

ERICSSON 



ECP 1057

M-PA FAMILY OVERVIEW

TRAINING SESSION NOTES

PREPARED BY:

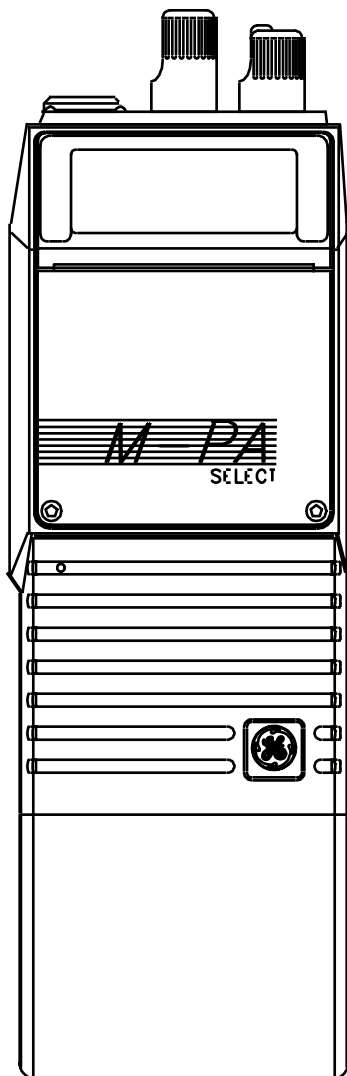
Rick Brown

TECHNICAL TRAINING

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Ericsson GE Mobile Communications Inc.
Mountain View Road · Lynchburg, Virginia 24502



OVER 38 VERSIONS

M-PA

900

VG

WIDE BAND

EURO

SELECT

SYSTEM

EDACS

NARROW BAND

AEGIS

M-TL

VGE

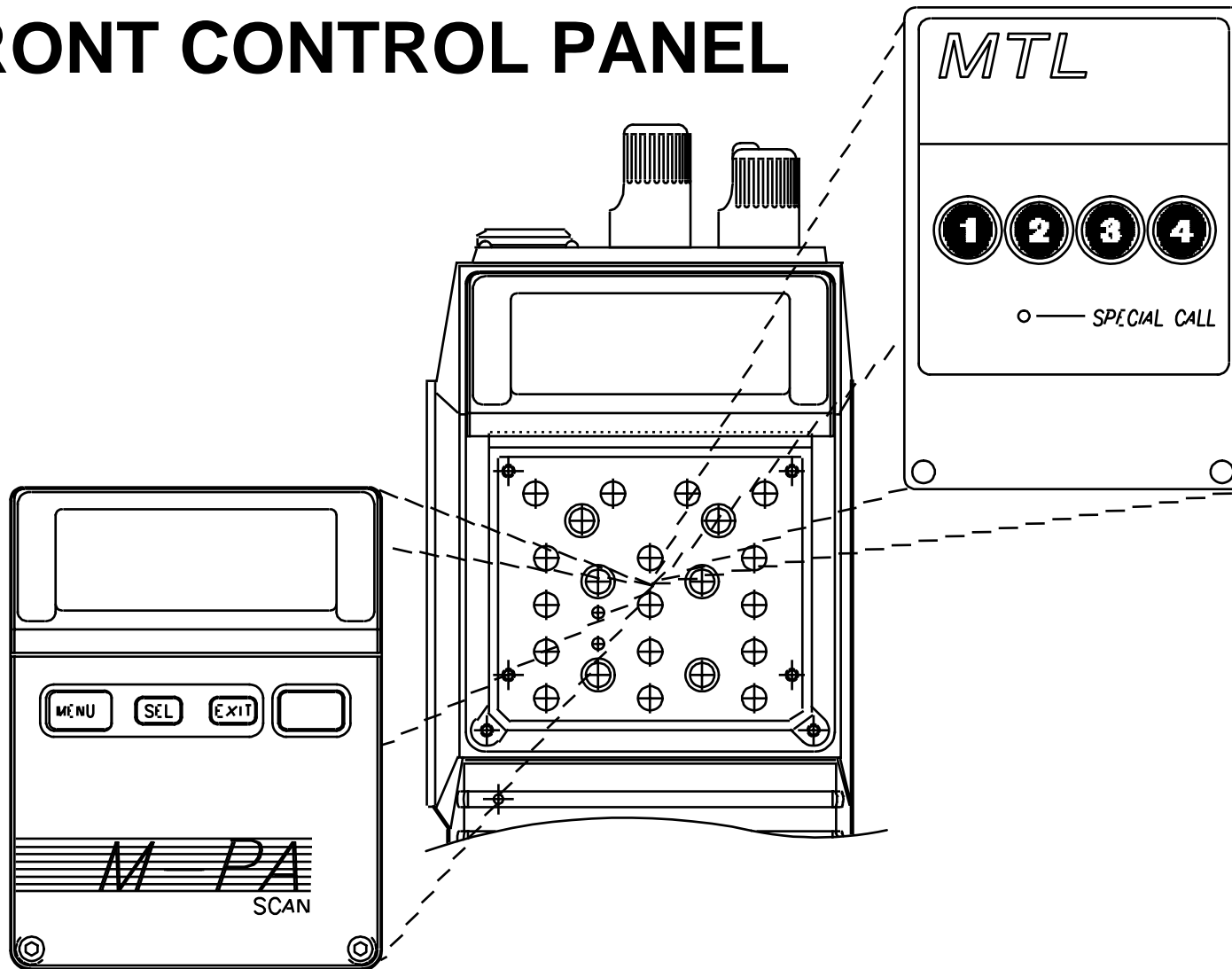
SCAN

P400

Not including the bands of operation:

VHF-High, UHF, 800, & 900 Bands

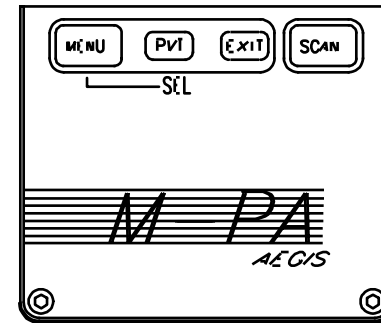
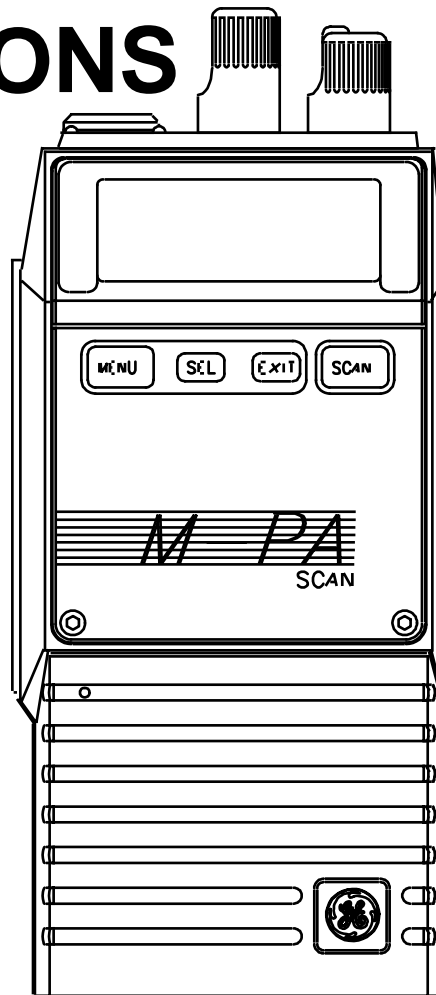
FRONT CONTROL PANEL



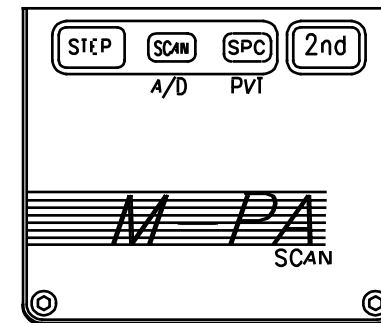
SCAN VERSIONS

AND

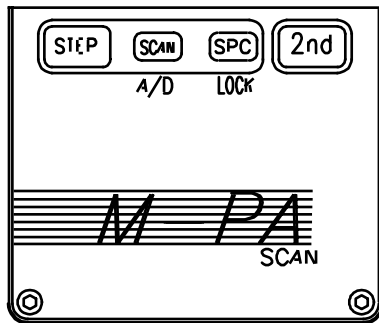
MORE!



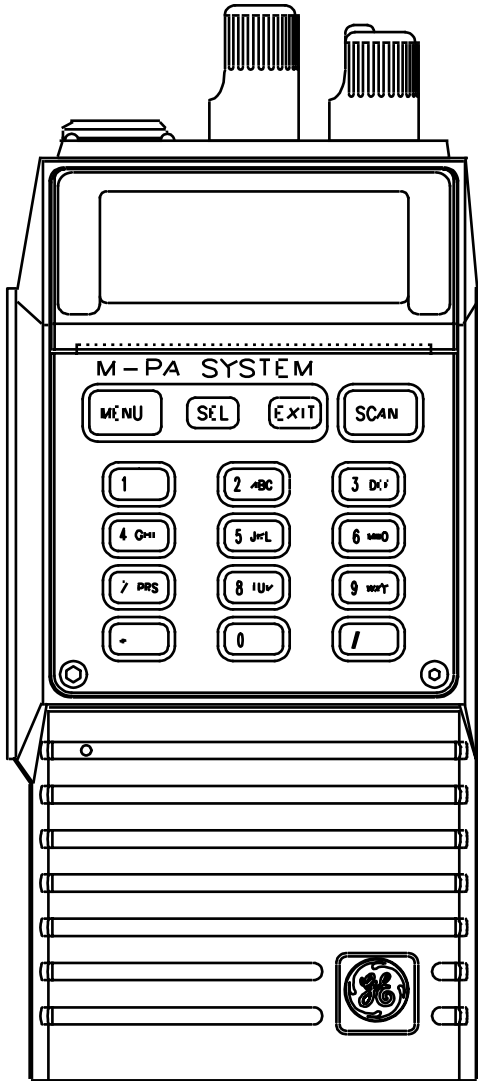
AEGIS



VG EDACS

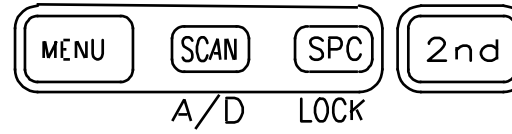


EDACS



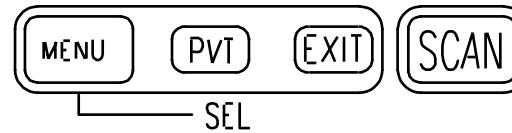
SYSTEM VERSIONS

EDACS



VG

(Conventional)



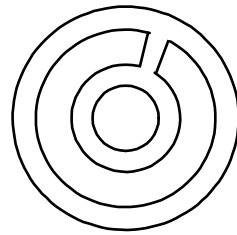
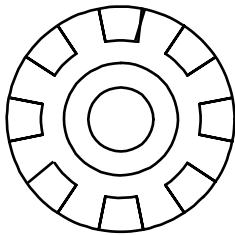
and **MORE!**

CONTROL KNOB MODIFICATIONS

FACTORY STOPPED AT POSITION 15.

TO CHANGE:

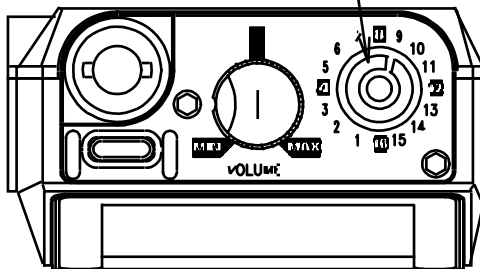
- REMOVE KNOB (M1.5 HEX WRENCH)
- REPOSITION THE STOP PLATE TO 1 POSITION HIGHER THAN NEEDED.
- DISCARD THE STOP PLATE IF POSITION 16 IS USED.
- REPLACE KNOB.



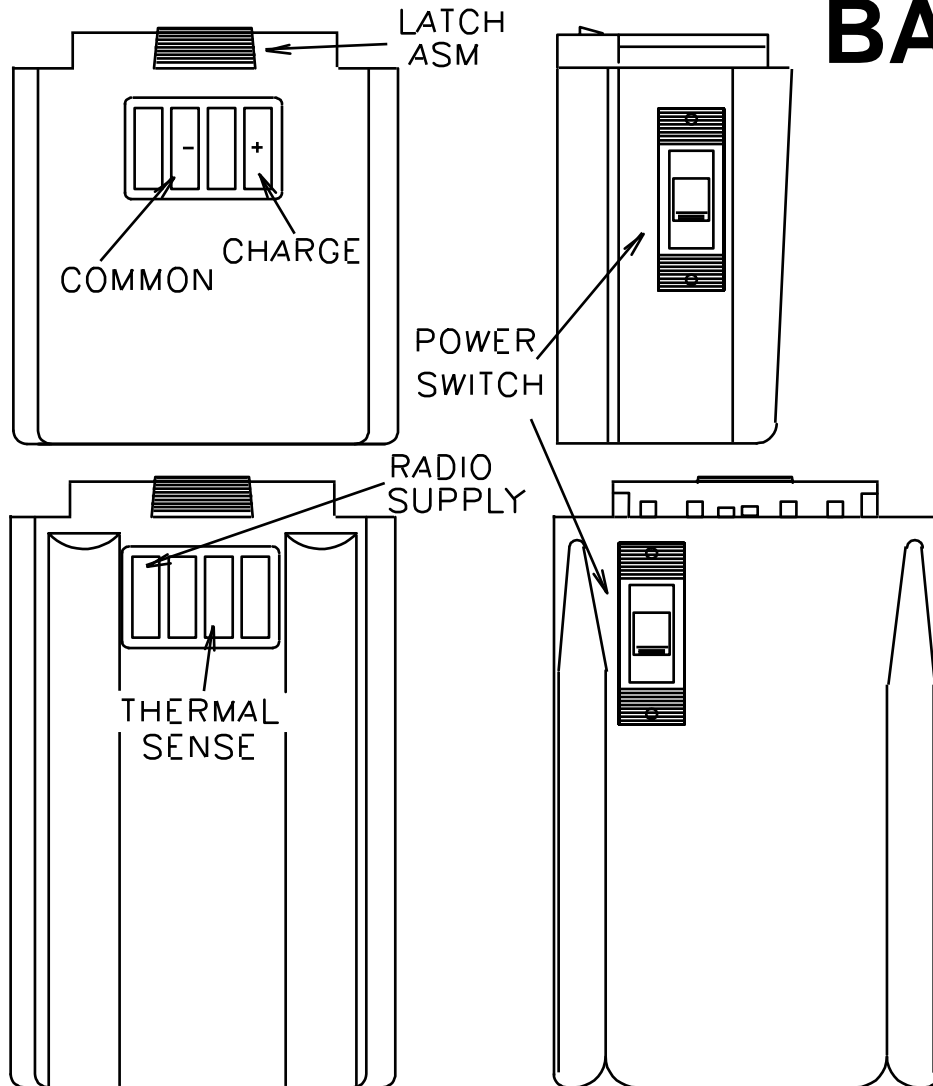
TOP VIEW

BOTTOM VIEW

STOP PLATE
19D438683P1



BATTERY PACKS



SHORT BATTERIES

19A704850??

800ma	P3
800ma (I.S.)	P4
800ma	P5
1200ma(I.S.)	P6
1200ma	P7

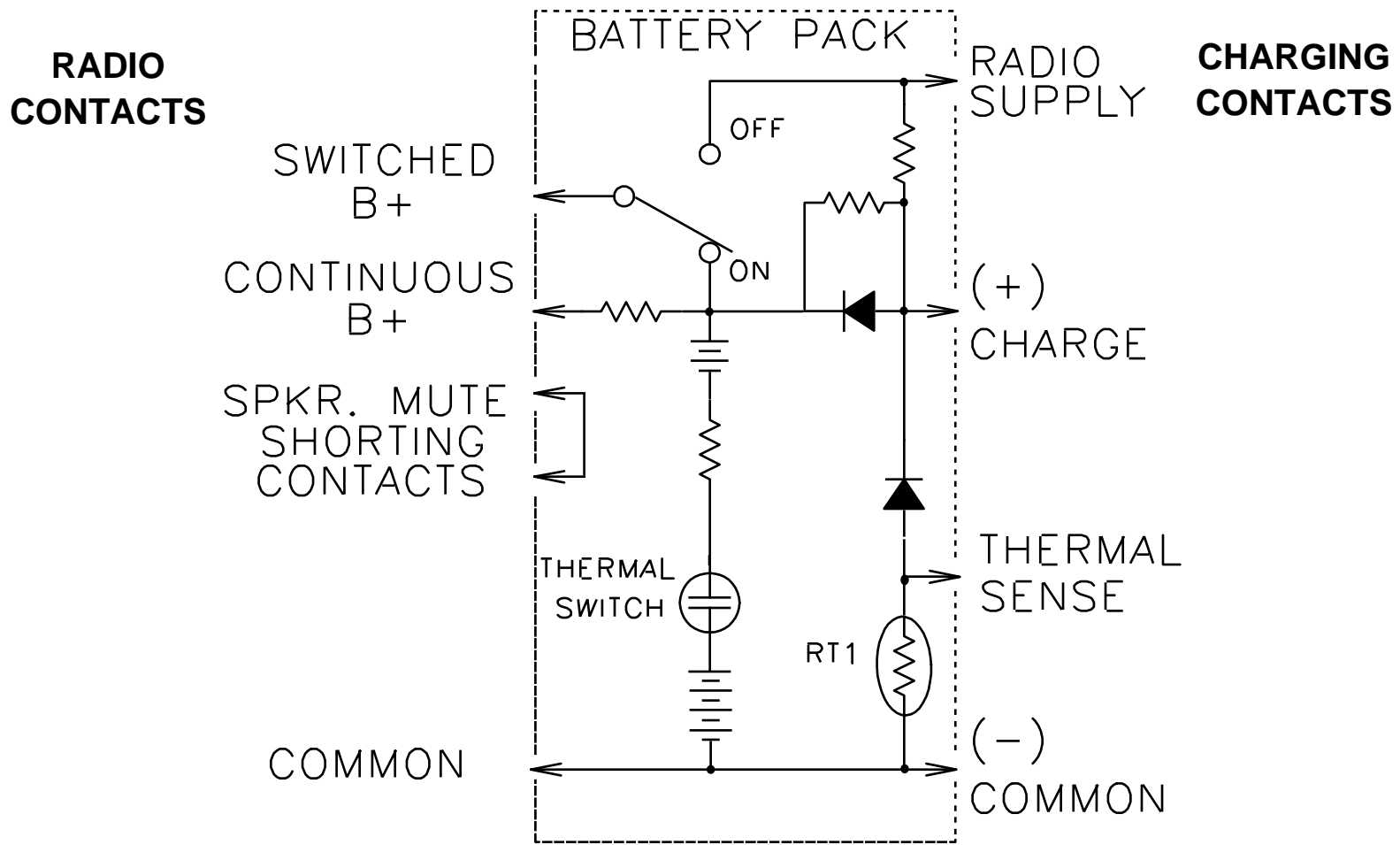
LONG BATTERIES

19A704860??

1200ma	P3
1200ma (I.S.)	P4
1200ma	P5
1700ma (I.S.)	P6
1700ma	P7

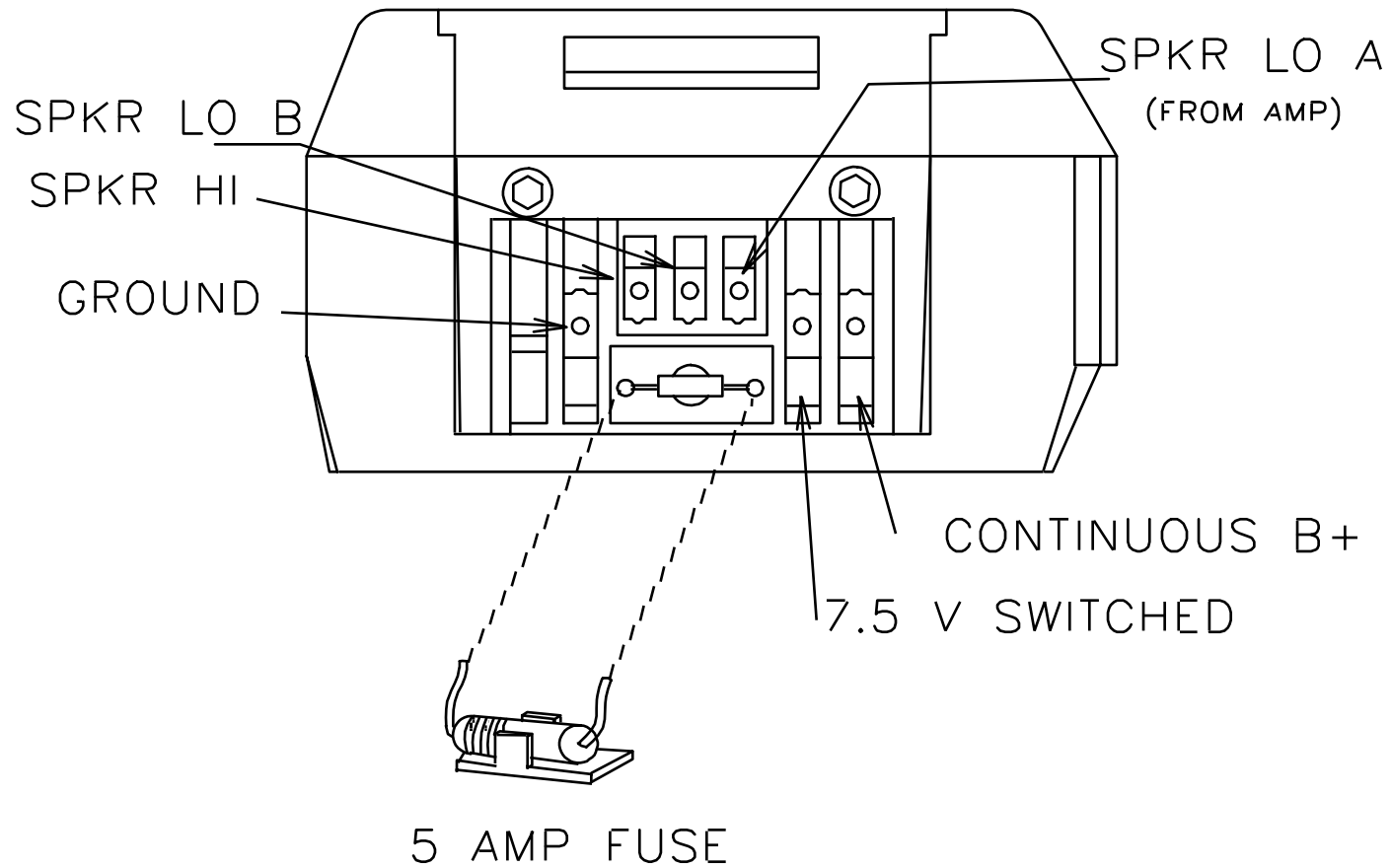
I.S. = Intrinsically Safe

BATTERY SCHEMATIC

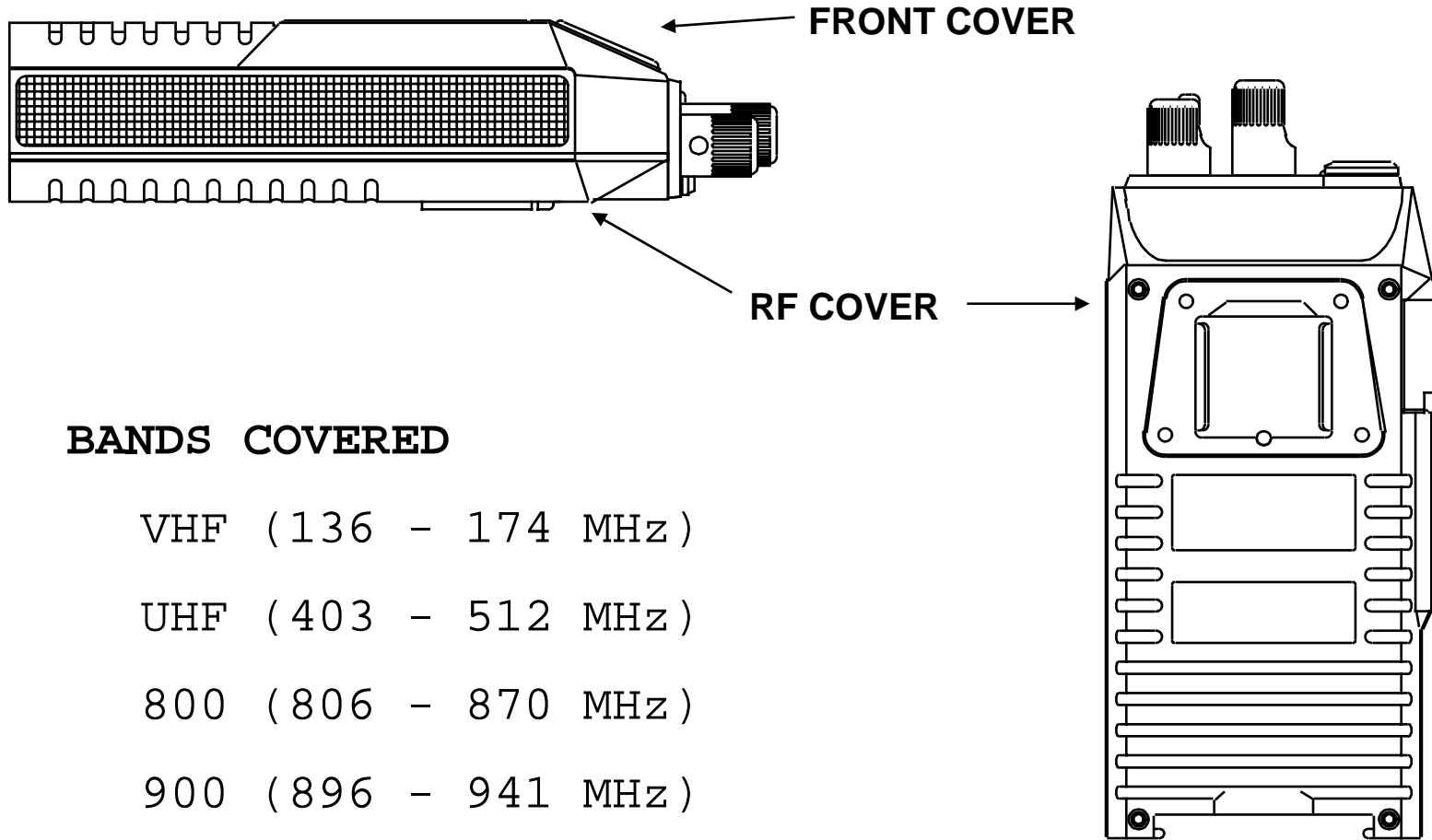


INTRINSICALLY SAFE UNITS

BOTTOM VIEW OF RADIO



TWO MAJOR SECTIONS



BANDS COVERED

VHF (136 - 174 MHz)

UHF (403 - 512 MHz)

800 (806 - 870 MHz)

900 (896 - 941 MHz)

INSIDE FRONT COVER

19D438676G? (Early)

Contains the ControlBoard

19D903620G1 (Later)

Control Board is separat

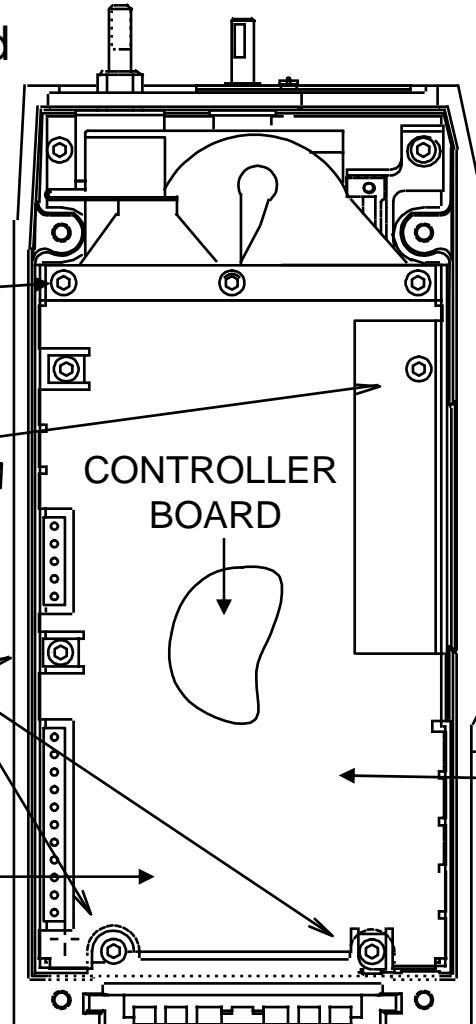
Different Manuals for each type of Radio.

3 SCREWS
19A705701P105
(Longer)

1 SCREW
19A705910P104
(Tapered)

4 SCREWS
19A705701P104

SHIELD
19D438664P1



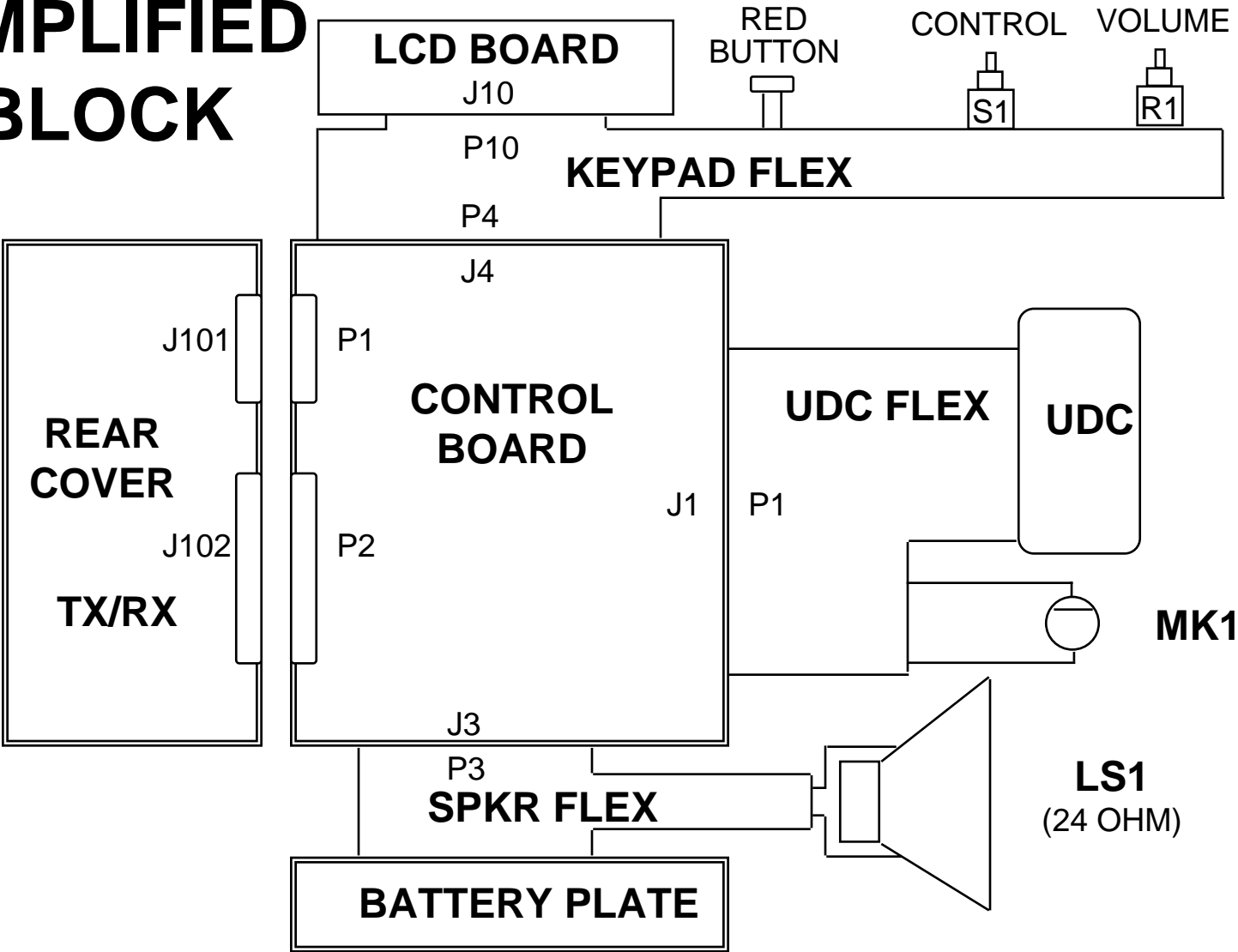
LBI-38834

Different!

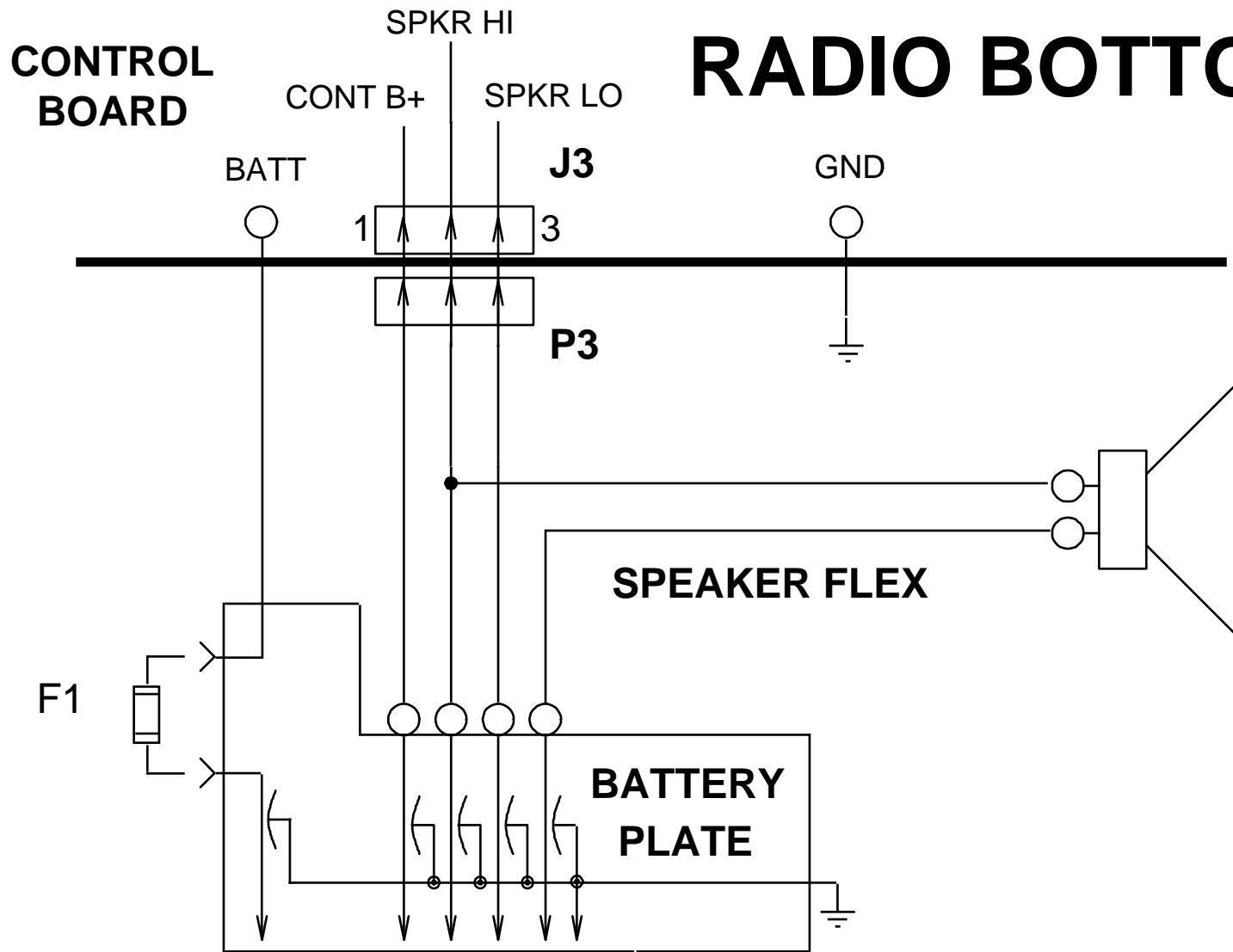
- Front Cover
- Chassis Shield
- LCD Board
- Keypad Flex
- UDC Flex
- Upper Shield

SHIELD

SIMPLIFIED BLOCK



RADIO BOTTOM



DUMMY BATTERY

K19/A4WX01543

Power Supply Connections

7.5 Volts DC

Current Limited

Audio Connections

24 Ohm Dummy Load

Isolation Transformer

On/Off Switch Controls Audio

KEYPAD FLEX

19D438658P2

Used in Early Front Cover.

Has Keypad Scanning Circuit on Flex.

19D903810P1

Used in Later Front Cover.

Has Keypad Scanning Circuit on

Display Board.

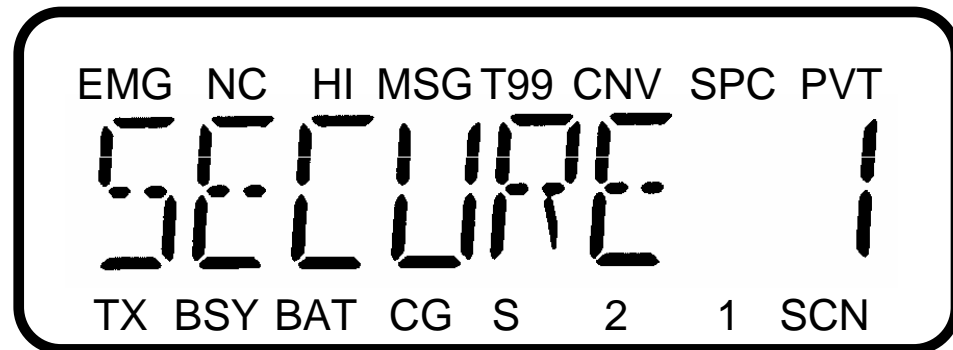
Simplified Layout

LCD BOARD

19C337096G1

Used in Early Front Cover.

Has LED Drive Circuit (Back Light).



10D902814P1

Used in Later Front Cover.

Has LED Drive Circuit (Back Light).

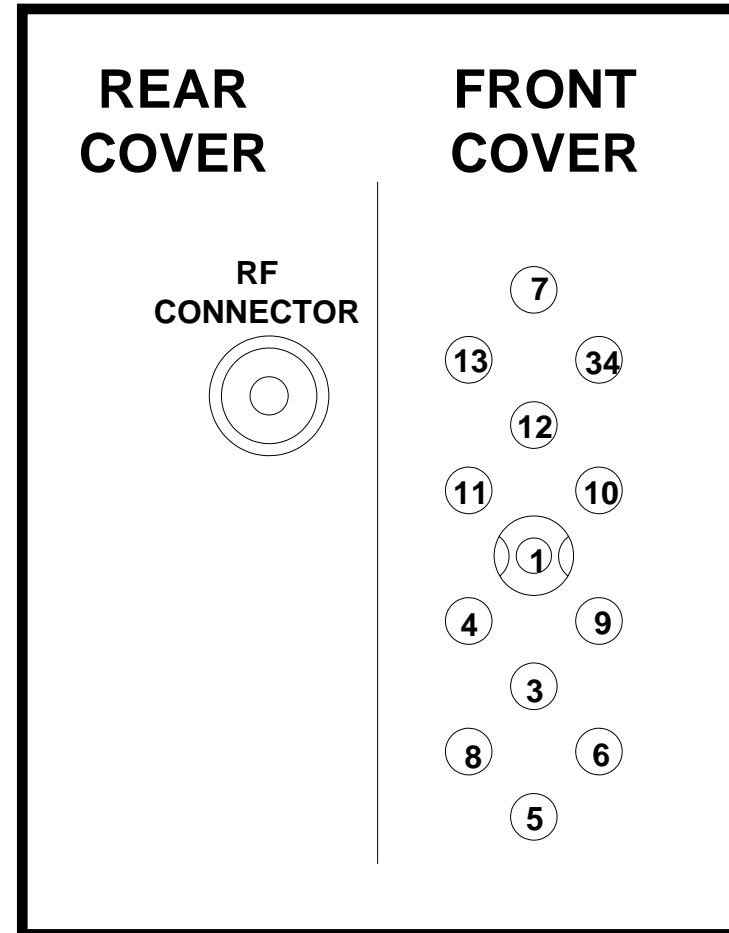
Has Keypad Scan Circuit

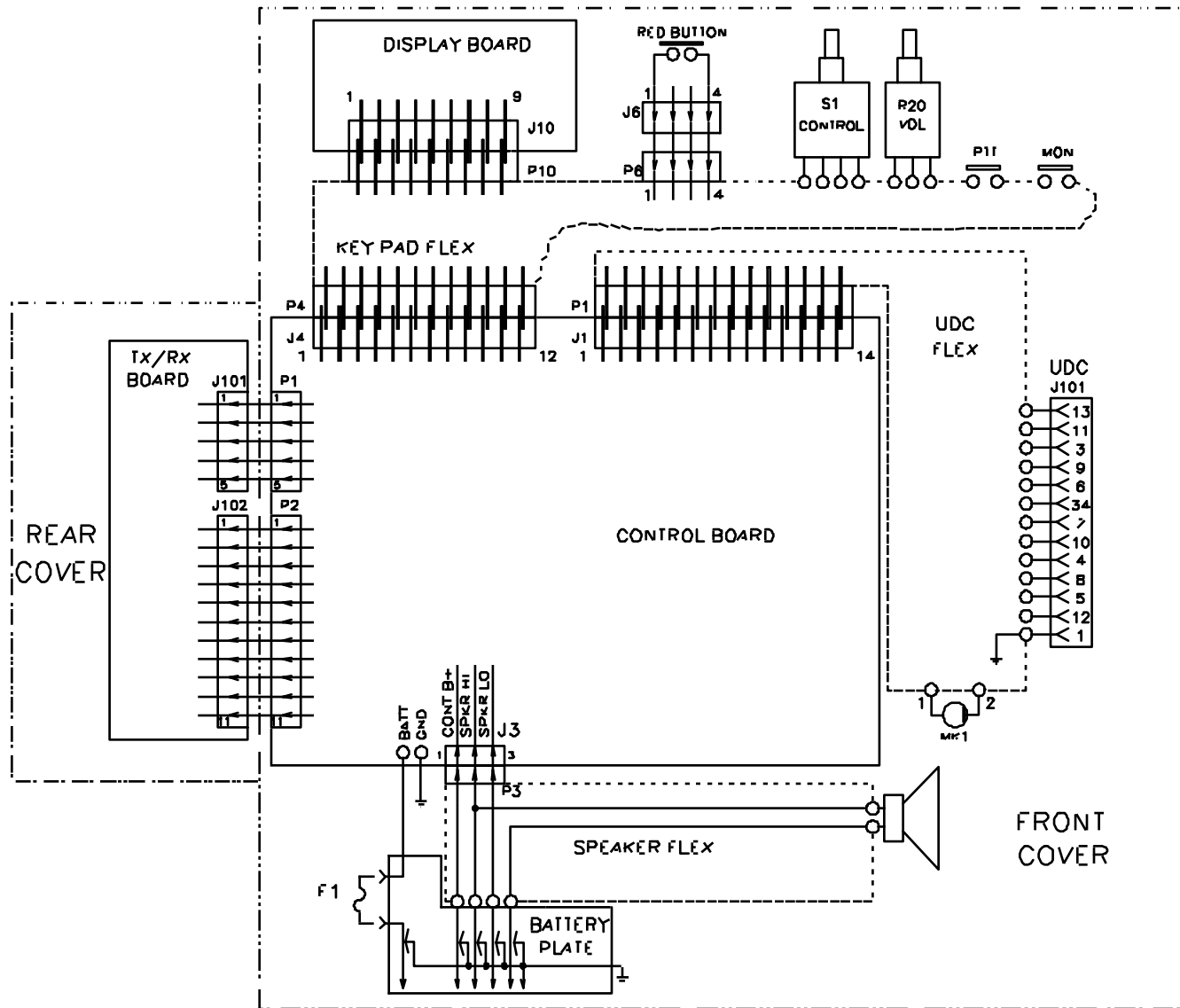
UNIVERSAL

DEVICE

CONNECTOR

PIN	NAME
1	GROUND
3	UDC RX AUDIO
4	SW BATTERY
5	EXT PTT
6	TX DATA
7	RX DATA
8	SPARE / V-PP
9	UDC VOLT
10	T/R
11	UDC MUTE
12	EXT MIC HIGH
13	EXT EMER
34	UDC DISCR





M-PA CONTROLLER BOARDS

19D902349G1 M-PA CONVENTIONAL
(Non VG/AEGIS)

19D902349G3 MTL CONVENTIONAL
(Non VG/AEGIS)

19D902628G1 EDACS (800, 450, 150)
(Non VG/AEGIS)
P-400 (150 & UHF)

19D902628G3 EDACS (900)

19D902628G7 P-400 (MID BAND)

19D903081G1 VG/AEGIS
(081 BOARD HAS REPLACED ALL OTHER
BOARDS EXCEPT THE ONES FOR P-400
AND EDACS 900.)

CONTROLLER BOARDS DO

Logic

Microprocessor Control

Personality

Input/Output

Synthesizer Programming

Audio Processing

Routing of all Audio

Limiting and Filter of Audio

Speaker Amplifier



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