

Manual (FR) →

Manual (IT) →

Video →

Note:

If you have no **Ananda Link** account, go down and file an application.

We will reach out to you A.S.A.P. and help you sign up.

Ananda Link account application form

Company Name *	Applicant Name *
Country *	Location *
Company Address *	
Email *	Phone Number (with Country Code) *
Cycle Manufacturer(s) *	
Submit	

13.2.2 Service Support

You are also welcome to send a request more quickly on Ananda's official website, especially if you do not have an **Ananda Link** account or if the issue is straightforward to clarify.

1. Visit **Service Support** in either way:

- Click on <https://www.ananda-drive.com/service-support>.
- Scan the QR code on the right.



2. Fill in the blanks and upload necessary files as instructed by the system.

APPLY FOR SERVICE

*Ananda does not provide any after-sales service to the end customers. When you encounter problems, please contact Dealer or Brand from which you purchased our products.

Customer Name	Company Address
Company Website	Contact Person
E-mail	Tel
Defective phenomenon *	Label on motor or controller *
Upload	Upload

* Multiple files can be uploaded simultaneously, with each uploaded picture and video having a maximum size limitation of 10MB.

*Tips: How to find the SN and AN number, please [click here](#)

SN	AN
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Problem Description (ERROR)

13.3 End Users

Please note that Ananda does not offer after-sales service directly to end users.

Please contact the retailer from whom you purchased your Ananda product.

For more information about Ananda, please visit <https://www.ananda-drive.com> or simply scan this QR code.



14. Disclaimer

Read this disclaimer in its entirety and with careful attention.

14.1 As-Is

This Ananda product is sold "as is". Except as expressly required by laws and regulations, no guarantees or warranties beyond those explicitly specified in the accompanying manual are provided.

Ananda shall be liable only for damages caused by product quality defects in accordance with the applicable law.

14.2 Legal Compliance

Customers and users assume the responsibility and liability to ensure that the handling of Ananda products conforms to any and all applicable laws and regulations in their respective jurisdictions, including without limitation unpacking, assembly, installation, operation, maintenance, repair, transport, gifting, and disposal.

Ananda has ensured that Ananda products are compliant with the mandatory standards of the target countries or regions at the time of shipment.

Ananda shall not be held liable for any breaches of laws or regulations arising from unauthorized modifications, improper operation, or use outside the intended scope by customers or users.

14.3 Correct Handling

Ananda products shall be handled by a competent person in full compliance with the accompanying manuals or instructions in any forms published by Ananda, with respect to unpacking, assembly, installation, operation, maintenance, repair, transport, gifting, disposal, etc.

Customers and users assume the responsibility and liability to keep Ananda products operating as intended with proper utilization and necessary maintenance throughout their lifecycles.

Appropriate protective gear is required for any and all activities involving Ananda products, including without limitation unpacking, assembly, installation, operation, maintenance, repair, transport, gifting, and disposal.

Ananda has highlighted key risks through bold, italic, and/or underlined text and shall not be held liable for damage, injury, or loss arising from any negligent or improper handling of Ananda products, failure to use protective gear, or nonobservance of the accompanying instructions.

14.4 Product Modifications

Any arbitrary modifications to Ananda products without the prior written authorization of Ananda shall automatically render all original warranty provisions null and void. Ananda shall not be held liable for damage, injury, or loss arising from such unauthorized modifications.

Ananda reserves the exclusive right to make design changes, technical improvements, and other modifications to Ananda products.

In the event that Ananda implements substantial modifications to Ananda products, which may affect their performance, safety, and compatibility with third-party products, Ananda will publish notices through appropriate channels and will, within a reasonable period following the purchase, notify customers thereof via email, short message, or other means. Within the timeframes agreed upon with Ananda, customers will have the right to choose, based on their individual needs, whether to continue using the original Ananda products or to proceed with an upgrade or replacement in accordance with the solutions provided by Ananda.

14.5 Third-Party Products

Before using Ananda products in conjunction with third-party products, customers and users shall carefully read the documentation and/or warranty terms (if any) published by the third parties with respect to such third-party products, and shall thoroughly understand the compatibility therebetween and potential risks pertaining thereto.

Ananda shall not be held liable for damage, injury, or loss arising from the involvement of any third-party products alongside Ananda products.

In the event of issues resulting from the use of third-party products with Ananda products, Ananda may provide assistance in identifying the causes thereof upon customer request, without prejudice to Ananda's exemption from any liability for damage, injury, or loss consequent thereupon.

14.6 Limitation of Liability

Ananda shall not be held liable for any direct, indirect, punitive, incidental, special, or consequential harm to property or life, whatsoever arising out of or connected with: 1) force majeure including without limitation wars, civil disorders, pandemics, transit accidents, and natural disasters; 2) unpacking, assembly, installation, operation, maintenance, repair, transport, gifting, and disposal of Ananda products by customers or users in violation of Ananda's instructions; 3) inherent attributes or normal consumption of Ananda products.

In the event of damage or loss, Ananda's liability shall not exceed the value of the products sold.

In the event of injury caused by product quality defects, Ananda shall be liable for damages in accordance with the applicable law.

This disclaimer states Ananda's entire obligation with respect to Ananda products.

If any provision herein is determined to be null, invalid, unenforceable, or unlawful, including without limitation the warranty and liability terms set forth above, such provision will be deemed superseded by an effective, valid, enforceable, and lawful provision that most closely matches the intent of the original provision, while the remainder of this disclaimer shall continue in full force and effect.



<https://www.ananda-drive.com>