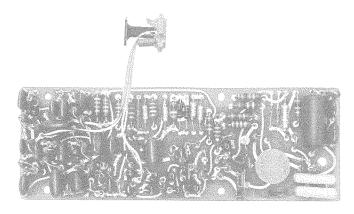


MAINTENANCE MANUAL

CHANNEL GUARD ENCODER/DECODER MODELS 4EK14B10 & 4EK14B11
CHANNEL GUARD DECODE ONLY (OPTION 8026)
TONE REJECT FILTER 19C317355 - G2



SPECIFICATIONS *

Used with 4EK14B10

MASTR[®] Progress Line Executive Series, Royal Executive Mobile and Station Combinations and MASTR Executive II Mobile and Station Combinations

4EK14B11

MASTR Progress Line Custom Executive Mobile Combinations

Tone Frequencies

71.9 to 203.5 Hertz

Encoder Distortion

Less than 3%

Decoder Response

±1.5 dB from 71.9 to 203.5 Hertz (100 Hz Ref.)

Power Requirements

10 VDC @ 50 Milliamperes

Number of Silicon transistors

8

Temperature Range

-30°C to +60°C (-22°F to 144°F)

^{*}These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications

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45-50 WBz Transmitter Excitor Modification 19A172623G1, 42 e 43	×

DESCRIPTION

General Electric Channel Guard Models 4EK14B10 and 4EK14B11 are fully transistorized Encoder/Decoder.

The encoder function provides coded tone modulation for the transmitter.

The decoder function is used with the receiver to eliminate all calls that are not tone coded for the channel guard frequency.

The tone frequencies are controlled by plug-in tone networks that are made with precision components for excellent stability and reliability. The channel guard board is located in the option area as shown in Figures 1 and 2.

Tone Reject Filter 19C317355G2 is available for use in a non-Channel Guard mobile or station receiving calls that are tone modulated.

INSTALLATION

To install Channel Guard board in the field, refer to the installation diagrams listed in the Table of Contents. In 25-50 MHz applications only, the transmitter exciter board has to be modified. When the Channel Guard is installed in MASTR Executive II radios, refer to the applicable Combination Manual.

CIRCUIT ANALYSIS

References to symbol numbers mentioned in the following text are found on the Schematic Diagrams, Outline Diagrams and Parts Lists (see Table of Contents). A block diagram of the Channel Guard is shown in Figure 3.

Cable W603 (W604 for Royal) connects the supply voltage, encoder keying voltage and decoder functions for the Channel Guard board to the system terminal board (TB3). The encoder tone output is connected by a white-black shielded lead to the transmitter exciter board.

ENCODER

The encoder tone is provided by Q604 and Q605 which oscillate at a frequency determined by the tone network. Negative feedback, applied thru the tone network to the base of Q604, prevents any gain in the stage except at the operating frequency.

Keying the transmitter applied +10 Volts to the anode of feedback control diode CR605, causing it to conduct. When conducting, the diode shunts R635 which reduces the impedance of the positive feedback loop (R635, R633 and C617). This provides the necessary gain to the base of Q604 to permit oscillation, and the oscillator locks in on the Channel Guard frequency.

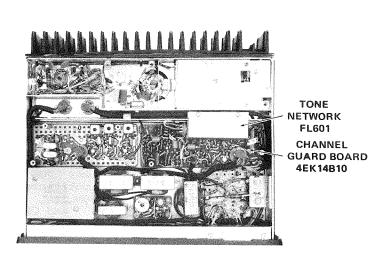


Figure 1 - Executive & Royal Executive

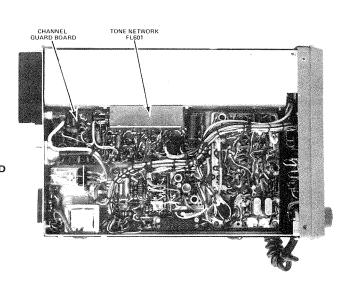


Figure 2 - Custom Executive

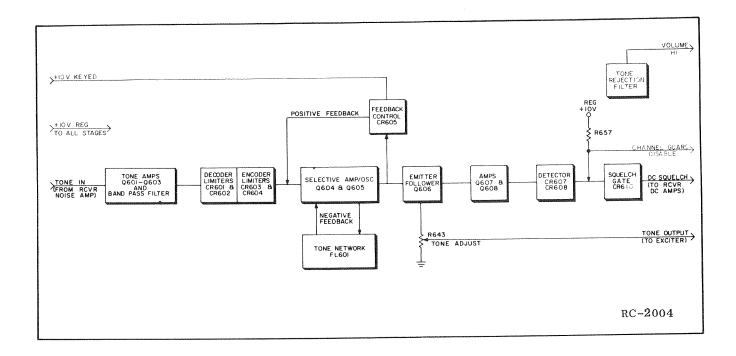


Figure 3 - Channel Guard Block Diagram

An extremely fast starting time for the encoder tone is provided by a starting network consisting of R641, C618, C619 and CR606. This network utilizes a positive pulse from the +10 Volts keying voltage to provide the positive feedback required to start oscillation.

Thermistor-resistor combination R663-RT604 provides temperature compensation for the oscillator output, and limiter diodes CR603 and CR604 keep the amplitude of the tone constant.

The oscillator output is fed to emitter-follower Q606, and then to TONE ADJUST potentiometer R643. This control is normally set for a ± 0.75 kHz deviation as outlined in the Transmitter Modulation Adjustment Procedure.

The encoder tone is applied to the modulator stage on the transmitter exciter board.

DECODER

The decoder function is designed to eliminate all calls that are not tone coded for the Channel Guard Frequency. As long as the MONITOR switch is not depressed, all signals are locked out except those from transmitters that are continuously tone coded for positive identification by the receiver. Pressing the MONITOR switch

instantly disables the Channel Guard and noise squelch circuits so that all calls on the channel can be heard.

Audio, tone and noise are taken from the collector of audio-noise amplifier Q316 in the receiver and is fed thru J601-4 to three tone amplifier and bandpass filter circuits. The filters remove the audio and high-frequency noise from the signal, and the tone amplifiers provide sufficient gain of all Channel Guard tones to insure clipping by limiter diodes CR601 and CR602. The clipping action eliminates variation in the squelch performance due to changes in tone deviation.

The signal is then applied to selective amplifiers Q604 and Q605, which amplify only the tone determined by the tone network.

The output of the selective amplifier is applied through emitter-follower Q606 to the high gain, broad-band tone amplifiers Q607 and Q608. The output of Q608 is rectified by detector diodes CR607 and CR608, and the resulting negative DC voltage controls the squelch gate. Q607 is normally biased for low gain. When the tone is detected by CR607 and CR608, feedback is provided through R655 to quickly change the bias on Q607 for full gain. This ensures a more positive "unsquelching" action.

Squelch gate diode CR610 is normally forward biased by a positive DC voltage (approximately 1.5 Volts) fed through R657. The forward bias causes CR610 to conduct, feeding a DC voltage to the base of noise amplifiers Q320 and Q321 in the receiver. This removes the bias on the receiver audio stages and holds them off.

When the proper tone is applied to the decoder, the negative DC voltage from the detector diodes CR607 & CR608 back-biases squelch gate diode CR610, and cuts off the positive bias to the DC amplifiers. However, the receiver noise squelch circuit continues to operate until a carrier quiets the receiver.

Pressing the MONITOR switch on the control unit grounds the base biasing circuit of the DC amplifiers and disables both the Channel Guard and noise squelch circuits. If the optional hookswitch is provided, removing the microphone from its hanger automatically disables Channel Guard while maintaining normal noise squelch operation.

A tone rejection filter connected in parallel with the VOLUME control bypasses the tone to ground, thereby attenuating the tone level reaching the audio circuits. The filter is composed of L601, C624, C626, C629, C630 and R659.

ADJUSTMENT

The decode function and the tone reject filter function requires no adjustment. To adjust the tone level of the encode function, proceed as follows:

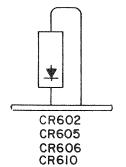
- 1. Connect a deviation monitor to the transmitter output.
- 2. Key the transmitter and adjust R643 on the Channel Guard board for ± 0.75 kHz deviation.

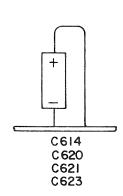
DECODE ONLY (MASTR EXECUTIVE II)

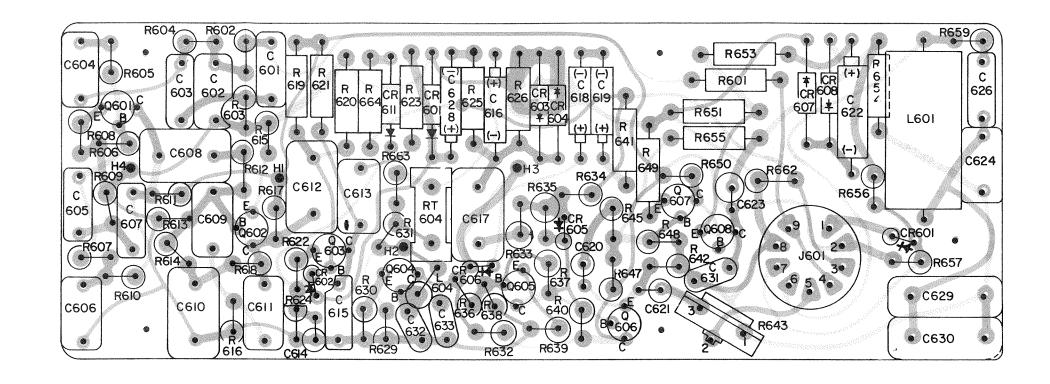
In MASTR Executive II Applications where the "decode only" function is desired, clip the W-BK wire connected to P907-6 between the connector body and sleeve.

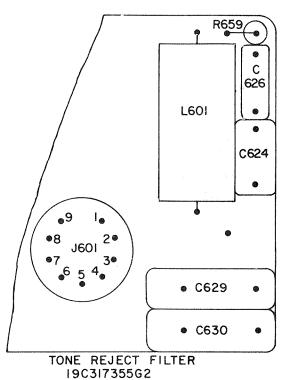
GENERAL ELECTRIC COMPANY+ MOBILE COMMUNICATIONS DIVISION WORLD HEADQUARTERS+LYNCHBURG_VIRGINIA 24502" U.S.A.



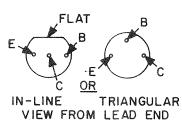




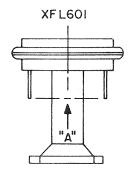




LEAD IDENTIFICATION FOR Q601-Q608



NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.



XFL60I

(19C317634, Rev. 4) (19B216922, Sh. 1, Rev. 4) (19B216922, Sh. 2, Rev. 3)

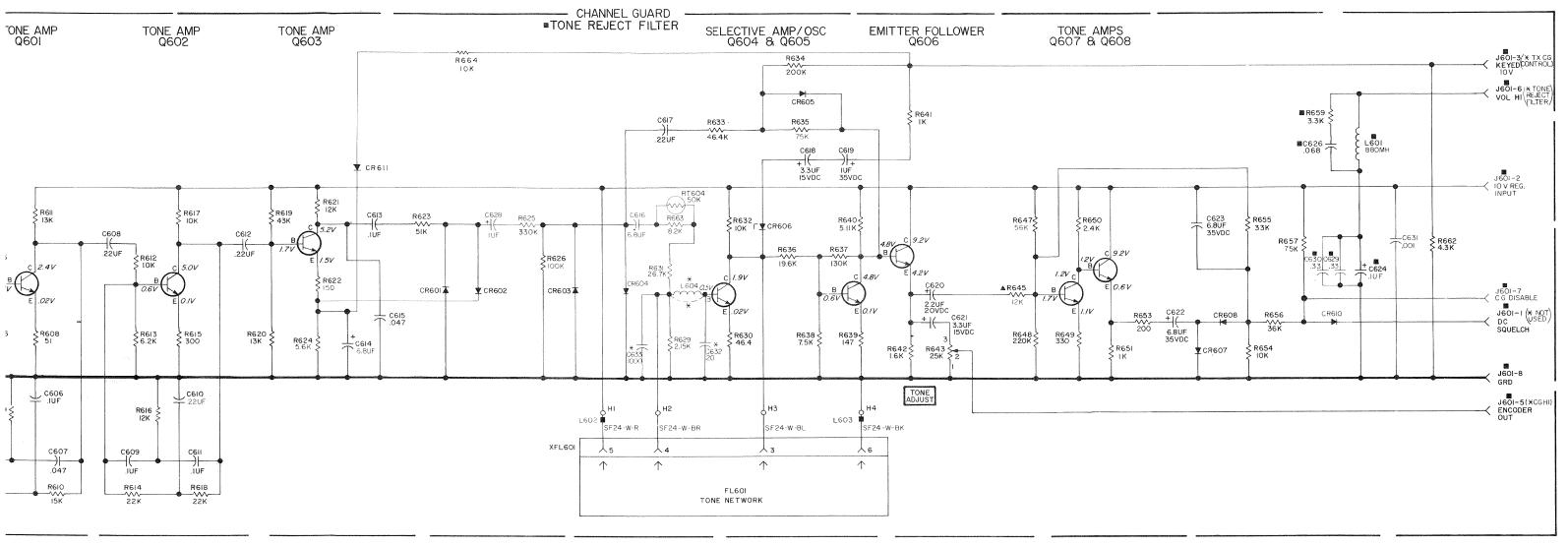
OUTLINE DIAGRAM

CHANNEL GUARD ENCODER/DECODER MODELS 4EK14B10 AND 4EK14B11

RUNS ON SOLDER SIDE

RUNS ON BOTH SIDES

RUNS ON COMPONENT SIDE



SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DES-CRIPTION OF CHANGES UNDER EACH REVISION LETTER. THIS ELEM DIAG APPLIES TO MODEL NO 4EKI4BIO 4EKI4BII REV LETTER

▲ VALUE OF R645 IS DETERMINED BY TEST (SEE TEST SPECS) * REPLACE L604 WITH DA WIRE FOR 4EKI4BIO. L604, C632, 8 C633 USED IN 4EKI4BI! ONLY.

VOLTAGE READINGS

VOLTAGE READINGS ARE TYPICAL READINGS
MEASURED FROM TRANSISTOR PIN TO GROUND
WITH A 20,000 OHM-PER-VOLT METER, AND
WITH NO TONE INPUT AND THE ENCODER NOT
KEYED.

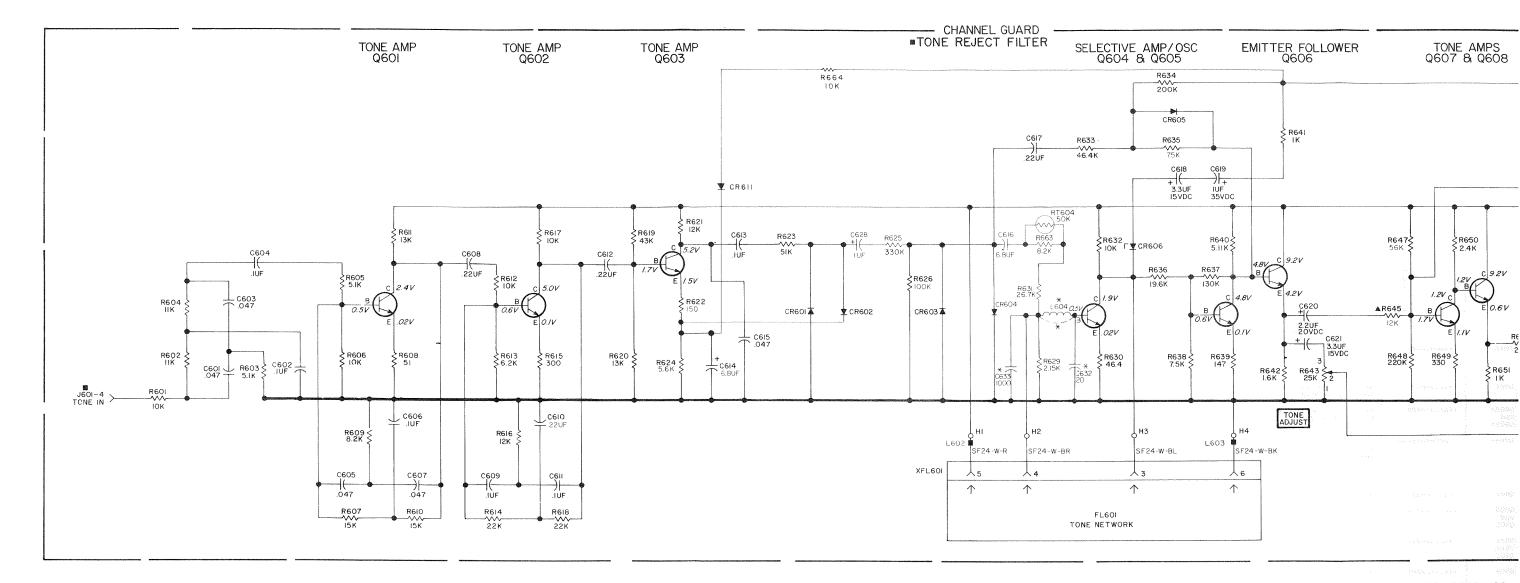
- COMPONENTS THAT ARE COMMON TO CHANNEL GUARD B TONE REJECT FILTER.

 * ALTERNATE FUNCTION WHEN USED WITH THE EXECUTIVE II RADIO

ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K-1000 OHMS OF MEG = 1,000,000 OHMS OCAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF = MICROFARADS. INDUCTANCE VALUES IN MICROFICHYRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H= HENRYS.

SCHEMATIC DIAGRAM

CHANNEL GUARD ENCODER/DECODER MODELS 4EK14B10 AND 4EK14B11



SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DES-CRIPTION OF CHANGES UNDER EACH REVISION LETTER THIS ELEM DIAG APPLIES TO REV LETTER C B 4EKI4BII

AVALUE OF R645 IS DETERMINED BY TEST (SEE TEST SPECS)
***REPLACE L604 WITH DA WIRE FOR 4EK14B10.
**L604, C632, & C633 USED IN 4EK14B11 ONLY.

VOLTAGE READINGS

VOLTAGE READINGS ARE TYPICAL READIN MEASURED FROM TRANSISTOR PIN TO GRI WITH A 20,000 OHM-PER-VOLT METER, WITH NO TONE INPUT AND THE ENCODER KEYED.

COMPONENTS THAT ARE COMMON TO CHA GUARD & TONE REJECT FILTER. * ALTERNATE FUN CTION WHEN USED WITH EXECUTIVE II RADIO

PARTS LIST

LBI-4142C

CHANNEL GUARD ENCODER/DECODER 4EK14B10 (19C317355G1) 4EK14B11 (19C317355G3)

C632* 5496218P46 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14Bll only).	SYMBOL	GE PART NO.	DESCRIPTION
C602			
19A116080P205 Polyester: 0.047 \(\psi \) 15%, 50 \(\text{PDCW}. \)	C601	19A116080P205	Polyester: 0.047 µf ±5%, 50 VDCW.
19A116080P205 Polyester: 0.047 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P205 Polyester: 0.1 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.047 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.047 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.047 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.22 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.22 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.1 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.1 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.1 \(\mu f \) ±5%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.1 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P207 Polyester: 0.22 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P3 Polyester: 0.24 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P4 Polyester: 0.24 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P5 Polyester: 0.24 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P5 Polyester: 0.24 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P5 Polyester: 0.22 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P5 Polyester: 0.22 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P5 Tantalum: 6.8 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P10 Tantalum: 1.0 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P10 Tantalum: 2.2 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P107 Tantalum: 2.2 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P107 Tantalum: 1.0 \(\mu f \) ±20%, 50 \(\text{ YDCW}. \) 19A116080P107 Polyester: 0.1 \(\mu f \) ±10%, 50 \(\text{ YDCW}. \) 19A116080P107 Polyester: 0.1 \(\mu f \) ±10%, 50 \(\text{ YDCW}. \) 19A116080P107 Polyester: 0.1 \(\mu f \) ±10%, 50 \(\text{ YDCW}. \) 19A116080P107 Polyester: 0.1 \(\mu f \) ±20%, 35 \(\text{ YDCW}. \) 19A11	C602	19A116080P207	Polyester: 0.1 µf ±5%, 50 VDCW.
19A116080P7 Polyester: 0.1 μf ±20%, 50 VDCW. 19A116080P205 Polyester: 0.047 μf ±5%, 50 VDCW. 19A116080P207 Polyester: 0.1 μf ±5%, 50 VDCW. 19A116080P207 Polyester: 0.047 μf ±5%, 50 VDCW. 19A116080P207 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P207 Polyester: 0.1 μf ±5%, 50 VDCW. 19A116080P109 Polyester: 0.1 μf ±5%, 50 VDCW. 19A116080P207 Polyester: 0.1 μf ±5%, 50 VDCW. 19A116080P3 Polyester: 0.1 μf ±5%, 50 VDCW. 19A116080P4 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P5 Polyester: 0.1 μf ±20%, 50 VDCW. 19A116080P5 Polyester: 0.1 μf ±20%, 50 VDCW. 19A116080P5 Polyester: 0.047 μf ±20%, 50 VDCW. 19A116080P5 Polyester: 0.047 μf ±20%, 50 VDCW. 19A116080P5 Polyester: 0.047 μf ±20%, 50 VDCW. 19A116080P6 Polyester: 0.047 μf ±20%, 50 VDCW. 19A116080P7 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P9 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P9 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P9 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P10 Polyester: 0.22 μf ±20%, 50 VDCW. 19A116080P10 Polyester: 0.22 μf ±20%, 35 VDCW; sim to 19A116080P10 Sprague Type 150D. 19A116080P10 Polyester: 0.1 μf ±10%, 50 VDCW. 19A116080P10 Polyester: 0.1 μf ±20%, 35 VDCW; sim to 19A116080P10 Polyester: 0.1 μf ±20%, 35 VDCW; sim to 19A116080P10 Polyester: 0.33 μf ±5%, 50 VDCW. 19A116080P10 Polyester: 0.33 μf ±50%, 50 VDCW. 19A116080P10 Polyester: 0.33 μf ±10%, 50 VDCW. 19A116080P10 Polyester: 0.34 μf ±5%, 50 VDCW. 19A116080P10 Polyester: 0.068 μf ±5%, 50 VDCW. 19A116080P10 Polyester: 0.07 ±5%, 500 VDCW. 19A116080P10 Polyester: 0.07 ±5%, 500 VDCW. 19A116080P10 Polyester: 0.00 pf ±5%, 500 VDCW.	C603	19All6080P205	· ·
Polyester: 0.1 \(\text{pf} \) 19A116080P207	C604	19All6080P7	
19A116080P205 Polyester: 0.047 μf ±5%, 50 VDCW.	C605	19A116080P205	Polyester: 0.047 µf ±5%, 50 VDCW.
Polyester: 0.22 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.1 \(\text{pf} \) ±5\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.1 \(\text{pf} \) ±5\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.22 \(\text{pf} \) ±10\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.1 \(\text{pf} \) ±5\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.2 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.1 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.1 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.047 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.022 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \). Polyester: 0.024 \(\text{pf} \) ±20\(\text{so} \), 50 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.025 \(\text{pf} \) ±20\(\text{so} \), 35 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.1 \(\text{pf} \) ±20\(\text{so} \), 35 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.1 \(\text{pf} \) ±10\(\text{so} \), 35 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.1 \(\text{pf} \) ±10\(\text{so} \), 35 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.1 \(\text{pf} \) ±10\(\text{so} \), 35 \(\text{PDCW} \); sim to Sprague Type 150D. Polyester: 0.068 \(\text{pf} \) ±20\(\text{so} \), 35 \(\text{PDCW} \). Polyester: 0.068 \(\text{pf} \) ±20\(\text{so} \), 35 \(C606	19A116080P207	Polyester: 0.1 µf ±5%, 50 VDCW.
Polyester: 0.1 μf ±5%, 50 VDCW.	C607	19A116080P205	Polyester: 0.047 µf ±5%, 50 VDCW.
Polyester: 0.22 \(\text{pf} \) ±10%, 50 \(\text{PDCW}. \)	C608	19A116080P9	Polyester: 0.22 µf ±20%, 50 VDCW.
19A116080P207 Polyester: 0.1 \(\text{pf} \) ±5\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Polyester: 0.22 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Polyester: 0.1 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Polyester: 0.1 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Sample Soprague Type 150D. Polyester: 0.047 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Sample Soprague Type 150D. Polyester: 0.22 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Sample Soprague Type 150D. Polyester: 0.22 \(\text{pf} \) ±20\(\frac{2}{3} \), 50 \(\text{PDCW}. \) Sample Soprague Type 150D. Sample Type Type	C609	19Al16080P207	Polyester: 0.1 µf ±5%, 50 VDCW.
19A116080P9 Polyester: 0.22 μf ±20%, 50 VDCW.	0610	19Al16080P109	Polyester: 0.22 μf ±10%, 50 VDCW.
19A116080P7 Polyester: 0.1 μf ±20%, 50 VDCW.	611	19A116080P207	Polyester: 0.1 µf ±5%, 50 VDCW.
Tantalum: 6.8 µf ±20%, 6 VDCW; sim to Sprague Type 150D. 19Al16080P5 2616 5496267P1 Tantalum: 6.8 µf ±20%, 6 VDCW; sim to Sprague Type 150D. 2617 19Al16080P9 Polyester: 0.047 µf ±20%, 50 VDCW. Tantalum: 6.8 µf ±20%, 6 VDCW; sim to Sprague Type 150D. 2618 5496267P9 Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. 2619 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2620 5496267P13 Tantalum: 2.2 µf ±20%, 20 VDCW; sim to Sprague Type 150D. 2621 5496267P9 Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. 2622 5496267P18 Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2624 19Al16080P107 Polyester: 0.1 µf ±10%, 50 VDCW. 2626 19Al16080P206 Polyester: 0.068 µf ±5%, 50 VDCW. 2627 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2628 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2629 19Al16080P100 Polyester: 0.33 µf ±10%, 50 VDCW. 2629 19Al16080P110 Polyester: 0.33 µf ±10%, 50 VDCW. 2630 2631 5494481P11 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. 2632* 5496218P46 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef o PPM. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only).	C612	19A116080P9	Polyester: 0.22 µf ±20%, 50 VDCW.
Sprague Type 150D. 19A116080P5 19A116080P5 Polyester: 0.047 µf ±20%, 50 VDCW. Tantalum: 6.8 µf ±20%, 6 VDCW; sim to Sprague Type 150D. 2617 19A116080P9 Polyester: 0.22 µf ±20%, 50 VDCW. Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2620 5496267P13 Tantalum: 2.2 µf ±20%, 20 VDCW; sim to Sprague Type 150D. 2621 5496267P9 Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. 2622 5496267P18 Tantalum: 3.3 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2624 19A116080P107 Polyester: 0.1 µf ±10%, 50 VDCW. 2626 19A116080P206 Polyester: 0.068 µf ±5%, 50 VDCW. 2628 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2629 19A116080P110 Polyester: 0.33 µf ±10%, 50 VDCW. 2629 19A116080P110 Polyester: 0.33 µf ±10%, 50 VDCW. 2630 5496218P46 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. 2632* 5496218P46 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef o PPM. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only).	C613	19A116080P7	Polyester: 0.1 µf ±20%, 50 VDCW.
Tantalum: 6.8 µf ±20%, 6 vDCW; sim to Sprague Type 150D. 19A116080P9 Polyester: 0.22 µf ±20%, 50 vDCW. 2618 5496267P9 Tantalum: 3.3 µf ±20%, 15 vDCW; sim to Sprague Type 150D. 2619 5496267P1 Tantalum: 1.0 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2620 5496267P13 Tantalum: 2.2 µf ±20%, 20 vDCW; sim to Sprague Type 150D. 2621 5496267P9 Tantalum: 3.3 µf ±20%, 15 vDCW; sim to Sprague Type 150D. 2622 5496267P18 Tantalum: 6.8 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2623 Tantalum: 6.8 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2624 19A116080P107 Polyester: 0.1 µf ±10%, 50 vDCW. 2626 19A116080P206 Polyester: 0.068 µf ±5%, 50 vDCW. 2627 Tantalum: 1.0 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2628 5496267P17 Tantalum: 1.0 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2629 19A116080P110 Polyester: 0.33 µf ±10%, 50 vDCW. 2630 Tantalum: 1.0 µf ±20%, 35 vDCW; sim to Sprague Type 150D. 2631 5496218P46 Ceramic disc: 1000 pf ±20%, 1000 vDCW; sim to RMC Type JF Discap. 2632* 5496218P46 Ceramic disc: 20 pf ±5%, 500 vDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 vDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 vDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only).	C614	5496267P1	
Sprague Type 150D. 19A116080P9 Polyester: 0.22 µf ±20%, 50 VDCW. 2618 5496267P9 Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. 2619 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2620 5496267P13 Tantalum: 2.2 µf ±20%, 20 VDCW; sim to Sprague Type 150D. 2621 5496267P9 Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. 2622 5496267P18 Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2624 19A116080P107 Polyester: 0.1 µf ±10%, 50 VDCW. 2626 19A116080P206 Polyester: 0.068 µf ±5%, 50 VDCW. 2627 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 2629 19A116080P100 Polyester: 0.33 µf ±10%, 50 VDCW. 2629 19A116080P110 Polyester: 0.33 µf ±10%, 50 VDCW. 2630 5496267P17 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to Sprague Type JF Discap. 2631 5494481P11 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). 2633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 2630 19A115250P1 Silicon.	C615	19A116080P5	Polyester: 0.047 µf ±20%, 50 VDCW.
Tantalum: 3.3 μf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 μf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 2.2 μf ±20%, 20 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 μf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 μf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 μf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 μf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 μf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 μf ±10%, 50 VDCW. Tantalum: 1.0 μf ±20%, 35 VDCW; sim to Sprague Type 150D.	C616	5496267P1	Tantalum: 6.8 µf ±20%, 6 VDCW; sim to Sprague Type 150D.
Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 2.2 µf ±20%, 20 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±10%, 50 VDCW. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14Bl1 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14Bl1 only).	0617	19A116080P9	Polyester: 0.22 µf ±20%, 50 VDCW.
Sprague Type 150D. Tantalum: 2.2 µf ±20%, 20 VDCW; sim to Sprague Type 150D. Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Polyester: 0.1 µf ±10%, 50 VDCW. 19A116080P206 Polyester: 0.068 µf ±5%, 50 VDCW. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Polyester: 0.33 µf ±10%, 50 VDCW. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Polyester: 0.33 µf ±10%, 50 VDCW. Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14Bll only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14Bll only).	C618	5496267 P 9	
Sprague Type 150D. Tantalum: 3.3 µf ±20%, 15 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±10%, 50 VDCW. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Tantalum: 3.3 µf ±20%, 35 VDCW; sim to Sprague Type 150D.	619	5496267P17	Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D.
Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±10%, 50 VDCW. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Tantalum: 1.0 µf ±20%, 1000 VDCW; sim to Sprague Type 150D. Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Tantalum: 6.8 µf ±20%, 35 VDCW; sim to Sprague Type ISOD. Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only).	0620	5496267P13	
Sprague Type 150D. Sprague Type 150D. Sprague Type 150D. Polyester: 0.1 µf ±10%, 50 VDCW. 19A116080P206 Polyester: 0.068 µf ±5%, 50 VDCW. 5496267P17 Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. Polyester: 0.33 µf ±10%, 50 VDCW. 19A116080P110 Polyester: 0.33 µf ±10%, 50 VDCW. Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Sprague Type 150D.	621	5496267 P 9	
19A116080P206 Polyester: 0.068 μf ±5%, 50 VDCW. 5496267P17 Tantalum: 1.0 μf ±20%, 35 VDCW; sim to Sprague Type 150D. 6629	ind	5496267P18	Tantalum: 6.8 μ f $\pm 20\%$, 35 VDCW; sim to Sprague Type 150D.
Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D. 19A116080P110 Polyester: 0.33 µf ±10%, 50 VDCW. 1630 Polyester: 0.33 µf ±10%, 50 VDCW. 1631 S494481P111 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. 1632* S496218P46 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). 1633* S494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 1633* S494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 175601 Silicon.	C624	19A116080P107	Polyester: 0.1 µf ±10%, 50 VDCW.
Sprague Type 150D. Sprague Type 150D. Polyester: 0.33 µf ±10%, 50 VDCW. 1631 5494481P111 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. 1632* 5496218P46 Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). 1633* 5494481P112 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). 18601 19A115250P1 Silicon.	626	19A116080P206	Polyester: 0.068 µf ±5%, 50 VDCW.
194115250P1 Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Ceramic disc: 1000 PF Discap	628	5496267P17	Tantalum: 1.0 µf ±20%, 35 VDCW; sim to Sprague Type 150D.
RMC Type JF Discap. Ceramic disc: 20 pf ±5%, 500 VDCW, temp coef 0 PPM. Added by REV A in Model 4EK14Bll only). Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14Bll only). DIODES AND RECTIFIERS CR601 19All5250Pl Silicon.	and	19Al16080Pl10	Polyester: 0.33 μf ±10%, 50 VDCW.
coef 0 PPM. Added by REV A in Model 4Ekl4Bll only). 5494481Pll2 Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4Ekl4Bll only). DIODES AND RECTIFIERS Silicon.	631	5494481P111	
RMC Type JF Discap. Added by REV A in Model 4EK14Bll only). DIODES AND RECTIFIERS R601 19A115250Pl Silicon.	632*	5496218P46	coef O PPM. Added by REV A in Model 4EK14B11
CR601 19A115250P1 Silicon.	C633*	5494481P112	Ceramic disc: 1000 pf ±10%, 1000 VDCW; sim to RMC Type JF Discap. Added by REV A in Model 4EK14B11 only).
CR601 19A115250Pl Silicon.			DIODES AND RECTIFIERS
1	ind	19A115250P1	
CR603 5494922Pl Silicon, sim to 1N456.	CR603	5494922P1	Silicon, sim to 1N456.
CR605 19A115250P1 Silicon.	1	19Al15250Pl	Silicon.
CR606 4036887P3 Silicon, Zener.			

SYMBOL	GE PART NO.	DESCRIPTION
CR607	19A115 [*] 250P1	Silicon.
CR608	Parascalar	1
CR610	19A115250P1	Silicon.
CR611*	19A115250P1	Silicon. Added to 4EK14B10 by REV C; Added to 4EK14B11 by REV B.
FL601	G1 G2 G3 G4 G5 G6 G7 G8 G9	Tone Detector. (Check group numbers for desired frequency). 71.9 Hz 77.0 Hz 82.5 Hz 88.5 Hz 94.8 Hz 100.0 Hz 103.5 Hz 107.2 Hz 110.9 Hz 114.8 Hz
	G11 G12 G13 G14 G15 G16 G17 G18 G19 G20 G21 G22 G23 G24 G25 G26 G26 G27 G27 G28 G29 G29 G21 G29 G21 G29 G21 G29 G21 G29 G29 G29 G29 G20 G20 G20 G20 G21 G20 G20 G20 G20 G20 G20 G20 G20 G20 G20	118.8 Hz 123.0 Hz 127.3 Hz 137.8 Hz 131.8 Hz 131.8 Hz 141.3 Hz 141.3 Hz 141.4 Hz 156.7 Hz 162.2 Hz 173.8 Hz 173.8 Hz 179.9 Hz 186.2 Hz 186.2 Hz 192.8 Hz 203.5 Hz 74.4 Hz 79.7 Hz 85.4 Hz 91.5 Hz
J601	19B209303P1	Plug, phen: 9 pins.
L601	19A115690P1	Reactor: 880 mh ind, 120 amp ±15% DC res; sim to Artted AC5672.
L602* and L603*	19Al15700P2	RF Choke: sim to SL207. Added by REV A in Model 4EK14B10 only.
L604*	19B209420P125	Choke, RF: 10.0 µh ±10%, 3.10 ohms DC res max; sim to Jeffers 4446-4. Added by REV A in Model 4EK14Bll only).
		TRANSISTORS
Q601	19A115362P1	Silicon, NPN; sim to Type 2N2925.
Q602 and Q603	19A115123P1	Silicon, NPN.
Q604 thru Q607	19A115362P1	Silicon, NPN; sim to Type 2N2925.
Q608	19All5123Pl	Silicon, NPN.
R601	3R77P103K	Composition: 10K ohms ±10%, 1/2 w.
R602	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.
R603	3R77P512J	Composition: 5.1K ohms ±5%, 1/2 w.
R604	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.
R605	3R77P512J	Composition: 5.1K ohms ±5%, 1/2 w.
R606	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
R607	3R77P153J	Composition: 15K ohms ±5%, 1/2 w.
R608	3R77P510J	Composition: 51 ohms ±5%, 1/2 w.
R609	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.
	3R77P153J	Composition: 15K ohms ±5%, 1/2 w.
R610		1
R610 R611	3R77P133J	Composition: 13K ohms ±5%, 1/2 w.

SYMBOL	GE PART NO.	DESCRIPTION
R613	3R77P622J	Composition: 6.2K ohms ±5%, 1/2 w.
R614	3R77P223J	Composition: 22K ohms ±5%, 1/2 w.
R615	3R77P301J	Composition: 300 ohms ±5%, 1/2 w.
R616	3R77P123J	Composition: 12K ohms ±5%, 1/2 w.
R617	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
R618	3R77P223J	Composition: 22K ohms ±5%, 1/2 w.
R619	3R77P433J	Composition: 43K ohms ±5%, 1/2 w.
R620	3R77Pl33J	Composition: 13K ohms ±5%, 1/2 w.
R621	3R77Pl23J	Composition: 12K ohms ±5%, 1/2 w.
R622	3R77P151J	Composition: 150 ohms ±5%, 1/2 w.
R623	3R77P513J	Composition: 51K ohms ±5%, 1/2 w.
R624	3R77P562J	Composition: 5.6K ohms ±5%, 1/2 w.
R625	3R77P334J	Composition: 330K ohms ±5%, 1/2 w.
R626	3R77P104J	Composition: 100K ohms ±5%, 1/2 w.
R629	19A116278P233	Metal film: 2.15K ohms ±2%, 1/2 w.
R630	19A116278P65	Metal film; 46.4 ohms ±2%, 1/2 w.
R631	19A116278P342	Metal film: 26.70K ohms ±2%, 1/2 w.
R632	19A116278P301	Metal film: 100K ohms ±2%, 1/2 w.
R633	19A116278P365	Metal film: 46.40K ohms ±2%, 1/2 w.
R634	3R77P204J	Composition: 200K ohms ±5%, 1/2 w.
R635	19A116278P385	Metal film: 75K ohms ±2%, 1/2 w.
R636	19Al16278P329	Metal film: 19.60K ohms ±2%, 1/2 w.
R637	19A116278P412	Metal film: 130K ohms ±2%, 1/2 w.
R638	19Al16278P285	
R639	19A116278P117	Metal film: 7.5K ohms ±2%, 1/2 w. Metal film: 147 ohms ±2%, 1/2 w.
R640	19A116278P269	Metal film: 5.11K ohms ±2%, 1/2 w.
R641	3R77P102J	Composition: 1K ohms ±5%, 1/2 w.
R642	3R77P162J	Composition: 1.6K ohms ±5%, 1/2 w.
R643	19B209358P107	Variable, carbon film: approx 800 to 25K ohm ±10%, 0.25 w; sim to CTS Type X-201.
R645A	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.
R645B	3R77P912J	Composition: 9.1K ohms ±5%, 1/2 w.
R645C	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
R645D	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.
R645E	3R77P123J	Composition: 12K ohms ±5%, 1/2 w.
R645F	3R77P133J	Composition: 13K ohms ±5%, 1/2 w.
R645G	3R77P153J	Composition: 15K ohms ±5%, 1/2 w.
R645H	3R77P752J	Composition: 7.5K ohms ±5%, 1/2 w.
R647	3R77P563J	Composition: 56K ohms ±5%, 1/2 w.
R648	3R77P224J	Composition: 220K ohms ±5%, 1/2 w.
R649	3R77P331J	Composition: 330 ohms ±5%, 1/2 w.
R650	3R77P242J	Composition: 2.4K ohms ±5%, 1/2 w.
R651	3R77P102J	Composition: 1K ohms ±5%, 1/2 w.
R653	3R77P201J	Composition: 200 ohms ±5%, 1/2 w.
R654	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
R655	3R77P333J	Composition: 33K ohms ±5%, 1/2 w.
R656	3R77P363J	Composition: 36K ohms ±5%, 1/2 w.
R657	3R77P753J	Composition: 75K ohms ±5%, 1/2 w.
R659	3R77P332J	Composition: 3.3K ohms ±5%, 1/2 w.
R662	3R77P432J	Composition: 4.3K ohms ±5%, 1/2 w.
R663	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.
R664*	3R77P103J	Composition: 10K ohms ±5%, 1/2 w. Added to 4EK14B10 by REV C, Added to 4EK14B11 by REV B.

	SYMBOL GE PART		DESCRIPTION
	Q + (J) / / + + + + + / -		THERMISTORS
Name of the last o	RT604	5490828P22	Thermistor: 50K ohms ±10%, color code yellow; sim to Carborundum Type 763H-J4.
	XFL601	19B209341P1	Socket, tube: 7 pins; sim to Elco 04-720-XX.
	· ·		MISCELLANEOUS
		19A122138P1	Knob. (Used with XFL601).
Chart of providing and	TYT/ACIDIODOGGAMINE	N197P408C13	Wood, screw. (Used with XFLGOl in Tubed and Royal Executive only).
		N80P9005C13	Screw, machine. (Mounts printed circuit board).
DATACTT/TAMABBUMMERS		N404P11C13	Lockwasher, internal tooth: No. 4. (Mounts printed circuit board in Tubed and Royal Executionly).
NATIONAL PROPERTY OF THE PROPE		19B201074P304	Tap screw, Phillips POZIDRIV [®] : No. 6-32 x 1/4. (Mounts 19B205387Pl support in Tubed and Royal Executive only).
	-	19B205387P1	Support. (Mounts FL601 in Tubed and Royal Executive only).
-		4032591P28	Pressure sensitive pad. (Used with 19B205387Pl support in Tubed and Royal Executive only).
		19D416585P5	Support. (Used with XFL601 in Custom Executive).
		19B201074P205	Tap screw, Phillips POZIDRIV®: No. 4-40-5/16. (Secures XFL601 in Custom Executive).
MINISTERNISHMENT		19B201074P204	Tap, screw, Phillips POZIDRIV [®] : No. 4-40-1/4. (Secures printed wiring board in Custom Executive).
When the same	(1)	19A122213G1	Cover Kit. Includes:
		19B209209P305	Screw, tap: Phillips POZIDRIV [®] : No. 6-32 x 5/16 (Mounts cover thru the side rail).
	* 1	19B201074P305	Screw, tap: Phillips POZIDRIV [®] : No. 6-32 x 5/16 (Mounts cover to Tone Network).
	W601	. 1	CABLE ASSEMBLY 19B226872G2
			Prings
	P601	19B209341P2	Socket, tube: 9 pins; sim to Elco 04-920-XX.
	P907		Connector. Includes:
		19A116659P81	Shell.
		19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (Quantity 7).
		19A116781P5	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0106. (Quantity 1).
		19A134048P1	Wood screw, phillips head: No. 4, 1/2 inch long.
***************************************		19Al22l38Pl	Knob.
	W603	19B205345G2	Channel Guard Cable, Tubed Executive combinations
	W604	19B216090G2	Channel Guard Cable, Royal Executive combinations

PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for description of parts affected by these revisions.

REV. A - Model 4EK14B10 only

To eliminate RF interference. Added L602 and L603.

REV. A - Model 4EK14B11 only

REV. B - Model 4EK14B10 only

To eliminate RF interference in Custom Executive applications Added C362, C363 and L604.

REV. C - Model 4EK14B10 only

REV. B - Model 4EK14B11 only

To stabilize encoder frequency. Added CR611 and R664.

6

SYMBOL	GE PART NO.	DESCRIPTION	SYMBOL	GE PART NO.	DESCRIPTION
***************************************			1		DESCRIPTION
CR607	19All5250Pl	Silicon.	R613	3R77P622J	Composition: 6.2K ohms ±5%, 1/2 w.
CR608			R614 R615	3R77P223J	Composition: 22K ohms ±5%, 1/2 w.
CR610	19A115250P1	Silicon.	R616	3R77P301J 3R77P123J	Composition: 300 ohms ±5%, 1/2 w.
CR611*	19A115250P1	Silicon. Added to 4EK14B10 by REV C; Added to 4EK14B11 by REV B.	R617	3R77P103J	Composition: 12K ohms ±5%, 1/2 w.
			R618	3R77P223J	Composition: 10K ohms ±5%, 1/2 w.
			R619	3R77P433J	Composition: 22K ohms ±5%, 1/2 w. Composition: 43K ohms ±5%, 1/2 w.
FL601	198205280	Tone Detector. (Check group numbers for desired frequency).	R620	3R77P133J	Composition: 43K ohms ±5%, 1/2 w. Composition: 13K ohms ±5%, 1/2 w.
	G1	71.9 Hz	R621	3R77Pl 23J	Composition: 12K ohms ±5%, 1/2 w.
	G2 G3	77.0 Hz 82.5 Hz	R622	3R77P151J	Composition: 150 ohms ±5%, 1/2 w.
	G4 G5 G6	88.5 Hz 94.8 Hz 100.0 Hz	R623	3R77P513J	Composition: 51K ohms ±5%, 1/2 w.
	G7 G8	103.5 Hz 107.2 Hz	R624	3R77P562J	Composition: 5.6K ohms ±5%, 1/2 w.
	G9 G10	110.9 Hz 114.8 Hz	R625	3R77P334J	Composition: 330K ohms ±5%, 1/2 w.
	G11 G12	118.8 Hz 123.0 Hz	R626	3R77P104J	Composition: 100K ohms ±5%, 1/2 w.
	G13 G14	127.3 Hz 131.8 Hz	R629	19A116278P233	Metal film: 2.15K ohms ±2%, 1/2 w.
	G15 G16	136.5 Hz 141.3 Hz	R630	19A116278P65	Metal film: 46.4 ohms ±2%, 1/2 w.
	G17 G18	146.2 Hz 151.4 Hz	R631	19A116278P342	Metal film: 26.70K ohms ±2%, 1/2 w.
	G19 G20	156.7 Hz 162.2 Hz	R632	19Al16278P301	Metal film: 100K ohms ±2%, 1/2 w.
	G21 G22	167.9 Hz 173.8 Hz	R633	19A116278P365	Metal film: 46.40K ohms ±2%, 1/2 w.
	G23 G24	179.9 Hz 186.2 Hz	R634	3R77P204J	Composition: 200K ohms $\pm 5\%$, $1/2$ w.
	G25 G26	192.8 Hz 203.5 Hz	R635	19A116278P385	Metal film: 75K ohms ±2%, 1/2 w.
	G30 G31	74.4 Hz 79.7 Hz	R636	19A116278P329	Metal film: 19.60K ohms $\pm 2\%$, $1/2$ w.
	G32 G33 G34	85.4 Hz 91.5 Hz	R637	19Al16278P412	Metal film: 130K ohms $\pm 2\%$, 1/2 w.
	G34	97.4 Hz	R638	19A116278P285	Metal film: 7.5K ohms $\pm 2\%$, $1/2$ w.
	460	JACKS AND RECEPTACLES	R639	19Al16278P117	Metal film: 147 ohms $\pm 2\%$, $1/2$ w,
601	19B209303P1	Plug, phen: 9 pins.	R640 R641	19A116278P269	Metal film: 5.11K ohms ±2%, 1/2 w.
			R642	3R77P102J 3R77P162J	Composition: 1K ohms ±5%, 1/2 w.
,601	19All5690Pl	Reactor: 880 mh ind, 120 amp ±15% DC res; sim	R643	19B209358P107	Composition: 1.6K ohms ±5%, 1/2 w.
1 Sec. 1		to Artted AC5672.		1382093069107	Variable, carbon film: approx 800 to 25K ohms $\pm 10\%$, 0.25 w; sim to CTS Type X-201.
.602*	19A115700P2	RF Choke: sim to SL207. Added by REV A in Model 4EK14B10 only.	R645A	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.
,603* ,604*	19B209420P125	Cheles PR. 10.0 sh t10% 2.10 sheet PC was new.	R645B	3R77P912J	Composition: 9.1K ohms ±5%, 1/2 w.
3004	1982094209123	Choke, RF: 10.0 µh ±10%, 3.10 ohms DC res max; sim to Jeffers 4446-4. Added by REV A in Model 4EK14B11 only).	R645C	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
		AERIADII OHIY).	R645D	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.
		TRANSISTORS	R645E	3R77P123J	Composition: 12K ohms ±5%, 1/2 w.
}601	19A115362P1	Silicon, NPN; sim to Type 2N2925.	R645F R645G	3R77P133J	Composition: 13K ohms ±5%, 1/2 w.
)602 ind	19Al15123P1	Silicon, NPN.	R645H	3R77P153J 3R77P752J	Composition: 15K ohms ±5%, 1/2 w.
1603			R647	3R77P563J	Composition: 7.5K ohms ±5%, 1/2 w.
)604 hru	19All5362Pl	Silicon, NPN; sim to Type 2N2925.	R648	3R77P224J	Composition: 56K ohms ±5%, 1/2 w. Composition: 220K ohms ±5%, 1/2 w.
2607			R649	3R77P331J	Composition: 220K ohms ±5%, 1/2 w. Composition: 330 ohms ±5%, 1/2 w.
)608	19A115123P1	Silicon, NPN.	R650	3R77P242J	Composition: 2.4K ohms ±5%, 1/2 w.
		RESISTORS	R651	3R77P102J	Composition: 1K ohms ±5%, 1/2 w.
t601	3R77P103K	Composition: 10K ohms ±10%, 1/2 w.	R653	3R77P201J	Composition: 200 ohms ±5%, 1/2 w.
1602	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.	R654	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.
1603	3R77P512J	Composition: 5.1K ohms ±5%, 1/2 w.	R655	3R77P333J	Composition: 33K ohms ±5%, 1/2 w.
1604	3R77P113J	Composition: 11K ohms ±5%, 1/2 w.	R656	3R77P363J	Composition: 36K ohms ±5%, 1/2 w.
1605	3R77P512J	Composition: 5.1K ohms ±5%, 1/2 w.	R657	3R77P753J	Composition: 75K ohms ±5%, 1/2 w.
1606	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.	R659	3R77P332J	Composition: 3.3K ohms ±5%, 1/2 w.
1607	3R77P153J	Composition: 15K ohms ±5%, 1/2 w.	R662	3R77P432J	Composition: 4.3K ohms ±5%, 1/2 w.
:608	3R77P510J	Composition: 51 ohms ±5%, 1/2 w.	R663	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.
1609	3R77P822J	Composition: 8.2K ohms ±5%, 1/2 w.	R664*	3R77P103J	Composition: 10K ohms ±5%, 1/2 w. Added to 4EK14B10 by REV C.
1610	3R77P153J	Composition: 15K ohms ±5%, 1/2 w.			Added to 4EK14B11 by REV B.
1611	3R77P133J	Composition: 13K ohms ±5%, 1/2 w.			
1612	3R77P103J	Composition: 10K ohms ±5%, 1/2 w.			

- Secondaria de la company de	SYMBOL	GE PART NO.	DESCRIPTION	
**************************************	RT604	5490828P22	Thermistor: 50K ohms ±10%, color code yellow; sim to Carborundum Type 763H-J4.	
	11 111 1111			
	XFL601	198209341P1	Socket, tube: 7 pins; sim to Elco 04-720-XX.	
	-		MISCELLANEOUS	
		19A122138P1	Knob. (Used with XFL601).	
-	- The state of the	N197P408C13	Wood, screw. (Used with XFL601 in Tubed and Royal Executive only).	
Constant Const		N80P9005C13	Screw, machine. (Mounts printed circuit board).	
***************************************		N404P11C13	Lockwasher, internal tooth: No. 4. (Mounts printed circuit board in Tubed and Royal Executive only).	
		19B201074P304	Tap screw, Phillips POZIDRIV $^{\emptyset}$: No. 6-32 x 1/4. (Mounts 19B205387P1 support in Tubed and Royal Executive only).	
		19B205387P1	Support. (Mounts FLGOl in Tubed and Royal Executive only).	
		4032591P28	Pressure sensitive pad. (Used with 19B205387Pl support in Tubed and Royal Executive only).	
	ļ.	19D416585P5	Support. (Used with XFL601 in Custom Executive).	
- Control of the Cont	4	19B201074P205	Tap screw, Phillips POZIDRIV®: No. 4-40-5/16. (Secures XFL601 in Custom Executive).	
		19B201074P204	Tap, screw, Phillips $POZIDRIV^{\oplus}$: No. 4-40-1/4. (Secures printed wiring board in Custom Executive).	
		19A122213G1	Cover Kit. Includes:	
770000000000000000000000000000000000000		19B209209P305	Screw, tap: Phillips POZIDRIV $^{\otimes}$: No. 6-32 x 5/16. (Mounts cover thru the side rail).	
	:	19B201074P305	Screw, tap: Phillips POZIDRIV $^{\oplus}$: No. 6-32 x 5/16. (Mounts cover to Tone Network).	
	W601		CABLE ASSEMBLY 198226872G2	
	P601	19B209341P2	Socket, tube: 9 pins; sim to Elco 04-920-XX.	
	P907		Connector, Includes:	
		19A116659P81	Shell.	
		19Al16781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (Quantity 7).	
		19Al16781P5	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0106. (Quantity 1).	
		19A134048P1	Wood screw, phillips head: No. 4, 1/2 inch long.	
	Orionasaaaaaaaaaa	19A122138P1	Knob.	
	W603	19B205345G2	Channel Guard Cable, Tubed Executive combinations.	
	W604	19B216090G2	Channel Guard Cable, Royal Executive combinations.	

PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for description of parts affected by these revisions.

REV. A - Model 4EK14B10 only

To eliminate RF interference. Added L602 and L603.

REV. A - Model 4EK14B11 only

REV. B - Model 4EK14B10 only

To eliminate RF interference in Custom Executive applications Added C362, C363 and L604.

REV. C - Model 4EK14B10 only

REV. B - Model 4EK14B11 only

To stabilize encoder frequency. Added CR611 and R664.

PARTS LIST

LBI-4171B

TONE REJECT FILTER 19C317355G2

SYMBOL	GE PART NO.	DESCRIPTION
0004	2041160900107	Polymeters O. J. S. JOSE SO. IDGW
C624	19A116080P107	Polyester: 0.1 µf ±10%, 50 VDCW.
C626 C629	19A116080P206 19A116080P110	Polyester: 0.068 µf ±5%, 50 VDCW.
and C630	1941160809110	Polyester: 0.33 μf ±10%, 50 VDCW.
0000		JACKS AND RECEPTACLES
J601	19B209303P1	Plug, phen: 9 pins.
L601	19A115690P1	Coil, RF: 880 mh ±5%, sim to Artted AC5672.
		RESISTORS
R659	3R77P332J	Composition: 3.3K ohms ±5%, 1/2 w.
	N80P9005C13	Same and the Miscellaneous
	N404P11C13	Screw, machine. (Mounts printed circuit board).
	19A122213G1	Lockwasher, (Mounts printed circuit board). Cover Kit. Includes:
	19B209209P305	Screw, tap: Phillips Pozidriv [®] : No. 6-32 x 5/16.
	19B209209P303	(Mounts cover thru the side rail).
	19B201074 P3 05	Screw, tap: Phillips POZIDRIV [®] : No. 6-32 x 5/16. (Mounts cover to Tone Network).
W601		CABLE ASSEMBLY 19B226872G2
P601	19B209341P2	Socket, tube: 9 pins; sim to Elco 04-920-XX.
P907		Connector. Includes:
	19A116659P81	Shell.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (Quantity 7).
	19A116781P5	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0106. (Quantity 1).
	19A134048P1	Wood screw, phillips head: No. 4, 1/2 inch long.
	19A122138P1	Knob.
W603	19B205345G2	Channel Guard Cable, Tubed Executive combinations.
W604	19B216090G2	Channel Guard Cable, Royal Executive combinations.
	decommendation of the second o	,
	-	
	e-current	
	-	

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.

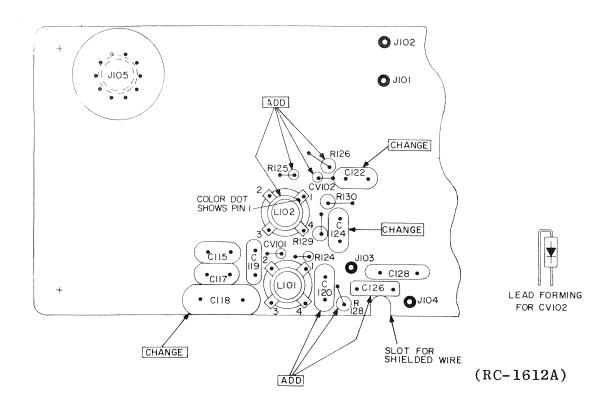


Figure 1 - Component Location (Exciter Board)

LBI4143

PROCEDURE

- 1. Remove the four screws holding the transmitter exciter. Then remove connections from J101, J102 and J105 and remove the exciter board.
- 2. Modify the exciter board using appropriate kit (19A122624G1 thru G3) as instructed in Table 1. Component location is shown in Figure 1.

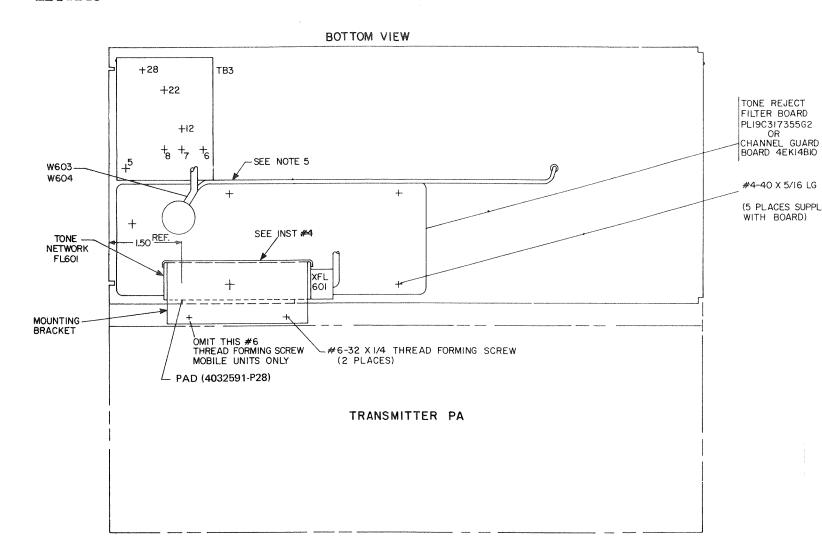
EXCITER MODEL NUMBER	MODIFICATION KIT NUMBER	ADD	REPLACE	CHANGE MOI	DEL NUMBER TO
4EG21A10 4EG21A12	19A122624-G1 Service Parts Kit #0035	C120 (470 pf, 100 VDCW) C126 (0.01 µf, 40 VDCW) CV102 L102A R125 A (0.15 megohm. 1/4w) R126 (10,000 ohms, 1/2 w) R128 (15,000 ohms, 1/2 w)	C125 with C118 A (.0015 µf, 100 VDCW); C121 with C122 A (220 pf, 500 VDCW); and C123 with C124 (150 pf, 100 VDCW)	4EG21A10 4EG21A12	
4EG21B10 4EG21B12	19A122624-G2 Service Parts Kit #0036	C120 (470 pf, 100 VDCW) C126 (0.01 µf, 40 VDCW) CV102 L102B R125 B (0.12 megohm, 1/4w) R126 (10,000 ohms, 1/2 w) R128 (15,000 ohms, 1/2 w)	C125 with C118 A (.0015 μ f, 100 VDCW); C121 with C122 A (220 pf, 500 VDCW); and C123 with C124 (150 pf, 100 VDCW)	4EG21B10 4EG21B12	4EG21B11 4EG21B13
4EG21C10 4EG21C12	19A122624-G3 Service Parts Kit #0037	C120 (470 pf, 100 VDCW) C126 (0.01 µf, 40 VDCW) CV102 L102 C R125 C (0.1 megohm, 1/4w) R126 (10,000 ohms, 1/2 w) R128 (15,000 ohms, 1/2 w)	C125 with C118 A (.001 µf, 100 VDCW); C121 with C122 B (180 pf, 500 VDCW); and C123 with C124 (150 pf, 100 VDCW)	4EG21C10 4EG21C12	4EG21C11 4EG21C13

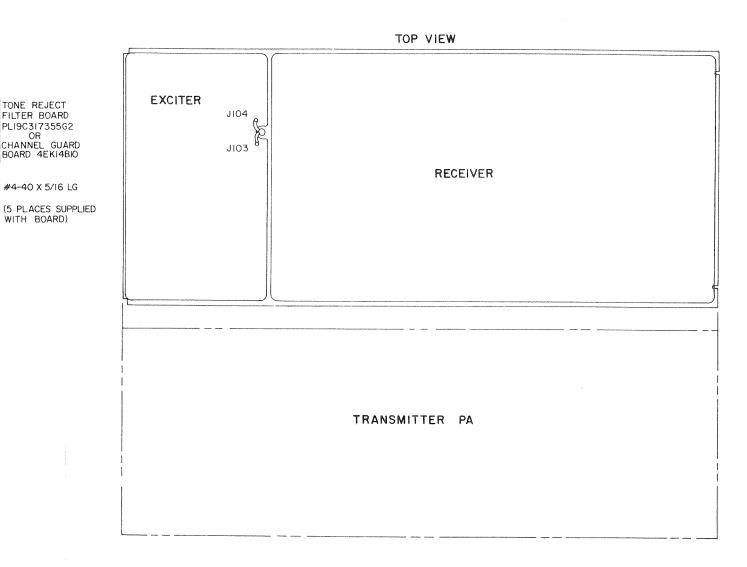
Table 1 - Exciter Board Modification

INSTALLATION DIAGRAM

25-50 MHz TRANSMITTER EXCITER MOD.
19A122624G1, G2 & G3
MASTR PROGRESS LINE, EXECUTIVE
AND ROYAL EXECUTIVE MOBILE
AND STATION COMBINATIONS

Issue 2





CONNECTIONS CHART FOR MASTR PROGRESS LINE EXECUTIVE SERIES					
FROM	WIRE COLOR	то			
W603	G	STATION TB8-I MOBILE TB3-I7			
W603	BR	TB3-23			
W603	W-O-R	TB3-6			
W603 CENTER CONDUCTOR	W-BL	TB3-7			
W603-SHIELD OF ABOVE		TB3-8			
w603	ВК	TB3-22			
W603 CENTER CONDUCTOR	₩′-BK	EXCITER-JI03			
W603-SHIELD OF ABOVE		EXCITER-JI04			
W603	٧	TB3-5			
W603	W-R-G	TB3-12			

 Rotate the Tone Network until the marking appears on this surface (see Diagram). Mount the assembly as shown using the two #6-32 thread-forming screws supplied. When the Decode only option (8014) or Tone Reject Filter (19C317355-G2) are used, cut-off and discard the shielded cable connecting the Channel Guard board and the Exciter board.

PROCEDURE Mount the Channel Guard board or the Tope Reject Filter board as shown using the five #4-40 screws supplied with the board.

2. Install the cable W603 (W604 for Royal) from the Channel Guard board or the Tone Reject Filter board to TB3 and the Exciter board. Make the connections as shown in the appropriate chart. Remove the Exciter board to feed the shielded cable through the hole in the chassis and the slot in the Exciter board.

3. Insert the tone network into the mounting bracket. Plug the socket XFL601 from the Channel Guard board into the Tone Network. Install the pressure sensitive pad 4032591-P28 on the chassis as shown, ap-proximately 0.3" down from mounting support of Tone Network.

6. Install the accessory cover with the hardware supplied.

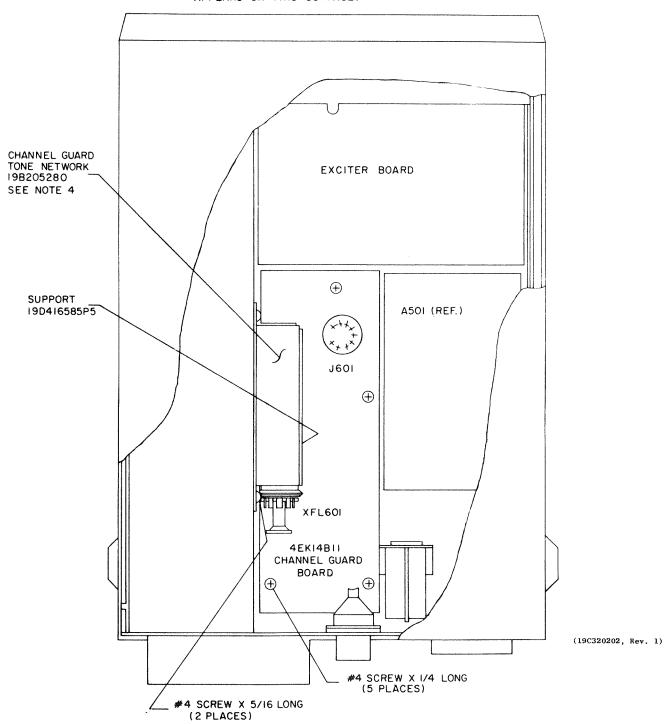
CONNECTION CHART FOR MASTR PROGRESS LINE ROYAL EXECUTIVE				
FROM	WIRE COLOR	то		
W604	w-G-O	TB3-27		
W604	BR	TB3-41		
W604	W-0-R	TB3-26		
W604 CENTER CONDUCTOR	W-BL	TB3-37		
SHIELD OF ABOVE		TB3-44		
W604 CENTER CONDUCTOR	W-8K	EXCITER-JI03		
SHIELD OF ABOVE		EXCITER - JI04		
W604	R	TB3-5		
W604	G	TB3-29		

INSTALLATION DIAGRAM

CHANNEL GUARD MODEL 4EK14B10 MASTR EXECUTIVE, EXECUTIVE AND ROYAL EXECUTIVE MOBILE AND STATION COMBINATIONS

(19D413570, Rev. 1)

- I. MOUNT CHANNEL GUARD BOARD ON CHASSIS AS SHOWN.
- 2. CUT SPOT TIE HOLDING P601 TO HARNESS & PLUG INTO J601.
- 3. ASSEMBLE TONE NETWORK INTO MOUNTING BRACKET, PLUG SOCKET (XFL601) FROM CHANNEL GUARD BOARD INTO TONE NETWORK & MOUNT AS SHOWN.
- 4. TONE NETWORK TO BE ORIENTED SO MARKING APPEARS ON THIS SURFACE.



INSTALLATION DIAGRAM

CHANNEL GUARD MODEL 4EK14B11
CUSTOM EXECUTIVE MOBILE COMBINATIONS