...is all you need



SXA20

SXA45

SXA1K

SXA MINI OEM UPGRADE SERIES

CONGRATULATIONS !

You now own an EXCURSION SXA OEM Uprade Amplifier, the product of an uncompromising design and german engineering philosophy. A product made from Car Audio fanatics who truely 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 pleasere and are the perfect balance between high fidelity, extreme performance and long-lasting reliabilty.

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 Authorizied EXCURSION Dealer

To learn more about EXCURSION, please visit us on the World Wide Web at

http://www.excursion.us

CAUTION !

Continous 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. acceptss no liability for hearing loss, bodily injury, or property damage due to the result of use or missuse 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

Model	SXA1K	SXA20	SXA45
Description	Mono	2 Channel	4 Channel
1Ohm Load @ 14.4V	250W	NA	NA
2Ohm Load @ 14.4V	175W	2 X 90W	4 X 45W
4Ohm Load @ 14.4V	100W	2 X 90W	4 X 45W
Bridge Mode	NA		
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 4Ohm load	<0.3%		<0.07%
S/N Ratio	>100dB	>90dB	
BassBoost @45Hz	0-6dB switch	NA	
Efficiency @ 4Ohm	>80%	>70%	
Minimum Load	1Ohm	2Ohm	
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 (SXA1K)

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)

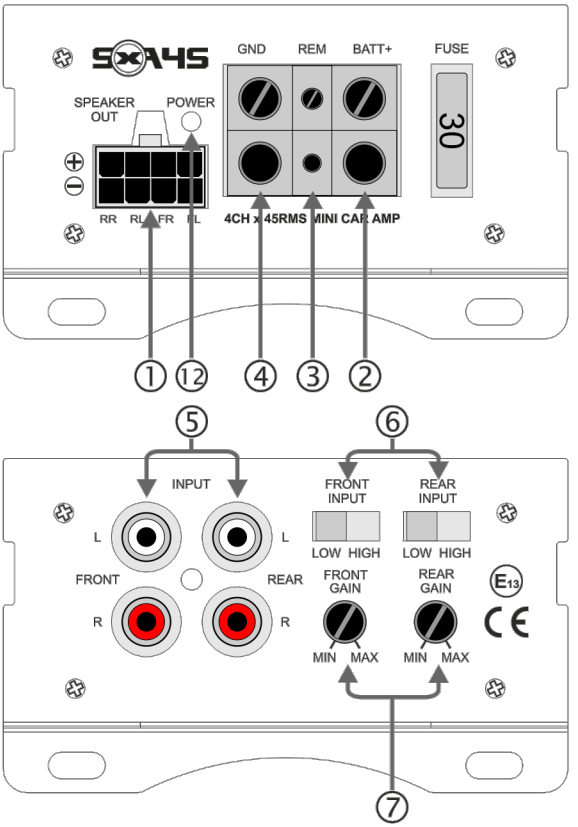
These controls allow control over the frequencies. There is an option for Low Pass or Full Range. In LP mode, the crossover frequency can be tuned from 0Hz (OFF) to 300Hz by the frequency knob.

12. Power Indicator

This LED will light up when amplifier works properly.

PANEL LAYOUT

Fig 1. SXA45 amplifier panel layout



PANEL LAYOUT

Fig 2. SXA20 amplifier panel layout

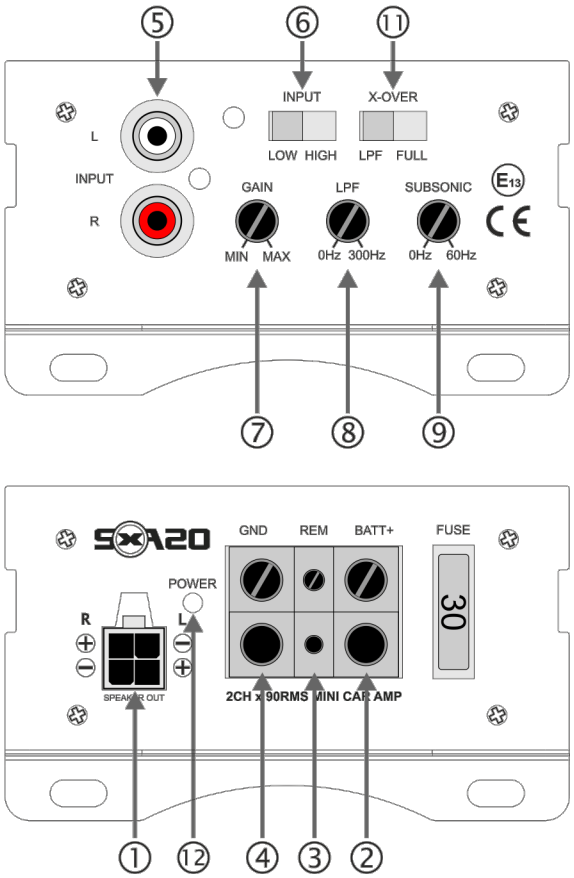
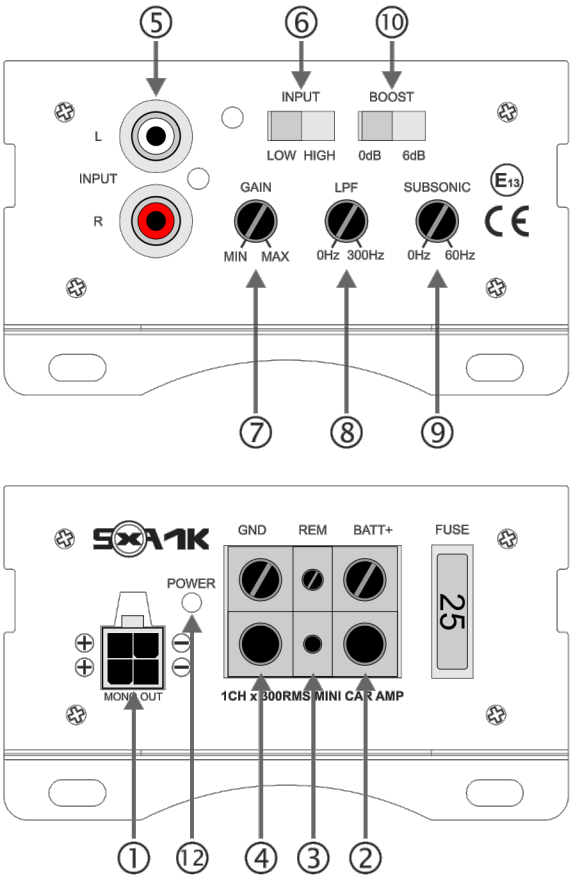
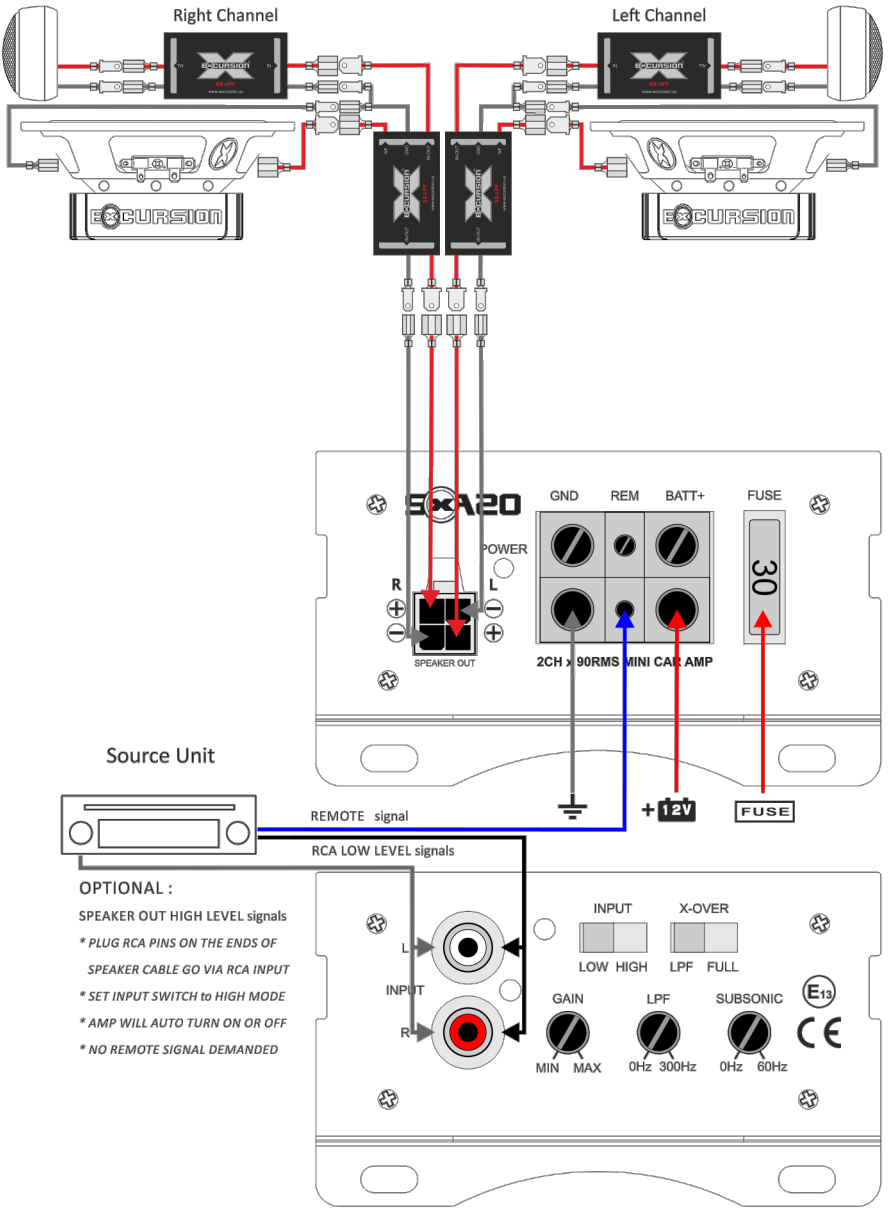


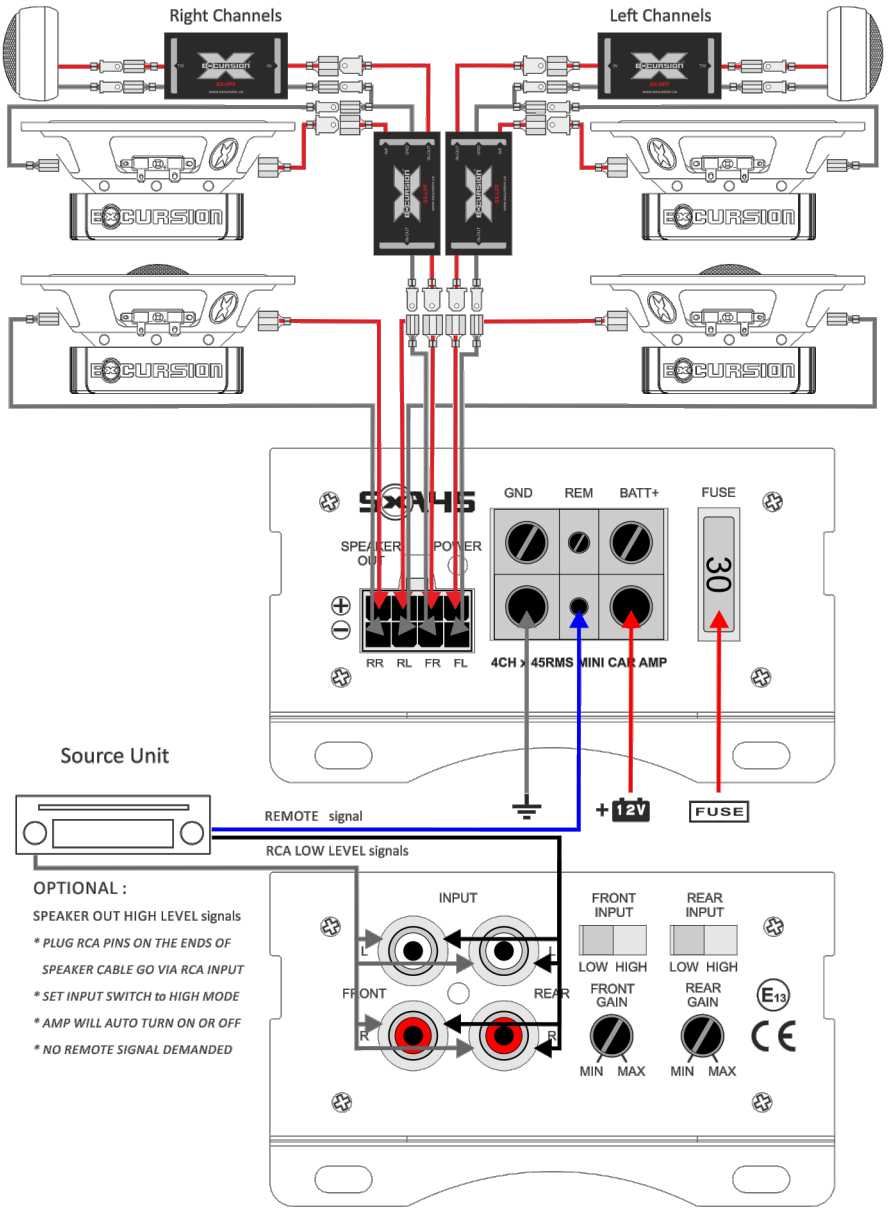
Fig 3. SXA1K amplifier panel layout



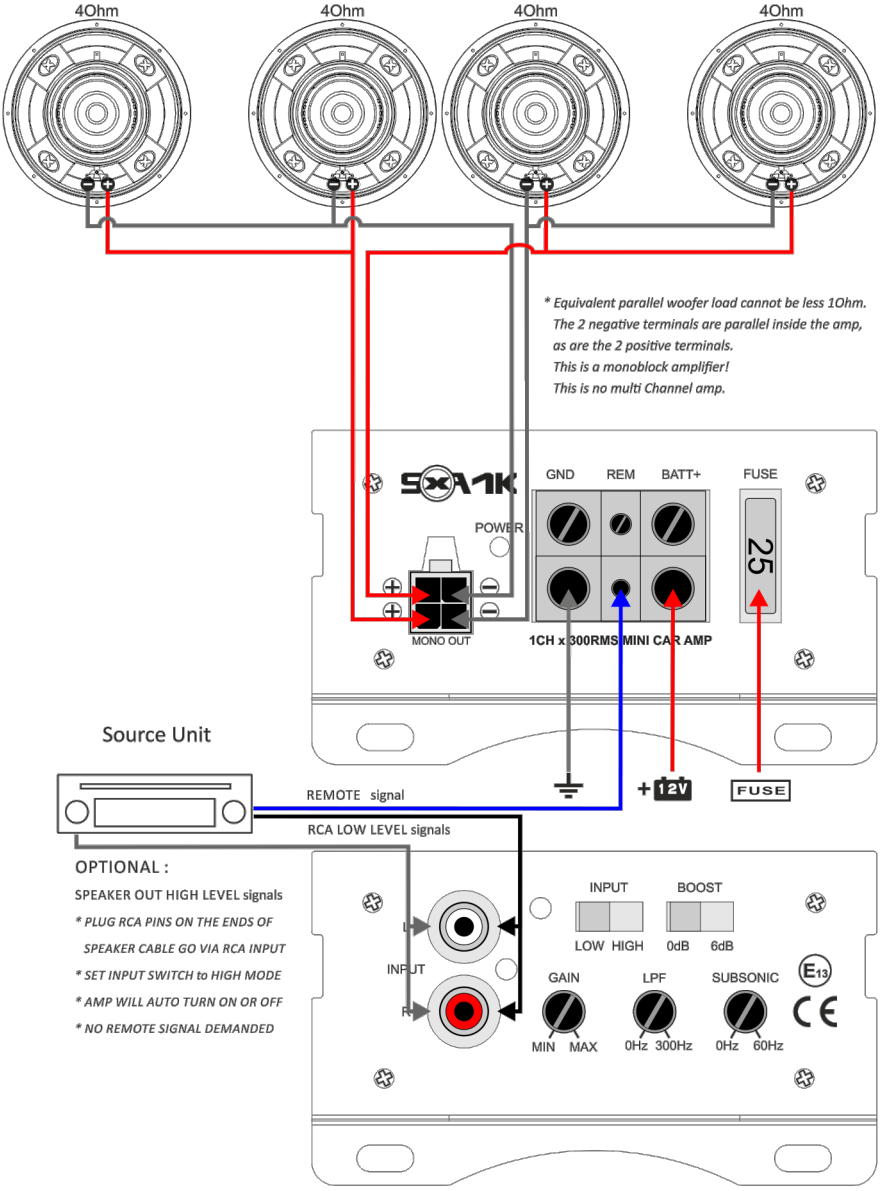
WIRING DIAGRAM SXA20



WIRING DIAGRAM SXA45



WIRING DIAGRAM SXA1K



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).

TROUBLE SHOOTING

Symptom	*Possible Remedy*
Amplifier will not power up	*Check to make sure you have a good ground connection.* *Check that there is battery power on the (+)terminal .* *Check all fuses, replace if necessary .* *Make sure that the Protection LED is not illuminated.*
Protection LED Comes on	*Check for short circuits on speaker leads.* *Check the speaker load not beyond the minimum load.* *Remove speaker lead, and reset the amplifier. If the protection LED still Comes on, then the amplifier is faulty and needs servicing .*
No output	*Check that the RCA audio cables are plugged into the proper inputs.* *Check all speakers wiring.* *Check the headunit output and the amplifier level setting.*
Low output	*Reset the level Control.* *Check the Crossover Control settings.*
High hiss in The speakers	*Check the RCA cable is not shorted to power ground at amplifier side.* *Check the amplifier grounding.*
Distorted sound	*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.* *Check that all crossover frequencies are properly set.* *Check for short circuits on the speaker leads.*
Amplifier gets Very hot	*Check that the minimum load impedance for the amplifier model is correct.* *Check that there is good air circulation around the amplifier. In some applications, It may be necessary to add an external cooling fan .*

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 Authorizied 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 authorizied to assume for EXCURSION any other liability in connection with the sale of this product.

Please call prior your authorizied 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 responsibile 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



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