

MAINTENANCE MANUAL

SPEAKER/MICROPHONE

KRY 101 1617

EARPHONE

RLD 541 07

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DESCRIPTION

The following speaker/microphones and earphone are covered in this manual:

KRY 101 1617/1	M-RK/Prism, coiled cord, GE logo
KRY 101 1617/2	M-RK/Prism, straight cord, antenna connector, GE logo
KRY 101 1617/3	M-RK/Prism, coiled cord, Ericsson logo
KRY 101 1617/4	M-RK/Prism, straight cord, antenna connector, Ericsson logo
KRY 101 1617/11	M-PA, coiled cord, GE logo
KRY 101 1617/12	M-PA, straight cord, antenna connector, GE logo
KRY 101 1617/13	M-PA, coiled cord, Ericsson logo
KRY 101 1617/14	M-PA, straight cord, antenna connector, Ericsson logo
KRY 101 1617/21	PCS, coiled cord, GE logo
KRY 101 1617/23	PCS, coiled cord, Ericsson logo
KRY 101 1617/31	KPC, coiled cord, GE logo
KRY 101 1617/33	KPC, coiled cord, Ericsson logo

RLD 541 07/11	Earphone complete
RLD 541 07/2	Eartip, earphone adapter, earloop and cable
RLD 541 07/4	Cable only

The speaker/microphones have a push-to-talk switch which can be activated from any position. A HI/LO switch located on the front permits the user to select a high or low volume level. A miniature earphone jack located on the bottom of the case permits the use of an external earphone.

The Universal Device Connector (UDC) on the end of the speaker/microphone cable provides the connections to the radio unit UDC.

The speaker/microphones equipped with an antenna connector permits an antenna to be connected and used in place of or in addition to the radio unit antenna.

The following specifications apply:

SPEAKER

Impedance	16 ohms
Power Output	0.5 watts
Audio Response	300 to 3000 Hz

MICROPHONE

Impedance	2K ohms
Frequency Response	100 to 8000 Hz
Sensitivity	-35 dBv (94 dB sp<)
Supply Voltage	3 Vdc

EARPHONE

Impedance	2K ohms
Frequency Response	300 to 3000 Hz

ENVIRONMENTAL

Operating	-30°C to +60°C
Storage	-40°C to +85°C

MAINTENANCE

The following procedures should be followed when replacing or repairing any of the major replaceable components such as the back cover, cord, front cover, etc. It is recommended that only major assemblies as identified on the drawings be replaced in order to maintain the dust and waterproof integrity.

BACK COVER, ALL VERSIONS

1. Ensure O-rings are seated against screw heads before installing.
2. Ensure main (large) O-ring is seated in groove in cover before installing.
3. Ensure cover is oriented properly (recess for label on top) before installing.
4. Tighten four (4) screws by hand just until cover is seated. Then tighten each screw in turn to ensure even compression of O-ring.

CAUTION

Over tightening will result in a stripped housing and/or broken fastener, either of which will compromise seal.

FRONT COVER, ALL VERSIONS

1. Remove back cover by removing four (4) screws securing housing.
2. Unsolder all printed circuit board (PCB) connections and remove PCB as indicated in paragraph "PCB".
3. Remove and re-install cable assembly as indicated in the paragraph "Cable Assembly".
4. Install PCB as indicated in paragraph "PCB" and resolder all connections.
5. Re-install back cover as indicated previously.

CABLE ASSEMBLY, ALL VERSIONS

Microphone End

1. Remove back cover by removing four (4) screws and rubber washers securing back cover housing.
2. Unsolder the three (3) terminals of the earphone jack from the printed circuit board (PCB).
3. Unsolder the ground wire from PCB near the cable entrance.
4. Remove the two screws securing the PCB to the front housing.
5. Carefully lift PCB until cable assembly wires, speaker leads and microphone leads can be identified before unsoldering from PCB.
6. Remove the metal U-shaped retaining clip (Item 230) before pulling the cable outward from the entrance hole.
7. Replace the cable by pushing the cable into the entrance hole. The cable assembly overmolded strain relief has a hex antirotation feature which must be correctly aligned with the corresponding feature in the entrance hole.
8. Secure the cable with the U-shaped retaining clip.
9. Resolder cable wires (except ground wire), speaker leads and microphone leads to PCB.

10. Re-install PCB carefully and observing that the shaft of the HI/LO switch does not damage the knob on the front of the microphone. Secure PCB with two (2) screws.
11. Re-solder earphone jack terminals and ground wire to PCB.
12. Re-install back cover with screws and washers removed in Step 1.

UDC End (All Except M-RK)

NOTE

The M-RK UDC connector is overmolded and cannot be disassembled.

1. Remove the two screws from the pin plate.
2. Remove the thumbscrew.
3. Carefully pry up the pin plate until it is clear of the cover. The cable should also be removed from the entrance hole at this time.
4. Unsolder cable connections and replace with new cable or connector.
5. Insert cable strain relief into the entrance hole and observe that the retaining clip (part of the overmolded cable connector) will be inserted into the pin plate.
6. Re-assemble and use the two screws removed in Step 1 to secure the pin plate to the UDC connector.

PCB, ALL VERSIONS

1. Remove back cover by removing four (4) screws and rubber washers securing back cover housing.
2. Unsolder the three (3) terminals of the earphone jack from the printed circuit board (PCB).
3. Unsolder the ground wire from PCB near the cable entrance.
4. Remove the two screws securing the PCB to the front housing.
5. Carefully lift PCB until cable assembly wires, speaker leads and microphone leads can be identified before unsoldering from PCB.

6. Resolder cable wires (except ground wire), speaker leads and microphone leads to PCB.
7. Re-install PCB carefully and observing that the shaft of the HI/LO switch does not damage the knob on the front of the microphone. Secure PCB with two (2) screws.
8. Re-solder earphone jack terminals and ground wire to PCB.
9. Re-install back cover with screws and washers removed in Step 1.

EMERGENCY DOME SWITCH, ALL VERSIONS

1. Remove back cover by removing four (4) screws securing housing.
2. Unsolder switch leads and remove solder from PCB holes.
3. Drop dome switch into slot and then press white shim behind dome switch.
4. Bend switch terminals back and onto the PCB. Solder terminals to PCB.
5. Re-install back cover using the four (4) screws previously removed in Step 1.

PTT DOME SWITCH, ALL VERSIONS

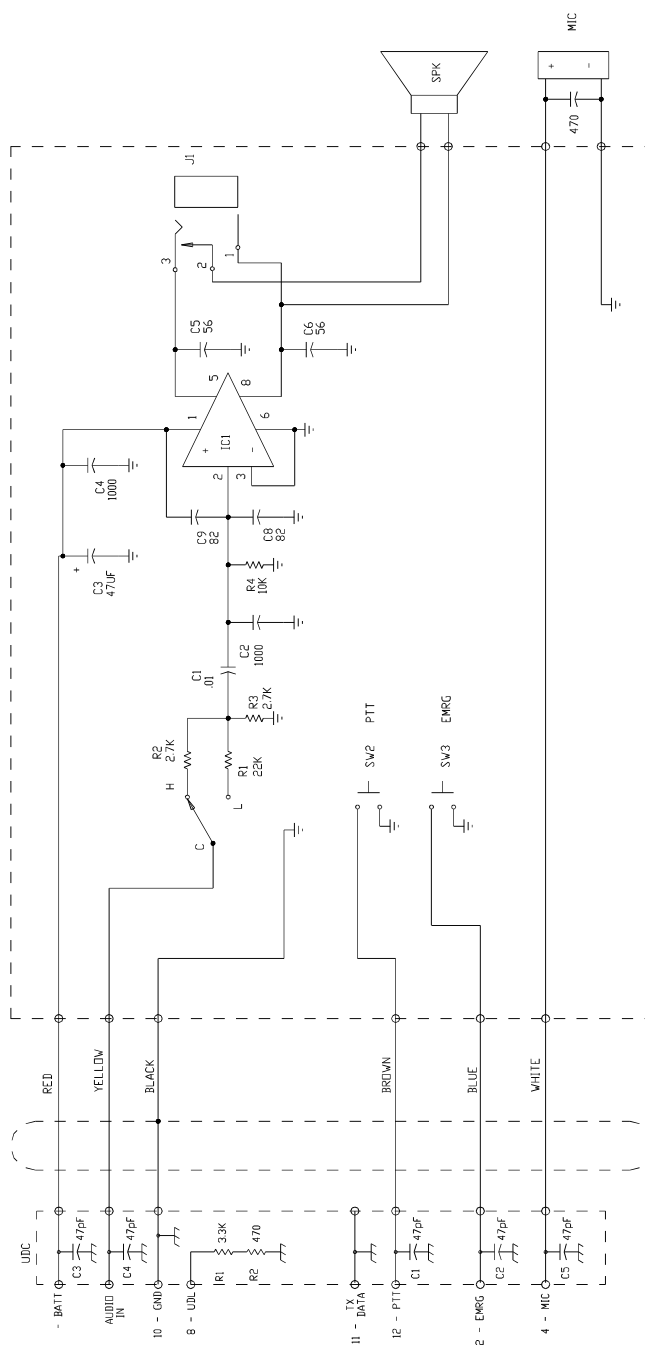
1. Remove back cover by removing four (4) screws securing housing.
2. Unsolder switch leads and remove solder from PCB holes.
3. Drop dome switch into slot and then press gray shim behind dome switch.
4. Bend switch terminals back and onto the PCB. Solder terminals to PCB.
5. Re-install back cover using the four (4) screws previously removed in Step 1.

PTT BUTTON, ALL VERSIONS

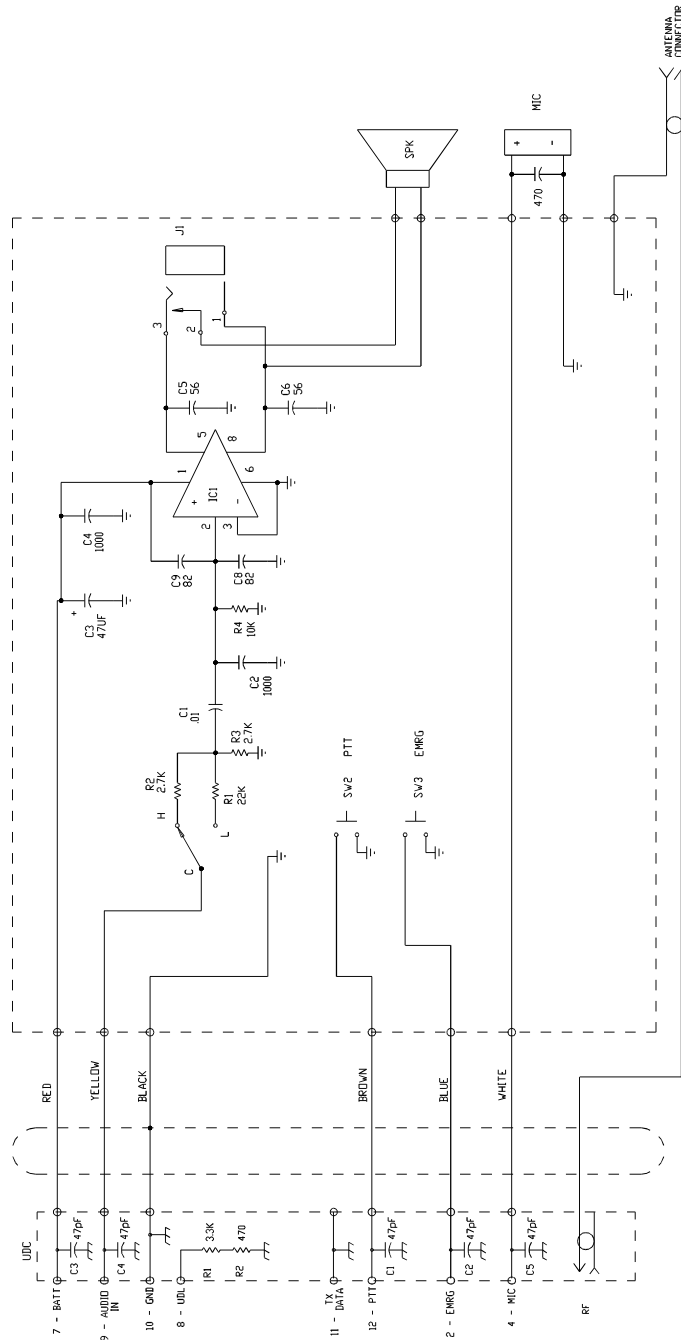
1. Remove back cover by removing four (4) screws and rubber washers securing back cover housing.
2. Unsolder the three (3) terminals of the earphone jack from the printed circuit board (PCB).
3. Unsolder the ground wire from PCB near the cable entrance.
4. Remove the two screws securing the PCB to the front housing.
5. Carefully lift PCB until cable assembly wires, speaker leads and microphone leads can be identified.
6. Carefully remove backer plate (Item 300) and PTT retainer (Item 415).
7. Push in on rubber PTT button (Item 410) and remove from inside of microphone cover.
8. Replace PTT button observing that notch in rubber faces toward the front of the microphone.
9. Replace backer plate and PTT retainer observing the notch in the PTT retainer faces toward the front of the microphone.
10. Replace the PCB and re-install the two screws removed in Step 4.
11. Resolder the ground wire and the three (3) terminals of the earphone jack to the PCB.
12. Re-install back cover with screws and washers removed in Step 1.

THUMBSCREW, ALL VERSIONS

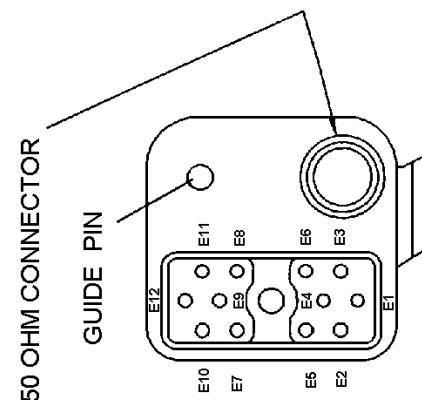
Thread the new thumbscrew into the cable UDC connector.

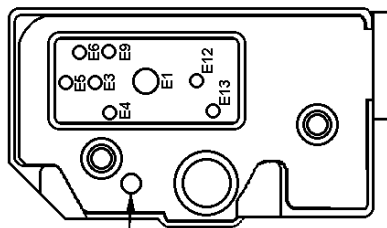
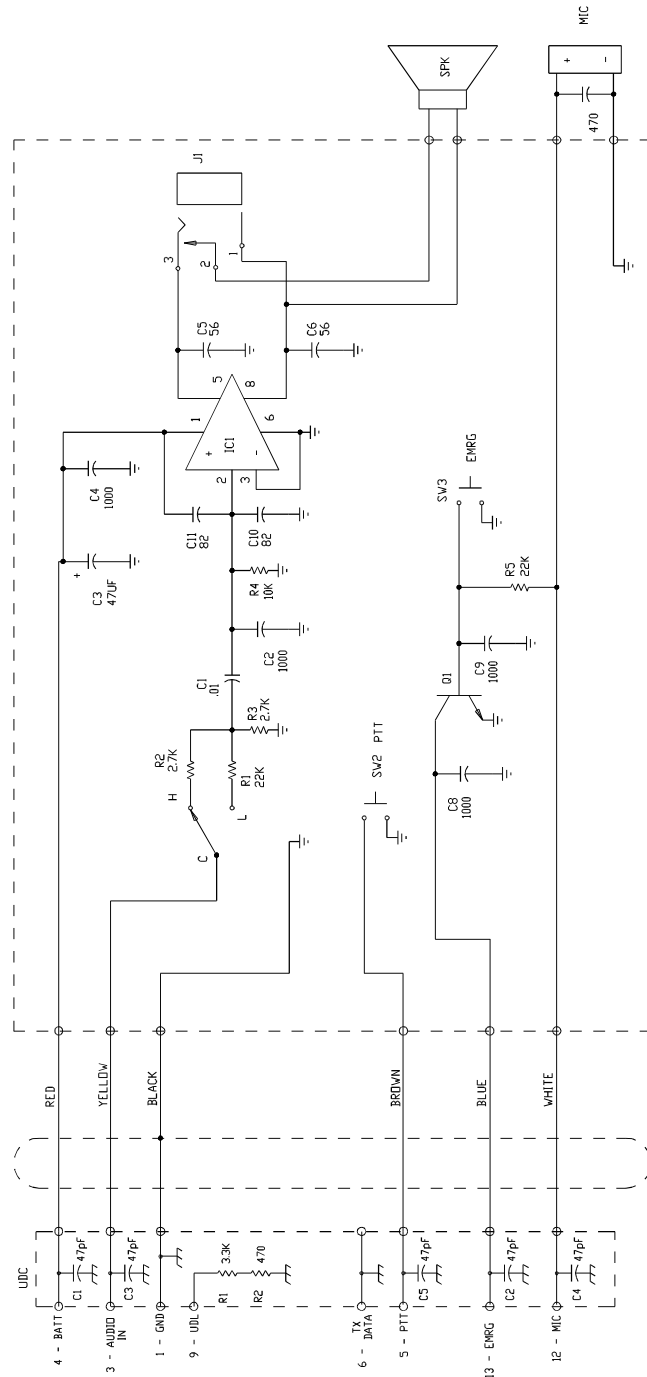


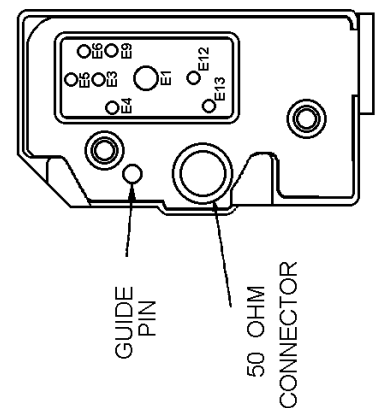
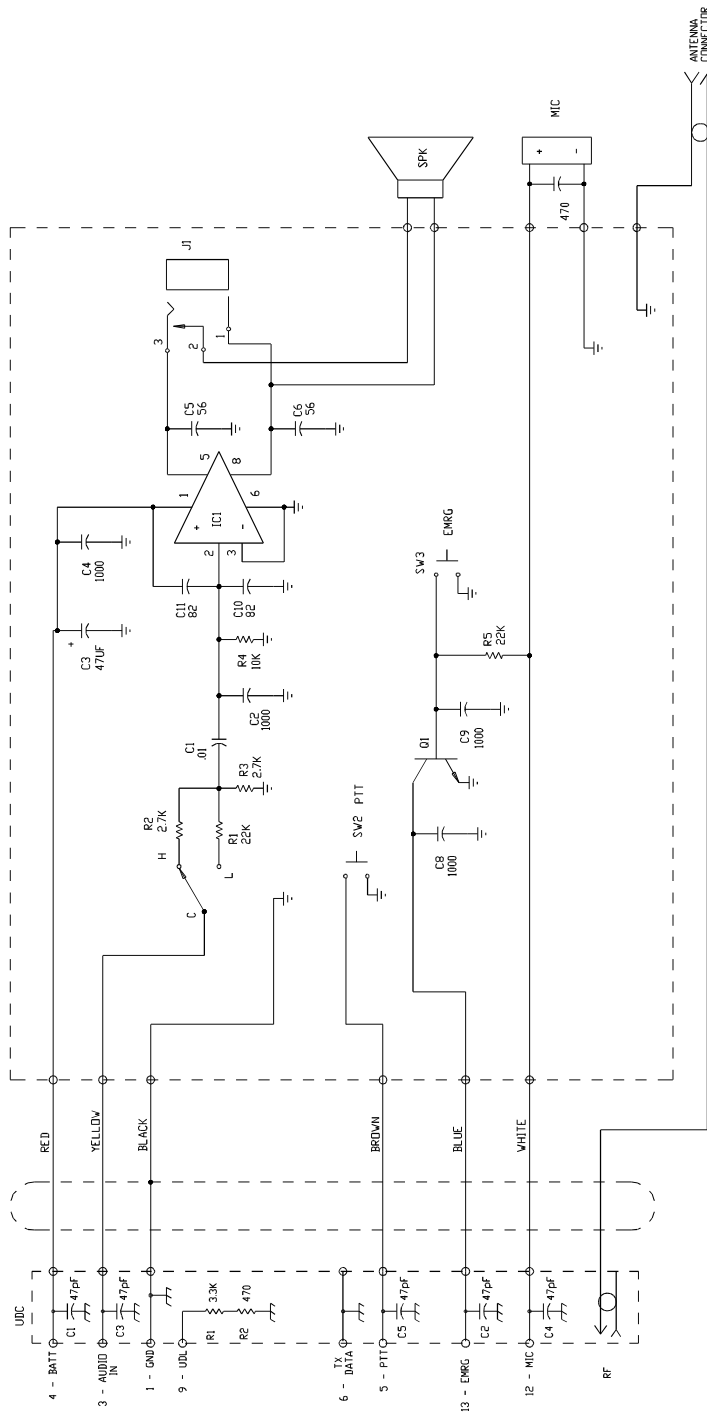
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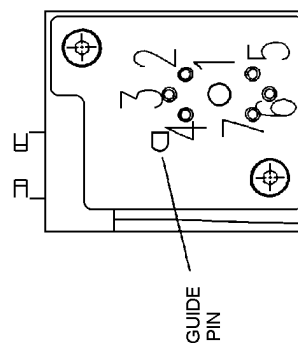
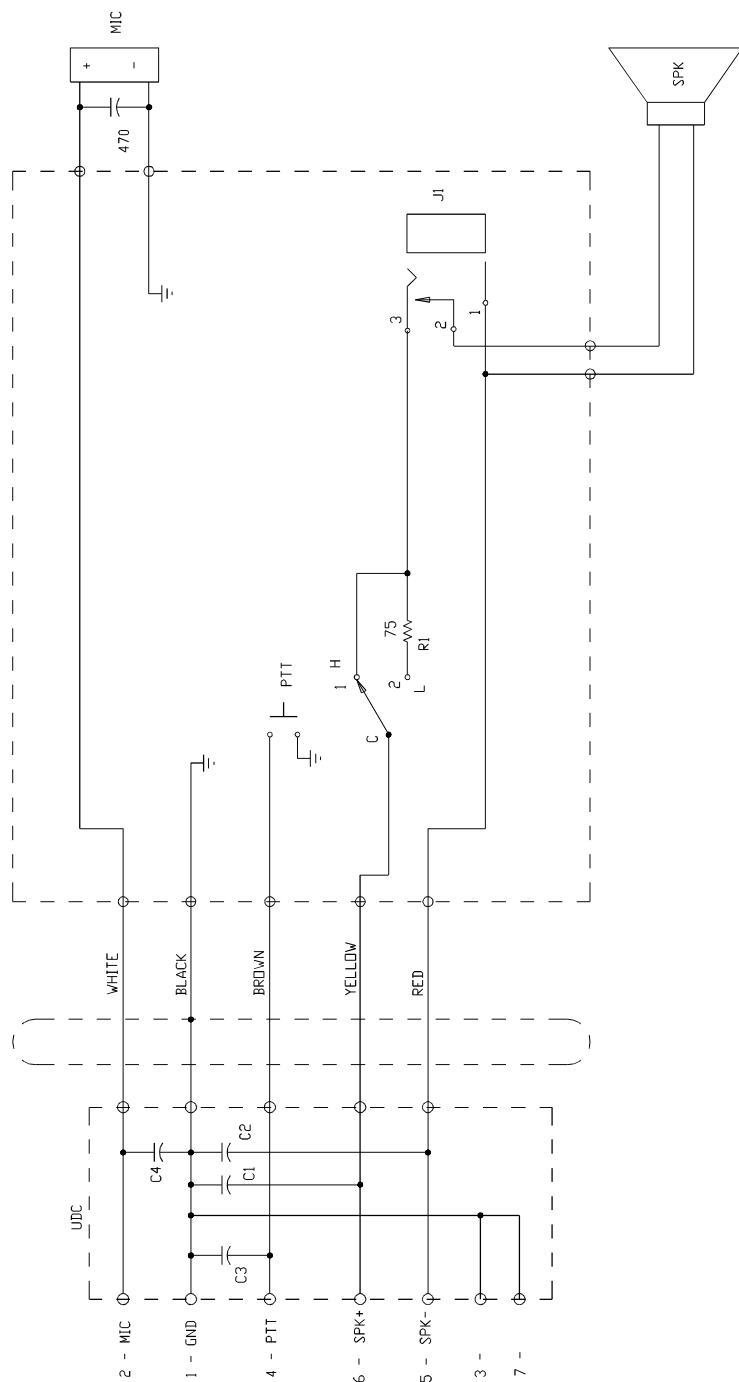
**M-RK/PRISM SPEAKER/MIC/ANTENNA
KRY 101 1617/2 & /4**



GUIDE
PIN**M-PA SPEAKER/MIC
KRY 101 1617/11 & /13**



M-PA SPEAKER/MIC/ANTENNA
KRY 101 1617/12 & /14



KPC SPEAKER/MIC
KRY 101 1617/31 & /33

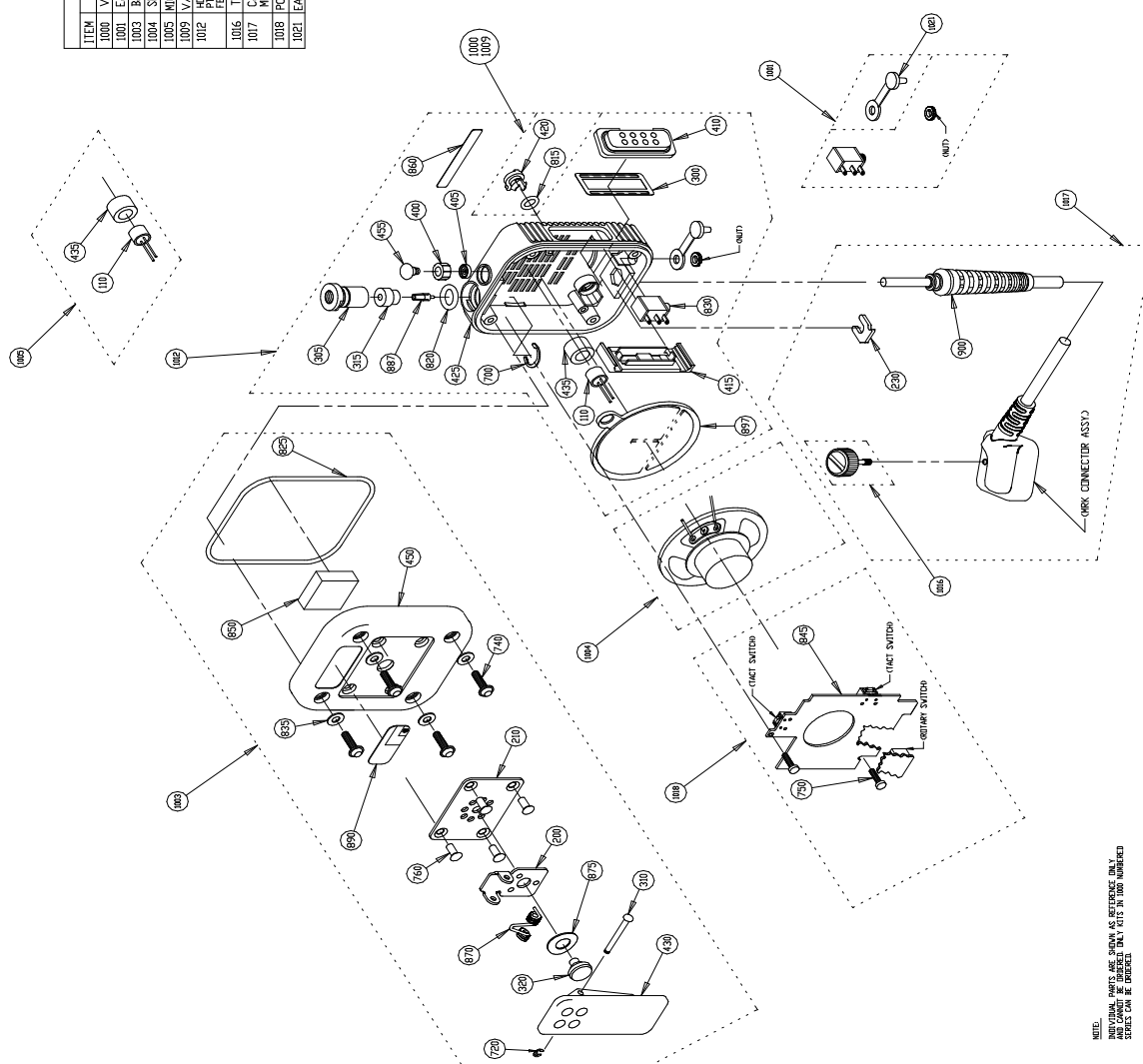
QTY	ITEM	PART NAME	DESCRIPTIONS	QTY
1	110	MICROPHONE PIN ASSY		1
1	200	SWIVEL CLIP		1
1	210	SWIVEL PLATE		1
1	230	TABLE CLAMP		1
1	300	BRACKET PLATE		1
1	310	3/16" PIN		1
1	320	CLIP RIVET		1
1	400	RETAINER		1
1	405	ROD		1
1	410	ROD PIN		1
1	415	RETAINER, PIT		1
1	420	KNIB, VOLUME		1
1	425	HOUSING, FRONT		1
1	430	CLIP		1
1	435	MIC. HOLDER		1
1	450	HOUSING, REAR		1
1	455	EMERGENCY BUTTON		1
1	720	SNAP RING		1
1	740	SCREW		1
1	750	SCREW		1
1	760	RIVET		1
1	815	2" RING, VOL. CONT.		1
1	825	2" RING, COVER		1
1	830	EMERGENCY JACK		1
1	835	SCREW GASKET COVERS		1
1	845	PC BOARD ASSY.		1
1	850	SPACER FRAME		1
1	860	LABEL		1
1	870	TURSDIN SPRING		1
1	875	CURVED WASHER SPG		1
1	890	J.D. LABEL		1
1	897	2" COVER, FELT		1



(LOV210008, Rev. 0)

ITEM	REPLACEMENT KITS	P/N	DESCRIPTIONS	QTY
1000	V/C KNOB WITH "SPRING"	C100747	USE V/ 80010103105 PCB'S	1
1001	EAPPHONE JACK COVER & NUT	C100748		1
1003	BACK COVER/SPEAKER PAD	C100749		1
1004	SPEAKER ASSY.	C100750		1
1005	MIC/MIC. HOLDER	C100751		1
1009	V/C KNOB WITH "SPRING"	C100754	USE V/ 80014 & 80016 PCB'S	1
1012	PRISM ANTENNA/CON. ASSY. (SEE NOTE 1)	C100755		1
1016	THUMBSCREW/THUMBSCREW "D" RING ASSY.	C100649		1
1017	CABLE ASSY. RETAINER W/THUMBSCREW.	V3-10023		1
1018	PCB W/HARDWARE	C100753		1
1021	EAPPHONE JACK COVER	E-00401-10	QTY 10 PER BAG	1

ITEM	PART NAME	DESCRIPTIONS	QTY
110	MICROPHONE PIN ASSY		1
200	SWIVEL CLIP		1
210	SWIVEL PLATE		1
220	CABLE CLAMP		1
300	BACKER PLATE		1
305	ANTENNA CONN.		1
310	PIVOT PIN		1
315	ANTENNA INS.		1
320	CLIP RIVET		1
400	RETAINER		1
405	BOOT		1
410	BUTTON, PTT		1
415	RETAINER, PTT		1
420	KNOB, VOLUME		1
425	HOLDING FRONT		1
430	CLIP		1
435	MIC HOLDER		1
450	HOLDING REAR		1
455	EMERGENCY BUTTON		1
700	SNAP RING		1
720	SNAP RING		1
740	SCREW		4
750	SCREW		2
760	RIVET		4
820	"D" RING, ANTENNA		1
815	"D" RING, VOL. CONT.		1
825	"D" RING, COVER		1
830	EAPPHONE JACK		1
835	SCREW GASKET COVERS		4
845	PC BOARD ASSY.		1
850	SPACER, FDM		1
860	LABEL		1
870	TURSTON SPRING		1
875	CURVED WASHER, SPG		1
880	ANT. CONTACT		1
890	1/2" LABEL		1
897	TRUST COVER, FELT		1
900	CURD ASSEMBLY		1



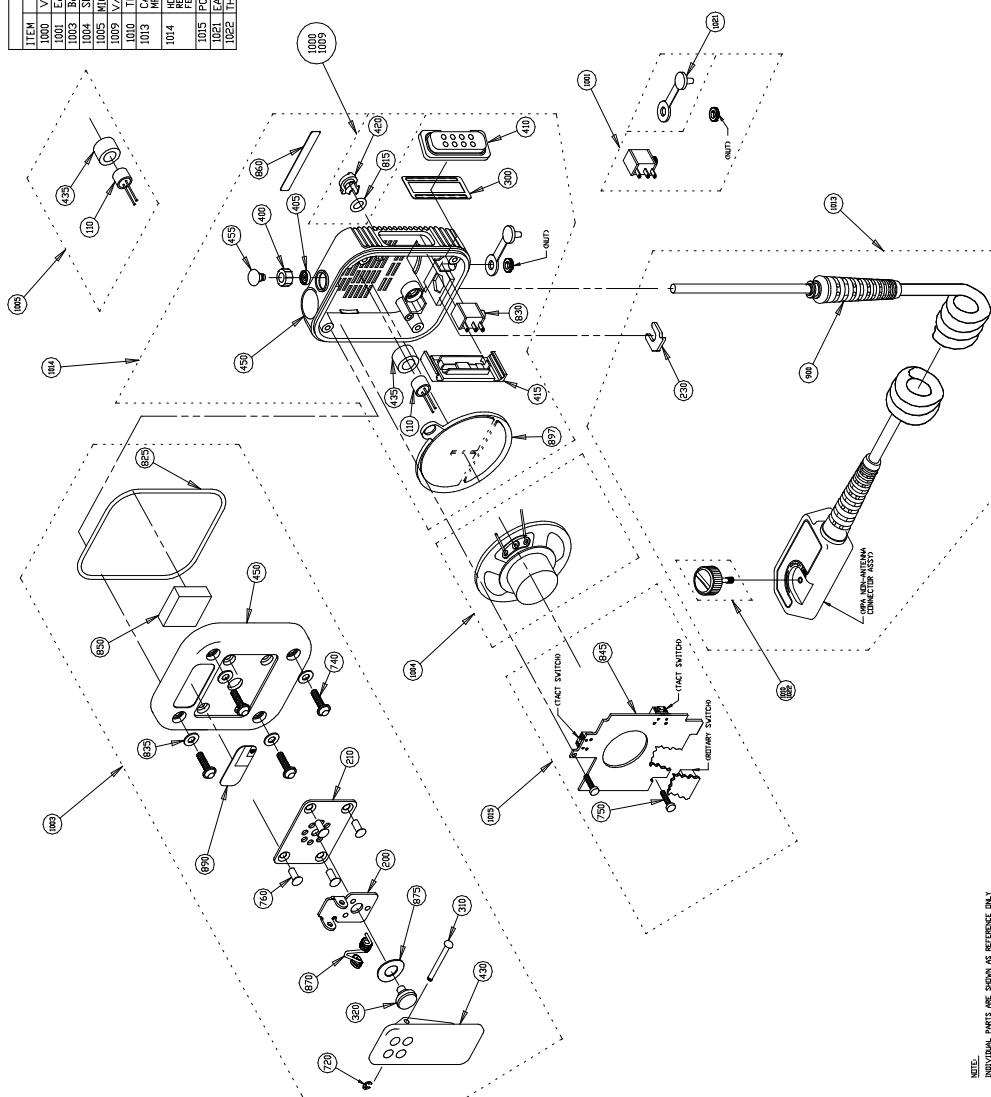
Δ INTERIOR COATED WITH CONDUCTIVE MATERIAL

NOTE:
1. THE PRISM ANTENNA/CON. ASSY. IS A SEPARATE UNIT.
2. THE PRISM ANTENNA/CON. ASSY. IS A SEPARATE UNIT.
3. THE PRISM ANTENNA/CON. ASSY. IS A SEPARATE UNIT.
4. THE PRISM ANTENNA/CON. ASSY. IS A SEPARATE UNIT.

M-RK/PRISM SPEAKER/ANTENNA KRY 101 1617/2 & /4

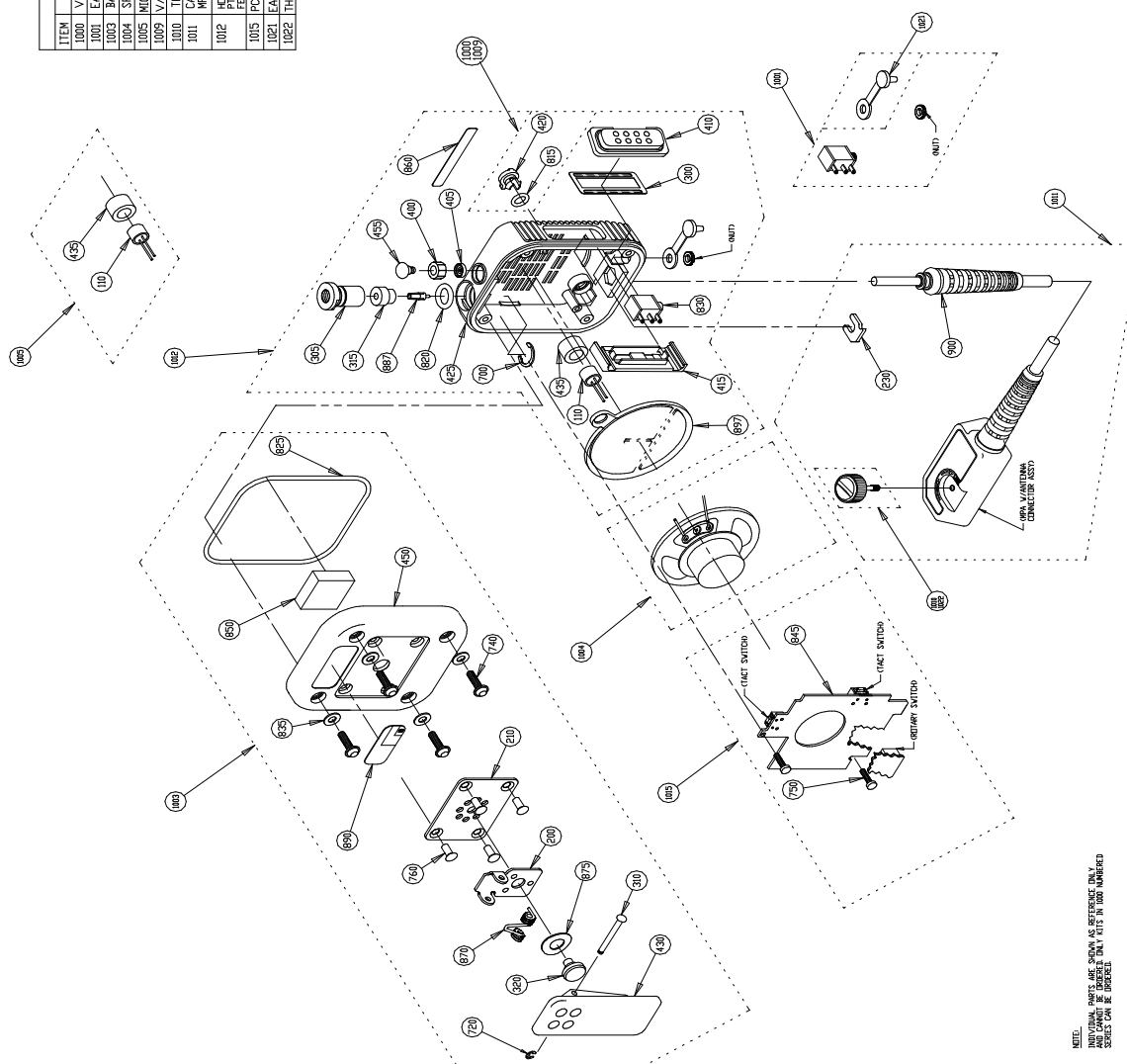
(LOV210009, Rev. 0)

ITEM	PART NAME	DESCRIPTIONS	QTY
100	MICROPHONE PIN ASSY		1
200	SWIVEL CLIP		1
210	SWIVEL PLATE		1
230	CABLE CLAMP		1
300	BACKER PLATE		1
310	PIVOT PIN		1
320	CLIP RIVET		1
400	RETAINER		1
405	BUDDY		1
410	RETAIN RING, PTT		1
420	RETAINER, PTT		1
430	KNUR VOLUME		1
435	HOUSING, FRONT		1
430	CLIP		1
435	MIC HOLDER		1
450	HOUSING, REAR		1
455	EMERGENCY BUTTON		1
500	SWAP RING	500-37 VALDES	1
720	SWAP RING	5135-9 VALDES	1
740	SWAP RING	LGH-10mm, BLACK	4
750	SREW	LGH-15mm, BLACK	2
810	TOP RING, VIB. CONT.	218 X .070	1
825	"TOP RING, COVER	2/739 X .070	1
830	EMERPHANE		1
835	SCREW GASKET OLVERS		4
845	PG BOARD ASSY.		1
850	SPACER, FIRM		1
860	LABEL		1
870	TORSION SPRING		1
875	CURVED WASHER SHG		1
890	LID, LABEL		1
897	COVER, COB, FELT		1
900	SPACER, COB		1
905	SPACER, FELT		1



(LOV210010, Rev. 0)

ITEM	PART NAME	DESCRIPTIONS	QTY
110	MICROPHONE IN ASSY		1
200	SWIVEL CLIP		1
210	SWIVEL PLATE		1
220	CABLE CLAMP		1
230	BACKER PLATE		1
300	ANTENNA CONN.		1
305	PIVOT PIN		1
310	ANTENNA INS.		1
320	CLIP RIVET		1
400	RETAINER		1
405	BOOT		1
410	BUTTON, PTT		1
415	RETAINER, PTT		1
420	KNOB, VOLUME		1
425	HOUSING, FRONT		1
430	CLIP		1
435	MIC HELDER		1
450	HOUSING, REAR		1
455	EMERGENCY BUTTON		1
700	SNAP RING	9109-37 VALDES	1
720	SNAP RING	9139-5 VALDES	1
740	SCREW	LGTH=12mm, BLACK	4
750	SCREW	LGTH=9mm, BLACK	2
760	RIVET		4
820	1" RING, ANTENNA	3/75 X .062	1
815	1" RING, VCL CONT.	.218 X .070	1
825	1" RING, COVER	2.739 X .070	1
830	EARPHONE JACK		1
835	SCREW GASKET COVERS		4
845	PC BOARD ASSY.		1
850	SPACER FLAM.		1
860	LABEL		1
870	TORSION SPRING		1
875	CURVED WAVEFORM SPG		1
880	INT. CONTACT		1
890	1" LABEL		1
895	JUST COVER, FELT		1
900	COVER ASS'Y, V.		1



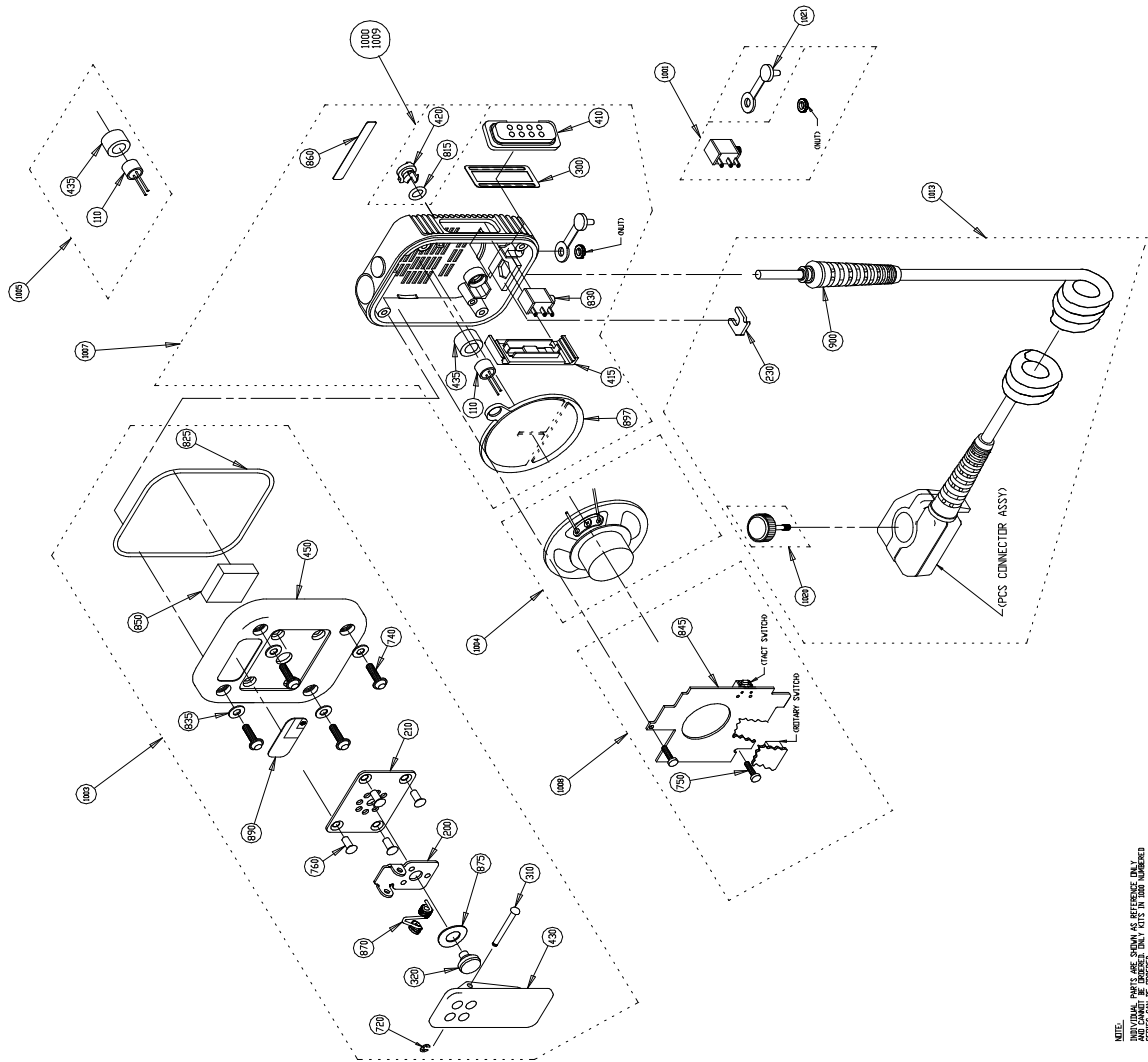
1 INTERIOR COATED WITH CONDUCTIVE MATERIAL

NOTE: INDIVIDUAL PARTS ARE SHOWN AS REFERENCE ONLY AND CANNOT BE ORDERED. ONLY KITS IN 1000 NUMBERED SERIES CAN BE ORDERED.

(LOV210011, Rev. 0)

REPLACEMENT KITS			
ITEM	PART NAME	DESCRIPTIONS	QTY
1000	V/C KNOB WITH TYPING	USE W/ 800/1000 PERS	1
1001	EARPHONE JACK COVER & NUT	C100747	1
1002	BACK COVER/SPEAKER PAD	C100748	1
1003	SPEAKER ASSY	C100749	1
1004	MIC/MIC HELDER	C100750	1
1005	HOUSING PTT BUTTON, RETAINER	C100751	1
1006	JACK COVER WITH FELT, V/C KNOB, HOUSING PTT BUTTON, RETAINER	C100752	1
1007	PCB W/ HARDWARE	C100753	1
1008	V/C KNOB WITH TYPING	C100754	1
1009	CABLE ASSY, RETAINER W/ THUMBSCREW	V3-10026	1
1010	PCS CONNECTOR ASSY	C100648	1
1020	THUMBSCREW/THUMBSCREW "D" RING ASSY	C100648	1
1021	EARPHONE JACK COVER	C100648	1

ITEM	PART NAME	DESCRIPTIONS	QTY
110	MICROPHONE PIN ASSY		1
200	SWIVEL CLIP		1
210	SWIVEL PLATE		1
230	CABLE CLAMP		1
300	BACKER PLATE		1
310	PIVOT PIN		1
320	CLIP RIVET		1
410	BUTTON PTT		1
415	RETAINER PTT		1
420	KNOB, VOLUME		1
425	HOUSING, FRONT		1
430	CLIP		1
435	MIC HELDER		1
450	HOUSING, REAR		1
720	SPRING		1
730	SCREW		4
740	SCREW		2
760	RIVET		4
815	"D" RING, VOL. CONT.		1
825	"D" RING, COVER		1
830	EARPHONE JACK		1
835	SCREW GASKET COVERS		4
845	PC BOARD ASSY		1
850	SPACER, FOAM		1
860	LABEL		1
870	TORSION SPRING		1
875	CURVED WASHER SPG		1
890	ID. LABEL		1
897	DUST COVER, FELT		1
900	CORD ASSEMBLY		1



△ INTERIOR COATED WITH CONDUCTIVE MATERIAL

NOTE:
INDIVIDUAL PARTS ARE SHOWN AS REFERENCE ONLY.
ASSEMBLY KIT PARTS ARE SHOWN ONLY IN THIS NUMBERED
KIT LIST. KIT PARTS ARE SHOWN ONLY IN THIS NUMBERED
KIT LIST.

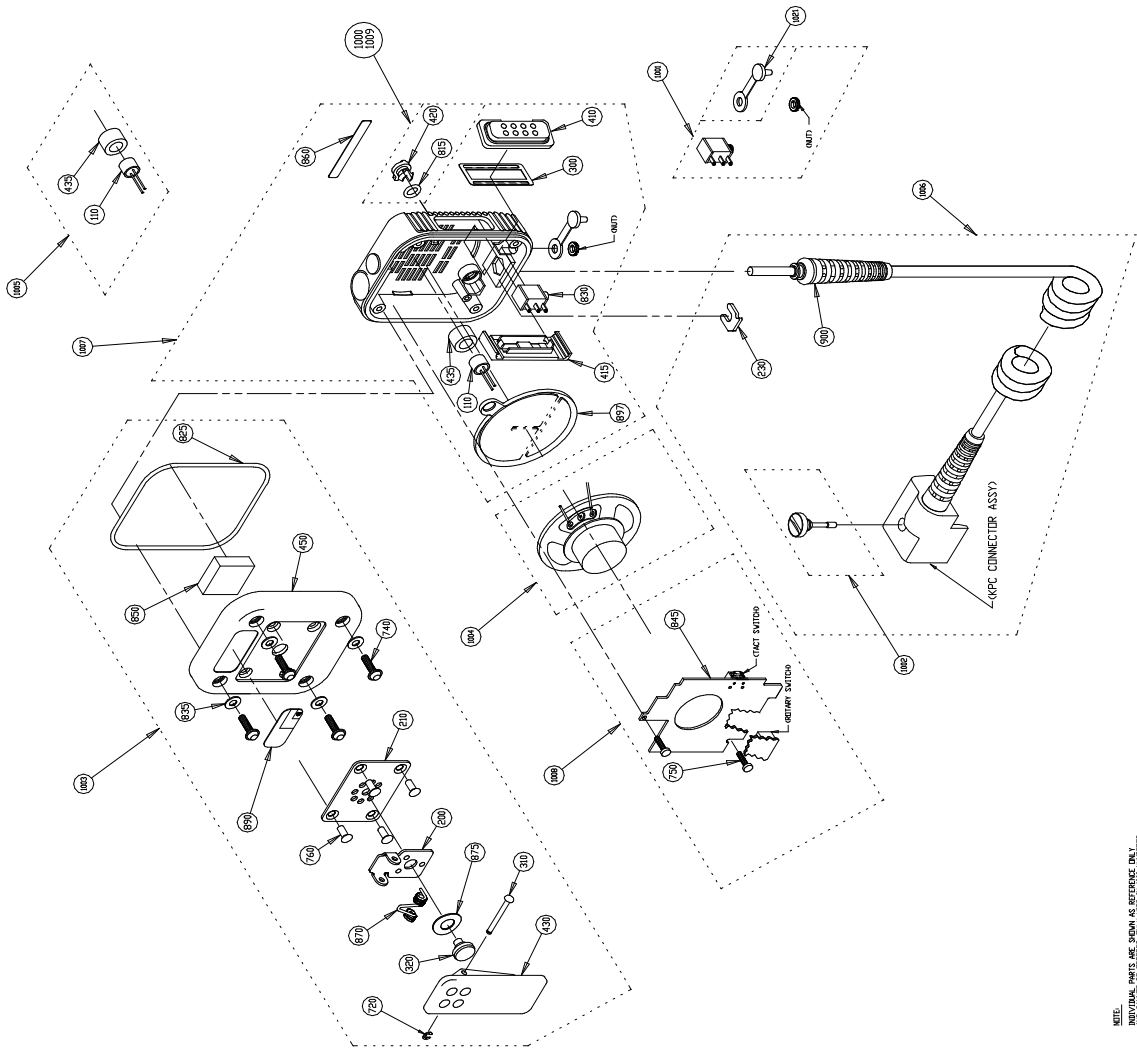
PCS SPEAKER/MIC
KRY 101 1617/21 & /23

(LOV210012, Rev. 0)

REPLACEMENT KITS			
ITEM	PART NAME	P/N	DESCRIPTIONS
1000	V/C KNOB WITH 'OPENING	C100747	USE W/ 8001010305 PCB'S
1001	EARPHONE JACK COVER & NUT	C100748	
1002	THUMBSREW/THUMBSREW "D" RING ASSY	C100759	
1003	BACK COVER/SPEAKER PAU	C100749	
1004	SPEAKER ASSY	C100750	
1005	MIC/MIC HELDER	C100751	
1006	PCB W/HARDWARE V/THUMBSREW, CARTRIDGE CONNECTOR ASS	V3-10027	
1007	HOUSING, PTT BUTTON RETAINER JACK COVER, NUT, FELT, V/C KNOB, MIC/MIC HELDER ASSEMBLED	C100757	
1008	PCB W/HARDWARE	C100758	
1009	V/C KNOB WITH 'OPENING	C100754	USE W/ 8001018 PCB
1021	EARPHONE JACK COVER	C400400-10	QTY 10 PER BAG

ITEM	PART NAME	DESCRIPTIONS	QTY
110	MICROPHONE PIN ASSY		1
200	SWIVEL CLIP		1
210	SWIVEL PLATE		1
230	CABLE CLAMP		1
300	THUMBSREW		1
320	PIVOT PIN		1
400	CLIP RIVET		1
410	BUTTON PTT		1
415	RETAINER FELT		1
420	REAR CLIP		1
425	HOUSING, FRONT		1
430	CLIP		1
435	MIC HELDER		1
450	HOUSING, REAR		1
720	SNAP RING	5133-9 VALIES	1
740	SCREW	LGTH=12mm, BLACK	4
760	RIVET	LGTH=5mm, BLACK	2
815	"D" RING, VIL. CONT.	.218 X .070	1
825	"D" RING, COVER	2.739 X .070	1
830	EARPHONE JACK		1
835	SCREW GASKET COVERS		4
845	PC BOARD ASSY		1
850	SPACER, FOAM		1
860	LABEL GE & ERICSSON		1
870	TORSION SPRING		1
875	CURVED WASHER SPG		1
890	JUL LABEL GE & ERICSSON		1
897	DUST COVER FELT		1
900	CORD ASSEMBLY		1

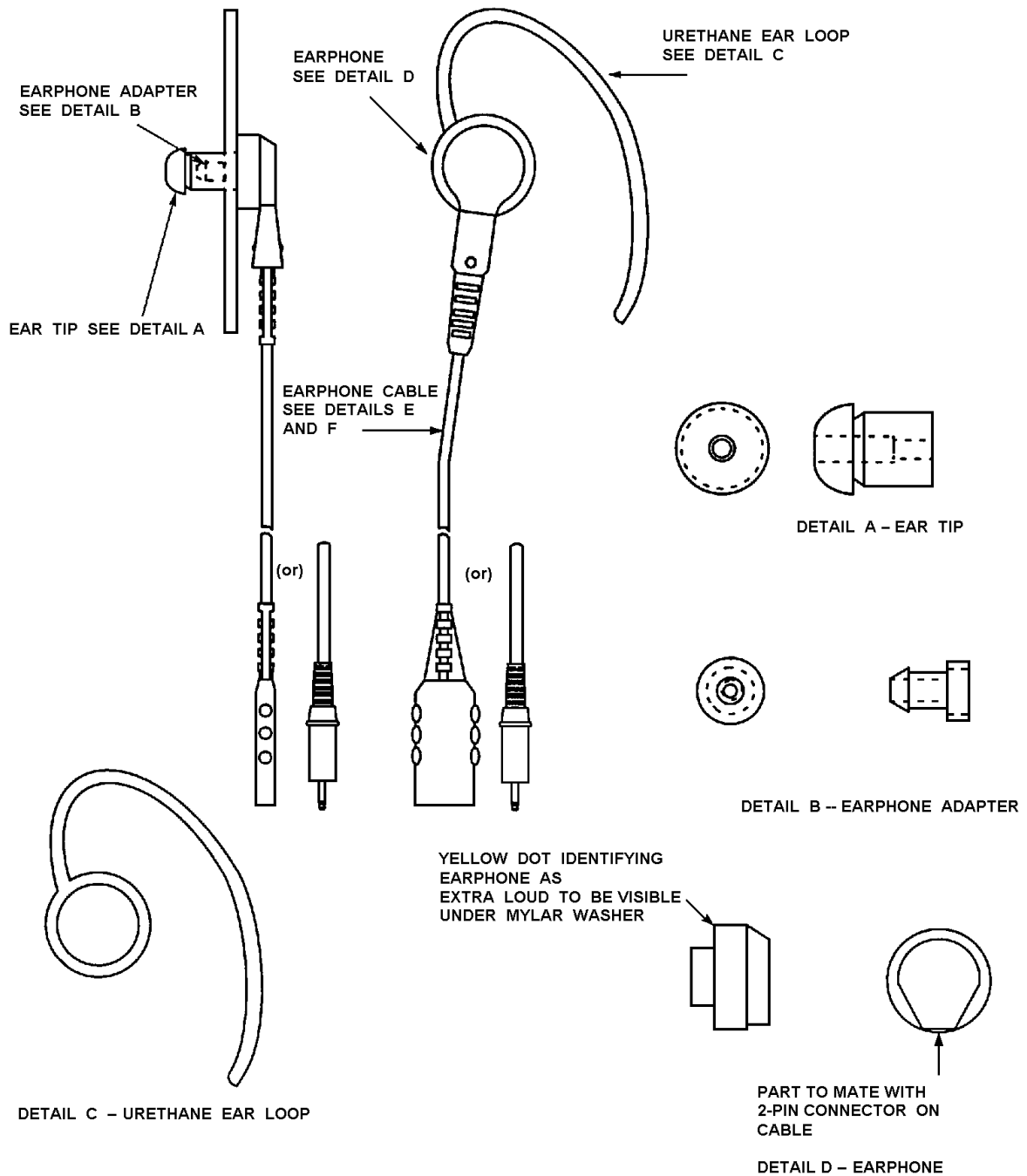
△ INTERIOR COATED WITH CONDUCTIVE MATERIAL



NOTE:
INDIVIDUAL PARTS ARE SHOWN AS REFERENCE ONLY.
SUBSTITUTIONS ARE NOT PERMITTED.
SUBSTITUTIONS ARE NOT PERMITTED.

KPC SPEAKER/MIC
KRY 101 1617/31 & /33

(LOV210014, Rev. 0)



**EARPHONE
RLD 541 07**

Ericsson Inc.

Private Radio Systems

Mountain View Road

Lynchburg, Virginia 24502

1-800-528-7711 (Outside USA, 804-528-7711)

AE/LZB 119 1884 R1A

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