CONGRATULATIONS!

You now own an EXCURSION SXA OEM Upgrade Amplifier, the product of an uncompromising design and German engineering philosophy. A product made from Car Audio fanatics who truly believe in the relentless pursuit of perfection.

EXCURSION amplifiers are the result of several decades of product improvements, competition, innovation and highest quality parts and control standards in industry. When properly installed these amplifiers will provide you with many years of listening pleasure and are the perfect balance between high fidelity, extreme performance and long-lasting reliability.

Should your amplifier ever need a service, please record your information on the following lines to refer to in the event that you may need it later.

Dealer's Name ________________________
Date of Purchase _______________________
Installation Shop _______________________
Installation Date _______________________

At EXCURSION Intl. we are confident you will have many years of outstanding enjoyment from your high performance investment. For maximum performance we recommend that you have your new EXCURSION SXA Amplifier installed by an exclusive Authorized EXCURSION Dealer.

To learn more about EXCURSION, please visit us on the World Wide Web at http://www.excursion.us

CAUTION!
Continuous exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. EXCURSION Products are capable of producing sound pressure levels well over 170dB. Please observe all local sound ordinances while listening to your EXCURSION System. EXCURSION Intl. accept no liability for hearing loss, bodily injury, or property damage due to the result of use or misuse of this product.
## FEATURES
- MINI SIZED OEM PLUG & PLAY UPGRADE DESIGN
- DOUBLE SIDE PCB AND SMD COMPONENTS
- FULL RANGE DIGITAL OR CLASS D DESIGN
- LPF AND HPF (SUBSONIC) CROSSOVERS
- SWITCHABLE BASSBOOST AT SXA1K
- 1-OHM LOAD STABLE FOR SXA1K
- SWITCHABLE LOW OR HIGH INPUT MODE
- AUTO TURN ON/OFF @ HIGH INPUT MODE
- RoHS COMPLIANT - DESIGNED IN GERMANY

## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>SXA1K</th>
<th>SXA20</th>
<th>SXA45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mono</td>
<td>2 Channel</td>
<td>4 Channel</td>
</tr>
<tr>
<td>1 Ohm Load @ 14.4V</td>
<td>250W</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2 Ohm Load @ 14.4V</td>
<td>175W</td>
<td>2 x 90W</td>
<td>4 x 45W</td>
</tr>
<tr>
<td>4 Ohm Load @ 14.4V</td>
<td>100W</td>
<td>2 x 90W</td>
<td>4 x 45W</td>
</tr>
<tr>
<td>Bridge Mode</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

### Features
- Input Sensitivity: 0.2~4V Low Level, 0.8~15V High Level
- Frequency Response: 10~300Hz, 20Hz~20KHz
- LPF: 0~300Hz, NA
- SubSonic Filter (HPF): 0~60Hz, NA
- THD at 4 Ohm load: <0.3%, <0.07%
- S/N Ratio: >100dB, >90dB
- BassBoost @45Hz: 0-6dB switch, NA
- Efficiency @ 4 Ohm: >80%, >70%
- Minimum Load: 1 Ohm, 2 Ohm
- Auto Turn ON/OFF: YES
- Fuse Protection: 30 A, 30 A, 30 A
- Short Circuit Protection: NA
- Thermal protect °C: Protect at 84°C / 185F
- Components & PCB: SMD parts / double side pcb

### Dimension (mm)
- Height: 44
- Width: 94
- Length: 140
CONTROL FUNCTIONS

1. SPEAKERS
   Connect speakers/subwoofers to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground.

2. +12 Volt Power
   Connect this terminal through a FUSE or CIRCUIT BREAKER to the positive terminal of the vehicle battery or the positive terminal of an isolated audio system battery. Warning: Always protect this power cable by installing a fuse or circuit breaker of the appropriate size within 15 inches (30cm) of the battery terminal connection.

3. Remote Turn On
   This terminal turns on the amplifier when (+)12 volt is applied to it. Connect it to the remote turn on lead of the head unit or signal source.

4. GND
   Connect this cable directly to the frame of the vehicle. Make sure the metal frame has been stripped of all paint down to the bare metal. Use the shortest distance possible. It is always a good idea to replace the factory ground at this time with a larger cable equal to the new amplifier power cable or larger. CAUTION: Do not connect this terminal directly to the vehicle battery ground terminal or any other factory ground points.

5. RCA input jacks
   These RCA input jacks are for use with source units that have RCA outputs. A source unit with a minimum level of 200mV is required for proper operation. The use of high quality twisted pair cables is recommended to decrease the possibility of radiated noise entering the system.

6. Input Mode Switch
   This Switch select the INPUT mode. At High Level Input the amplifier Turn ON and OFF relative to signal. There is no extra Remote signal demanded at High Level Input Mode.

7. Gain Control
   The Gain control will match the amplifiers sensitivity to the source units signal voltage. The Operating range is 4V to 200mV at Low Level and 15V to 800mV at High Level signals.

8. Low Pass Filter Control (SXA20 & SXA1K)
   This control is used to select the desired low pass x-over frequency. The frequency can be adjusted from 0Hz (OFF) to 300Hz.

9. Subsonic Filter Control (SXA20+SXA1K)
   This control can filter out unwanted low frequency from 0Hz (OFF) to 60Hz. This function will increase the power handling of your woofers.
CONTROL FUNCTIONS

10. Bass Boost Level switch (SX41K)
This switch can boost bass level by 0dB or 6dB. The boost frequency is centered at 45Hz.

11. X-over mode and frequency Control (Full range)
These controls allow control over the frequencies. There is an option for Low Pass or Full Range. In LP mode, the crossover frequency can be tuned from 0Hz (OFF) to 300Hz by the frequency knob.

12. Power Indicator
This LED will light up when amplifier works properly.

PANEL LAYOUT

Fig 1. SXA45 amplifier panel layout
WIRING DIAGRAM SXA20

Right Channel

Left Channel

Source Unit

OPTIONAL:
- SPEAKER OUT HIGH LEVEL signals
  * PLUG RCA PINS ON THE ENDS OF SPEAKER CABLE GO VIA RCA INPUT
  * SET INPUT SWITCH to HIGH MODE
  * AMP WILL AUTO TURN ON OR OFF
  * NO REMOTE SIGNAL DEMANDED
WIRING DIAGRAM SXA45

OPTIONAL:
- SPEAKER OUT HIGH LEVEL signals
- * PLUG RCA PINS ON THE ENDS OF SPEAKER CABLE GO VIA RCA INPUT
- * SET INPUT SWITCH to HIGH MODE
- * AMP WILL AUTO TURN ON OR OFF
- * NO REMOTE SIGNAL DEMANDED

REMOTE signal
RCA LOW LEVEL signals

SOURCE UNIT

GND REM BATT+ FUSE
SPEAKER OUT POWER
RR RL FR FL
MINI C/N AMP

INPUT FRONT REAR
LOW HIGH LOW HIGH
FRONT GAIN FRONT GAIN
MIN MAX MIN MAX

FUSE 30

+12V
WIRING DIAGRAM SXA1K

* Equivalent parallel woofer load cannot be less 10ohm. The 2 negative terminals are parallel inside the amp, as are the 2 positive terminals. This is a monoblock amplifier! This is no multi Channel amp.

Source Unit

OPTIONAL:
- SPEAKER OUT HIGH LEVEL signals
- * PLUG RCA PINS ON THE ENDS OF SPEAKER CABLE GO VIA RCA INPUT
- * SET INPUT SWITCH to HIGH MODE
- * AMP WILL AUTO TURN ON OR OFF
- * NO REMOTE SIGNAL DEMANDED
INSTALLATION PRECAUTIONS

Before you install the amplifier, investigate your car’s layout very carefully. Take special care when you work near the gas tank, fuel lines, hydraulic lines and electrical wiring. Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that suggested by this manual. Using a fuse of a different type or rating may result in damage to your audio system or your amplifier which is not covered by warranty.

CONNECTING THE AMPLIFIER

1. Connect the amplifiers ground cable to a close, bare metal part of the frame or chassis.
   Use a nut and bolt! The ground cable must be at least the same size as the +12volt
2. Connect the remote terminal to remote output of the head unit using upper 16 gauge wire.
3. Connect the fuse holder within 15”(30cm) of the car battery, and run the selected cable from this fuse to the amplifier.
4. Connect all the inputs with high-quality cables. Connect Remote Control if necessary.
5. Insert fuse(s) into the battery fuse holder(s).

TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amplifier will not</td>
<td>Check to make sure you have a good ground connection.</td>
</tr>
<tr>
<td>power up</td>
<td>Check that there is battery power on the (+)terminal.</td>
</tr>
<tr>
<td></td>
<td>Check all fuses, replace if necessary. Make sure that the Protection LED is not illuminated.</td>
</tr>
<tr>
<td>Protection LED Comes</td>
<td>Check for short circuits on speaker leads.</td>
</tr>
<tr>
<td>on</td>
<td>Check the speaker load not beyond the minimum load.</td>
</tr>
<tr>
<td></td>
<td>Remove speaker lead, and reset the amplifier. If the protection LED still comes on, then the amplifier is faulty and needs servicing.</td>
</tr>
<tr>
<td>No output</td>
<td>Check that the RCA audio cables are plugged into the proper inputs.</td>
</tr>
<tr>
<td></td>
<td>Check all speakers wiring.</td>
</tr>
<tr>
<td></td>
<td>Check the headunit output and the amplifier level setting.</td>
</tr>
<tr>
<td>Low output</td>
<td>Reset the level Control.</td>
</tr>
<tr>
<td></td>
<td>Check the Crossover Control settings.</td>
</tr>
<tr>
<td>High hiss in</td>
<td>Check the RCA cable is not shorted to power ground at amplifier side.</td>
</tr>
<tr>
<td>The speakers</td>
<td>Check the amplifier grounding.</td>
</tr>
<tr>
<td>Distorted sound</td>
<td>Check that the input level control is set to match the signal level of the head unit. Always try to set the input level as low as possible.</td>
</tr>
<tr>
<td></td>
<td>Check that all crossover frequencies are properly set.</td>
</tr>
<tr>
<td></td>
<td>Check for short circuits on the speaker leads.</td>
</tr>
<tr>
<td>Amplifier gets</td>
<td>Check that the minimum load impedance for the amplifier model is correct.</td>
</tr>
<tr>
<td>Very hot</td>
<td>Check that there is good air circulation around the amplifier. In some applications, it may be necessary to add an external cooling fan.</td>
</tr>
</tbody>
</table>
EXCURSION LIMITED WARRANTY POLICY

EXCURSION Intl. offers limited warranty on EXCURSION products under normal use on the following terms:

**EXCURSION Amplifiers are to be free of defects in material and workmanship for a period of one year.**

This warranty applies only to EXCURSION products sold to consumers by Authorized EXCURSION Dealers in Germany. Products purchased by consumers from an EXCURSION dealer in another country are covered only by that country’s Distributor and not by EXCURSION Intl.

This warranty covers only the original purchaser of EXCURSION product. In order to receive service, the purchaser must provide EXCURSION with the receipt stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Excursion’s discretion and will not be liable for incidental or consequential damages. EXCURSION will not warranty this product under the following situations:

* Amplifiers received with apparent rust or corrosion
* Any evidence of liquid damage or exposure to excessive heat
* Attempted repairs or alterations of any nature
* Product that has not been installed according to this owner manual

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. No person is authorized to assume for EXCURSION any other liability in connection with the sale of this product.

**Please call prior your authorized EXCURSION dealer** the product got purchased. In case they are not accessible call 0961-416-0420 for EXCURSION Customer Service. You must obtain an RA# (Return Authorization Number) to return any product to EXCURSION Intl. The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused. Please pack your return carefully! We are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus 10,- EUR for handling and diagnostic evaluation to:

EXCURSION Intl. - A Division of CHPW
Attn: Returns (RA# ....................... )
Neustaedter Str. 20
D-92685 Floss / Germany