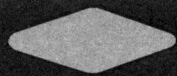


**INSTRUCTION MANUAL  
2 METER COMMUNICATOR  
MODEL GC-105**



**GONSET**

DIVISION OF YOUNG SPRING & WIRE CORPORATION

**INSTRUCTION MANUAL  
2 METER COMMUNICATOR  
MODEL GC-105**



801 South Main Street  
Burbank, California

MADE IN U.S.A.

# GC-105 COMMUNICATOR

## I. TECHNICAL SPECIFICATIONS

### A. TRANSMITTER

Power Output: 5 watts minimum, 6 watts average

Modulation: 20mv @ 1KC at microphone input jack provides 100% modulation (—50 dbm mike, carbon or crystal)

Hum and Noise: At least 40db down from unmodulated carrier.

Undesired modulation products: Down at least 40 db from unmodulated carrier (provided that microphone output does not exceed 20mv; i.e., provided that modulation percentage does not exceed 100%).

Frequency Range: 143.5 to 148.5 mc, crystal or VFO controlled.

Tube Complement: 2E26 Final Amplifier  
6L6 High-level modulator and Receiver audio output  
12AX7 Speech amplifier and Receiver audio amplifier  
12BY7 Crystal oscillator and tripler  
6CX8 Tripler and Doubler

### B. RECEIVER

Sensitivity: 1.0 $\mu$  volt 30% modulated @ 400cps provides 10db  $\frac{S+N}{N}$

Selectivity: 10KC at 6 db. points  
150KC at 60db points

Frequency range: 143.75 to 148.25mc

Image rejection: 45db, minimum

Tube Complement: 6BZ8 Cascode R. F. Amplifier  
6CG8 Mixer and Oscillator  
3-6BH6 I. F. Amplifiers  
6AV6 Detector and Audio Amplifier  
6AL5 Noise Limiter and Squelch  
OB2 Voltage Regulator

### C. POWER SUPPLY

Input Voltage: 6VDC/117VAC or 12 VDC/117VAC  
(combination selected by changing jumpers)

Input Power: 100 watts (6VDC @ 18 AMPS, 12VDC @ 9 AMPS, 117VAC @ 0.9 AMPS)

Rectifier Complement: 3 silicon diodes

## II. GENERAL

The Gonset COMMUNICATOR is an AM transceiver designed for use on either low voltage DC or 115 volts AC. The receiver has a noise figure of approximately 5db, and the transmitter power output is approximately 6 watts at nominal supply voltage. These figures will vary slightly with frequency and different 6BZ8 and 2E26 tubes.

### **III. POWER SOURCE**

The power supply circuit is automatically connected for AC or DC by jumpers in the connectors of the appropriate cable assemblies. Except on special order, all sets are factory wired for 12-volt DC operation, but may be easily converted for use on 6 volts by changing tie point connections as indicated in the schematic.

For mobile operation, it is recommended that except for very short periods the vehicle engine be run at charging speed during transmissions. Of the two power-cord wires, the fused lead connects to the "hot" battery terminal.

For 6V operation the following should be observed: #8 B&S gauge wire should be used from the battery or starter terminal as a conductor to the flexible cable furnished with the COMMUNICATOR.

For 12-volt operation the power cord supplied with the unit may be connected to the vehicle ammeter or "accessory" terminal. Be sure to ground the unfused power-cord lead. Use of very heavy wire is not required with the 12 volt model.

"12 volt" models referred to in this manual actually are designed for 13.0 volt input (design center). Many "12 volt" automobiles actually deliver approximately 15 volts under light or moderate loads after the generator has been charging for a time.

### **IV. RECEIVER OPERATION**

On reception, the tuning meter serves as a carrier strength indicator. The meter is intended to read actual "S" units, S9 being equal to a 50 microvolt received signal strength.

The only aspect of receiver use requiring special explanation is:

#### **SQUELCH OPERATION**

The COMMUNICATOR employs a highly effective carrier-actuated squelch circuit which may be used at the operator's option. In the absence of a signal the exceptionally flat AVC characteristic of the COMMUNICATOR receiver normally will cause a high background noise which can become objectionable if prolonged, as when maintaining a standby watch on C.D., C.A.P., or other net frequencies. The squelch facility permits muting of this background noise.

To disable the squelch, turn the squelch control clockwise slightly past the point where the gate "opens" on background noise with no station tuned in. It is not necessary to turn it full clockwise.

To use the squelch, rotate threshold control counter-clockwise to the point where the background noise disappears, and stop there. This makes the squelch sensitive (so that it will open on weak signals). In extremely noisy locations it may be necessary to turn the threshold control full counter-clockwise to prevent triggering of the squelch by noise. Such operation will be possible only if the desired signals are quite strong.

Certain limitations to the operation of the squelch should be kept in mind. For instance, the normal change in quiescent AVC voltage that occurs as the receiver is tuned over the band will cause the threshold setting to change slightly as one tunes over the band. For this reason it is recommended that the squelch be used only after a station is tuned in, and that it be disabled when "looking around the band."

#### **NOISE CLIPPER**

If desired, the noise clipper may be disabled by rotating the squelch control to the maximum clock-wise stop, past the "click." Under normal operating conditions, the noise clipper should be on at all times.

## HEADPHONE OPERATION

For special applications where headphone operation is desired and the speaker must be muted, a closed circuit headphone jack is provided on the front panel. When a pair of low impedance (600 ohm type) headphones are inserted in the jack the voice coil winding of the speaker is automatically disconnected. High impedance phones will work but give less volume.

## V. TRANSMITTER OPERATION

The COMMUNICATOR transmitter is designed for intermittent service with a "transmit" time not to exceed 10 minutes during any 20 minute period.

The output circuit is designed to work either into a quarter wave whip antenna screwed into the coaxial connector on the rear of the unit or into 50 or 70 ohm coaxial line having a moderately low standing-wave ratio.

To tune the transmitter, rotate the crystal switch to the desired operating-frequency crystal position, depress the push-to-talk switch, and tune the FINAL GRID, PA TUNE, and PA LOAD controls (in that order) for maximum deflection of the front-panel meter. It is possible to QSY approximately one megacycle either side of the operating frequency before retuning is necessary.

A connector on the rear of the transmitter chassis is provided to key a VFO. This connector is connected to ground when transmitting and provides about -10 volts (at a maximum of 5ma) when receiving. Gonset Model 3226 and 3347 VFO's are designed for this application and are available through your Gonset dealer.

The SPOT switch provides a means for checking the receiver dial calibration as might be desirable for net operation or for determining if the received signal is close enough to cause QRM.

The microphone input circuit is operable with either a carbon microphone or a high-impedance high-output type crystal, controlled reluctance, or dynamic (approximately minus 50db level) microphone. In either case the microphone should be connected between shell (ground) and the ring of a PL-68 plug. This is the standard connection for a carbon microphone.

The "Xtal-Carbon" switch on the rear panel recess should be thrown to the appropriate position for the microphone in use. The adjacent slotted shaft is the "S" meter zero control.

## VI. ANTENNA AND COMMUNICATION RANGE

The communication range of the COMMUNICATOR via tropospheric propagation depends largely upon terrain factors and the antenna employed. At extreme ranges the weather also is a determining factor.

For general coverage fixed-station work with vertical polarization, a ground-plane antenna is recommended. A good directional array will greatly increase the range and reduce QRM problems. These arrays may be oriented for either vertical or horizontal polarization.

For mobile work, a quarter wave car top whip will provide good performance as a ground-plane type antenna. If the vehicle does not have a metal top, a coaxial "sleeve" type antenna may be used. The latter must be cut precisely to frequency for good results.

## VII. TVI AND OTHER INTERFERENCE

When operated in an area in which television signals are of sufficient strength to provide a completely snow-free picture, ordinarily no difficulty with TVI will be encountered if the COMMUNICATOR and antenna are both located a reasonable distance from the TV set and TV antenna respectively. Use of coaxial line with the COMMUNICATOR will tend to minimize TVI. Often moving frequency to another part of the band will cure any trouble encountered.

## VIII. TROUBLE SHOOTING & ALIGNMENT

If trouble develops, the first thing to look for is a defective tube, as tube failure will represent about 90 per cent of the difficulty encountered in service.

If the trouble is not traced to a defective tube, then voltage measurements should be made (see Voltage Chart).

Transmitter alignment consists of peaking all tuned circuits in the exciter "chain" at 146.0mc. The test point data supplied in this instruction manual provide reference voltage measurements that should agree within  $\pm 20\%$  of the observed voltage.

Receiver alignment may be accomplished by the following procedure:

1. Inject a low-level 6mc signal at pin 9 of the 6CG8. Peak all I.F. transformers for maximum AVC voltage, as read on a VTVM or the front panel meter.
2. Alignment of the "front end" is critical and should not be attempted except by a qualified serviceman experienced in VHF receiver servicing. However, a quick "tune-up" may be accomplished by setting the receiver to 146mc, adjusting L101 and the trimmer capacitors across L103 and L104 for maximum noise. The trimmer capacitor across L105 may be adjusted to achieve correct frequency tracking. "Spot" a crystal towards the center of the band and adjust the trimmer capacitor until the dial pointer reads the correct frequency. Please note that this procedure does not insure correct tracking. Tracking of the receiver should be done only at the factory or by a qualified VHF receiver serviceman.

### PUSH-TO-TALK RELAY

The relay employed in the COMMUNICATOR ordinarily will be trouble free for several years of normal use, without need for adjustment. However, when the equipment is exposed to wind blown dust, sand, etc., difficulty may be encountered with foreign matter lodging between contacts or between the pole piece and armature.

Such foreign matter often can be blown out with compressed air at 20 psig maximum. If it has caused contact arcing, the contacts should be burnished with a tool similar to Western Electric (Graybar) relay burnishing tool No. W.E. 265-C. Care should be taken during this process not to upset the reed or blade tension on any of the contacts. Do not use liquid contact cleaners.

## IX. MISCELLANEOUS NOTES

1. When removing the receiver from the main cabinet for any reason, it is extremely important that the dressing of the high frequency R-F leads not be disturbed, as some are quite critical.
2. Trouble sometimes is encountered in getting positive contact in the microphone jack when a worn PL-68 plug is employed. The jack spring contacts are adjusted for use with a new plug, and if trouble is encountered when using a worn plug it is suggested that a new plug be substituted rather than tamper with the spring adjustment.
3. Most microphones of the push-to-talk type incorporate a switch section to break the microphone lead when the button is released. When controlling the COMMUNICATOR by means of the front panel RECEIVE-TRANSMIT switch, it is necessary to short this switch section; otherwise no transmitter modulation is obtained.
4. The COMMUNICATOR should never be turned on unless all tubes are in their sockets. The tube filaments are connected in a series-parallel arrangement and removing a tube may seriously unbalance the current distribution causing excessive filament voltage to be applied to one side of the string.

# VOLTAGE CHART

All of the following measurements are made with a VTVM. Deviations of  $\pm 20\%$  are to be expected.

The following voltage checks on the transmitter are made with the transmitter on and tuned for maximum output.

TEST POINT	READING
Pin 4 of V204	+ 250
Pin 8 of V204	+ 2.8
Pin 5 of V204	- 9
Pin 3 of V204	+ 234
Pin 6 of V205	+ 205
Pin 1 of V205	+ 185
Pin 8 of V205	+ 2.8
Pin 3 of V205	+ 1.3
Pin 2 of V201	- 15 to - 25
Pin 8 of V201	+ 175
Junction of R204 and L203	- 70 to - 100
Junction of R209 and R-210	- 25 to - 35
Pin 8 of V202	+ 160
Junction of R212 and R213	- 35 to - 45
Pin 3 of V203	+ 150

The following voltage checks on the transmitter chassis are made with the receiver on, no signal.

TEST POINT	READING
Pin 4 of V204	+ 275
Pin 5 of V204	- 17

The following voltage checks on the receiver are made under no signal conditions with the noise clipper on.

TEST POINT	READING
Junction of R107 & Term. Strip	+ 210
Pin 6 of V103	+ 140
Pin 6 of V104	+ 140
Pin 6 of V105	+ 130
Pin 3 of V101	+ 120
Pin 7 of V106	+ 65
Pin 2 of V107	+ 70
Pin 5 of V107	+ 70
Pin 5 of V107	+ 150
Pin 2 of V107	+ 100
Pin 1 of V106	- .8
Pin 7 of V101	- .8
Pin 1 of V102	- 3.5

The following voltage checks on the receiver are made under no signal conditions with the squelch at the maximum counter-clockwise position.

TEST POINT	READING
Pin 5 of V107	+ 150
Pin 2 of V107	+ 100

## REPLACEMENT PARTS LIST — TRANSMITTER, GC-105

REF. DESIGNATION	DESCRIPTION	GONSET PART NO.
C201	12 pf Disc	084-412
C202	100pf Disc	084-500
C203	.01 $\mu$ f Disc	072-169
C204	5-25pf, Variable	089-009
C205	.01 $\mu$ f Disc	072-169
C206	5-25, Variable	089-009
C207	.005 $\mu$ f, 2KV Disc	072-179
C208	.01 $\mu$ f Disc	072-169
C209	.01 $\mu$ f Disc	072-169
C210	47pf Disc	084-040
C211	.01 $\mu$ f Disc	072-169
C212	.001 $\mu$ f Disc	072-101
C213	.001 $\mu$ f Disc	072-101
C214	3-11pf, Variable	074-009
C215	.001 $\mu$ f Disc	072-101
C216	.001 $\mu$ f Disc	072-101
C217	20pf Disc	084-420
C218	.001 $\mu$ f Disc	072-101
C219	.001 $\mu$ f Disc	072-101
C220	.001 $\mu$ f Disc	072-101
C221	.001 $\mu$ f Disc	072-101
C222	100pf Silver Mica	088-019
C223	3-17pf, Variable	074-141
C224	100pf Tubular	071-013
C225	5-50pf, Variable	074-008
C226	22pf Silver Mica	088-200
C227	470pf Disc, 1KV	072-109
C228	0.1 $\mu$ f Disc	072-174
C229	.001 $\mu$ f Disc	072-101
C230-A & B	2 Sec. Elec. 50-100V, 20-400V	073-150
C232	100pf Tubular	071-013
C233	.001 $\mu$ f Disc	072-101
C234	.01 $\mu$ f Disc	072-169
C235	.01 $\mu$ f Disc	072-169
C236	.0047 $\mu$ f Disc	072-193
C237	.01 $\mu$ f Disc	072-169
C238	.001 $\mu$ f Disc	072-101
C239	.001 $\mu$ f Disc	072-101
C240	.001 $\mu$ f Disc	072-101
C241	.001 $\mu$ f Disc	072-101
CR201	Diode, 1N34A	475-001
DS201	Dial Lamp	471-002
J202	Connector Receptacle	344-005
J203	Connector Receptacle	344-005
J204	Coax Cable Receptacle	344-011
J205	Connector Receptacle	344-010
J206	Connector Receptacle	344-038
J207	Connector Receptacle	344-070
J208	Jack, Microphone	342-002
K201	Relay 12V	111-091
L201	R. F. Choke, 600 $\mu$ h	027-019
L202	Coil	012-094
L203	Coil	012-094
L204	Coil	012-558
L205	R. F. Choke, 5.6 $\mu$ h	027-028
L206	R. F. Choke, 1.0 $\mu$ h	027-097
L207	Coil	012-559
L208	Coil	012-560
L209	R. F. Choke, 1.0 $\mu$ h	027-097
L210	R. F. Choke, 1.0 $\mu$ h	027-097
M201	Meter	112-041
P202	Connector Plug	344-017



## REPLACEMENT PARTS LIST — TRANSMITTER, GC-105

REF. DESIGNATION	DESCRIPTION	GONSET PART No.
R201	47 $\Omega$ , 1/2 W.	042-470
R202	100K, 1/2 W.	042-104
R203	15K, 1 W.	043-153
R204	82K $\Omega$ , 1/2 W.	042-823
R205	100K $\Omega$ , 1/2 W.	042-104
R206	50K Potentiometer	052-005
R207	33K $\Omega$ , 1/2 W.	042-333
R208	39K $\Omega$ , 1/2 W.	042-393
R209	100K $\Omega$ , 1/2 W.	042-104
R210	22K $\Omega$ , 1/2 W.	042-223
R211	15K, 1 W.	043-153
R212	100K $\Omega$ , 1/2 W.	042-104
R213	27K $\Omega$ , 1/2 W.	042-273
R214	68 $\Omega$ , 1 W.	043-680
R216	22K $\Omega$ , 1 W.	043-223
R217	470K $\Omega$ , 1/2 W.	042-474
R218	1 meg $\Omega$ , 1/2 W.	042-105
R219	3900 $\Omega$ , 1/2 W.	042-392
R220	33K $\Omega$ , 1/2 W.	042-333
R221	1.2 meg $\Omega$ , 1/2 W.	042-125
R222	270K $\Omega$ , 1/2 W.	042-274
R223	390K $\Omega$ , 1/2 W.	042-394
R224	47K $\Omega$ , 1/2 W.	042-473
R225	820 $\Omega$ , 1/2 W.	042-821
R226	820 $\Omega$ , 1/2 W.	042-821
R227	100K $\Omega$ , 1/2 W.	042-104
R228	220K $\Omega$ , 1/2 W.	042-224
R229	27 $\Omega$ , 1/2 W.	042-270
R230	27K $\Omega$ , 1/2 W.	042-273
R231	1000 $\Omega$ , 10 W.	049-082
R232	22K $\Omega$ , 1/2 W.	042-223
S201	Switch Crystal	171-005
S202	Switch, Spot SPDT	171-011
S203	Switch, T-R	171-006
S204	Switch, Slide DPDT	172-002
T201	Transformer, Modulation	273-001A
V201	Electron Tube, 12BY7A	472-029
V202	Electron Tube, 6CX8	472-084
V203	Electron Tube, 2E26	472-501
V204	Electron Tube, 6L6GB	472-508
V205	Electron Tube, 12AX7	472-022

## REPLACEMENT PARTS LIST — RECEIVER, GC-105

REF. DESIGNATION	DESCRIPTION	GONSET PART No.
C101	33pf Disc	072-145
C102	.001 $\mu$ f Disc	072-101
C103	.001 $\mu$ f Disc	072-101
C104	.001 $\mu$ f Disc	072-101
C105	10pf Tubular	071-077
C106 A, B, C, D	4 section	074-034
C107	10pf Tubular	071-077
C108	.001 $\mu$ f Disc	072-101
C109	40pf Tubular	084-074
C110	47pf Tubular	084-073
C111	40pf Tubular	084-072
C112	.01 $\mu$ f Disc	072-169
C113	.001 $\mu$ f Disc	072-101
C114	.01 $\mu$ f Disc	072-169
C115	.75pf Tubular	084-027
C116	.01 $\mu$ f Disc	072-169
C117	.01 $\mu$ f Disc	072-169
C118	.001 $\mu$ f Disc	072-101
C119	.01 $\mu$ f Disc	072-169
C120	.01 $\mu$ f Disc	072-169
C121	100pf Tubular	071-013
C122	.01 $\mu$ f Disc	072-169
C123	.005 $\mu$ f Disc	072-168
C124	0.1 $\mu$ f Disc	072-233
C125	.002 $\mu$ f Disc	072-118
C126	0.1 $\mu$ f Disc	072-233
C127	.001 $\mu$ f Disc	072-101
C130	.01 $\mu$ f Disc	072-169
C131	.01 $\mu$ f Disc	072-169
C132	.01 $\mu$ f Disc	072-169
C133	.01 $\mu$ f Disc	072-169
C134	.01 $\mu$ f Disc	072-169
C135	.01 $\mu$ f Disc	072-169
C136	.001 $\mu$ f Disc	072-101
C137	.01 $\mu$ f Disc	072-169
C138	.001 $\mu$ f Disc	072-101
DS101	Dial Lamp	471-003
DS102	Dial Lamp	471-003
J101	Receptacle, Connector	344-005
L101	Coil	012-042
L102	Coil	011-036
L103	R. F. Choke, 5.4 $\mu$ h	027-004
L104	Coil	011-034
L105	Coil	011-034
L106	Coil	011-035
L107	R. F. Choke, 1.9 $\mu$ h	027-002
L108	R. F. Choke, 1.9 $\mu$ h	027-002
L109	R. F. Choke, 1.9 $\mu$ h	027-002
P205	Plug connector	344-017
P206	Plug Connector	344-039
R101	27K $\Omega$ , 1/2 W.	042-273
R102	470K $\Omega$ , 1/2 W.	042-474
R103	220K $\Omega$ , 1/2 W.	042-224
R104	100 $\Omega$ , 1/2 W.	042-101
R105	220K $\Omega$ , 1/2 W.	042-224
R106	82K $\Omega$ , 1/2 W.	042-823
R107	3500 $\Omega$ , 5 W. Wirewound	049-010
R108	100 $\Omega$ , 1/2 W.	042-101
R109	27K $\Omega$ , 1/2 W.	042-273
R110	10K $\Omega$ , 1 W.	043-103
R111	220K $\Omega$ , 1/2 W.	042-224
R112	47 $\Omega$ , 2 W.	044-470

# REPLACEMENT PARTS LIST — RECEIVER, GC-105

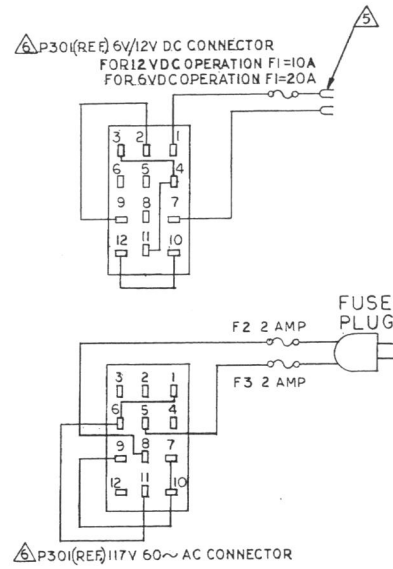
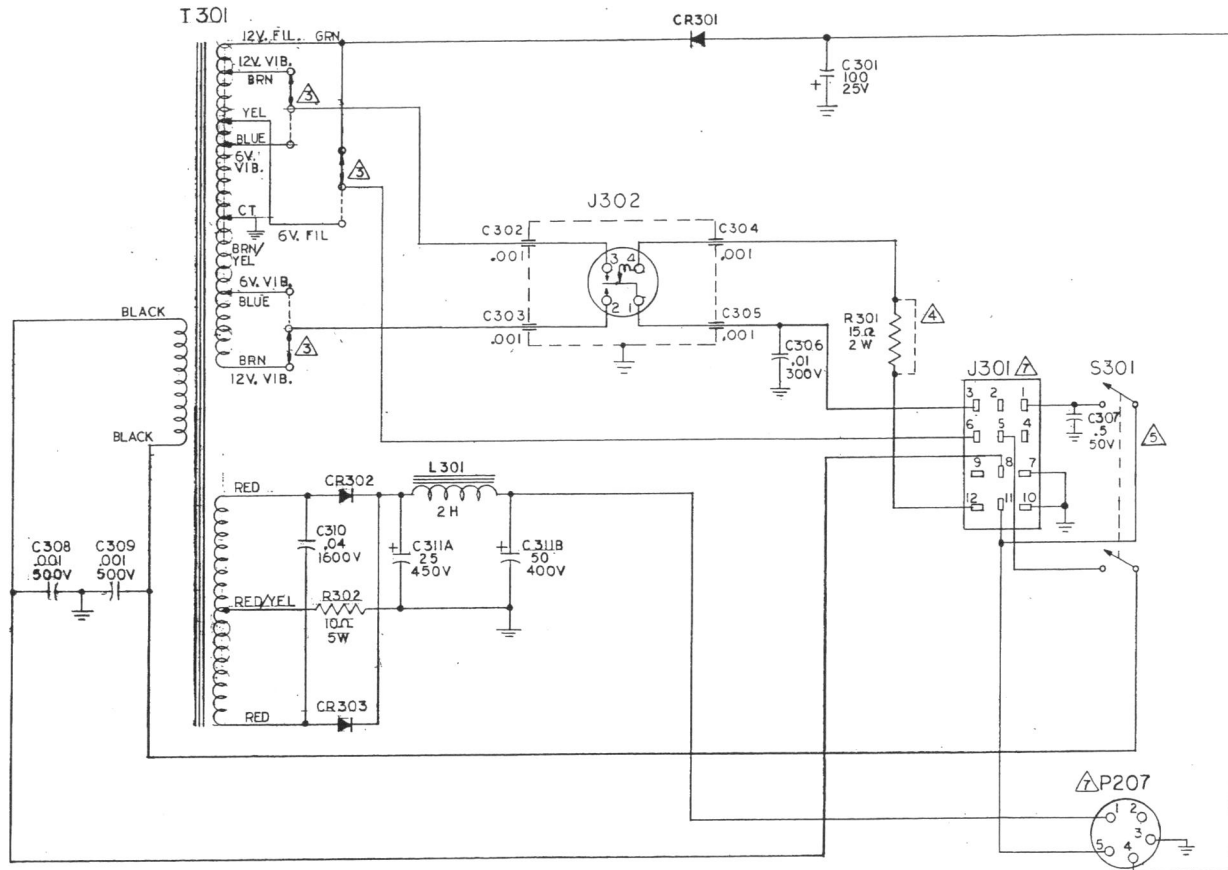
REF. DESIGNATION	DESCRIPTION	GONSET PART NO.
R113	10K $\Omega$ , 1 W.	043-103
R114	220K $\Omega$ , 1/2 W.	042-224
R115	47 $\Omega$ , 1/2 W.	042-470
R116	10K $\Omega$ , 1 W.	043-103
R117	220K $\Omega$ , 1/2 W.	042-224
R118	47 $\Omega$ , 1/2 W.	042-470
R120	10K $\Omega$ , 1 W.	043-103
R121	250K Potentiometer	052-010
R122	470K $\Omega$ , 1/2 W.	042-474
R123	1 meg $\Omega$ , 1/2 W.	042-105
R124	1 meg $\Omega$ , 1/2 W.	042-105
R125	1 meg $\Omega$ , 1/2 W.	042-105
R126	2.2 meg $\Omega$ , 1/2 W.	042-225
R127	330K $\Omega$ , 1/2 W.	042-334
R128	500K Potentiometer	052-111
R129	330K $\Omega$ , 1/2 W.	042-334
R130	1 meg $\Omega$ , 1/2 W.	042-105
R135	470K $\Omega$ , 1/2 W.	042-474
R136	6.8 $\Omega$ , 1 W. Wirewound	056-688
R137	47 $\Omega$ , 2 W.	044-470
R138	10 meg $\Omega$ , 1/2 W.	042-106
R140	91 meg $\Omega$ , 1/2 W.	042-916
T101	I. F. Transformer	014-025
T102	I. F. Transformer	014-025
T103	I. F. Transformer	014-025
T104	I. F. Transformer	014-025
T105	I. F. Transformer	014-025
V101	Electron Tube, 6BZ8	472-014
V102	Electron Tube, 6CG8	472-013
V103	Electron Tube, 6BH6	472-011
V104	Electron Tube, 6BH6	472-011
V105	Electron Tube, 6BH6	472-011
V106	Electron Tube, 6AV6	472-015
V107	Electron Tube, 6AL5	472-006
V108	Electron Tube, OB2	472-032
Z101	Imp. Network	069-003

## REPLACEMENT PARTS LIST — POWER SUPPLY, GC-105

REF. DESIGNATION	DESCRIPTION	GONSET PART No.
C301	Elec. 100 $\mu$ f-25V	073-156
C302	Feedthru, 1000pf	077-001
C303	Feedthru, 1000pf	077-001
C304	Feedthru, 1000pf	077-001
C305	Feedthru, 1000pf	077-001
C306	.01 $\mu$ f Disc	072-169
C307	0.5 $\mu$ f 50V	076-002
C308	.001 $\mu$ f 500V Disc	072-101
C309	.001 $\mu$ f 500V Disc	072-101
C310	.04 $\mu$ f 1600V Tubular	085-082
C311-A & B	2 Sec. Elec. 25-450V, 50-400V	073-155
CR301	Diode, Silican	474-004
CR302	Rectifier, Silicon	474-018
CR303	Rectifier, Silicon	474-018
J301	Receptacle, Plug	344-034
J302	Socket, Vibrator	341-511
L301	Choke	274-024
P207	Socket, Connector	344-071
R301	15 $\Omega$ , 2 W.	057-150
R302	10 $\Omega$ , 5 W.	049-092
S301	Switch, Toggle DPST	172-006
T301	Transformer, Power	271-088

## REPLACEMENT PARTS LIST — MISCELLANEOUS, GC-105

REF. DESIGNATION	DESCRIPTION	GONSET PART NO.
P301	Connector Plug	344-035
F1	Fuse - 15 AMP, 12VDC	482-041
F1	Fuse - 20 AMP, 6VDC	482-008
F2	Fuse - 2 AMP @ 125 V	482-004
F3	Fuse - 2 AMP @ 125 V	482-004
J201	Phone Jack	342-001
	Speaker	152-024
	A.C. Cord w/ Fused Plug	696-007
	D.C. Cord	678-010



510-100

- ⚠ P207 & J301 SHOWN FROM WIRING SIDE.
- ⚠ P301 SHOWN FROM PIN SIDE.
- ⚠ DENOTES CIRCUIT TO "HOT" SIDE OF BATTERY.
- ⚠ ADD JUMPER FOR 6V OPERATION.
- ⚠ JUMPERS SHOWN IN 12V POSITION, MOVE TO DOTTED POSITION FOR 6V OPERATION.
- 2. ALL CAPACITOR VALUES IN MICROFARADS
- 1. FILAMENT CURRENT 6.3V @ 5 AMPS  
12.6V @ 2.5 AMPS

NOTES: UNLESS OTHERWISE SPECIFIED

RMC 10-5-61  
AG-211 11-9-61  
H.C. 11-10-61  
D.C. 11-13-61  
RMC

SCHMATIC  
GC-105 POWER  
SUPPLY

510-100

800-006	319	GC-105	. 1
REV	ASSY	PROJ	MODEL

W/C

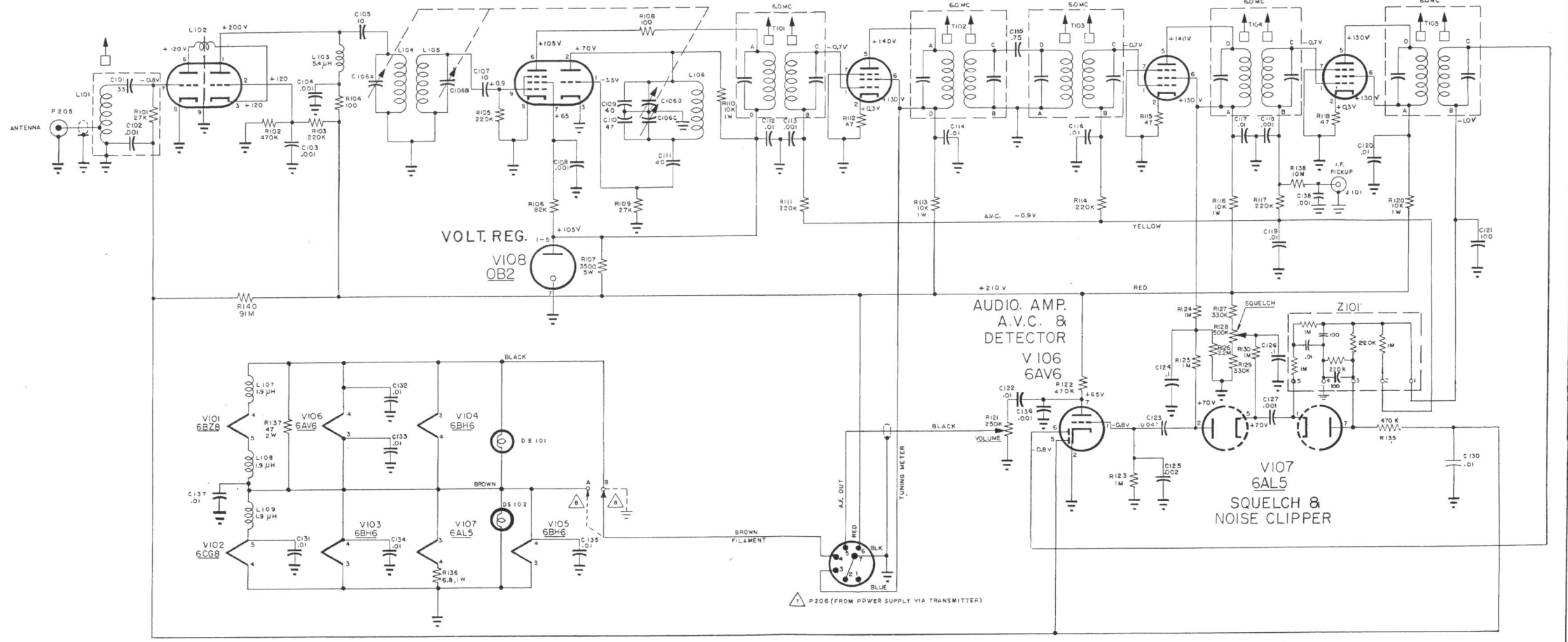
R.F. AMP.  
V101  
6BZ8

MIXER & OSC.  
V102  
6CG8

I.F. AMP.  
V103  
6BH6

I.F. AMP.  
V104  
6BH6

I.F. AMP.  
V105  
6BH6

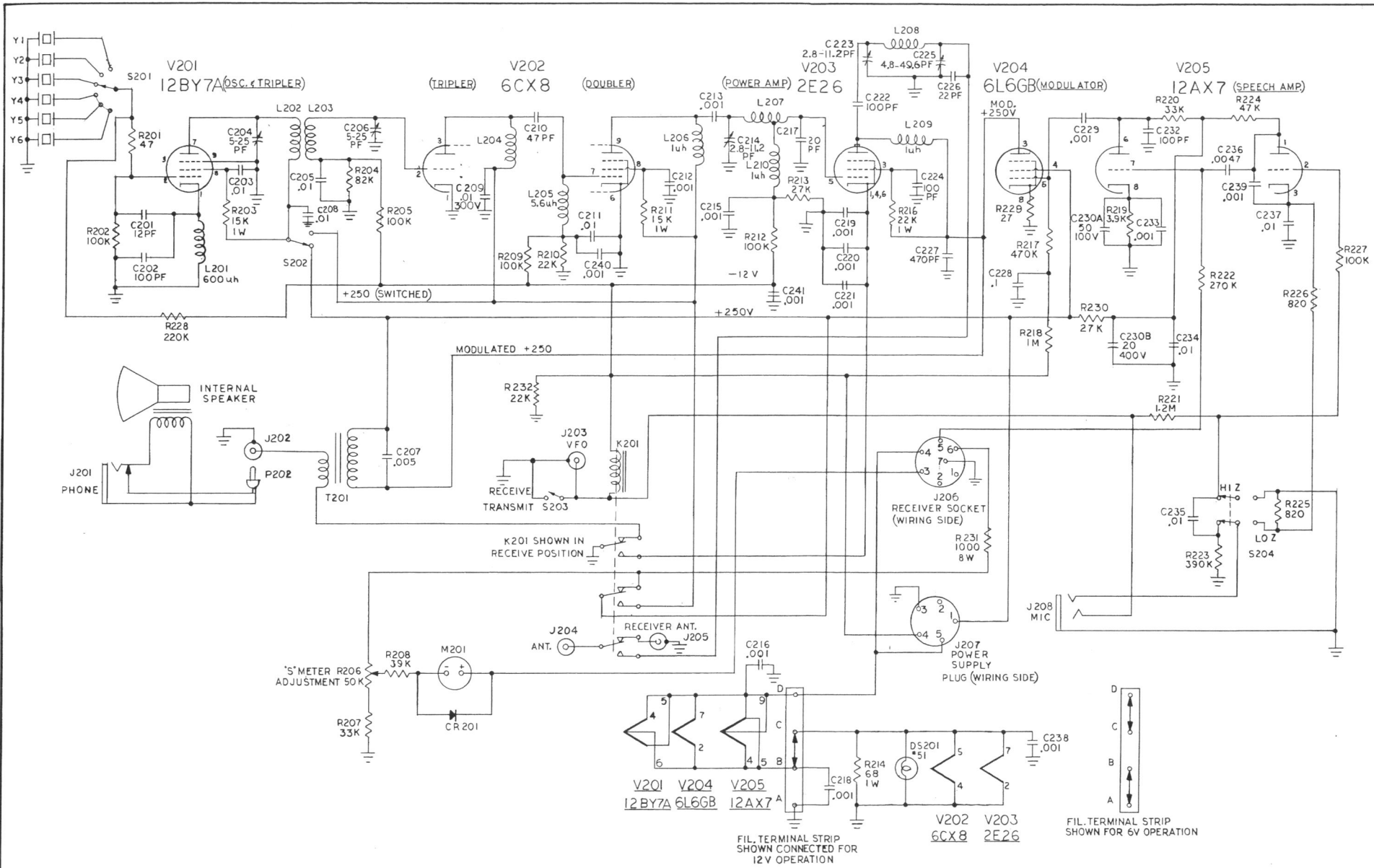


- ▲ WIRING SHOWN FOR 12V FILAMENT SOURCE, MOVE TO DOTTED POSITION FOR 6V FILAMENT POWER SOURCE.
  - ▲ P 206 VIEWED FROM PIN SIDE.
  - 6 OSCILLATOR IS ON LOW SIDE
  - 5 VOLTAGES TAKEN WITH V.T.V.M. WITH SQUELCH CONTROL FULLY CLOCKWISE NOISE CLIPPER ON AND NO SIGNAL INPUT
  - 4 ALL RESISTORS ARE 1/2 WATT
  - 3 ALL RESISTOR VALUES IN OHMS
  - 2 ALL CAPACITOR VALUES LESS THAN ONE UNIT ARE P.F.
  - 1 ALL CAPACITOR VALUES GREATER THAN ONE UNIT ARE P.F.
- NOTES UNLESS OTHERWISE SPECIFIED

ITEM	REG.	DWG. NO.	DESCRIPTION	REMARKS
DRAWN: MAXIM 7-2864				
CHECKED: 7/11/47				
DESIGNED: 7/11/47				
PARTS: 2/9/47 117				
CUST. APPR: 1/27				
MATERIAL & SPEC.				
1. TOLERANCES & NOTES REFER TO NOTES 2. PERIODICALLY CHECKED FOR 3. ALL TUBES MUST BE CHECKED FOR 4. ALL TUBES MUST BE CHECKED FOR 5. ALL TUBES MUST BE CHECKED FOR				
800-004- GC-105 1			NEXT ASSY	
NEXT ASSY MODEL P.			SCALE	
YOUNG'S ENGINEERING & WIRE COMP.			510-102	
REV.			REV.	

CHG	DESCRIPTION	BY	APP	DATE
N/C	EO 583 R MARTINI			

LET.	REVISION	APP.	DATE
N/A	REVISION BY E.O. 516 A.P.W.	APL	
A	ADDED R212 C.O. 837 A.P.W.		
B	C209 WAS .001, R207 WAS 67K. SEE E.O. 862 A.P.W.		



510-101  
REV 5

2. ALL CAPACITORS ARE IN MICROFARADS.  
1. ALL RESISTORS ARE IN OHMS 1/2W  
NOTES: UNLESS OTHERWISE SPECIFIED

S.A. 9-20-61  
A.C.B. 11-20-61  
J.C. 11-20-61  
R.D.R.

SCHMATIC,  
TRANSMITTER  
GC105