

KRK-7DB/8DBH

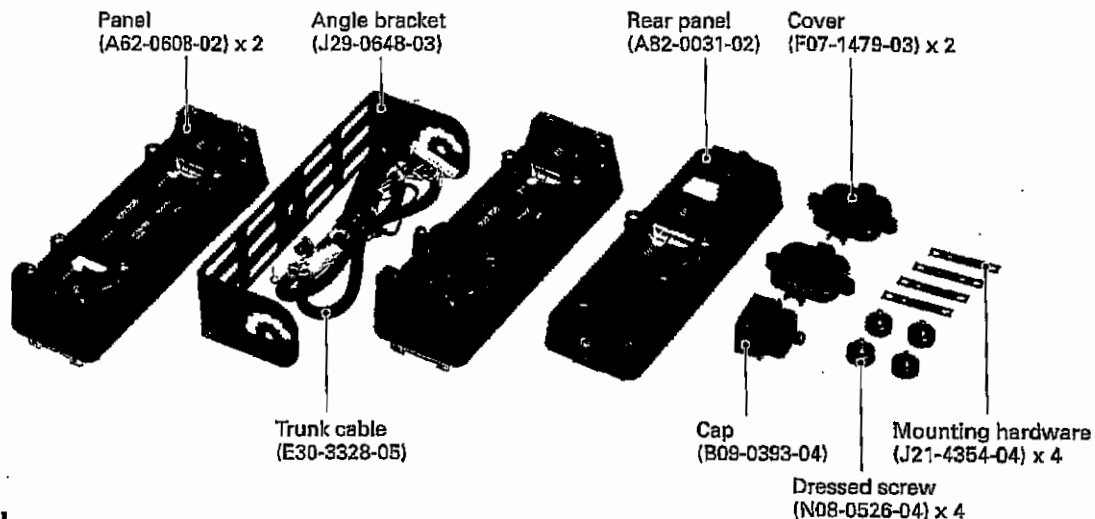
SERVICE MANUAL

REVISED EDITION

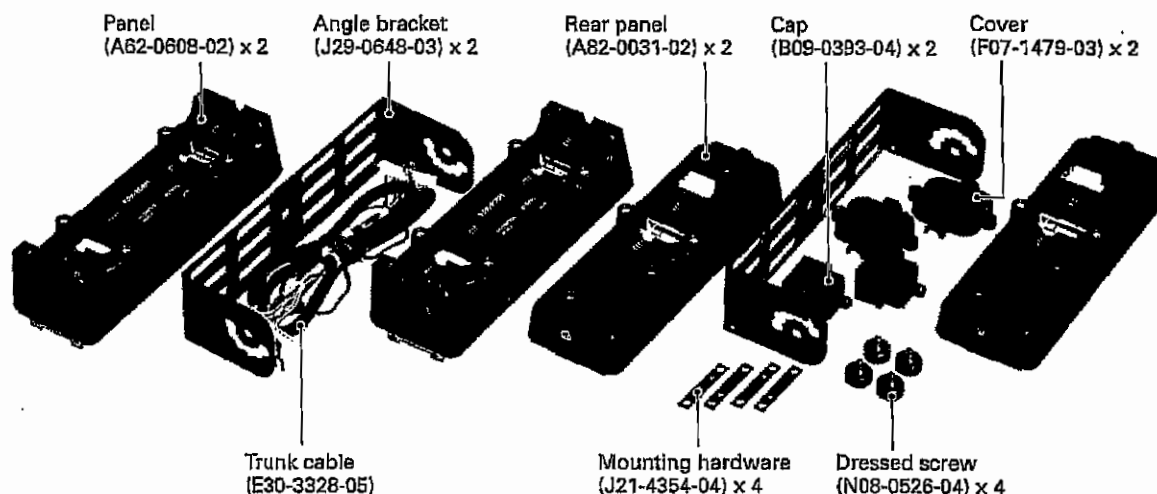
KENWOOD

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KRK-7DB



KRK-8DBH



There is a mistake in the installation section of Service Manual KRK-7DB/8DBH (B51-8452-00). The revised sections are on page 2, numbers 1-3 Display assembly (Fig. 3), and on page 5, number 3 Other Modification (Fig. 8). This Service Manual (B51-8452-10) provides revised information for those sections.

KRK-7DB/8DBH

INSTALLATION

1. Installing the Dual Band Remote Kit (KRK-7DB)

The KRK-7DB remote kit controls two TK-690/790/890 series radios with one display (KCH-10 or KCH-11). The KRK-7DB is connected to one KCH-10 or KCH-11 and two radios (radio 1 and 2) with a optional control cable (KCT-22). There are three versions of the control cable : KCT-22M (8 feet), KCT-22M2 (17 feet), and KCT-22M3 (25 feet).

1-1. Connection of radio 1 and KRK-7DB body 1

1. Remove the upper and lower halves of the case of radio 1.
2. Connect W501 or the control unit (X57 B/3) of radio 1 to CN4 of the KRK-7DB body 1.
3. Connect W104 connector from CN5 on the KRK-7DB body 1 to control unit CN504 of the radio 1.
4. Install the KRK-7DB body 1 on radio 1 using the four flat-headed screws (N32-3006-46) (1).
5. Reassemble the upper and lower halves of the case of radio 1.

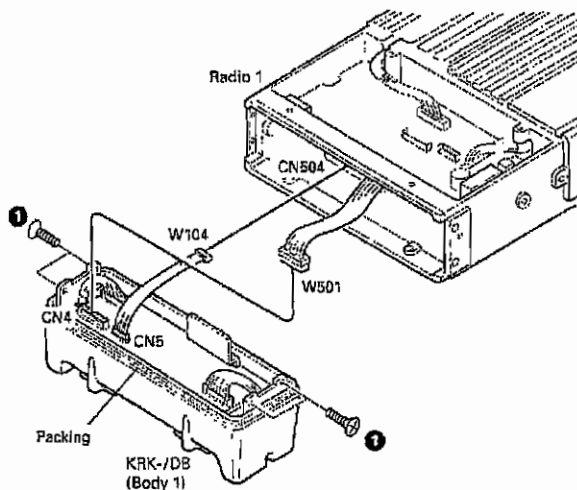


Fig. 1

1-2. Connection of radio 2 and KRK-7DB body 2

1. Remove the upper and lower halves of the case of radio 2.
2. Connect W501 on the control unit of radio 2 to CN4 of the KRK-7DB body 2.
3. Connect W104 on the KRK-7DB body 2 to control unit CN504.
4. Install the KRK-7DB body 2 on radio 2 using the four flat-headed screws (N32-3006-46) (1).
5. Reassemble the upper and lower halves of the case of radio 2.

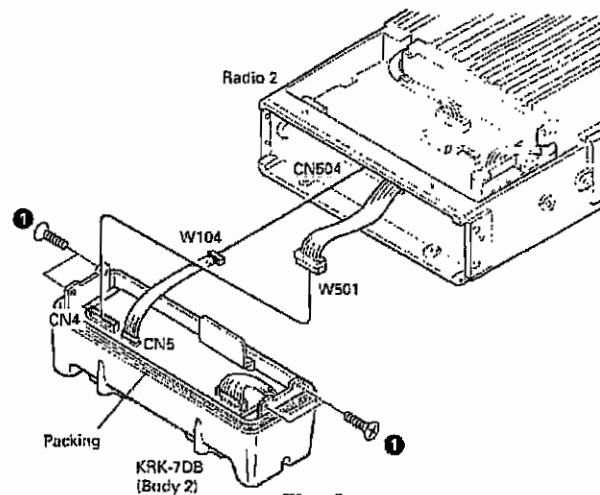


Fig. 2

1-3. Display assembly (Fig. 3)

1. The following steps apply to both the KCH-10 and the KCH-11.
 2. Connect the connector (W102) from the head to CN1 of the display unit (1).
 3. Connect the connector (W103) from the head to CN3 of the display unit (2). KCH-10
Connect the connector (W103) from the head to CN2 and CN3 of the display unit. : KCH-11
 4. Remove the three screws (3) on the back of the head, then remove the subpanel.
 5. Install the head subpanel on the display unit subpanel (4).
- Note :** Insert the head subpanel into the display unit subpanel.
6. Install the subpanel on the display unit with the four screws (N32-3006-46) (5).
 7. Install the head with the three screws that were removed in step 4.
 8. Fit the rubber cap (B09-0393-04) on the supplied 12 pin square plug, and fit the plug on the 12 pin ACC connector (Cut off the rubber cap end and fix it with a wire band) (6).

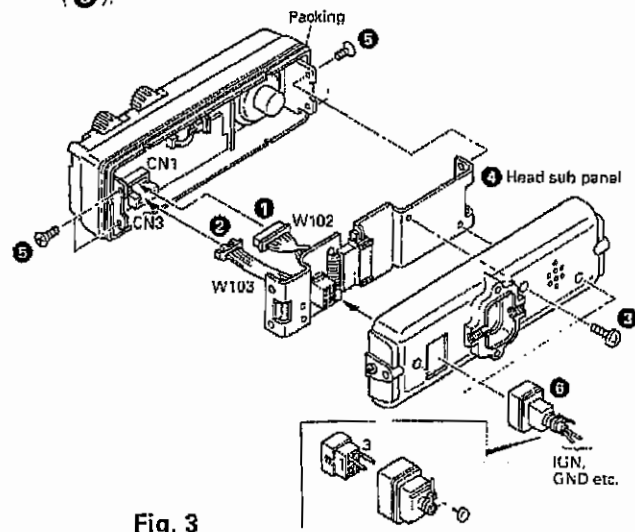


Fig. 3

INSTALLATION

1-4. Connection of radio 1 and radio 2 (Fig. 4)

1. Connect one end of one of the trunk cable (accessory) (1) to the TO RADIO connector (right side) of radio 1 (with body 1), and the other end to the TO RADIO connector of radio 2 (with body 2). Connect each cable GND terminal with one of the binding screws (N35-3006-46) (2) supplied with each trunk cable.
2. Secure the trunk cable connectors to radio 1 and the radio 2 with two screws (N67-4016-45) (3) according to the installation condition of the radios. Pass the trunk cable through the grooves at both ends of the KRK-7DB and secure the cables to the KRK-7DB body 1 and body 2 with the cable fitting (J21-4354-04) and screws (N09-0335-05) (4) supplied with the KRK-7DB.

1-5. Control cable connection (Fig. 4)

1. Connect one connector of the control cable (KCT-22) (5) to radio 1 (with body 1) and the other to the display (with head). Connect the cable GND terminal with the binding screw (N35-3006-46) (6) supplied with the control cable.
2. Secure the connector of the control cable to the body 1 with the two sems (N67-4016-45) (7) according to the installation condition of radio 1. Secure the control cable on the body 1 with the cable fitting (J21-4354-04) (8) and two screws (N09-0335-05) supplied with the body 1.
3. Secure the other connector of the control cable to the display unit with two sems (N67-4016-45) (9) in the same way.

1-6. Display installation (Fig. 5)

1. Install the display with the supplied angle bracket (J29-0648-03) (1) and two decorative screws (N08-0526-04) (2).

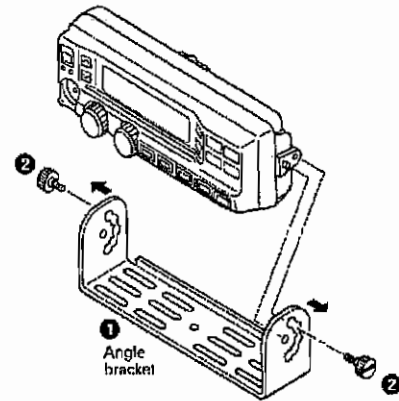


Fig. 5

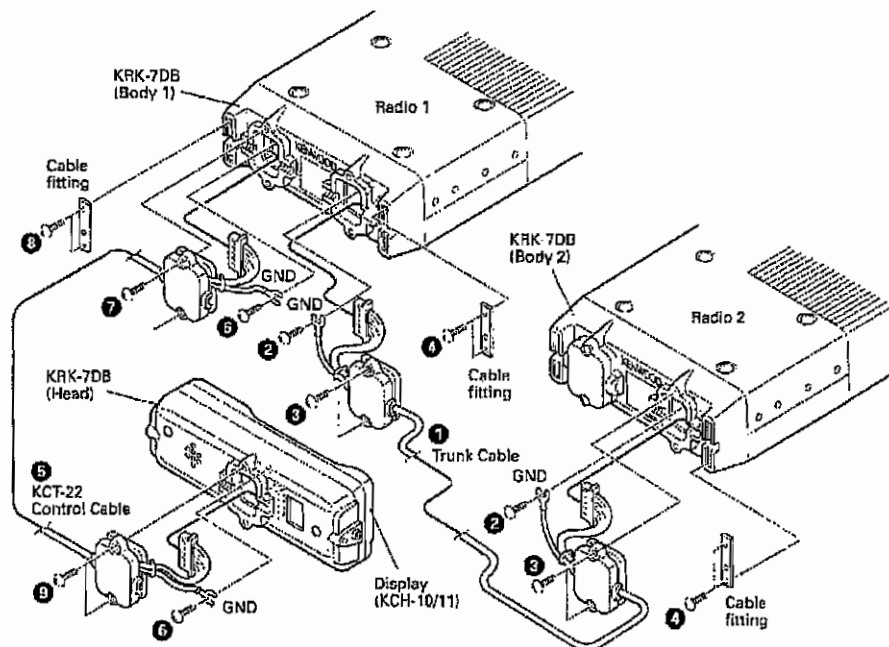


Fig. 4

KRK-7DB/8DBH

INSTALLATION

2. Installing the Dual Band Dual Control Head Kit (KRK-8DBH)

The KRK-8DBH kit connects two displays (two KCH-10s or KCH-11s) to a TK-690/790/890 series radio. The KRK-8DBH is connected to the KCH-10s or KCH-11s with two optional control cables (KCT-22). There are three version of the control cable : KCT-22M (8 feet), KCT-22M2 (17 feet), and KCT-22M3 (25 feet).

2-1. Connection of radio and KRK-8DBH (body 1 and body 2) (Fig. 6)

1. Remove the upper and lower halves of the case of radio (radio 1 and 2).
2. Connect W501 on the control unit (Xb7 B/3) to CN4 of the KRK-8DBH (body 1 and 2).
Connect the W104 connector from CN5 on the KRK-8DBH to CN504 of the radio (radio 1 and 2).
3. Install the KRK-8DBH on radio using the four flat head screws (N32-3006-46) (1).
4. Reassemble the upper and lower halves of the case of radio 1 and radio 2.

2-2. Assembly of displays (displays 1 and 2) (Fig. 3)

1. Same as the KRK-7DB display assembly procedure in Section 1-3. (Assemble the two displays in the same way.) See page 2.

2-3. Control cable (KCT-22) and trunk cable (accessory) connection (Fig. 7)

1. Use two control cables. Connect one end of one of the control cables to radio 1 (with body 1) and the other end to display 1 (with head 1).
Connect one connector of the other control cable to radio

2 (with body 2) and the other to display 2 (with head 2). Connect each cable GND terminal with one of the binding screws (N35-3006-46) (1) supplied with each control cable.

2. Connect one end of one of the trunk cable (accessory) to the TO RADIO connector (right side) of radio 1 (head1), and the other end to the TO RADIO connector (left side) of radio 2 (head 2). Connect each cable GND terminal with one of the binding screws (N35-3006-46) supplied with each trunk cable (1).
3. Secure each of the two connectors to the KRK-8DBH with two sems (N67-4016-45) (2) according to the installation condition of radio. Pass the control cables through the grooves at both ends of the KRK-8DBH and secure the cables to the KRK-8DBH with the cable fitting (J21-4354-04) and screws (N09-0335-05) (3) supplied with the KRK-8DBH.
4. Secure the connectors of the control cables to displays 1 and 2 with two sems (N67-4016-45) (4).

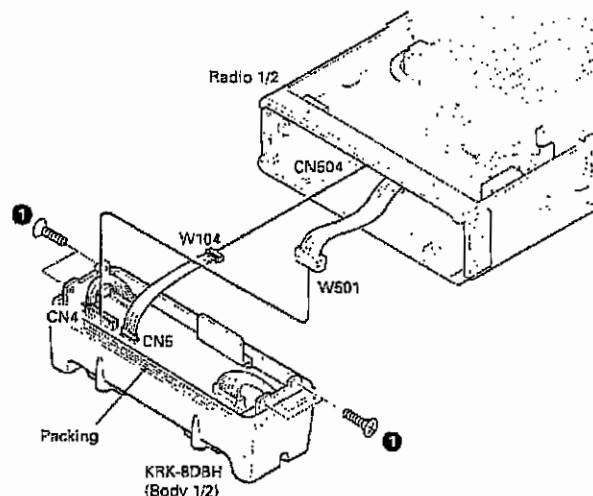


Fig. 6

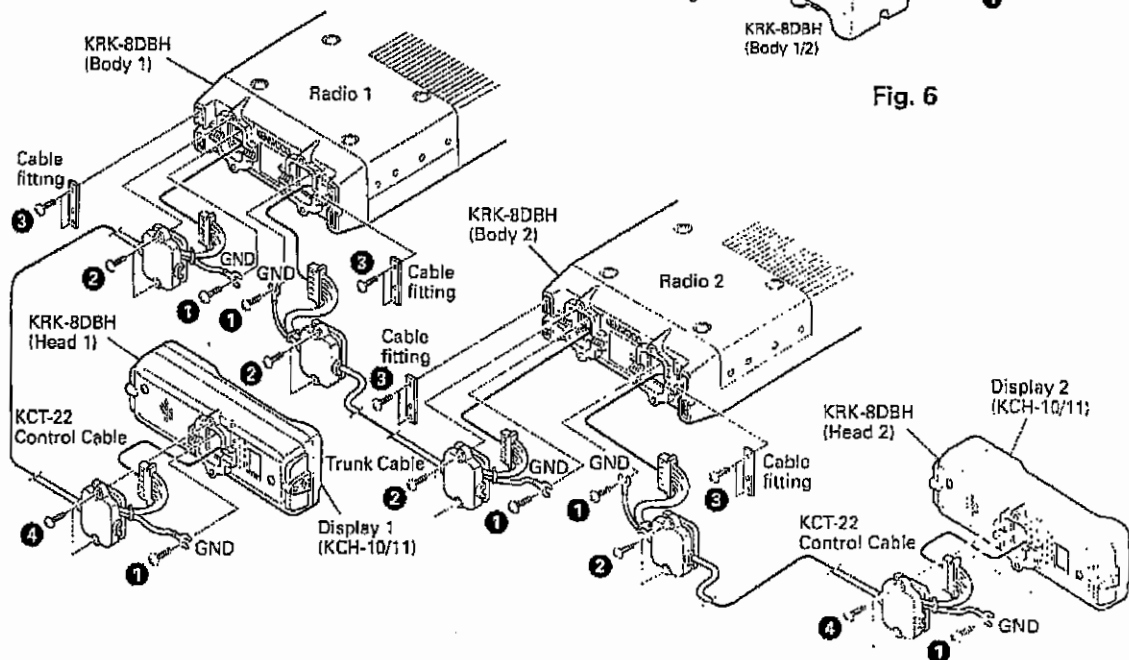


Fig. 7

KRK-7DB/8DBH

INSTALLATION

Readers are requested to make the corrections as follows.

1-3. Display assembly (Fig. 3)

The following steps apply to both the KCH-10 and the KCH-11.

1. Remove the three screws (1) on the rear panel of the head, then remove the sub panel.
2. Connect connector W102 from the head to CN1 of the display unit (2).
3. KCH-10 : Connect connector W103 from the head to CN3 of the display unit (3).
KCH-11 : Connect connector W103 from the head to CN2 and CN3 of the display unit.
4. Make a slight cut in the end of the rubber cap (4).
5. Slide the lead wire of the connector wiring (5) through the slit in the rubber cap (6).
6. Insert the rubber cap into the hole in the rear panel (7) (Follow the arrow in the diagram.)
7. Attach the connector (8) to the ACC connector (9) on the sub panel as shown by the arrow (10).
8. Install the head sub panel onto the display unit sub panel (11).
- Note :** Insert the head sub panel into the display unit sub panel.
9. Connect the sub panel to the display unit with the four screws (N32-3006-46) (12).
10. Install the head with the three screws that were removed in step 1.
11. Use a wire band to secure the lead wire at the end of the rubber cap (13).

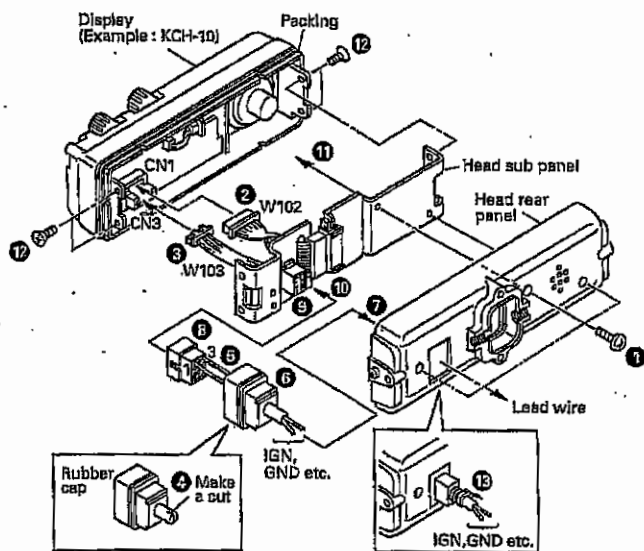


Fig. 3

3. Other Modification

3-1. Connection with the remote kit

When the KRK-7DB or KRK-8DBH is used, set chip resistors as shown in the table below.

	KRK-7DB	KRK-8DBH
Radio 1	Unnecessary	Unnecessary
Radio 2	1) Remove R546	1) Remove R546
	2) Remove R661	2) Remove R661
	3) Move R602 to R705	3) Move R602 to R705
		4) Remove Q515*
		5) Jumper to Q503 and Q514*

* : TK-690H unnecessary

The TK-790/790(B)/790H(B) and TK-890/890(B)/890H(B) serial numbers from 011XXXXX are unnecessary

3-2. Modification

1. Remove the upper half of the case of the TK-690H/790/890.
2. Set R546, R661, R602, and R705 on the control unit (X57 B/3) according to the table.
3. Remove Q515 and jumper to Q503 and Q514 according to the figure 8.
4. Reinstall the upper half of the case.

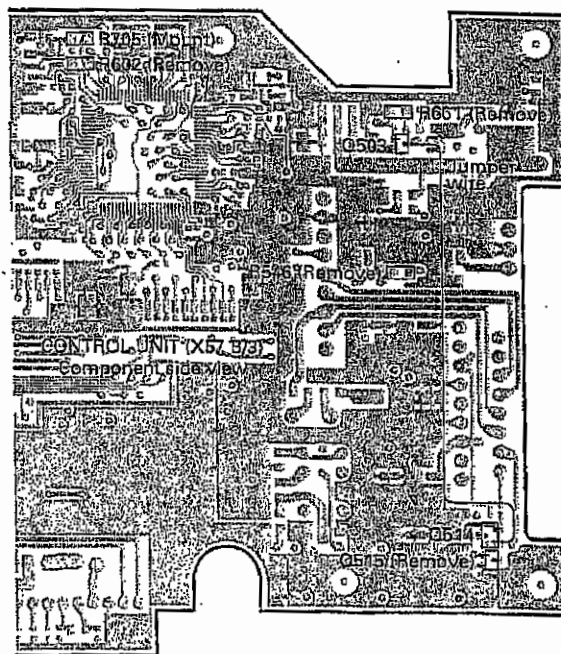


Fig. 8

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KRK-7DB/8DBH

DISASSEMBLY FOR REPAIR / CIRCUIT DESCRIPTION

2. Head Disassembly (Fig. 2)

1. Remove the three screws (1) holding the subpanel.
2. Unplug the connecting wire (2).

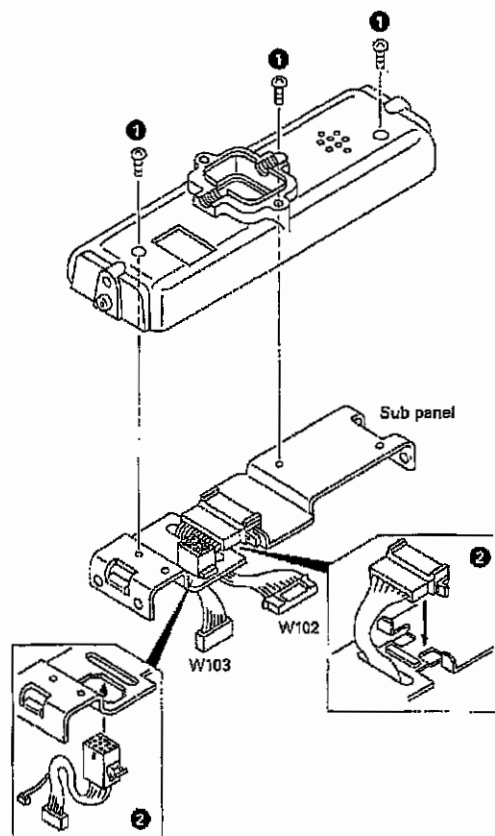


Fig. 2

CIRCUIT DESCRIPTION

1. Receiver Circuit (KRK-7DB)

The audio signal received by radio 1 is processed by radio 1, and the resulting signal enters pins 10 and 11 (RS1 and RS2) of CN4 of the interface unit (X46-3240-22). This signal is output to CN1 pins 10 and 11 (RS1 and RS2). The audio signal received by radio 2 is input to pin 9 (DE3) of CN5 of the interface unit (X46-3240-23). The signal is output to CN3 pin 11 (DE3). The signal passes through the cable between the radios and enters pin 11 (DE3) of CN3 of the interface unit (X46-3240-22). The input signal passes through the analog switch of IC1 (BU4066BCF) and enters radio 1 from CN5 pin 9 (DE3). The signal is processed internally by radio 1, enters the interface unit again from CN4 pins 10 and 11 (RS1 and RS2), and is output to CN1 pins 10 and 11. IC1 is controlled by IC2 (BU4094BCF), but the level is shifted by Q3 (DTC114EK) because the operating voltage is different.

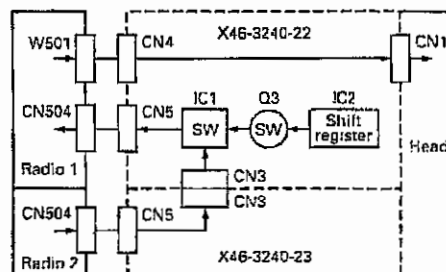


Fig. 1 Receiver circuit (KRK-7DB)

2. Transmitter Circuit (KRK-7DB)

2-1. If the channel displayed on the control head LCD is for radio 1

When you press the PTT button on the head and talk into the microphone, the audio signal goes to the K1 relay of the interface unit (X46-3240-22) from CN1 pin 2 (MIC). The signal is then output from CN4 pin 2 (MIC) and enters radio 1.

2-2. If the channel displayed on the LCD is for radio 2

The audio signal passing through K1 of the interface unit (X46-3240-22), is output from CN3 pin 2 (MIC), and enters CN3 pin 2 (MIC). This signal is output to CN4 pin 2 (MIC), and enters radio 2. The K1 relay is controlled by IC2 (BU4094BCF), but it is driven by Q2 (DTC114EK).

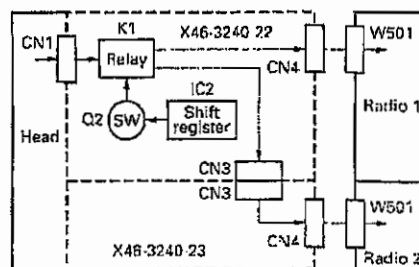


Fig. 2 Transmitter circuit (KRK-7DB)

KRK-7DB/8DBH

CIRCUIT DESCRIPTION

3. Mobile Relay Station Operation (KRK-7DB)

The audio signal received by radio 1 is processed by it, and the resulting signal goes to pin 10 (AFO) of CN5 of the interface unit (X46-3240-22). The level of the signal is shifted by IC3 (NJM4558M) and the resulting signal passes through the analog switch IC1 (BU4066BCF) and is output to pin 2 (MIC) of CN3. The signal enters pin 2 (MIC) of CN3 of the interface unit (X46-3240-23) through the cable connected between the radios and enters radio 2 through pin 2 (MIC) of CN4.

The audio signal received by radio 2 is processed by it, and the resulting signal enters to pin 10 (AFO) of CN5 of the interface unit (X46-3240-23), and is output to pin 4 (AFO) of CN3. The signal then enters pin 4 (AFO) of CN3 of the interface unit (X46-3240-22) through the cable connected between the radios. The level of the signal is shifted by IC3 (NJM4558M) and the resulting signal passes through the analog switch IC1 (BU4066BCF) and enters radio 1 through pin 2 (MIC) of CN4.

IC1 is controlled by IC2 (BU4094BCF), but since the operating voltage is different, the level of the signal is shifted by Q4 and Q5 (DTC114EK).

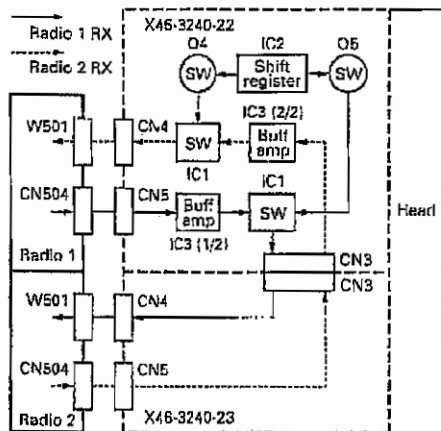


Fig. 3 Mobile relay station operation (KRK-7DB)

4. Receiver Circuit (KRK-8DBH)

The audio signal received by radio 1 is processed by it, and the resulting signal enters to pins 10 and 11 of CN4 of the interface unit (X46-3240-24). The signal is output to pins 10 and 11 of CN1. The audio signal received by radio 2 is input to pin 9 (DE3) of CN5 of the X46-3240-24. The signal passes through the analog switch IC1 (BU4066BCF) and is output to pin 11 (DE3) of CN3. The signal enters pin 11 (DE3) of CN3 of the interface unit (X46-3240-25) through the cable connected between the radios and enters radio 2 through pin 9 (DE3) of CN5. The signal is processed internally by radio 2, then goes back to the interface unit through pins 10 and 11 (RS1 and RS2) of CN4. The signal is output to pins 10 and 11 of CN1.

The audio signal received by radio 2 is processed, and the resulting signal goes to pins 10 and 11 of CN4 of the interface unit (X46-3240-25). The signal enters pins 10 and 11 of CN1. The audio signal received by radio 2 enters pin 9 (DE3) of CN5 of X46-3240-25 and is output to pin 11 (DE3) of CN3. The signal is output to pin 11 (DE3) of CN3 of the interface unit (X46-3240-24) through the cable connected between the radios. The input signal passes through the analog switch IC1 (BU4066BCF) and enters radio 1 through pin 9 (DE3) of CN5. The signal is processed internally by radio 1, then goes back to the interface unit through pins 10 and 11 (RS1 and RS2) of CN4. The signal is output to pins 10 and 11 of CN1.

IC1 is controlled by IC2 (BU4094BCF), but since the operating voltage is different, the level of the signal is shifted by Q3 (DTC114EK).

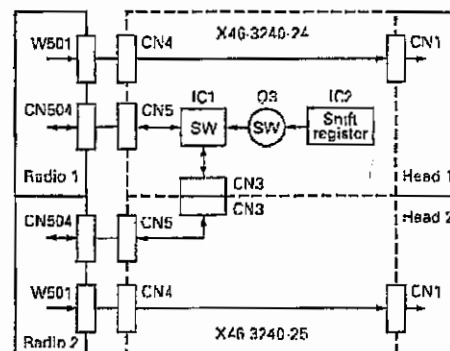


Fig. 4 Receiver circuit (KRK-8DBH)

KRK-7DB/8DBH

CIRCUIT DESCRIPTION

5. Transmitter Circuit (KRK-8DBH)

5-1. If the channel displayed on the control head LCD is for radio 1

1. When you press the head 1 PTT button and talk into the microphone, the audio signal goes to relay K1 through pin 2 (MIC) of CN1 of the interface unit (X46-3240-24). The signal is output from pin 2 (MIC) of CN4 and enters RADIO 1.
2. When you press the head 2 PTT button and talk into the microphone, the audio signal is output from pin 2 (MIC) of CN1 of the interface unit (X46-3240-25) to pin 8 (MI2) of CN3. The signal goes to pin 8 (MI2) of CN3 of the interface unit (X46-3240-24) through the cable connected between the radios and enters relay K2. The signal is output from pin 2 (MIC) of CN4 and enters radio 1.

5-2. If the channel displayed on the LCD is for radio 2

1. When you press the head 1 PTT button and talk into the microphone, the audio signal goes to relay K1 through pin 2 (MIC) of CN1 of the interface unit (X46-3240-24). The signal is output from pin 2 (MIC) of CN3 and goes to pin 2 (MIC) of CN3 of the interface unit (X46-3240-25) through the cable connected between the radios. The signal is then output to pin 2 (MIC) of CN4 and enters radio 2.
 2. When you press the head 2 PTT button and talk into the microphone, the audio signal is output from pin 2 (MIC) of CN1 of the interface unit (X46-3240-25) to pin 8 (MI2) of CN3. The signal goes to pin 8 (MI2) of CN3 of the interface unit (X46-3240-24) through the cable connected between the radios and enters relay K2. The signal is output from pin 2 (MIC) of CN3 and goes to pin 2 (MIC) of CN3 of the interface unit (X46-3240-25) through the cable connected between the radios. The signal is output from pin 2 (MIC) of CN4 and enters radio 2.
- Relays K1 and K2 are controlled by IC2 (BU4094BCF), but since it cannot provide sufficient current, the relays are driven by Q2 and Q6 (DTC114EK).

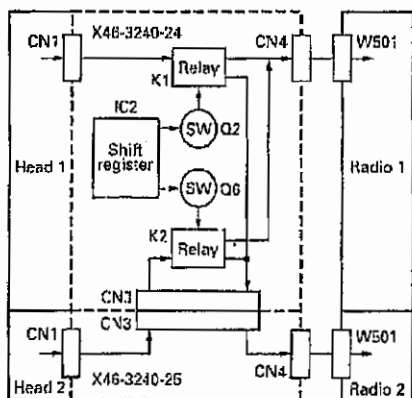


Fig. 5 Transmitter circuit (KRK-8DBH)

6. Mobile Relay Station Operation (KRK-8DBH)

The audio signal received by radio 1 is processed by it, and the resulting signal goes to pin 10 (AFO) of CN5 of the interface unit (X46-3240-24). The level of the signal is shifted by IC3 (NJM4558M) and the resulting signal passes through the analog switch IC1 (BU4066BCF) and is output to pin 2 (MIC) of CN3. The signal enters pin 2 (MIC) of CN3 of the interface unit (X46-3240-25) through the cable connected between the radios and enters radio 2 through pin 2 (MIC) of CN4.

The audio signal received by radio 2 is processed by it, and the resulting signal enters to pin 10 (AFO) of CN5 of the interface unit (X46-3240-25), and is output to pin 4 (AFO) of CN3. The signal then enters pin 4 (AFO) of CN3 of the interface unit (X46-3240-24) through the cable connected between the radios. The level of the signal is shifted by IC3 (NJM4558M) and the resulting signal passes through the analog switch IC1 (BU4066BCF) and enters radio 1 through pin 2 (MIC) of CN4.

IC1 is controlled by IC2 (BU4094BCF), but since the operating voltage is different, the level of the signal is shifted by Q4 and Q5 (DTC114FK).

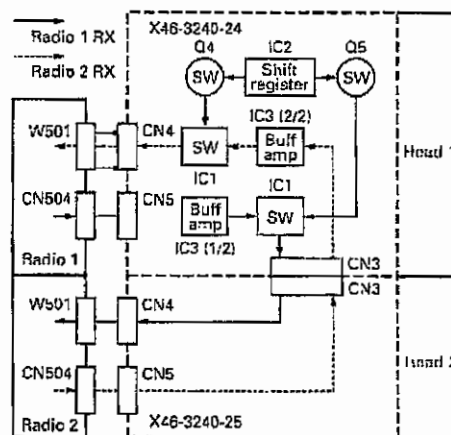


Fig. 6 Mobile relay station operation (KRK-8DBH)

KRK-/DB/8DBH

DESCRIPTION OF COMPONENTS

Interface Unit (X46-3240-22) : KRK-7DB

Ref. No.	Part No.	Operation/Condition
K1	MIC control	
IC1	Analog switch	On when mobile relay station operation and radio 2 reception
IC2	Shift register	
IC3	AF amplifier	
Q1	DC switch	When power switch off, reset to radio 2 IC516
Q2	DC switch	On when K1 on
Q3	DC switch	Off when radio 2 reception
Q4	DC switch	Off when radio 2 reception at mobile relay station operation
Q5	DC switch	Off when radio 1 reception at mobile relay station operation
Q1	DC switch	
D2	Surge absorption	
D4	Surge absorption	On when 5V or more, and 0V or less
D5	Reverse current prevention	

Interface Unit (X46-3240-24) : KRK-8DBH

Ref. No.	Part No.	Operation/Condition
K1,2	MIC control	
IC1	Analog switch	On when mobile relay station operation and reception
IC2	Shift register	
IC3	AF amplifier	
Q1	DC switch	When power switch off, reset to radio 2 IC516
Q2	DC switch	On when K1 on
Q3	DC switch	Off when reception
Q4	DC switch	Off when radio 2 reception at mobile relay station operation
Q5	DC switch	Off when radio 1 reception at mobile relay station operation
Q6	DC switch	On when K2 on
D1	DC switch	
D2,3	Surge absorption	
D4	Surge absorption	On when 5V or more, and 0V or less
D5	Reverse current prevention	

Interface Unit (X46-3240-23) : KRK-7DB

Ref. No.	Part No.	Operation/Condition
K1	Data line switch	Off when radio 2 off
D2	Surge absorption	
D4	Surge absorption	On when 5V or more, and 0V or less
D5	Reverse current prevention	

Interface Unit (X46-3240-25) : KRK-8DBH

Ref. No.	Part No.	Operation/Condition
K1	Data line switch	Off when radio 2 off
D2	Surge absorption	
D4	Surge absorption	On when 5V or more, and 0V or less
D5	Reverse current prevention	

KRK-7DB/8DBH

PARTS LIST

* New Parts. * indicates safety critical components.

Parts without Parts No. are not supplied

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

L: Scandinavia

Y: PX (Far East, Hawaii)

V: AAFES (Europe)

K: USA

T: England

X: Australia

P: Canada

E: Europe

M: Other Areas

KRK-7DB

INTERFACE UNIT (X46-3240-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
KRK-7DB (Y60-383)					
1	2A		A22-2003-03	SLIP PANEL	
2	2F		A22-2004-03	SUB PANEL (HEAD)	
3	2B		A87-0608-02	PANEL	
4	1F		A82-0031-02	REAR PANEL	
5	2H		B09-0353-04	CAP	ACSY
6			B42-3317-04	LABELS/NDI	
7	3B	*	B42-5822-04	MODEL NAME PLATE	BODY 1
7	3B	*	B42-5823-04	MODEL NAME PLATE	BODY 2
8	1H		B82-4953-001	INSTRUCTION MANUAL	
10	1G	*	E30-3329-05	TRUNK CABLE	ACSY
15	2H		E58-0404-05	SQUARE PLUG	ACSY
W101	2G		E50-3085-05	GROUND LEAD WIRE	ACSY
W102	2E, 2B		E37-0156-05	CONNECTING WIRE (11P)	
W103	3E		E37-0743-05	CONNECTING WIRE (ACC 12P)	
W105	1A		E37-0786-05	CONNECTING WIRE (UNIT 10P)	
15	3A		F07-1479-00	COVER	BODY 2
15	2H		F07-1479-03	COVER	ACSY
18	2E		G13-0854-04	CUSHION	
18	3A		G13-1884-04	CUSHION	BODY 2
20	2B		G53-0838-03	PACKING (PANEL)	
21	2G		H10-8620-02	POLYSTYRENE FOAMED PXTURE	
22	1G		H11-0863-04	POLYSTYRENE PLATE	
23	2H		H25-0029-04	PROTECTION BAG (80x120)	
24	2H		H25-0058-04	PROTECTION BAG (80x120)	
25	1G, 2H		H25-0103-04	PROTECTION BAG (125x250)	
26	2G, 2H		H25-0120-04	PROTECTION BAG (150x150)	
27	3G		H52-1256-04	ITEM CARTON BOX	
28	2H		J21-4354-04	MOUNTING HARDWARE	ACSY
29	1H		J29-0648-03	ANGLE BRACKET	ACSY
30	2H		J6-0307-05	WARP BAND	ACSY
31	2H		N09-0578-04	DRESSED SCREW	ACSY
32	2G		N09-0362-05	SCREW SET	ACSY
A	1E, 1F		N35-4008-46	BINDING HEAD MACHINE SCREW	
B	3A		N87-1018-46	PANEL HEAD SEMS SCREW/W	BODY 2
C	1A, 1B		N87-2006-46	BRAZIER HEAD TAPITE SCREW	
C	2A, 1B		N87-3008-46	BRAZIER HEAD TAPITE SCREW	

INTERFACE UNIT (X46-3240-22) : BODY 1

C1,2		CK73GB11-102K	CHIP C	100PF	K
C3		CK73GB11-110K	CHIP C	100PF	J
C5,6		CK73GB11-102K	CHIP C	100PF	K
C5,10		CK73GB11-100K	CHIP C	0.01UF	K
C13		CK73GB11-102K	CHIP C	100PF	K
C14		CK73GB11-110K	CHIP C	100PF	J
C16-19		CK73GB11-110K	CHIP C	100PF	J
C20		CK73GB11-102K	CHIP C	100PF	K
C21		C82-0507-05	CHIP-TAN	47UF	0.33WV
C22,23		C82-0508-05	CHIP-TAN	10UF	0.33WV
C24,25		CK73GB11-104K	CHIP C	0.1UF	K
C24-29		CK73GB11-110K	CHIP C	100PF	J

Ref. No.	Address	New parts	Parts No.	Description	Destination
CN1			E40-5553-05	PIN CONNECTOR (11P)	
CN3,4			E40-5553-05	PIN CONNECTOR (11P)	
CN5			E40-5551-05	PIN CONNECTOR (10P)	
L1,2			L40-1085-34	SMALL FIXED INDUCTOR (10H)	
L7,8			L40-1055-34	SMALL FIXED INDUCTOR (10H)	
R1			PK73GB11-103J	CHIP R	10K J 1/16W
R2,3			PK73GB11-473J	CHIP R	47K J 1/16W
R4			PK73GB11-103J	CHIP R	10K J 1/16W
R5			PK73GB11-473J	CHIP R	47K J 1/16W
R6			PK73GB11-104J	CHIP R	100K J 1/16W
R7			PK73GB11-103J	CHIP R	10K J 1/16W
R8			PK73GB11-332J	CHIP R	33K J 1/16W
R9			PK73GB11-123J	CHIP R	12K J 1/16W
R10			PK73GB11-332J	CHIP R	33K J 1/16W
R11			PK73GB11-104J	CHIP R	100K J 1/16W
R26,27			R92-1252-05	CHIP R	0 OHM
R33			R92-1252-05	CHIP R	0 OHM
R36			R92-1252-05	CHIP R	0 OHM
R38			R92-0679-05	CHIP R	0 OHM
H42			R92-1252-05	CHIP R	0 OHM
R172			H82-1252-05	CHIP R	0 OHM
S1			S75-0018-05	RELAY (12V)	
D1,2			1SS355	DIODE	
D4			DA204K	DIODE	
D5			1SS355	DIODE	
IC1			DL4368BCF	IC (ANALOG SW ICH X4)	
IC2			RL4394BCF	IC (8 STATE SHIFT/STORE REGISTER)	
IC3			NLM4558M	IC (OP AMP X2)	
Q1			2SC4116(Y)	TRANSISTOR	
Q2-5			OTC114EK	TRANSISTOR	

INTERFACE UNIT (X46-3240-23) : BODY 2

C1,2		CK73GB11-102K	CHIP C	100PF	K
C3		CK73GB11-110K	CHIP C	100PF	J
C5-7		CK73GB11-102K	CHIP C	100PF	K
C10		CK73GB11-103K	CHIP C	0.01UF	K
C13		CK73GB11-102K	CHIP C	100PF	K
C16-19		CK73GB11-110K	CHIP C	100PF	J
C20-23		CK73GB11-110K	CHIP C	100PF	J
CN3,4		E40-5553-05	PIN CONNECTOR (11P)		
CN5		E40-5551-05	PIN CONNECTOR (10P)		
L7,8		L40-1085-34	SMALL FIXED INDUCTOR (10H)		
R7		R92-1252-05	CHIP R	0 OHM	
R5		R92-1252-05	CHIP R	0 OHM	
R29,30		R92-1252-05	CHIP R	0 OHM	
R39-41		R92-1252-05	CHIP R	0 OHM	
R73		R92-1252-05	CHIP R	0 OHM	
K1		S75-0018-05	RELAY (12V)		
D2		1SS355	DIODE		
D1		DA204K	DIODE		
D5		1SS355	DIODE		

KRK-7DB/8DBH

PARTS LIST

KRK-8DBH
INTERFACE UNIT (X46-3240-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
KRK-8DBH (Y60-384)					
1	2D		A22-2003-03	SUB PANEL	
2	2F		A22-2004-03	SUB PANEL (HFAC)	
3	3C		A62-0308-02	PANELL	
4	1F		A62-0031-07	REAR PANELL	
5	2J		B09-0393-04	CAP	ACSY
6			B42-3317-04	LABEL(S/N)	
7	3D	*	B42-5874-04	MODEL NAME PLATE	BODY 1
7	3D	*	B42-5875-04	MODEL NAME PLATE	BODY 2
9	1J		B62-0952-00	INSTRUCTION MANUAL	
10	1I	*	E30-3328-05	THUNK CABLE	ACSY
15	2L		L59-0404-05	SQUARE PLUG	ACSY
W101	1I		E30-3055-05	GRO. INC. LEAD WIRE	ACSY
W102	7F-3C7E		F37-0166-05	CONNECTING WIRE (11P)	
W103	3E		L37-0743-05	CONNECTING WIRE (ACC 12P)	
W104	1C		E37-1786-05	CONNECTING WIRE (UNIT 10P)	
16	2J		F67-1479-03	COVER	ACSY
18	2E		G13-3684-04	CUSHION	
2C	2D		G53-0839-03	PACKING (PANEL)	
21	2J		H10-0620-02	POLYSTYRENE FOAMED FIXTURE	
22	1J		H11-0983-04	POLYSTYRENE PLATE	
23	2J		H25-0229-04	PROTECTION BAG (60x110)	
24	2J		H25-0290-04	PROTECTION BAG (80x120)	
25	11,2J		H25-0103-04	PROTECTION BAG (125x250)	
26	11,2J		H25-0170-04	PROTECTION BAG (150x150)	
27	3I		H32-1256-04	ITEM CARTON BOX	
28	2J		J21-4354-04	MO. INT'NS HARDWARE	ACSY
29	11,1J		J29-0549-03	ANGLE BRACKET	ACSY
30	2J		J61-0337-05	WIRE BAND	ACSY
31	2J		N08-0520-04	DRESSED SCREW	ACSY
32	1I		N99-2010-05	SCREW SET	ACSY
A	1F,1F		N65-4309-45	BINDING HEAD MACHINE SCREW	
C	1C,1C		N67-2506-4E	BRAZIER HEAD TAPWTF SCREW	
D	2C,1C		N67-3308-4E	BRAZIER HEAD TAPWTF SCREW	

INTERFACE UNIT (X46-3240-24) : BODY 1

C1,2			CK73GB1H102K	CHIP C	100PF	K
C3			CK73GB1H101J	CHIP C	100PF	J
C5,8			CK73GB1H102K	CHIP C	1000PF	K
C9,1C			CK73GB1H103K	CHIP C	0.015UF	K
C13			CK73GB1H102K	CHIP C	1000PF	K
C14			CK73GB1H101J	CHIP C	100PF	J
C15			CK73GB1H103K	CHIP C	0.010UF	K
C16,19			CK73GB1H101J	CHIP C	100PF	J
C20			CK73GB1H102K	CHIP C	1000PF	K
C21			C92-3507-05	CHIP TAN	47UF	E,3WV
C22,23			C92-0560-05	CHIP TAN	10UF	E,3WV
C24,25			CK73GB1H104K	CHIP C	0.010UF	K
C42-49			CK73GB1H101J	CHIP C	100PF	J
CN1			F40-5953-05	PIN CONNECTOR (11P)		
CN3,4			L40-5953-05	PIN CONNECTOR (11P)		
CN5			F40-5951-05	PIN CONNECTOR (10P)		
L1,2			L40-1095-34	SMALL FIXED INDUCTOR (1U-I)		
L7,E			L40-1095-34	SMALL FIXED INDUCTOR (1U-I)		
L12,3			L40-1095-34	SMALL FIXED INDUCTOR (1U-I)		

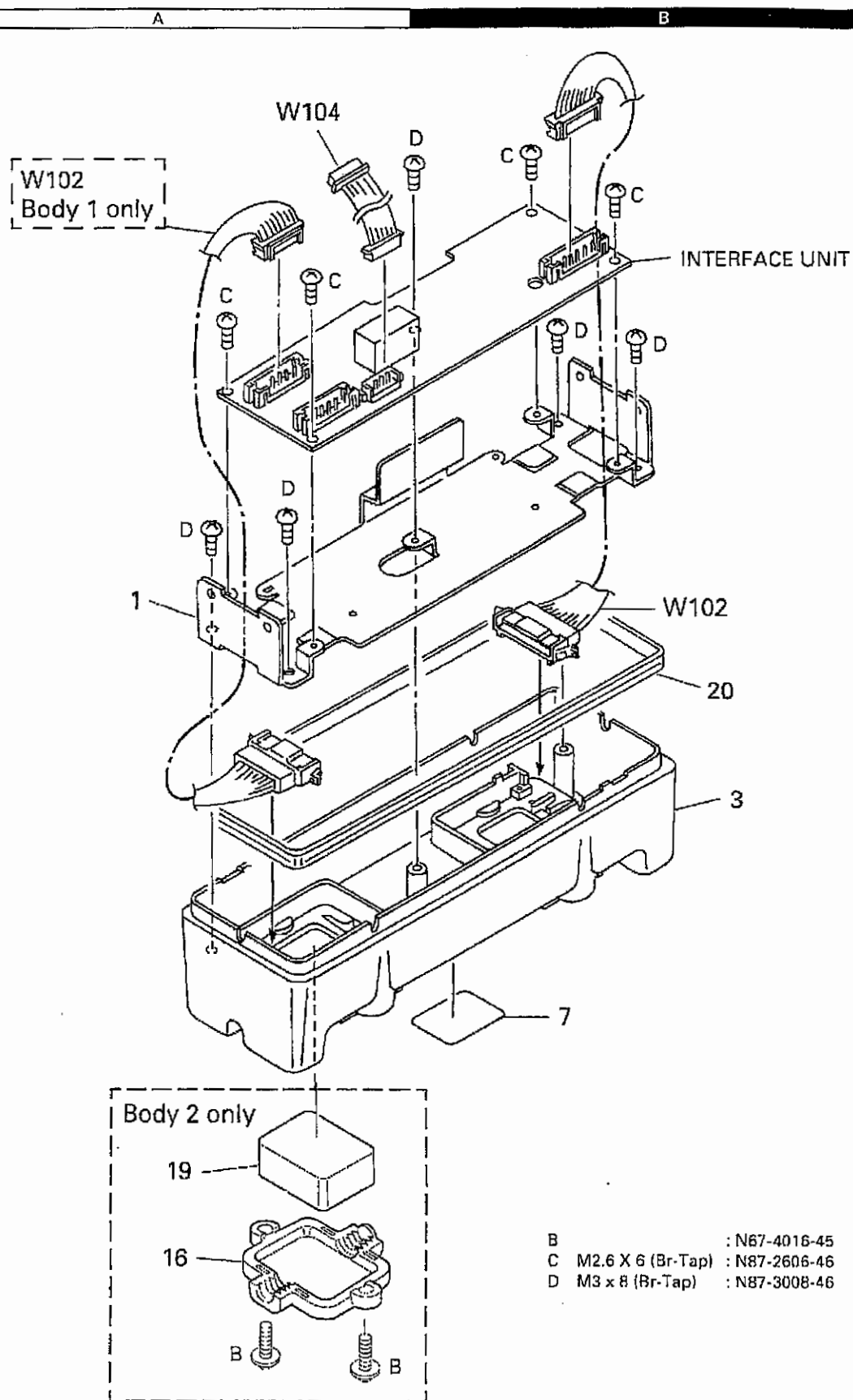
Ref. No.	Address	New parts	Parts No.	Description	Destination
R1			CK73GB1H103J	CHIP R	10K J 1/16W
R2,3			CK73GB1H103J	CHIP R	47K J 1/16W
R4			CK73GB1H103J	CHIP R	10K J 1/16W
R5			CK73GB1H103J	CHIP R	47K J 1/16W
R6			CK73GB1H104J	CHIP R	10K J 1/16W
R7			CK73GB1H103J	CHIP R	15K J 1/16W
R8			CK73GB1H103J	CHIP R	33K J 1/16W
R9			CK73GB1H103J	CHIP R	12K J 1/16W
R10			CK73GB1H103J	CHIP R	33K J 1/16W
R17			CK73GB1H104J	CHIP R	10K J 1/16W
R26,27			RE2-1262-05	CHIP R	0 OHM
R32			RE2-1262-05	CHIP R	0 OHM
R36			RE2-1252-05	CHIP R	0 OHM
R38			RE2-0518-05	CHIP R	0 OHM
R42			RE2-1252-05	CHIP R	0 OHM
R124			RE2-1252-05	CHIP R	0 OHM
K1,2			S75-0018-05	RELAY (12V)	
D1,3			1SS355	DIODE	
D4			DA204K	DIODE	
D5			1SS355	DIODE	
IC1			BU4058BCF	IC (ANALOG SWITCH X4)	
IC2			BU4058BCF	IC (8-STAGE SWITCH/STOR. REGISTER)	
IC3			NJM4558M	IC (OP AMP X2)	
Q1			2SC4118(Y)	TRANSISTOR	
Q2,6			D1C14HK	TRANSISTOR	

INTERFACE UNIT (X46-3240-25) : BODY 2

C1,2			CK73GB1H102K	CHIP C	100PF	K
C3			CK73GB1H101J	CHIP C	100PF	J
C5-7			CK73GB1H102K	CHIP C	1000PF	K
C10			CK73GB1H103K	CHIP C	0.010UF	K
C13			CK73GB1H102K	CHIP C	1000PF	K
C14			CK73GB1H101J	CHIP C	100PF	J
C16-19			CK73GB1H101J	CHIP C	100PF	J
C42-49			CK73GB1H101J	CHIP C	100PF	J
CN1			F40-5953-05	PIN CONNECTOR (11P)		
CN3,4			F40-5953-05	PIN CONNECTOR (11P)		
CN5			L40-5951-05	PIN CONNECTOR (10P)		
L5,9			L40-1095-34	SMALL FIXED INDUCTOR (1U-I)		
R12			RE2-1262-05	CHIP R	0 OHM	
R15			RE2-1252-05	CHIP R	0 OHM	
R26,30			RE2-1252-05	CHIP R	0 OHM	
R38			RE2-1252-05	CHIP R	0 OHM	
R40,41			RE2-1252-05	CHIP R	0 OHM	
R125			RE2-1262-05	CHIP R	0 OHM	
K1			S75-0018-05	RELAY (12V)		
D2			1SS355	DIODE		
D4			DA204K	DIODE		
D5			1SS355	DIODE		

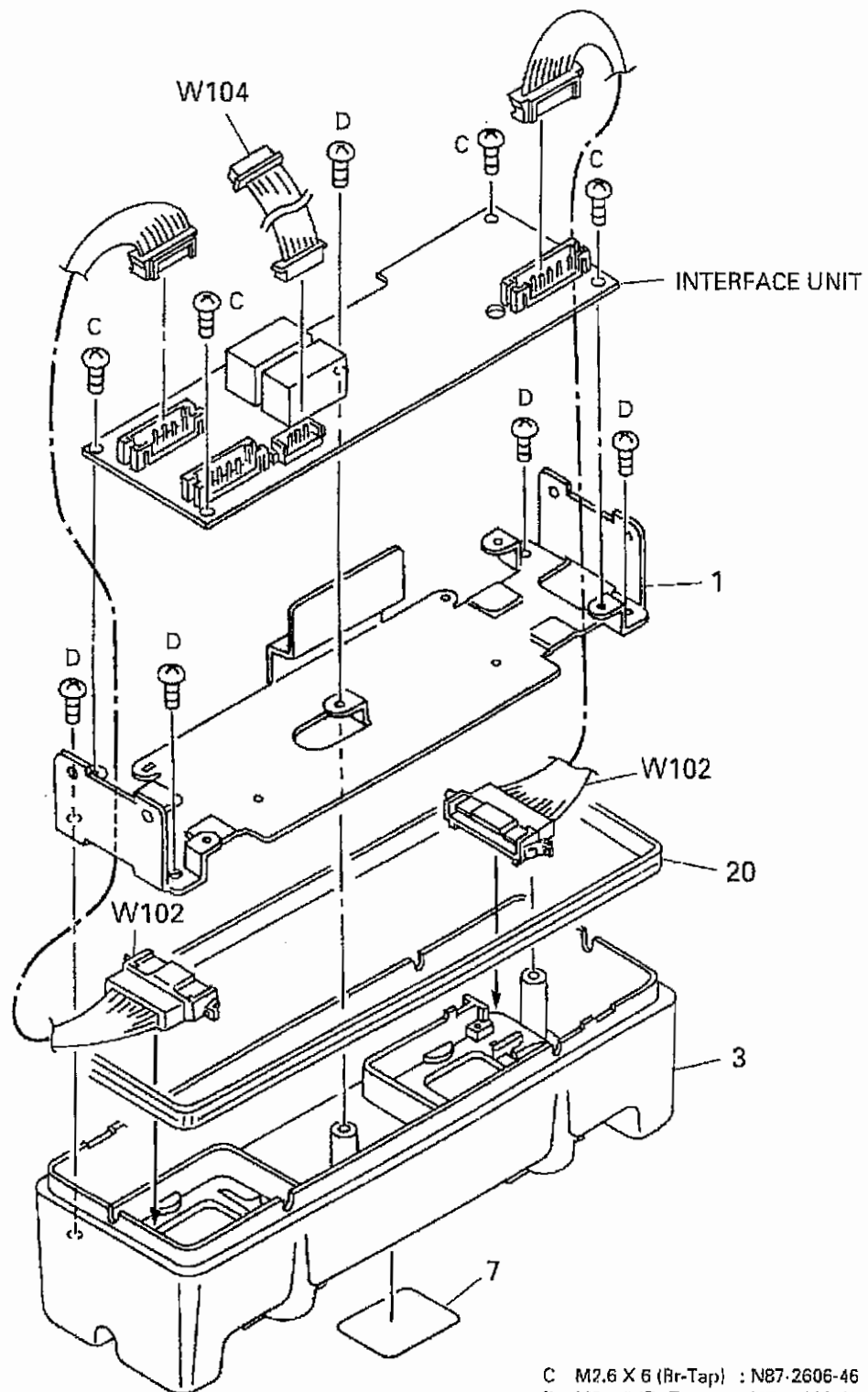
KRK-7DB/8DBH

EXPLODED VIEW (KRK-7DB)



KRK-/DB/8DBH

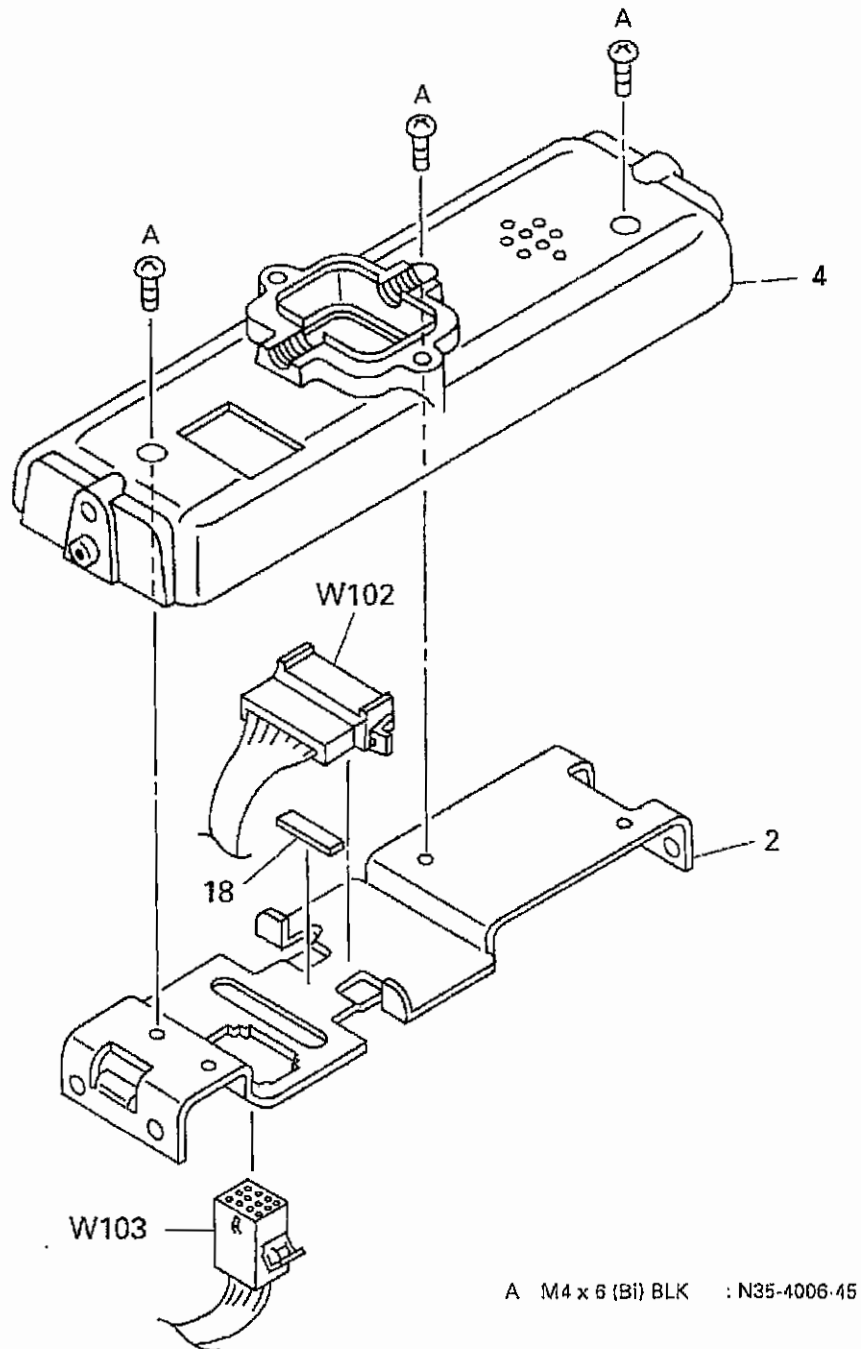
EXPLODED VIEW (KRK-8DBH)



C M2.6 X 6 (Br-Tap) : N87-2606-46
D M3 x 8 (Br-Tap) : N87-3008 46

KRK-7DB/8DBH

EXPLODED VIEW (HEAD)

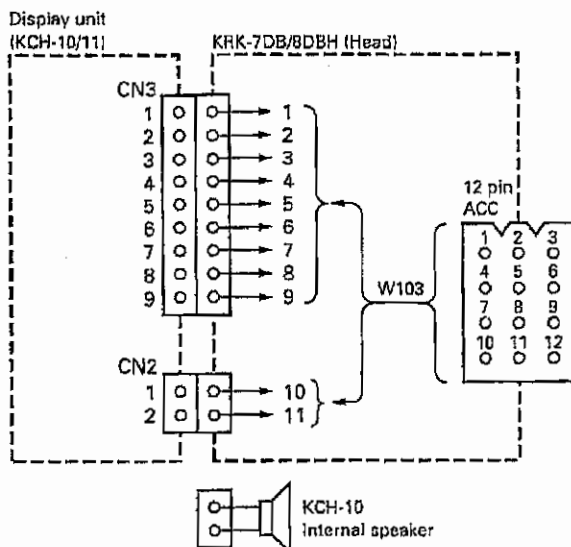


KRK-7DB/8DBH

TERMINAL FUNCTION

CN No.	Pin No.	Pin name	I/O	Function
INTERFACE UNIT (X46-3240-XX)				
-22, -23 : KRK-7DB -24, -25 : KRK-8DBH				
CN1 To Remote head (KRK-7DB) head 1, 2 (KRK-8DBH)	1	ME	-	MIC earth.
	2	MIC	I	MIC signal input.
	3	E	-	Earth.
	4	NC	-	Not used.
	5	1/2	O	Remote head 1 signal output.
	6	TRD	I/O	RX/TX data input.
	7	PS	I	Power switch control signal input.
	8	IGN	I	Ignition sense input.
	9	SB	O	Power output after power switch (13.4V).
	10	RS1	O	Output for remote speaker.
	11	RS2	O	Output for remote speaker.
CN3 To Body 2	1	ME	-	MIC earth.
	2	MIC	I	MIC signal output.
	3	SB	O	Power output after power switch (13.4V).
	4	AFO	I	RX audio signal input.
	5	TRD	I/O	RX data input/TX data output.
	6	PS	I	Power switch control signal input.
	7	ME2	-	MIC earth.
	8	MI2	O	MIC signal.
	9	RST	I/O	Reset signal.
	10	PSC	I/O	Power switch control signal input/output.
	11	DE3	O	RX detection signal.
CN4 To Control unit (Radio 1, 2)	1	ME	-	MIC earth.
	2	MIC	O	MIC signal input.
	3	E	-	Earth.
	4	NC	-	Not used.
	5	1/2	-	Not used.
	6	TRD	I/O	TX data output/RX data input.
	7	PS	O	Power switch control signal output.
	8	IGN	O	Ignition sense output.
	9	SB	I	Power output after power switch.
	10	RS1	I	Input for remote speaker.
	11	RS2	I	Input for remote speaker.

CN No.	Pin No.	Pin name	I/O	Function
CN5 To Control unit (Radio 1, 2)	1	CS	I	Chip select input for D/A converter.
	2	PSC	-	Not used.
	3	5C	I	Common 5V input.
	4	RST	I	Reset signal input.
	5	D ⁺	I	Data input.
	6	CK	I	Clock input.
	7	FI	I	Enable input for shift register.
	8	E	-	Earth.
	9	DE3	O	Detection signal output for internal.
	10	AFO	I	RX audio signal input.
W103 (12 pin ACC connector)	1	IGN	I	Ignition sense input.
	2	SB	O	Power output after power switch (13.4V, 15%).
	3	E	-	Earth.
	4	MIC	I	MIC signal input.
	5	M.F	-	MIC earth.
	6	A1	I	Auxiliary input 1 (FPU selectable, Open: OFF, "L": ON, Input: Max. 5V).
	7	A2	I	Auxiliary input 2 (FPU selectable, Open: OFF, "L": ON, Input: Max. 5V).
	8	AO1	O	Auxiliary output 1 (FPU selectable, Zo=1kΩ, AUX A,B,C Key on: "L", Key off: "H", Signalling mismatch: "L", Signalling match: "H", COR Not busy: "L", Busy: "H, Z).
	9	AO2	O	Auxiliary output 2 (FPU selectable, Zo=1kΩ, AUX A,B,C Key on: "L", Key off: "H", Signalling mismatch: "L", Signalling match: "H, Z, COR Not busy: "L", Busy: "H, Z).
	10	RS1	O	Remote speaker output.
	11	RS2	O	Remote speaker output.
	12	NC	-	Non connection.



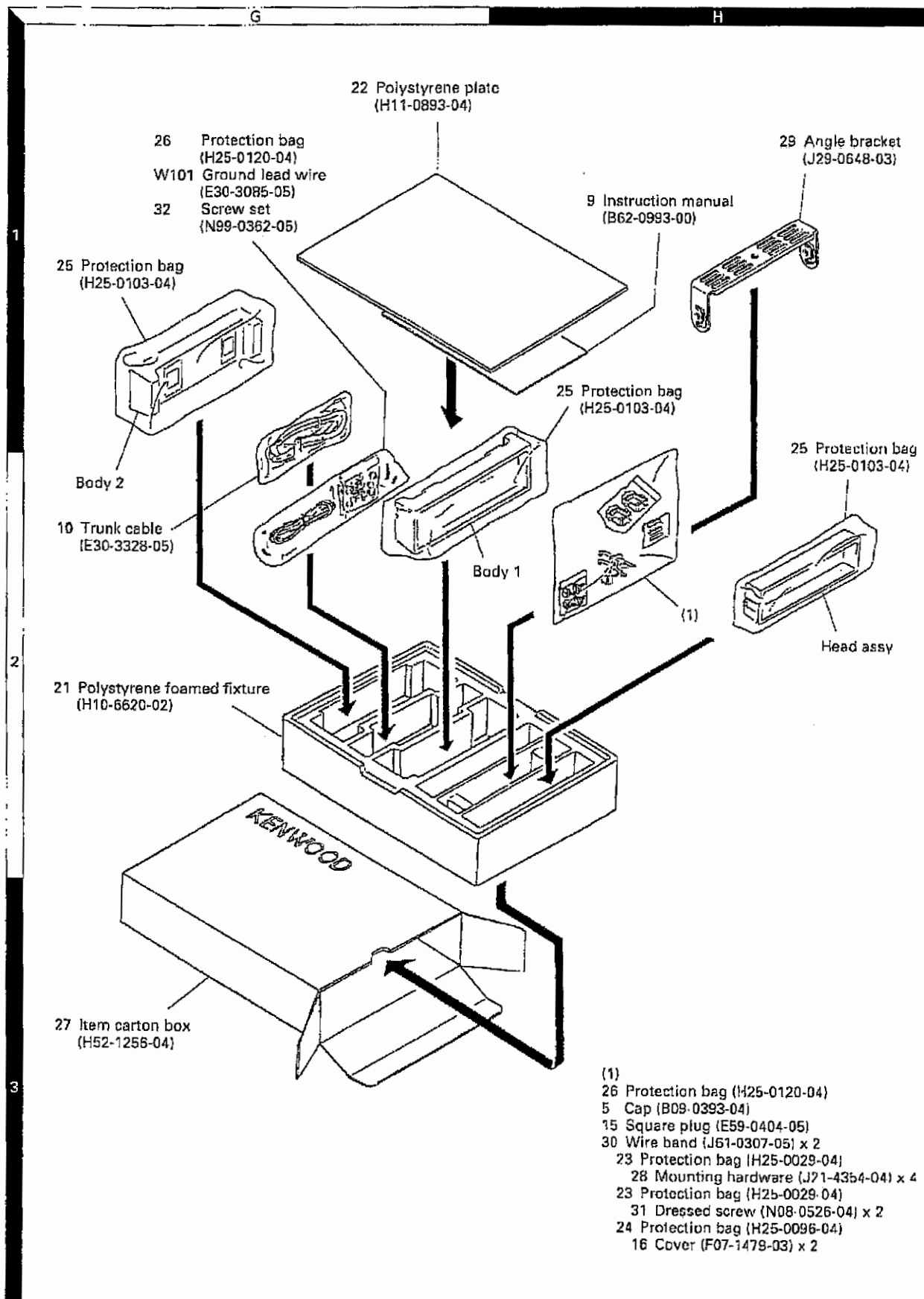
If the KCH-10 is used

If the external speaker is connected to the 12-pin accessory connector, cut the internal speaker wire at the base of the speaker.

If the internal speaker is used, cut the wire connected to pins 10 and 11 of the 12-pin accessory connector at the base of the connector.

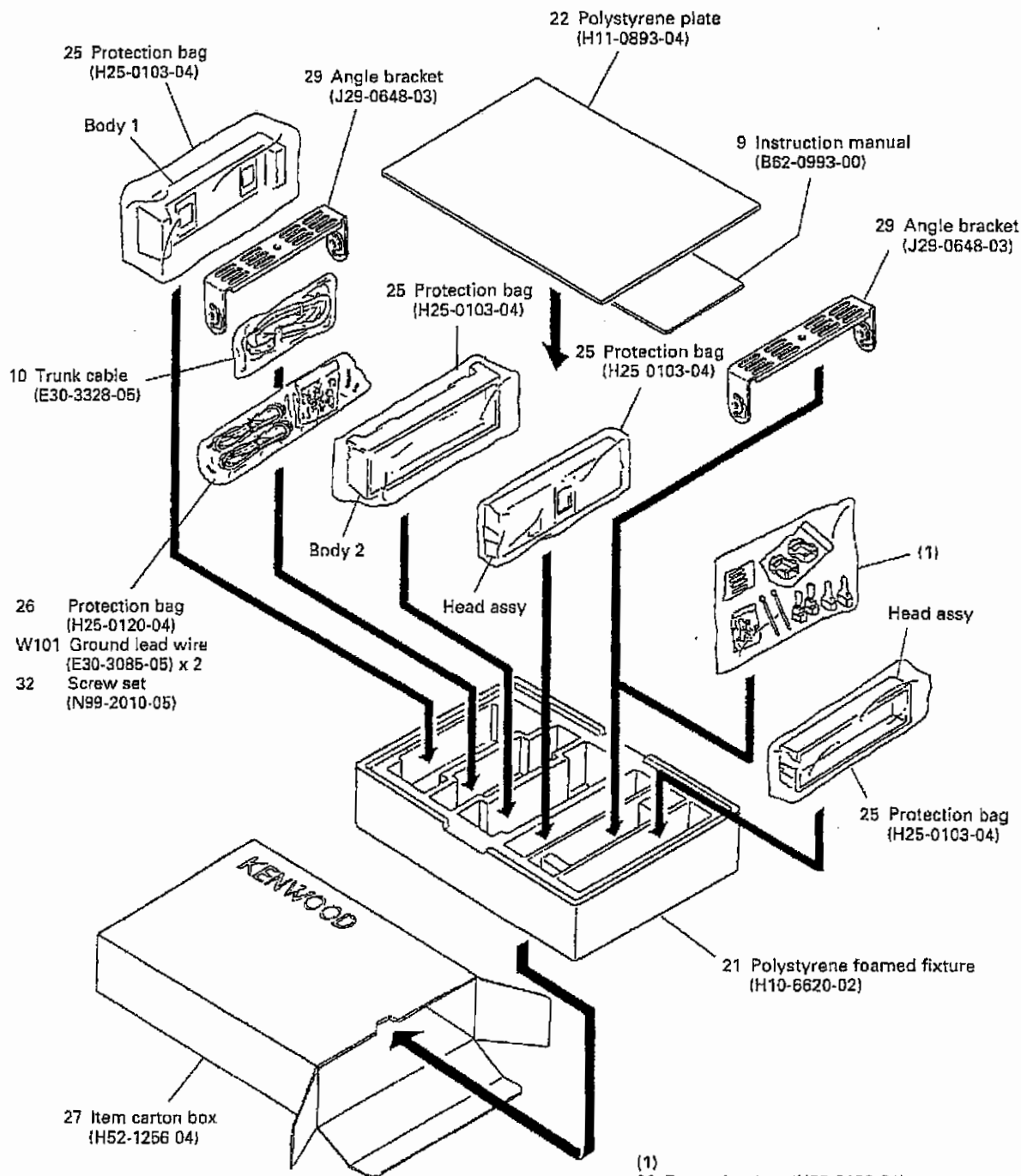
KRK-7DB/8DBH

PACKING (KRK-7DB)



KRK-7DB/8DBH

PACKING (KRK-8DBH)



- (1)
- 26 Protection bag (H25-0120-04)
 - 5 Cap (B09-0393-04) x 2
 - 15 Square plug (E59-0404-05) x 2
 - 30 Wire band (J61-0307-05) x 2
 - 23 Protection bag (H25-0029-04)
 - 28 Mounting hardware (J21-4354-04) x 4
 - 23 Protection bag (H25-0029-04)
 - 31 Dressed screw (N08-0526-04) x 4
 - 24 Protection bag (H25-0096-04)
 - 16 Cover (F07-1479-03) x 2

To Control Head 1

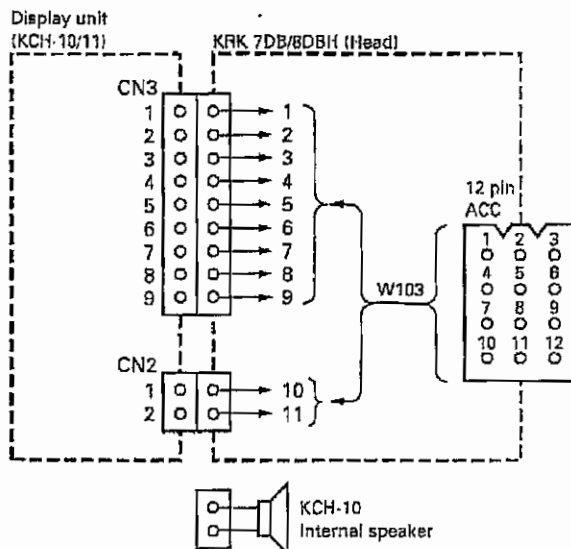
To Radio

KRK-7DB/8DBH

TERMINAL FUNCTION

CN No.	Pin No.	Pin name	I/O	Function
INTERFACE UNIT (X46-3240-XX)				
-22, -23 : KRK-7DB -24, -25 : KRK-8DBH				
CN1 To Remote head (KRK-7DB) head 1, 2 (KRK-8DBH)	1	ME	-	MIC earth.
	2	M.C	I	MIC signal input.
	3	E	-	Earth.
	4	NC	-	Not used.
	5	1/2	O	Remote head 1 signal output.
	6	TRD	I/O	RX/TX data input.
	7	PS	I	Power switch control signal input.
	8	IGN	I	Ignition sense input.
	9	SB	O	Power output after power switch (13.4V).
	10	RS1	O	Output for remote speaker.
	11	RS2	O	Output for remote speaker.
CN3 To Body 2	1	ME	-	MIC earth.
	2	MIC	I	MIC signal output.
	3	SB	O	Power output after power switch (13.4V).
	4	AFO	I	RX audio signal input.
	5	TRD	I/O	RX data input/TX data output.
	6	PS	I	Power switch control signal input.
	7	ME2	-	MIC earth.
	8	MI2	O	MIC signal.
	9	RST	I/O	Reset signal.
	10	PSC	I/O	Power switch control signal input/output.
	11	DE3	O	RX detection signal.
CN4 To Control unit (Radio 1, 2)	1	ME	-	MIC earth.
	2	MIC	O	MIC signal input.
	3	E	-	Earth.
	4	NC	-	Not used.
	5	1/2	-	Not used.
	6	TRD	I/O	TX data output/RX data input.
	7	PS	O	Power switch control signal output.
	8	IGN	O	Ignition sense output.
	9	SB	I	Power output after power switch.
	10	RS1	I	Input for remote speaker.
	11	RS2	I	Input for remote speaker.

CN No.	Pin No.	Pin name	I/O	Function
CN5 To Control unit (Radio 1, 2)	1	CS	I	Chip select input for D/A converter.
	2	PSC	-	Not used.
	3	5C	I	Common 5V input.
	4	RST	I	Reset signal input.
	5	DT	I	Data input.
	6	CK	I	Clock input.
	7	EI	I	Enable input for shift register.
	8	E	-	Earth.
	9	DE3	O	Detection signal output for interrupt.
	10	AFO	I	RX audio signal input.
W103 (12 pin ACC connector)	1	IGN	I	Ignition sense input.
	2	SB	O	Power output after power switch (13.4V±15%).
	3	E	-	Earth.
	4	MIC	I	MIC signal input.
	5	MF	-	MIC earth.
	6	AI1	I	Auxiliary input 1 (FPU selected), Open : OFF, "L" : ON, Input : Max 5V.
	7	AI2	I	Auxiliary input 2 (FPU selected), Open : OFF, "L" : ON, Input : Max 5V.
	8	AO1	O	Auxiliary output 1 (FPU selected), Zo=1kΩ, AUX A,B,C Key on "L", Key off : HZ, TOR Signalling mismatch : "L", Signalling match : HZ.
	9	AO2	O	Auxiliary output 2 (FPU selected), Zo=1kΩ, AUX A,B,C Key on "L", Key off : HZ, TOR Signalling mismatch : "L", Signalling match : HZ.
	10	RS1	O	Remote speaker output.
	11	RS2	O	Remote speaker output.
	12	NC	-	Not connection.



If the KCH-10 is used

If the external speaker is connected to the 12-pin accessory connector, cut the internal speaker wire at the base of the speaker.

If the internal speaker is used, cut the wire connected to pins 10 and 11 of the 12-pin accessory connector at the base of the connector.

KRK-7DB/8DBH PC BOARD VIEWS

INTERFACE UNIT (X46-3240-XX) Component side view

-22, -23 : KRK-7DB

-24, -25 : KRK-8DBH

□ Component side

□ Foil side

to Control Head 2

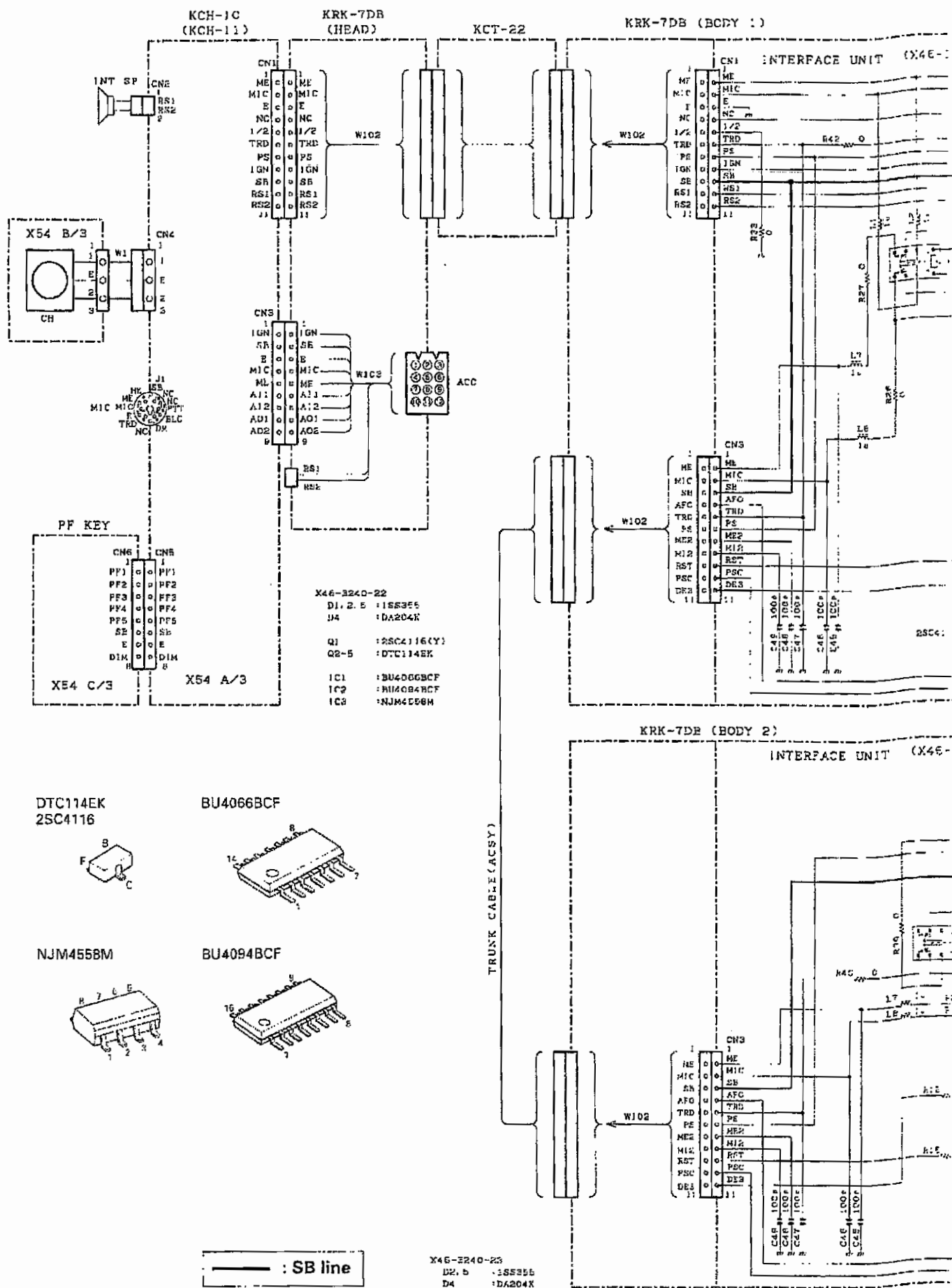
to Control Head 1

to Radio

to Radio

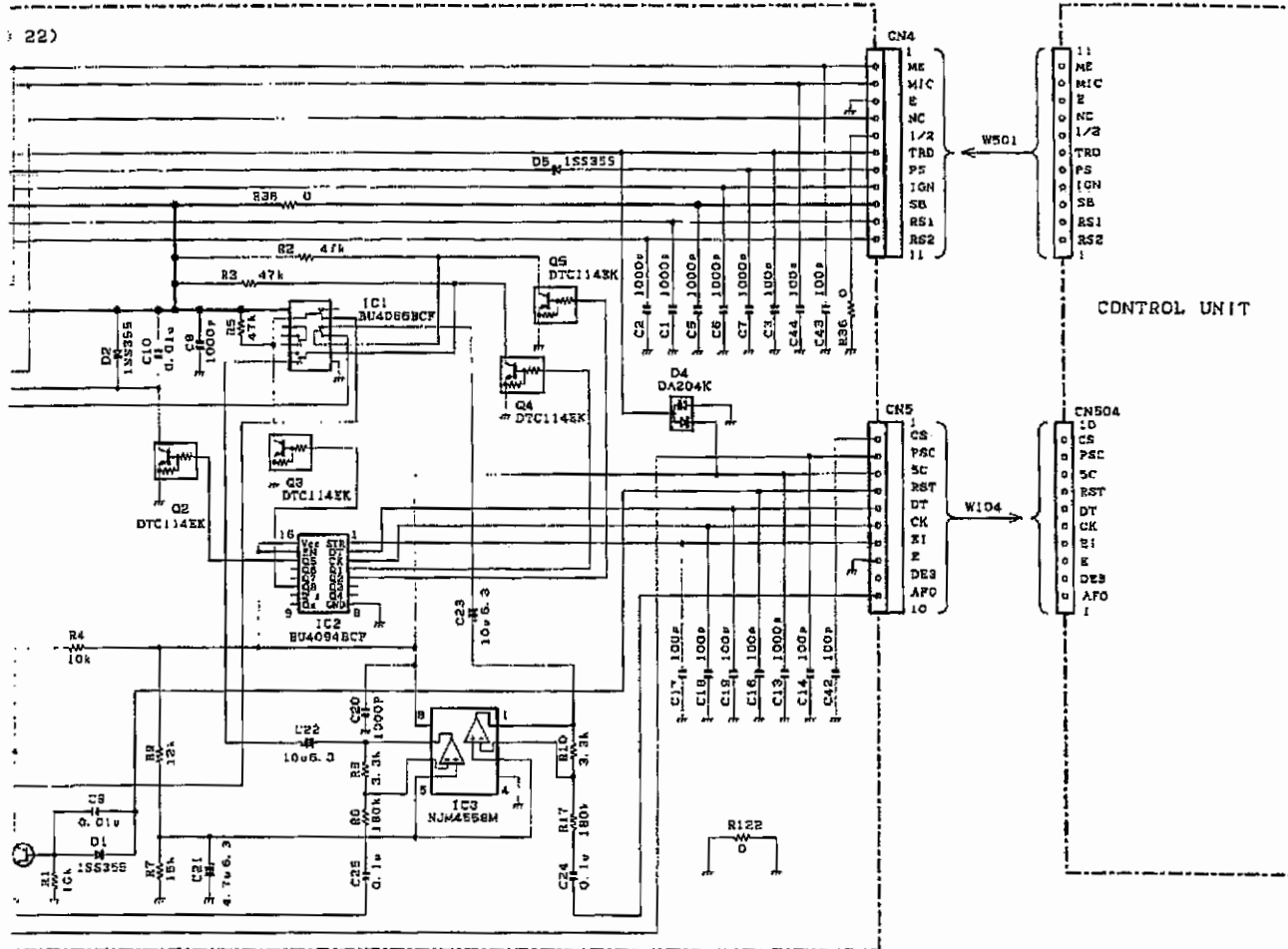
IF ALL IC'S LIGHT UP CHECK R15

Remove 47 to R22

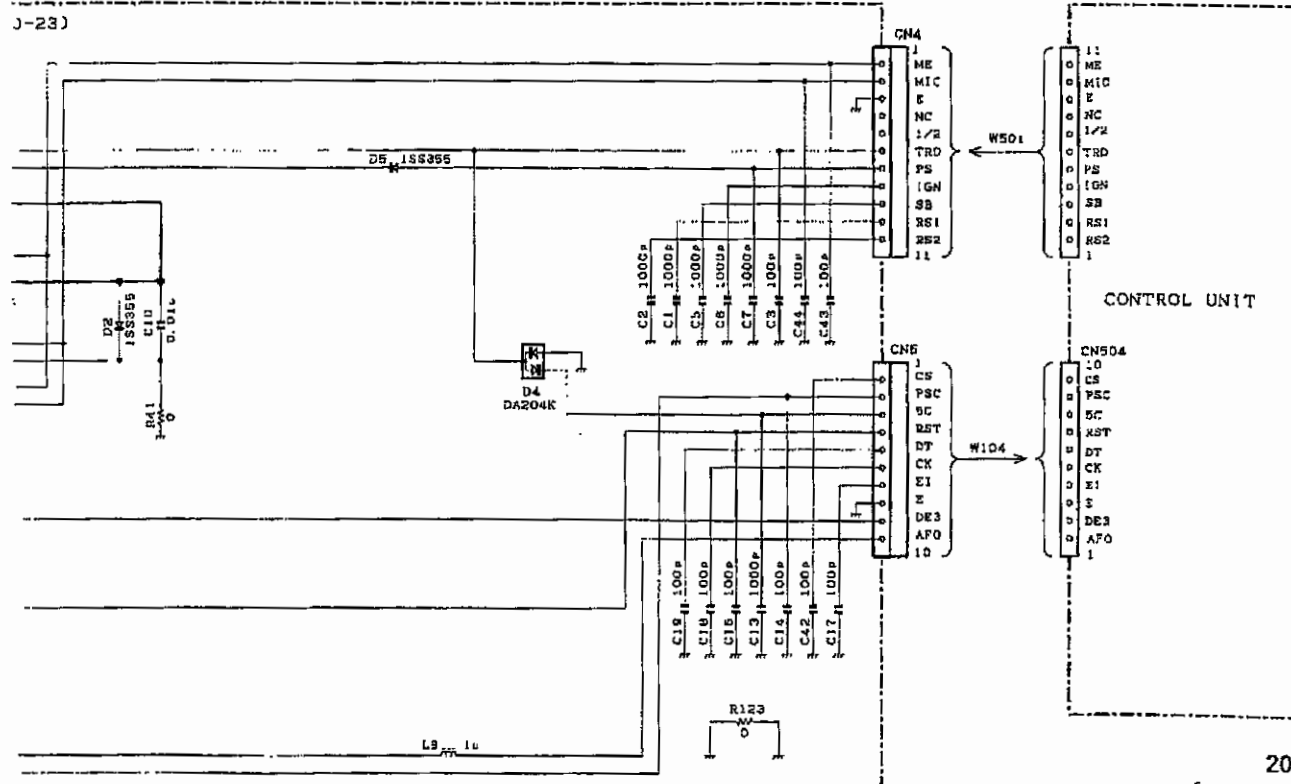


SCHEMATIC DIAGRAM KRK-7DB

TK-690/790/890
(RADIO 1)

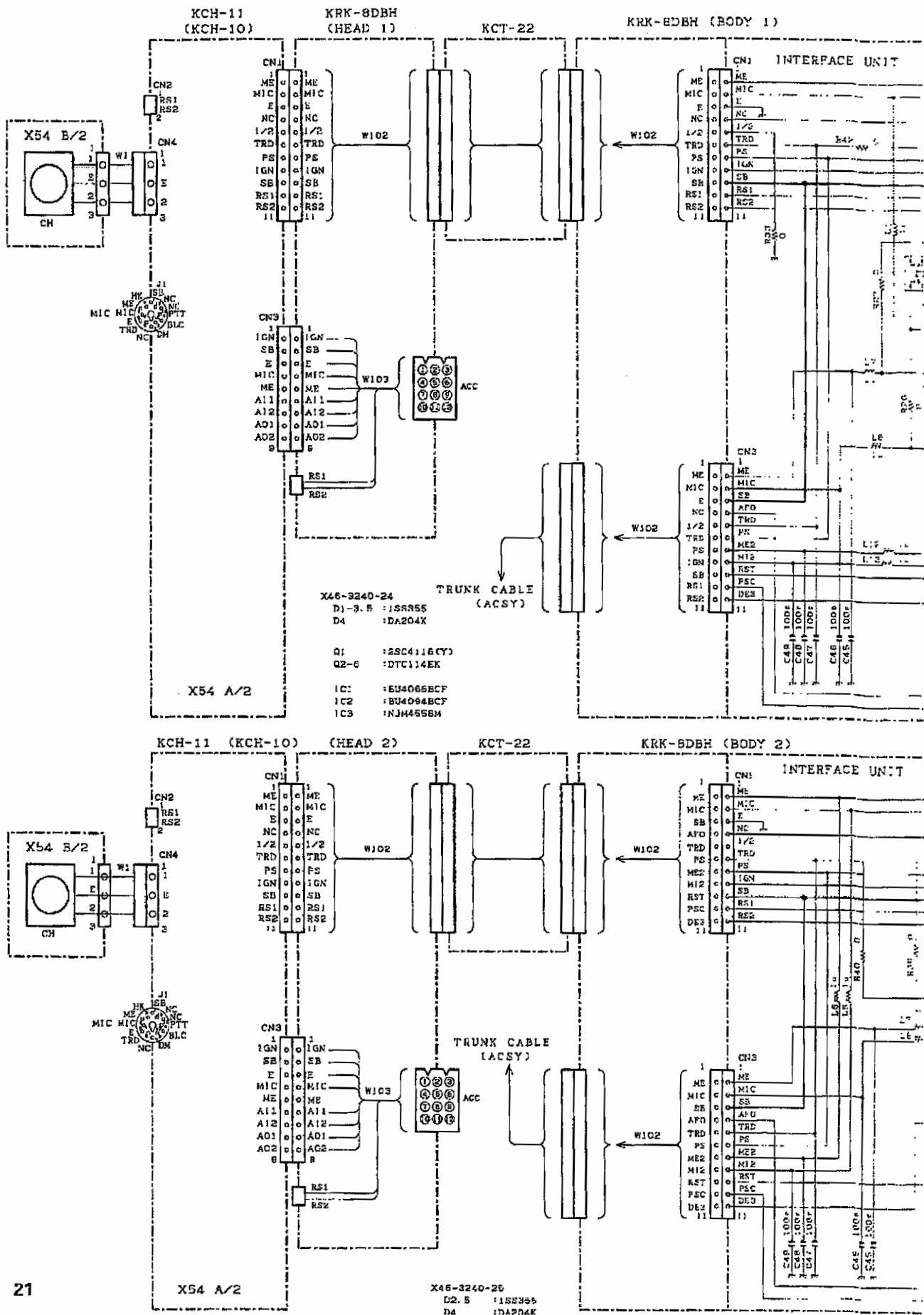


TK-690/790/890
(RADIO 2)



KRK-8DBH SCHEMATIC DIAGRAM

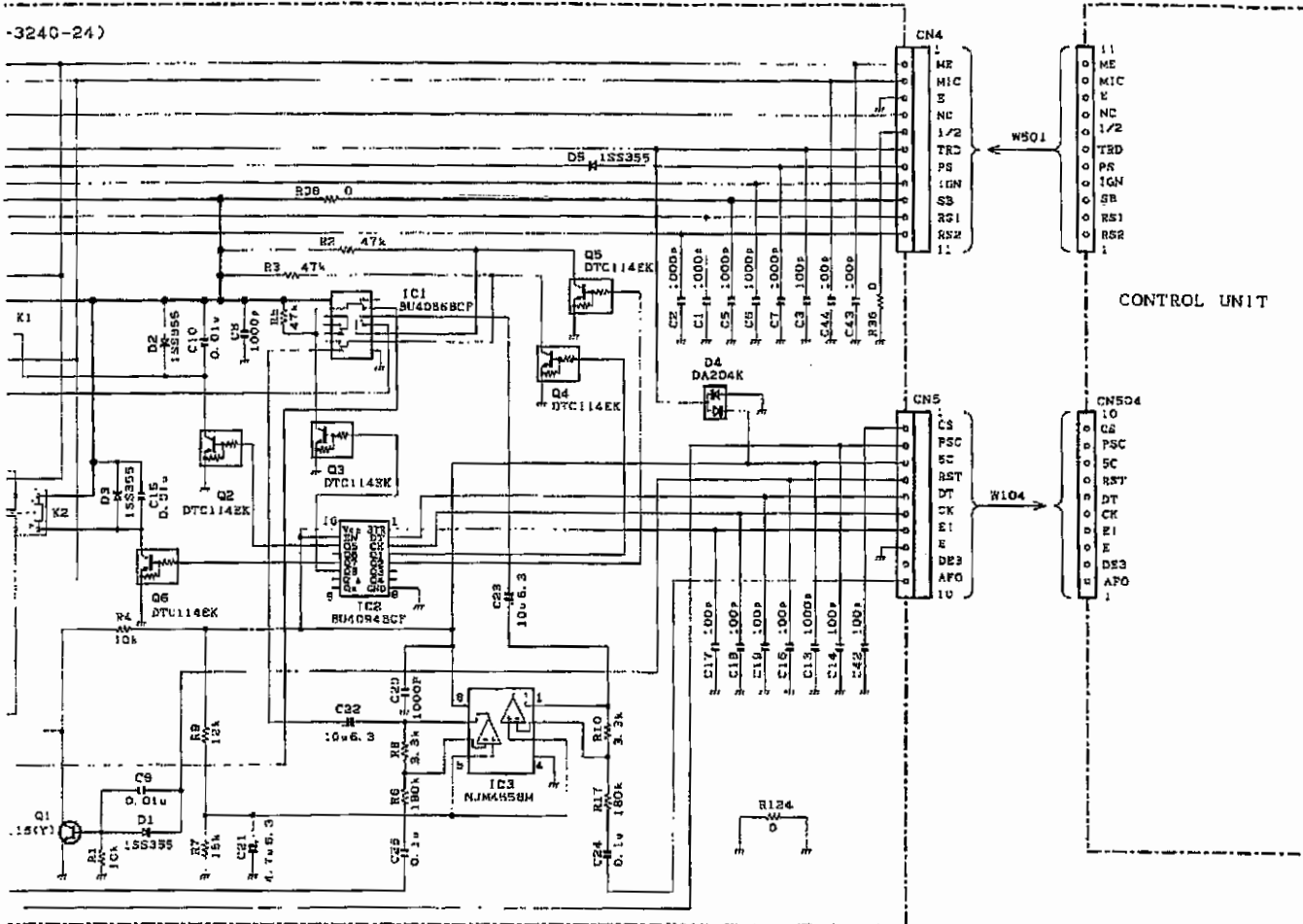
1
2
3
4
5
6
7



— : SB line

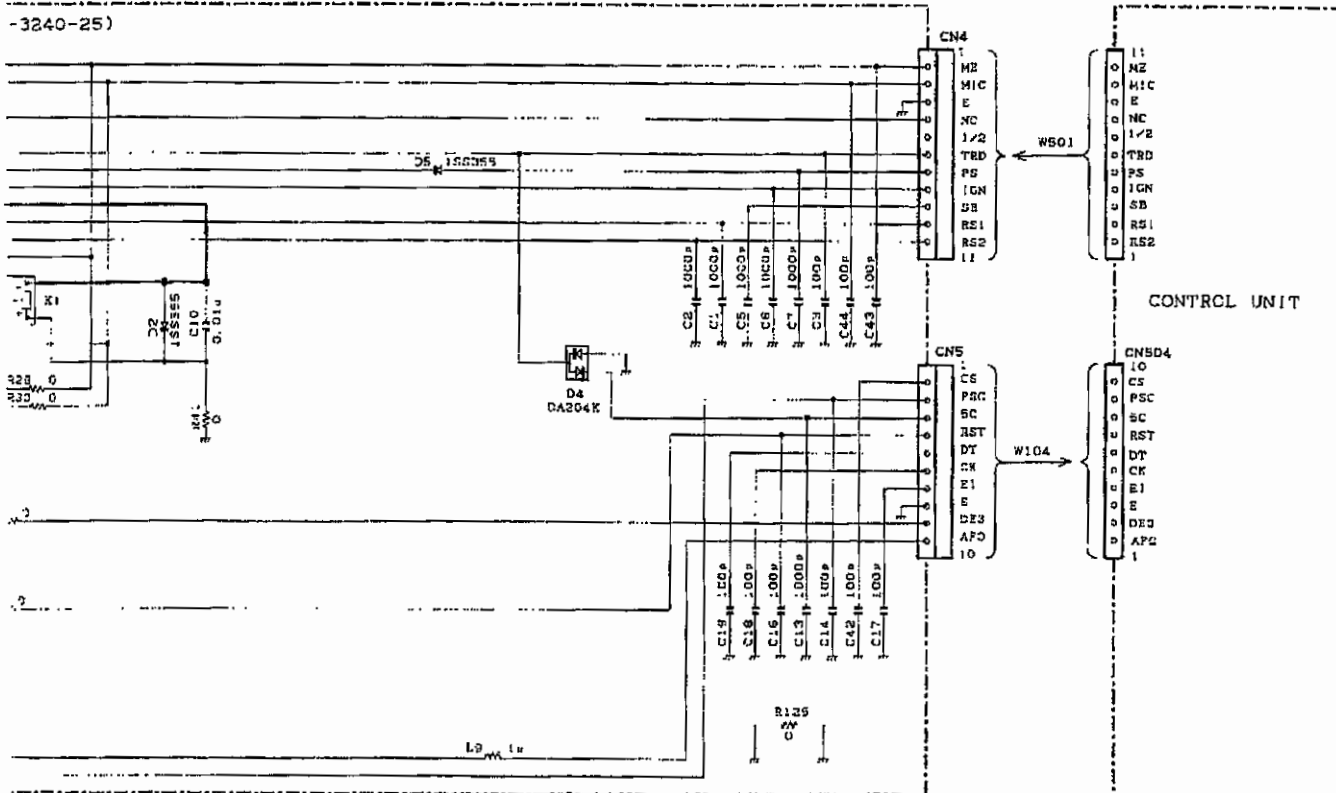
TK-690/790/890
(RADIO 1)

-3240-24)



-3240-25)

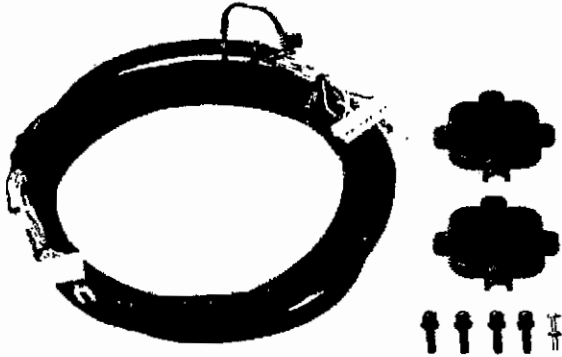
(RADIO 2)



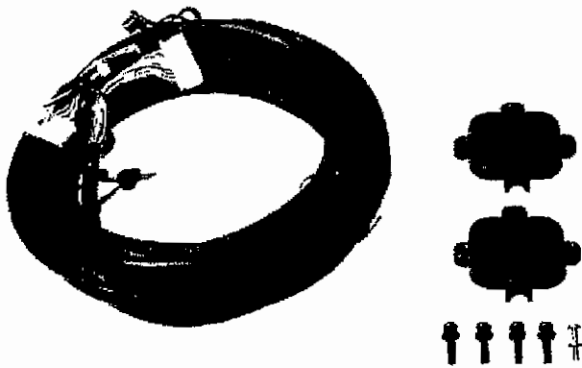
KRK-7DB/8DBH

KCT-22 (CONTROL CABLE)

KCT-22M (8 feet)



KCT-22M2 (17 feet)



KCT-22M3 (25 feet)

