THE GRID GUARD ASSEMBLY INSTRUCTIONS

*Note – The Assembly video on YouTube is no longer valid.

(Version: 4/1/2025)

Laying out your Grid for the first time is a fun and simple process. Each Tile now has a RED Arrow Sticker to aid in the process of setting up your Grid correctly. Align ALL of your Tiles with the RED Arrow sticker pointing in the same direction. (North, South, East or West) See pictures below:

Simply create a "picture frame" around your vehicle or protected asset with all the arrows pointing in the same direction.

Tile Bridge Installation – (REQUIRED) The System will NOT operate correctly without installing Tile Bridges at each Tile connection.

Tiles now have grey/etched "arrows" centered on the sides of each Tile. When Tiles are connected, two sets of arrows will be pointing at each other to indicate proper placement of the Tile Bridges. See below:

CABLE CONNECTION TO "POWER TILE"

- Locate ANY Tile that is closest to you 110 volt outlet
- Visually locate the two etched/grey arrows closest to that location
- Using two spare Tile Bridge Screws, Connect one end of each power cable to these Arrows and the other ends to the Energizer
- Red or Green on the Energizer is of no consequence

- Tile Edge (Inside Perimeter Tip) at the 4 corners
  - Each Tile Edge has a 45° line scored on the ends. Using a hacksaw and or a miter box to cut the Edges will make quick work of this task. See pic below:

GRID ASSEMBLY TIPS & TRICKS

- Assembling the Grid early morning or late afternoon is optimal. Particularly when installing the Tile Bridge Screws. The GOAL is to keep the Tiles (and You) cool during assembly.
- Anchoring tiles are usually only required if turning your front tires (*while on tiles*) cannot be avoided to enter or exit the Grid. Or if you notice the Grid shifting after repeated entry and exit.
- We recommend anchoring ONLY the Tiles that are shifting.
- Then live with the Grid for a few days to determine if additional anchoring is necessary
- We recommend 3/16 x 1.25" TapCon Concrete Screws. Pictured.
- It is typically NOT necessary to anchor every Tile.

- MAKE SURE to keep track of all Tile Bridge Screws!!! Losing one on the Grid is a common cause of low voltage readings.

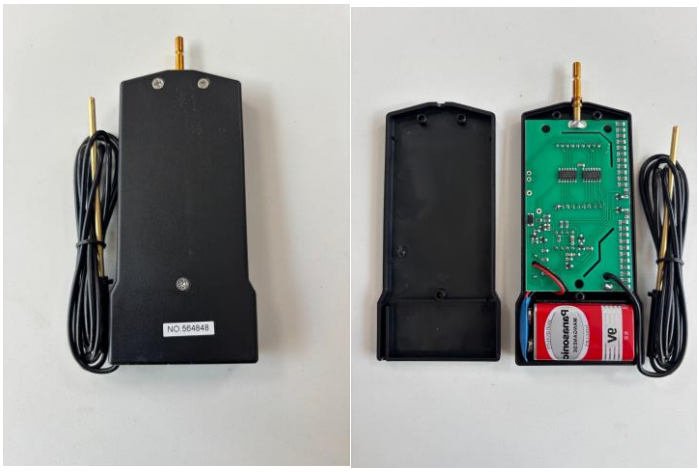
Problematic Tile Bridge Screws

- If you happen to have a few Tile Bridge Screws that won't grab or have been cross threaded, simply swap that Tile with a Tile on either adjacent leg of the Grid. In doing so, you will be rotating the Tile 90° and placing the problematic holes on the unused sides of the Tile.

Digital Voltage Meter

- Your Digital Voltage Meter is powered by a standard 9 Volt Battery
  - If you are receiving a "Lo" voltage reading – the 9 Volt Battery will need to be replaced. Simple unscrew the 3 philip head screws on the back to access the battery. Pictures below.

- To receive an accurate Voltage Reading you MUST Touch BOTH the copper probe at the top of the meter and the tethered probe to a Hot and Ground surface of the Grid.
  - Any two CONSECUTIVE strips of stainless steel on any Tile represents a Hot & Ground connection.
  - Two Screws of two separate Tile Bridges (likely next to each other) also represents a Hot & Ground connection. See Pics on next page.



"ENERGIZER INSTRUCTION UPDATE"

These instructions apply to all Energizers shipped as of 3/1/25. Energizers received before 3/1/25 will not maintain "User Defined" voltage setting and will default to the highest voltage upon power down or power outage.

Your variable output Energizer can produce **four levels of energy**, ranging from **±3.9kV to 7.3kV**, as measured with the provided digital voltage meter.

To adjust the energy output, use the **button located on the top-right side** of the Energizer.

- The button may be **red** (as shown in the picture) or **clear**.
- Adjustments are made by **pressing and releasing the button in a repeated sequence**.

1. **Press the button once:**
    - The button remains **depressed**, entering **Program Mode** (no voltage output) with LED blinking rapidly.
2. **Press the button again:**
    - The button **releases**, switching to **Armed Mode** (voltage is active).
    - The LED will blink **slowly** (red and/or green).
    - The color(s) and blinking sequence will indicate which voltage output has been selected. See Programming Legend below:

PROGRAMING LEGEND:

- **Depressed position (rapid blinking GREEN LED):**
  - Program Mode – No voltage output.
- **Released position (RED LED, 1-second pulse):**
  - Output: **~3.9kV (Low Level Output)**.
  - Use when a **lower voltage is necessary** to prevent excessive energy discharge.
- **Released position (RED & GREEN LED, 1-second pulse):**
  - Output: **~5.0kV (Medium Level Output)**.
  - Produces **minimal arcing**.
- **Released position (Double RED LED, 1-second pulse):**
  - Output: **~6.3kV (High Level Output)**.
  - Recommended if **arcing is an issue**.
- **Released position (GREEN LED, 1-second pulse):**
  - Output: **~7.3kV (Maximum Level Output)**.
  - **Highly recommended** but may result in **intermittent arcing**.

Testing & Safety Recommendations:

- **Practice using the button and performing voltage tests** before full operation.
- Conduct a **"No Load Test"** (without cables attached) using the provided **digital voltage meter**.
- **How to test:**
  - Touch the voltage meter probes to the **metal posts** on the Energizer.
  - **Rapid blinking GREEN LED → Program Mode (No charge released).**
  - **Controlled 0.5-second pulses (GREEN, RED, or both LEDs) → Armed Mode (Voltage active).**

Low Voltage Reading Trouble Shooting

If you are receiving low voltage readings – i.e. Your Energizer is set at the highest level (appx 6.9Kv) and your Grid readings are considerably less than that, you must identify what is causing the voltage drop. *Water on the Grid can cause temporary low voltage readings. First make sure the Grid is Clean. Blowing it off with a leaf blower helps.

If you continue to receive low voltage readings, you must follow this procedure to isolate sections of the Grid and finally narrow the cause of the voltage drop.

Unscrew and remove the Tile Bridges from the two corner Tiles at either end of the Power Leg of the Grid and perform a voltage test on that isolated leg of the Grid. If you receive a "normal" voltage reading, you then simply connect the Tile Bridges of one of the corners and disconnect the Tile Bridges from the other end of that leg and in effect then be testing a "L" section of the Grid. In this manner, continue to work your way around the Grid by connecting the next Leg and disconnecting the opposite end to isolate each leg as you proceed.

If that leg of the Grid produces a low voltage reading, you have identified a leg with an offending object on the Grid (usually metal – Screw, paperclip, steel wool etc. etc.) that is causing a short in the Grid. Closely inspect each Tile to identify the offending object.

Once you have identified which Leg or Legs of the Grid are causing the Grid to short out, you must disconnect, test and reconnect each Tile individually until you find the Tile that is causing the voltage drop. Not Fun, I know. But necessary…..

*Note about "arcing"

- Arcing occurs when the Energizer is producing enough energy (Kv and Joules) to encourage the electricity to "jump" from metal to metal fields within each Tile of the Grid.
- Arcing does not harm the Energizer or the Tiles. It is perfectly normal.
- Arcing is intermittent and does not create enough heat to be a point of combustion. That said, we encourage users to keep the Grid as clean as possible so as not to draw down the Kv being produced by the Energizer.

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