OPERATION MANUAL

DOD

Compact Stereo Mixers

820 Mixer
820XL Mixer
820RM Mixer
1220 Mixer
1220XL Mixer
1220RM Mixer

MADE IN U.S.A.

NOTICE

This manual is subject to change without notice. DOD Electronics Corporation makes no warranty implying suitability of this equipment for merchantability or for a particular purpose. DOD Electronics Corporation shall not be held liable for incidental or consequential damages arising from use or performance of this equipment or manual.

DOD Stereo Mixers

DOD introduces six new studio-quality compact stereo mixers for live performances, professional/home studios, and sound technicians. The 820- and 1220-Series consist of three 8-channel mixers and three 12-channel mixers, available in the table-top line input model, the XL table-top model with both XLR and line inputs, and the RM rack-mounted version with both XLR and line input jacks.

Both the 820- and 1220-Series provide extraordinary sound reproduction with less than 0.05 percent total harmonic distortion. Standard features include stereo tape outputs, auxiliary inputs, monitor and effects sends, and mono/stereo returns.

In addition, there's panning, trimming, dual high/low equalization, and a headphone jack to monitor the mix. The XL- and RM-models also provide phantom microphone power. The new DOD Stereo Mixers have all the important features needed by today's performing musicians, sound technicians and professional/home studio engineers.

Safety Precautions

Use only standard AC voltage. Uninsulated dangerous voltages are present within the product enclosure. Opening the chassis for any reason will void the manufacturer warranty.

Do not get the DOD mixer wet. If liquid is spilled on the unit, shut it off immediately and take it to the dealer for service.

Use of a surge protector is recommended to decrease chances of equipment damage from voltage surges or spikes.

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Channel Controls

OVERLOAD LED Indicates clipping at the input gain and EQ stages. Also indicates clipping at the mic preamp on XL and RM models. LED turns on 3 dB before clipping.

TRIM Input gain control. Adjusts input level from minus infinity to +30 dB on line signals, and from minus infinity to +50 dB on mic inputs.

HI EQ 10 kHz shelving EQ with 15 dB of cut or boost.

LO EQ 100 Hz shelving EQ with 15 dB of cut or boost.

MONITOR Pre-channel fader monitor send. Adjusts the level of the channel signal sent to the monitor buss.

EFFECTS Post-channel fader effects send. Adjusts the level of the channel signal sent to the effects buss.

PAN Adjusts the amount of channel signal sent to the left and right stereo busses.

CHANNEL FADER Adjusts the channel volume from minus infinity up to 12 dB of boost.

Left Master Controls

JACKS Left output, left (mono) auxiliary input, right auxiliary input and monitor out.

AUX LEVEL Adjusts the input gain level of the auxiliary signals.

MONITOR LEVEL Master control for the level of the signal sent to the monitor out jack.

LEDS Mix buss clip LED indicates clipping from all the channels and inputs summed at the left master buss. LED meter indicates left master fader level.

LEFT MASTER FADER Adjusts the left master volume from minus infinity up to 12 dB of boost

Right Master Controls

JACKS Right output, left (mono) effects return, right effects return and effects send.

EFFECTS RETURN Adjusts the input gain level of the effects return signals.

EFFECTS SEND Master control for the level of the signal sent to external effects devices.

LEDS Mix buss clip LED indicates clipping from all the channels and inputs summed at the right master buss. LED meter indicates right master fader level.

RIGHT MASTER FADER Adjusts the right master volume from minus infinity up to 12 dB of boost.

Power and Jacks

Power is supplied through a 34 VAC, 1 amp external transformer. A unique 240-degree five-pin DIN connector is used to prevent accidental use of an incompatible transformer.

With the pre-master fader tape out jacks (located on the rear of RM models), performances can be recorded live or in the studio.

The headphone out jack allows interference-free monitoring of the pre-master fader mixer signal. Volume is adjusted with the headphone level control.

XL and RM models: +15 V is provided for condensor mics. Push the phantom power button to power mics through the XLR jacks. The ACTIVE LED indicates phantom power is on.

Operation

To optimize the performance of DOD Stereo Mixers, use the following procedures:

GETTING STARTED

Place the mixer in a stable position (in a rack for RM models), and connect channel line inputs and microphones. Using the line input jack disables the channel's mic input on XL and RM models. Connect the external power transformer. Route the power cord away from audio lines to prevent interference.

On unused channels, set the input trim, monitor send and effects send to zero. With an incoming signal, set the channel input trims as high as possible without clipping on the channel LED. This will provide the best signal-to-noise ratio. The optimum position for the channel faders is at zero dB, allowing added boost or cut when needed.

If the master mix buss clip LEDs turn on during operation, decrease either the channel input trims, the channel faders, or both. Set the master faders so the signals are below clipping. If the level meters indicate clipping (in the red), decrease the master fader levels.

If an effects loop is being used, start with the channel effects sends at the middle position, then adjust the master effects send level as high as possible without clipping the external effects unit.

CREATING EFFECTS LOOPS

The 820- and 1220-Series mixers can be used with either stereo or mono loop-through connections.

Using Mono Send/Return

Connect instruments/mics to mixer channel inputs. Connect the effects send to the external device, then back to the mixer's left (mono) effects return.

Similarly, another effects loop can be created going from the monitor out, then back to the left (mono) auxiliary input.

Using only the left (mono) auxiliary input jack for a single auxiliary input or the left (mono) effects return for mono effects mixes a mono signal equally in both the left and right masters.

Using Mono Send & Stereo Return

Connect instruments/mics to mixer channel inputs. Connect the effects send (or monitor out) to the external device, then back to the mixer's left and right effects returns (or left and right auxiliary inputs).

Operation (continued)

When using effects loops, adjust the effects return level (or auxiliary level) to the sensitivity of the external device's output signal.

As explained, the monitor out and effects send can be interchanged, as can the effects returns and auxiliary inputs. Keep in mind that the monitor signal is pre-channel fader, while the effects signal is post-channel fader. In other words, adjusting the channel fader will not affect the monitor signal, but will affect the effects signal.

If monitors are being used, connect the monitor out (or effects send) to a power amp for performance or studio monitors. The effects returns and auxiliary inputs can be used with submixers, tape decks, or DOD/DigiTech effects devices.

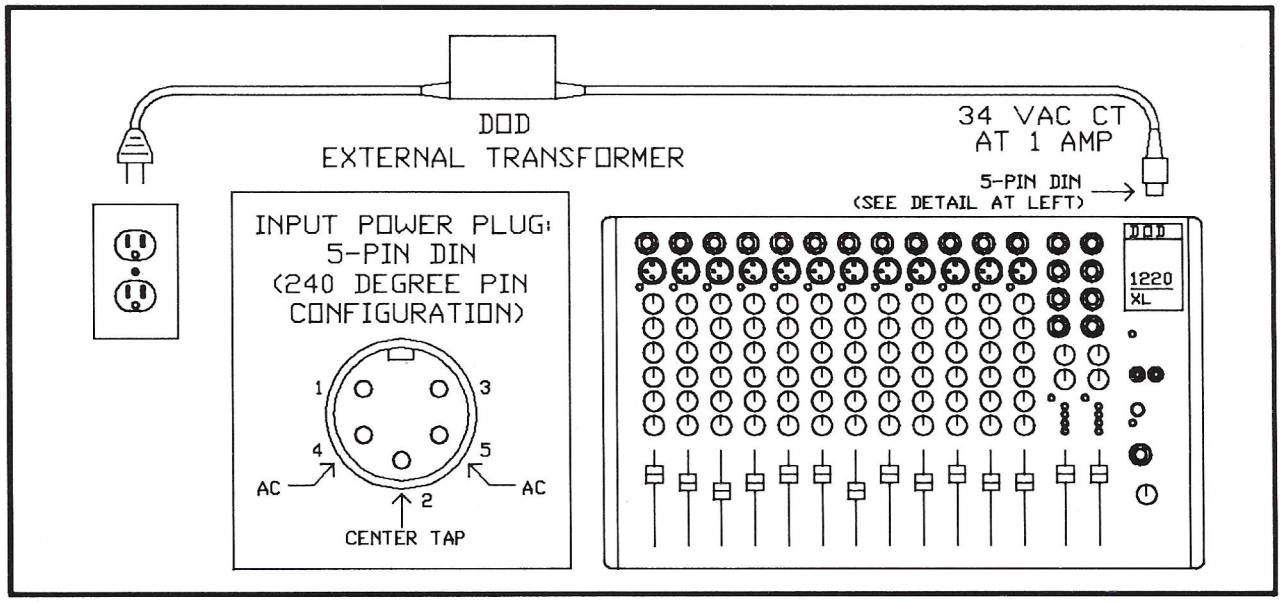
Maintenance and Service

Keep the DOD Stereo Mixers clean by occasionally wiping the front panel with a slightly damp cloth.

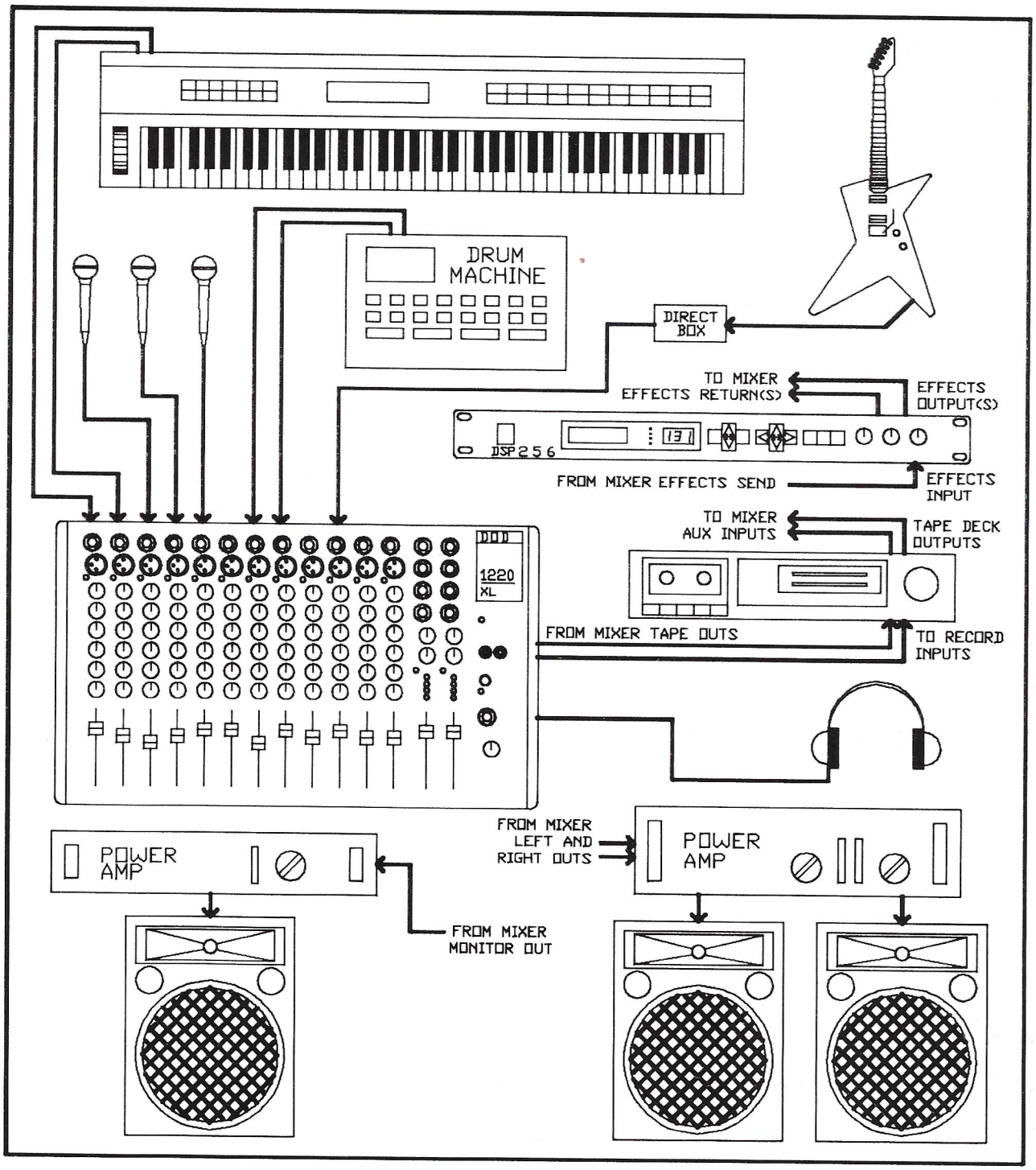
There are no user-serviceable parts inside the DOD Stereo Mixers. Opening the chassis for any reason will void the warranty.

All service and repair must be performed by the factory for the warranty to remain in effect. Should a problem arise with the DOD Stereo Mixer, contact a DOD dealer for repair procedures.

Power Connections

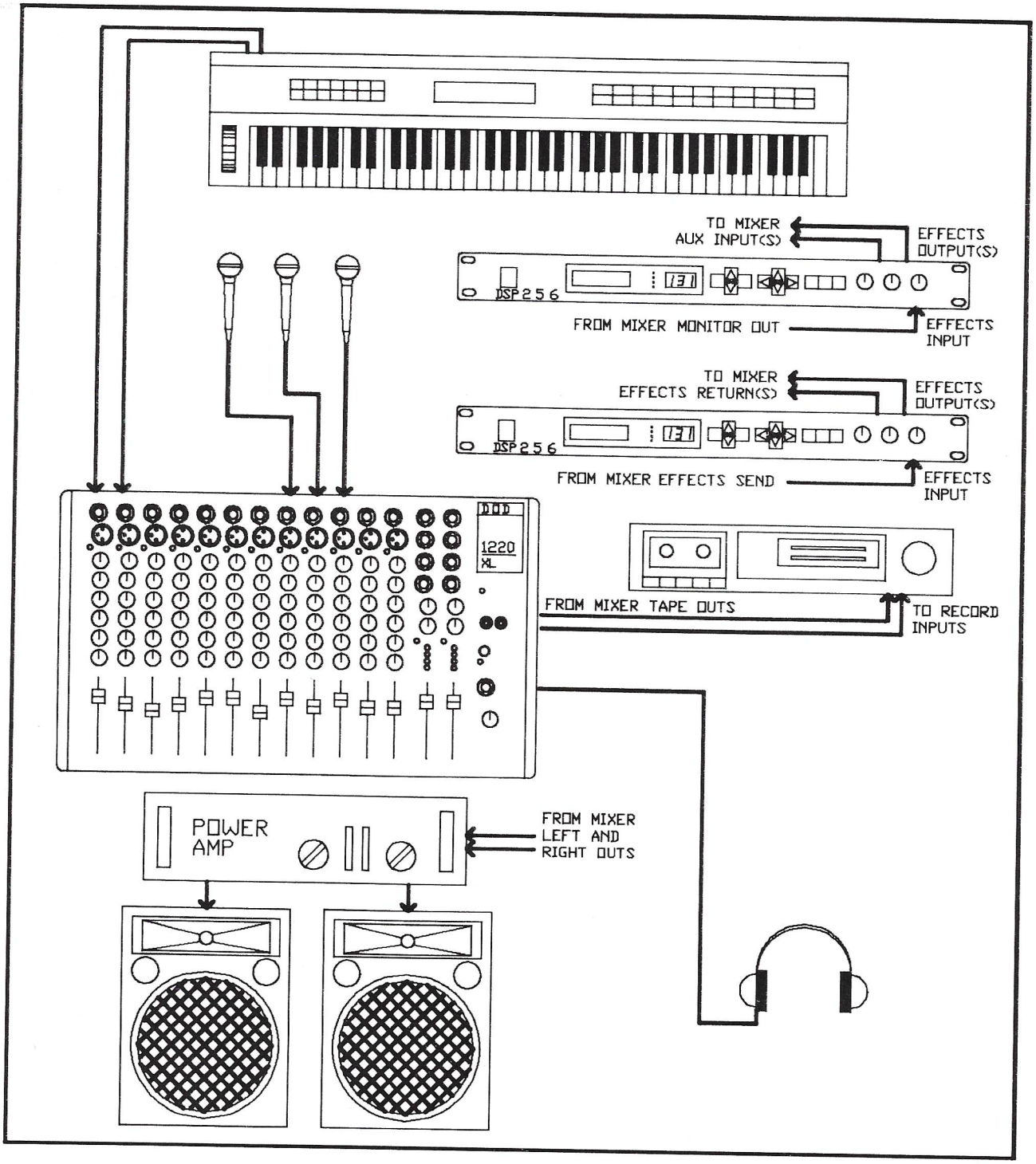


Application Diagrams



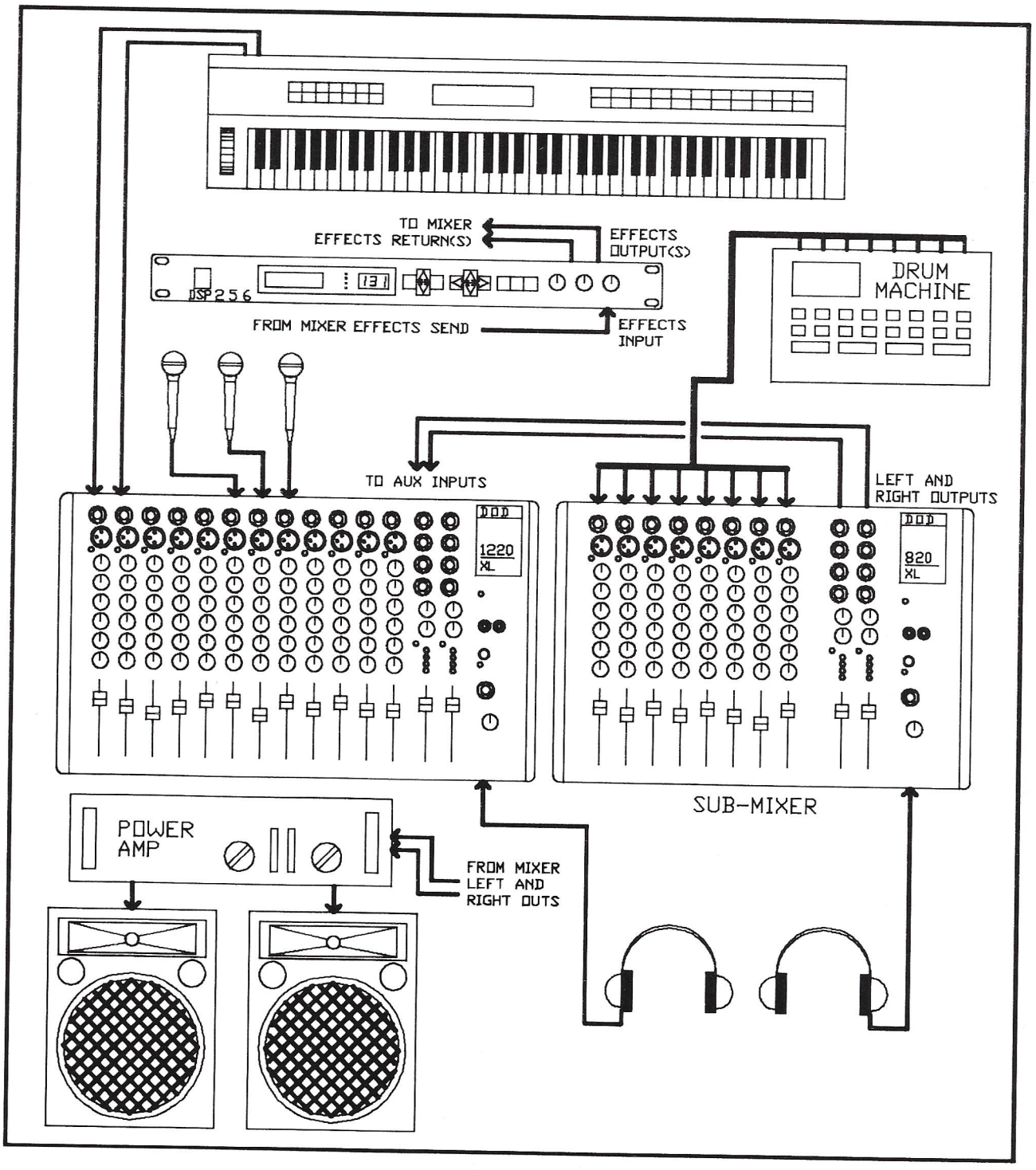
Typical setup using keyboards, microphones, drum machine and guitar inputs. Main outputs go to power amp and main speakers. Monitor output goes to power amp and monitor speaker(s). Effects send goes to external stereo effects device. Sound is recorded from tape outs, and tape playback is received through the auxiliary inputs. Headphones are used for monitoring the mixer.

Application Diagrams (continued)



Typical setup using two stereo effects loops. The monitor send is used as a pre-channel fader effects send, with the auxiliary inputs used as mono/stereo effects returns. The effects sends are post-channel fader, and are sent back to the mixer through the effects returns.

Application Diagrams (continued)



Typical setup using a sub-mixer to increase the number of input channels. Left and right outputs of the sub-mixer are sent to the auxiliary inputs of the main mixer. Separate effects and monitoring can be used on each mixer.

Specifications

Freq. Response:	10 Hz to 22 kHz (+0, -1 dB)
THD + Noise:	Less than 0.05%, 20 Hz to 20 kHz
Equivalent Input Noise:	-120 dbu, 150 ohm input, 20 Hz to 20 kHz
Crosstalk:	Better than -65 dB at 1 kHz for adjacent channels. Better than -65 dB at 1 kHz for left and right master.
Maximum Output:	+20 dBu, 20 Hz to 20 kHz +18 dBm into 600 ohm, 20 Hz to 20 kHz
Input Impedance	
Line:	50 K ohms
Mic:	1 K ohm
Output Impedance	
Left/Right out:	51 ohms
Tape Out, Monitor Out, Effects Send:	100 ohms
High EQ:	15 dB of boost/cut at 10 kHz
Low EQ:	15 dB of boost/cut at 100 Hz
Phantom Power:	+15 V
Power:	External transformer, 34 VAC at 1 ampere
Dimensions	
820/820 XL:	2.5" H x 15.5" W x 10.5" D 6.35cm x 39.37cm x 26.67cm
1220/1220 XL:	2.5" H x 17.8" W x 10.5" D 6.35cm x 45.21cm x 26.67cm
820 RM and 1220 RM:	2.5" H x 19.0" W x 10.5" D 6.35cm x 48.26cm x 26.67cm

Warranty

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.

2. DOD warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.

3. DOD liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned through the original dealer, where all parts and labor will be covered up to a period of one year. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.

4. Proof-of-purchase is considered to be the burden of the consumer.

5. DOD reserves the right to make changes in design or make additions to or improvements upon this product without incurring any obligation to install the same on PRODUCTS PREVIOUSLY MANUFACTURED.

6. The foregoing is in lieu of all other warranties, expressed or implied, and DOD neither assumes nor authorizes any person to assume for it any obligation or liability in connection with the sale of this product. In no event shall DOD or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

WARRANTY REGISTRATION

RETURN THIS REGISTRATION CARD WITHIN 10 DAYS TO VALIDATE YOUR WARRANTY

MODEL NUMBER – SERIAL NUMBER

DEALER

MONTH DAY YEAR
DATE OF PURCHASE

DEALER'S CITY STATE

Please completely fill out this card to register your warranty.

How did you hear about this product? (check one)

☐1 Store Salesman ☐2 Friend ☐3 Teacher ☐4 Store Display
☐5 Magazine Article ☐6 Advertising ☐7 Other _____

Which of the following were important in the selection of this product? (check two)

☐1 Manufacturer's Reputation ☐2 Appearance ☐3 Price
☐4 Quality ☐5 Made in U.S.A. ☐6 Sound ☐7 Durability
☐8 Features ☐9 Other _____

Product use. (check the boxes that apply)

☐1 Guitar ☐2 Bass guitar ☐3 Keyboards ☐4 Studio
☐5 Installation ☐6 Reinforcement ☐7 Home ☐8 Performance
☐9 Broadcasting ☐10 Other _____

How many other effects do you own? Your age:

List three of your favorite music or sound magazines:

1. _____ 2. _____
3. _____

Any comments about this product:

_____

_____

What new product(s) would you like to see from us?

_____

NAME

ADDRESS

CITY STATE ZIP

PLACE
STAMP
HERE

DOD ELECTRONICS SIGNAL PROCESSING PRODUCTS WARRANTY REGISTRATION

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