

**INPUT SENSITIVITY ADJUSTMENT**

Each set of inputs (front/rear) on the 4180x are adjustable in 10 dB steps from -20 dB to +20 dB. The five (5) input gain settings allow the 4180x to accept input voltages from 100 mV to 8 V. The front and rear input sensitivity is adjusted independently by installing a jumper across the associated input voltage/pin location. Refer to the illustration on the reverse side of this document prior to setting the input sensitivity. (With the installation of a BLM-1, the input sensitivity increases to 100 mv to 17 V.)

**CROSSOVER MODES OF OPERATION**

The 4180x is equipped with independent *FRONT* and *REAR* crossovers. Each crossover is controlled by two (2) crossover mode jumpers labeled *AMP & LINE XOVR*. The header jumpers labeled *AMP XOVR* control the crossover function as it applies to the 4180x's Front and Rear amplifiers. The modes of operation are: Position 1 = Bypass (Full Range), Position 2 = High Pass, and Position 3 = Low Pass.

The two (2) header jumpers labeled *LINE XOVR* control the crossover function as it applies to the 4180x's *FRONT* and *REAR* RCA Line Outputs. The modes of operation are: Position 1 = Bypass (Full Range), Position 2 = High Pass, and Position 3 = Low Pass.

The High and Low Pass frequencies are determined by the Frequency Modules (SIPs) installed in the four (4) SIP sockets pictured on the reverse side of this document.

**CROSSOVER FREQUENCY MODULES**

The following is a chart of Xtant's available frequency modules. The frequency module (SIP) "ID Code" printed on the SIP and the associated frequency value is detailed below.

SIP Number	Frequency
2 2 4	5 0 H z
1 3 4	7 0 H z
1 1 4	8 0 H z
1 0 4	9 0 H z
6 8 3	1 2 0 H z
5 6 3	1 5 0 H z
2 7 3	3 0 0 H z
1 5 3	5 0 0 H z
1 0 3	7 0 0 H z
7 5 2	1 k H z
2 4 2	3 k H z
1 8 2	4 k H z
1 5 2	5 k H z

The 4180x amplifier is shipped from the factory with 90 Hz High Pass and Low Pass frequency modules (SIP) installed. To change frequency modules, simply remove each resistor SIP and replace it with the appropriate SIP value to achieve the desired frequency.

Low and High Pass frequencies are set independently. Any combination of frequency modules (SIPs) may be used (ie. 80 Hz Low Pass and 120 Hz High Pass).



**INSTALLER'S REFERENCE LOG**

• DATE INSTALLED: \_\_\_\_\_

• OWNER'S NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

• ADDRESS: \_\_\_\_\_

• CITY/ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

• VEHICLE: \_\_\_\_\_ YEAR: \_\_\_\_\_

• XTANT AMPLIFIER: MODEL \_\_\_\_\_ SERIAL# \_\_\_\_\_

**INPUT SENSITIVITY (CIRCLE SETTING)**

FRONT INPUTS					REAR INPUTS				
-20dB	-10 dB	0dB	+10dB	+20 dB	-20 dB	-10 dB	0 dB	+10 dB	+20 dB

**FRONT CROSSOVER**

(CIRCLE JUMPER SETTING)

**AMPLIFIER:**

BYP	HIGH	LOW
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**RCA OUTPUTS**

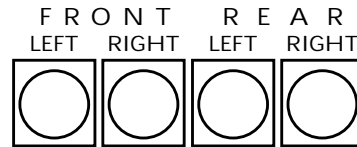
BYP	HIGH	LOW
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**FREQUENCY VALUE**

SIP HIGH PASS FREQUENCY \_\_\_\_\_

SIP LOW PASS FREQUENCY \_\_\_\_\_

**OUTPUT GAIN ADJUSTMENT**



**ACCESSORY MODULES (CIRCLE SETTING)**

CM 24X	FRONT		REAR	
	YES	NO	YES	NO
BLM-1	FRONT	REAR	FRONT	REAR
	YES	NO	YES	NO

**SYSTEM COMPONENTS**

SOURCE \_\_\_\_\_ SERIAL # \_\_\_\_\_

PROCESSOR(S) \_\_\_\_\_ SERIAL # \_\_\_\_\_

AMPLIFIER(S) \_\_\_\_\_ SERIAL # \_\_\_\_\_

**REAR CROSSOVER**

(CIRCLE JUMPER SETTING)

**AMPLIFIER:**

BYP	HIGH	LOW
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**RCA OUTPUTS**

BYP	HIGH	LOW
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**FREQUENCY VALUE**

SIP HIGH PASS FREQUENCY \_\_\_\_\_

SIP LOW PASS FREQUENCY \_\_\_\_\_

**NOISE GATE ADJUSTMENT**

SWITCH: ON OFF

**THRESHOLD POSITION**



PQM-1 (FRONT)	YES	NO
PQM-1 CHIP FREQUENCY	_____	_____
PQM-1 (REAR)	YES	NO
PQM-1 CHIP FREQUENCY	_____	_____

**xtant technologies**



**INSTALLER'S REFERENCE**

THIS DOCUMENT HAS BEEN CRAFTED TO MAKE INSTALLATION, SYSTEM DESIGN AND TROUBLE-SHOOTING, A QUICK AND EASY PROCESS. THE CHARTS PROVIDED, OFFER A SIMPLE METHOD OF DOCUMENTATION.

IT IS IMPORTANT THAT YOU RETAIN THIS LOG FOR YOUR RECORDS. ON PAGE 12 OF THE OWNER'S MANUAL, YOU WILL FIND THE OWNER'S REFERENCE LOG. ONCE YOU HAVE NOTATED THE FINAL SETTINGS FOR THIS 4180x, TRANSFER THOSE SETTINGS TO THE OWNER'S REFERENCE LOG. IN THE FUTURE, ANY SYSTEM EXPANSION AND/ OR PROBLEMS MAY BE REFERENCED TO THIS LOG.

**INSTALLATION SEQUENCE**

**REMOVE AMPLIFIER COVER:**

Loosen allen head screws and lift-off cover. Do not remove protective covering on stainless steel lid until installation is complete.

**TEMPORARILY MOUNT AMPLIFIER:**

The amplifier is designed to be anchored through the four (4) sleeved holes located on the circuit board/base assembly. (see illustration)

**MARK WIRES FOR TERMINATION AND REMOVE AMPLIFIER:**

Determine wire lengths and mark for cutting/termination. Remove amplifier before cutting and terminating all wires. CAUTION: STRIPPING WIRE OVER THE CIRCUIT BOARD MAY CAUSE PRODUCT FAILURE!

**CROSSOVER SET-UP:**

Adjust crossover mode jumpers at your work bench. Also, change crossover frequency SIP's if desired.

**INPUT SENSITIVITY:**

Make initial adjustment to input gain at your work bench. To increase input gain, place jumper in the +20 dB position. To decrease input gain, place jumper in the 0, -10, or -20 dB position. Note: factory setting is +10 dB / 300mv -1V.

**MOUNT THE AMPLIFIER AND MAKE ALL CONNECTIONS:**

**DOUBLE CHECK ALL CONNECTIONS! TURN ON AMPLIFIER.**

Check red LED, it should be on.

**ADJUST FRONT AND REAR AMPLIFIER GAIN POTS.**

**ADJUST NOISE GATE THRESHOLD (IF USED):**

The amplifier is shipped with the noise gate defeated. Turn noise gate on and adjust the threshold by turning clockwise to increase sensitivity (gate will open with less input signal). The green LED will illuminate when the gate passes signal.

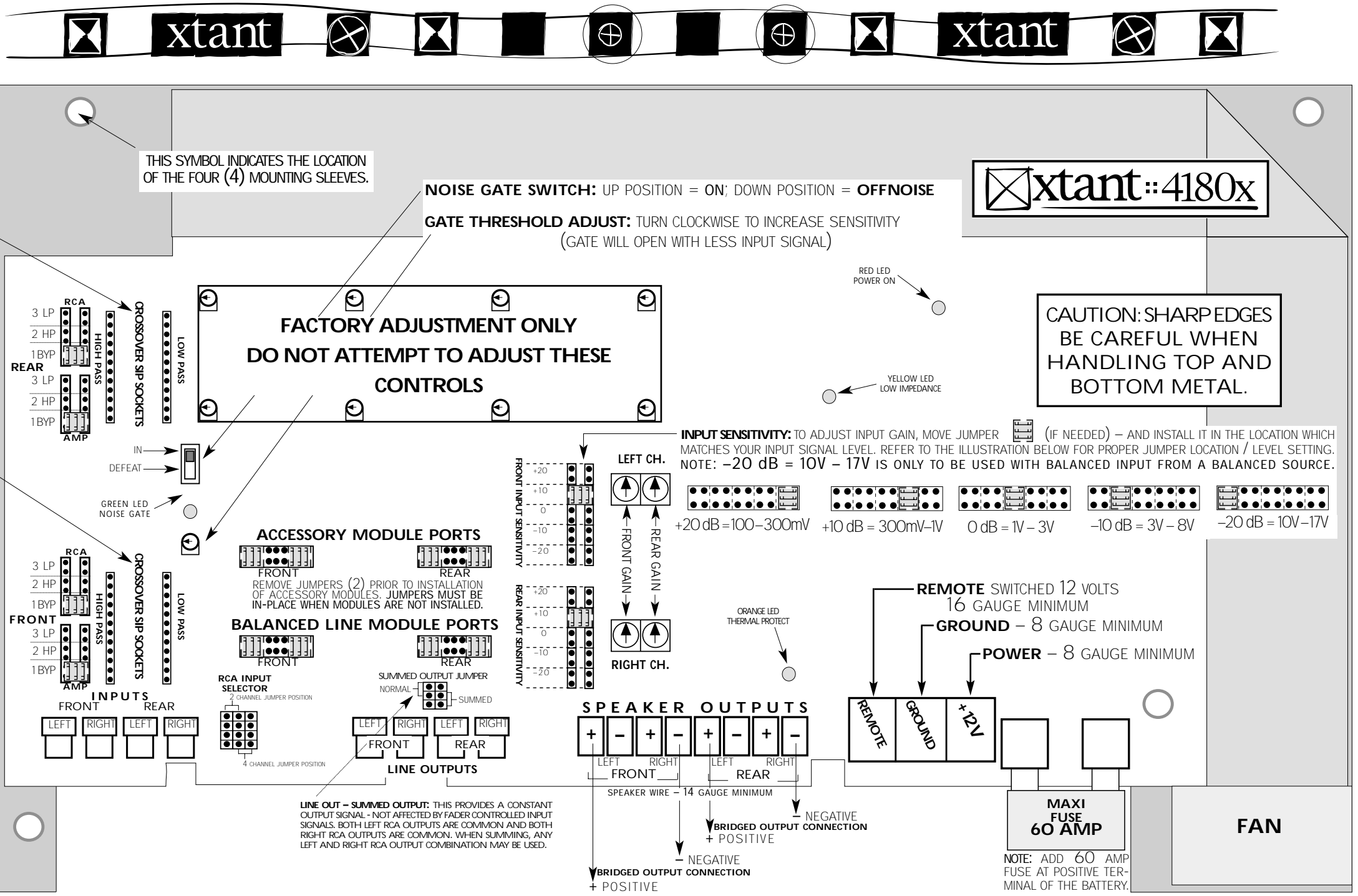
**AFTER FINE TUNING THE SYSTEM:**

Remove protective covering from amplifier and clean per the maintenance section on page 9 of the **Owner's Manual**. Attach cover to base.



# INSTALLERS REFERENCE

## XTANT 4180X



THIS SYMBOL INDICATES THE LOCATION OF THE FOUR (4) MOUNTING SLEEVES.

**NOISE GATE SWITCH:** UP POSITION = ON; DOWN POSITION = OFF/NOISE

**GATE THRESHOLD ADJUST:** TURN CLOCKWISE TO INCREASE SENSITIVITY (GATE WILL OPEN WITH LESS INPUT SIGNAL)

**xtant::4180x**

**CAUTION: SHARP EDGES BE CAREFUL WHEN HANDLING TOP AND BOTTOM METAL.**

### CROSSOVER FREQUENCY SELECTION:

TO CHANGE THE FREQUENCY OF EITHER THE HIGH AND/OR LOW PASS FILTERS, REMOVE AND REPLACE THE 90 HZ FREQUENCY MODULE (SIP) INSTALLED ON THE CIRCUIT BOARD NEXT TO THE CROSSOVER MODE JUMPERS. NOTE THAT THE IDENTITY OF THE HIGH & LOW PASS SOCKETS ARE NOT MARKED ON THE BOARD. REFER TO THIS DRAWING FOR LOCATION & THE CHART ON THE BACK FOR THE INCLUDED SELECTION OF SIP / FREQUENCY VALUES.

### CROSSOVER MODE JUMPERS:

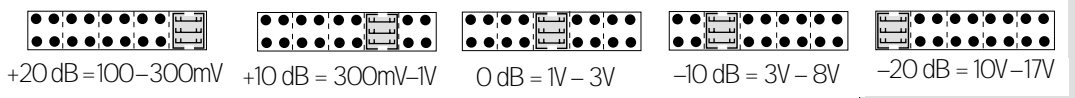
#### RCA OUTPUTS:

- 3 - Low Pass
- 2 - High Pass
- 1 - BYPASS

#### AMPLIFIER:

- 3 - Low Pass
- 2 - High Pass
- 1 - BYPASS

**INPUT SENSITIVITY:** TO ADJUST INPUT GAIN, MOVE JUMPER (IF NEEDED) - AND INSTALL IT IN THE LOCATION WHICH MATCHES YOUR INPUT SIGNAL LEVEL. REFER TO THE ILLUSTRATION BELOW FOR PROPER JUMPER LOCATION / LEVEL SETTING. NOTE: -20 dB = 10V - 17V IS ONLY TO BE USED WITH BALANCED INPUT FROM A BALANCED SOURCE.



**LINE OUT - SUMMED OUTPUT:** THIS PROVIDES A CONSTANT OUTPUT SIGNAL - NOT AFFECTED BY FADER CONTROLLED INPUT SIGNALS. BOTH LEFT RCA OUTPUTS ARE COMMON AND BOTH RIGHT RCA OUTPUTS ARE COMMON. WHEN SUMMING, ANY LEFT AND RIGHT RCA OUTPUT COMBINATION MAY BE USED.

NOTE: ADD 60 AMP FUSE AT POSITIVE TERMINAL OF THE BATTERY.