Operation and Safety Manual

Thank you for your Karnage Welder purchase!

Warranty Information

The Karnage Welder is guaranteed to be free from defects in materials or workmanship for a period of 1 year from date of purchase. This warranty covers defects of parts or workmanship caused by normal use of the equipment and does not cover damage caused by modification of the unit, improper use, accidents, abuse, neglect, or acts of God. Warranty VOID if main cover is opened.

Karnage Welder assumes no liability or responsibility for damage resulting from the use of this product, or damage due to breach of the warranty.

If your unit was shipped to you, upon arrival please take a few minutes to make sure everything in your shipment arrived without damage. If damage is noted please contact us immediately so we can work with you to get everything taken care of.

Safety

Be aware of the hazards of welding prior to operating this equipment, these hazards include but are not limited to fire hazards, splatter burns, electric shock, radiant heat, etc.

As with anything battery powered charging, use and storage should be done so in a safe manor. Even though sealed batteries are considered safe in enclosed spaces they can still off gas over overcharged or damaged it's recommended to charge and store them in a cool ventilated area.

Always wear proper PPE while welding (DRY welding gloves, welding hood, etc.) and be aware of the surrounding environment.

Welding processes cause sparks and metal splatter which can and do cause fires. Keep the work area clear of flammables and always be prepared with a fire extinguisher close by in case the need arises.

You MUST disconnect your vehicle's battery prior to welding to prevent damage to the vehicle's electronics. Karnage Welder assumes no responsibility for damage vehicle systems due to welding.

Description

The Karnage Welder is a self-contained flux core wire feed welder. There are other trail welders of course, as well as welders that are battery operated but none are as portable, easy to use or as affordable as the Karnage Welder! The Karnage Welder is "The Ultimate Off-road Welding Solution!"

The Karnage Welder can weld as much as 60 linear inches of weld or approximately 15 minutes of trigger time. On a full charge, 3/8" material can be welded on for a short time but 1/4" to 1/8" material is the welders

sweet spot using .030" diameter wire. The voltage dictates the heat so on a full charge you will get a hotter weld but as that battery level drops the welding temperature will begin to decrease.

There is no need to worry about polarity. The polarity is set internally, and the Internal Battery is self-contained and isolated from your rig's power source. This is a positive ground system for use with Flux Core welding wire.

The Karnage Welder has a 100% Duty cycle since there are no parts to overheat.

Operation, Parts Description and Location

Charging Port

- The Charging Port is located on the front of the unit near the latch on the right side. The port is 12 volt "cigarette lighter socket" type. It can also be used to charge your portable wireless devices in an emergency. When the unit is in the "Charge" position you have 44Ah battery pack at your disposal. NOTE - The unit is circuit breaker limited to only 10A at the cigarette lighter port!

Charging the Internal Battery

- Charging times vary depending on several factors. Ex. Using the 12V vehicle charger, a full charge will take 6-8 hours from about 80% charge; Using a 5A charger can cut that time in half. NOTE! There is 10A circuit breakers to protect the internal wiring. It is recommended to use a charger LESS then 10A to prevent popping the circuit breakers.
- Move the Function Switch to the "Charge Internal Battery" position to enable charging of the batteries. Next simply plug your charger into the cigarette charge port on the front of the Karnage Welder. This can be a battery tender (trickle charger) or other battery charger* when 110 volts AC is available. You can also charge on the road using the 12V vehicle charger and plugging into the power outlet in your car, truck, SxS or RV**.

* NOTE – The internal batteries are Sealed Lead Acid AGM batteries. Select a charger with an AGM function to prolong the life of your batteries.

** NOTE - The vehicle charger is looking for running voltage on the input side (~13.5 volts or better). It will not charge plugged into a vehicle that is not running or an RV that does not have and active charging system i.e., Solar, generator running, shore power, or engine running, etc.

***NOTE- Though the internal batteries are Sealed Lead Acid AGM Batteries they can still off gas if over charged. It's recommend to charge them in a ventilated area and once a charging cycle is completed, shut the welder off and put it away from storage. There is no need to leave the welder on a charger indefinitely as battery damage could occur.

Voltage Meter

- The Voltage Meter is located inside the case on the left side. The meter will illuminate when the switch is moved the “Internal Battery Weld” position, it will not be illuminated when not in this position. A full charge will be a resting voltage of around 26.0 to 26.2 volts*.

* NOTE - You may notice when you first unplug your charger and check the voltage it can be over 27 volts. This is ok. Charging a battery requires the voltage to be pushed higher than the resting voltage to take a charge.

Function Switch

- The function switch is located inside the case just below the Voltage Meter. It has 3 positions to select from:
    - Up; Internal Battery Weld – When in this position the unit will operate using the internal battery
    - Center; Off/External Battery Weld – When in this position it is safe to store or connect external batteries to the “External Battery Port” when your internal batteries are depleted using the optional Karnage Kables.
    - Down; Charge Internal Battery – When in this position the internal battery is in the charging configuration and no welding can take place.

IMPORTANT NOTE: ***NEVER CONNECT EXTERNAL BATTERIES WHEN THE FUNCTION SWITCH IS THE “CHARGE INTERNAL BATTERY” POSITION. SERIOUS DAMAGE TO THE UNIT AND POSSIBLE BODILY HARM MAY OCCUR***

Wire Speed Adjustment Knob

- The Speed Control Adjustment Knob is located inside the case just below the Function Switch. It is used to regulate the speed of the wire feed while welding.
- When not in use, click the wire speed control knob to the off position to prevent unintentional wire feeding while the unit is charging if the Torch Trigger was to get depressed.

External Battery Port

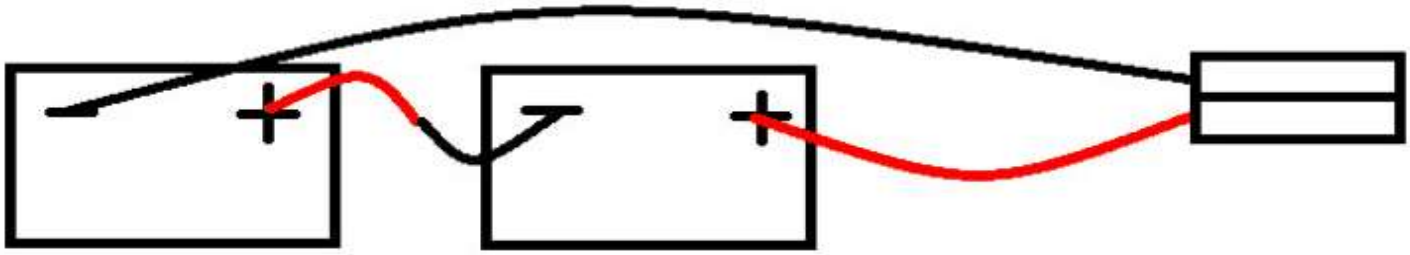
- The External Battery Port is located inside the case on the bottom left side. It is used to connect two external, 12 volt DC batteries in series (24 volts) using the optional Karnage Kables so that welding may continue in the event the Internal Battery is depleted.

IMPORTANT NOTE: ***NEVER CONNECT EXTERNAL BATTERIES WHEN THE FUNCTION SWITCH IS THE “CHARGE INTERNAL BATTERY” POSITION. SERIOUS DAMAGE TO THE UNIT AND POSSIBLE BODILY HARM MAY OCCUR***

Connecting External Batteries

Important Note: ***When connecting external batteries you MUST disconnect the battery from the vehicle as it has a negative ground and the Karnage Welder operates with a positive ground.***

- Using (2) automotive 12 volt batteries you can extend the welding time as needed to complete the job. Using the Karnage Kables, connect 2 batteries in a SERIES configuration (See below). This will provide 24 volts, the same as the Internal Battery. See diagram below…



Wire Spool

- The Wire Spool is located inside the case and can hold a 1 or 2 pound spool of flux core wire. On the top of the Wire Spool stud there is a tension adjustment knob*.
- Most any Flux core wire can be used. Each has pluses and minuses depending on materials being welded. We include an .030 general purpose wire that is good for most situations.

* NOTE - The Karnage Welder is shipped and should be stored with the tension adjustment knob tight so the spool does not unravel while in transport. Before welding loosen the spool so the wire may spool out freely.

Wire Feed Assembly

- The Wire Feed Assembly is located inside the case and is connected to the welding torch lead. It has a roller that has 2 grooves, one for .024 wire diameter (0.6 side) and one for .030 or .035 wire diameter (0.8 side). Since the smallest flux core wire is .030 there is no need to flip the roller over. There is also a tension knob on the assembly used to adjust the tension between the rollers and the wire. If the wire has trouble feeding verify the welding wire is in in the groove of the feed wheel. Next check the tension on the feed wheel. Make sure there is no sharp bends on the torch lead. Lastly verify the welding wire is not welded to the tip. If so, it might be time to clean or replace the tip.

Welding Torch

- The Welding Torch trigger activates the Wire Feed Motor as well as the Kold Tip circuit.
- The Karnage Welder uses standard threaded Tweco/Lincoln/Miller style tips.
- The Shield Cover, if damaged over time, can be replaced though is designed to funnel shielding gas over the welding surface. Since the Karnage Welder is not gas capable the shield is technically not required but does help keep some splatter off the tip.
- The last consumable on the torch is the tip holder. Over time the threads can be damaged and may not accept a new tip. The tip holder can be replaced.
- All of the consumables are available at KARNAGEWELDER.COM or any retailer which supplies welding equipment.

Karnage Welder

QUICK START GUIDE

1. Open the case
2. Uncoil your torch
3. Uncoil your ground
4. Loosen spool brake to allow spool to easily unroll but not unravel uncontrollably
5. Set wire speed to desired level
    a. Older models without numbers - typically ½ to ¾ position
    b. Newer models with numbers – typically 6 to 7 position
6. Turn the unit ON; up position

Remember to use proper PPE! Welds will be HOT, sparks can cause fires, welding flash can damage eye site!

QUICK SHUTDOWN GUIDE

1. Turn the unit OFF; center position
2. Click the wire speed to the Off position
3. Tighten the spool brake to prevent the spool from unraveling while in storage/transport
4. Coil the ground cable back into the unit. The ground cable fits best wrapping in a CLOCKWISE fashion around the wire spool and feed motor
5. STOP… verify the end of the torch is cool to the touch! The Karnage Welder case and internals in the storage area are plastic. A hot welding torch WILL MELT parts!
6. Coil torch in a counter clockwise fashion to prevent the torch lead from getting pinched causing wire feeding issues in the future.
7. Make sure none of the torch lead or ground wire is in the seal area and close the case and secure the latches.

For the latest updates on troubleshooting issues visit www.karnagewelder.com FAQ/SUPPORT page.