PEDAL POWER UTILITY BOX™ USER MANUAL

ROCK THE BIKE™
Troubleshooting & Event Support
Call (510) 883-3725 or email
TechSupport@RockTheBike.com

Getting To Know Your Utility Box

SETUP

Connect one or more bike generators to the Utility Box using its input jacks in the bottom left blue section of the interface. The round plugs are Neutrik Connectors, a standard in the pedal power world.

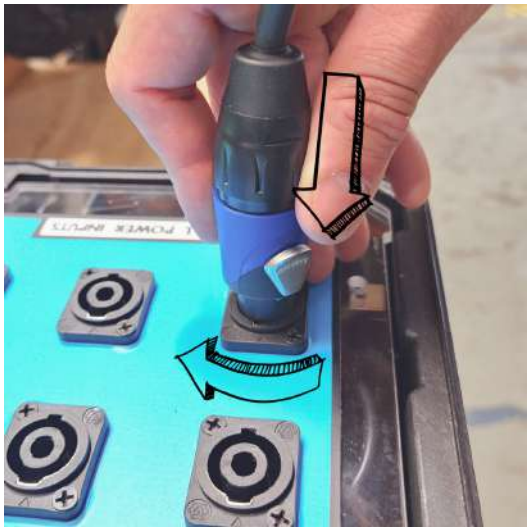
USING NEUTRIK CONNECTORS

CONNECTING THE NEUTRIK:

Insert the round Neutrik Connector into the round Neutrik socket with a clockwise push-and-twist motion.

NEUTRIK NL-2MP SOCKET

NEUTRIK NL-2FX CONNECTOR



DISCONNECTING THE NEUTRIK:

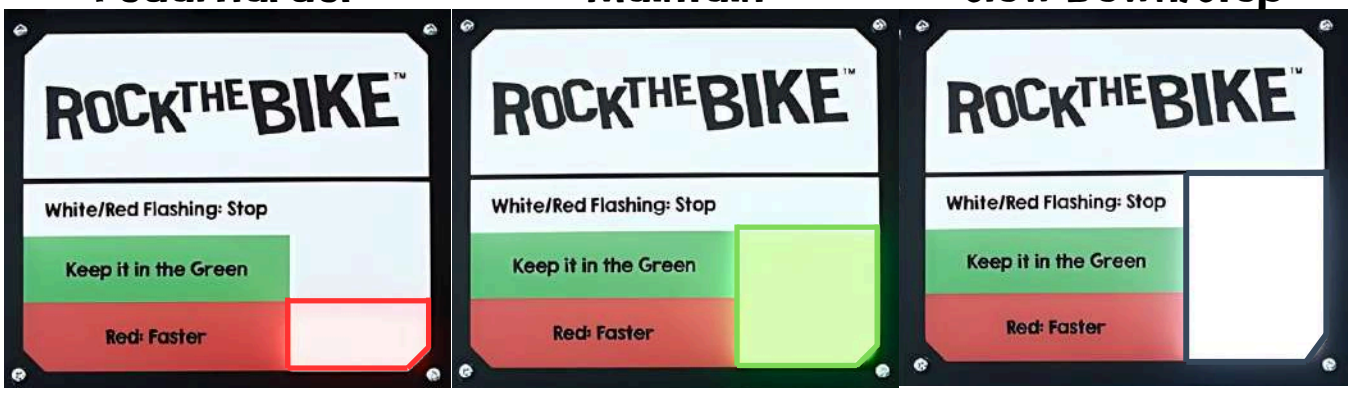
1. Slide the thumb tab back toward the cable.
2. Twist the connector 1/8 of a turn counter-clockwise, then pull.

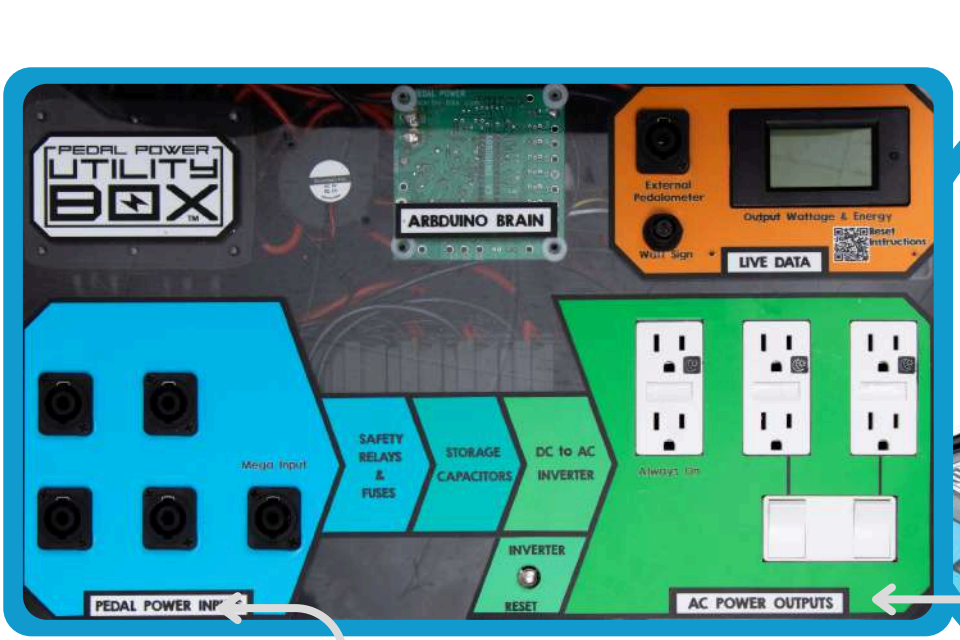
⚠ Don't unscrew the strain relief.

GETTING TO KNOW YOUR UTILITY BOX

Internal Pedalometer: This display is a mini version of our standard pedalometer. The red, green, and white lights indicate the amount of stored energy and if the system is adequately charged for use:

Pedal Harder **Maintain** **Slow Down/Stop**





Pedal Power Inputs: This is where the generator wheels plug into the utility box. This system is built for 5 bikes but can handle up to 10 with the optional Junction Box upgrade.

Standard Inputs: These inputs simply connect the generator wheels to the Utility Box

Mega Input: The Mega Input can operate as either a standard input or the plug in for the Junction Box. Do not plug the Junction Box into the standard input ports.

AC Power Outputs: These power outlets can be expected to operate as standard wall outlets would once the pedalometer is in the green.

Always On: These outlets provide a continuous power supply, making them ideal for powering the essential components of your electronic setup.

Switchable Units: These units offer a fun way to adjust the challenge for pedalers during their ride by switching additional devices on and off, enhancing the overall enjoyment of the experience.

Live Data: The Live Data display tracks the Utility Box's power usage, showing it on the built-in screen and Pedalometer, with options to output data to the watt sign and an external pedalometer.

Output Wattage & Energy: Watch the digital display as power flows through the unit, providing a clear view of your devices' energy consumption and the pedalers' ability to power them.

External Pedalometer: Connection for the 4-foot tall, floor standing Pedalometer (sold separately).

Watt Sign: This jack connects the freestanding Watt Sign included with every Utility Box and displays the ongoing wattage output in real time similar to the built in display.

Reset Instructions: The Output Wattage & Energy display has a section that shows the total amount of energy generated since its last reset. This is a fun metric but does require a reset to remain relevant from one event to the next. Scan the QR code for instructions on resetting it. Instructions for Resetting the Comparator Screen:

1. Locate the Button: Find the button on the right-hand side of the comparator.
2. Press and Hold: Hold down the button.
    - After 4 seconds, "Set Clear" will appear. Ignore this and keep holding.
3. Wait for Blink: At about 6 seconds, the energy number will blink.
4. Confirm Reset: Lift your finger and then press the button briefly.
5. Reset Complete: The energy counter will now show zero, ready for a new event.

POWERING UP: GETTING STARTED

Position the Utility Box on a raised surface, so the coach and pedalers can see its Pedalometer – the LED panel inside the Utility Box lid.

With all connections made, and the Pedalometer unlit, instruct the pedalers to begin! Pedaling will feel difficult at first, as the Utility Box charges up. Once Voltage is in the target range, it will feel more like pedaling a bike around town.

Soon you will see a blinking red light on the Pedalometer. This means Voltage is too low: Keep pedaling. When the blinking Red light changes to a steady Red light, power is just below the usability range. When a Green light comes on, the power supply will be in full working order. Turning the inverter switch off and then on again can make power come on quicker.

To keep power flowing to your devices, adjust your effort level to keep the lights in the Green. Ease off pedaling if the lights turn White, this means you are pedaling too hard. The combined maximum power output to devices is 1500 Watts (US) or 1200 Watts (UK).

FEATURES AND PERIPHERALS

GEARING

Please skip this section if using a Generator Pro or Electric Fender Blender Pro, as they only have one gear.

Set the gear of the bicycle so that pedaling feels like climbing a small hill. If pedaling feels too easy, switch to a higher gear, just like you would on a bike. Pedaling can feel difficult at first if the Utility Box has been in storage. If pedaling is too difficult, try shifting the into a lower gear.

As the system's voltage rises, pedaling becomes easier. When the voltage reaches its ideal Green range, change up to a higher gear, and try to maintain that level of resistance for a greater challenge.

Roll Up → Generator

EXTERNAL PEDALOMETER

The optional 4-foot tall Pedalometer is an amazing help at larger Pedal Powered Stage events.

This precisely calibrated system uses color-coded LED lights to display pedaling effort. Different colored sections correspond to Too Low (Red), Too High (White), and Sweet Spot (Green) voltages.

Be sure to teach your sound engineer and audience to know that it's time to kick up the pedaling when the LEDs blink Red, or to chill when lit White.

Attach the Pedalometer Tube's large Neutrik Connector with the same clockwise push-and-twist action.

Tips & Guidelines

POWER CONSUMPTION

Some products have printed wattage ratings, however those figures are approximate, and vary depending on the device's setting. For example, a loudspeaker will use far less power than its printed rating when set to moderate volume levels.

EVENT PREPARATION

Prior to your event, check the wattage requirements for each of your intended devices. Next, determine the approximate ages of the event patrons you expect to pedal. Use this table to gauge what wattage output to expect from different patrons.

Type of Pedaler	Average sustained wattage per person
ATHLETIC COLLEGE STUDENTS	100 WATTS
GENERAL PUBLIC (ADULTS ONLY)	60 WATTS
HIGH SCHOOL STUDENTS	50 WATTS
GENERAL PUBLIC (INCLUDING KIDS)	40 WATTS
3RD GRADERS AND YOUNGER	0-20 WATTS

EVENT PREPARATION

Divide your device's wattage by the anticipated wattage per person, to establish how many individual bikes will be needed to pedal power your device.
[Device Wattage / Per Person Wattage = Number of Bikes)

Example: You have a sound system with music playing that measures 140 Watts, and you expect high school students at the event. Divide the 140 device wattage by 50 Watts per person to get approximately three. This is the number of bikes needed for this to be a successful activity.

EVENT OPERATION

During your event, monitor how much you're asking of the pedalers. Check in with pedalers (and get on the bikes yourself) to know whether it's too hard or too easy. Have your coaches constantly keep an eye on the Pedalometer. If it's often in the red, there's a chance you're asking too much of the pedalers, or not asking enough. These focal points will encourage pedalers to have more fun and produce more power:

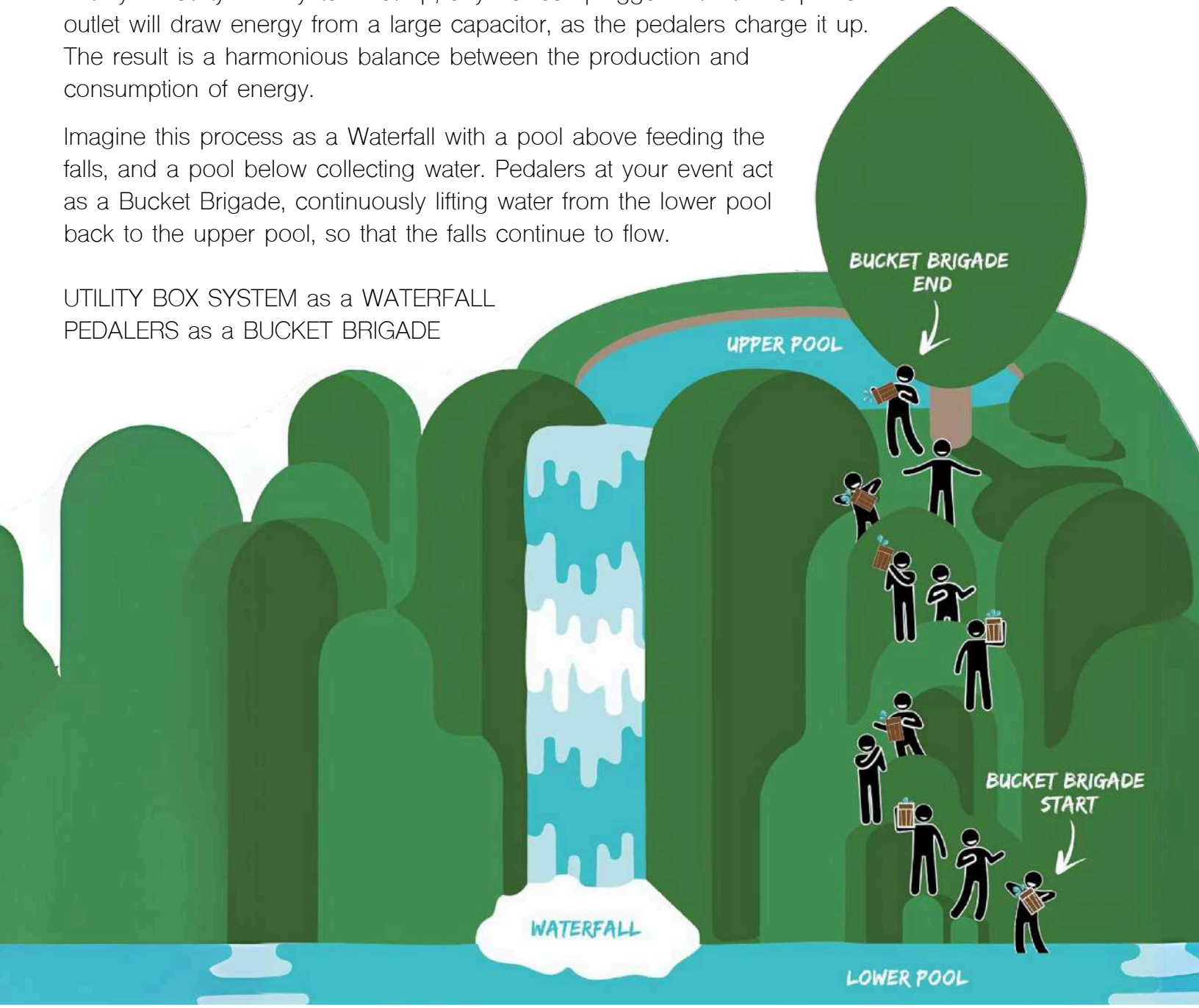
- Adjust the bike for each pedaler – Look for a slight bend in the leg at the bottom of a rider's pedal stroke. This means the bike seat is at the right height for efficient pedaling.
- Explain the Rules – Each pedaler should be shown the basics of the Pedalometer as they get onto a bike.
- Quality Coaching – Have your coaches cheer on the pedalers often. Use upbeat messages such as: "Keep it in the green," "Let's bring it back," "Work as a team!"
- Positive Reinforcement – The activity pedalers are doing is funny, educational, inspiring, musical, beautiful, needed, practical, great. Remind them of all that!
- Give Them A Sign – Make large signs that say "PEDAL" to help your coaches save their voices.
- If There Is An Outage - Pedal back to green and power cycle the inverter.

THE WATERFALL ANALOGY

With your Utility Box system set up, any devices plugged into its AC power outlet will draw energy from a large capacitor, as the pedalers charge it up. The result is a harmonious balance between the production and consumption of energy.

Imagine this process as a Waterfall with a pool above feeding the falls, and a pool below collecting water. Pedalers at your event act as a Bucket Brigade, continuously lifting water from the lower pool back to the upper pool, so that the falls continue to flow.

UTILITY BOX SYSTEM as a WATERFALL
PEDALERS as a BUCKET BRIGADE



As the Activity Coordinator, you choose the devices to plug in, which is like designing the Waterfall itself. Through these selections, the falls can remain small, but the larger they are, the harder pedalers will need to work to maintain the flow. This could lead to some burned out cyclists, or perhaps even more fun than usual – a big, beautiful Waterfall may inspire a heroic pedal power effort!

Each pedaler determines their effort level, which you can encourage in a variety of ways. To keep your Bucket Brigade engaged throughout the event, use a fun coaching style, foster a sense of teamwork, and set up exciting results – a memorable Waterfall – for your participants' hard work.

CHANGING PEDALERS

Adjust the seat height for each pedaler, establishing a comfortable and efficient pedaling position. When the pedal is at the bottom of its rotation, the pedaler's leg should be slightly bent.

To prevent outages, ask pedalers to raise the voltage to double-Green before they finish. This will give you time to raise or lower the seat for the next pedaler, and get them started.

AC POWER & INVERTER

The Utility Box contains a 1500 Watt(US) or 1200 Watt(EU) AC Inverter to create power (top right), and an ultra-capacitor to store that power. As you use more devices or higher-wattage devices, it will be more difficult to keep the voltage in the Green.

If the pedal power going into the system is less than the AC power going out, the Pedalometer lights will fall until they blink Red. To bring it back just pedal as usual. If the Utility Box shuts off due to overpowering simply stop pedaling across all riders and wait for it to return to normal levels.

TROUBLESHOOTING

- Pedalometer is in the Green, but AC power is not flowing: Something may be wrong with your AC Inverter. Also, check your output devices to see if their combined wattage exceeds 1500 Watts. If so, unplug at least one of them, then try again. If the issue persists, contact Rock The Bike for further assistance.

- Power remains in the Red or blinking Red, but people are pedaling: Encourage pedalers to go faster, or for RollUp Generators use a higher gear. Pedalers may have changed to a lower, easier gear, so it helps to continuously check what gear the bikes are in. Note: When using our Roll Up Generator product with the Utility Box, use a geared bike for best results. If issues persist, you may have been too ambitious and should try removing devices or adding riders for future events.

- Pedaling feels too easy, there's no resistance: A fuse may have blown, check the internal fuses. If a fuse did blow, inspect the wires between the Utility Box and the bikes. A wire may have gotten kinked, which can cause a short circuit and lead to blown fuses. The 3-way black Anderson connector near the wheel of the Generator Pro can unplug if someone steps near it. Use included velcro to prevent disconnection and trip hazards.

General Information

SAFETY

Use the Utility Box, and any connected generator bikes, on a level surface.

Do not use this product in the rain, snow, or other wet conditions that could cause damage to you or your Rock The Bike product.

Children should be supervised when using this product.

Never operate the Utility Box if the input/output jacks, or LED panel appear damaged. Call Tech Support at 1-888-354-2453 for assistance.

SPECS

Dimensions: 20.5" wide, 12.25" tall, 13.5" deep

Weight: 25 lbs

Maximum Wattage: 1500W (US) 1200W (EU)

Power Output: Standard AC power output (pure sine), compatible with US (110V) or European (220V) outlets

Compatibility: Works with Roll Up Generator Stand and sLEDge / Svelte Generator Wheels on the Generator Pro line of bikes.

Is NOT compatible with Off The Wall Generator wheel or stand.

WARRANTY

Utility Box includes a 2-year warranty, excluding damage due to misuse. This means that Rock The Bike will repair any defective parts (parts that do not function correctly, when used as intended) at no cost to the customer. Customers are always responsible for shipping the item to us.

We will email you instructions on how to package and ship your Utility Box to Rock The Bike for repairs. Please note, Rock The Bike does not cover damage from misuse. This includes physically damaging parts or subjecting the Utility Box to loads greater than its design specifications, such as pedaling too hard or using AC loads exceeding the Inverter rating.

Riders assume all risk when using the Utility Box.

Thank you for using Rock The Bike products. Our team is here to assist you with any issues, ensuring your Utility Box delivers years of reliable service.