

# SS-201-120 & SS-201-240 "SOFT START" MODULE INSTALLATION INSTRUCTIONS

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## PARTS SUPPLIED WITH THIS KIT:

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|--|---|
| (1) SS-201 "Soft Start" Circuit Board                                  | (1) 1N4005 Diode                              |
| (2) 48VDC SPDT Relays  | (1) 2.4k $\Omega$ 2-Watt Resistor             |
| (1) #20 8" Red Wire  | (2) 100 $\mu$ F 63VDC Electrolytic Capacitors |
| (2) 20 $\Omega$ 10-Watt Resistors or (2) 10 $\Omega$ 10-Watt Resistors |   |
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To start the installation, read these instructions very carefully. Unplug the amplifier and remove any input, output and control cables that may be connected to the back of the amplifier. Remove the chassis from the case and remove the perforated sheet metal RF shield from the top of the chassis. Remove the tubes and put them in a safe place. You are now ready to proceed with the installation.

If the SS-201 is to be installed in an SB-200/201 operating from 120 VAC mains (model SS-201-120), the 10 $\Omega$  10-watt resistors will be installed on the PC board. If the SS-201 is to be installed in an SB-200/201 operating from 240 VAC mains (model SS-201-240), the 20 $\Omega$  10-watt resistors will be installed on the PC board.

- ( ) Assemble Soft-Start Module according to parts layout diagram. Strip  $\frac{1}{4}$ " of insulation from both ends of the 8" #20 **RED** wire. Pass one end of the 8" #20 **RED** wire through the small hole marked "F" on the circuit board and solder.
- ( ) Place the amplifier upside down with the chassis facing up and the front panel facing you.
- ( ) Locate a point approximately 6- $\frac{3}{4}$ " from the rear of the chassis and approximately 2" from the power supply circuit board cutout. Mark this spot on the chassis with a pencil or other marking tool. This is where the center of the "Soft Start" module will be mounted.
- ( ) Cut the wire bundle lacing from the middle of the power supply circuit board toward the rear of the chassis about 1" past the power supply circuit board cutout.
- ( ) Locate the large **RED** wire that goes to terminal 2 of the terminal strip next to the wire bundle near the rear of the chassis. Refer to the supplied pictorial. Pull this wire loose from the other wires and cut it at a point approximately 6- $\frac{3}{4}$ " from the rear of the chassis. Strip  $\frac{1}{4}$ " of insulation from both ends of the wire. Tinning each end of the wire may help when soldering these wires to the "Soft Start" module.
- ( ) Pass each end of the cut wire through the circuit board from the component side and solder to pads "A" and "C". Make sure the "LOAD" side of the wire goes to "A" and the "SWITCH" side of the wire goes to "C".
- ( ) Locate the large **BLACK** wire that goes to terminal 4 of the terminal strip next to the wire bundle near the rear of the chassis. Refer to the supplied pictorial. Pull this wire loose from the other wires and cut it at a point 6- $\frac{3}{4}$ " from the rear of the chassis. Strip  $\frac{1}{4}$ " of insulation from both ends of the wire. Tinning each end of the wire may help when soldering these wires to the "Soft Start" module.

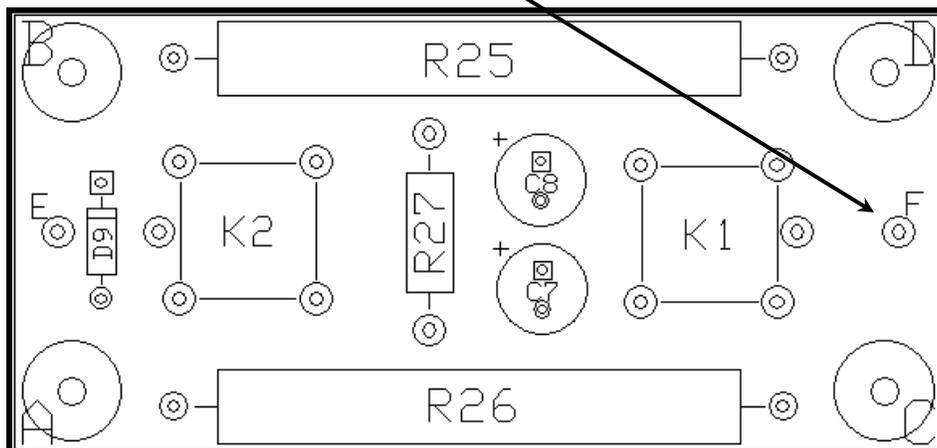
- ( ) Pass each end of the cut wire through the circuit board from the component side and solder to pads “B” and “D”. Make sure the “LOAD” side of the wire goes to “B” and the “SWITCH” side of the wire goes to “D”.
- ( ) Pass the 8” #20 **RED** wire from the circuit board hole “F” under the wire bundle and under the voltage select terminal strip. Solder it to lug 2 of the voltage select strip as shown in the supplied pictorial.
- ( ) Examine the tops of the relay cases on the “Soft Start” module. If there are vent holes in the tops, be careful not to cover these holes in the next step.
- ( ) Place a small dab of RTV or other silicone adhesive on the inner top of each relay on the circuit board.
- ( ) Turn the “Soft Start” module UP and center it over the mark on the chassis you made earlier. Press the module down on the chassis and hold it in place with some weight. Let the adhesive cure for at least 6 hours (24 hours is better).
- ( ) Replace the wire bundle with string, lacing or tie wraps.
- ( ) Put the tubes back into the amplifier and reinstall the perforated sheet metal RF shield on the top of the chassis and put the chassis back into the case.

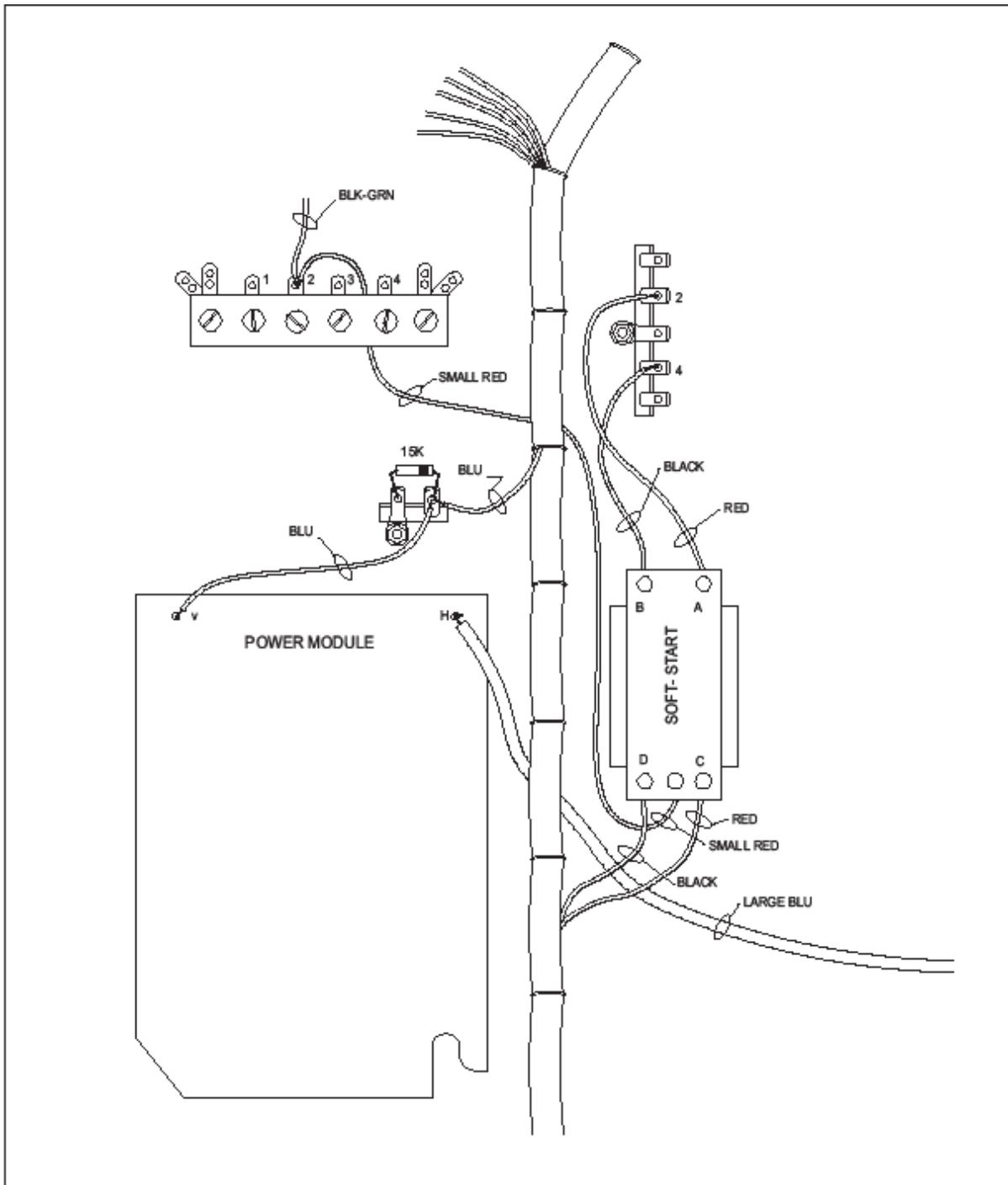
This completes the installation of the SS-201 “Soft Start” module. You will hardly notice any difference in the operation of your SB-200/SB-201, but you will know it is very well protected from voltage transients and high inrush currents.

### PC BOARD PARTS DESIGNATION:

|              |                                      |                |                              |
|--------------|--------------------------------------|----------------|------------------------------|
| <b>K1-K2</b> | 48VDC SPDT Relays                    | <b>R25-R26</b> | 10Ω or 20Ω 10-Watt Resistors |
| <b>C7-C8</b> | 100μF 63 VDC Electrolytic Capacitors | <b>R27</b>     | 2.4kΩ 2-Watt Resistor        |
| <b>D9</b>    | 1N4005 Diode                         |                |                              |

Small **RED** wire goes through the hole marked “F” and solders to the pad on the foil side of the PC board.





**SB 200 POWER MODULE AND SOFT-START  
UNDER-CHASSIS WIRING AND PLACEMENT**

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