

Ref. No.	Description	RS Part No.	Mfr's Part No.
G-13	Cushion		890-050
G-14	Bushing		893-190
H-1	Screw (+)Tapping (RH) 3×8–2S ZNY		623-496
H-2	Screw (+)Tapping (TH) 5×12–1S ZNY		625-007
H-3	Washer, Rubber. 7×φ25×t1.5 BLK		660-138
H-4	Washer, Lock "A" Type, M3 ZNY		664-305
H-5	Washer, Lock "B" Type, M5 ZNY		664-518
H-6	Bracket, MIC, SKD-5 Cr-Plat		720-095
H-7	Bracket, SET, SPC 227×30×t1.5 ZNY		722-080
H-8	Screw Securing M6×12(P: 1) BLK		660-060
I-1	Screw (+)Machine (B.H) 3×10 ZNY		613-332
I-2	Screw (+)Tapping (F.H) 3×6–2S ZNY		623-168
I-3	Screw (+)Tapping (B.H) 3×6–2S ZNY		623-265
I-4	Screw (+)Tapping (B.H) 2.6×8 Ni-Plat		610-080
I-5	Screw (+)Machine (F.H) 2.6×5 ZNY		611-095
I-6	Nut SS41 M3-1S ZNY		651-024
I-7	Washer Plat 3.2×8		660-457
I-8	Washer, Spring, M3 ZNY		662-305
I-9	Screw (+)Tap Tite (BH) 3×6 BLK		633-082
I-10	Screw (+)Tapping (FH) 3×6 2S BLK		623-682
LED1	LED Display UL-R231-P13		252-010-6A
LED2-LED5	LED Lamp SLB26UR3HL Red		251-016-7A
SW 1	Rotary SW, GPS-0712 15mm Shaft		430-069-6
SW 2	VR 50KA W/NUT, Washer ±20%, Volume		450-607-8
SW 3	VR 10KA W/NUT, Washer ±20%, Squelch		450-411-7
J-1	Jack, 3.5Dia. EXT.		420-705-1
J-2	Connector ANT ZNW		421-046-7
SP1	Speaker 8ohm 2W		420-134-8
IC802	KIA7217AP. Audio		222-006-4
Q802	2SC 2078(D)		204-009-1

## ELECTRICAL PARTS LIST

Ref. No.	Description	RS Part No.	Mfr. Part No.
<b>Assembly, PCB, RF AMP Module</b>		<b>514-34R-AM</b>	
<b>Capacitors</b>			
C104	Ceramic 22pF(NPO) 50W V ± 10%		132-202-6
C105	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V ± 20%(AX)		130-207-1 130-227-9
C106	Ceramic 47pF 50W V ± 10%		134-716-4
C107	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V ± 20% (AX)		130-405-3 130-427-3
C108-C109	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V ± 20% (AX)		130-207-1 130-227-9
C110	Not Used		
C111	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V ± 20% (AX)		130-405-3 130-427-3
C112	Electrolytic 22 $\mu$ F 16W V ± 20%		102-250-0
C113	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V ± 20% (AX)		130-207-1 130-227-9
RFC101	Coil, Choke 100 $\mu$ H MO Type		310-292-3
D102-D103	Diode, 1S2473		243-004-3
<b>Resistors, Metal Film</b>			
R104	330 ohm 1/8W ± 5%		002-331-9
R105	33K ohm 1/8W ± 5%		002-333-1
R106	18 ohm 1/8W ± 5%		002-180-9
R107	680 ohm 1/8W ± 5%		002-681-5
R108	100 ohm 1/8W ± 5%		002-101-8
R109	2.7K ohm 1/8W ± 5%		002-272-9
R110	220 ohm 1/8W ± 5%		002-221-3
<b>Transistors</b>			
Q102-Q103	KTC1923(Y) / KTC3194(Y) or MPS9426(C)		202-060-7 203-005-2
<b>Assembly, PCB, IF AMP Module</b>		<b>514-341-AM</b>	
<b>Capacitors</b>			
C201	Ceramic 100pF 50W V ± 10%		131-004-9
C202	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V ± 20% (AX)		130-405-3 130-427-3
C203	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V ± 20% (AX)		130-207-1 130-227-9
C204	Electrolytic 10 $\mu$ F 16W V ± 20%		101-042-4
C205	*Mylar 0.047 $\mu$ F 50W V ± 10%		114-708-1
C206	Mylar 0.001 $\mu$ F 50W V ± 5%		111-002-1

\*Mylar is a registered trademark of E.I. DuPont de Nemours and Company.

Ref. No.	Description	RS Part No.	Mfr. Part No.
C207	Mylar 0.047 $\mu$ F 50W V $\pm$ 10%		114-708-1
C208	Mylar 0.0068 $\mu$ F 50W V $\pm$ 5%		116-806-6
C209	Electrolytic 1 $\mu$ F 50W V $\pm$ 20%		101-007-3
D201	Diode, OA090 GE		244-003-7
<b>Resistors, Metal Film</b>			
R201	560ohm 1/8W $\pm$ 5%		002-561-0
R202	3.9K ohm 1/8W $\pm$ 5%		002-392-4
R203	100ohm 1/8W $\pm$ 5%		002-101-8
R204	470ohm 1/8W $\pm$ 5%		002-471-2
R205	150K ohm 1/8W $\pm$ 5%		002-154-6
R206	1.8K ohm 1/8W $\pm$ 5%		002-182-1
R207	10K ohm 1/8W $\pm$ 5%		002-103-0
R208	470ohm 1/8W $\pm$ 5%		002-471-2
R209	1K ohm 1/8W $\pm$ 5%		002-102-9
R210	3.3K ohm 1/8W $\pm$ 5%		002-332-0
R211	12K ohm 1/8W $\pm$ 5%		002-123-8
R212	220ohm 1/8W $\pm$ 5%		002-221-3
R213	22K ohm 1/8W $\pm$ 5%		002-223-5
R214	47K ohm 1/8W $\pm$ 5%		002-473-4
R215	82K ohm 1/8W $\pm$ 5%		002-823-7
R216	47K ohm 1/8W $\pm$ 5%		002-473-4
R217	33K ohm 1/8W $\pm$ 5%		002-333-1
R218	15K ohm 1/8W $\pm$ 5%		002-153-5
<b>Transistors</b>			
Q201-Q202	KTC1923(Y) / KTC3194(Y) or MPS9426(C)		202-060-7 203-005-2
Q203	KTC380(Y) / KTC3192(Y) or KTC1923(Y) / KTC3194(Y)		202-043-1 202-060-7
Q204	KTA1015(GR) / KTA1266(GR) or MPS9681(T)		202-036-5 203-009-6
<b>Assembly, PCB, LED Driver Module</b>			<b>514-34L-DM</b>
<b>Capacitors</b>			
C301	Mylar 0.01 $\mu$ F 50W V $\pm$ 5%		111-004-3
C302	Electrolytic 0.47 $\mu$ F 50W V $\pm$ 20%		100-415-3
C303	Ceramic 0.01 $\mu$ F 50W V +80% / -20% or Ceramic 0.01 $\mu$ F 16W V $\pm$ 20% (AX)		130-102-9 130-188-8
C304	Electrolytic 10 $\mu$ F 16W V $\pm$ 20%		101-042-4
D301	Diode, 1S2473		243-004-3
IC301	IC, TL489CP, LED Driver		235-001-7

Ref. No.	Description	RS Part No.	Mfr. Part No.
<b>Resistors, Metal Film</b>			
R303 R304-R307	150ohm 1/8W ±5% 1.5K ohm 1/8W ±5%		002-151-3 002-152-4
<b>Assembly, Regulator Module</b>			<b>514-34R-MA</b>
<b>Capacitors</b>			
C502 C503	Electrolytic 47 $\mu$ F 16WV ±20% Ceramic 0.047 $\mu$ F 50WV +80% / -20%		104-712-1 130-405-3
<b>Diodes</b>			
D501-D502 D503	1S2473 Zener 9.1V, UZ 9.1B		243-004-3 241-020-7
<b>Resistors, Metal Film</b>			
R502 R503 R504 R505 R506 R507 R508	470ohm 1/8W ±5% 100ohm 1/8W ±5% 4.7K ohm 1/8W ±5% 10K ohm 1/8W ±5% 2.7K ohm 1/8W ±5% 180ohm 1/8W ±5% 100ohm 1/8W ±5%		002-471-2 002-101-8 002-472-3 002-103-0 002-272-9 002-181-0 002-101-8
<b>Transistors</b>			
Q501 Q502 Q503	KTC1815(GR) / KTC3198(GR) or MPS9631(T) KTA1015(GR) / KTA1266(GR) or MPS9681(T) KTC1815(GR) / KTC3198(GR) or MPS9631(T)		202-023-3 203-014-0 202-036-5 203-009-6 202-023-3 203-014-0
<b>Assembly, VCO Module</b>			<b>514-34V-MA</b>
<b>Capacitors</b>			
C601 C602 C603 C604 C605 C606 C607	Ceramic 18pF(NPO) 50WV ±10% Ceramic 22pF(NPO) 50WV ±10% Ceramic 0.01 $\mu$ F 50WV +80% / -20% or Ceramic 0.01 $\mu$ F 16WV ±20% (AX) Ceramic 33pF(NPO) 50WV ±10% Mica 47pF(MC) 50WV ±10% Ceramic 220pF(NPO) 50WV ±10% or Ceramic 220pF 50WV ±20% (AX) Ceramic 120pF(NPO) 50WV ±10% or Ceramic 120pF 50WV ±20% (AX)		131-804-5 132-202-6 130-102-9 130-188-8 133-303-9 164-701-9 132-214-7 132-248-8 132-214-7 131-213-1

Ref. No.	Description	RS Part No.	Mfr. Part No.
C608-C609	Ceramic 0.01 $\mu$ F 50W V +80% / -20% or Ceramic 0.01 $\mu$ F 16W V $\pm$ 20%(AX)		130-102-9 130-188-8
C610-C612	Not Used		
C613	Ceramic 27pF(NPO) 50W V $\pm$ 10%		132-702-1
D601	Diode, Varicap MV 2209		242-002-6
<b>Resistors, Metal Film</b>			
R601	820ohm 1/8W $\pm$ 5%		002-821-5
R602	120K ohm 1/8W $\pm$ 5%		002-124-9
R603	220K ohm 1/8W $\pm$ 5%		002-224-6
R604	2.7K ohm 1/8W $\pm$ 5%		002-272-9
R605-R606	10K ohm 1/8W $\pm$ 5%		002-103-0
<b>Transistors</b>			
Q601	KTC1923(Y) / KTC3194(Y) or MPS9426(C)		202-060-7 203-005-2
Q602	KTC1815(GR) / KTC3198(GR) or MPS9631(T)		202-023-3 203-014-0
Q603	KTC1923(Y) / KTC3194(Y) or MPS9426(C)		202-060-7 203-005-2
<b>Assembly, Doubler PRE AMP Module</b>			<b>514-34D-PA</b>
<b>Capacitors</b>			
C701	Ceramic 39pF 50W V $\pm$ 10%		133-901-9
C702	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V $\pm$ 20% (AX)		130-405-3 130-427-3
C703	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V $\pm$ 20% (AX)		130-207-1 130-207-1
C704	Ceramic 100pF(NPO) 50W V $\pm$ 10%		131-015-9
C705	Not Used		
C706	Electrolytic 2.2 $\mu$ F 50W V $\pm$ 20%		102-251-1
C707	Ceramic 0.01 $\mu$ F 50W V +80% / -20% or Ceramic 0.01 $\mu$ F 16W V $\pm$ 20% (AX)		130-102-9 130-188-8
<b>Resistors, Metal Film</b>			
R701	150K ohm 1/8W $\pm$ 5%		002-154-6
R702	390ohm 1/8W $\pm$ 5%		002-391-3
R703-R705	4.7K ohm 1/8W $\pm$ 5%		002-472-3
R706	68ohm 1/8W $\pm$ 5%		002-680-4
<b>Transistors</b>			
Q701-Q702	KTC1923(Y) / KTC3194(Y) or MPS9426(C)		202-060-7 203-005-2

Ref. No.	Description	RS Part No.	Mfr. Part No.
<b>Capacitors</b>			
C402	Mylar 0.01 $\mu$ F 50WV $\pm$ 5%		191-001-4
C403	Mylar 0.001 $\mu$ F 50WV $\pm$ 5%		111-002-1
C404	Mylar 0.015 $\mu$ F 50WV $\pm$ 5%		191-504-2
C405	Electrolytic 47 $\mu$ F 16WV $\pm$ 20%		104-771-4
C406	Electrolytic 0.1 $\mu$ F 50WV $\pm$ 20%		100-102-0
C407	Electrolytic 10 $\mu$ F 16WV $\pm$ 20%		101-042-4
C408	Electrolytic 100 $\mu$ F 16WV $\pm$ 20%		101-022-6
C409	Mylar 0.001 $\mu$ F 50WV $\pm$ 5%		111-002-1
C410	Electrolytic 47 $\mu$ F 16WV $\pm$ 20%		104-771-4
C411	Mylar 0.01 $\mu$ F 50WV $\pm$ 5%		191-001-4
C412	Not Used		
C413	Electrolytic 33 $\mu$ F 16WV $\pm$ 20%		103-313-9
<b>Diodes</b>			
D401-D402	1S2473		243-004-3
D403	Not Used		
D404	OA90 GE		244-003-7
D405	1S2473		243-004-3
<b>Resistors, Metal Film</b>			
R401	1K ohm 1/8W $\pm$ 5%		002-102-9
R402	3.3K ohm 1/8W $\pm$ 5%		002-332-0
R403-R404	1K ohm 1/8W $\pm$ 5%		002-102-9
R405	Not Used		002-824-8
R406	820K ohm 1/8W $\pm$ 5%		
R407	470 ohm 1/8W $\pm$ 5%		002-471-2
R408	33K ohm 1/8W $\pm$ 5%		002-333-1
R409-R410	8.2K ohm 1/8W $\pm$ 5%		002-822-6
R411	470K ohm 1/8W $\pm$ 5%		002-474-5
R412	100K ohm 1/8W $\pm$ 5%		002-104-1
R413	2.2K ohm 1/8W $\pm$ 5%		002-222-4
R414	33K ohm 1/8W $\pm$ 5%		002-333-1
R415	3.9K ohm 1/8W $\pm$ 5%		002-392-4
R416	100K ohm 1/8W $\pm$ 5%		002-104-1
R417	2.7K ohm 1/8W $\pm$ 5%		002-272-9
R418	100 ohm 1/8W $\pm$ 5%		002-101-8
R419	220 ohm 1/8W $\pm$ 5%		002-221-3
R420	5.6 ohm 1/8W $\pm$ 5%		002-569-8
R421	33K ohm 1/8W $\pm$ 5%		002-333-1
R422	5.6K ohm 1/8W $\pm$ 5%		002-562-1
R423	Not Used		
R424	470 ohm 1/8W $\pm$ 5%		002-471-2

Ref. No.	Description	RS Part No.	Mfr. Part No.
R425	10K ohm 1/8W ±5%		002-103-0
R426	8.2K ohm 1/8W ±5%		002-822-6
R427	4.7K ohm 1/8W ±5%		002-472-3
R428	10 ohm 1/8W ±5%		002-100-7
R429	33K ohm 1/8W ±5%		002-333-1
<b>Transistors</b>			
Q401-Q406	KTC1815(GR) / KTC3198(GR) or MPS9631(T)		202-023-3 203-014-0
Q407-Q408	KTA1015(GR) / KTA1266(GR) or MPS9681(T)		202-036-5 203-009-6
<b>Assembly, PCB, Main</b>			<b>514-34M-P</b>
<b>Capacitors</b>			
C504	Ceramic 0.047 $\mu$ F 50W V +80% / -20%		130-405-3
C801	Electrolytic 10 $\mu$ F 16W V ±20%		101-042-4
C802	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V ±20% (AX)		130-405-3 130-427-3
C803	Ceramic 12pF(NPO) 50W V ±10%		131-204-3
C804	Mylar 0.033 $\mu$ F 50W V ±5%		193-304-8
C805	Mylar 0.047 $\mu$ F 50W V ±10%		114-708-1
C806	Ceramic 0.01 $\mu$ F 50W V +80% / -20% or Ceramic 0.01 $\mu$ F 16W V ±20% (AX)		130-102-9 130-188-8
C807	Ceramic 1pF(NPO) 50W V ±10%		131-010-4
C808	Electrolytic 22 $\mu$ F 16W V ±20%		102-250-0
C809	Electrolytic 10 $\mu$ F 16W V ±20%		101-042-4
C810	Mylar 0.001 $\mu$ F 50W V ±5%		111-002-1
C811	Tantalum 4.7 $\mu$ F 16W V ±10%		144-701-3
C812	Electrolytic 33 $\mu$ F 16W V ±20%		103-313-9
C813	Ceramic 330pF(NPO) 50W V ±10% or Ceramic 330pF 50W V ±20% (AX)		133-325-9 133-315-0
C814	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V ±20% (AX)		130-405-3 130-427-3
C815	Mylar 0.068 $\mu$ F 50W V ±10%		166-803-3
C816	Electrolytic 47 $\mu$ F 16W V ±20%		104-771-4
C817	Ceramic 220pF(NPO) 50W V ±10% or Ceramic 220pF 50W V ±20% (AX)		132-214-7 132-248-8
C818	Mylar 0.068 $\mu$ F 50W V ±10%		166-803-3
C819	Ceramic 15pF(NPO) 50W V ±10%		131-502-2
C820	Electrolytic 220 $\mu$ F 16W V ±20%		102-223-6
C821	Electrolytic 1000 $\mu$ F 16W V ±20%		101-047-9
C822	Electrolytic 100 $\mu$ F 16W V ±20%		101-022-6

Ref. No.	Description	RS Part No.	Mfr. Part No.
C823	Ceramic 0.01 $\mu$ F 50W V +80% / -20%		130-102-9
C824	Electrolytic 10 $\mu$ F 16W V $\pm$ 20%		101-042-4
C825-C826	Ceramic 0.001 $\mu$ F 50W V +80% / -20%		130-101-8
C827	Ceramic 0.01 $\mu$ F 50W V +80% / -20% or Ceramic 0.01 $\mu$ F 16W V $\pm$ 20% (AX)		130-102-9 130-188-8
C828	Electrolytic 10 $\mu$ F 16W V $\pm$ 20%		101-042-4
C829	Not Used		
C830	Ceramic 22pF(NPO) 50W V $\pm$ 10%		132-202-6
C831	Ceramic 15pF(NPO) 50W V $\pm$ 10%		131-502-2
C832	Tantalum 1 $\mu$ F 16W V $\pm$ 10%		141-001-9
C833	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V $\pm$ 20% (AX)		130-405-3 130-427-3
C834	Not Used		
C835	Mylar 0.047 $\mu$ F 50W V $\pm$ 10%		114-708-1
C836-C837	Mica 47pF 50W V $\pm$ 10%		164-701-9
C838	Ceramic 0.022 $\mu$ F 50W V +80% / -20% or Ceramic 0.022 $\mu$ F 16W V $\pm$ 20% (AX)		130-207-1 130-227-9
C839	Not Used		
C840	Electrolytic 10 $\mu$ F 16W V $\pm$ 20%		101-042-4
C841	Ceramic 4pF(NPO) 50W V $\pm$ 10%		134-004-4
C842	Ceramic 0.047 $\mu$ F 50W V +80% / -20% or Ceramic 0.047 $\mu$ F 16W V $\pm$ 20% (AX)		130-405-3 130-427-3
C843	Ceramic 100pF(NPO) 50W V $\pm$ 10%		131-015-9
C844	Ceramic 470pF 50W V $\pm$ 10%		134-702-1
C845	Ceramic 82pF(NPO) 50W V $\pm$ 10%		138-204-8
C846	Ceramic 0.022 $\mu$ F 50W V +80% / -20%		130-207-1
C847	Ceramic 220pF(NPO) 50W V $\pm$ 10%		132-214-7
C848	Ceramic 470pF 50W V $\pm$ 10%		134-702-1
C849	Not Used		
C850-C851	Ceramic 100pF(NPO) 50W V $\pm$ 10%		131-015-9
C852	Not Used		
C853	Ceramic 390pF 50W V $\pm$ 10%		133-904-2
C854	Ceramic 150pF(NPO) 50W V $\pm$ 10%		131-510-9
C855	Ceramic 330pF(NPO) 50W V $\pm$ 10%		133-311-0
C856-C857	Ceramic 0.01 $\mu$ F 50W V +80% / -20%		130-102-9
C858	Ceramic 0.01 $\mu$ F 50W V +80% / -20%		130-102-9
C501	Electrolytic 220 $\mu$ F 16W V $\pm$ 20%		102-223-6
CT801	Trimmer 20pF TZ03R200E $\pm$ 10%		172-015-6
X-1	Crystal, 10.240MHz HC-18/U		260-485-5



Ref. No.	Description	RS Part No.	Mfr. Part No.
<b>Coils</b>			
L801	27MHz RX ANT, 7mm Square		320-380-2
L802	27MHz RF AMP(RX), 7mm Square		320-315-4
L803	10.6MHz RF 1'st Mixer(RX), 7mm Can		320-316-5
L804	IFT 455KHz-A, 7mm Can		320-154-5
L805	IFT 455KHz-B, 7mm Can		320-155-6
L806	VCO, 7mm Square		320-317-6
L807-L808	27MHz RF PRE AMP(TX) A, 7mm Can		320-318-7
L809	27MHz RF PRE AMP(TX) B, 7mm Square		320-319-8
L810	Coil Choke 0.25 $\mu$ H Spring Type(7D $\times$ 1D $\times$ 5.5t)		310-047-9
L811	TX ANT 27MHz-B, Bobbin		320-033-9
L812	Coil Choke 0.22 $\mu$ H Spring Type(5.2D $\times$ 0.7D $\times$ 7t)		310-347-0
L813	Coil Choke 0.32 $\mu$ H Spring Type(5D $\times$ 1D $\times$ 9.5t)		320-032-8
RFC801	Inductor 6.8 $\mu$ H Resistor Type		310-291-2
RFC802	RF Choke 0.8 $\mu$ H Spring Type		310-072-1
RFC803	Not Used		
RFC804	Choke 1 $\mu$ H Bobbin Type		310-025-9
RFC805	Inductor 6.8 $\mu$ H Resistor Type		310-291-2
RFC806	RF Choke 0.5 $\mu$ H Spring Type		310-065-5
RFC807	RF Choke 20 $\mu$ H Core Type		310-034-7
<b>Diode</b>			
D802-D803	OA90 GE		244-003-7
D804	IN4002		245-004-3
D805-D806	1S2473		243-004-3
D807	IN4002		245-004-3
D808	Not Used		
D809	IS2473		243-004-3
<b>Filters</b>			
CF-1	Ceramic 10.7MJ		270-010-2
CF-2	Ceramic CFW 455HT or Ceramic CFU 455HT		270-007-0 270-006-9
<b>Integrated Circuits</b>			
IC801	LC7132, PLL		224-021-7
IC802	KIA7217AP, AUDIO		222-006-4
J-1	Jack, 3.5Dia. EXT		420-705-1
<b>Resistors, Metal Film</b>			
R804	470ohm 1/8W $\pm$ 5%		002-471-2
R805	27K ohm 1/8W $\pm$ 5%		002-273-0

Ref. No.	Description	RS Part No.	Mfr. Part No.
R806	Not Used		
R807	47ohm 1/8W ±5%		002-470-1
R808	330K ohm 1/8W ±5%		002-334-2
R809	10K ohm 1/8W ±5%		002-103-0
R810	1K ohm 1/8W ±5%		002-102-9
R811	220ohm 1/8W ±5%		002-221-3
R812	10K ohm 1/8W ±5%		002-103-0
R813	5.6K ohm 1/8W ±5%		002-562-1
R814	Not Used		
R815	1.8K ohm 1/8W ±5%		002-182-1
R816	68ohm 1/8W ±5%		002-680-4
R817	Not Used		
R818	47ohm 1/8W ±5%		002-470-1
R819-R820	Not Used		
R821	Metaloxide 15ohm 2W ±5%		019-150-0
R822	330ohm 1/8W ±5%		002-331-9
R823	10K ohm 1/8W ±5%		002-103-0
R824	Not Used		
R825	33K ohm 1/8W ±5%		002-333-1
R826	22ohm 1/8W ±5%		002-220-2
R827	2.2K ohm 1/8W ±5%		002-222-4
R828	82K ohm 1/8W ±5%		002-823-7
R829	Not Used		
R830	22K ohm 1/8W ±5%		002-223-5
R831-R835	Not Used		
R836	47ohm 1/8W ±5%		002-470-1
R837	100ohm 1/8W ±5%		002-101-8
R838	1K ohm 1/8W ±5%		002-102-9
R839	Not Used		
R840	100ohm 1/8W ±5%		002-101-8
R841	2.2ohm 1/8W ±5%		002-229-1
R842	Metaloxide 4.7K ohm 1/2W ±5%		030-472-2
R843	560ohm 1/8W ±5%		002-561-0
R844-R855	1K ohm 1/8W ±5%		002-102-9
R501	22ohm 1/8W ±5%		002-220-2
<b>Variable Resistors, Semifixed</b>			
RV801	20KB ohm 8Dia ±25%, H-Type		061-203-1
RV802	10KB ohm 8Dia ±25%, H-Type		061-103-1
RV803	20KB ohm 8Dia ±25%, H-Type		061-203-1
RV804	5KB ohm 8Dia ±25%, H-Type		061-502-1

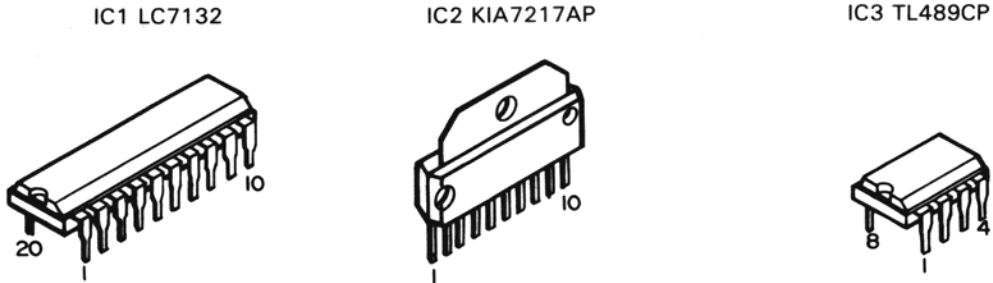
Ref. No.	Description	RS Part No.	Mfr. Part No.
<b>Transformers</b>			
T1 CH-1	Output EI-24 Choke, 520 $\mu$ H		300-159-4 300-116-5
<b>Transistors</b>			
Q801  Q802	2SC2314(E) or KTC1006  2SC 2078(D) or KTC2075		204-016-7 202-124-1 204-009-1 202-057-5
<b>Assembly, PCB, LED Display</b>			<b>514-34D-PA</b>
LED1 LED2-LED5	LED Display UL-R231-P13 LED Lamp SLB26UR3HL Red		252-010-6A 251-016-7A
<b>Miscellaneous</b>			
SW 1 SW 2 SW 3 J-2 A-1 A-2 A-3 A-4 A-5 A-6 A-7 A-8 A-9 A-10 A-11 A-12 A-13	Rotary SW, GPS-0712 15mm Shaft VR 50KA W/NUT, Washer $\pm$ 20%, Volume VR 10KA W/NUT, Washer $\pm$ 20%, Squelch Connector, ANT ZNW Holder, ANT Mounting Socket 5Pin TCS 2250 01 1011 Mica For TR Q802 Bushing For TR Q802 Power Cord, W/Fuse 250V 2A Cord Stopper Wire Clamp (Cord) Heatsink, Small, ALP 30 $\times$ 18 $\times$ t2, IC802 Heatsink, ALP t2, TR802 Heatsink, Large IC, ALP 92 $\times$ 25 $\times$ t2, IC802 Shield Housing, VCO, Spte t0.3 Shield Plate, VCO, Spte t0.3 Insulation Plate, VCO, Fiber t0.3 Stic		430-069-6 450-607-8 450-411-7 421-046-7 731-791 421-529-7 440-004-0 441-004-5 504-055 750-039 870-036 760-704 760-741 760-870 771-525 771-530 905-685
<b>Assembly, Escutcheon</b>			<b>592-352</b>
B-1 B-2	Escutcheon ABS 94HB Lucky 380-S82276 Lens Acryl 27 $\times$ 18 $\times$ 4 Red		801-267 812-730
<b>Assembly, Cover, Upper</b>			<b>592-353</b>
C-1 C-2 C-3 C-4 C-5	Cover, Upper Secc+PVC T=0.8 BLK Cushion 25 $\times$ 25 $\times$ t5 Rubb. SPO. BLK Insulation Plate 30 $\times$ 30 $\times$ t0.3 Vinyl Felt, Sticker. 6 $\times$ 110 $\times$ t0.3 BLK Insulation Plate 105 $\times$ 146 $\times$ t0.8 Fiber		718-160 891-590 900-054 901-031 901-721

Ref. No.	Description	RS Part No.	Mfr. Part No.
C-6	Felt, Sticker. 10×110×t1 BLK		901-767
<b>Assembly, Cover, Bottom</b>			<b>592-354</b>
D-1	Cover Bottom Secc+PVC T=0.8 BLK		718-159
D-2	Felt, Sticker 10×110×t1 BLK		901-767
D-3	Felt, Sticker 20×90×t0.3 BLK		902-320
D-4	Felt, Sticker 6×72×t0.3 BLK		903-370
<b>Assembly, Main Body</b>			<b>592-355</b>
E-1	Main Body SPC 325×42×t1		700-930
E-2	Name Plate ALP3 40×27×t0.4		795-487
E-3	Rivet Blind ALB ϕ 3.2		670-025
<b>Parts, Individual</b>			<b>592-356</b>
F-1	Knob, Control, ABS 94HB Lucky 380-S82276 BLK		825-967
F-2	Knob, Channel, ABS 94HB Lucky 380-S82276 BLK		825-968
F-3	Cap, Speaker, Nylon 0.2G/PC		830-043
SP1	Speaker 8 ohm 2W		420-134-8
<b>Assembly, Microphone</b>			<b>592-357</b>
G-1	Mic Cartridge, FDM-600M		420-233-5
G-2	Cord, Curled		420-349-6
G-3	Plug, 5Pin		421-025-8
G-4	Push Switch		432-034-1
G-5	Screw, (+) Tapping (F.H) 3×6–2S BLK		623-682
G-6	Screw, (+) Tapping (O.H) 3×16–2S Ni-Plat		623-830
G-7	Cover, Bottom, MIC BLK		716-630
G-8	Cover, Upper, MIC BLK		716-640-A
G-9	Holder, MIC		731-940
G-10	Lever, MIC		740-483-A
G-11	Name Plate, MIC		794-481
G-12	Back Plate, MIC		794-882
G-13	Cushion		890-050
G-14	Bushing		893-190
<b>Installation Kit</b>			<b>592-358</b>
H-1	Screw, (+) Tapping (RH) 3×8–2S ZNY		623-496
H-2	Screw, (+) Tapping (TH) 5×12–1S ZNY		625-007
H-3	Washer, Rubber 7×ϕ25×t1.5 BLK		660-138
H-4	Washer, Lock "A" Type, M3 ZNY		664-305
H-5	Washer, Lock "B" Type, M5 ZNY		664-518
H-6	Bracket, MIC, SKD-5 Cr-Plat		720-095

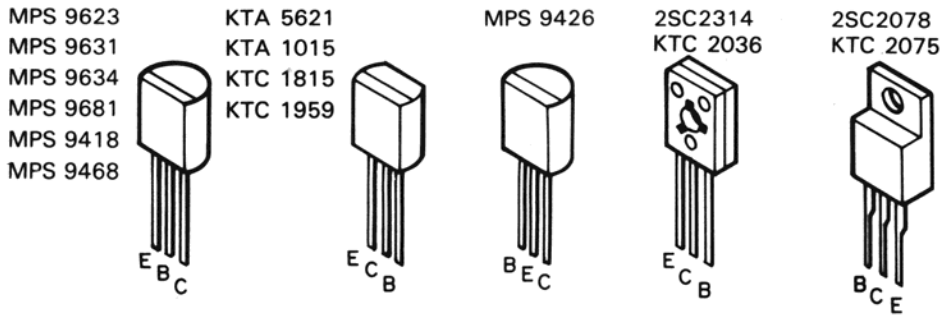
Ref. No.	Description	RS Part No.	Mfr. Part No.
H-7	Bracket, SET, SPC 227×30×t1.5 ZNY		722-080
H-8	Screw, Securing M6×12(P: 1) BLK		660-060
<b>Hardware Kit</b>			<b>592-359</b>
<b>Internal Hardware</b>			
I-1	Screw, (+) Machine (B.H) 3×10 ZNY		613-332
I-2	Screw, (+) Tapping (F.H) 3×6-2S ZNY		623-168
I-3	Screw, (+) Tapping (B.H) 3×6-2S ZNY		623-265
I-4	Screw, (+) Tapping (B.H) 2.6×8 Ni-Plat		610-080
I-5	Screw, (+) Machine (F.H) 2.6×5 ZNY		611-095
I-6	Nut SS41 M3-1S ZNY		651-024
I-7	Washer, Flat 3.2×8		660-457
I-8	Washer, Spring, M3 ZNY		662-305
<b>External Hardware</b>			
I-9	Screw, (+) Tap Tite (BH) 3×6 BLK		633-082
I-10	Screw, (+) Tapping (FH) 3×6 2S BLK		623-682

# SEMICONDUCTOR LEAD IDENTIFICATION AND IC INTERNAL DIAGRAM

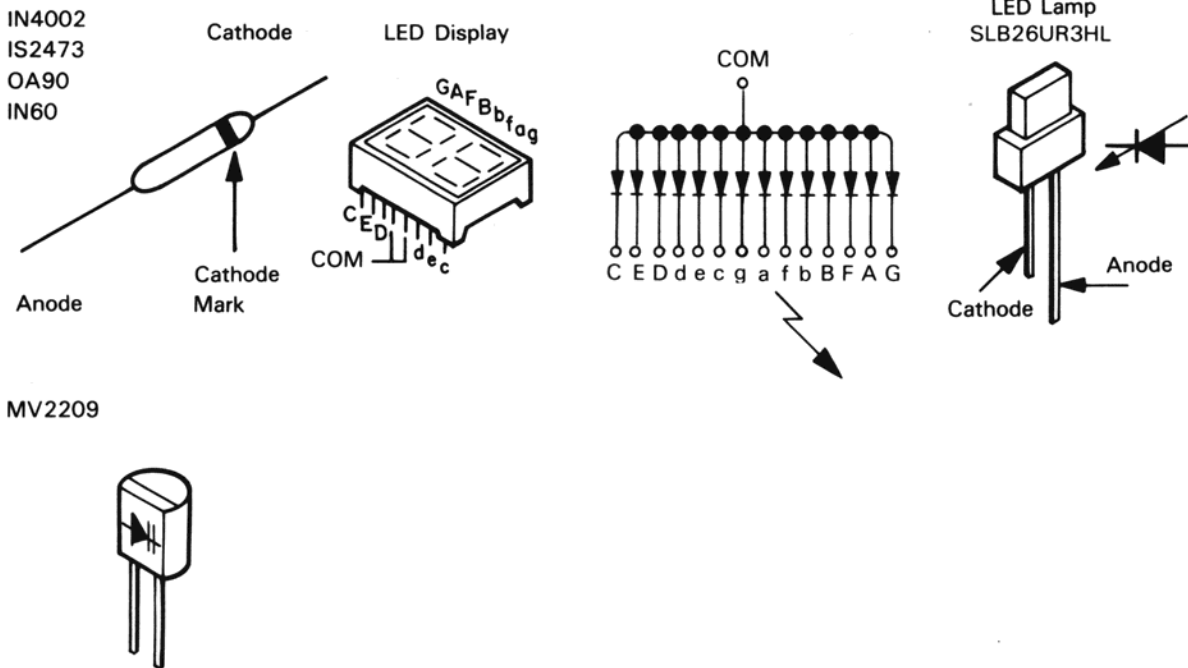
## 1. Integrated Circuits



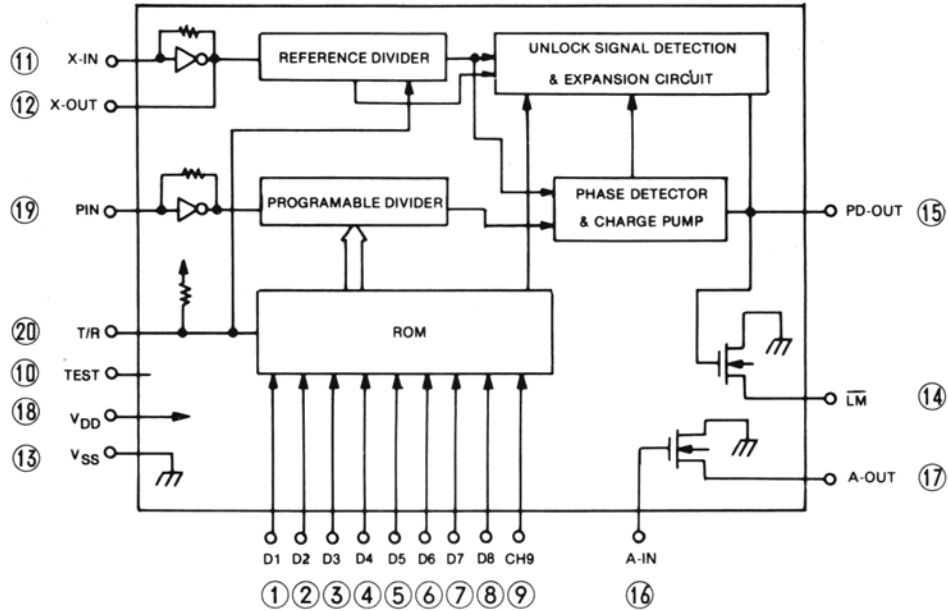
## 2. Transistors



## 3. Diodes

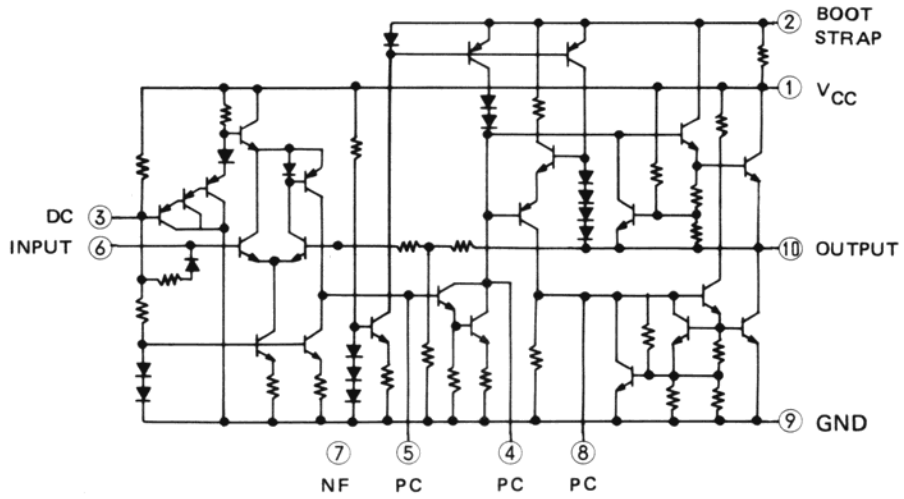


### IC1 LC7132



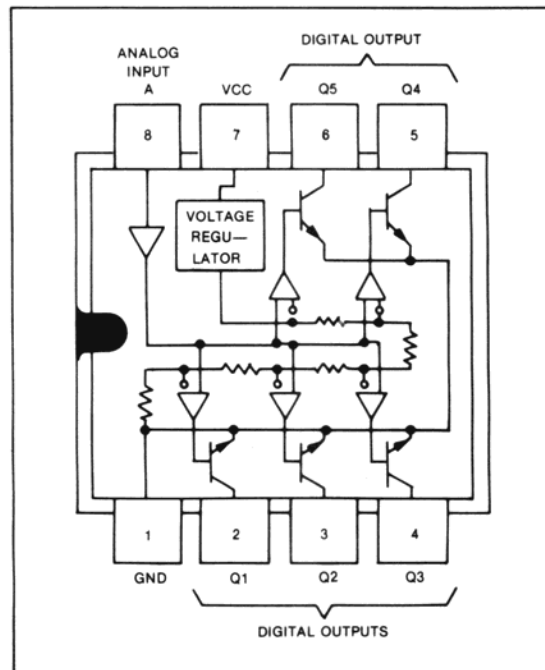
- D1 to D8 : Program input (7 segment code)
- XIN, XOUT : Amplifier for crystal oscillator
- VDD, VSS : Power Supply
- LM : Lock monitor output, Lock = open or 1, Unlock = "0"
- PDOUT : Charge pump output
- AIN, AOUT : Amplifier for low-pass filter
- PIN : Programmable
- T/R : Transmission/Reception change over input  
 $\bar{T}/R = "0"$  – Transmission,  $\bar{T}/R = "1"$ –reception
- CH9 : Channel 9 select input
- TEST : LSI test pin (Connected to VSS or open)

IC2 KIA7217AP



DC: Decoupling  
 PC: Phase compensation  
 NF: Negative feedback

IC3 TL489CP





# SEMICONDUCTOR VOLTAGE CHART

RX: No Carrier  
TX: No Signal  
TEST CH: 19CH

## 1. Transistors

Pin TR'S	Emitter		Base		Collector	
	Receive	Transmit	Receive	Transmit	Receive	Transmit
Q102	1.25	0.01	1.98	0.44	5.50	0.83
Q103	1.17	0	1.89	0.44	10.80	12.13
Q201	0.24	0	0.85	0.10	5.07	0.86
Q202	1.32	0	2.04	0.44	3.00	0.84
Q203	0.48	0	1.20	0.18	13.26	12.38
Q204	0.54	0.10	0.13	0.07	0.54	0
Q401	0	0	0.01	0.01	0.05	0.05
Q402	0.08	0.61	0	1.17	0	1.62
Q403	0.04	0	0.55	0.14	0.05	0.05
Q404	0	0	0	0	0.04	0
Q405	0.02	0.01	0.17	0.08	1.02	1.00
Q406	0.36	0.34	1.02	1.00	0.41	0.40
Q407	0.59	4.17	1.20	4.76	0	0
Q408	13.66	13.07	13.65	12.34	0.59	13.04
Q501	8.39	8.37	9.08	9.06	12.94	12.50
Q502	8.40	8.38	8.39	7.67	0	8.34
Q503	7.61	0.84	8.30	0.66	8.40	8.38
Q601	0	0.84	0.74	0.74	3.30	3.28
Q602	0	0	0	0.68	0	0
Q603	4.57	4.57	5.24	5.24	8.04	8.03
Q701	0	1.67	0	2.36	0	7.76
Q702	0	1.24	0	2.06	13.34	12.86
Q801	0	0	0	-0.04	13.42	11.50
Q802	0	0	0	-0.04	13.41	11.34

## 2. ICs

ICs	Pin No.	Voltage		ICs	Pin No.	Voltage	
		RX	TX			RX	TX
IC801	1	0	0	IC802	20	5.85	0.85
	2	0	0		1	13.70	13.28
	3	0	0		2	12.47	12.05
	4	12.17	11.75		3	3.94	3.84
	5	0	0		4	8.12	7.92
	6	0	0		5	1.47	1.47
	7	13.20	12.77		6	3.40	3.30
	8	12.14	11.72		7	3.41	3.31
	9	0	0		8	1.24	1.23
	10	0.01	0.01		9	0	0
	11	4.08	4.08	10	6.87	6.67	
	12	4.09	4.08	IC803	1	0	0
	13	0	0		2	12.35	0.05
	14	1.82	4.64		3	12.34	0.05
	15	1.44	1.54		4	12.35	0.05
	16	1.44	1.54		5	12.34	0.05
	17	4.67	3.50		6	0	0.06
	18	8.18	8.17		7	12.60	11.10
	19	4.16	4.16		8	0	0.81