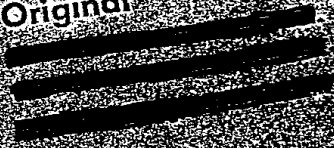


TEMPORARY INSTRUCTION BOOK

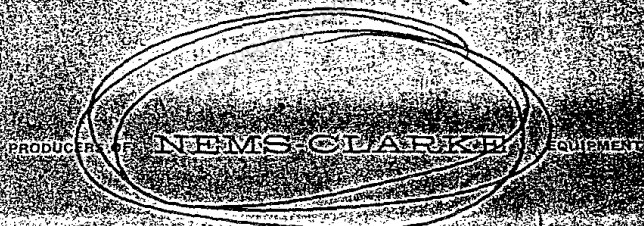
FOR
116
MODEL 2801 UHF RECEIVER

Original



VITRO ELECTRONICS

DIVISION OF VITRO CORPORATION OF AMERICA
919 JESUP BLAIR DRIVE • SILVER SPRING • MARYLAND



TEMPORARY INSTRUCTION BOOK

FOR
MODEL 2801 UHF RECEIVER

VITRO ELECTRONICS
Producers of Nems-Clarke Equipment
A Division of VITRO Corporation of America
Silver Spring, Maryland

ADDENDA

MODEL 2801 RECEIVER

The Model 2801 Receiver and the Model 2801A Receiver are identical except for minor changes on the front panel. In the 2801A Receiver, the MAN/AGC toggle switch has been removed and the switch function ganged with the RF GAIN control. A PHONE jack is mounted where the toggle switch was previously located. This instruction book is applicable in all other respects to both receiver models.

MODEL 2801 UHF RECEIVER, PERFORMANCE SPECIFICATIONS

Type Reception AM, FM, or CW
 Tuning Range 250-1000 mc (in two bands)

Band A

Frequency Range 250-500 mc
 IF Rejection 65 db (minimum)
 Image Rejection 40 db (minimum)
 Noise Figure 10 db (maximum)
 Oscillator Radiation 150 uv (maximum at antenna terminal)
 Input Impedance 50 ohms, unbalanced

Band B

Frequency Range 490-1000 mc
 IF Rejection 65 db (minimum)
 Image Rejection 50 db (minimum)
 Noise Figure 14 db (maximum)
 Oscillator Radiation 300 μ v (maximum, at antenna terminal)
 Input Impedance 50 ohms, unbalanced
 IF Frequencies 60 mc and 21.4 mc (in double conversion)
 Receiver Bandwidths 1 mc or 200 kc, selection from front panel, in either AM or FM operation; bandwidths measured from antenna to IF output.
 BFO 21.4 mc (controlled from front panel)
 SDU Output Frequency 21.4 mc

Sensitivity

Type of Reception	Receiver Bandwidth	RF Input	Modulating Frequency	Deviation or % Mod.	Sig. + Noise by Noise
FM	1 mc	12 μ v	1 kc	100 kc	10 db (min.)
FM	200 kc	8 μ v	1 kc	100 kc	22 db (min.)
AM	1 mc	18 uv	1 kc	50%	10 db (min.)
AM	200 kc	8 μ v	1 kc	50%	10 db (min.)

RF Gain Control System

FM Reception: AGC only
 AM Reception: AGC or manual, selection and control from front panel.

VIDEO OUTPUT CHARACTERISTICS

AM Operation

Output Level	110 volts peak-to-peak (min.) for 50% modulation at 100 mv input
Output Stability	7-db maximum level variation for RF inputs between 10 μ v and 1000 μ v

FM Operation

Output Sensitivity	200-kc bandwidth: 0.05 volt per kc deviation (Min) 1-mc bandwidth: 0.01 volt per kc deviation (Min)
Output Stability (as measured with 2500-cps RC low-pass filter with a 1-kc modulating frequency)	200-kc bandwidth: less than 2-db variation for RF inputs above 1.6 μ v 1-mc bandwidth: less than 2-db variation for inputs above 3.0 μ v

Video Amplifier Frequency Response

3 db maximum variation, 50 cps to 500 kc, into a load of 5000 ohms in parallel with 2000 μ f

Total Harmonic Distortion

FM reception: 1% (max) using 1-mc bandwidth, 240-kc deviation, 1-kc modulating frequency, and an RF input of 500 μ v

AM reception: 3% (max), using 200-kc bandwidth, 50% modulation 1-kc modulating frequency and an RF input of 500 μ v

AUDIO OUTPUT CHARACTERISTICS

<u>Output Power</u>	0.16 watts (Max) variable from front panel
<u>Output Impedance</u>	600 ohms or 150 ohms
<u>Frequency Response</u>	30 db variation (max), 300 cps to 25 kcs
<u>Squelch</u>	Audio output reduced a minimum 35 db when RF input drops below a preset level: sensitivity adjustable from front panel over the approximate range of 1.0 to 100 μ v.

Carrier Operated Relay

Operates at RF levels in the range of 1.0 to 100 μ v; sensitivity adjustable from front panel; one set of SPDT contacts available for external circuit, and 6.3 vac from internal supply available to external circuit (0.2 ampere max. drain); switched on or off by relay.

Metering

Signal strength meter, uncalibrated, on front panel

Tuning meter, zero-center, uncalibrated, on front panel

Power Requirement

115 or 230 vac, 50 to 60 cps, 100 watts

Size

19 inches wide, measured at front panel; suitable for rack mounting

5-1/4 inches high

17 inches deep, measured from front panel to maximum rearward extension of chassis

Weight

34 pounds

Connectors

Antenna terminals: N-type

SDU Output: BNC-type

Video Output: BNC-type

Audio and COR connections: barrier terminal strip

Power: male, twist-lock receptacle

GENERAL DESCRIPTION

The Model 2801 UHF Receiver is an AM-FM-CW double-conversion super-heterodyne with a frequency range of 250 mc to 1000 mc in two bands, 250 mc to 500 mc and 490 mc to 1000 mc, with a bandwidth choice of either 1 mc or 200 kc. A panel control with positions marked: 1 MC FM, 1MC AM, 200 KC FM, and 200 KC AM, is used to select the mode of operation, with CW operation being achieved by turning the BFO control to ON while in the AM mode.

The particular features of the receiver include the following: provisions for operation with either a single antenna or a separate antenna for each band; a tuning meter; a signal strength meter; a broadband IF spectrum display unit (SDU) output; two audio outputs (of 150-ohm and 600-ohm impedance); a high impedance video output; an audio squelch circuit with adjustable threshold; a carrier operated relay (COR) circuit with adjustable threshold, adjustable time-delay of the carrier-off action, a time-delay disable control, one set of form C auxiliary equipment contacts and a COR-switched source of 6.3 vac power; and a self-contained, silicon diode power supply designed for use on either 115 or 230 vac.

All controls and connectors are clearly marked and appear either on the front panel or on the chassis rear apron. The unit is designed for mounting in a standard 19-inch rack and constructed around an aluminum chassis on which three separately shielded subassemblies are mounted. These subassemblies contain a separate RF tuner for each band and a dual-bandwidth IF strip.

Further information concerning the receiver may be found by studying the table of specifications, the block diagram, and the schematic diagram which have been included in this book.

MODEL 2801 UHF RECEIVER, PARTS LIST

SYMBOL NUMBER	NAME of PART and DESCRIPTION
C-101-1, 2	CAPACITOR, ELECTROLYTIC DIELECTRIC: Dual unit, 50-50 μf , 450-450 WVDC, Sprague TVL-2767
C-102-1, 2	CAPACITOR, ELECTROLYTIC, DIELECTRIC: Dual unit, 20-20 μf , 450-450 WVDC, Sprague TVL-2755
C-103	CAPACITOR, ELECTROLYTIC, DIELECTRIC: 20 μf , 50 WVDC, Sprague TE-1305
C-104	CAPACITOR, METALIZED, PAPER, DIELECTRIC: 10 μf $\pm 20\%$ 150 WVDC, Astron MRF 1.5-10M
C-105, 106, 108, 109, 110, 113, 114, 115, 116, 528	CAPACITOR, CERAMIC, DIELECTRIC, DISC: 0.01 μf GMV, 500 WVDC, Sprague 29C9B8
C-107, 111	NOT USED
C-112	CAPACITOR, PAPER, DIELECTRIC: 1 μf $\pm 20\%$ 200WVDC, Aerovox P89ZXP
C-117	CAPACITOR, MICA, DIELECTRIC: 75 μmf $\pm 5\%$ 500 WVDC, Elmenco CM15E 750J
C-201	CAPACITOR, CERAMIC, DIELECTRIC: 3.3 μmf $\pm 0.25 \mu\text{mf}$, 500 WVDC Erie NPO-A
C-202	CAPACITOR, CERAMIC, DIELECTRIC: 100 μmf $\pm 10\%$ 500 WVDC, Erie GP1-331
C-203, 206, 208, 210, 220, 416, 504, 507, 514, 518, 531, 540, 547, 556, 557	CAPACITOR, CERAMIC, DIELECTRIC, BUTTON: 0.100 μf GMV 500 WVDC, Sprague 507C2
C-204, 211, 213, 218	CAPACITOR, CERAMIC, VARIABLE, DIELECTRIC: 0.5-4.5 μmf , 500 WVDC, CTC CST-6
C-205	CAPACITOR, CERAMIC, DIELECTRIC: 15 μmf $\pm 5\%$ 500 WVDC, Erie NPO-A
C-207, 412, 505, 509, 521, 527, 530, 532, 538, 541, 542, 549, 552, 553, 555	CAPACITOR, CERAMIC, DIELECTRIC: 470 μmf $\pm 10\%$ 500 WVDC, Erie GP2-331
C-209	CAPACITOR, CERAMIC, DIELECTRIC: 12 μmf $\pm 10\%$ 500 WVDC, Erie NPO-A

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
C-212	CAPACITOR, CERAMIC, DIELECTRIC: 0.1 μf $\pm 5\%$ 500 WVDC, Quality Components Type QC
C-214, 219, 403*, 561	CAPACITOR, CERAMIC, DIELECTRIC: 3.3 μf $\pm 0.1 \mu\text{f}$ 500WVDC, Erie NPO-A *p/o T-401
C-215	CAPACITOR, CERAMIC, DIELECTRIC: 1.2 μf $\pm 0.1 \mu\text{f}$ 500WVDC, Erie NPO-A
C-216, 409, 418, 522, 542, 554	CAPACITOR, CERAMIC, DIELECTRIC: 47 μf $\pm 10\%$ 500 WVDC, Erie NPO-T
C-217, 221, 224, 401, 402, 404, 405, 406, 410, 417, 422, 426, 427, 429, 433, 560	CAPACITOR, CERAMIC, DIELECTRIC, DISC: 0.001 μf GMV 1000 WVDC, Sprague 40C214
C-222, 225	CAPACITOR, MICA, DIELECTRIC, BUTTON: 0.001 μf $\pm 5\%$ 500 WVDC, Erie 370CB102J
C-223	CAPACITOR, CERAMIC, DIELECTRIC, FEEDTHRU: 47 μf $\pm 20\%$ 500 WVDC, Sprague 514C11A
C-226, 227, 228, 229	CAPACITOR, CERAMIC, DIELECTRIC, FEEDTHRU: 470 μf $\pm 10\%$ 500 WVDC, AB-FA5C
C-230	NOT USED
C-231	CAPACITOR, CERAMIC, DIELECTRIC: 4.7 μf $\pm 0.25 \mu\text{f}$ 500 WVDC Erie NPO-A
C-301, 302, 303	CAPACITOR, VARIABLE TRIMMER: Vitro Electronics A-25, 153
C-304A, B, C, D, E	CAPACITOR, VARIABLE, TRIMMER: Vitro Electronics AC-44, 192
C-305	CAPACITOR, VARIABLE, TRIMMER: Vitro Electronics AA-25, 154
C-306	CAPACITOR, VARIABLE, TRIMMER: 1-6 μf 600 WVDC, Centralab 829-6
C-307	CAPACITOR, MICA, DIELECTRIC, BUTTON: 15 μf $\pm 5\%$ 500 WVDC Erie 370FA150J
C-308, 309	CAPACITOR, CERAMIC, DIELECTRIC, FEEDTHRU: 0.0055 μf GMV 200 WVDC, AB SMEG2
C-310, 311	CAPACITOR, MICA, DIELECTRIC, BUTTON: 0.001 μf $\pm 10\%$ 500 WVDC, Erie 370C0102K
C-407*	CAPACITOR, CERAMIC, DIELECTRIC: 6.8 μf $\pm 0.5 \mu\text{f}$, 500 WVDC, Erie NPO-A *p/o T-402

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
C-408*	CAPACITOR, CERAMIC, DIELECTRIC: 3.9 μf $\pm 0.25 \mu\text{f}$, 500 WVDC, Erie NPO-A *p/o T-402
C-411,524	CAPACITOR, CERAMIC, DIELECTRIC: 10 μf $\pm 1 \mu\text{f}$ 500 WVDC, Erie NPO-A
C-413,414	NOT USED
C-415	CAPACITOR, CERAMIC, DIELECTRIC: 100 μf $\pm 10\%$, 500 WVDC Erie N-1400-A
C-419	CAPACITOR, CERAMIC, DIELECTRIC: 8.6 μf $\pm 0.5 \mu\text{f}$, 500 WVDC, Erie N080-A
C-420	CAPACITOR, CERAMIC, DIELECTRIC: 8.2 μf , $\pm 5\%$ 500 WVDC, Erie NPO-A
C-421, 529, 551	CAPACITOR, CERAMIC, DIELECTRIC: 0.5 μf $\pm 0.1 \mu\text{f}$ 500 WVDC Erie NPO-A
C-423, 424, 425, 428, 430, 431, 562, 563, 567, 571, 572, 573, 574, 575, 576, 577, 584, 585, 586, 587, 588	CAPACITOR, CERAMIC, DIELECTRIC: 0.001 μf GMV 500 WVDC, Sprague 514CI
C-432	NOT USED
C-501, 503, 506, 512, 513, 515, 516, 520, 523, 525, 539, 543, 548, 565, 568, 570, 578, 579, 580, 581, 582, 583	CAPACITOR, CERAMIC, DIELECTRIC, DISC: 0.0047 μf GMV 500 WVD WVDC, Sprague 20C8
C-502	CAPACITOR, CERAMIC, DIELECTRIC: 1.0 μf $\pm 0.1 \mu\text{f}$ 500 WVDC, Erie NPO-A
C-508, 517	CAPACITOR, CERAMIC, DIELECTRIC: 2.7 μf $\pm 0.25 \mu\text{f}$ 500 WVDC, Erie NPO-A
C-510, 519	CAPACITOR, CERAMIC, DIELECTRIC: 0.75 μf $\pm 10\%$ 500 WVDC, Quality Components Type QC
C-511	NOT USED
C-526, 533*	CAPACITOR, CERAMIC, DIELECTRIC: 33 μf $\pm 10\%$ 500 WVDC, Erie NPO-T *p/o T-507
C-534*	CAPACITOR, CERAMIC, DIELECTRIC: 22 μf $\pm 10\%$ 500 WVDC, Erie NPO-A *p/o T-507

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
C-535	CAPACITOR, CERAMIC, DIELECTRIC: 24 μf $\pm 10\%$ 500 WVDC, Erie NPO-A
C-536, 537, 538*	CAPACITOR, CERAMIC, DIELECTRIC: 47 μf $\pm 5\%$ 500 WVDC, Erie NPO-T *p/o T-508
C-541, 550	CAPACITOR, CERAMIC, DIELECTRIC: 30 μf $\pm 5\%$ 500 WVDC, Erie GPI-331
C-544	CAPACITOR, CERAMIC, DIELECTRIC: 0.43 μf $\pm 5\%$ 500 WVDC, Quality Components Type QC
C-546, 564	CAPACITOR, CERAMIC, DIELECTRIC: 24 μf $\pm 10\%$ 500 WVDC, Erie NPO-A
C-559*	CAPACITOR, MICA, DIELECTRIC: 82 μf $\pm 5\%$ 500 WVDC, Elmenco CM15E820J *p/o T-508
C-566, 569	NOT USED
CR-101, 102, 103, 104, 107, 108, 109, 110	SEMICONDUCTOR, DEVICE, DIODE: Silicon GE 1N1695
CR-105, 106	SEMICONDUCTOR, DEVICE, DIODE: 1N1692
CR-111	SEMICONDUCTOR, DEVICE, DIODE: Zener 10W 150V $\pm 5\%$, Motorola 10M150Z5
CR-112	SEMICONDUCTOR, DEVICE, DIODE: 1N458
CR-113	SEMICONDUCTOR, DEVICE, DIODE: 1N458
CR-301	SEMICONDUCTOR, DEVICE, DIODE: CBS Hytron 1N82-A
CR-501	CAPACITOR, VARIABLE, VOLTAGE VARICAP: 5.0-50.0 μf 70 WVDC, Pacific K-20E
DS-101, 102, 103	LAMP, INCANDESCENT: 6.0V, 0.20 amp, midget flange base, Dialco 328 *p/o S-103
E-101, 102, 103, 104, 105, 106, 509	SHIELD, ELECTRON TUBE: 9 pin 1.938 in. lg. w/933 corrugated insert, Elco 191-P-35
E-401	SHIELD, ELECTRON TUBE: 9 pin 1.500 in. lg. w/932 corrugated insert, Elco 193-P-35
E-203, 204, 301, 403, 405, 505	SHIELD, ELECTRON TUBE: 7 pin 1.375 in. lg. w/929 corrugated insert, Elco 121-P-35
E-402, 404, 501, 502, 503, 506, 507, 508, 510	SHIELD, ELECTRON TUBE: 7 pin 1.750 in. lg. w/930 corrugated insert, Elco 120-P-35

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
F-101	FUSE, CARTRIDGE, DUAL ELEMENT: Slo-Blo 0.250 in. by 1.5 in. 1 amp, Bussmann MDL
F-102	FUSE, CARTRIDGE, DUAL ELEMENT: Slo-Blo 0.250 in. by 1.5 in. 2 amp, Bussmann MDX
J-101*, 102*, 103*	CONNECTOR, RECEPTACLE, ELECTRICAL: *p/o K-101
J-104	CONNECTOR, RECEPTACLE, ELECTRICAL: Male, 3 wire flush base polarized, 10 amp 250 V, Hubbell 7486
J-105, 108	CONNECTOR, RECEPTACLE, ELECTRICAL: Type BNC female-panel jack, square flange, UG-291/U
J-106, 202, 401, 402, 403, 404	CONNECTOR, RECEPTACLE, ELECTRICAL: Type BNC female, single hole mount, UG-1094/U
J-107	CONNECTOR, RECEPTACLE, ELECTRICAL: Type N female, panel jack, square flange, UG-1052/U
J-201, 501	CONNECTOR, RECEPTACLE, ELECTRICAL: Angle type BNC female single hole mount, UG-1098/U
J-301	CONNECTOR, RECEPTACLE, ELECTRICAL: Type BNC female, square flange, UG-290/U
J-302	TERMINATION COAXIAL CABLE: 0.258 in. 0.313 in. mounting hole, MX-1530/U
J-303	CONNECTOR, RECEPTACLE, ELECTRICAL: Type BNC female panel jack, square flange, UG-262/U
K-101	RELAY, DC COIL: 26 VDC, Danbury-Knudsen 300-10367
K-102	RELAY, DC COIL: Telephone type, Aemco 45L-4257
L-101	CHOKE FILTER: 10 hy 200 ma, Vitro Electronics AA-25, 445
L-201	INDUCTOR END, VARIABLE: Vitro Electronics A-26, 180
L-202	TUNER, RF: 5 section spiral VHF inductuner, modified per Vitro Electronics B-31, 9150, Mallory HT-163
L-203, 205, 206, 213, 215, 216	COIL, RF: Vitro Electronics A-25, 121
L-204	COIL, RF: Vitro Electronics A-25, 122
L-207	INDUCTOR END: Vitro Electronics A-25, 114
L-208	COIL, RF: Vitro Electronics A-25, 115

MODEL 2801 UHF RECEIVER, PARTS LIST

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SYMBOL NUMBER	NAME of PART and DESCRIPTION
L-209	INDUCTOR END: Vitro Electronics A-26, 181
L-210	COIL, RF; VARIABLE: Vitro Electronics A-25, 117
L-211	COIL, RF: Vitro Electronics A-26, 185
L-212	COIL, RF: Vitro Electronics A-25, 119
L-214	COIL, RF: Vitro Electronics A-25, 120
L-217, 218, 219, 220	COIL, CHOKE: 2.2 μ h, Wilco 209-11-22
L-221	COIL, RF: Vitro Electronics AA-26, 182
L-222	COIL, RF: Vitro Electronics A-26, 183
L-223	COIL, RF: Vitro Electronics A-26, 184
L-224	COIL, RF: Vitro Electronics A-26, 373
L-301	COIL, RF: Vitro Electronics A-25, 155
L-302, 303, 304	COIL, RF: Vitro Electronics A-25, 156
L-305	COIL, RF: Vitro Electronics A-25, 157
L-306, 307	COIL, RF: Vitro Electronics A-25, 158
L-308	COIL, RF: Vitro Electronics A-25, 160
L-309	COIL, RF: Vitro Electronics A-25, 161
L-310	COIL, RF: Vitro Electronics A-25, 162
L-311	COIL, RF: Vitro Electronics A-25, 159
L-312	COIL, RF: Vitro Electronics (value varies and is determined by Test Procedure)
L-401	COIL, RF: Vitro Electronics A-25, 382
L-402	COIL, RF: Vitro Electronics A-25, 383
L-403	COIL, RF: 3.9 μ h, Wilco 212-11-39
L-404*	COIL, IF: Vitro Electronics AA-25, 699 *p/o T-401
L-405*	COIL, IF: Vitro Electronics AA-25, 700 *p/o T-401
L-406*	COIL, IF: Vitro Electronics AA-25, 701 *p/o T-402
L-407*	COIL, IF: Vitro Electronics AA-25, 696 *p/o T-402
L-408	COIL, CHOKE: 1.67 μ h, Vitro Electronics A-14, 737
L-501*	COIL, IF: Vitro Electronics AA-26, 967 *p/o T-501
L-502*, 503*, 504*, 505*, 525*	COIL, IF: Vitro Electronics AA-27, 210 *p/o T-502, 503, 504, 505, 513

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
L-409*	COIL, IF: Vitro Electronics AA-26, 697 *p/o T-504
L-410*	COIL, IF: Vitro Electronics AA-25, 698 *p/o T-403
L-411	COIL, IF: 3.3 μ h, Wilco 211-11-33
L-506, 512, 522, 519	CHOKE FILAMENT: 2.5 μ h, Vitro Electronics A-14, 805
L-507*	COIL: Vitro Electronics AA-26, 299
L-508*	COIL: Vitro Electronics AA-14, 790 *p/o T-506
L-509*	COIL: Vitro Electronics AA-14, 788 *p/o T-507
L-510*	COIL: Vitro Electronics AA-14, 787 *p/o T-507
L-511, 513, 516, 531	COIL: Vitro Electronics AA-14, 804
L-514, 515	NOT USED
L-517*, 518*, 520	COIL: Vitro Electronics AA-26, 281 *p/o T-511, 512
L-521*	COIL: Vitro Electronics AA-26, 581 *p/o T-509
L-523	COIL: Vitro Electronics AA-25, 641
L-524-1-2*	COIL: Vitro Electronics AA-14, 786 *p/o T-508
L-526	COIL, CHOKE: 8.2 μ h, Wilco 216.11
L-527, 528, 529, 530	COIL, CHOKE: Vitro Electronics A-16, 625
M-101	MICROAMMETER, DC RANGE: 100-0-100 μ a, model 100C, 1 in. round panel mounted, International Instruments Cat. No. 100C, 100-0-100DCUA
M-102	MICROAMMETER, DC RANGE: 0-100 μ a, model 100C, 1 in. round panel mounted, International Instruments 100C100X1
P-101, 102, 103, 108, 201, 301, 404	CONNECTOR PLUG, ELECTRICAL: Type BNC, UG-88/U
P-202	CONNECTOR PLUG, ELECTRICAL: Type BNC, UG-913/U
P-303, 401, 402, 403, 501	CONNECTOR PLUG, ELECTRICAL: Type BNC, UG-260/U
R-101, 106	RESISTOR, FIXED, WIREWOUND: 2K \pm 3% 10W, Dalohm RH-10
R-102, 140, 148	RESISTOR, FIXED, COMPOSITION: 1K \pm 10% 1W, Allen Bradley GB-1021
R-103, 557, 558	RESISTOR, FIXED, COMPOSITION: 270K \pm 10%, 1/2W, AB EB-2741

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
R-104	RESISTOR, FIXED, COMPOSITION: 3.6K \pm 5% 1/2W, AB EB 3625
R-105	RESISTOR, FIXED, COMPOSITION: 180K \pm 10% 1/2W, AB EB 1841
R-107, 108, 110, 126, 129, 133, 135, 141, 156, 542	RESISTOR, FIXED, COMPOSITION: 1 meg. \pm 10% 1/2W, AB EB 1051
R-109, 137	RESISTOR, FIXED, COMPOSITION: 6.8 meg \pm 5% 1/2W, AB EB 6855
R-111, 136	RESISTOR, VARIABLE, COMPOSITION: 250K 10% 2W, AB JA1N040P253UA
R-112	RESISTOR, FIXED, COMPOSITION: 68K \pm 10% 1/2W, AB EB 6831
R-113	RESISTOR, FIXED, COMPOSITION: 20K \pm 5% 1/2W, AB EB 2035
R-114	RESISTOR, VARIABLE, COMPOSITION: 2.5 meg \pm 10% 2W, AB JA1L040S255UC
R-115, 132, 210, 416, 516, 538, 540	RESISTOR, FIXED, COMPOSITION: 100K \pm 10% 1/2W, AB EB 1041
R-116, 405, 518*, 536 527, 535, 548, 549	RESISTOR, FIXED, COMPOSITION: 47K \pm 10% 1/2W, AB EB 4731 *p/o T-506
R-117	RESISTOR, FIXED, COMPOSITION: 2.4K \pm 5% 1/2W, AB EB 2425
R-118, 150, 153	RESISTOR, FIXED, COMPOSITION: 150K \pm 10% 1/2W, AB EB 1541
R-119	RESISTOR, VARIABLE, COMPOSITION: 10K \pm 10% 2W, AB JA1G032P103UA
R-120, 121	RESISTOR, FIXED, COMPOSITION: 75K \pm 10% 1/2W, AB EB 7531
R-122	NOT USED
R-123	RESISTOR, FIXED, COMPOSITION: 27K \pm 10% 1W, AB GB 2731
R-124, 418, 517, 550	RESISTOR, FIXED, COMPOSITION: 51 Ω \pm 5% 1/2W, AB EB 5105
R-125	RESISTOR, VARIABLE COMPOSITION: 25K \pm 10% 2W, AB JA1L040S253UC
R-127, 553, 554	RESISTOR, FIXED, COMPOSITION: 470 Ω \pm 10% 1/2W, AB EB 4711
R-128, 154, 415	RESISTOR, FIXED, COMPOSITION: 18K \pm 10% 1/2W, AB EB 1831
R-130	RESISTOR, FIXED, COMPOSITION: 270 Ω \pm 5% 1/2W, AB EB 2715
R-131	RESISTOR, VARIABLE, COMPOSITION: 0.5 meg \pm 10% 2W, AB JA1G032P504AA

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
R-134, 139	RESISTOR, FIXED, COMPOSITION: 2K \pm 5% 1/2W, AB EB 2025
R-138, 205, 206, 207, 408, 409	RESISTOR, FIXED, COMPOSITION: 470K \pm 10% 1/2W, AB EB 4741
R-142, 403, 410, 412, 504, 508, 532	RESISTOR, FIXED, COMPOSITION: 220K \pm 10% 1/2W, AB EB 2241
R-143	NOT USED
R-144	RESISTOR, FIXED, COMPOSITION: 47K \pm 10% 1W, AB GB 4731
R-145, 158	RESISTOR, FIXED, COMPOSITION: 110K \pm 5% 1/2W, AB EB 1145
R-146	RESISTOR, VARIABLE, COMPOSITION: 25K \pm 10% 2W, AB JS1N056P253UA
R-147, 208, 546, 547	RESISTOR, FIXED, COMPOSITION: 10K \pm 10% 1/2W, AB EB 1031
R-149	RESISTOR, FIXED, COMPOSITION: 75K \pm 10% 1/2W, AB EB 7531
R-151, 152	RESISTOR, FIXED, COMPOSITION: 15K \pm 5% 1/2W, AB EB 1535
R-155	NOT USED
R-157	RESISTOR, FIXED, COMPOSITION: 1.6K \pm 5% 2W, AB HB 1625
R-159	RESISTOR, FIXED, COMPOSITION: 300 Ω \pm 5% 1/2W, AB EB 3015
R-160	RESISTOR, FIXED, COMPOSITION: 8.2K \pm 5% 2W, AB HB 8225
R-161	RESISTOR, FIXED, COMPOSITION: 18K \pm 10% 1W, AB GB 1831
R-201, 406, 506, 513, 531, 536	RESISTOR, FIXED, COMPOSITION: 1K \pm 10% 1/2W, AB EB 1021
R-202, 211	RESISTOR, FIXED, COMPOSITION: 680 Ω \pm 5% 1/2W, AB EB 6815
R-203	RESISTOR, FIXED, COMPOSITION: 5.6K \pm 10% 1/2W, AB EB 5621
R-204	NOT USED
R-209	RESISTOR, FIXED, COMPOSITION: 6.8K \pm 10% 1W, AB GB-6821
R-212	RESISTOR, FIXED, COMPOSITION: 4.7K \pm 10% 1/2W, AB EB 4721
R-208, 301	RESISTOR, FIXED, COMPOSITION: 10K \pm 10% 1/2W, AB EB 1031
R-302	RESISTOR, FIXED, COMPOSITION: 6.8K \pm 10% 2W, AB HB 6821
R-401	RESISTOR, FIXED, COMPOSITION: 68 Ω \pm 5% 1/2W, AB EB 6805

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
R-402	RESISTOR, FIXED, COMPOSITION: 750 Ω \pm 5%, 1W, AB GB 7515
R-404, 414, 523, 555	RESISTOR, FIXED, COMPOSITION: 100 Ω \pm 5% 1/2W, AB EB 1015
R-407, 413	RESISTOR, FIXED, COMPOSITION: 3.9K \pm 5% 1/2W, AB EB 3925
R-411	NOT USED
R-417	RESISTOR, FIXED, COMPOSITION: 10K \pm 10% 1W, AB GB 1031
R-501	RESISTOR, FIXED, COMPOSITION: 9.1K \pm 10% 1/2W, AB EB 9121
R-502, 509	RESISTOR, FIXED, COMPOSITION: 75 Ω \pm 5% 1/2W, AB EB 7505
R-503, 510, 528, 529 533, 534	RESISTOR, FIXED, COMPOSITION: 82 Ω \pm 5% 1/2W, AB EB 8205
R-505, 511, 530	RESISTOR, FIXED, COMPOSITION: 47K \pm 10% 1/2W, AB EB 4731
R-507	RESISTOR, FIXED, COMPOSITION: 13K \pm 5% 1/2W, AB EB 1335
R-512	RESISTOR, FIXED, COMPOSITION: 12K \pm 10% 1/2W, AB EB 1231
R-514	RESISTOR, FIXED, COMPOSITION: 22K \pm 10% 1/2W, AB EB 2231
R-515	NOT USED
R-519, 524	RESISTOR, FIXED, COMPOSITION: 33K \pm 10% 1/2W, AB EB 3331
R-520	RESISTOR, FIXED, COMPOSITION: 3.3K \pm 10% 1/2W, AB EB 3321
R-521, 541	RESISTOR, FIXED, COMPOSITION: 24K \pm 5% 1/2W, AB EB 2435
R-522	RESISTOR, FIXED, COMPOSITION: 240K \pm 5% 1/2W, AB EB 2445
R-525	RESISTOR, FIXED, COMPOSITION: 4.3K \pm 10% 1/2W, AB EB 4321
R-537	NOT USED
R-539	RESISTOR, FIXED, COMPOSITION: 330K \pm 10% 1/2W, AB EB 3341
R-543, 544	NOT USED
R-545	RESISTOR, FIXED, COMPOSITION: 39K \pm 5% 1W, AB GB 3935
R-551	RESISTOR, FIXED, COMPOSITION: 4.7 Ω \pm 10% 1W, AB GB 47G1
R-552	RESISTOR, FIXED, COMPOSITION: 18K \pm 5% 1/2W, AB EB 1835
R-556	NOT USED
S-101	SWITCH, TOGGLE: DPDT, positive action, bat lever, H. H. Smith 523

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
S-102	SWITCH, TOGGLE, SPST: Positive action, bat lever, H. H. Smith 520
S-103	SWITCH, ROTARY: Miniature, 6 pole, 2 throw, non-shorting, Grayhill 24YY2749-2
S-104-1, 2, 3, 4, 5, 6	SWITCH, ROTARY: Miniature 6 pole, 4 throw, non-shorting, Grayhill 24YY2750-4
S-105	SWITCH: Push button control switch, Div. Controls Co. of America A3312, w/6V lamp
S-106	SWITCH, TOGGLE: SPDT positive action, bat lever, H. H. Smith 521
S-107*	SWITCH, SPST: *p/o R-146
T-101	TRANSFORMER, POWER: Vitro Electronics AA-25, 448
T-102	TRANSFORMER, AUDIO: Vitro Electronics AB-31, 575
T-401	TRANSFORMER, IF: Vitro Electronics AB-32, 036
T-402	TRANSFORMER: Vitro Electronics AB-31, 972
T-403	TRANSFORMER: Vitro Electronics AB-31, 973
T-404	TRANSFORMER, IF: Vitro Electronics AB-31, 970
T-501	TRANSFORMER, IF: Vitro Electronics AB-32, 629-01
T-502, 503, 504, 505, 513	TRANSFORMER, IF: Vitro Electronics AB-32, 629-02
T-506	TRANSFORMER, IF: Vitro Electronics AB-32, 428
T-507	TRANSFORMER, DISCRIMINATOR: Vitro Electronics AB-14, 976
T-508	TRANSFORMER, IF: Vitro Electronics AB-14, 798
T-509, 510, 511, 512	TRANSFORMER, IF: Vitro Electronics AB-32, 427
TB-101	TERMINAL BOARD: 9 connections, barrier type, Cinch Jones 9-140-Y
TP-201*	*p/o C-223
TP-401, 501, 502	TEST POINT, JACK: Miniature, Sealelectro SKT-2BC
V-101A, B, 105	ELECTRON TUBE: 12AX7
V-102, 103, 106, 509	ELECTRON TUBE: 12AU7

MODEL 2801 UHF RECEIVER, PARTS LIST

(continued)

SYMBOL NUMBER	NAME of PART and DESCRIPTION
V-104	ELECTRON TUBE: 5686
V-201, 202	ELECTRON TUBE: GE 7077
V-203, 405	ELECTRON TUBE: 6AK5
V-204, 301, 403	ELECTRON TUBE: 6AF4A
V-401	ELECTRON TUBE: 5842
V-402, 404	ELECTRON TUBE: 6BA6W
V-501, 502, 506, 507	ELECTRON TUBE: 6DC6
V-503, 504, 508, 510	ELECTRON TUBE: 6CB6
V-505	ELECTRON TUBE: 6AL5
W-101	CABLE ASEMBLY, POWER, ELECTRICAL: 3 contacts, 10 ft. o/a 1g (Cornish cable #3533 w/Hubbell connector #7484) Vitro Electronics AA-19, 709
XDS-101	LIGHT, INDICATOR: Panel mounted white (oval) plastic dome Dialco 107-1930-975
XDS-102*	LAMPHOLDER: *p/o S-105
XF-101, 102	FUSEHOLDER: Panel mounted for 0.25 in. by 1.25 in. fuses Bussmann HKP
XV-101, 102, 103, 104, 105, 106, 401, 509	SOCKET, ELECTRON TUBE: 9 pin mica, Elco TS103P01
XV-201, 202	SOCKET, ELECTRON TUBE: (for GE micro miniature ceramic tube 7077) Jettron Products 8670
XV-203, 204, 301, 402, 403, 404, 405, 501, 502, 503, 504, 505, 506, 507, 508, 510	SOCKET, ELECTRON TUBE: 7 pin, mica, Elco TS102P01

* NOT SEPARATELY REPLACEABLE

10/12/61