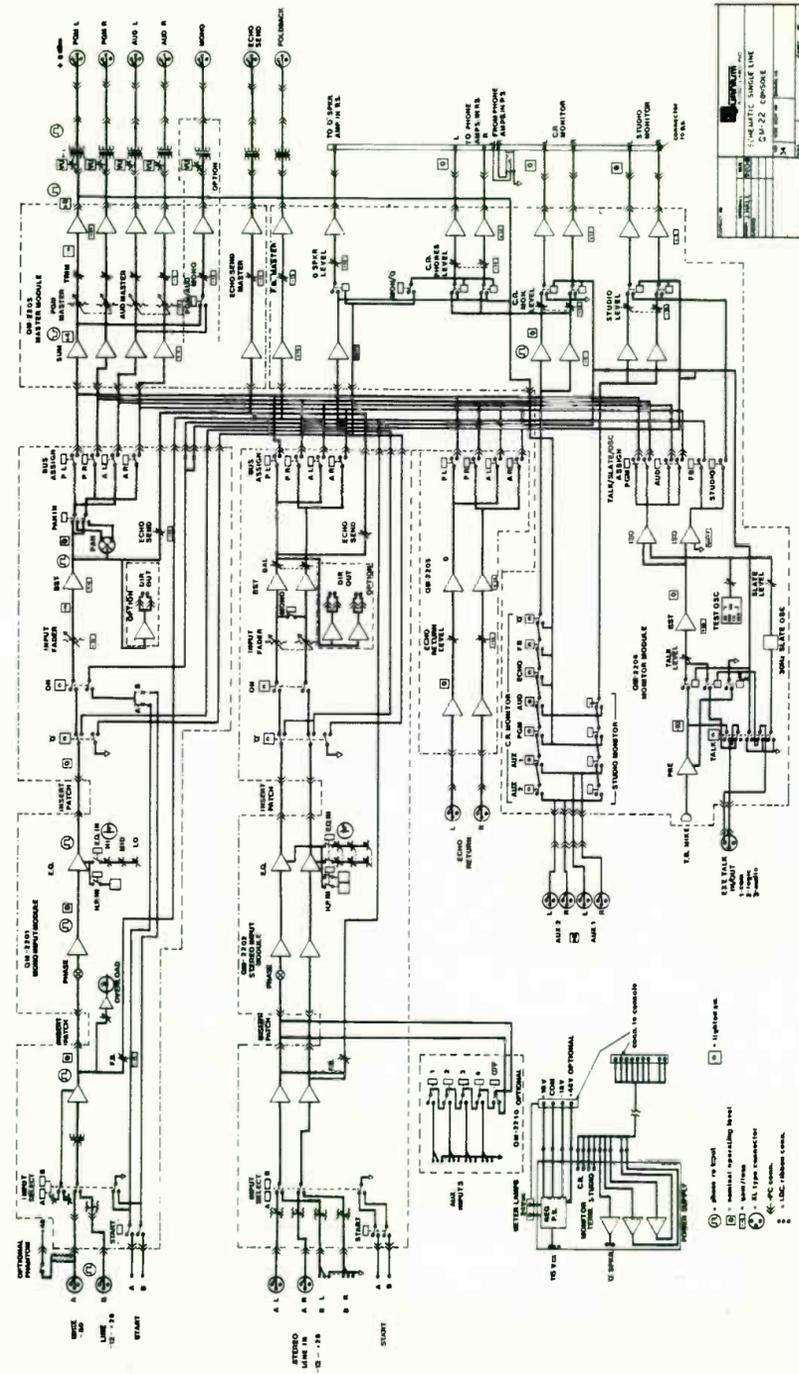
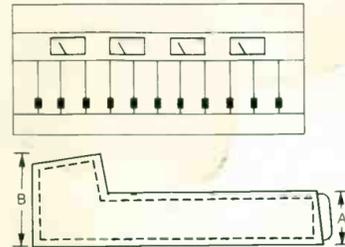


SCHEMATIC



DIMENSIONS



	22/8	22/14	22/20	22/28
Width (no sides):	21 7/8" (556mm)	33 7/8" (860mm)	45 7/8" (1165mm)	67" (1702mm)
Width (with sides):	23 1/4" (591mm)	35 1/4" (895mm)	47 1/4" (1200mm)	69 1/8" (1756mm)
Depth:	26" (660mm)	26" (660mm)	26" (660mm)	26" (660mm)
Height A:	4 5/8" (117mm)	4 5/8" (117mm)	4 5/8" (117mm)	4 5/8" (117mm)
Height B:	9" (229mm)	9" (229mm)	9" (229mm)	9" (229mm)
Console:				
Net Weight:	66lbs (30kg)	98lbs (45kg)	124lbs (56kg)	166lbs (75kg)
Power Supply:				
Net Weight:	22lbs (10kg)	22lbs (10kg)	23 1/2lbs (11kg)	23 1/2lbs (11kg)
Shipping Weight (Packed):	125lbs (57kg)	175lbs (80kg)	250lbs (114kg)	300lbs (136kg)



NORTH/SOUTH AMERICA
 1905 RIVERSIDE DRIVE
 GLENDALE, CALIFORNIA 91201
 U.S.A.
 TEL 818-841-0970
 TWX 910-333-8535
 FAX 714-838-9619

INTERNATIONAL
 948 GREAT WEST RD.
 BRENTFORD, MIDDLESEX, TW89ES
 ENGLAND
 TEL 01-568-6089
 TLX 893372
 FAX 01-847-0215



THE QS 22 RANGE OF
 BROADCAST/PRODUCTION
 AUDIO CONSOLES
 FROM 8 TO 28 INPUT
 MODULAR CONFIGURATIONS



2201 MONO INPUT MODULE

A/B SELECT "A" input for low impedance microphone, "B" input for line level (-10 to +10 dB). Trimpots allow 20 dB range adjustment. Input is transformer-coupled, balanced and floating.

BUS ASSIGNMENT Buses "1" and "2" are PROGRAM left and right, buses "3" and "4" are AUDITION left and right. Buses may be used individually for multi-track recording.

PANPOT Pans between left and right channels of program or audition buses.

EQUALIZER (optional) Three band design, each band switchable between two frequencies. 12 dB BOOST/ATTENUATE range. EQ IN silently switches equalizer to allow program comparison with and without equalization. Red LED indicates when equalizer is in circuit. 100 Hz high-pass filter HP IN allows filtering of low frequencies.

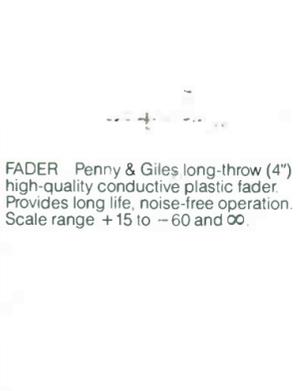
OVERLOAD Yellow LED indicates input peaks above preamp's headroom.

FOLDBACK Auxiliary pre-fader send used as headphone feed or as additional echo or effects send.

ECHO Post fader send for external reverberation or echo unit. May also be used as headphone feed or effects feed.

CUE SWITCH Mutes module output. Switches signal to cue bus for monitoring through control room speaker or through cue amplifier and external speakers.

PHASE SWITCH Inverts phase of the input signal (180°). On stereo module (2202) only the left channel is inverted.



FADER Penny & Giles long-throw (4") high-quality conductive plastic fader. Provides long life, noise-free operation. Scale range +15 to -60 and ∞.

2202 STEREO INPUT MODULE

A/B SELECT Selects between two pairs of stereo, line-level (-10 to +10 dB) input signals. Inputs are active balanced with individual 20 dB trimpots.

BALANCE Adjusts level differences between the left and right channels of the stereo input signal.

MONO Interconnects the left and right channels of the module, after the equalizer/fader but ahead of the balance control.

EQUALIZER (optional) Three frequency design. BOOST/ATTENUATE controls have a 12 dB range. EQ IN switch silently switches the equalizer to allow program comparison with and without equalization. A red LED indicates when the equalizer is switched into the circuit. An additional 100 Hz high-pass filter in/out switch HP IN next to the EQ IN switch allows filtering of low frequency rumble and hum.

FOLDBACK Auxiliary send signal derived before module fader. Used as headphone feed or as additional echo or effects send.

ECHO post fader send for feeding an external reverberation or echo unit. Signal is composite of the left and right channels.

CHANNEL ON/OFF Silently switches the module on and off with fader adjusted to a preset level. For mono modules (2201), control room or studio speakers are automatically muted depending upon internal strapping.

START Momentary pushbutton for starting tape machine or turntable. Logic is coupled through the input A/B switch to start selected machine.



FADER Penny & Giles long-throw (4") high-quality conductive plastic fader. Provides long life, noise-free operation. Scale range +15 to -60 and ∞.

2205 MASTER MODULE

MONO (optional) Provides composite mono output signal from the stereo program or audition bus. Separate balanced line output with vu meter.

ECHO SEND MASTER Controls output send level to reverberation unit. Output is a mono mix of all module echo sends.

PROGRAM TRIM Vernier controls for left and right program bus output level.

AUDITION master level control for the AUDITION bus. Two vernier controls allow adjusting left and right output levels.

ECHO RETURN Two echo return pots may be used individually or as a stereo pair for echo return. Bus switches assign returns to program or audition buses. Returns may also be used as additional line level inputs without equalization.



PROGRAM MASTER Dual-channel, conductive plastic fader controls PROGRAM bus output level.

2206 MONITOR MODULE

TALKBACK MICROPHONE Electret condenser microphone for talk-back and slating.

OSCILLATOR Four frequency oscillator feeds bus outputs for test and calibration of lines, tape machines etc. 30 Hz slating oscillator provides marker tones under voice slates for quickly locating taped selections during rewind or fast forward.

FB AND Q MASTERS Control output level of foldback and cue buses. Both are mono mixes of all module foldback and cue sends.

TALKBACK Pushbuttons allow routing the output of the talk-back microphone to program and audition bus as well as the foldback (headphone) bus and studio monitor speaker. An external talkback provision allows line level input to the talk-back circuit from a remote location for communication. Logic for this function is provided through an XLR-type connector on the rear of the console.

MONITOR PHONES Level control and pushbutton selector for headphone monitoring of cue bus or the control room monitor selector switch. Console muting circuits do not interrupt the headphone signal.

STUDIO MONITOR Selects program bus, audition bus or auxiliary inputs for monitoring in the studio. All studio mike modules must be off in order to unmute the studio monitors. Studio monitor speaker is also used for talkback.

CONTROL ROOM MONITOR Large, illuminated pushbuttons assign control room monitor to console outputs or to the auxiliary inputs such as tape machines, lines etc. Calibrated, dual-channel pot sets monitor level. Monitor output is muted during talkback or when control room microphone is on.



GENERAL

- Mainframes accommodating 8, 14, 20 or 28 inputs.
- Modular construction, right down to the connector panels.
- Four output program buses (2 stereo pairs).
- Bus outputs transformer balanced and floating.
- Stereo program/audition masters.
- Rack mounted power supply.
- Built-in talk-back/slating system. (Provisions for external talk-back.)
- Control room and studio monitor switching.
- Control room headphone and cue speaker amps included.
- Connector for external talk-back mike
- Built-in test oscillator: 30 Hz, 100 Hz, 1 kHz, 10 kHz.
- (2) bus-assignable echo returns
- "On Air" light logic from any channel "on" button.

OPTIONS

- Metered MONO combine output group
- Direct mono/stereo balanced outputs from every input.
- 48 volt phantom powering on each mike input.
- Digital clock/stop timer
- Custom features accommodated.
- Balanced auxiliary 4-line input selector panels.
- Extender card.
- Spare parts kit
- 9-foot power supply extension cable

SPECIFICATIONS

GENERAL

Frequency response:	20 Hz to 20,000 Hz ±1 dB (re 1 kHz)
Equiv. input noise:	≤ -127 dBm (20 Hz to 20,000 Hz)
Output S/N ratio:	≥ 80 dB
Output distortion:	≤ 0.1% THD up to +24 dBm, (30 Hz to 20 kHz)
Slew rate:	≥ 10 V/μs
Power Requirement:	100-120/200-240 Vac (switchable), 50/60 Hz.
Power consumption:	22/8 1 VA, 22/14 1.3 VA, 22/20 2 VA
Channel separation:	Main outputs 80 dB at 1 kHz, Input to input below noise level
Overall gain:	103 dB typical

INPUTS

Mike inputs:	Transformer balanced and floating. For 200 ohm nominal impedance sources, (actual input impedance 1200 ohms broad band) -60 dB nominal input level. 20 dB gain vernier
Line inputs:	Differentially balanced. Actual input impedance ≥ 15 kohms. Nominal input level +4 dB. Acceptable level range -20 dB to +30 dB
Echo return inputs:	Differentially balanced. Nominal level +4 dB. Input impedance ≥ 15 kohms.

INPUT MODULES

- Mike inputs transformer balanced and floating.
- Line inputs differentially balanced. (Not 2201)
- Peak overload indicators on mike preamps
- Remote start logic for cart and tape machines.
- Individual MIKE/LINE A/B switching.
- Pan-pot and balance controls.
- Prefader audio cue circuit.
- Phase inverting switch.
- Penny & Giles, 4" (long throw), conductive plastic linear attenuators
- Input level trim vernier controls (20 dB range).
- (2) Auxiliary feeds: Echo and Foldback.
- 3-band equalizer with IN/OUT switch.
- 100 Hz high-pass filter

EQUALIZERS

2201 MONO Modules	LOW 50 Hz shelving or 200 Hz peaking, ±12 dB. PRESENCE 1500 Hz or 3000 Hz ±12 dB. HIGH 6 kHz peaking or 12 kHz shelving ±12 dB
2202 STEREO Modules	LOW 100 Hz shelving ±12 dB. PRESENCE 1 kHz ±12 dB. HIGH 10 kHz shelving ±12 dB

High pass filter 12 dB/octave slope, (-3 dB point at 100 Hz)

OUTPUTS

Main & aux outputs	Transformer balanced and floating. +8 dBm nominal level (strappable for other nominal levels) +24 dBm max
Monitor outputs	Control room and studio unbalanced, 0 dB nominal, 15 ohm source impedance, +22 dBm max
HS and Cue Speaker	5 watt, 8 ohm self-contained amplifier
Optional outputs:	Direct mono/stereo output from each input. Differentially balanced, +24 dBm max.

CONNECTORS

All inputs Female O-G (XL) type, ("B" inputs of 2202 stereo modules ribbon connector) All bus outputs, foldback, echo send, male O-G (XL) type. Monitor, HS, cue facilities Barrier strip on power supply. Direct mono/stereo outputs (optional ribbon connectors. Auxiliary inputs 2210 (option), ribbon connectors. Start contacts and "On Air" light logic ribbon connectors.

Specifications subject to change without notice.



June 1, 1986

BROADCAST/PRODUCTION ON-AIR CONSOLE

MAIN FRAMES: (4-output SERIES 22)

22/08	8-input main frame - no input modules	\$ 3,900.00
22/14	14-input main frame - no input modules	4,700.00
22/16	16-input main frame - no input modules (8+8)	5,100.00
22/22	22-input main frame - no input modules (8+14)	6,600.00
22/28	28-input main frame - no input modules (14+14)	7,400.00

MODULE PRICES:

2201	Mono input module with 6 frequency EQ	425.00
2201-A	As above but without EQ	375.00
2202	Stereo line input module with 3-freq. EQ	475.00
2202-A	As above but without EQ	425.00

AVAILABLE ACCESSORIES:

01	Voltage Controlled Amplifier (per input module)	TBA
02	Spare blank cover panel for one module position	15.00
03	Mono output option - metered	350.00
04A	Digital clock/timer with edge panel controls	200.00
05	Spare parts kit	500.00
06	Service extender card	100.00
07	Instruction & Service Manual (spare)	35.00
08	Phantom Powering:	
	08-1 22/08 console	300.00
	08-2 22/14 console	350.00
	08-3 22/16 console	380.00
	08-4 22/22 console	420.00
	08-5 22/28 console	500.00
09	Direct output preparation - per console:	
	09-1 22/08 console	125.00
	09-2 22/14 console	150.00
	09-3 22/16 console	165.00
	09-4 22/22 console	180.00
	09-5 22/28 console	220.00
10	Direct output per channel of input module	60.00
11	2210 4-line auxiliary input switch assembly	200.00
12	Additional 2210 assemblies	155.00
13	5.4m (18') interconnecting cable set (two) (replacing standard 2.7m [9'] set)	25.00
14	Audition vu meters follow Control Room monitor selector switch	100.00
15	Audition stereo P&G linear fader (with 2205-B Monitor Module)	350.00
16	4 P&G program/audition submaster faders (two each on two panels)	500.00

Terms: As arranged; f.o.b. factory, Glendale (Los Angeles), CA
Prices subject to change without notice

Quantum Audio Labs, Inc. • 1905 Riverside Drive • Glendale, California 91201

TEL 818/841-0970 • TWX 910-333-8535 • FAX 714/838-9619



May 12, 1986

Mr. Barry Mishkind
Southwestern Wireless Comm.
Box 13684
Tucson, AZ 85732

Dear Mr. Mishkind,

Thank you for stopping by our booth at the NAB in Dallas and your interest in the Quantum Audio Labs QS-22 product line. Please find the enclosed brochure and price list to better acquaint yourself with our product.

We will be calling soon to see if we can be of further assistance to your audio needs.

Sincerely,

QUANTUM AUDIO LABS, INC.

Stuart J. Dunford
General Manager

Encl: Brochure
Price List
Press Release

SJD/sb



MEMORANDUM

TO : SAC, NEW YORK

FROM : SAC, PHOENIX

RE: [Illegible]

[Illegible]

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Contact: Dan Hair
Communications Manager

TEL: (714) 838-8833
TWX: 910-333-8535
FAX: (714) 838-9619

FOR IMMEDIATE RELEASE

PALTEX Announces the Acquisition of QUANTUM AUDIO LABS, Inc.

PALTEX Editing & Production Systems Ltd. of London, England & Tustin, California announced today that they have acquired QUANTUM AUDIO LABS, Inc. of Glendale, California. Roger L. Bailey, Chairman of PALTEX said, "QUANTUM design and manufacture a range of high quality, inexpensive Audio Consoles for the Broadcast and Post Production market and already have an excellent customer base including many existing PALTEX user's. It is therefore a natural extension for us to expand into the Audio Console market as part of our Post Production systems business.

As an International company with worldwide sales and service, PALTEX will now develop the export market for QUANTUM, for example, we have already begun to supply a number of consoles to the Peoples Republic of China and Europe.

The QUANTUM acquisition will also allow us to jointly enhance the integration and automation of today's video and audio post production techniques", Bailey concluded.

PALTEX, a British company, manufacture high technology post production equipment in Tustin, California for the World Market.

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