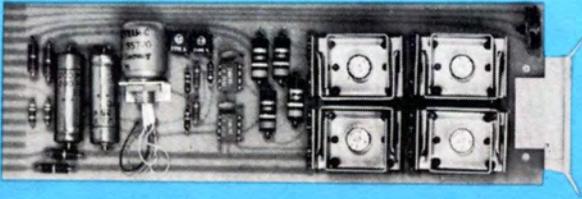
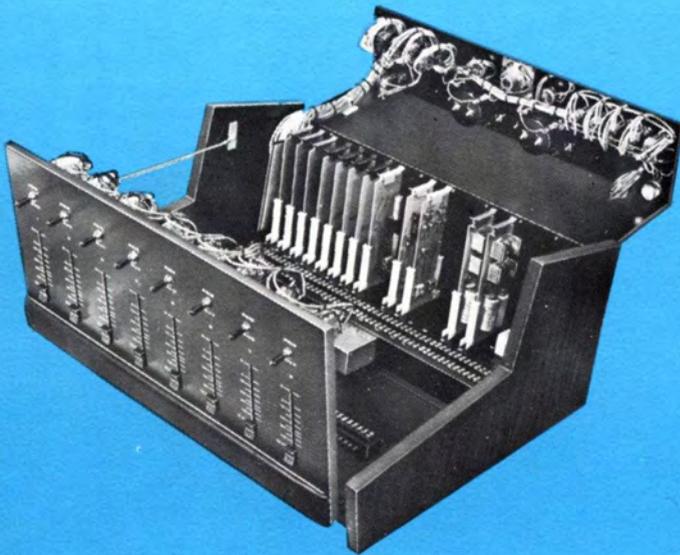


# INTEGRA 3

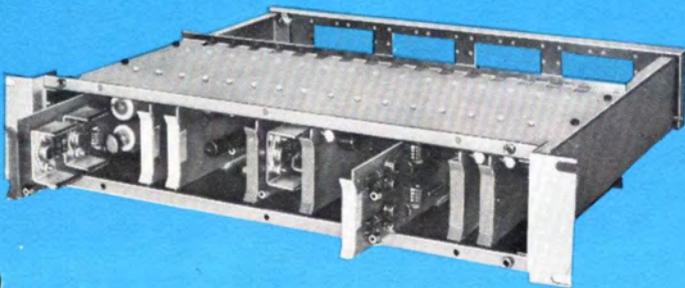
## AUDIO MODULES...



## CONSOLES...



## SYSTEMS...



### TOTAL FLEXIBILITY, VERSATILITY & PERFORMANCE...FOR:

- BROADCAST—AM/FM/TV & CAT /
- RECORDING PRODUCTION
- SOUND REINFORCEMENT/PA
- COMMUNICATIONS
- ENGINEERED SOUND
- THEATER SOUND



**ROBINS**   
BROADCAST AND SOUND EQUIPMENT CORP.  
CATALOG NO. 707

The ROBINS INTEGRA 3 SYSTEM, (the complete line of audio processing components and accessories,) is designed with the latest Integrated Circuit op-amps, and offers excellent performance, economy, reliability and compactness.

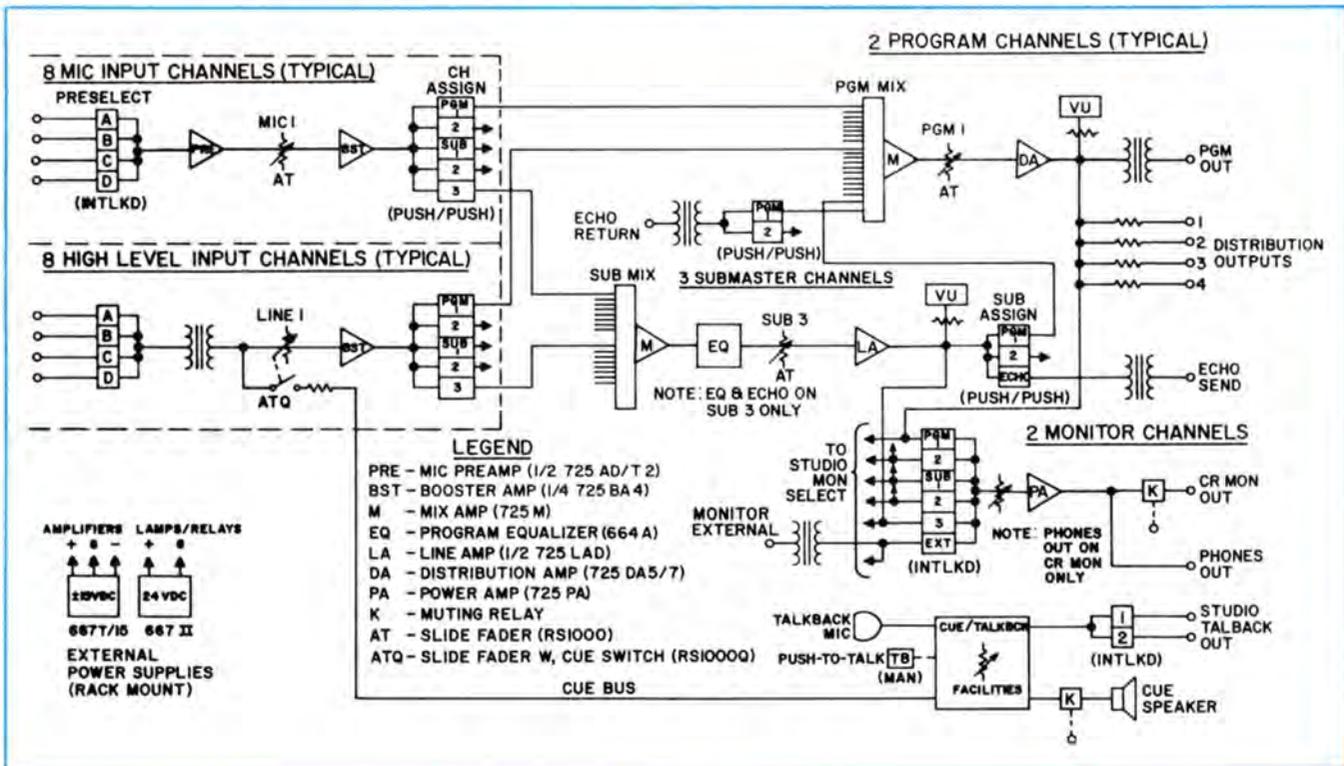
INTEGRA 3 is a simple and efficient, yet flexible approach, to the design of audio mixers, consoles and systems of practically any complexity, with nearly unlimited applications in Broadcasting,

Recording and Professional Sound Reinforcement.

All INTEGRA 3 modules are built on 2½" x 7½" epoxy-glass two ounce clad P-C boards with precious metal plated contacts, with only the highest quality electronic components installed.

ROBINS engineering staff will be glad to assist you, in selecting the INTEGRA 3 components for your next project, however large or small.

### TYPICAL EXAMPLE OF INTEGRA 3 AUDIO CONSOLE DESIGN

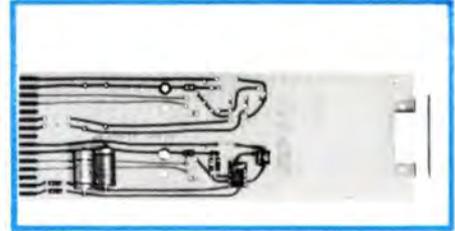
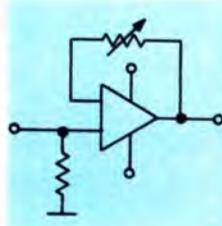


### INTEGRA 3 APPLICATIONS

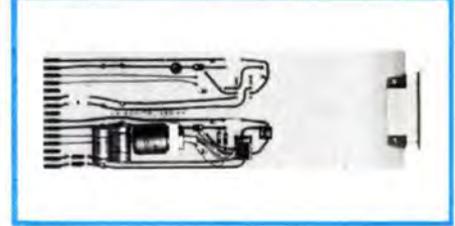
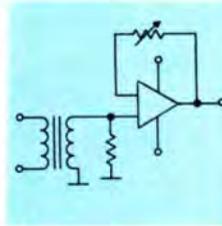
- AUDIO MIXERS
- SOUND REINFORCEMENT SYSTEMS
- PORTABLE SOUND SYSTEMS
- THEATRE SOUND SYSTEMS
- RECORDING STUDIO MIXERS
- AUDIO DISTRIBUTION SYSTEMS
- AUDIO SWITCHING SYSTEMS
- REMOTE ATTENUATION SYSTEMS
- MONITORING SYSTEMS
- PREAMPLIFIER/LIMITER/COMPRESSORS
- AUDIO CONSOLES & SYSTEMS  
INTEGRATED (self-contained)...or...REMOTE CONTROLLED

If You Didn't Get This From My Site,  
Then It Was Stolen From...

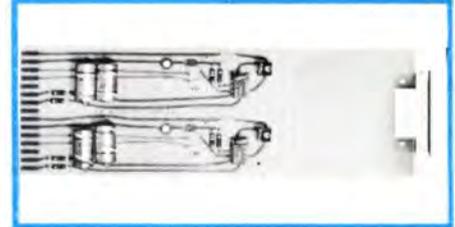
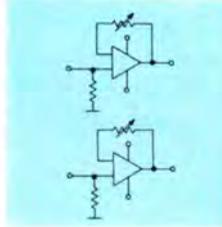
**F72500 (725 A) AMPLIFIER CARD**—A basic, low noise amplifier card designed for use as a preamplifier for medium level inputs, or as a line or booster amplifier. Consists of an I.C. op-amp with power supply decoupling and continuously adjustable gain from unity to 35 dB. Input impedance 100K ohms. Output impedance 0.5 ohm. Max. input +18 dBm. Distortion less than 0.1% at ±18 dBm max. output. Equivalent input noise -127 dBm. Frequency response ±0.5 dB, 20 Hz-20 KHz. Requires ±15-18 VDC bipolar power supply at 6 mA max.



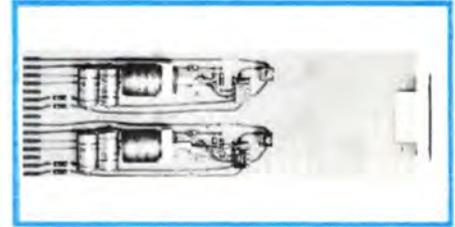
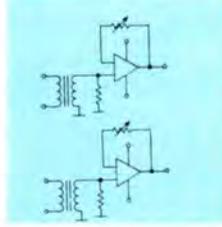
**F72501 (725 A/T) MICROPHONE PREAMPLIFIER CARD**—Specifically designed for low noise amplification of low level microphone inputs of an audio console or system. A microphone input transformer is added to the 725A basic amplifier for 20 dB increase in voltage gain. Input impedance 600 ohms, designed for use as a mic preamplifier with 150-200 ohm source. Gain is adjustable for 20-55 dB. Max. input -10 dBm. Distortion less than 0.5% at +18 dBm output.



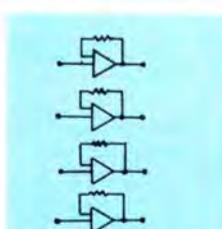
**F72504 (725 AD) DUAL AMPLIFIER CARD**—Designed for use as stereo or dual monaural preamplifier, line or booster amplifier. Equivalent to two 725A basic amplifiers on a single card. Separate power decoupling is provided for each amplifier. Requires ±15-18 VDC bipolar power supply at 6 mA per amplifier (12 mA per card).



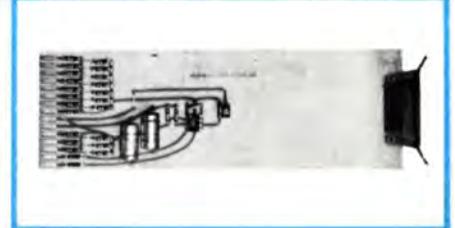
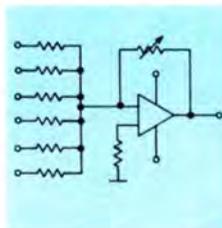
**F72505 (725 AD/T2) DUAL MIC PREAMPLIFIER CARD**—A stereo or dual monaural microphone preamplifier. Equivalent to two 725 A/T on single card with separate power decoupling for each amplifier.



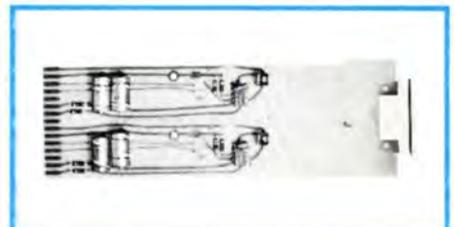
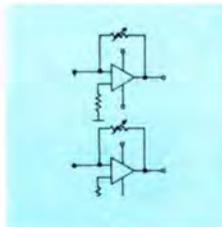
**F72512 (725 BA4) FOUR CHANNEL BOOSTER AMP CARD**—Four amplifiers similar to the 725 A but with gain fixed at 20 dB, each amplifier. Economical means of boosting audio signals within the audio chain to improve S/N. (i.e. following faders to increase levels fed to the mixing buses). One card serves 4 mono or 2 stereo channels. Also useful as isolation amplifiers. Max. input 0.8 VAC (OVU). Max. output 8 VAC (20 VU) or +18 dBm into 600 ohm load, +20 dB into 1K ohm load. S/N 80 dB below OVU out (20 Hz-20 KHz). Inter-channel crosstalk better than -70 dB. Requires ±15-18 VDC bipolar power supply at 6 mA max. per amplifier (24 mA per card)



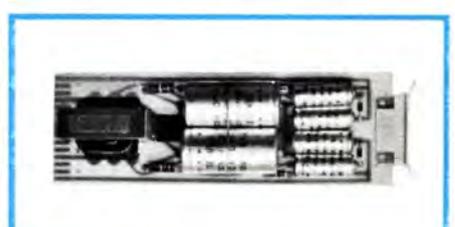
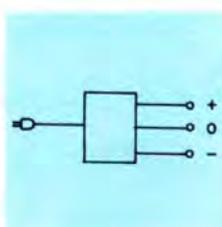
**F72524 (725 M) MIXING (SUMMING) AMPLIFIER CARD**—The heart of the audio console or mixer, the mixing amplifier is used to combine input signals assigned to the program buses. Accepts up to 21 inputs, with mixing resistors on card. Additional inputs may be fed directly to mix bus. No loss summing amplifier provides better than 80 dB isolation between input sources. Input impedance 10 K ohms each input. Adjustable gain, unity to 20 dB Max. output +18 dBm. Recommended load impedance 600 ohms or higher. Distortion less than 0.5% before clipping. S/N 85 dB below 0 dBm with unity gain. Frequency response ±0.5 dB, 20 Hz-20 KHz. Requires ±15-18 VDC bipolar power supply at 6 mA max.



**F72547 (725 ADM) DUAL MIXING AMPLIFIER** — Similar to 725 M. Requires external mixing resistors.

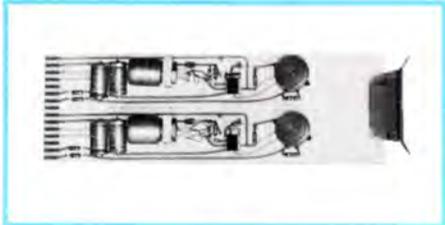
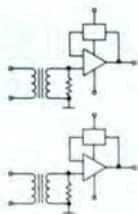
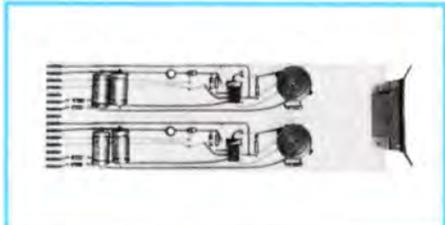
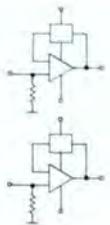
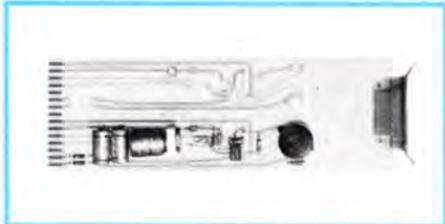
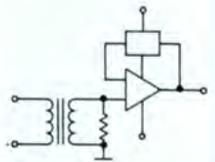
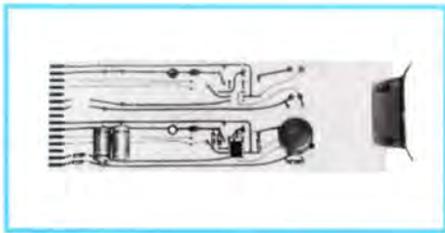
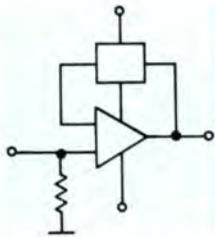


**F72513 (725 BPS) BIPOLAR POWER SUPPLY CARD**—Zener regulated, filtered bipolar power supply provides ±15 VDC, ±10%, for powering 725 series I.C. op-amp cards. Delivers up to 50 mA per section with max. 0.2 mV ripple. Requires 110-120 VAC, 50/60 Hz. Takes up two spaces in 725 card files.



**F72548 (725 PS 6.3) 6.3 V DC POWER SUPPLY CARD** — To power remote luminen attenuator boards. Delivers up to 500 mA with 3 mV max ripple. Same as above.

## COMPRESSORS



**F72502 (725 AC) AMPLIFIER/COMPRESSOR CARD**—Reduction of the dynamic range (compression) reduces the need for constant, manual riding of gain and allows the use of higher average levels within the audio chain, thereby reducing noise and preventing signal distortion due to clipping. Designed for use in medium level input or program channels in an audio console or system. Amplifier characteristics similar to 725 A basic amplifier. Compressor has 3:1 compression ratio with lowest threshold at  $-50$  dBm (input) and max. compression 35 dB. Max. input  $+15$  dBm. Attack time, 0.1 msec. Release time 4 sec. max. Requires  $\pm 15$ -18 VDC bipolar power supply at 6 mA max.

**F72503 (725 AC/T) MIC PREAMPLIFIER/COMPRESSOR CARD**—Compression of microphone inputs simplifies the console operators task in live programming or recording. The compressor automatically controls the gain of the preamplifiers without sharply limiting the natural variations in signal level. Microphone input transformer added to 725 AC increases voltage gain 20 dB. 600 ohm input impedance accepts 150-200 ohm source. Gain adjustable 20 to 55 dB. Max input  $-10$  dBm. Amplifier and compressor characteristics similar to 725 AC.

**F72506 (725 ADC) DUAL AMPLIFIER/COMPRESSOR CARD**—Designed for stereo or dual monaural applications. Equivalent to two 725 AC on single card. Separate power decoupling is provided for each amplifier.

**F72507 (725 ADC/T2) DUAL MIC PREAMPLIFIER/COMPRESSOR CARD**—For compression of stereo or two monaural microphone inputs. Equivalent to two 725 AC/T on single card, with separate power decoupling for each amplifier.

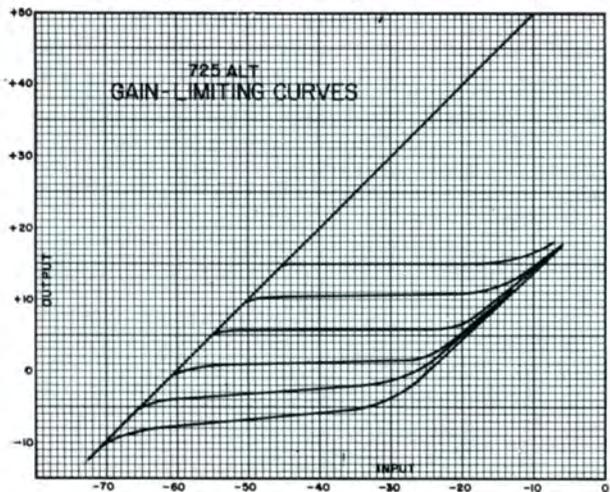
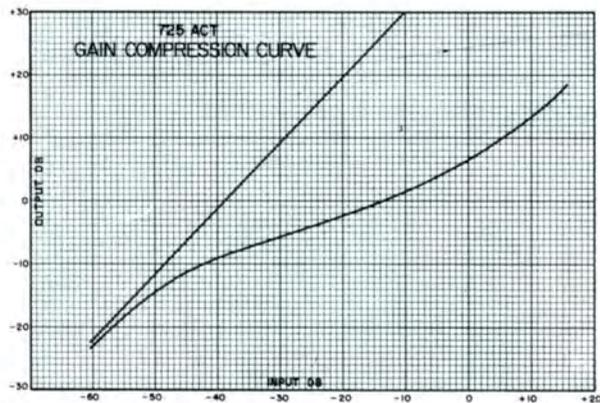
## LIMITERS

**F72510 (725 AL) AMPLIFIER/LIMITER CARD**—Protects input or program circuits from distortion due to clipping. Limits amplifier output to adjustable preset level automatically, by controlling gain of op-amp. Amplifier characteristics similar to 725 AC. Limiting ratio 40:1 with 35 dB max. limiting available at full gain. Lowest threshold  $-10$  dBm (output). Requires  $\pm 15$ -18 VDC bipolar power supply at 6 mA max.

**F72511 (725 AL/T) MIC PREAMPLIFIER/LIMITER CARD**—Prevents signal overload from overdriven microphone at input to the audio chain. Microphone input transformer added to 725 AL increases voltage gain 20 dB. 600 ohm input impedance accepts 150-200 ohm source. Amplifier characteristics similar to 725 A/T. Limiter characteristics similar to 725 AL. Gain adjustable 20 to 55 dB (without limiting). Max. input  $-10$  dBm, with 35 dB max. limiting.

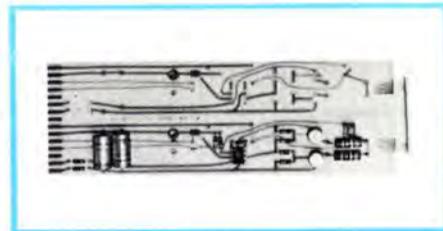
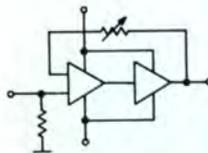
**F72506 (725 ADC) DUAL AMPLIFIER/LIMITER CARD**—For stereo or two monaural channels. Equivalent to two 725 AL on single card. Separate power decoupling is provided for each amplifier.

**F72509 (725 ADC/T2) DUAL MIC PREAMPLIFIER/LIMITER CARD**—Protects stereo or two monaural microphone inputs. Equivalent to two 725 AL/T on single card, with separate power decoupling for each amplifier.

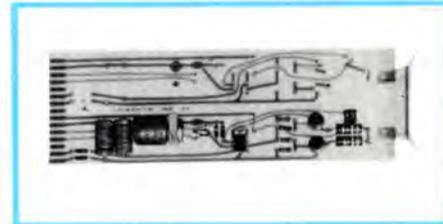
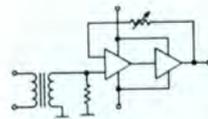


\*U.S. Patent No. 3,596,011

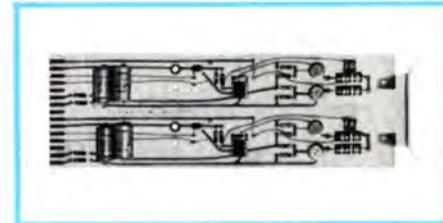
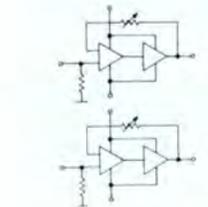
**F72518 (725 LA) LINE AMPLIFIER CARD**—Delivers +18 dBm output power into as low as 8 ohm load. Use as a line, booster, power or distribution amplifier. Input impedance 100 K ohms. Output impedance 0.1 ohm. Gain adjustable, unity to 35 dB. Distortion less than 0.2%. Max. input -18 dBm. Max output +27 dBm. with output transformer or 0.5 watt into 8 ohm load. Equivalent input noise -127 dBm. Frequency response  $\pm 0.5$  dB, 20 Hz-20 KHz. Requires  $\pm 15-18$  VDC, 6 mA idling, 10 mA with 600 ohm load, 120 mA with 8 ohm load. Recommended output transformer, part no. B86511.



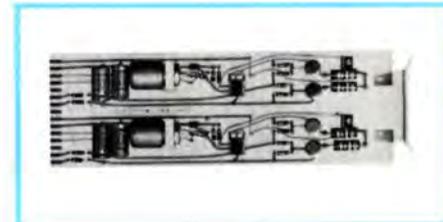
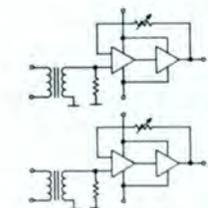
**F72519 (725 LA/T) MIC PREAMPLIFIER CARD**—Microphone input transformer added to 725 LA. High power output enhances versatility of mic preamplifier, providing additional headroom required for recording and production work. The preamp can serve as mic to multiple line distribution amplifier. Amplifier characteristics similar to 725 LA. 600 ohm input impedance accepts 150-200 ohm source. Gain adjustable 20 to 55 dB. Max. input -28 dBm.



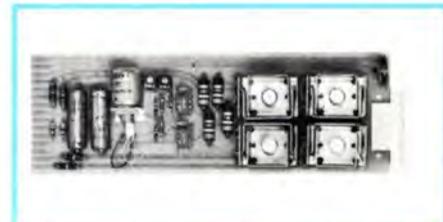
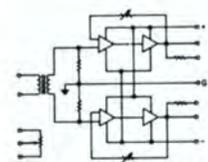
**F72520 (725 LA/TB) BRIDGING AMPLIFIER CARD**—Similar to 725 LA/T but with 1.5 K ohm bridging input transformer. Gain 35 dB.



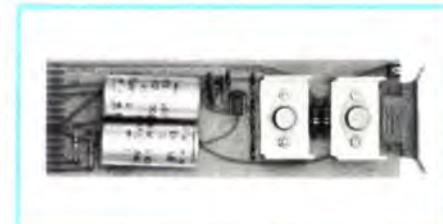
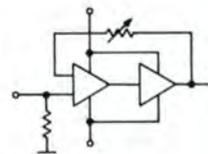
**F72521 (725 LAD) DUAL LINE AMPLIFIER CARD**—Equivalent to two 725 LA on a single card, with separate power decoupling for each amplifier.



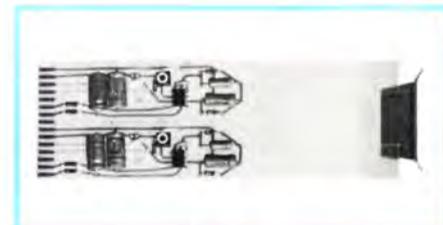
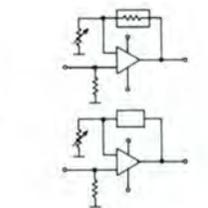
**F72522 (725 LAD/T2) DUAL MIC PREAMPLIFIER CARD**—Equivalent to two 725 LA/T on a single card, with separate power decoupling for each amplifier.



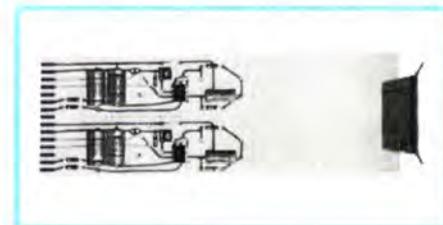
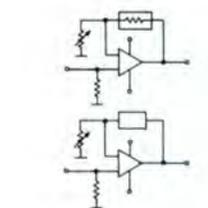
**F72523 (725 LAD/TB2) DUAL BRIDGING AMPLIFIER CARD**—Equivalent to two 725 LA/TB on a single card with separate power decoupling for each amplifier.



**F72515 (725 DA5/T) DISTRIBUTION AMPLIFIER CARD**—High level, high power, distribution amplifier provides balanced +36 dBm output. Can be used as a distribution amp., line amp., or power amp. for small cue speaker or headphones. Transformer balanced input, impedance 10 K ohms. Output impedance 0.5 ohms. Recommended load impedance 8 ohms or higher. Adjustable gain, 5 to 40 dB. Distortion less than 0.2%. Each of two separate amplifier sections delivers +26 dBm into 8 ohm load. Max. combined power output is +36 dBm. S/N 85 dB. Requires  $\pm 15-18$  VDC bipolar power supply, 20 mA as line amp., 120 mA as distribution or power amp.



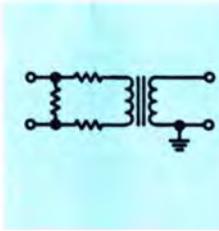
**F72526 (725 PA) MONITOR/POWER AMPLIFIER CARD**—Delivers up to 8 watts rms into 8 ohm load, as monitor, cue, phones amplifier or high power line amplifier. Gain adjustable 6 to 40 dB, Input impedance 100 K ohms. Output impedance 0.5 ohm. Distortion 0.2% max. at full power. Noise is 85 dB below rated output. Frequency response  $\pm 0.5$  dB, 20 Hz-20 KHz. Requires  $\pm 15-18$  VDC bipolar power supply, 0.5 amp max. Takes up two spaces in 725 card files.



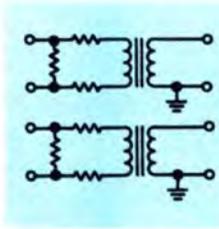
**F72540 MONITOR/POWER AMPLIFIER**—Similar to 725 PA. Delivers up to 10 watts rms into 8 ohm load. Input impedance to 10 K ohms. Requires  $\pm 15-18$  VDC bipolar power supply 0.6 amp. max.

**F72532 (725 SPA) STEREO EQUALIZED PHONO PREAMP CARD**—Frequency response matches standard RIAA curve  $\pm 0.5$  dB. Gain variable, 45 to 60 dB at 1 KHz. Input impedance 47 K ohms. Output impedance 0.5 ohm. S/N 65 dB or better with 5 mv input, 0 dBm output. Distortion less than 0.2%. Max. output +18 dBm. Requires  $\pm 15-18$  VDC bipolar power supply, 10 mA max. per section. (20 mA per card)

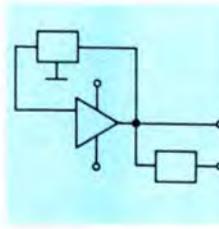
**F72533 (725 STA) STEREO EQUALIZED TAPE PREAMP**—Tape equalization to standard 7 1/2 ips curve,  $\pm 0.5$  dB. Otherwise similar to 725 SPA.



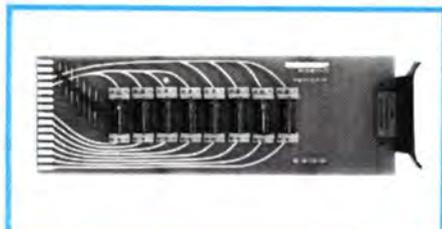
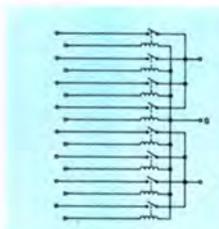
**F72536 (725 TIM) LINE LEVEL INPUT CARD**—Balanced line input matching transformer on plug-in card. Designed for use in high level input channels in an audio console. Interchangeable with any 725 series preamplifier or line amplifier cards. Recommended input +4 dBm at 600 ohms, +20 dBm max. Features built-in 10 dB pad. Insertion loss 10 dB. Frequency response 5 Hz-15 KHz  $\pm$  1 dB. No power required. Takes up two spaces in 725 card files.



**F72537 (725 TIS) STEREO LINE LEVEL INPUT CARD**—Equivalent to two 725 TIM on a single card.



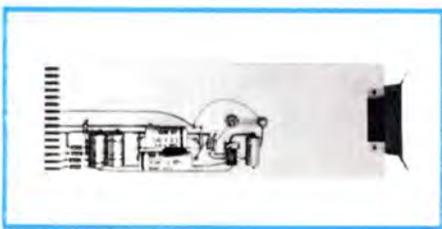
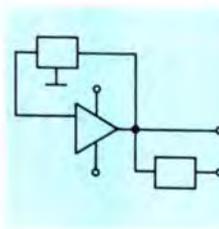
**F72546 (725 OSC1) TONE OSCILLATOR CARD**—Provides 1 KHz  $\pm$  2% fixed frequency signal for testing circuits of an audio console or system. Specifications similar to 725 OSC. NOTE: Other frequencies available on special order.



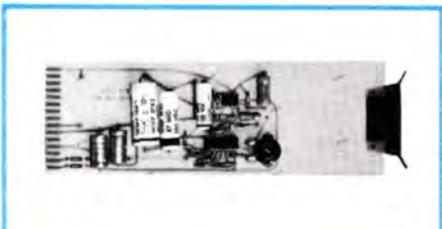
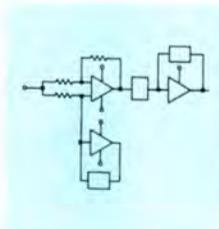
**F72534 (725 SW8) SWITCHER CARD**—Utilizes 8 single pole (Form A) reed relays, with diode transient suppression, for millions of bounce-free switching cycles. Precludes distortion, noise, crosstalk or level limitation in the voltage amplifier chain. The switching function can be controlled from a remote location using 24 VDC at 6 mA per relay. Consists of two 4x1 circuits. Performs channel assignment, monitor and cue switching in a remote controlled INTEGRA 3 console, or audio system.

**F72549 (725 SW 8x8) SWITCHER CARD** — Same as above except circuit consists of an 8x8 Matrix.

## TAPE AUTOMATION OSCILLATOR AND FILTER



**F72545 (725 OSC) AUTOMATION OSCILLATOR CARD**—Provides 25 Hz  $\pm$  0.5 Hz fixed frequency signal for activating automation circuits of cartridge tape machines. Output is at +5 dBm line level and -60 dBm mic level. Distortion less than 0.1%. Recommended load impedance 600 ohms. Requires  $\pm$  15-18 VDC bipolar power supply, 6 mA. max. Recommended companion unit, 725 FA notch filter card.



**F72517 (725 FA) AUTOMATION FILTER CARD**—Active 25 Hz notch filter design for use in automation circuits of tape machines. Filters out 25 Hz tone from audio output. Requires  $\pm$  15-18 VDC bipolar power supply 6 mA. max. Recommended companion unit, 725 OSC, 25 Hz oscillator card.

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## LUMITEN REMOTE CONTROLLED ATTENUATION

**F72538 (725 RAB) REMOTE LUMITEN ATTENUATOR CARD**—Unique LUMITEN remote attenuator circuit designed to maintain 600 ohm input and output impedance within 15%. Offers smooth fading of signal from 0 dB into infinity (-125 dB), with infinite resolution. Reaction time is 100 msec., with excellent long term stability. Transistor drive circuit for plug-in long life bulbs. There is no distortion, frequency discrimination or noise generated in the attenuator. Insertion loss is 3 dB for 600 ohm circuit. Attenuator requires 6.3 VDC at 60 mA. Remote control draws additional 40 mA with slide type actuator (668 ACT). Can also be operated with rotary control actuator. Several attenuators can be ganged for multi-channel fading using a single actuator.

**F72539 (725 RABQ) REMOTE LUMITEN ATTENUATOR CARD WITH CUE SWITCH**—Similar to 725 RAB but with single pole (Form A) reed relay added for cue switching. Attenuator requires 6.3 VDC at 60 mA. Relay requires 24 VDC at 6 mA. Use 668 ACTQ slide actuator.

**F72528 (725 RABS) REMOTE STEREO LUMITEN ATTENUATOR CARD**—Stereo attenuator similar to 725 RAB. Use of common light source assures stereo tracking within  $\pm 1/2$  dB. Requires 6.3 VDC at 60 mA.

**F72529 (725 RABSQ) REMOTE STEREO LUMITEN ATTENUATOR CARD WITH CUE SWITCHES**. Similar to 725 RABS but with two single pole (Form A) reed relays for stereo cue switching. Attenuator requires 6.3 VDC at 60 mA. Relays require 24 VDC at 6 mA per relay.

**F66801 (668 ACT) LUMITEN SLIDE ACTUATOR**—Basic slide actuator designed to operate remote controlled LUMITEN attenuator cards. Wire wound voltage divider element rod with precious metal sliding contacts varies bias on lamp drive transistors of the remote attenuator card. Standard 7" x 1 1/2" etched escutcheon with scale calibrated in dB of attenuation. Requires 6.3 VDC at 40 mA. Use with 725 RAB and RABS Cards.

**F66802 (668 ACTQ) LUMITEN SLIDE ACTUATOR WITH CUE**—Similar to 668 ACT but with magnetic single pole (Form A) reed switch added for operating remote cue relays. Detent assures positive action. Use with 725 RABQ and RABSQ cards.

## INTEGRAL (NON-REMOTE) ATTENUATION

A Unique (patented) combination of Rotary Resistive elements and slide actuation. Sealed Rotary "pots" provide smooth fading of Mono, Stereo and Quad Channels. Excellent tracking and essentially infinite resolution provides uniform accurate audio attenuation at an impedance of 1,000 or 10,000 ohms, for compatibility with the solid state circuitry of the 725 series.

**F66815 MONO OR STEREO ROTARY SLIDER ATTENUATOR** for use in Mono or Stereo System, supplied with impedance of 1,000 ohms.

**F66818 SAME AS F66815** but with impedance of 10,000 ohms.

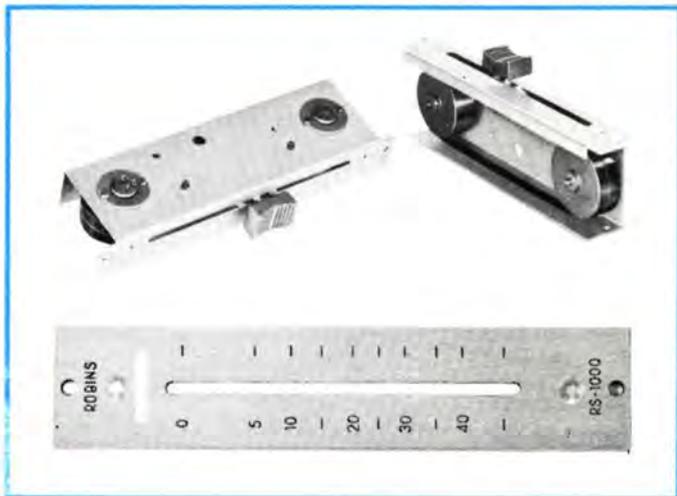
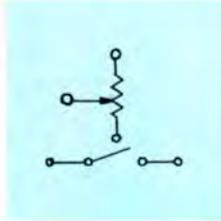
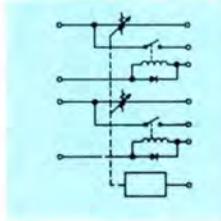
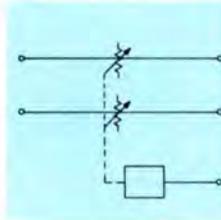
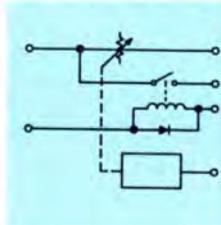
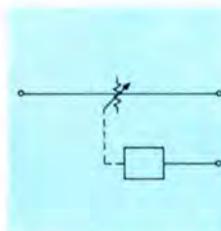
**F66816 ROTARY SLIDER ATTENUATOR WITH CUE SWITCH** same as F66815 but with cue switch.

**F66819 SAME AS F66816** but with impedance of 10,000 ohms.

**F66820 QUAD ROTARY SLIDER ATTENUATOR** for use in Quad Applications. Sealed dual rotary pots with an impedance of 1,000 ohms.

**F66821 SAME AS F66820** but with impedance of 10,000 ohms.

**F66817 ESCUTCHEON PANEL** standard 1 1/2" x 7" clear brushed aluminum escutcheon with permanently etched calibrated dB scale.



## INTEGRA 3 ACCESSORIES



**F72514 (725 CFR) RACK MOUNTING CARD FILE**—Holds up to (16) 725 series cards, complete with card guides. Requires only 3½" of vertical space in standard 19" rack. Depth, 15". Features removeable front door and hinged rear panel with mounting provisions for (4) 725 CFP connectors and/or (8) UTC A series transformers and (4) 6-140-Y barrier strips. Mounting holes provided for (16) P-C Connectors (not included), No's. F72541 or F72542.

**F72535 (725 CFC) CONSOLE MOUNT CARD FILE**—Basic card file designed for installation in custom INTEGRA 3 audio console shells, or 725 RM frame. Holds up to (16) 725 cards, complete with card guides. P-C Connectors not included. 3½" high, x 16½" wide, x 7 5/8" deep.



**F72531 (725 SCH) SINGLE CARD HOLDER**—Holds one 725 series card. Has card guides and mounting holes for F72541 or F72542 P-C Connector (not included). Mount up to (11) 725 SCH to 725 RM frame, or in custom INTEGRA 3 console shell. 3½" high x 11 7/16" wide x 7 5/8" deep.

**F72516 (725 EC) EXTENDER CARD**—Used for adjusting amplifier cards and for trouble shooting.

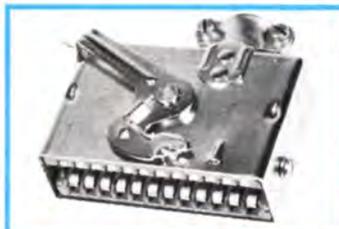


**F72530 (725 RM) RACK MOUNTING FRAME**—3½" high frame mounts in standard 19" rack. 16½" of mounting space with top and bottom rails drilled and tapped for #6-32 screws on 1½" centers. Holds up to (11) 725 SCH, or one 725 CFC.



**F72541 (72541) P-C connector, 15 PIN/SINGLE READOUT**—Required for connection to all 725 series cards except 725 M and 725 SW8. Packaged complete with necessary hardware for mounting to card files or single card holder.

**F72542 (72542) P-C connector, 30 PIN/DOUBLE READOUT**—Required for 725 M and 725 SW8 cards only (double sided pc boards). Packaged with mounting hardware.



**F72543 (725 CFP) CONNECTOR, CHASSIS TYPE, MALE**—24 pin connector, with polarized barrier and keyed shell for mating with 725 CFS connector. Packaged complete with mounting hardware. (AMPHENOL, 26 series, BLUE RIBBON® connector)

**F72544 (725 CFS) CONNECTOR, CABLE TYPE, FEMALE**—24 pin connector. Mates with 725 CFP chassis connector. Polarized barrier and metal shell with latching arm. Top cable entry accepts up to 4½" diameter cable (AMPHENOL, 26 series BLUE RIBBON® connector)



**F66707 667 T/15-24 BIPOLAR POWER SUPPLY**—Recommended for powering installations (i.e. consoles/systems) of INTEGRA 3 cards requiring ±15-18 VDC bipolar power supply. Dual power supply, when strapped for center ground provides ±12-24 VDC at 1 amp per section. Features choice of local or remote sensing, short cut protection, excellent regulation, and separate voltage adjustments. Two or more supplies may be diode connected for "fail safe" operation. Requires 110-120 VAC, 50/60 Hz. Dimensions 5½" high x 6" wide x 10" deep. Recommend rack mounting using Model 662 RM frame.

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