



## **PIVOT E-VAULT**

### *Original Operational Instructions*

This manual is intended to provide you with the information needed to get you on the trail or road. This guide will walk you through the steps necessary to set up all the components and become familiar with the Fazua E-bike System. This document contains some helpful diagrams and reference material to make sure you have everything necessary to maintain your E-Vault and enjoy it to the fullest.



<b>TABLE OF CONTENTS</b>		<b>PAGE</b>
<b>1. Bike Set-up</b>		<b>1</b>
- Tire Pressure		1
- Adjusting Saddle Height		1
- ISO-Flex Seat Post Insert		1
<b>2. Fazua Mobile App</b>		<b>2</b>
- Download Mobile App		2
- Launching the Fazua Rider App		2
- Fazua Rider App Navigation		2
<b>3. Fazua Basics</b>		<b>4</b>
- Removing the Drivepack		4
- Installing the Drivepack		4
- Charging the Battery		4
- Replacing the Battery in the Drivepack		5
- Remote Detail		5
- Powering the System ON and OFF		5
- Speed Sensor		6
- Support Modes		7
- Changing Support Modes		7
- Rain Mode		7
- Support Characteristics		8
- Factory Support Settings		8
<b>4. Fazua Software</b>		<b>9</b>
- Download Software		9
- Connect to the Fazua Toolbox		9
- Fazua Toolbox Navigation Panel		9
- Customize Assistance Profiles		10
- Setting Custom Assistance Profiles		11
- Saving Custom Assistance Profiles		11
- Exporting Custom Assistance Profiles		11
- Importing Custom Assistance Profiles		11
- Update System Software		11



<b>TABLE OF CONTENTS (Cont')</b>		<b>PAGE</b>
<b>5. Third Party Compatibility</b>		<b>12</b>
- Compatible Devices		12
- Garmin Pairing		12
<b>6. Troubleshooting</b>		<b>13</b>
- Troubleshooting Table		13
<b>7. Schematics</b>		<b>14</b>
- Fazua Evation System Schematic		14
- Small Parts Schematic		15
- Small Parts Table		16
- Wiring Diagram		17
<b>5. Warnings</b>		<b>18</b>
- Bicycle Safety		18
- Improper Use Hazards		18
- Health Hazards		19
- Potential Damage Hazards		19
<b>6. Additional Information</b>		<b>20</b>
- Fazua Evation Drive System		20
- Pivot E-Vault		20
- Conformity		20
- Sources		20



## Tire Pressure

*NOTE: The E-Vault can accept a variety of tire sizes depending on the rider's desired riding terrain*

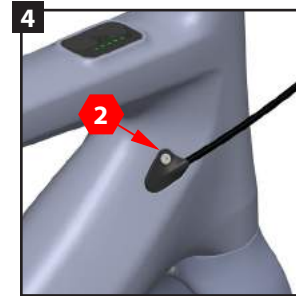
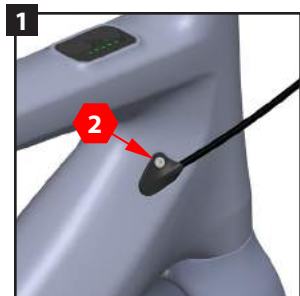
- Tire pressure can greatly affect the ride quality. The table below offers recommended tire pressures for initial set-up depending on tire size. Riders may want to adjust tire pressure for individual preferences.

TIRE SIZE	RECOMMENDED PRESSURE
700 x 23-25	100-120 [psi] / 6.9-8.3 [bar]
700 x 28-32	80-100 [psi] / 5.5-6.9 [bar]
700 x 35-42	60-80 [psi] / 4.1-5.5 [bar]
700 x 45-47	40-60 [psi] / 2.8-4.1 [bar]
27.5" x 2.0"	30-40 [psi] / 2.1-2.8 [bar]

## Adjusting Saddle Height

*NOTE: The E-Vault can accept both a dropper post and rigid post. The following instructions detail adjusting the saddle height when equipped with a dropper post. For an E-Vault equipped with a rigid post, please skip the first and last step.*

1. If using a dropper post, use a 2mm hex wrench to loosen the driveside cable port cap securing the dropper post housing.
2. Using a 4mm hex wrench, loosen the seat post clamp bolt and raise/lower the saddle to the preferred height.
3. Using a 4mm hex wrench, tighten the seat post clamp bolt to 5 [Nm].
4. If using a dropper, use a 2mm hex wrench, tighten the driveside cable port cap.



## ISO-Flex Seat Post Insert

*NOTE: The E-Vault can accept both a 30.9mm dropper post and 27.2mm rigid post.*

- Each seat post size has a corresponding seat tube insert. The E-Vault comes equipped with the 27.2mm insert. The 30.9mm insert can be purchased after market.
  - 30.9mm ISO-Flex Insert Kit PN: BOM-SLV-FLXPST30.9-V1
- The procedure for swapping the ISO-Flex inserts can be found on the Pivot website at: <https://store.pivotcycles.com/en/file/download/65154?isPreview=True>



## Download Mobile App

1. Go to <https://fazua.com/en/drive-system/software/> and click on the "Mobile Apps" link.
2. On the next page, a link will be provided for both the Google Play Store and the Apple App Store. Follow the link corresponding to the operation system of your mobile device (Android or Apple).
3. Once in the app store on your phone, press "Install".

## Launching the Fazua Rider App

1. Turn on Bluetooth in the phone settings.
2. Turn on the Evation drivesystem fitted to your ebike.
3. In the Fazua Rider app, either tap on "Tap to Pair Vehicle" in the start screen or go to the menu in the upper left corner, tap on "Vehicle" and click on "Tap to Pair Vehicle" there. A connection to you bike only needs to be established once using the Fazua Rider app.

## Fazua Rider App Navigation

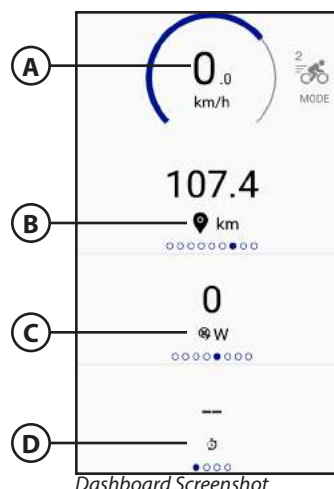
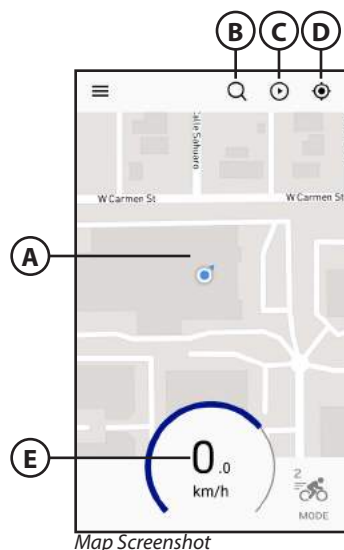
*NOTE: The main page is the map of your current location. To access the Fazua Rider app navigation panel, press on the three bar icon in the top left corner. The navigation panel options are listed below.*

### Map

- A) The map displays your current location along with the route, if a destination has been selected.
- B) Use the magnifying glass to search for an address so a route to a selected destination can be provided.
- C) The play button will begin recording your ride so you can track metrics of your ride and review them later.
- D) The compass will center the map to your current location.
- E) The data display shows a selected parameter. By clicking on the data display, you can choose to display State of Charge, Speed, or Power Output.

### Dashboard

- A) The data display shows a selected parameter. By clicking on the data display, you can choose to display State of Charge, Speed, or Power Output. This is the same display that will be shown on the Map page.
- B, C, D) These are secondary data displays. Each display can show various metrics, which can be shown by swiping left or right on the data display. The data presented in each display can be chosen by tapping on the display. Each display can have the following metrics:  
*State of charge, Cycle count, Remaining capacity, Health, Current, Battery temperature, Voltage, Speed, Odometer, Drivetrain temperature, Distance to empty, Power, Rider power, Cadence, User torque, Distance to destination, Estimated time of arrival, Trip distance, Trip duration, & Clock.*



**Activity Feed**

- A) This screen lists all recent activity from the user account.
- B) The arrow will return to the main Map page.

**Vehicle**

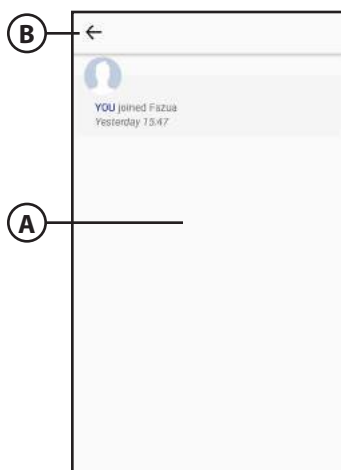
- A) The icon indicates the current vehicle paired to the bike. By clicking on this icon, you can see the serial number of the drive system and create a custom name and image for the attached device.
- B) The arrow will return to the main Map page.

**Support**

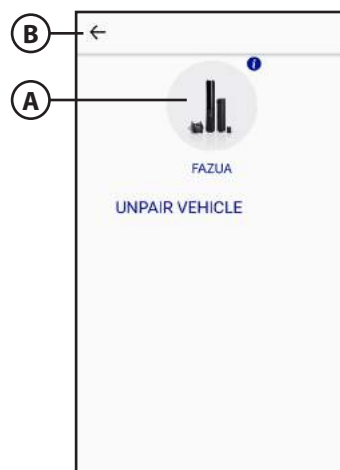
- A) The main page is a list of frequently asked questions to address issues the end user may have.
- B) Clicking the "Contact Support" button will open a blank email addressed to the Fazua customer service.
- C) The arrow will return to the main Map page.

**Settings**

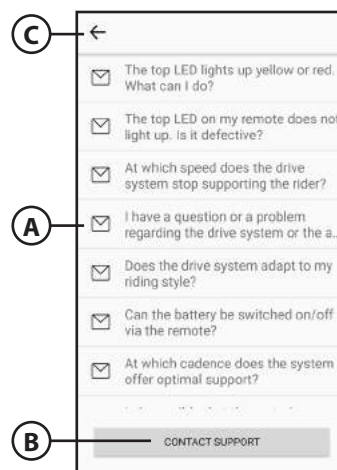
- A) Select the app user language: English, German, Italian
- B) Select the speed units: miles per hour, kilometers per hour
- C) Select the temperature units: degrees Fahrenheit, degrees Celsius
- D) Update the user profile. The rider can add a user photo and link the Fazua Rider app with other activity tracker apps such as Strava.
- E) Select the display settings: Color scheme and screen illumination.
- F) A hyperlink to the full terms and conditions of Fazua usage.
- G) Sign out of the currently active profile.
- H) The arrow will return to the main Map page.



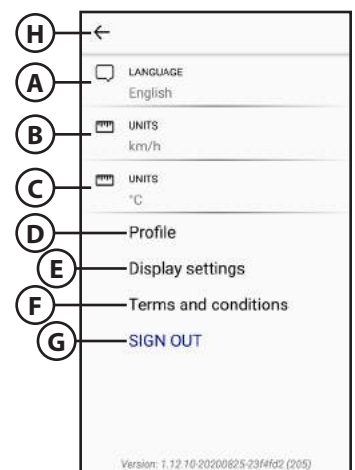
Activity Feed Screenshot



Vehicle Screenshot



Support Screenshot

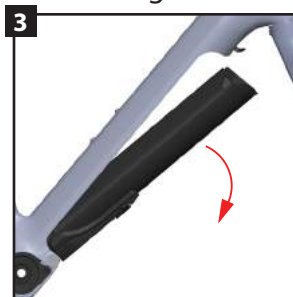
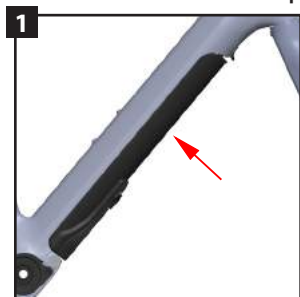


Settings Screenshot

## Removing the Drivepack

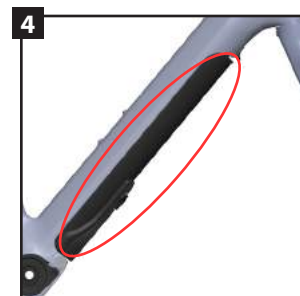
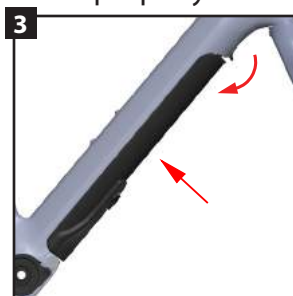
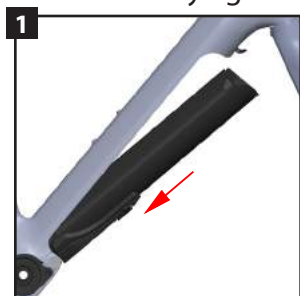
*NOTE: The battery does not come fully charged and must be completely charged before the first use. The drivepack must be removed in order to charge the battery.*

1. Secure the drivepack with one hand. Gently press the the drive pack upward into the downtube to release some pressure off the locking mechanism.
2. Locate the drivepack release lever. Flip the lever down and rotate it as far forward to release the drivepack.
3. Carefully tilt the front of the drivepack down to lower it out of its holder in the downtube.
4. Remove the drivepack from the interface on the bottom bracket gear box.



## Installing the Drivepack

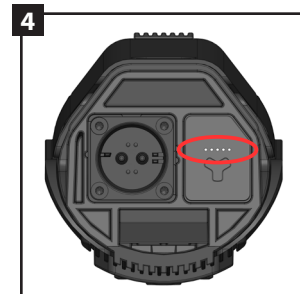
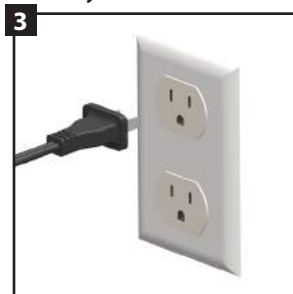
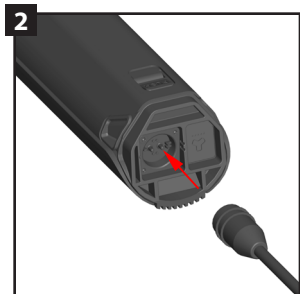
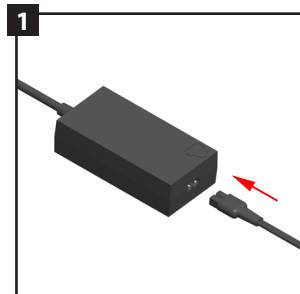
1. Place the drivepack into the downtube with the driving interface of the drivepack aligned with the corresponding interface on the bottom bracket gear box.
2. Rotate the upper end of the drivepack into the downtube.
3. Firmly press the drivepack into place. When the drivepack is correctly installed, the locking mechanism will automatically engage with an audible click and the release lever will return to the closed position.
4. Check the drivepack to confirm that it makes a tight fit. If the drivepack does not lock in place, pull it back out and try again. Do not ride the bike with the drivepack improperly installed.



## Charging the Battery

*NOTE: The battery does not come fully charged and must be completely charged before the first use. In order to charge the battery, the drivepack must be removed from the frame (see removal instructions above).*

1. Prepare the charger by plugging the power cable into the power inverter.
2. Insert the power plug into the charging socket on the battery.
3. Plug the power cable into the mains.
4. To ensure a full charge, wait until the five LEDs on the battery are lit.

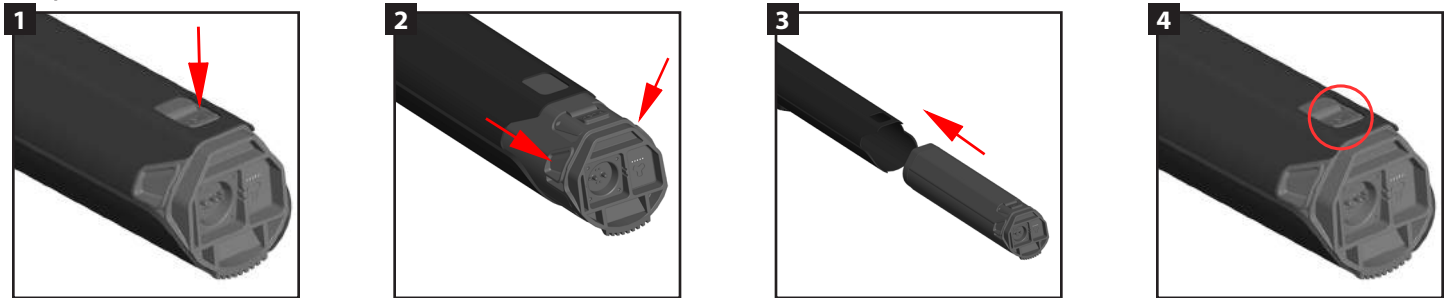




### Replacing the Battery in the Drivepack

NOTE: This procedure will be used to replace the battery in the event that a battery has failed or to replace a discharged battery with a secondary battery to increase the rideable range.

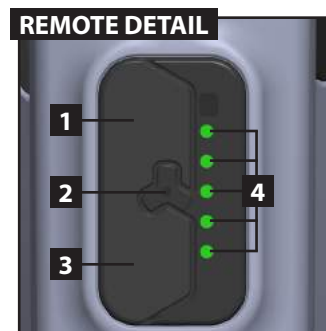
1. Press the push button on top of the drivepack all the way down so that it clears the drivepack shell.
2. While holding the push button down, grasp the battery on the two handles and slide the battery out of the drivepack shell.
3. Align the replacement battery and drivepack shell. Carefully slide the battery into the drivepack shell.
4. Push the replacement battery into the drivepack shell until the push button clicks, locking the battery into place.



### Remote Detail

NOTE: Fazua offers multiple controller options. The E-Vault is equipped with the "fx" model remote. This manual specifically addresses the function of this remote. Additional information regarding the other remote options offered by Fazua can be found on their website.

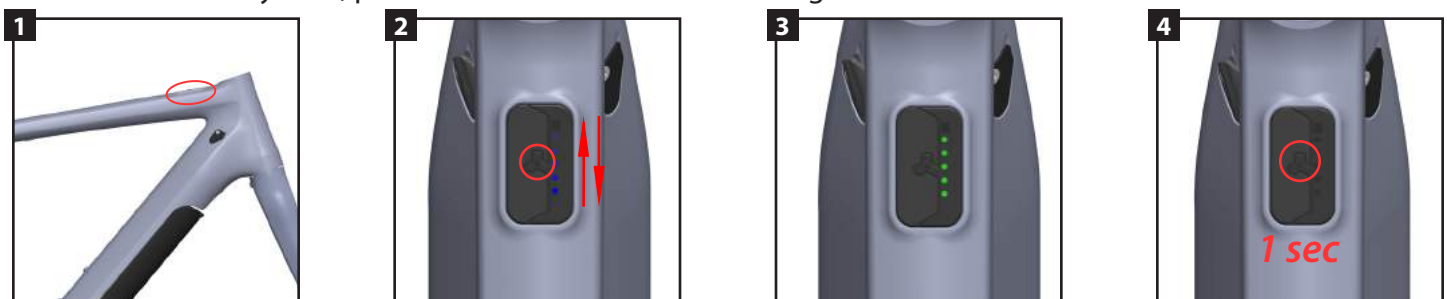
1. Upper Touch Sensor
2. Center Button
3. Lower Touch Sensor
4. Display of Charging / Support Level



### Powering the System ON and OFF

NOTE: The system will automatically power down after being idle for 15 minutes. When the system is turned on, the assistance mode will be the same as it was when the system was last powered down.

1. Locate the controller on the top tube, just behind the headtube.
2. Power the system on by pressing on the Fazua logo, located in the middle of the controller. The five LEDs will illuminate blue, from the bottom to top and back down, to indicate that the power is on.
3. Once the power-up sequence is complete, the lights will illuminate to indicate the battery charge level.  
(1 LED = 0-20%, 2 LEDs = 20-40%, 3 LEDs = 40-60%, 4 LEDs = 60-80%, 5 LEDs = 80-100%)
4. To turn off the system, press and hold the center Fazua logo button down for 1 second.

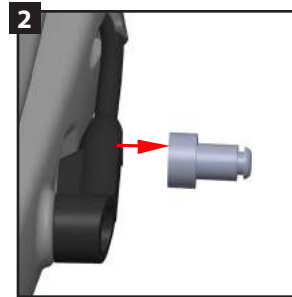
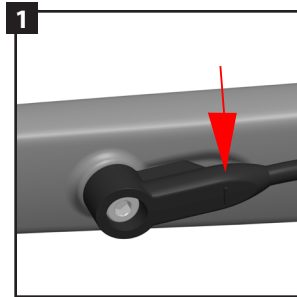




## **Speed Sensor**

*NOTE: The speed sensor magnet placement is critical to proper system function. Mount the magnet on a spoke on the brake side of the wheel and tighten the screw.*

1. Make sure the magnet is in the proper position and distance from the hub. Note the marking on the speed sensor. There is an embossed line indicating where the magnet should pass in front of the sensor.
2. In order for the speed sensor to function properly, the distance between the magnet and speed sensor must be between 4mm and 17mm.



## Support Modes

*NOTE: The color of the LEDs indicates the current assistance level. The number of LEDs illuminated indicates the battery charge level.*

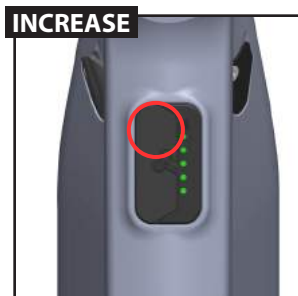
**Modes:** There are four support levels (each with a distinct color) listed below from least to most support:

*No support (White), Breeze (Green), River (Blue), Rocket (Red)*

## Changing Support Modes

**Increase Assistance:** Press the upper touch sensor to switch to the next higher support level.

**Decrease Assistance:** Press the lower touch sensor to switch to the next lower support level.

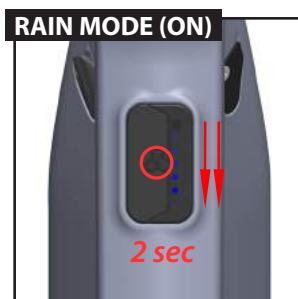


## Rain Mode

*NOTE: Rain can trigger the touch sensors and unintentionally increase/decrease assistance levels. Rain mode is an alternative method for changing assistance levels, using the center Fazua logo button, if conditions require it.*

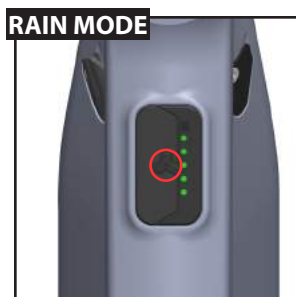
**Activate Rain Mode:** Press and hold the center Fazua logo button for 2 seconds. The five LEDs will illuminate blue, cascading from the top to bottom twice, to indicate that Rain Mode has been activated. While in Rain Mode, the touch sensors will be inactive.

**Deactivate Rain Mode:** Press and hold the center Fazua logo button for 2 seconds. The five LEDs will illuminate yellow, cascading from the center LED to the top and bottom, to indicate that Rain Mode has been deactivated. This will return the function to the touch sensor for changing assistance levels.



**Operation in Rain Mode:** Press the center Fazua logo button briefly to switch to the next highest assistance mode. Once the highest assistance mode (Rocket/Red) is reached, the next press will cycle to the lowest assistance mode (None/White). This cycle will continue to loop with each button press:

*No Support (White) > Breeze (Green) > River (Blue) > Rocket (Red)*



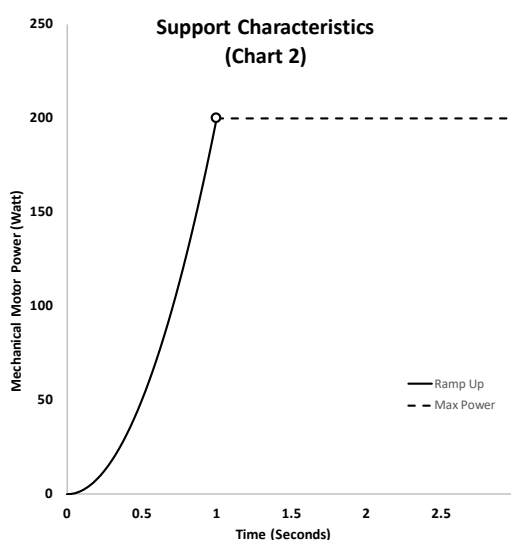
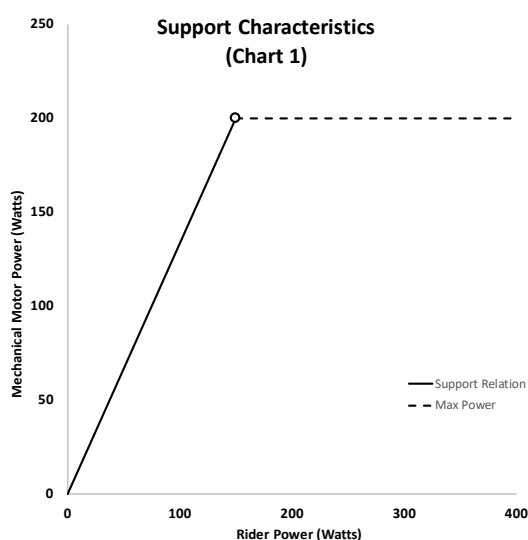
## Support Characteristics

NOTE: The differences in support modes are measured by the varying values of three parameters.

**Max Power:** This parameter determines the maximum torque and power output. This parameter is defined by setting the maximum power output by the motor. This value can vary between 60-300 [W]. This is illustrated by the height of the dotted line along the y-axis of *Chart 1* and *Chart 2* below.

**Support Relation:** This parameter determines the relationship between rider power and motor support. This parameter is defined by setting at what rider power input the maximum motor power output is reached. This value can vary between 90-420 [W]. This relationship is illustrated by the slope of the solid "Support Relation" line in *Chart 1* below.

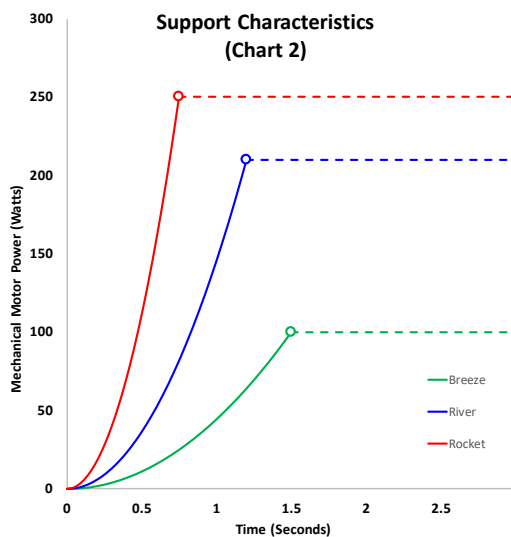
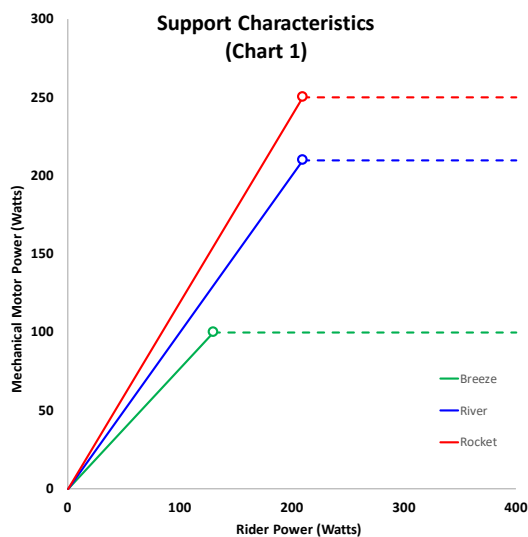
**Ramp Up:** This parameter determines the reactivity of the motor and the strength of the acceleration. This parameter is defined by a reactivity percentage indicating how quickly the maximum motor power output is reached. This value can vary between 0-100 [%]. This is illustrated by the progressiveness of the curved solid "Ramp Up" line in *Chart 2* below.



\* These charts are for illustrative purposes only and do not necessarily represent actual support characteristics of E-Vault

## Factory Support Settings

NOTE: There is an individual support curve for each of the three support modes. Below are the default factory settings. End-user customization is available and outlined in a later section of this manual.



## Download Software

NOTE: All software downloads can be accessed via the Fazua website: <https://fazua.com/en/drive-system/software/>

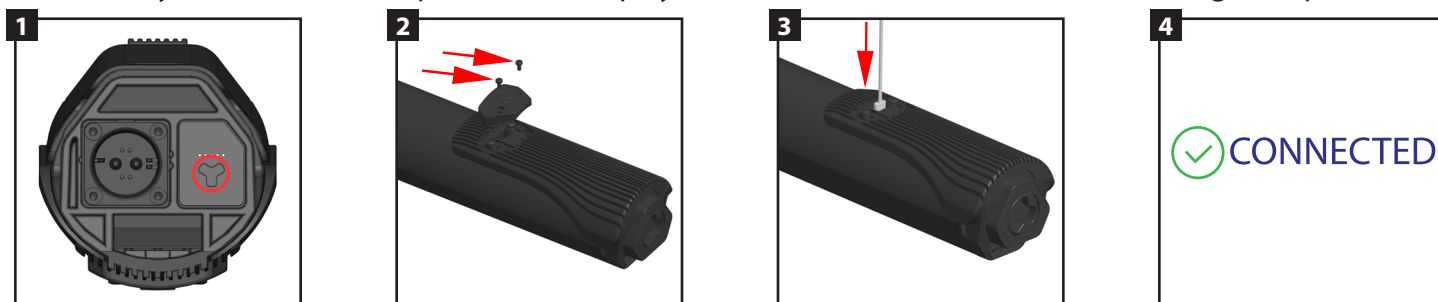
### Download Desktop Software (Fazua Toolbox)

1. Go to the website listed above and click on the "Desktop Software" link.
2. On the next page, select the operating system of your device click on the plus to view the system requirements and the "Download" link.
3. If all device requirements are met, click on the "Download" link.
4. Fill out the form that appears with your email address and first and last name. Fazua requires this information, so they can contact end users when updates are made available.
5. Go to the file location of the downloaded ".exe" file, and open the file. This will open the Fazua Toolbox, where all adjustments and updates can be made.

## Connect to the Fazua Toolbox

NOTE: Before connecting to the Fazua Toolbox, download the desktop software and remove the drivepack from the bike. A detailed video outlining the procedure for connecting the drivepack to the Fazua Toolbox software can be found on the Fazua website: <https://fazua.com/en/magazine/update-motor-software-toolbox/>

1. Turn on the battery by pressing the power button located on the battery.
2. Remove the USB cap with a Torx T10 screwdriver and carefully lift off the USB cap with a soft plastic lever. (When re-installing the USB cap, the Torx T10 screws should be torqued to 1.5 Nm)
3. Connect the drivepack to the computer using a mini USB cable.
4. Open the Fazua Toolbox software and confirm that the drivepack has successfully connected by checking the lower left corner of the Fazua Toolbox. Once successfully connected, all information and settings currently saved to the drivepack will be displayed under the various tabs in the left navigation panel.



## Fazua Toolbox Navigation Panel

NOTE: The left panel of the Fazua Toolbox provides categorized information relating to the connected drivepack.

**Product Information:** System and component serial numbers and software versions.

**Bike Usage:** System odometer, temperature, max speed, power output, & battery cycles.

**Diagnosis:** Runs system diagnostics and outputs any system faults detected.

**Live Data:** Displays current system status.

**Configuration:** Displays OEM system configurations.

**Customizer:** Allows end user customization of each support level.

**Software Update:** Upload software updates to the system.

## Customize Assistance Profiles

NOTE: A detailed video outlining the procedure for customizing the assistance profiles can be found on the Fazua website: <https://fazua.com/en/magazine/toolbox-customizer/>

1. Open the Fazua Toolbox software and connect the drivepack. (Procedure provided above)
2. In the Fazua Toolbox software, on the left panel, click on the "Customizer" menu.
3. From the "Customizer" menu, there are two methods for customization: EASY & ADVANCED.

### Customization: EASY

NOTE: Under the "EASY" tab in the "Customizer" menu, each support parameter has three preset options that offer a range of options balancing energy consumption and support power.

#### Max Power: Eco, Moderate, Performance

The maximum motor power output is lower in the Eco setting, which saves battery and extends range. In the Performance setting, the maximum motor power output is higher, which increases battery consumption and reduces range. The Moderate setting is a balance between power output and energy consumption.

#### Support Relation: Low, Moderate, High

In the Low setting, the motor provides maximum support even with low rider input power. In the High setting, a lot of power must be applied by the rider for the motor to reach its maximum power output. The Moderate setting falls between the two extremes to balance required rider input and battery consumption.

#### Ramp Up: Smooth, Moderate, Reactive

In the Smooth setting, the motor accelerates slightly slower and more gently, whereas in the Reactive setting, the motor reacts much faster and accelerates stronger. In the Moderate setting, the acceleration rate is balanced with the battery consumption.

### Customization: ADVANCED

NOTE: Under the "ADVANCED" tab in the "Customizer" menu, there are variable sliders that allow full user customization of the three support parameters for each of the three support levels. It is recommended that the users choose the EASY presets that most closely matches their needs, and then use the ADVANCED settings to fine tune the performance.

	<u>BREEZE</u>	<u>RIVER</u>	<u>ROCKET</u>
<u>MAX POWER</u> Level of maximum motor power output	60 [W] - 300 [W] 	60 [W] - 300 [W] 	60 [W] - 300 [W] 
<u>SUPPORT RELATION</u> Reach of maximum power at defined rider power input	90 [W] - 420 [W] 	90 [W] - 420 [W] 	90 [W] - 420 [W] 
<u>RAMP-UP</u> Reactivity of the motor and strength of the acceleration	0% - 100% 	0% - 100% 	0% - 100% 



## Setting Custom Assistance Profiles

To transfer the custom settings to the drivepack, click the "Set Values" button at the top of the screen.



## Saving Custom Assistance Profiles

Once a custom configuration is created, click on "New", give the profile a name and click on "Save". All the profiles you have saved can be called up in the drop-down menu, even if the drivepack is not connected to the computer. The various profiles are saved to the Fazua Toolbox software and will be available in the drop-down menu everytime the program is opened.

## Exporting Custom Assistance Profiles

*NOTE: Saved profiles are saved to the Fazua Toolbox and are always available when the desktop software is opened. The main reason to export a profile, would be to send a custom profile to another user. This allows profiles to be shared and uploaded to another user's device.*

Once a custom configuration has been saved to the Fazua Toolbox, it is available to be exported. To export a profile, click on "Export". In the menu that appears, select which profiles to export and click "Export". All profiles selected will be saved collectively as a set within a single .XML file. In the next menu, give the profile set a name and click "Save". The saved file contains all profiles that were selected and enables them to be imported individually or as a group.

## Importing Custom Assistance Profiles

To import a profile, click on "Import". In the menu that appears, navigate to the location that the file is saved. Select the file and click on "Open". The next menu will have all profiles saved in that file appear with check marks next to each. Select which profiles to import and click on "Import". All selected profiles to import will now appear in the drop-down menu in the Fazua Toolbox.

## Update System Software

*NOTE: A detailed video outlining the procedure for updating the system software can be found on the Fazua website: <https://fazua.com/en/magazine/update-motor-software-toolbox/>*

1. Open the Fazua Toolbox software and connect the drivepack. (Procedure provided above)
2. Go to <https://fazua.com/en/drive-system/software/> and click on the "Drive System Software" link.
3. On the next page, under the "Latest Version" header, click the "Download" link. Note where this file is saved.
4. In the Fazua Toolbox software, at the bottom of the left panel, click on the "Software Update" menu.
5. In the "Software Update" menu, click on "Select Software" in the upper right hand corner. This will open a document search menu.
6. In this menu, search for and open the recently downloaded "Drive System Software" file.
7. Click "Update"
8. Do not move the drivepack during the update process. Gently hold the drivepack in place, as possible vibrations during calibration can move the drivepack.
9. Wait for the update to install and the motor calibration to complete.
10. Disconnect the USB cable and install the USB cap using a Torx T10 screwdriver. (Maximum Torque: 1.5 Nm)
11. Once you install the drivepack with the new motor software into the ebike, the remote will receive an update. The LEDs will flash during this process.



### **Compatible Devices**

*NOTE: A third party device is normally compatible if it includes a BLE interface (Bluetooth 4.0 or higher). The list of connectable devices includes the following:*

**Garmin:** Edge 530, Edge 830, Edge 1030, Fenix 5 Plus Series, Fenix 6, Forerunner 945, MARQ

**Wahoo:** ELEMNT ROAM, ELEMNT BOLT

**Sigma:** iD.TRI, iD.FREE

**Lezyne:** Mega XL, Super Pro

### **Garmin Pairing**

*NOTE: A user's Garmin can be paired to the E-Vault to display cadence or power.*

1. On the Garmin, select the three horizontal bars at the lower right of the screen to access the main menu.
2. Select "Sensors".
3. Select either "Cadence" or "Power". The Fazua system can provide one or the other, but not both simultaneously.
4. Select "Add Sensor".
5. The Garmin will begin searching for the E-Vault. Turn on the E-Vault by pressing the center Fazua button on the controller. The lights will flash blue three times.
6. The Garmin will find power or cadence/speed depending on what was selected. Select "Add".
7. The customer can now choose to add a new data screen to support the newly added sensor.

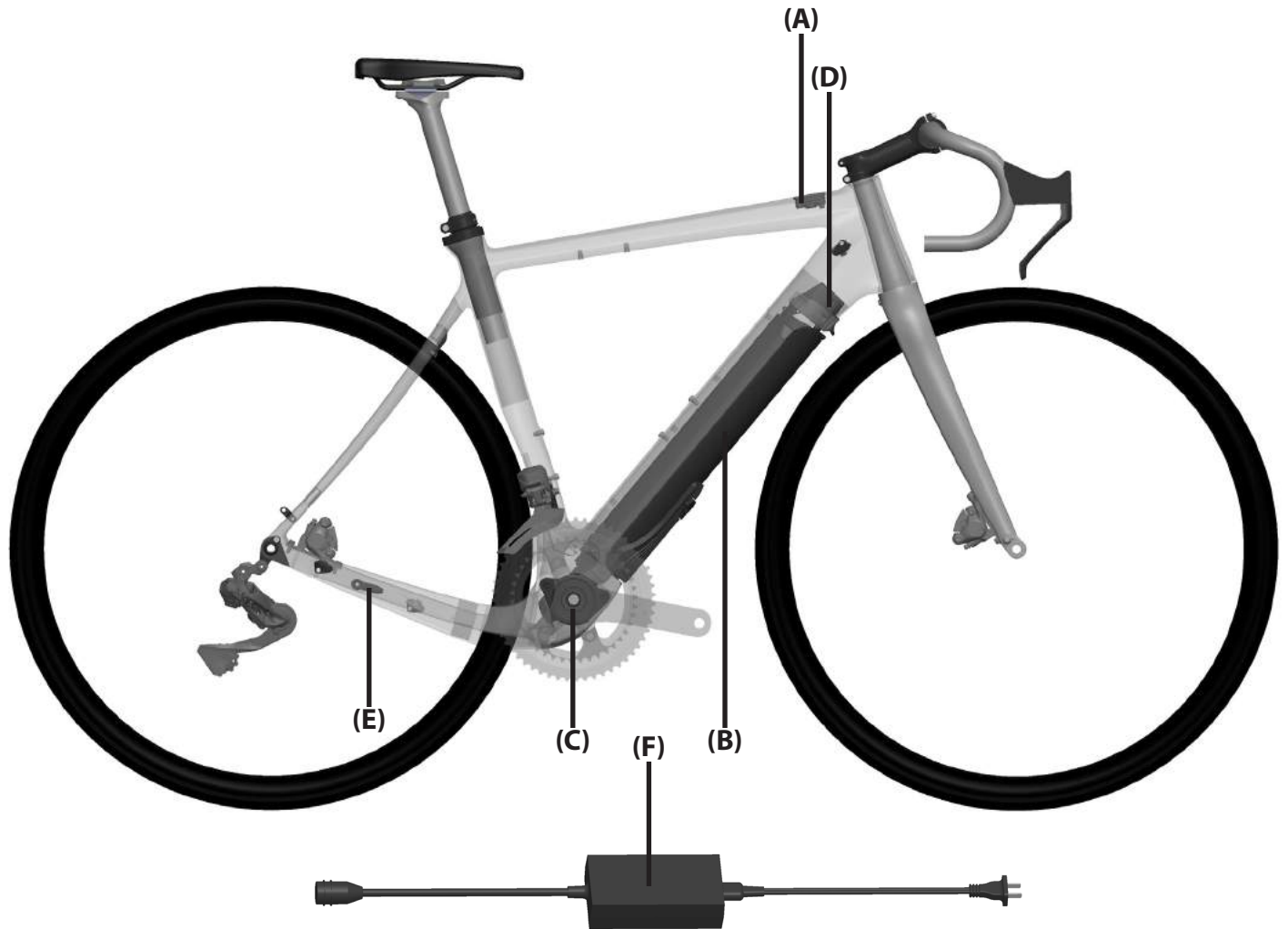


## Troubleshooting Table

NOTE: If the system is not functioning as desired, first check whether the fault can be rectified using the following overview table. If the error is not listed below or the recommendations do not correct the issue, contact a Fazua service partner or visit the Fazua service platform: <https://fazua.com/en/support/>

ISSUE	POTENTIAL CAUSE	SOLUTION
The drive system feels weaker than usual.	The drive system is brand new.	Wait until the system is "run in". The drive system needs a few miles to develop full power.
	The drive system has exceeded the operational temperature.	Allow the drive system return to room temperature and try the performance again.
	The drive system is below the operational temperature.	Allow the drive system return to room temperature and try the performance again.
The drivepack cannot be locked in the downtube.	The locking mechanism is not gripping the drivepack.	Move the release lever to ensure the locker is moving properly.
The drivepack cannot be released from the downtube.	The locker is defective. Dirt could be affecting proper motion of the locker.	Contact a Fazua service partner.
The drivepack makes a buzzing noise.	The polygon sleeve moves.	Contact a Fazua service partner.
The drivepack makes a clicking noise.	The polygon coupling was loaded on one side.	Push the polygon coupling back into its original position to mobilize it again.
The upper LED on the remote lights up/flashes red.	There is a connection error between the drivepack and bottom bracket gear box.	Clean the interface between the drivepack and bottom bracket gear box.
The upper LED on the remote lights up/flashes yellow.	There may be a bad connection between the speed sensor and the bottom bracket gear box.	Check the position of the spoke magnet. If you cannot find a fault, contact a Fozua service partner.
The white LEDs on the remote flash.	Software update.	After a new firmware update, the remote is updated automatically. Do not switch off the remote. Wait until the LEDs stop flashing.
The remote cannot be switched on.	The battery is fully discharged.	Charge the battery
	The battery has turned off due to a long idle period.	Remove the drivepack and turn the battery on using the power button on the battery.
	The interface between the battery and driver my be dirty.	Clean the interface between the battery and driver.
The battery cannot be inserted into the drivepack. It does not lock into the battery compartment.	The interface between the battery and driver my be dirty.	Clean the interface between the battery and driver.
The pedal support suddenly fails while riding.	BMS protection function.	Remove the drivepack. Press and hold the battery power button for 3 seconds and then turn the battery on again.

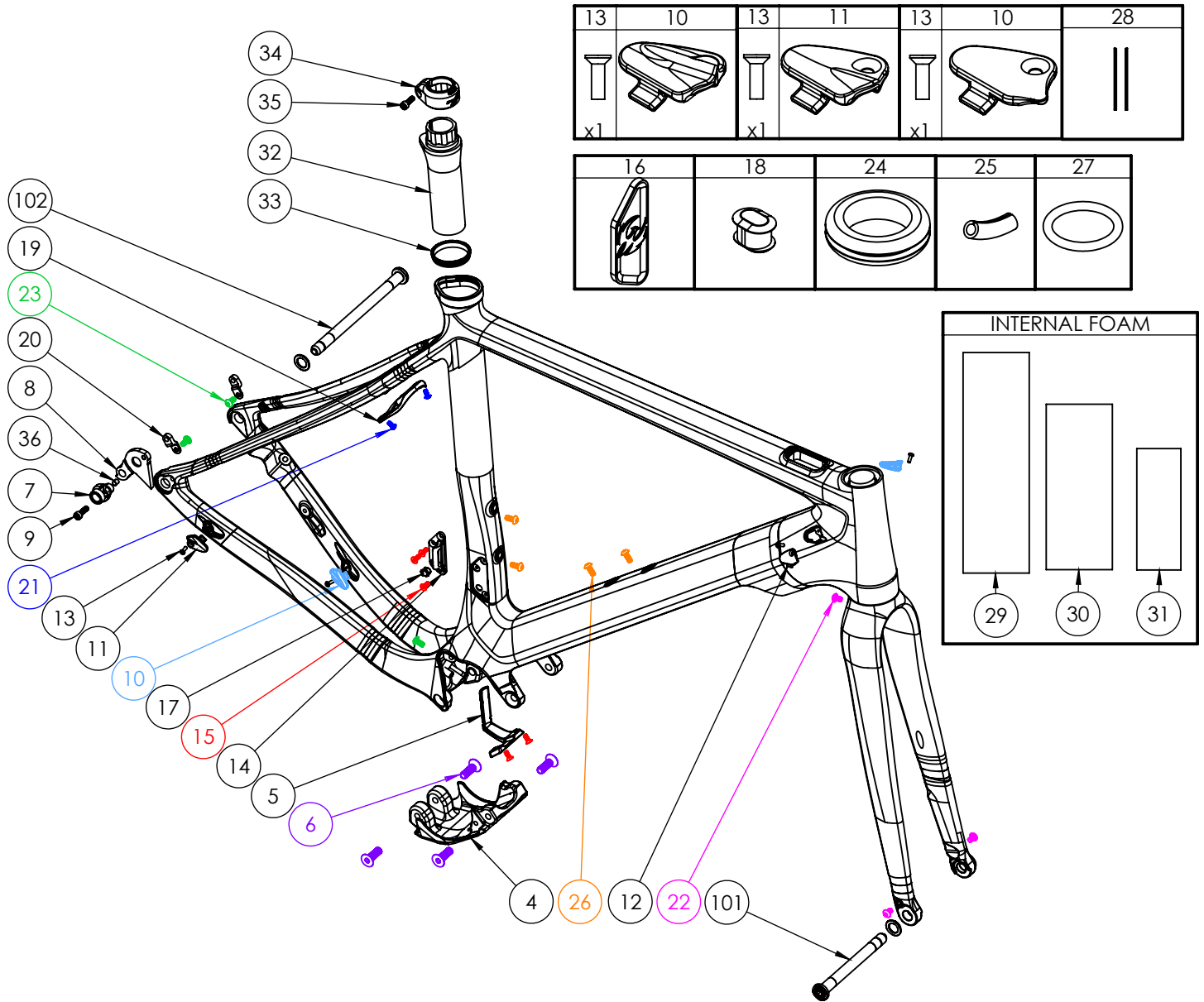
Fazua Evation System Schematic



LETTER	PART DESCRIPTION	PART NAME
A	Fazua Controller	5002000302
B	Drivepack (Battery / Driver)	5002000101
C	Bottom Bracket Gear Box	5002000201
D	Drivepack Locker	5002000601
E	Speed Sensor (Magnet included with Sensor)	5002000901 (Magnet only: AS-5002003401)
F	Battery Charger - US/CA	5002000502
	Battery Charger - EU	5002000501 + 5002001602
	Battery Charger - UK	5002000501 + 5002001601



**Small Parts Schematic**










**Small Parts Table**

NUMBER	PART NAME	DESCRIPTION	TORQUE	*
4	FP-CVR-EVAULT-SKD-***-V1-R1	E-Vault Skid Plate		
5	FP-MNT-BAT-EVAULT-V1-R1	E-Vault Di2 Battery Holder		
6	FP-SCW-FLT-M8*25-V1-R1	M8x25 Flat Head Bolts for Skid Plate		
7	FP-RDH-NUT-12MM-BLK-V1-R1	12mm RDH Nut V3 (Sleeve Compatible)		
8	FP-RDH-TA-12MM-BLK-V4	Vault Derailleur Hanger		
9	FP-SCW-SCK-M5*16	M5x16 Rear Derailleur Screw	7 Nm (5 lb-ft)	G
10	FP-CLM-DUAL-FRM-V1	Internal Routing Dual Clamp		
11	FP-CLM-MECH-FRM-V1	Internal Routing Cable Clamp		
12	FP-CVR-MECH-FRM-V2	Internal Routing Hole Cover		
13	FP-SCW-FLT-M3*10	M3x10 Cable Clamp Screw (Included w/ Clamp)		
14	FP-FDM-BRZON-VLT-V1-R1	Front Derailleur Mount (Braze-On)		
15	FP-SCW-FLT-M4*10-V1-R1	M4x10mm FDM/Di2 Battery Bolts		
16	FP-PLG-FD-56.8*20.8*3-V1-R1	Front Derailleur Plug		
17	FP-GDE-DI2-7*8*5*2.5	7x8mm Di2 Wire Guide Ext'd for Di2 FD		
18	FP-PLG-DI2-7*8*5	7x8mm Di2 Plug Ext'd		
19	FP-MNT-FDR-UPPER-V1-R1	Upper Fender Mount		
20	FP-MNT-FDR-LOWER-V1-R1	Lower Fender Mount		
21	FP-SCW-BTN-M4*8-V1-R1	M4x8 Fender Mounting Bolts		
22	FP-SCW-BTN-M5*8	M5x8 Button Head Screw		
23	FP-SCW-BTN-M5*10	M5x10 Button Head Screw		
24	FP-GRM-20MM-BLK-V1-R1	Di2 Battery Anti-rattle Grommet		
25	FP-CLM-DI2-SLV-BLK-V1	Di2 Wire Sleeve for Cable Clamps		
26	FP-SCW-BTN-M5*12	M5x12 Button Head Screw		
27	FP-WSH-O-RING-EVAULT-V1-R1	O-Ring for Internal Cable Management		
28	FP-CLM-VELCRO-28*12-V1-R1	Velcro for Cable Management		
29	FP-PRO-FOAM-100*30-V1-R1	Internal Foam (100x30)		
30	FP-PRO-FOAM-75*30-V1-R1	Internal Foam (75x30)		
31	FP-PRO-FOAM-55*20-V1-R1	Internal Foam (55x20)		
32	FP-SLV-STPOST-27.2-V1-R1	27.2mm Seat Post Insert for Rigid Post		
32	FP-SLV-STPOST-30.9-V1-R1	30.9mm Seat Post Insert for Dropper Post		
33	FP-CLM-STPOST-LKRRING-V1-R1	Seat Post Lockring		
34	FP-CLM-FLXPOST-27.2-V1-R1	27.2mm Seat Post Clamp		
34	FP-CLM-FLXPOST-30.9-V1-R1	30.9mm Seat Post Clamp		
35	FP-SCW-SCK-M5*15	Seat Post Clamp Screw		
36	FP-RDH-SLV-VAULT-V1-R1	Rear Derailleur Hangr Sleeve		
37	FRAME SIZE STICKER - XS/SM/MD/LG/XL	Frame Size Sticker		
101	-	100mm Front Axle	15 Nm (11 lb-ft)	G
102	157MM THROUGH AXLE V4	157mm Rear Axle	15 Nm (11 lb-ft)	G

*	PRODUCT TYPE	RECOMMENDED PRODUCT
G	Grease	Motorex Bike Grease 2000
A	Anti-Seize	Motorex Copper Paste
L	Thread Locker	Loctite 243



**Wiring Diagram**

-  Controller Wire
-  Speed Sensor Wire
-  Shimano 4 way Junction Box
-  Di2 Battery Wire (300mm)
-  Di2 Front Derailleur Wire (300mm)
-  Di2 Rear Derailleur Wire (550mm)
-  Di2 Shifter Wire (1000mm)





---

### ***Bicycle Safety***

- Read and follow the manufacturer's instructions for e-bike use.
- Research and observe any applicable national, state, or local laws and regulations regarding e-bikes and their use.

### ***Improper Use Hazards***

- Under no circumstances should the end user modify or alter individual components of the drive system autonomously.
- Never replace and components of the drive system without authorization
- Never open the drive system components without authorization. The drive system components do not require any maintenance. Only allow repairs to drive system to be carried out by an authorized specialist.
- Only allow components of the drive system to be replaced by an authorized specialist with permissible original spare parts.
- Remove the drivepack from the e-bike while the e-bike is being transported or stored and during all work on the e-bike to prevent the drive system from being started accidentally.
- Only use original Fazua Evation batteries approved by the e-bike manufacturer.
- Never use a damaged battery and never try to charge a damaged battery.
- Never open the battery. If you try to open the battery, there is an increased risk of explosion.
- Keep the battery away from heat (e.g. strong sunlight), open fire, or water or other liquids.
- Only use the battery in e-bikes equipped with an original Fazua Evation drive system. Never use the battery for other purposes or in other drive systems.
- Follow all charging instruction and do not charge the battery outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Do not modify or attempt to repair the charger or the battery.
- To charge the battery, use only original and compatible Evation chargers from Fazua.
- Take care not to handle metal objects such as coins, paper clips, screws, etc. in the immediate vicinity of the battery and to store the battery separately from metal objects. Metal objects can close a circuit between the terminal of the battery (i.e. "short-circuit" the battery) and cause a fire.
- Do not short-circuit the battery.
- Battery and charger may heat up during charging or operation. It is therefore essential to keep the battery and charger away from flammable materials. Pay particular attention during the charging process and always move the battery and charger to a dry and fireproof place before charging.
- Do not leave the battery and charger unattended during charging.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children shall not play with the appliance.
- Only for rechargeable Li-ion battery.
- Don't attempt to disassemble the charger by yourself.
- Don't use the charger in high temperature, moist, inflammable or explosive outdoor environments.
- Disconnect the power supply before making or breaking the connections to the battery.

---

### **Health Hazards**

- Protect the battery from mechanical influences and any other load.
- If you notice or suspect that gas is leaking from the battery, immediately ensure a supply of fresh air and seek medical attention as soon as possible.
- Keep the battery and charger away from pacemakers or persons wearing a pacemaker and draw the attention of persons with pacemakers to the danger.
- Only connect the charger to an easily accessible and properly installed power outlet.
- Make sure that the mains voltage at the mains connection corresponds to the information on the charger.
- Only use the charger in dry indoor areas.
- Keep the charger away from any liquid or moisture.
- Do not pull on the mains or charging cable to pull the respective cable out of a socket or outlet, but always hold the corresponding plug.
- Do not handle the plugs of the power cord and charging cable with wet or damp hands.
- Take care not to bend the power cord and charging cable or lay them over sharp edges.
- Do not open the charger without authorization. The charger may only be opened by an authorized specialist and repaired using original spare parts.
- Before each use of the charger, check all individual parts (mains adapter, mains cable, charging cable, and all plugs) for damage. If the charger's power cord is damaged, it must be replaced by the manufacturer, their customer service, or a similarly qualified person, to avoid hazards.
- Never use a damaged charger. Otherwise there is a high risk of electric shock.
- Keep the charger in a clean condition. There is an increased risk of electric shock if the charger is dirty or contaminated.
- Do not touch any liquid leaking from the battery
- Should you ever come into contact with battery acid, immediately rinse the affected body part thoroughly under plenty of running water.
- Consult a doctor immediately after rinsing, especially in case of eye contact and/or if mucous membranes (e.g. nasal mucosa) are affected.
- The radiator of the drivepack can become very hot during operation.
- Allow the drivepack to cool down completely before touching the drivepack.

### **Potential Damage Hazards**

- Have individual components of the drive system and the e-bike replaced exclusively by identical components or other components expressly approved by the e-bike manufacturer. This will protect the other components of your e-bike from possible damage.
- Never use your e-bike without a drivepack or downtube cover if you use it as a conventional bicycle.
- Remove the battery before cleaning the drivepack and allow all components to dry completely before inserting.
- When charging the battery, make sure the charging cables are not trip hazards in order to prevent components from being damaged by a fall.

**Fazua Evation Drive System**

- Additional information regarding operation and functionality of the Fazua Evation Drive System can be found at: <https://fazua.com/en/drive-system/evation/>
- To download the Fazua software and mobile apps to fully utilize the connectivity and customizability of the Fazua Evation Drive System visit: <https://fazua.com/en/drive-system/software/>

**Pivot E-Vault**

- For FAQs and additional technical documents regarding the maintenance of the Pivot E-Vault can be found at: <http://www.pivotcycles.com/bike/evault/>

**Conformity**

Fazua confirm the conformity according to 47 CFR Section 15.105 - Information to the user. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

**Sources**

- Portions of this document have been sourced from information provided by Fazua. Additional end-user documentation can be found at: <https://fazua.com/>