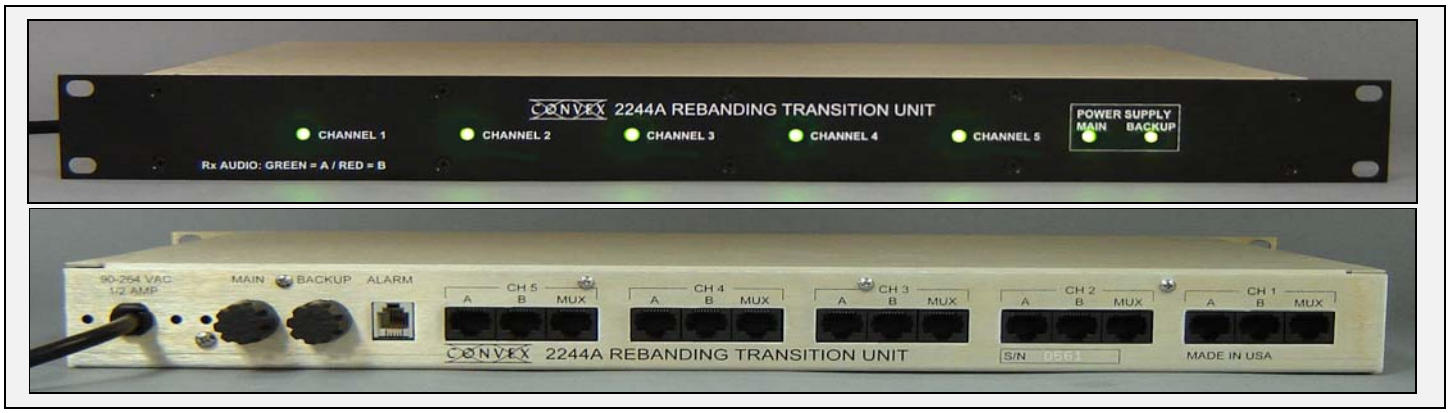
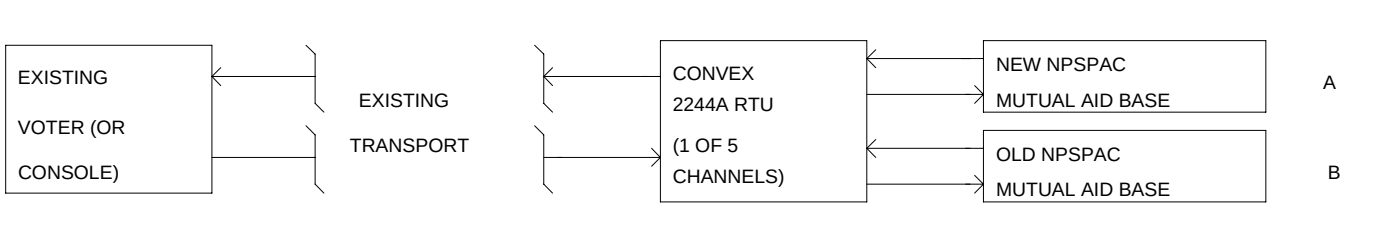
REBANDING TRANSITION UNIT 2244A

FOR VOTED NPSPAC MUTUAL AID CHANNELS





2244A REBANDING TRANSITION UNIT

The 2244A RTU is deployed at radio sites to provide a means of interfacing individual audio channels to pairs of base stations. This allows two base stations to share a common audio channel during a cut-over period when RF allocations are being swapped. (“rebanded”)

The 2244A supports **five audio channels** in a compact 1U format. It provides a 2:1 selection of receive audio (*and unsquelch signaling*), and a 1:2 distribution of transmit audio (*and PTT signaling*). Switches are provided so that **Receive Unsquelch** and **PTT** can be controlled via **tone or E&M** signaling. **Receive A/B Selection** is monitored by five **LEDs** on the front panel.

The 2244A is packaged in a 1U high, rack mounting, panel. Power options include a universal AC Supply; or 12, 24, or 48 Volt DC Supplies. Redundant power modules are provided and front panel LEDs indicate the status of each power module. A contact closure is provided across pins on the ALARM Connector in the event of a power or power module failure.

Receive audio from two receivers is selected and output to a single “Rx” MUX Output. Rx audio selection is driven by the status of the Carrier Operated Relay (COR) or the “idle tone” from each receiver. **A/B SELECTION / HOLDOVER LOGIC:** The A and B Radios are weighted equally. The first radio detected as “unsquelched” (even if by a few microseconds) is selected. That radio remains selected while unsquelched and until the other radio is selected. **Transmit audio** from the MUX is distributed to the A and B base stations.

WARRANTY All Convex Products are warranted to be free of manufacturing defects for a period of one year.

SPECIFICATIONS

AUDIO AMPLIFIERS

Inputs:	15 Floating, Balanced, 600 Ohm
Outputs:	15 Floating, Balanced, 600 Ohm
Gain:	0 dB. +/- 0.1 dB
Response Variation	Less than 0.1 dB, 4 to 5000 Hz
I/O Return Loss:	Greater than 20 dB
Input/Output Level:	+10 dBm maximum
Noise:	Less than -60 dBmC

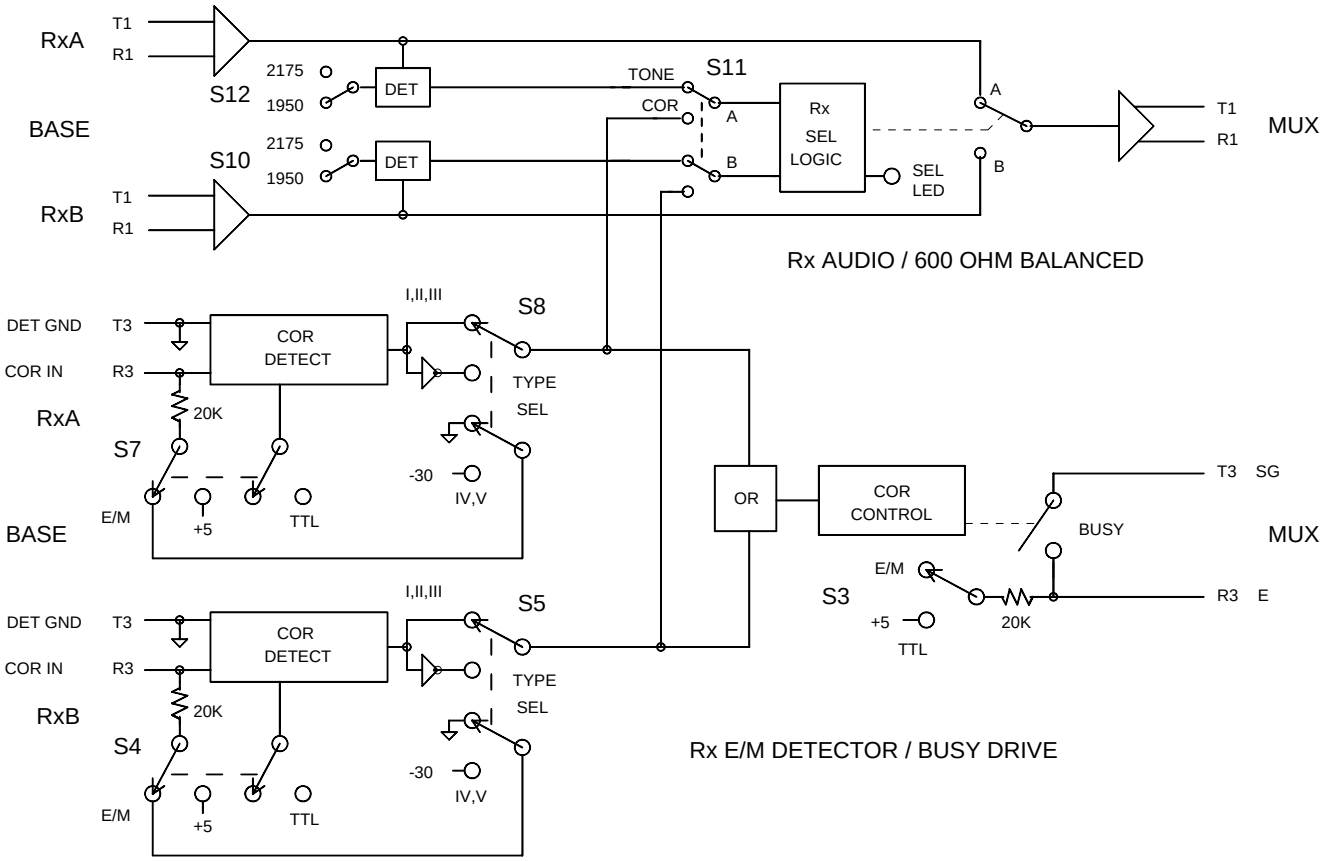
E&M CIRCUITS

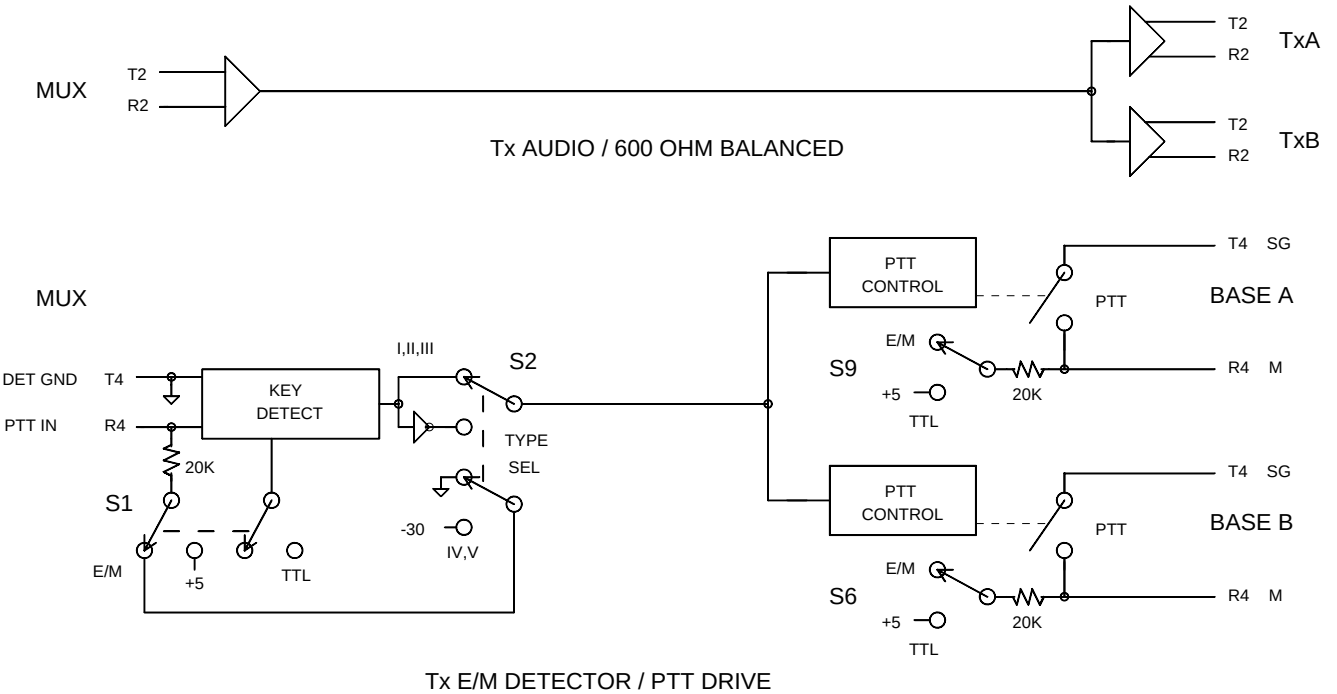
M (PTT) 5 Inputs:	Types: I, II, III or IV, V or TTL
COR 10 Inputs:	Types: I, II, III or IV, V or TTL
Type I,II,III	Key <-20 V / Idle >-20 V
Type IV, V	Key >-20 / Idle <-20 V
E / M Outputs:	15 Isolated relays, 100 mA

Rx AUDIO SELECTION CONTROL

Control Sel.:	“COR”, or *Idle* “TONE” *1950 or 2175 Hz*
TONE Range	-26 to 0 dBm
Control Logic:	A/B logic chooses first unsqueched radio
Idle Tone:	A = VOICE / B = TONE: **SEL. A**
	A = TONE / B = VOICE: **SEL. B**
	A = VOICE / B = VOICE: **SEL. First**
	A = TONE / B = TONE: **SEL. Last**
COR Control:	A = COR / B not COR: **SEL. A**
	A = not COR / B COR: **SEL. B**
	A = COR / B COR: **SEL. First**
	A = not COR / B not COR: **SEL. Last**
A/B SEL LEDs:	Display status of Rx Audio selection
	Green = New / A, **Red** = Old / B

ENVIRONMENT:	-30 to 60º C, 95% R.H.
I/O CONNECTORS:	15 RJ-45 (8 pin) Connectors
	1 RJ-11 ALARM Connector
DIMENSIONS:	1.7" H x 10.4" D x 19" W. / 6 lbs.
POWER	90-264 VAC; Order: 2244-**AC**
	±**12**, **24**, or **48** VDC, Order: 2244-**XX**





BLOCK DIAGRAM / 2244A REBANDING TRANSITION UNIT
1 OF 5 CHANNELS

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