



SST 1122 - MarkII

Replacement Single Channel Amplifier
For Use With 16 Ohm Vintage Rotary Speaker Cabinets
OWNERS & Insallation GUIDE

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only when the AC plug is removed and only use a dry cloth, small brush or vacuum cleaner with a brush.
7. Do not block any ventilation openings.
8. Install the SST-1122 in accordance with the manufacturer's instructions.
9. Do not install near any heat sources such as radiators, heat registers, space heater or other apparatus that produce heat.
10. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade and third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
11. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles such as power strips and the point where they exit from the amplifier.
12. If the fuse is blown, replace it only with the same value. If replacing the fuse does not allow the amplifier to "power up" or the fuse blows again contact your dealer, qualified service person or SpectraSound™ to inspect and repair your amplifier.
13. Only use attachments/accessories specified by the manufacturer.
14. Never leave the amplifier unsecured in the speaker cabinet. Always make sure that it is secured with a tie-down screw.
15. Unplug this apparatus and organ during lightning storms, or when not being used for long periods of time.
16. Do not leave turned "ON" and unattended for more than 4 hours. This is not good for the speaker cabinet's motors.
17. Use only the proper 11 Pin Connector audio cable or a recommended connector kit to connect from the organ to the amplifier. If you need a connector kit and you are not sure what the correct kit is, contact SpectraSound for information.
18. **WARNING:** To reduce the risk of fire or electric shock, do not expose the amplifier to rain, water or high amounts of moisture. Do not remove the bottom cover of the amplifier as there are no user serviceable parts.
19. Refer all servicing and installation to qualified service technician. Servicing is required when the amplifier has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain, water or high moisture, does not operate normally, or has been dropped.
20. **CAUTION:** When increasing the level of the attenuator (volume) control to maximum settings and playing at high volume levels can do the following; 1) Prolonged exposure to high volumes and high frequencies will cause hearing loss. 2) The potential to damage your amplifier, crossover or destroying speakers is greater at higher volume levels.
21. **RF Interference:** Cell phones, radio and TV stations, dimmer switches, WIFI, portable or handheld phones and devices that emit Radio Frequencies may interfere in the playing performance of the instrument.

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CONTROLS AND CONNECTIONS CALL OUT

AMPLIFIER FRONT VIEW

1. AC Power Inlet
2. Fuse Holder
3. Power OFF / ON (Standby)
- a. Lower Rotor Motor Plugs
- b. Tremolo (Fast)
4. Chorale (Slow)
5. Diagnostic LEDs
- a. Yellow – (C)horale
- b. Green - (T)remolo
- c. White – (W)arm Up
- d. Blue – (R)eady
- e. Red – (A)ctive
6. 11 Pin Male Connector



AMPLIFIER TOP VIEW

7. Upper Rotor Motor Plugs
- a. Tremolo (Fast)
- b. Chorale (Slow)
8. Audio Connections
- a. Red +
- b. Black –
9. Volume Level - Rotary Control



CONNECTION AND CONTROL DESCRIPTION

1) AC POWER INLET

The plug is used to supply electricity to power the new amplifier. This should be the LAST connection made after all the other connections are made such as, the motor plugs, the audio plugs and 11 Pin connector.

1. Use only the proper 3 pin (grounded) power cord. One is supplied with the amplifier.
2. Never defeat the 3rd ground pin. Doing so may cause damage to the new amplifier and void the warranty.
3. Plug the female end of the provided power cord into the amplifier and the male end into a properly grounded wall socket or power strip.



2) FUSE HOLDER

The fast acting safety fuse found inside the fuse holder is your first line of protection, should there be a short circuit, power surge or other electrical problem.

If you suspect the fuse is blown and you want to check it.

1. First disconnect the amplifier from its electrical source. In other words, remove the AC power cord.
2. Then push in on the fuse holder.
3. You should always use a meter to test the fuse to make sure that it is intact.
4. Sometimes a visual inspection doesn't always show that the fuse is bad.

If you have to replace the fuse and you plug the amplifier back into power and the fuse fails again, DO NOT attempt any further servicing. If a fuse goes out twice, it is an indicator that there is a serious issue and you should refer either servicing to a qualified technician or contact SpectraSound™.

NOTE: When contacting SpectraSound™ it would be helpful for you to have the model and serial number of the amplifier. This can be found on the right side of the amplifier.



3) POWER (STAND BY) SWITCH OFF / ON

After connecting all of the plugs and audio connections and the power cord is plugged in, you then can turn this switch ON for standby.

1. In the OFF position (left side) the power to the amp is off. This is the default position when you receive the amplifier from the factory.
2. In the ON position (right side) the amplifier is now in Standby mode. The amplifier is NOT POWERED UP until an organ or keyboard is powered on. When a connected organ or keyboard is turned "on," it sends the "turn on" command to the amplifier.



4) UPPER AND LOWER MOTOR AC INLET PLUGS

Most vintage 2 speed rotary speakers have two brown and two white plugs for connecting the motors to one of the 4 AC female outlets found on the amplifier.

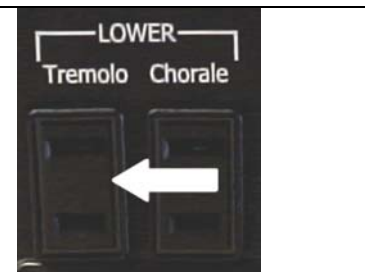
1. The two brown AC plugs are for the Tremolo (Fast) motors.
2. The two white AC plugs are for the Chorale (Slow) motors.



4A) LOWER TREMOLO (FAST) ROTOR MOTOR PLUG

The longest BROWN two prong plug should be plugged into the female AC outlet socket marked Lower Tremolo (Fast) found on the front left side of the amplifier chassis.

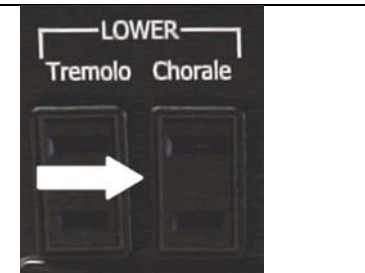
1. If the plug from the fast motor is bad, you should replace it.



4B) LOWER CHORALE (SLOW) ROTOR MOTOR PLUG

The longest WHITE two prong plug should be plugged into the female AC outlet socket marked Lower Chorale (Slow) female plug, found on the front left side of the amplifier chassis.

1. If the plug from the slow motor is bad, you should replace it.



5) LED DIAGNOSTIC INDICATORS

Just above the 11 Pin connector are 5 LED's. These 5 LED's have the capital letters T-C-W-R-A, above each one the corresponding LED's. These LED's may be clear in color or have a colored lens.



The following is an explanation of what each LED is for and its related color starting from the left.

| Legend | Color of LED |
|------------------|--------------|
| (T)remolo (Fast) | Green |
| (C)horale (Slow) | Yellow/Amber |
| (W)warm | White |
| (R)eady | Blue |
| (A)ctive | Red |

FUNCTIONS OF THE LED'S.

5A) GREEN LED – (T) FOR TREMOLO (FAST ROTOR SPEED)

When this LED is lit, it indicates that power is going to the two female power plugs for the Tremolo (Fast) motors for the upper and lower rotors.



1. If a rotor isn't turning, but this LED is lit then you may have an issue with one of the motors.

5B) YELLOW LED – (C) FOR CHORALE (SLOW ROTOR SPEED)

When this LED is lit, it indicates that power is going to the two female power plugs for the Chorale (Slow) motors of the upper and lower rotors.

1. If a rotor isn't turning but this LED is lit you may have an issue with one of the motors.
2. You may have a single speed (fast or stop) rotary speaker.

NOTE: 3 Position Stop. If the organ or keyboard has a 3-Position rotary control switch and the switch is in the Center/Stop position, then neither of these LED's should be lit.



Stop Rotors if using a 3-position switch

5C) WHITE LED – (W) FOR WARM UP MODE.

When the connected organ or keyboard is turned on this white LED will light indicating that the amplifier is powering up and will stay lit while the connected organ or keyboard is powered on.

If the organ is turned on and the WARM UP white LED isn't lighting up, you should first check to see if the 11 Pin connectors of the cable are securely attached to the amplifier and the organ. If they are and this LED is still not lit you should seek a qualified technician for further help.



The "W" LED will light for about 5 seconds.

5D) BLUE LED – ® FOR READY.

When this LED is lit then you are now ready to play and you should hear audio from the connected organ or keyboard when it is being played.

Special Note: Depending the position of the Tremolo Switch or Control, the T or C LED may be lit as well.

If this LED is lit but there is no sound you should do the following as possible solutions;

1. First check to make sure that the variable Attenuation Control is set to at least 5 or 6 on the numerical settings of the control.
2. Check the organ to make sure that a sound setting is on. Such as a preset is down and/or drawbars are pulled out.
3. If the organ or keyboard has a master volume control, make sure that it is turned up.

NOTE: If there is still no sound you should contact a qualified organ service technician or contact the dealer you purchased your SST-1122 from or SpectraSound™ for further help.



5E) RED LED - (A) FOR ACTIVE – INDICATOR FOR DYNAMIC HEADROOM.

This red LED only comes on when the volume of the organ is “at” or approaching the point of over powering the amplifier.

1. It is OK for this LED to flicker or to go from no light to a little bit.
2. If the LED is lit almost all the time then the Attenuation Control, located on the top right front of the amplifier must be set at a lower level. Otherwise you could do damage to your speakers or crossover in the speaker's cabinet.



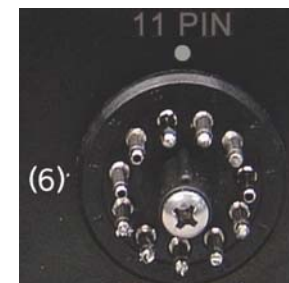
NOTE: SpectraSound™ is not responsible for damage to your speakers, and/or the crossover when playing at excessive volume levels.

6) 11 PIN CONNECTOR SPEAKER CONNECTOR

The 11 Pin male connector is used for carrying the following information from the connected organ or keyboard to the SST-1122

1. Audio signal.
2. Power ON signal for the amplifier.
3. Rotor speed control information from the organ or keyboard connected to the amplifier.

The 11 Pin connector is “keyed” so that it can only be connected one way. NEVER force the female end of the 11 Pin connector cable onto the 11 Pin male connector of the amplifier.



7) UPPER AND LOWER MOTOR AC POWER OUTLETS

7A) UPPER TREMOLO (FAST) ROTOR MOTOR PLUG

The shortest BROWN two prong plug should be plugged into the female AC outlet socket marked Lower Tremolo (Fast) found on the front left side of the amplifier chassis.

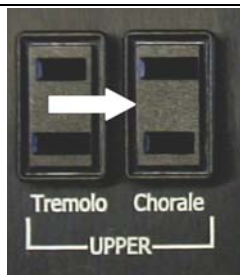
If the plug from the fast motor is bad, you should replace it.



7B) UPPER CHORALE (SLOW) ROTOR MOTOR PLUG

The shortest WHITE two prong plug should be plugged into the female AC outlet socket marked Lower Chorale (Slow) female plug, found on the front left side of the amplifier chassis.

If the plug from the slow motor is bad, you should replace it.



7C) SINGLE SPEED ROTARY CABINETS.

If you are using the SST-1122 amplifier in a rotary speaker cabinet like the models 22H, 47, 45, 44W or 42 you should note that ONLY the left two Upper and Lower TREMOLO (FAST) 2 prong female AC plugs should be used. There is no need to use the Chorale (Slow) 2 prong female AC plugs.

8) AUDIO CONNECTIONS

The BLACK connector is for connecting the BLACK wire lead from the speaker cabinet to the BLACK Terminal on the amplifier.

1. The RED connector is for connecting the RED wire lead from the speaker cabinet to the RED Terminal on the amplifier.



9) VARIABLE ATTENUATION CONTROL (VOLUME)

The Attenuation Control can be considered somewhat like a volume control however it differs in that it sees the amount of audio signal coming from the connected organ or keyboard and allows you to adjust how much headroom before the amplifier goes into distortion or starts clipping the audio. Think of this control as a buffer.

1. To shorten or decrease the amount of headroom, turn the variable control to the right or clockwise. (Louder)
2. To lengthen or increase the amount of headroom, turn the variable control to the left or counter clockwise. (Softer)
3. The longer and the brighter the Red Attenuation LED is lit, means that you must lower the threshold of the headroom.



WARNING: If the Red (A)tive LED is lit almost all the time, then the Attenuation Control must be set at a lower level. Otherwise you could do damage to your speakers and/or the crossover in the speaker's cabinet.

NOTE: SpectraSound™ is not responsible for damage to speakers or the crossover when playing at an extreme volume.

YOUR NEW SPECTRASOUND™ ST-1122

SAFETY FIRST:

NOT SURE WHAT TO DO?

If you are not sure of what you are doing when installing your new SST-1122 please contact a qualified organ service technician. If you cannot locate an organ service technician, either contact the authorized dealer, you purchased your product from or contact SpectraSound™.

USE WITH YOUR VINTAGE ROTARY SPEAKER CABINET

SPECIAL NOTE: The SST-1122 is designed to work with vintage rotary speaker cabinets that have 16 ohm speakers with a crossover designed to work with 16 ohm speakers. Not using the SST-1122 with the correct 16 ohm speakers may cause damage too not only the amplifier, but you could damage the speakers. If you damage the amplifier by not having the correct 16 ohm rated speaker(s) or crossover, you will void the warranty of the amplifier. If you damage your speakers, Diversi and SpectraSound are not responsible.

Also, not having the correct 16 ohm rated speakers will affect the sound produced by the speakers. This may take the form of not having enough highs or not enough lows, or too much bass or too much high frequencies. If you are not sure what the ohm rating is of your speakers in your vintage rotary speaker, please contact a qualified technician.

UPGRADING YOUR OLDER ROTARY SPEAKER CABINET

Since you are upgrading your speaker cabinet's amplifier and if you are using with a vintage tonewheel organ, it is recommended that you upgrade your vintage tonewheel organ to comply with the NEC Code Safety Code. One of the best things to do is have the organ's power plug replaced with a three conductor (grounded) IEC 320 type AC input connector. This is similar to the power inlet you will find on your new SST1122.

PERMANENT INSTALLATIONS AND NEC CODE

Be advised that in all permanent installations such as a Church, the NEC Code requires that the power and the cable carrying the audio be kept separate. So if you are building or remodeling you more than likely will be required to make these changes to pass electrical inspection. If you are installing any cables in a wall, overhead in a ceiling or under a floor, the cable will need to be shielded inside the proper type of conduit. The only exception to this is if the organ and speaker are temporarily placed or moved. You should check with your local authorities for an additional codes or regulations that may be required. A licensed electrician should also be a good source to make sure you are within the building code.

COMPATIBLE VINTAGE ROTARY CABINET MODELS

The SST-1122 Replacement Rotary Amplifier is the only solid state amplifier designed to produce the warm sound of a tube amp. After years of testing and development this amp is compatible with most single channel 16 ohm vintage rotary speaker cabinets such as the famous 122 and 147 models. Now you can have the warm tube sound with the reliability of solid state electronics plus you will gain a peak output of 100 watts, giving you more power over the original tube amp

KNOWN COMPATIBLE LESLIE SPEAKER MODELS

The list below are known vintage rotary speaker cabinets that the SST-1122 will work with. Also noted are which speaker cabinet models that will allow for Slow / Stop / Fast positions as long as the organ has the proper 3 position switch. Models that say NO have only fast and stop.

| Series | Model Number | Stop | Fast (Tremolo) | Slow (Chorale) |
|---------|--|-----------------|----------------|----------------|
| 22 | 22H/22R ^{*1} /42 | X | X | |
| 47 | 47H/47R ^{*1} /45/44W | X | X | |
| 51 | 51 ^{*2} | X | X | |
| 122 | 122/122RV ^{*1} /142/222/222RV ^{*1} | X ^{*3} | X | X |
| 147 | 147/147RV ^{*1} /145/247/247RV ^{*1} | X ^{*3} | X | X |
| 251 | 251 ^{*2} | X ^{*3} | X | X |
| 760/770 | 760/770 ^{*4} | X ^{*3} | X | X |

*1. There is no Auxiliary provision for using a reverb unit in this speaker cabinet.

*2. The secondary audio channel will no longer function as the SST-1122 is only a single channel system.

*3. Requires 3 position rotary control switch.

*4. Requires the following; 1) 16 ohm crossover network, 2) a 16ohm bass speaker, 3) 4 AC power plugs for the motors, 4) modification of the left wooden support where the amp slides in, 5) amp retaining bracket and two screws for the bracket. If you need more information, please contact us.

There are other models of vintage rotary speakers that may be able to used with the SST-1122. However, they will require special adaptation or custom insallation. If you are unsure of what model rotary speaker cabinet you have, please contact a qualified organ service technician.

NON COMPATIBLE LESLIE SPEAKER MODELS

The SST-1122 is not compatible with the current Leslie Speaker models 122XB, 122A, 142A, 147A, 145A as they use an electronic motor control system.

The SST-1122 is not compatible with any of the RotoSonic series of speaker cabinets such as 722/822. For more information please contact us.

ABOUT VINTAGE ROTARY SPEAKER CABINETS

If your vintage speaker cabinet is old and has not had a lot of service, or hasn't been used for more then a year you may want to consider replacing the following items in the speaker cabinet.

Bass Speaker – Make sure you use the proper 16 ohm rated speaker. If you don't use the correct 16 ohm replacement bass speaker, you may not like the sound being produced and you may damage the amplifier

Horn Driver – Make sure you use the proper 16 ohm rated driver or you may not like the sound being produced and you may damage the amplifier.

Crossover – You may want to purchase an aftermarket crossover that is rated for higher volume levels. However, it must be rated for use with 16 ohm speakers.

If you are not sure what the correct replacement(s) are, contact a qualified organ service technician. If you cannot, contact the dealer that sold you your SST-1122 or contact SpectraSound™ for advice.

5, 6 AND 9 PIN CONNECTORS

EXISTING 5, 6 OR 9 PIN CONNECTOR.

Do not try and use the existing 5 pin, 6 pin or 9 pin connector that is already installed in your organ. These old connectors have 120 Volts AC coming from the organ and will not work. You must purchase either the correct adapter or connector kit. Please seek the advice of a qualified organ service technician. If you cannot find an organ technician contact the dealer you purchased the SST-1122 amplifier from or contact SpectraSound™ for further help.

11 PIN CONNECTORS

Current keyboard products that have the new standard 11 Pin Connector. There are many new keyboard or organ products that have the 11 Pin Connector standard installed. Many times you are told that you have to purchase a new rotary speaker for one of these new products. If your present vintage rotary cabinet works well, you can save money with the buying the SST-1122 and a new 11 Pin cable. Since most have a 3 Position rotary speed control, the SST-1122 provides that ability.

On the next page is a list of those products known to work with the SST-1122, when it has been installed in a vintage rotary speaker. Make sure you read the installation instructions in this guide. Caution should be used when connecting your keyboard to the SST-1122.

| MANUFACTURE | MODELS |
|----------------|--|
| Diversi | DV, DV100, DV-Duo, DV-Solo |
| Hammond Suzuki | XB2, XB3, XC3, XB3A ^{*1} , XC3A ^{*1} , XB3M ^{*1} , XC3M ^{*1} A-205, A-305 ^{*1} , XK2, XK3 ^{*1} , KX3C ^{*1} , MINI B ^{*1} New B3, New Portable B3, B3MarkII, MINI B3, A-162 ^{*1} |
| KeyB | Duo, Solo (any product with 11 pin installed.) |
| Roland | VK7, VK77, VK8, VK88 Drawbar channel only. |
| Nord | Any model with 11 pin Drawbar channel only. |
| TrekII | Combo Preamp. 11 pin ONLY. |
| VOCE | Key5 |

*1 Only the drawbar channel will be heard as the SST-1122 is a signal channel amp.

NOTE: Since new products are always being released please visit the SpectraSound™ web site for a current list of brands and models of keyboards or organs that are 11 Pin connector compatible with the SST-1122.

3 POSITION SPEED CONTROL

Because, the new SST-1122 uses the new 11 Pin connector, models like the 122/142 or 147/145 can now have Stop, as well as Fast & Slow speeds. However, to have all 3 Positions the organ must have a 3 Position tremolo (speed) control switch. If the organ doesn't have, a 3 Position control switch, one can be purchased separately and installed on the organ, to have the full functionality. If you are not sure how to install a 3 Position tremolo switch please contact a qualified service technician.

SPECIAL CONNECTOR KITS FOR 11 PIN CONNECTOR.

If the organ that the SST-1122 is being connected to doesn't have an 11 Pin connector, you will need a 11pin connection kit. There are a couple of companies that offer these and you can purchase them via the internet. Several of these kits require a qualified organ service technician to install the kit into your organ. If you are not sure what kit you need contact, a qualified organ service technician. If you cannot find a qualified technician, then either contact the dealer that sold you your SST-1122 or contact SpectraSound™ to help find out which is the correct kit to purchase.

NOTE: SpectraSound™ is not responsible for damage to your speakers, crossover when playing at excessive volume levels.

Warning: Damage can be done to the connected organ, keyboard, your rotary speaker and/or the new SST-1122, if a connector kit is not installed correctly, and it will void your warranty of the SST-1122. SpectraSound™ is not responsible for any damages for the improper installation of a connector kit.

NOTE: If you are attempting to install the SST-1122 in a Leslie speaker cabinet and you are not sure of what to do STOP. Call a qualified organ technician who should install the amplifier and make any modifications to the organ that you will use with your new SST-1122.

AFTER MARKET MOTOR CONTROL SYSTEMS.

There are companies that manufacture devices that allow a single speed vintage rotary speaker cabinet to have fast and slow. This is done by pulsing the motors. The SST-1122 amplifier should work with these. However, there is no guarantee that it will. If you have issues, contact the manufacture of the motor control device for more information. If one of these motor control systems damages your SST-1122, your warranty will be voided.

WARNING: Again, we strongly suggest that if you are not sure of what you are doing contact a qualified organ service technician. If you cannot locate one, you should contact the dealer that sold you your SST-1122 or SpectraSound™ for further help. Any damage from negligence voids your warranty. Any modification(s) to the SST-1122 by you or a technician or other person(s) will void your warranty.

FEATURES OF THE SST-1122

The SpectraSound™ SST-1122 directly replaces vintage tube rotary speaker amplifiers that work with speakers and crossover that are rated at 16 ohms with state of the art solid state. This allows you to have the sound you want without the expense of service that these 30 plus year old amplifiers need. No mechanical relays or no tubes to replace.

There have been previous attempts to make a solid state amplifier with the warm sound of tubes. Most of these systems use a preamp tube such as a 12AU7 to add warmth, but when played at high volumes they tend to over distort.

SOLID STATE A. A. M.

A.A.M. (Analog Amplifier Modeling) gives the SST-1122 amplifier the reliability of a solid state amplifier with a tube like warmth, producing 100 watts audio output power.

RELIABILITY

Old tube amplifiers can have a host of issues. When moving an older vintage rotary speaker, the old vacuum tubes of the amplifiers need extra care to prevent the tubes from being broken. The old mechanical relay for switching rotor speeds wear out and need to be replaced. With the new SST-1122 you don't have to worry about tubes getting broken because the relays are all solid state so there are no parts to wear out. We are so sure of the reliability of our new amp that we will replace for free during the first year, should it fail. (See Warranty for details).

PROTECTION

ELECTRICAL SHOCK

Because the SST-1122 uses the new 11 Pin connection standards, it's safer to operate. The old 6 pin cables have 120 volts of AC current running inside the cable along with the audio signal. The potential for electrical shock or shorts is great. Since the AC power to the SST-1122 is separate from the audio and rotary switching signals, via the 11 Pin cable, you have a much safer installation.

SPEAKERS

The SST-1122 employs state-of-the-art circuitry to help protect your rotary speaker cabinet this speaker protection is provided to try and help avoid damaging to drivers or woofers. However, playing at high volume levels can still damage drivers and speakers both original (stock) or new.

MOTORS

Rotary Motor Protection helps avoid damage to the older rotor motors. Included on the SST-1122 are diagnostic LED's to help quickly diagnose an issue if a problem does present itself.

TTL - TUBE TYPE LIMITER

The diagnostic LED marked, TTL is included to alert you of the activity of the Tube Type Limiter circuitry. This LED may flash (red) during loud passages under normal use. If this LED remains lit excessively, lower the volume until it only responds occasionally to loud playing to avoid the possibility of damage to your vintage speaker components.

SAVING MONEY

USE WITH VINTAGE TONEWHEEL ORGANS

Some of these older organs often have a lot of life left in them but need help. Most often it starts with a sound change because of the age of a rotary speaker cabinet(s). In the case of a church, the rotary cabinet maybe mechanically sound but the old tube amplifier is worn out. A new replacement rotary cabinet may cost thousands of dollars. With the SST-1122 and some work done to the motors you can spend less than half of the cost of a new rotary speaker cabinet and extend the life of both the organ and your rotary speaker investments.

NEW DRAWBAR CLONE READY

Diversi Organ, as well as other manufacture's, offer drawbar keyboard products that have an 11 Pin Rotary Connector on the keyboard or organ. However, to use the 11 pin connector with a vintage rotary speaker it requires either a special connector kit or combo preamp. Having these extra boxes and extra connections can lead to problems. With the SST-1122, just remove the old tube amp and slide in the new SST-1122 and you are now ready to plug in directly from the 11 pin connector on the back of the keyboard into the SST-1122. In addition! You gain Stop as well as having Slow and Fast rotor control.

MULTIPLE SPEAKER CABINETS

If you are connecting more then one speaker cabinet, it's easy with the new SST-1122. With the new 11 Pin connector standard, you can connect multiple rotary speaker cabinets using the SST-1122. Simply use an optional 11 Pin "Y" adapter and another 11 pin cable and you're ready to go.

Did you purchase one of the new 11 pin rotary speakers and you have an older model sitting around that you want to use? Now you can. Install the new SST-1122 into your old rotary cabinet, use an optional 11 pin "Y" adaptor and another 11 pin cable and the old Leslie speaker cabinet can be used to augment your current installation.

Installing Your SST-1122 MarkII

INSTALLATION OF THE NEW AMPLIFIER

REMOVE THE OLD TUBE AMPLIFIER

1) LOWER BACK PANEL

Locate the lower back panel of the rotary speaker cabinet. If the panel has not been removed, do so by unscrewing the two slotted screws on the left and right sides of the panel.



2) UNPLUG AC PLUGS FOR THE MOTORS

Two Speed Rotary Cabinets.

1. Next look closely at the four plugs located on the left side of the amplifier. In most cases there are four plugs, two brown and two white. Pull each of these plugs out with care and note which brown and white is the shortest and which brown and white are the longest.



Single Speed Rotary Cabinets.

1. If you are installing the SST-1122 into a speaker cabinet that only has single speed rotors (Fast & Stop) you will only have two plugs. Pull each of these plugs out, with care.

NOTE: If for any reason the plugs do not want to come out or if they break, you must replace them. Do not try and tape them together with any type of tape. Many older hard plastic plugs become brittle and can crumble. This is a safety hazard and can cause electrical shock as well as cause damage to the new amplifier. This type of damage is not covered by the warranty.

3) AUDIO SIGNAL PLUG

Now locate and pull the audio signal plug. It is usually a twisted pair of red and black wires that are soldered into a round two pin connector.



4) AMPLIFIER TIE DOWN SCREW

Now unscrew the single slotted tie-down screw on the front of the old tube amplifier.



5) REMOVE OLD AMPLIFIER

Now slide the old amplifier slightly to the right to gain clearance for the wood strip.

Once you have clearance of the wood strip then slide the old amplifier out. Sometimes you may have to slide the old amplifier back and forth a little, while pulling forward.

Care should be taken NOT to damage the old tubes of the old amplifier. If you break a tube, make sure you clean up the broken glass.

6) CLEANING

Yes! Cleaning

It is strongly suggested that you clean the dust and other materials you may find in the bottom of the speaker cabinet. It makes it easier to slide the new amplifier into place.



INSTALLING THE NEW AMPLIFIER

1) PLACING THE NEW AMPLIFIER

Take the new amplifier and angle it so that it is on a slight angle to the right.

Slide the amplifier in until you feel it stop. It may be necessary to move the amplifier from the left to right for the new amplifier to go all the way into the speaker cabinet.

NOTE: You may have to "bend up" the tie down bracket that is mounted inside the front of the speaker cabinet.

2) AMPLIFIER TIE DOWN SCREW

Use either the old tie down screw or the new one provided to secure the new amplifier in place.



3) UPPER MOTOR SET AC PLUG

1. Now plug in the Upper Tremolo male (short brown) AC plug into the female plug marked Tremolo on the top left side of the new amplifier.

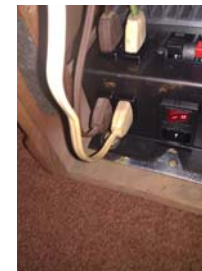
2. Next plug in the Upper Chorale male (short white) AC plug into the female plug marked Chorale on the top left side of the new amplifier.



4) LOWER LOWER MOTOR SET AC PLUG

1. Now plug in the Lower Tremolo male (long brown) AC plug into the female plug marked Tremolo on the front left side of the new amplifier.

2. Next plug in the Lower Chorale male (long white) AC plug into the female plug marked Chorale on the front left side of the new amplifier.



5) AUDIO CONNECTION

1. With a pair of wire cutters, cut the red & black wires that are soldered into the two pin connector. Don't cut the wires close to the base of the connector, leave a ½ inch of exposed wire.
2. Now strip the plastic insulation of each wire so that 1/4 inch of wire is exposed.
3. Twist the end of each wire a couple of times.



6) THE BLACK SIGNAL WIRE

1. Push down on the Black spring clip of the Black audio connector and hold it down.
2. While still holding the spring clip down insert the Black audio wire into the Black wire connector located on the top of the amplifier.
3. Once the Black audio wire is inserted release the spring clip.



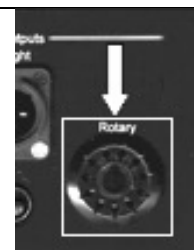
7) THE RED SIGNAL WIRE

1. Push down on the Red spring clip of the Red audio connector and hold it down.
2. While still holding the spring clip down, insert the Red audio wire into the Red wire connector located on the top of the amplifier.
3. Once the Red audio wire is inserted release the spring clip.



8) 11 PIN CONNECTOR MALE CONNECTOR

Connect the male end of the audio cable into the 11 Pin female connector located at the organ or keyboard.



9) 11 PIN CONNECTOR FEMALE CONNECTOR

Connect the female end of the 11 pin cable onto the 11 Pin male connector located on the new amplifier.



10) AMPLIFIER POWER CHORD

1. Plug the female end of the power cord into the power inlet of the new amplifier.
2. Plug the male end of the power cord into a wall outlet or properly grounded power strip.



11) AMPLIFIER POWER SWITCH

Turn the Power/Standby switch to the ON position.



12) ATTENUATION CONTROL

1. Start by setting the Attenuation Control to about the number 6 position.
2. Turn the connected organ or keyboard "ON." The White LED will light up indicating the amplifier is powered ON.
3. After a few seconds the Blue READY LED will light.



13) READY TO PLAY

1. You are now ready to use the new amplifier.
2. If there isn't enough volume increase the Attenuation Control to about 7.
3. You should never set the Attenuation control to the maximum level of 12. This could cause damage to the following; your hearing, the bass speaker, the upper horn driver, or the crossover.

NOTE: SpectraSound™ is not responsible for damages resulting from negligence or miss use of the amplifier.

ACKNOWLEDGEMENTS

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DISCLAIMERS

- Diversi Musical Products, Inc. reserves the right to change specifications, materials and components without notice.
- Due to photographic and printing limitations colors may not be the same as the actual product.
- Any modification of the SST-1122 Mark II made by the end user or service technician without the express written consent of Diversi Musical Products, Inc. will VOID the warranty.
- Diversi is not responsible for consequential damages from modifications made by the end user, unauthorized modifications made by a service technician or damage or misuse, of the SST-1122 MarkII such as:
 1. Being Dropped.
 2. Connection to the wrong AC Voltage.
 3. Playing at excessive volume levels.
 4. Not using the correct interface kit.



Diversi Musical Products, Inc

PO Box 92

Woodlyn, PA 19094

Phone 484 478-0095

Email: Info@Diversi.us

Website: www.Diversi.us