KW-1 TRANSMITTER

NOTE:
K=1000
UNLESS OTHERWISE INDICATED, ALL RESISTANCE VALUES ARE IN OHMS AND ALL CAPACITANCE VALUES ARE IN MICROMICROFARADS.
ALL TAP SWITCHES ARE SHOWN IN EXTREME COUNTER CLOCKWISE POSITION.
ALL SWITCHES SHOWN REAR VIEW

KEY:
- ● REAR CONTACT
- ○ FRONT CONTACT
- ◉ FRONT & REAR CONTACTS

FILAMENT VOLTAGE M-101
CURRENT VOLTAGE M-102
P.A. PLATE CURRENT M-103
P.A. PLATE VOLTAGE M-104
MOD. CATHODE CURRENT M-105
ANTENNA CURRENT M-106
C-129 2200
L-118 1.5MH
C-130 2200
R-104 3 MEG
P-701
E-109
J-701
35C-2 ANTENNA FILTER
J-702 P-702
ANTENNA RELAY
K-101
J-102 RECEIVER E-107
J-103 52-∩-ANTENNA E-108
S-103 FRONT TOP PANEL
E-110
INTERLOCK REAR DOOR S-601
ANTENNA RELAY
MODULATOR CATHODE
+2500 VOLTS
PA PLATE
115 VAC
NEUTRAL
MULTI-METER
MULTI-METER
J-101 E-101 P-102
L-110 L-109 L-108 L-107 L-106 L-105
L-117
H.V. GAP
S-101A
S-101B
S-101C
C-102A 30-465
C-102B 30-465
C-101A 30-465
C-101B 30-465
ANTENNA LOADING
NEUTRALIZING
E-111 100
C-104 67
C-131 67
C-133 67
C-132 67
C-103 18-200
PA PLATE TUNING
C-105 1000 C-135 1000
POWER AMPLIFIER
RFC L-101
+2500V E-103
C-116 1000 C-136 1000
L-104
C-117 1000 C-137 1000
C-118 1000 C-138 1000
E-102
V-101 4-250A
V-102 4-250A
CAP
E-113 100
C-108 1000
E-104 47
C-110 C-111 C-112 C-113
R-105 47
R-106 47
C-109 1000
E-105 47
C-106 2.3-10
T-101 GREEN BLACK GREEN BLACK GREEN-BROWN
RFC L-102
C-128 3300
R-102 1500
C-114 150
E-114 67 47
C-110-C-111-C-112-C-113—1000 µµF
S-102A
E-112 100
C-126A C-126B
S-102B
L-112 L-113 C-121 5-50
L-114 C-122 5-50
L-115 C-123 5-50
L-116 C-124 5-50 C-115 47
L-111 C-125 5-50 C-127 47
3T 4T 5T
RFC L-103
P-101 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧
C-107 1000
0 OFF
220Ω-2W
220Ω-2W
SSB-EXC INPUT
R.F. DRIVER
E-106 100
807W V-204
R-228 12
C-206 470
L-202 RFC
C-207 .01µF
R-223 47
C-208 3300
S203A
R-216 1 MEG
R-215 1.0
500 V 807 GRID
300V 807 PLATE
PA GRID
S-201A
S-201B
R-217 1 MEG
R-232 1 MEG
METER SW.
R-214 2.0
2.5K
R101 2500
R-218 25
PA EXCITATION
R-227 22K R-226 25K
R-225 10K R-224 15K
R-234 15K
R-212 33K
TUNE OPER
R-219 5000
S-202
R-220 20K
L-201 12 HY
J-201 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧
C-204 .001µF
C-205 .001µF
C-223 25µF
S-301G
C-323 .01µF
S-301H
R-239 33K
R-229 33K
R-230 56K
R-231 56K
R-238 82K
MAIN TUNING
BAND SWITCH
1ST MULTIPLIER
2ND MULTIPLIER
3RD MULTIPLIER
4TH MULTIPLIER
C-302-.01µF
C-306-150
C-307-.01µF
C-308-8-50
C-309-510
C-310-130
C-312-.01µF
C-314-130
C-322-150
C-325-470
C-329-220
C-339-150
C-334-470
R-307-100K
R-313-82K
R-314-18K
R-317-100K
BUFFER 6BA6 V-301
C-303 470
L-308 208
C-302 .01µF
R-328 56K
R-303 56K
6AQ5 V-302
S-301A
R-310 100K
C-304 .01µF
C-311 5-25
C-306 C-309 C-308 8-50
L-301 L-302
C-313 5-25 C-314
R-311 220K
C-307
C-312
R-312 1000
S-301B
C-316 3-12
R-326 470 22
C-315
6AQ5 V-303
R-313
C-332 .01µF
R-314
C-317 .01µF
R-315 100K
S-301C
C-318 150 C-319 5-25
L-303
C-320 .01µF
R-316 1000
S-301D
C-324 3-12
C-325
L-304 C-321 5-25 C-322
R-317
6AQ5 V-304
C-327 .01µF
R-318 47K
S-301E
C-329
C-328 5-25
C-339
C-330 39
L-309 L-305
L-306
C-331 .01µF
R-319 1000
C-340 470
S-301F
C-335 3-12
C-334
C-333 39
6AQ5 V-305
E-301 47
L-307
R-320 100K
C-336 .01µF
R-322 56K
R-323 1000
C-338 .01µF
C-202 .1µF
R-211 500
C-203 5µF
C-326 .01µF
R-301 47K
C-301 .01µF
C-228 .1µF
R-203 33K
R-236 10K
R-235 220K
R-237 10K
KEY
-150V
.300V
VOLTAGE REGULATOR
V-203 OC3/VR105
V-202 OC3/VR105
C-201 .01µF
R-207 6800
R-208 6800
70E-14 OSCILLATOR (1675-2050KC)
R-002 3200
V-001 6BA6
R-003 100K
C-006
C-007 .01µF
R-005 33K
L-003
R-006 680
RFC
C-009 100
B+ 210 V
L-203 RD-WH
J-203 P-203 E-204
E-203 P-204 VFO OUTPUT
J204 EXCITER INPUT FOR VFO OR FSK
V-201 6A10 BALLAST
L-204 GR-WH
L-205 GR-WH WH
T-201 RED RED GRN GRN BLACK BLACK
V-002 6BA6
C-008
R-004 180K
C-005
L-005 3.8µH
L-004 3.8µH
L-002 L-001
C-001 C-002 C-003 C-004
R-001 100K
R-007 100
C-010 470
C-011 470
C-012 51
V204 PIN 4
R-202 10K
S-203A SSB AM CW
S-203B S-203C S-203D S-203E
R-201 47
R-241 47K
R-240 12K
C-209 .1 MF 500V
C-210 .1 MF 300V
C-211 .1 MF -150V
C-213 .1 MF OVERLOAD RELAY
C-214 .1MF CW-AM RELAY
C-215 .1MF SIDETONE PLATE
C-216 .1MF 115V
C-217 .1MF NEUTRAL
J-202 P-201
B-101 BLOWER
C-229 1000
E-202
300V TO SIDETONE
300V TO EXCITER
DIAL LIGHTS
I-201 I-202 I-203
6.3 V
E-201
CAL
SEND — STANDBY — CALIBRATE
S-204
SEND
115VAC
PRI 500V SUPPLY
300 V
SIDETONE PLATE
PUSH TO TALK
V-401A 1/2 12AX7
C-406 470 AUDIO GAIN
R-403 470K
R-404 500K GAIN
R-434 10K
C-421 47
V-401B 1/2 12AX7
C-401 .01µF
R-401 1 MEG
R-433 4700
C-402 47
J-401 MIC
C-404A 20µF
R-402 47K
J-402 PHONE PATCH
R-436 680
R-405 1500
C-405 25µF
C-407 .01µF
R-407 100K
C-404B 20µF
R-406 47K
R-410 100K
A.F. AMPLIFIER
A.F. AMPLIFIER
V-402 6AL5
R-408 220K
R-409 330K
R-411 220K
CLIPPER
CLIPPING LEVEL
C-408 .01 µF
L-401
C-409 680
C-410 680
R-414 1.2MEG
C-411 .01µF
V-403A 1/2 12AU7
R-412 56K 100K
R-413
R-415 1200
V-403B 1/2 12AU7
V-403 B PHASE INVERTER
R-417 47K
R-416 47K
C-404C 20µF
C-412 0.1µF
V-404 6B4G
V-405 6B4G
R-419 100K
R-418 100K
C-413 .01µF
R-430 1800
AUDIO DRIVER
T-404 GN GN-YEL YEL BL
C-417 10µF
PUSH TO TALK
AUDIO DRIVER BIAS
MODULATOR BIAS
-150 V
C-403 0.5µF
BIAS RECT
V-407 5V4G
L-402
C414 20µF
R-426 500
R-428 400
R-427 400
R-429 350
V-408 5V4G
300 V RECT.
V-409 5V4G
L-403
300 V
R-431 100K
C-415A 40µF
C-415B 40µF
500 V RECT.
V-410 5R4GY
L-404
500V
C-416 10µF
R-432 25K
T-401 BIAS F-401 1A
I-401 FILAMENT PILOT LIGHT
T-402 300 V F-402 3A
T-403 500 V F403 3A
BLUE RED YEL GN GN-YEL BR
NEUTRAL
SIDETONE OSC
V-406 12AU7
C-419 .01µF
R-438 47K
C-418 0.1µF
L-405
R-420 100K
R-421 4700
R-424 1 MEG
R-425 180K
R-422 470K
R-423 10K
C-420 .1µF
E-403
SIDETONE OUTPUT
RECEIVER MUTING
RECEIVER DISABLING
KEY
R-437 10K
K-403 SEND-RECEIVE RELAY
E-402
ANT. RELAY
INTERLOCK
300V TO EXC.
AUDIO
AUDIO
K-404 DELAY RELAY
500 V
300 V
-150 V
K-401 OVERLOAD RELAY
S-405 RESET
FILAMENT VOLTAGE S-403
PLATE PILOT LIGHT I-402
125 V RED
120 V GR-YEL
115 V YEL
110 V GR
100 V BL-YEL
90 V BL-RED
BLACK
T-405
115V
E-401
INTERLOCK
CT PA FIL
PUSH TALK
NEUTRAL
115 VAC
FIL. PRI.
H.V. TRANS. PRI.
H.V. TRANS. PRI.
F-404 5A FILAMENT
S-401 PLATE OFF ON
K-402 PLATE CONTACTOR
ON OFF FIL. S-404
F-405 F-406 15 A
S-602 INTER-LOCK LOWER FRONT PANEL
2 AMP F-501 BL BL
2 AMP F-502 BL BL
T-501 GN GN-BR GN
T-502 GN GR-BR GN
HV RECT
V-501 872A
V-502 872A
CAP
230V 60~ CONNECTION T-503
115 V CONNECTION T-503
ORANGE WHITE WHITE WH-OR WH
L-501 6 HY
L-502 6 HY
C-505 0.15µF
C-501 2µF
C-502 4µF
R-501 25K
R-502 25K
FRONT DOOR SHORTING SW. S-501
MODULATOR
V-503 810
V-504 810
T-504 RF P B+
H.V. GAP
S-502 REAR DOOR SHORTING SW.
L-503
C-503 6000
C-504 6000
C-506 470
C-507 470
C-508 470
E-501
AUDIO
AUDIO
METER
MODULATOR FIL PRIMARY
115 V.
NEUTRAL
MODULATED HIGH VOLTAGE
MODULATOR FIL. PRIMARY
115 V.AC
CW-AM-SWITCH
NEUTRAL
K-501 CW-AM RELAY
HV TRANS PRI
NEUTRAL
HV TRANS PRI
E-401 1 2 7 NEUTRAL 230V 60~ 1Ø
E-401 1 2 7 NEUTRAL 115 V 60~
COLLINS RADIO COMPANY CEDAR RAPIDS, IOWA
SCHEMATIC KW-1 TRANSMITTER
USED ON ASSEMBLY
505 1086 005
505 1209 004
505 1220 004
505 1238 005
505 1241 005