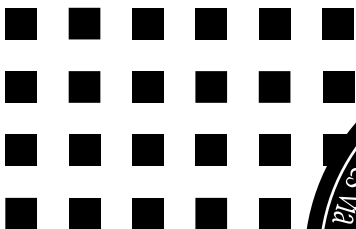
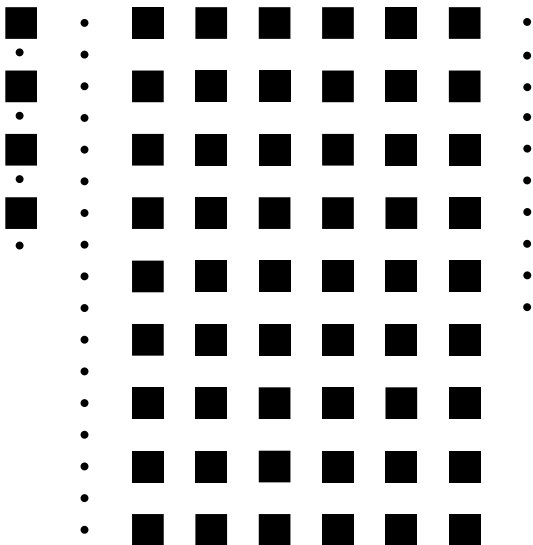


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OWNER'S MANUAL



XTANT TECHNOLOGIES



xtant :: 302a

x•tant

x•tant (ikst`ænt, e`kstent) 1. *adj.* still in existence, especially. of **enduring excellence**. || e.g. *of xtant quality that stands the test of time and the passing of fads.* 2. *adj.* Standing out or above, as in **outstanding**, the quality or state of being **original**. [from. L. xstans (xstantis) n present participle of xstare, to stand forth. || Second origin; Prescott AZ. U.S.A. Ntl. Frst. Cmp. 1994 v. to xtantify = to stand up and be heard] 3. *noun* /XTANT **applied creativity** esp. a *company of people united to apply original thinking to continually advance the spectrum of extraordinarily **vivid sound reproduction**, to apply innovative thought and action to questions previously considered resolved.* ||

Xtant Technologies

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SAFEGUARDS

Please take the time to read this Owners Manual. The following guidelines are designed to assure a safe and properly installed Xtant Mobile Audio System.

All Xtant amplifiers and accessories are intended to be installed by a certified professional mobile audio installation specialist. It is the recommendation of Xtant Technologies that your new Xtant product(s) and all of your mobile audio products be installed by your Authorized Xtant Dealer.

CAUTION!

The use of a high-powered, mobile audio sound system may cause damage or a loss of hearing. Listening at loud volume levels may impair your ability to hear traffic sounds, and therefore, may constitute a traffic hazard. Xtant advises lower volume levels while driving.

INSTALLER'S REFERENCE (INSERT)

The Installer's Reference is an insert included in this manual. It is designed to assist your Authorized Xtant Select Dealer's professional installer. Installation techniques critical to the creation of a high-performance mobile audio sound system, (procedures for running wires, basic safety rules, and system layout concepts) are not presented in this owners manual. All Authorized Xtant Select Dealers have been chosen for their expertise in system design and advanced installation capabilities and Xtant highly recommends that you have all of your mobile audio products professionally installed. If, however, you choose to install your Xtant amplifier yourself, please refer to the Installer's Reference prior to installation.

WIRING REQUIREMENTS

All Xtant amplifiers have minimum wire gauge requirements for Power, Ground, Remote Turn-On, and Speaker cables. Please refer to the Installer's Reference for recommended wire gauges.

FUSING REQUIREMENTS

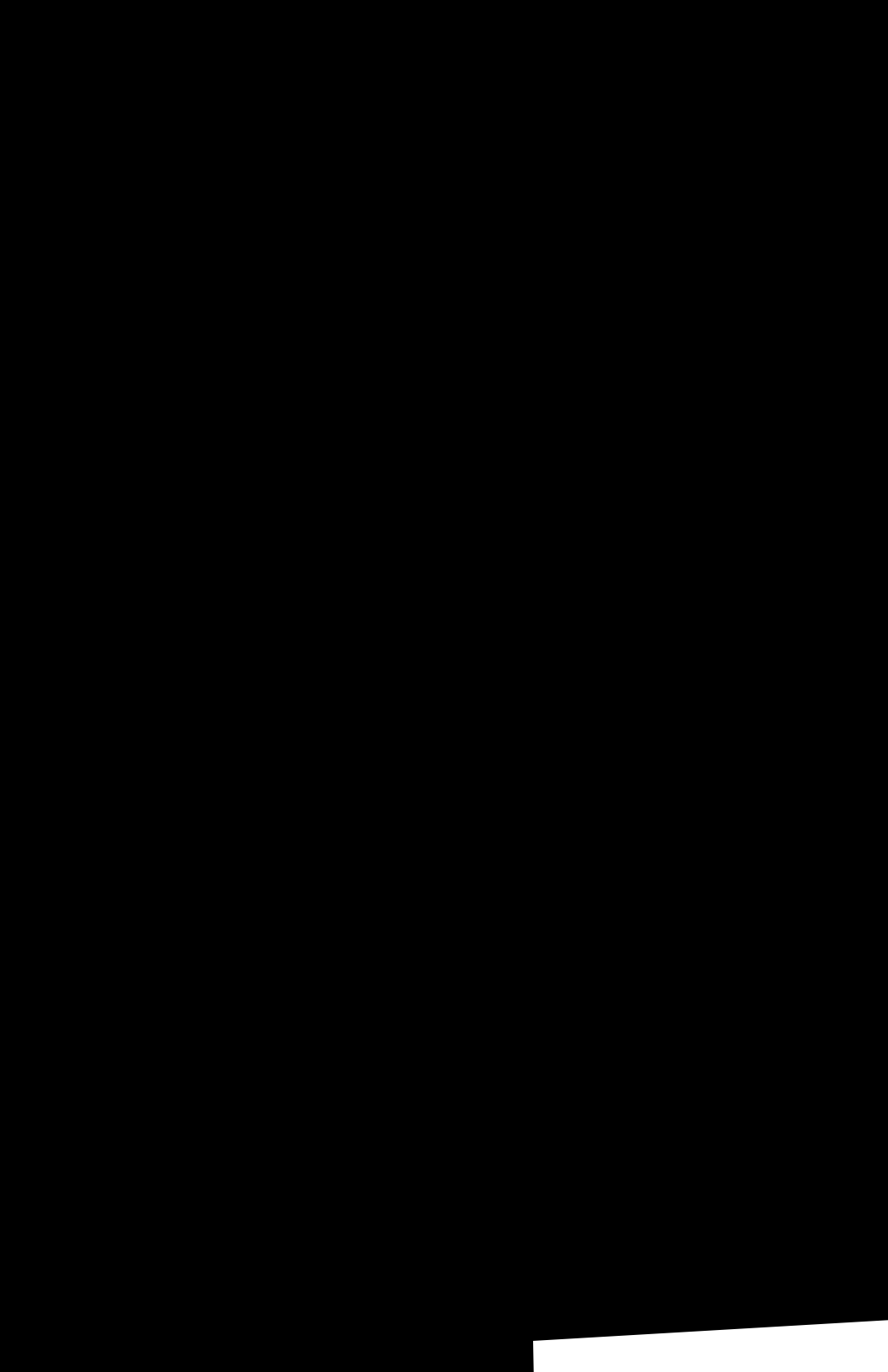
The 302a is not fuse protected! For safety, an outboard 50 amp fuse may be added close to the amplifier. A 50 amp fuse must be installed in-line with the power wire at the battery. In the case of a multi-amp system, use a fuse value equal to the combined total demand of all amplifiers in the system.



WATER AND MOISTURE

Install all Xtant amplifiers and accessories in a location free of moisture or exposure to water.







XTANT 302A SPECIFICATIONS

Frequency Response	5 Hz to 50 kHz +/- 3 dB
Number of Channels	2
Watts per Channel @ 4Ω	2 x 75
Watts per Channel @ 2Ω	2 x 150
Bridged Mono @ 4Ω	1 x 300
Distortion (THD)	< .04%
Signal to Noise Ratio	> 100 dB
Damping Factor	> 200 @ 100 Hz with 4Ω Load
Input Sensitivity	100 mV to 8.5 V RMS Unbalanced Source 100 mV to 17 V RMS Balanced Source
Input to Line Output Gain	0 dB +/- 20 dB, Selectable in 10 dB Steps
Line Outputs:	Yes
Module Ports	2 for Amplifier and 1 for Line Outputs
Crossover	CM12HP Included
Power Supply	Fully Regulated, Pulse Width Modulated
Operational Voltage	11 to 15 Volts
Fusing	No On-Board Fuse
Fusing Requirement	50 Amp
Size (L x W x H)	14.5 x 7.6 x 2.25"
Warranty	Limited 4 Year Parts and Labor

SEE PAGE ELEVEN OF THIS MANUAL FOR COMPLETE DETAILS



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ADDING ACCESSORIES MODULES

The 302a is equipped with three accessory docking ports.

The two ports dedicated to the amplifier are labeled *Amp Vert/Horiz Acc Port* and *Amp Vert Acc Port*. The third port is dedicated to the RCA line outputs and is labeled *Line Out Vert Acc. Port*.

Xtant offers two types of accessory modules which are designed for either “Horizontal” or “Vertical” mounting. The docking port, located behind the RCA line outputs, labeled *Amp Vert/Horiz Acc Port* will accept any module, while the ports labeled “Vert” will only accept modules designed for vertical mounting.

The two accessory ports dedicated to the amplifier allow you to add the level(s) of signal processing that your system requires. An example would be if a *band pass function* is required, a CM12H (high pass at the lowest frequency of the band pass) and a CM12L (low pass at the highest frequency of the band pass) could be used to create a 12 dB per octave band pass filter. A more basic set-up would be a PQM-1 EQ module and a CM 12 crossover module.

The *Line Out Vert Acc Port* will only accept one of the “vertical” accessory modules. This allows bass equalization or a crossover function to be dedicated to the RCA line outputs. If a module is not used (jumpers in place), a signal is still present at the RCA line outputs.



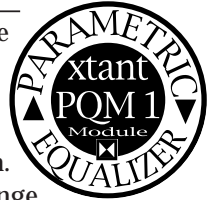


OPTIONAL ACCESSORY MODULES

Xtant optional accessory modules are easily and quickly installed by your Authorized Xtant Dealer. The upgrade modules snap into place on the amplifiers PC board when the top of the unit is removed. These accessories enhance your entire system, expanding and customizing performance for your unique application.

PARAMETRIC EQUALIZATION MODULE - PQM 1

The PQM-1 is a precision tuning instrument, designed to be adjusted with the use of a *Real-Time-Analyzer*. This true, fully adjustable, one band parametric equalizer provides individual frequency, Q (bandwidth), and gain adjustments. Any frequency from 20 Hz to 20kHz can be chosen. The “Q” ranges from 1 to 10 in value, providing a wide range of adjustment to address the subtle tuning requirements common with most mobile audio systems.



24 DB / OCTAVE CROSSOVER MODULE - CM 24X

The CM-24X is a 24 dB per octave “Linkwitz - Riley” crossover filter. The CM-24x module improves loudspeaker polar response while its steeper slope provides enhanced system design flexibility.

12 DB / OCTAVE FILTER MODULES - CM 12H & CM12L

The CM12H and CM12L are 12 dB per Octave “Butterworth” filter networks dedicated to either a High-Pass function (CM12H) or Low-Pass function (CM12L). Each module is designed to be plugged into any accessory port on Xtant’s 301a and 302a amplifiers. Frequency adjustment is via a 12 pin plug-in resistor SIP (Single In-line Package) and 13 different frequency SIPs are available from your authorized Xtant Dealer.

RESISTOR MODULES - RM4, RM8, RM12 & RM16

The RM 4, 8, 12 & 16 resistor modules are designed to activate the “passive speaker terminals” on the 302a while providing four different levels of attenuation for the speakers connected to these terminals. The RM 4 module offers 4 dB of attenuation, the RM 8 offers 8 dB of attenuation, the RM 12 offers 12 dB of attenuation and the RM 16 offers 16 dB of attenuation.



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MAINTENANCE

RECOMMENDED CLEANING PROCEDURES

CLEANING THE FAN / CIRCUIT BOARD - EVERY 90 DAYS

- A. The internal fan in all Xtant amplifiers need periodic cleaning. If you are in a high dust environment, every 30 days is recommended. We recommend that your dealer remove the cover and clean the fan blades with a soft brush. Loose dust can be removed with a vacuum hose.

CAUTION: Have your dealer check the fan for obstructions if your amplifier over heats. When the Thermal Protection Circuit is engaged, the orange LED will be illuminated and power may be reduced.

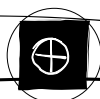
- B. Have your dealer check the circuit board for dust. If present, use a low pressure air source to blow-off the dust particles. **DO NOT** use a high-pressure source, brush or any similar device to clean the circuit board!

CLEANING THE AMPLIFIER

Clean the stainless steel cover with a cotton cloth. For a more thorough cleaning, use WD 40™. Apply the cleaner to the cloth (not the amplifier) and wipe the surface. Take care not to catch the cloth on the copper mesh.

CAUTION: Do not allow liquids to touch the circuit board.

- B. To polish the stainless steel cover use a commercially available stainless steel cleaner/polish. Please read the directions supplied with the polish before beginning. Apply the cleaner/polish to the cloth (not the amplifier) and wipe the surface. Take care not to catch the cloth on the copper mesh.





CUSTOMER RELATIONS TECHNICAL SERVICES

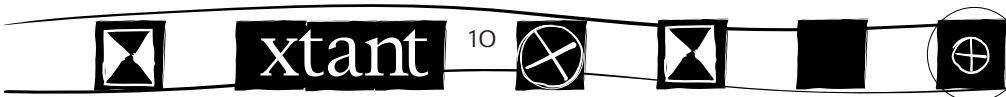
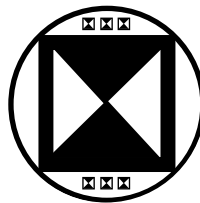
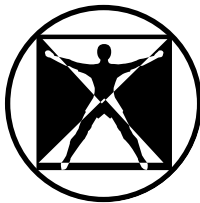
STATEMENT OF PURPOSE

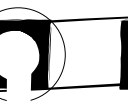
Our customer's satisfaction is our purpose. You represent our present and our future. It is our goal to create and nurture relationships based upon trust and respect. This commitment is not taken lightly or just for today; it is our way of doing business. We believe there is no other way.

Xtant's policies and procedures are designed, in the event of a problem, to minimize the amount of your "down-time" and inconvenience. It is our commitment that the product will be at our facility for no more than four (4) days. Please consider weekends or holidays (which may fall within the time period) when estimating the return date of serviced product.

For technical assistance and information regarding products and/or installation, please contact Xtant's Customer Service Department from 8:00 am to 5:00 pm MST- Monday thru Friday at:

PHONE: (602) 431 8686
FAX: (602) 431 8600
U.S.A. TOLL FREE: (888) 449 8268







OWNER'S INSTALLATION LOG

Upon installation of your mobile audio sound system, your Authorized Xtant Select Dealer will complete this log. Keep this owners manual with your vehicle as a reference for all amplifier settings.

OWNERS NAME: _____

VEHICLE: MAKE/MODEL: _____ YEAR: _____

XTANT AMPLIFIER SERIAL NO. _____

INPUT SENSITIVITY JUMPER (CIRCLE SETTING)

-20 dB (x .1) -10 dB (x .3) 0 dB (x 1) +10 dB (x 3) +20 dB (x 10)

OUTPUT GAIN ADJUSTMENT

(DRAW ARROW POSITION)



CHAN 1 CHAN 2

I N S T A L L E D A C C E S S O R Y M O D U L E S

AMPLIFIER PORTS

PQM 1	YES	NO
CM 24X	YES	NO
LFQ 45	YES	NO
CM 12 H	YES	NO
CM 12 L	YES	NO
RM 4	YES	NO
RM 8	YES	NO
RM 12	YES	NO
RM 16	YES	NO

RCA LINE OUTPUT PORT

N/A		
N/A		
LFQ 45	YES	NO
CM 12 H	YES	NO
CM 12 L	YES	NO
N/A		
N/A		
N/A		
N/A		

XTANT SELECT DEALER _____

PHONE: _____

INSTALLATION SPECIALIST: _____

DATE INSTALLED: _____

