

ACCESSORIES SUPPLIED WITH UNIT

- Output Cable, BNC to Insulated Clips
- Power Cord, Detachable
- Instruction Manual
- Schematic Diagram & Parts List

U.S.A. PARTS ORDERING INFORMATION

There is a minimum charge for each invoice. Orders will be shipped C.O.D. unless previous open account arrangements have been made or remittance accompanies order. Advance remittance must cover handling, postage, or express charges. Specify model and serial number when ordering replacement parts.

ORDER REPLACEMENT PARTS FROM:

B & K-Precision, Factory Service Operations
 Maxtec International Corporation
 6470 West Cortland Street
 Chicago, Illinois 60635
 Tel (312) 889-1448



**SERVICING
 INFORMATION**



MODEL 2005A

R F GENERATOR

Parts List

SCHEMATIC SYMBOL	DESCRIPTION	B&K PRECISION PART NUMBER
-------------------------	--------------------	--------------------------------------

RESISTORS
 Unlisted resistors are 5%, 1/4 W
 See Schematic for value.

VR501	100 kΩ, Potentiometer . . . . .	.008-887-9-001
VR502	1 kΩ Potentiometer W/Switch . . . . .	.008-145-9-002

CAPACITORS

C101	220 μF, +80/-20%, 50 V, Electrolytic . . . . .	.022-328-9-006
C201	0.01 μF, +80/-20%, 25 V Ceramic . . . . .	.020-433-9-001
C202, 204	33 pF, 5%, 25 V NPO Ceramic . . . . .	.031-074-9-003
C203	68 pF, 5%, 25 V NPO Ceramic . . . . .	.031-074-9-004
C205	1000 pF, +80/-20%, 50 V Ceramic . . . . .	.020-433-9-002
C206	0.01 μF, +80/-20%, 25 V Ceramic . . . . .	.020-433-9-001
C207	1000 pF, +80/-20%, 25 V Ceramic . . . . .	.020-432-9-001
C208	0.1 μF, +80/-20%, 25 V Ceramic . . . . .	.020-386-9-004
C209	2 pF, ±0.5 pF, 25 V NPO Ceramic . . . . .	.031-074-9-001
C304	1500 pF, 5%, 50 V Polyester . . . . .	.025-283-9-001
C401	10 μF, +80/-20%, 16 V Electrolytic . . . . .	.022-393-9-001
C402	4.7 μF, +80/-20%, 50 V Electrolytic . . . . .	.022-336-9-002
C403	220 μF, +80/-20%, 25 V Electrolytic . . . . .	.022-336-9-001
C404	220 μF, +80/-20%, 16 V Electrolytic . . . . .	.022-393-9-002
C405	22 μF, +80/-20%, 25 V Electrolytic . . . . .	.022-393-9-004
C406	10 μF, +80/-20%, 50 V Electrolytic . . . . .	.022-390-9-001
C407	47 μF, +80/-20%, 16 V Electrolytic . . . . .	.022-393-9-003
C408	1000 pF, +80/-20%, 25 V Ceramic . . . . .	.020-432-9-001
C409-411	0.047 μF, 5%, 50 V Polyester . . . . .	.025-283-9-002

PARTS LIST (continued)

C502, 504	0.047 μ F, +80/-20%, 25 V Ceramic	020-385-9-003
C503	33 pF, 5%, 25 V NPO Ceramic	031-074-9-003
C505	100 pF, 5%, 25 V NPO Ceramic	031-074-9-002
C506	0.01 μ F, +80/-20%, 25 V Ceramic	020-433-9-001
C507	100 μ F, +80/-20%, 25 V Electrolytic	022-328-9-001
VC401	Variable Tuning Capacitor	029-021-9-001

TRANSISTORS & DIODES

Q201, 202	2N5485, FET	182-067-9-001
Q203	2SC1730K, NPN Transistor	176-222-9-001
Q301, 302	2SC1815-GN, NPN Transistor	176-095-9-001
Q501	2N5485, FET	182-067-9-001
Q502	2SC1730K, NPN Transistor	176-222-9-001
D101, 102	1 Amp, 600 PIV Diode	151-050-9-001
D103	LED, Red	158-067-9-001
D301	10 V, +1.7/-2.7%, 500 mW Zener Diode	152-189-9-001

TRANSFORMERS, COILS & SWITCHES

T101	Power Transformer (120, 220, 240 V PRI)	065-253-9-001
L601	7.5 mHy, 3% Coil	044-071-9-001
L602	820 μ Hy, 3% Coil	044-071-9-002
L603	80 μ Hy, 3% Coil	044-071-9-003
L604	6.0 μ Hy, 3% Coil	044-071-9-004
L605	0.55 μ Hy, 10% Coil	044-071-9-005
L606	Flat Copper Wire	044-070-9-006
S101	Pushbutton Switch, POWER	088-178-9-001
S401	Lever Switch, INT/EXT	080-032-9-001
S601	Rotary Switch, 6 Position, FREQUENCY RANGE	083-326-9-001

MISCELLANEOUS

F101	300 mA, 250 V 5 x 20 mm Fast Acting Fuse	196-300-0-300
	Fuse Clip (2 required)	741-209-9-001
	AC Receptacle (Line Cord)	770-022-9-001
	Line Cord Set, CSA/UL	420-039-9-001
	BNC Connector	772-024-9-002
	Front Plate (Sub-Panel)	254-146-9-001
	Front Bezel, Black	380-656-9-001
	Front Inlay (Nameplate)	260-541-9-001

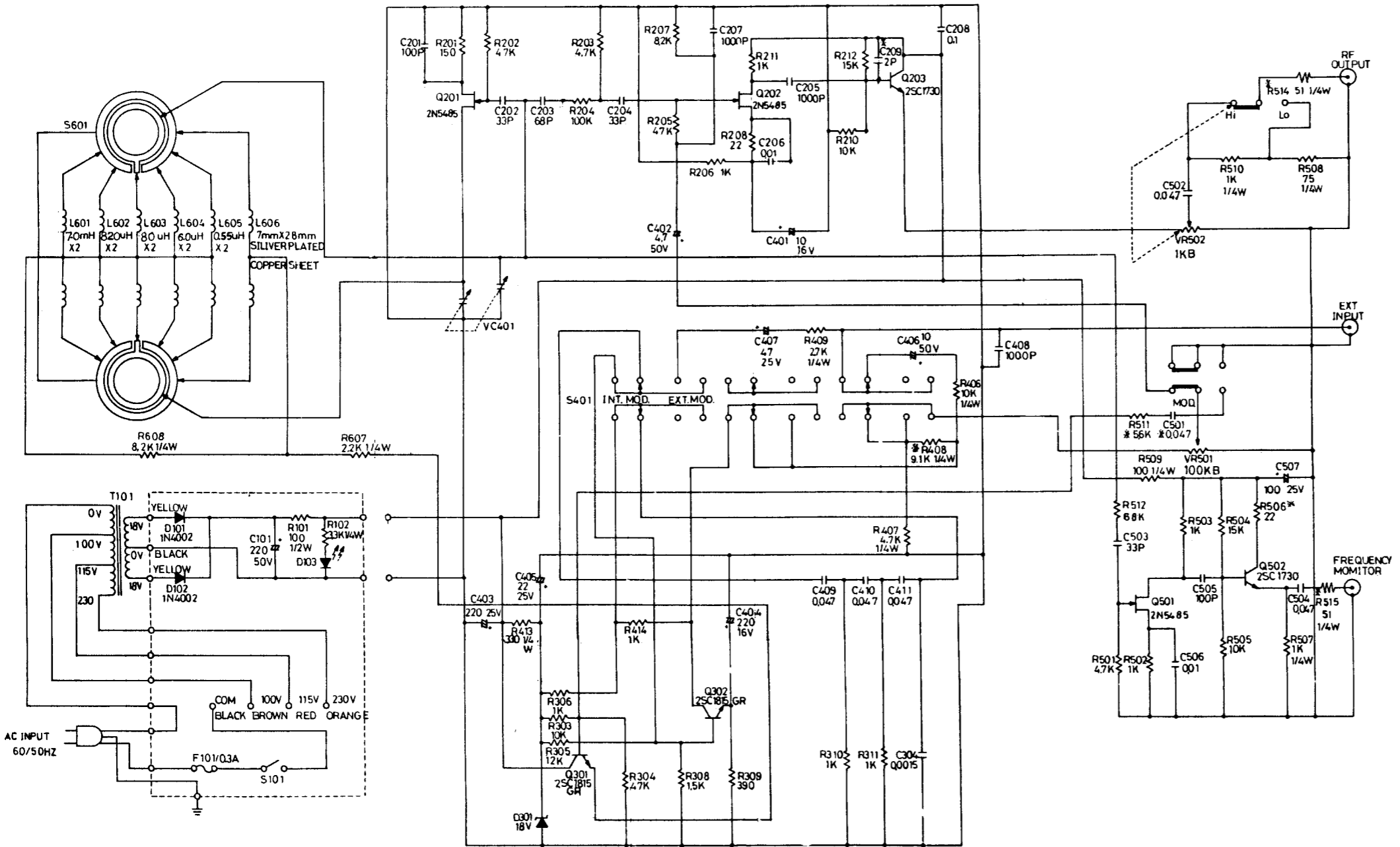
PARTS LIST (continued)

Sub-Chassis	.258-074-9-001
Metal Case, Black	.272-203-9-001
Foot	.381-152-9-001
Scale Pointer (Frequency)	.265-051-9-001
Shaft Bearing	.849-019-9-001
Scale Pointer Bushing	.849-019-9-002
Power Switch Bezel, Brown	.380-601-9-001
Knob, Black, FREQUENCY Dial	.751-343-9-001
Knob, Black, MODE LEVEL & RF LEVEL	.751-343-9-002
Knob, Silver, INT/EXT MODULATION	.751-381-9-001
Knob, Black, FREQUENCY RANGE	.751-343-9-004
Switch Button, Red	.384-079-9-001
Cable Assembly, BNC-Alligator Clips	.534-241-0-000
Instruction Manual	.480-673-9-001

CALIBRATION PROCEDURE

MODEL 2005A

1. Set up the Model 2005A RF Generator as follows:
 - a. Power ON.
 - b. INT-EXT switch to EXT.
 - c. No connection to INPUT-OUTPUT jack (no external modulation).
 - d. Connect RF OUTPUT jack to oscilloscope (at least 40 MHz bandwidth). Do not use terminating resistor.
 - e. Connect FREQ MONITOR jack to frequency counter (at least 500 MHz). Do not use terminating resistor.
 - f. Select Range F and set dial to 35 MHz.
 - g. Set RF LEVEL control for 300 mV p-p on oscilloscope.
2. For each range (starting at F and progressing to A), check the frequency at four points on the dial as listed in the following tables. If adjustment is required, remove the case and adjust to the tighter adjustment limits. Range F must be adjusted before proceeding to other bands.



RANGE F:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
150 MHz	145.5-154.5 MHz	147-153 MHz
70 MHz	67.9-72.1 MHz	68.6-71.4 MHz
50 MHz	48.5-51.5 MHz	49-51 MHz
32 MHz	31.04-32.96 MHz	31.36-32.46 MHz

Adjust distance between long metal pieces extending from BAND switch.

RANGE E:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
35 MHz	33.95-36.05 MHz	34.3-35.7 MHz
20 MHz	19.4-20.6 MHz	19.6-20.4 MHz
15 MHz	14.55-15.45 MHz	14.7-15.3 MHz
10 MHz	9.7-10.3 MHz	9.8-10.2 MHz

Adjust by shaping slightly the most exterior coil of L605.

RANGE D:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
11 MHz	10.67-11.33 MHz	10.78-11.22 MHz
7 MHz	6.79-7.21 MHz	6.86-7.14 MHz
4.5 MHz	4.365-4.635 MHz	4.41-4.59 MHz
3 MHz	2.91-3.09 MHz	2.94-3.06 MHz

Adjust by shaping slightly the most exterior coil of L604.

RANGE C:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
3.0 MHz	2.91-3.09 MHz	2.94-3.06 MHz
2.0 MHz	1.94-2.06 MHz	1.96-2.04 MHz
1.5 MHz	1.455-1.545 MHz	1.47-1.53 MHz
0.9 MHz	0.873-0.927 MHz	0.882-0.918 MHz

Adjust distance between two coils of L603.

RANGE B:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
900 kHz	873-927 kHz	882-918 kHz
600 kHz	582-618 kHz	588-612 kHz
400 kHz	388-412 kHz	392-408 kHz
290 kHz	281.3-298.7 kHz	284.2-295.8 kHz

Adjust distance between two coils of L602.

RANGE A:

DIAL	COUNTER (case on)	ADJ. LIMITS (case off)
290 kHz	281.3-298.7 kHz	284.2-295.8 kHz
200 kHz	194-206 kHz	196-204 kHz
150 kHz	145.5-154.5 kHz	147-153 kHz
100 kHz	97-103 kHz	98-102 kHz

Adjust distance between two coils of L601.