



Installation
Instructions
and
Owner's Manual
for
All Stinger® Power
Capacitors

Caution:

Be sure to follow the capacitor charging procedure on page Pg.4 prior to direct connection to battery power.

Warning:

Use caution when tightening capacitor terminals. Stripped terminals are not covered under warranty!

Package Contents:

- 1. Power Capacitor
- 2. Mounting Brackets with screws/bolts.
- 3. Installation Instructions / Owner’s Manual.
- 4. Charging resistor or light bulb (except SC241MB/W).
- 5. Allen wrench / wrenches.
- 6. Mounting Template (HPM model Capacitors only).

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Warning:

This power capacitor may explode and cause serious injury if abused or connected improperly.

Refer to the instructions contained in this manual for correct mounting, charging/discharging and wiring connection for this capacitor prior to installation.

Do not subject this capacitor to voltages higher than it’s rated specifications at any time.

Do not install cap in direct sunlight or extreme temperatures.

Caution:

Improper connection of this product can cause electrical damage to the vehicle and/or equipment. Stinger® assumes no responsibility for any damages that could occur due to improper connection of this product.

Introduction

Congratulations on purchasing one of the top selling power capacitors available from the leader in “Higher Performance Car Audio Accessories”, Stinger®! When installed properly, as outlined in this manual, your new Stinger® Power Capacitor will provide years of dependable service. This manual details all you may need to know about how to wire, charge, discharge and mount your power capacitor.

The Benefits of a Stinger® Power Capacitor

The benefits of adding a Stinger® capacitor are many. Probably the most significant is the capacitor’s ability to improve bass performance in many sound systems. This is possible due to the voltage stabilizing affects of the capacitor. When an audio system is called upon to deliver an instantaneous bass peak the vehicle’s electrical system is, often times, taxed to the limit. This means that the system voltage drops substantially to a point that the amplifiers are unable to produce their rated output power. This is referred to as clipping. When an amplifier clips it will cause distortion and can cause speaker damage. Stinger® Power Capacitors are able to store large amounts of energy in anticipation of these bass peaks. When a bass peak occurs, the Stinger® Power Capacitor delivers it’s power to supplement the system voltage and prevent amplifier clipping. This, in turn, retains amplifier output power, improves “bass attack” and increases speaker longevity.

Another beneficial effect of Stinger® Power Capacitors is their ability to filter the alternating current produced by the alternator that is present in your automotive electrical system. This alternating current can cause noise (“alternator whine”) in the audio system. A Stinger® Power Capacitor will help reduce or eliminate this “alternator whine” in most cases.

How Much is Enough?

Stinger® recommends 1 Farad of capacitance per 1000 watts of amplifier output. This is a general rule of thumb and may be adjusted up or down depending on the efficiency and design of the amplifiers being used. There is no harm in having more than enough capacitance. So when in doubt, it is better to have more rather than not enough capacitance.

Installation and Mounting

For maximum performance your Stinger® Power Capacitor should be mounted as close to your amplifier(s) as possible. The shorter the distance from capacitor to amplifier the better. A low resistance connection between the amp and the cap is a must for maximum performance. High resistance connections or long wire lengths reduce the capacitor's effectiveness.

Be sure to firmly mount the capacitor to a stationary object in the vehicle. Use caution when selecting a suitable location. Be aware of any hazards that may cause a short circuit or in any way damage the capacitor.

Note: HPM caps are packaged with a convenient mounting template to make alignment and mounting of the brackets a snap.

Wiring

Caution: BEFORE MAKING ANY POWER CONNECTIONS, DISCONNECT BATTERY POWER FROM YOUR SOUND SYSTEM!

There are two common ways to wire your Stinger® Power Capacitor into your sound system. Both result in very low resistance installations and perform equally well.

1. Interrupt the main positive power wire to your amplifier as close to the amp as possible. Install a ring terminal on both ends of the interrupted power wire and bolt them both to the positive terminal on the capacitor. Reconnect battery power. Charge the cap as described on pg4. Connect the ground cable from the negative terminal on the cap to a solid clean chassis ground. See Fig.1 below.

Note: Do not ground to the amplifier's ground.

2. Interrupt the main positive power wire to your amplifier as close to the amp as possible. Install a patented Stinger® "T" Block (STEE8,4,0) and route a power cable from the Stinger® "T" Block to the positive terminal on the capacitor. Reconnect battery power. Charge the cap as described on pg4. Connect the ground cable from the negative terminal on the cap to a solid clean chassis ground. See Fig.2 below.

Note: Do not ground to the amplifier's ground.



Fig.1

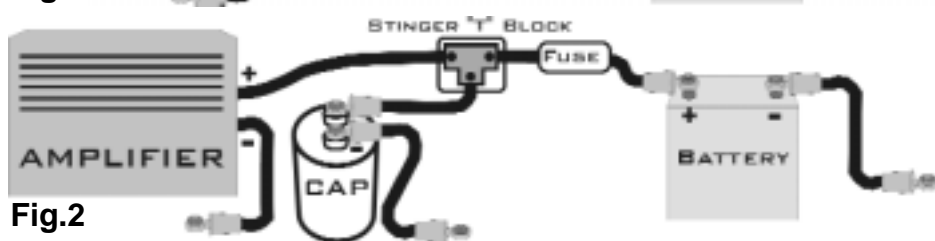


Fig.2

Charging and Discharging (all Stinger caps except SC241MB & SC241MW)

Before connecting Power and Ground cables directly to the capacitor you must charge it. Failure to charge the cap will result in a large spark generated from the rapid inflow of current.

Charging is simple:

1. Make your positive terminal connections and tighten the bolt.

Caution: Do not overtighten the bolts! Stripped terminals are not covered under the capacitors warranty.

2. Before connecting the ground cable, place the supplied charging bulb or resistor between the negative terminal on the cap and the ground cable. Do this for 30 seconds or until the light bulb goes out.

3. Immediately after charging, connect the ground cable directly to the negative terminal on the cap.

Note: Stinger's SC241MB & SC241MW use an automatic charging and protection circuit in their digital voltage display tops. When connecting these capacitors, there is no need to use a charging resistor or light bulb. You simply connect the appropriate wires to the capacitor's terminals and it will charge itself.

You are now ready to use your Stinger Power Capacitor!

Discharging: With battery power disconnected. Place light bulb or resistor across the caps terminals until light goes out or 1 minute.

Fig.1- Single Standard Cap Fig.2- Single HPM Monitor Cap

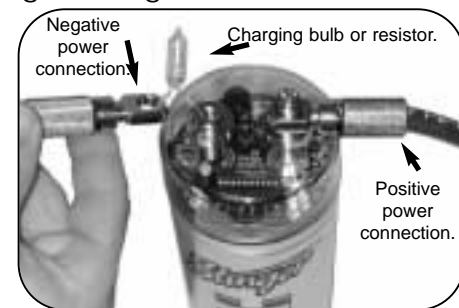
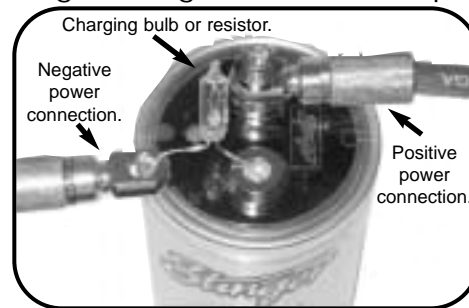
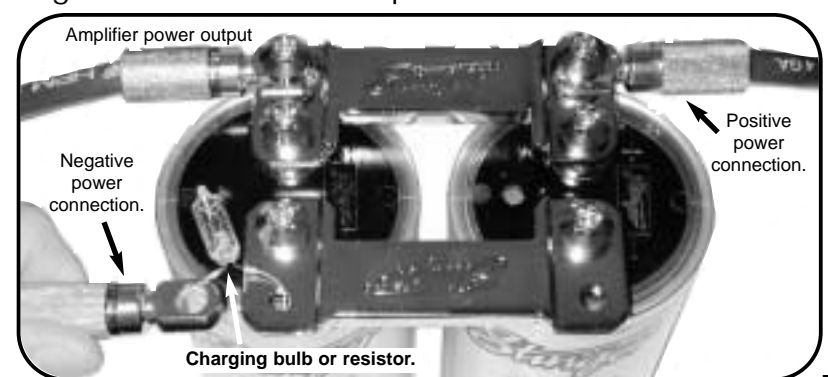


Fig.3- Two Standard Caps with SSBB2P Buss Bars



Capacitor Specifications

SC241.5B	
Capacitance-	<i>1,500,000 mfd (1.5 farad)</i>
Working Voltage-	<i>20 DC</i>
Surge Voltage-	<i>24 DC</i>
E.S.R. (Equivalent Series Resistance)-	<i>.0016 ohm @ 120hz / 25° C</i>
Capacitance Tolerance-	<i>± 3%</i>

SC241B, SC241W, SC241MB, SC241MW, SC241MPT	
Capacitance-	<i>1,000,000 mfd (1 farad)</i>
Working Voltage-	<i>20 DC</i>
Surge Voltage-	<i>24 DC</i>
E.S.R. (Equivalent Series Resistance)-	<i>.0016 ohm @ 120hz / 25° C</i>
Capacitance Tolerance-	<i>± 3%</i>

SC201B, SC201W, SC201PT	
Capacitance-	<i>1,000,000 mfd (1 farad)</i>
Working Voltage-	<i>16 DC</i>
Surge Voltage-	<i>20 DC</i>
E.S.R. (Equivalent Series Resistance)-	<i>.00175 ohm @ 120hz / 25° C</i>
Capacitance Tolerance-	<i>± 10%</i>

SC24.5B, SC24.5W	
Capacitance-	<i>500,000 mfd (.5 farad)</i>
Working Voltage-	<i>20 DC</i>
Surge Voltage-	<i>24 DC</i>
E.S.R. (Equivalent Series Resistance)-	<i>.0016 ohm @ 120hz / 25° C</i>
Capacitance Tolerance-	<i>± 3%</i>

Specifications are subject to change without notice.

Warranty

Stinger® Power Capacitors are nearly indestructible and will provide years of reliable service if installed and used according to the instructions in this manual. Stinger® (“Company”) warrants to the original retail purchaser of this product that should the product or any part thereof be proven defective in material or workmanship within a period of 3 years from date of purchase by original purchaser, such defects will be repaired or replaced, at the Company’s option, without charge for parts or labor.

If you believe you have a defective capacitor, contact Stinger® technical support (727-572-9255 ext.230) to discuss your problem. If it is agreed that the capacitor is defective, the product should be delivered, transportation prepaid to the Authorized Stinger® Dealer it was purchased from for repair or replacement. If you are unable to contact your Authorized Stinger® Dealer, you may contact Stinger® customer service at 727-572-9255 for return authorization and instructions.

- Items specifically not covered include but are not limited to the following:
- Stripped terminals.
 - Broken terminal bolts or studs.
 - Blown vent plugs as a result of reverse polarity or over-voltage.

THIS WARRANTY DOES NOT APPLY TO ANY PRODUCT OR PART THEREOF WHICH HAS BEEN DAMAGED THROUGH ALTERATION, MISHANDLING, MISUSE, NEGLIGENCE, ACCIDENT, IMPROPER INSTALLATION OR UNAUTHORIZED REPAIR.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM THE COMPANY’S NEGLIGENCE, ACTUAL OR IMPUTED. NO PERSON OR REPRESENTATIVE IS AUTHORIZED TO ASSUME FOR THE COMPANY ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT. IN NO EVENT SHALL COMPANY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state, so some of the above limitations or exclusions may not apply to you.

Note:
In case of lost or damaged charging light bulb or resistor, you may use a 30 ohm 1/4 watt resistor as a replacement. This resistor can be purchased from any local electronics supply store.

Contact Stinger®

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Stinger® proudly supports the following associations:



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