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TECHNICAL MANUAL
for
AUXILIARY POWER PANEL
MODEL APP-4



THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N. Y. OTTAWA, CANADA

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Paragraph

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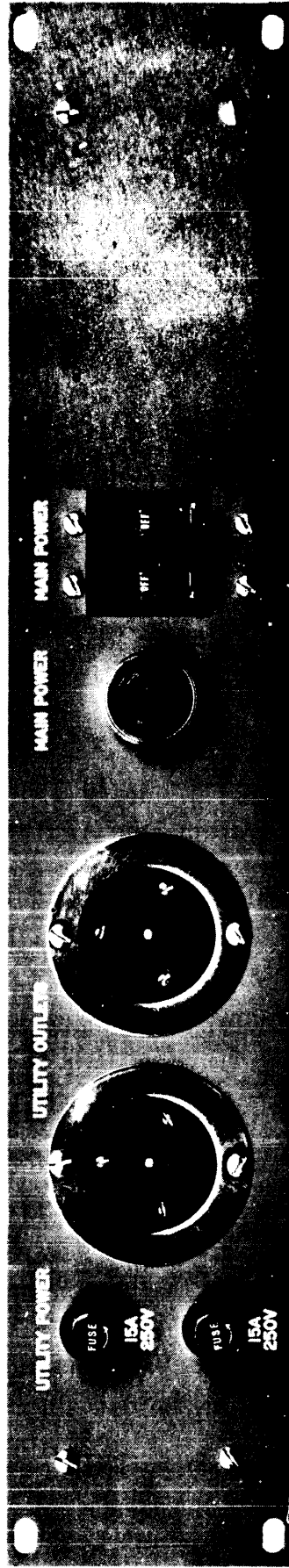


Figure 1. Auxiliary Power Panel, Model APP-4

1. DESCRIPTION

Auxiliary Power Panel, Model APP-4 (figure 1), is a line-voltage distributing device that provides connection for related equipment used in a transmitting system. Two individually-fused UTILITY OUTLETS (located on the front panel) provide 115- or 230-volts a-c, depending upon input power source, for external test equipment. A MAIN POWER indicating lamp and two MAIN POWER circuit breakers are also located on the front panel. Two terminal blocks (E501 and E502) and a jack (J501), located on the rear panel (refer to figure 2), provide wiring connections as required by the particular installation.

2. UNPACKING AND INSTALLATION

When provided as part of a system, the APP is normally installed in a rack at the factory; the rack (with associated equipment) is then shipped to the operating site. Whether received in this form or as an individual unit, uncrate the equipment carefully and inspect for damage that may have occurred during transit. Inspect all packing material for parts that may have been shipped as loose items. With respect to damage to the equipment for which the carrier is liable, The Technical Materiel Corporation will assist in describing methods of repair and the furnishing or replacement parts.

Each APP is tested at the factory before shipment, and is therefore ready for installation and operation. Preliminary adjustments are not necessary.

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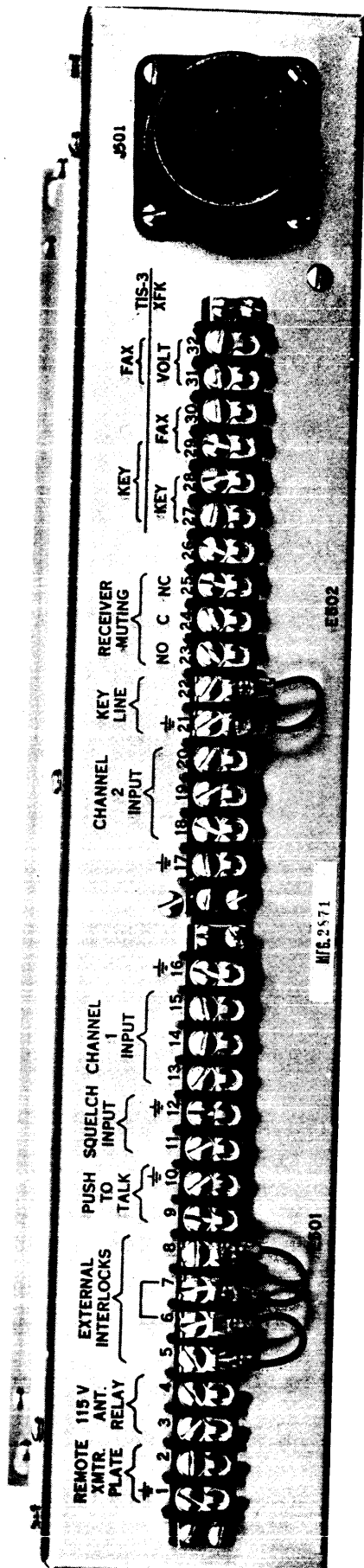


Figure 2. Rear Panel, APP-4

The APP is designed for installation in a 19-inch wide equipment rack; it is 3-1/2" high and 15-7/8" deep.

3. ELECTRICAL INSTALLATION

Electrical connection for the APP is dependent upon the system in which the unit is used; refer to the applicable system cabling diagram and make the necessary connections.

Terminal blocks E501 and E502, located on the rear panel, facilitate connection of external equipment to the associated transmitter; figure 3 and the following paragraphs illustrate the possible connections. Schematic diagram figure 4 should be used in conjunction with the schematic diagrams in the associated system and modular-unit manuals as an aid for tracing wiring.

a. REMOTE XMTR PLATE. - Terminals 1 and 2 are provided for attachment to the coil of a relay supplying plate voltage to an additional stage of ^RA-f amplification for the associated transmitter.

b. 115V ANT. RELAY. - Terminals 3 and 4 are provided for 115 volts a-c outlet.

c. EXTERNAL INTERLOCKS. - Terminals 5 through 8 are provided for additional safety interlocks external to the associated transmitter.

Such additional interlocks will be in series with the transmitter interlocks and will form another link in the interlock circuit. When these terminals are not used, the jumpers remain in place.

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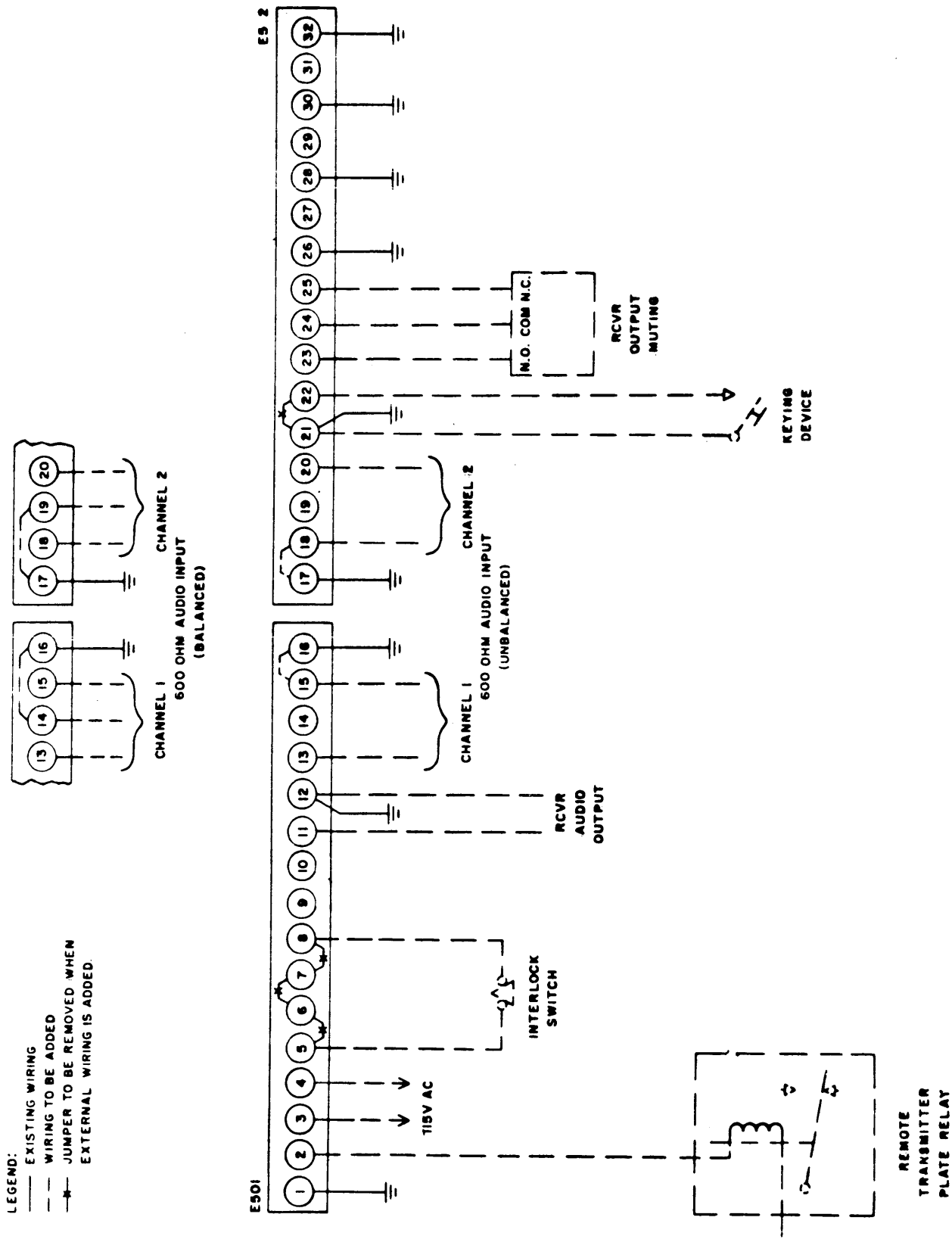


Figure 3. Connection Diagram, APP-4

d. PUSH TO TALK. - Terminals 9 and 10 are provided for a push-to-talk button attachment.

e. SQUELCH INPUT. - Terminals 11 and 12 are provided for the attachment to a receiver audio output, if receiver "squelch" is desired.

f. CHANNEL 1 INPUT -CHANNEL 2 INPUT. - Terminals 13 through 20 are provided for the attachment of two separate sources of intelligence in the form of 600-ohm audio.

g. KEY LINE. - Terminals 21 and 22 are provided for the attachment of a keying device in CW mode of transmission.

h. RECEIVER MUTING. - Terminals 23, 24, and 25 are provided for automatic disabling and enabling of a receiver when the transmitter is sending or in off or standby condition, respectively.

i. KEY-FAX-TIS-3/XFK. - Terminals 27 through 32 are provided for connection of equipment necessary for FSK (frequency shift keying) and FAX (facsimile) modes of transmission; mark and space pulses are extended to the first keyer circuit of an external tone intelligence unit.

4. MAINTENANCE

Check condition of wires and terminals to insure that charring or other deterioration has not set in. Check the fuses; lit fuse cap indicates fuse has blown. Check operation of MAIN POWER circuit breakers and indicating lamp.

PARTS LIST, APP-4

REF SYMBOL	DESCRIPTION	TMC PART NUMBER
C501	CAPACITOR, Feed-thru type: 1000 uuf, $\pm 20\%$, 500 wvdc, char. A.	CK70A102M
C502 thru C520	Same as C501. Same as C501.	
C521	CAPACITOR, fixed: mica; .01 uf, $\pm 10\%$, char. B 300 wvdc.	CM35B103K
C522	Same as C521.	
C523	Same as C521.	
C524	Same as C521.	
CB501	CIRCUIT BREAKER, dual, companion trip; 15 amp, curve 5, 230 VAC operation.	SW-261
E501	TERMINAL, strip: barrier lug type; 16 terminals; base material black bakelite.	TM-100-16
E502	FUSE, cartridge: hi-rating 250 v, 15 amps.	FU-103-15
F502	Same as F501.	
I501	LAMP, incandescent: double contact; 120 volts, 3 watts; bayonet base.	BI-102-3
J501	CONNECTOR, receptacle: AN socket; 22 contacts.	MS3102A-28-11S
J502	PLUG, receptacle: U-shape grounding type - 3 prongs.	JJ-173
J503	Same as J502.	
L501	COIL, R. F. : fixed; 2.5 mh.	CL-140-2
L502 thru L520	Same as L501. Same as L501.	

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PARTS LIST, APP-4 (CONT)

REF SYMBOL	DESCRIPTION	TMC PART NUMBER
L521	COIL, 2 uf, ± 1 uh Q-200 at 7.9 mc.	CL-269
L522	Same as L521.	
R501	SHUNT ASSY., .0042 ohms, +5% -1%; 20 amps at 115 VAC.	AR-132
R502	Same as R501.	
R503	SHUNT ASSY., .075 ohms, $\pm 10\%$, 5 amps at 115 VAC.	AR-133
R504	Same as R503.	
R505	RESISTOR, fixed: wire wound; 5000 ohms, $\pm 5\%$, 10 watts.	RW-109-32
XF501	FUSE, extractor post: end terminal is removable.	FH-100-1
XF502	Same as XF501.	
XI501	LIGHT, INDICATOR: bayonet base; w/red frosted lamp.	TS-124-1

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