

Congratulations on your purchase of a...

MEGA INVERTER

DESIGNED & BUILT IN THE USA

This is your...

QUICKSTART GUIDE

...take a look at this for some helpful tips before you use your new MEGA INVERTER.

Thank you so much for your purchase of a MEGA INVERTER. We are excited to introduce to you a family of EL Inverters, all of which have been designed & built in the USA.

In this Quickstart Guide, you will find everything you need to know about operation & use so that you can get the most out of your MEGA INVERTER & Electroluminescent Technology.

TURNING ON THE MEGA INVERTER:

When you connect a MEGA INVERTER up to a power supply, the inverter will go through a sequence as it boots-up. The LED Light will flash green 4 times. After booting-up, the inverter will send full power to the connected Electroluminescent Element.

ALWAYS CONNECT AN ELECTROLUMINESCENT LOAD TO THE EZ SNAP CONNECTOR BEFORE CONNECTING POWER TO THE MEGA INVERTER

The inverter will become damaged if it receives a signal to power on without any Electroluminescent Element connected. Refer to the table on this page, for recommended minimum & maximum load values, as to ensure you don't damage your inverter.

To switch modes, press the mode button on your MEGA INVERTER after it has booted-up.

Constant On Mode: The inverter will start out in this mode, unless a mode is stored into the inverter. In constant mode, the attached Electroluminescent Element will stay on, and remain a constant brightness until the device is powered off, or the mode is changed.

Blink Mode: The Electroluminescent Element will blink on and off consistently from dark to light.

Fade Mode: The Electroluminescent Element will change in brightness, fading at a constant rate, transitioning from dark to light.

Speed Changes: Use the speed button to change the aesthetic qualities of each mode. There are 20 different speeds that can be cycled through. Once you have reached the fastest speed, pressing the speed button will cycle back down through the speeds. A red LED flash with each push of the button lets you know that you are descending through the available speeds.

You can also preset your inverter to boot up in whichever mode you like best. Test our blink and fade modes, and select which speed you like the most. Once your Electroluminescent technology looks how you want it to, hold down both the mode button & speed button simultaneously for 10 seconds. Once you do this, your inverter will automatically boot up in the selected mode next time you turn it on.

More specific visual customization can be achieved via our MEGA 200 DMX INVERTER. This inverter is compatible with the DMX 512 protocol, which is most commonly used in event & stage lighting applications. For more information regarding our MEGA 200 DMX or operations & use of the inverter, check out our online learning resources, or feel free to contact us directly. Our support team is happy to help with any questions you might have.

On the MEGA 100+ & MEGA 200, diagnostic mode will run if you hold down both the Mode & Speed Buttons while the power is applied and the MEGA INVERTER is booting-up. A series of blinks will read out the software version number. You may be asked to use this mode by tech support.

INVERTER TYPE	MAXIMUM EL WIRE LOAD	MAXIMUM EL PANEL LOAD	MINIMUM EL WIRE LOAD	MINIMUM EL PANEL LOAD
MEGA 100+	100 Feet	300 Square Inches	20 Feet	60 Square Inches
MEGA 200	200 Feet	600 Square Inches	45 Feet	60 Square Inches
MEGA 200 DMX	200 Feet	600 Square Inches	45 Feet	60 Square Inches

DO NOT ATTACH DC POWER UNTIL AFTER YOU HAVE ATTACHED AN ELECTROLUMINESCENT LOAD

The MEGA INVERTER has a socket which accepts the standard 12V 5.5mm barrel plug. Do not force the use of a connector that does not fit, this could cause damage to the inverter.

DO NOT operate your MEGA INVERTER at greater than 15V or less than 6V

The MEGA INVERTER requires a robust power supply in order to operate properly.

Recommended power supplies are as follows:

- **MEGA 100+ EL INVERTER:** 12V at 1.5amp
- **MEGA 200 & MEGA 200 DMX EL INVERTER:** 12V at 2 amp

For battery powered operation, make sure that your battery can provide the current draw referenced above. Batteries can fluctuate in voltage as they go from fully charged to depleted, so be cautious that the power source falls in the range of 10.5V to 15V and isn't used outside of that voltage range.

MEGA 100+ & MEGA 200

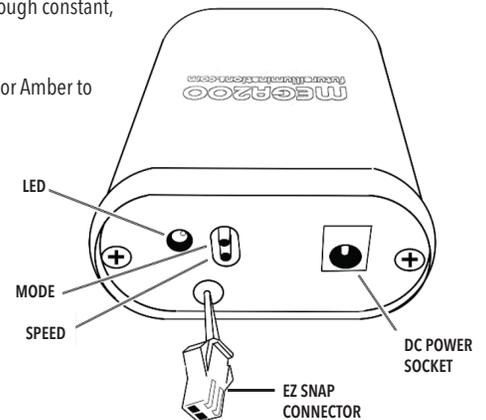
• **EZ Snap Connector:** High Voltage AC Output to Electroluminescent Lighting Element.

• **Power Socket:** Receptacle for 12V DC input via Standard 5.5mm Barrel Plug.

• **Mode Button:** Cycles through constant, blink, & fade modes.

• **LED:** Flashes Green, Red, or Amber to indicate status.

• **Speed Button:** Adjusts the speed of Blink Mode & Fade Mode.



MEGA 200 DMX INVERTER

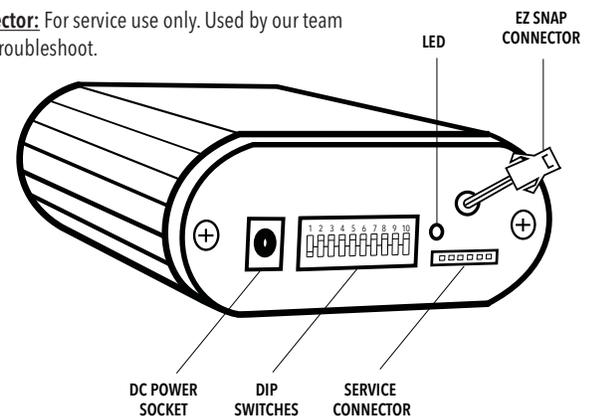
• **EZ Snap Connector:** High Voltage AC Output to Electroluminescent Lighting Element.

• **Power Socket:** Receptacle for 12V DC input via Standard 5.5mm Barrel Plug.

• **Dip Switches:** These switches correspond with DMX Channels.

• **LED:** Flashes Green, Red, or Amber to indicate status.

• **Service Connector:** For service use only. Used by our team to diagnose & troubleshoot.



Recommended Safe Operation Practices:

- Always hook up the EL Wire or EL Panels to the MEGA INVERTER before you connect power, as to not cause damage to the inverter, or your Electroluminescent Technology.
- Never operate the inverter without a load attached to it, or while using a load that is below the recommended value for your specific MEGA INVERTER (refer to table on back).
- Do not get the MEGA INVERTER wet, even if it is off.
- The MEGA INVERTER relies on passive convection cooling. The entire metal case acts as a heat sink, absorbing heat from the inverter. It is important that air can flow freely past the case. Do not operate in an enclosed container, or mount the inverter behind a panel.
- CAUTION: The case will be hot after extended use, at temperatures of up to 160°F (70°C). It would be easy to burn yourself at this temperature. Handle with care and refrain from touching the MEGA INVERTER. After extended use, unplug power for a few minutes, prior to handling the device. This will allow so it some time to cool down.
- Do not operate the unit without the case in tact. In the event of the case not being in tact, the inverter will not be able to cool properly. Damage could be caused to the inverter, or you could be exposed to shock. Tampering with the case of the inverter will void your product warranty.
- The MEGA INVERTER is resilient, it can handle temporary overloads. For best performance, quiet operation, & adequate cooling, make sure that you do not try to drive more than the maximum load, or less than the minimum load in Constant On Mode.



1 FOOT
ELECTROLUMINESCENT WIRE

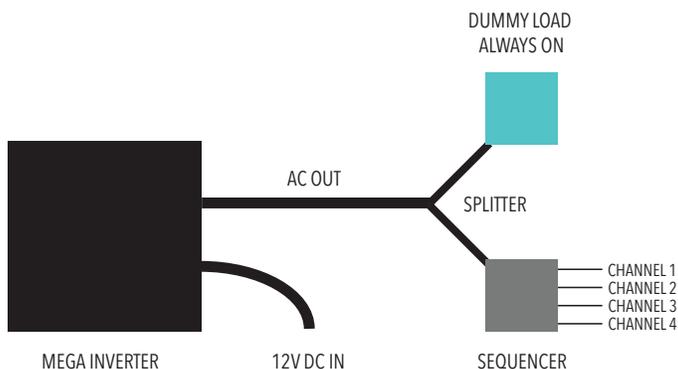


3 SQUARE INCHES
ELECTROLUMINESCENT PANEL

*** Not all EL Panels are the same. You will find that there are some panels that will overload the inverter with less area. This is why we recommend sticking with our Electroluminescent products when you operate a MEGA INVERTER.**

If you plan to use a sequencer on the output of the inverter, you should design your system to have a dummy load at least equal to the recommended minimum load value. This way, if the sequencer shuts off all channels, the inverter will still have a minimum load and will not be damaged.

Refer to the diagram below if you plan to pair up your inverter with a sequencer.



Troubleshooting:

- There is a fuse to prevent excessive current draw in the MEGA INVERTER. In the case that the fuse blows, the MEGA INVERTER will stop working. The fuse will reset itself once the inverter has cooled down. Check that your power supply is adequate.
- The MEGA INVERTER also has an overheat protection. This means that it will shut itself off when the internal temperature reaches 170°F (85°C). Unplug the inverter, and allow the inverter to cool down before you touch, or reset it. To reset the inverter, disconnect and reconnect the power. Check that the inverter is getting adequate airflow. Check that the load is not more than the inverter is capable of driving. In this case, you may have to remove Electroluminescent Elements from the inverter.
- The MEGA INVERTER has reverse voltage protection. The barrel plug provides a positive current to the center and a negative/ ground to the outside wall of the plug. If the inverter will not boot-up, check the wiring to your 12V power source.

FREQUENTLY ASKED QUESTIONS

How do I dim my Electroluminescent Elements?

- You will be able to dim your Electroluminescent Lighting Elements by scaling the input voltage down. Less robust Power Supplies will give a dimmer result. Do not operate your MEGA INVERTER at a value of less than 6 volts.

Is there a way to externally control my MEGA INVERTER?

- Our MEGA 200 DMX is externally controllable via any DMX 512 Capable Lighting Console, and made with custom lighting applications in mind. Let us know if you are unfamiliar with this technology and would like to learn more. Our support team can point you to beneficial resources, and discuss your specific application requirements with you.

My MEGA INVERTER is emitting heat, is that normal?

- Yes, the MEGA INVERTER emits heat during use. The inverter can reach temperatures of up to 160°F after extended use. This is normal because the case of the inverter acts as a heat sink. Use caution when handling the inverter during operation, and give it sufficient time to cool off after use prior to handling it.
- The inverter has built in overheat protection. This means that if the temperature reaches a certain point, it will shut off. Make sure that the inverter is operating with adequate ventilation and it isn't covered or enclosed. If your inverter does shut off due to heat, unplug the inverter, allow it to cool down, and check that the inverter is getting adequate airflow before restarting it. Use caution and don't handle the inverter until it has begun to cool down.

How much can the MEGA INVERTER power?

- Take a closer look at the table on the back of this sheet for specific minimum & maximum load values. Also keep in mind that 1 foot of EL Wire is equivalent to 3 square inches of EL Panel. If you will have both EL Panels & Wire hooked up to one MEGA INVERTER, you will need to account for their combined total load, making sure that it falls within the compatible load range.

How do I run different Electroluminescent Elements back to one inverter?

- If you would like to hook multiple strands up to one MEGA INVERTER, we would advise using an EL Splitter Connector. With a splitter, you can turn one EZ Snap Connection into 5, and essentially run as many wires back to one inverter as your application requires. As long as you have the right amount of splitters, they can daisy chain together. Also, it is important to make sure that your splitters always are hooked up to an amount of wire that exceeds the minimum EL load, before you apply power.

Why isn't my Electroluminescent Wire lighting up when I plug it in?

- If you are experiencing issues with your EL Wire, the first thing to try is cutting off the end of the line (about 1/4"). Sometimes, the end of the wire can short out the whole line, so cutting a little bit off of the end sometimes does the trick. We advise always keeping an end cap on the end as well, so that it isn't exposed to moisture or air.
- If cutting off the end of your EL Wire doesn't work, it could be the soldered connection from the EL Wire to the Female EZ Snap that may be causing the problem. If you soldered your own connection, it may be of benefit to check out Ellumiglow's YouTube Channel for tutorials on how to best make your own EL Wire connection.
- Your MEGA INVERTER may be powering more than the maximum advised load, or less than the minimum load (refer to table on back). Competing brands of EL wire and panels may overload the inverter with less area as well, so be aware that this could be a factor.

Technical support is available from FutureIlluminations.

If you have questions about your specific application, don't hesitate to reach out to us!



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ADD LIGHT. ANYWHERE.

MEGA INVERTER Manual Revision V1.1
MEGA 100+ & 200 Version 0.5 | Mega 200 DMX Version 0.95 Manual