10. Channel Expansion Kit (KCH-5)

This optional kit increases the number of channels and AN (alphanumeric) channels of the radio.

10-1. System configuration

*32B : Basic control head (32 ch)
99B : Basic control head (99 ch)
32A : Basic + Alphanumeric (32 ch)
99A : Basic + Alphanumeric (99 ch)
*32F : Full featured control head (32 ch)
160F : Full featured control head (160 ch)
* : Factory setting

10-2. System modification

- **KCH-3 (basic control head) is used**

1. 99B (basic control head : 99 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 99-channel display.
   1) Remove the upper half of the radio case.
   2) Remove IC109 from the control unit (X57-5060 A/4) and install the KCH-5 EEPROM (X24C16PI) by soldering. (Fig. 14)
   Note : Install it in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   3) Remove R156 (R92-0670-05) of the control unit. (Fig. 14)
2. 32A (basic + alphanumeric display : 32 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 32-channel alphanumeric display.
   1) Install the KCH-5 EEPROM in IC3 of the KCH-3 display unit (X54-3100-20 A/2) by soldering.
   Note : Install it in the correct direction. Check the mark on the IC (KCH-5), and insert it. (Fig. 15-a)
   2) Remove R18 (R92-0670-05) of the display unit. (Fig. 15-a)
3. 99A (basic + alphanumeric display : 99 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 99-channel and alphanumeric display.
   1) Install the KCH-5 EEPROM in the control unit by soldering, and remove R156. Remove R18 of the display unit.

- **KCH-4 (full-feature control head) is used**

1. 160F (Full-featured control head : 160 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 160-channel and alphanumeric display.
   1) Remove the upper half of the radio case.
   2) Remove IC109 (X24C04PI) of the control unit (X57-5060 A/4) from the socket, and install the KCH-5 (X24C16PI). (Fig. 14)
   Note : Install the IC in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   3) Remove R156 (R92-0670-05) of the control unit. (Fig. 14)
   4) Remove IC3 (X24C04PI) of the KCH-4 display unit (X54-3110-20 A/2) from the socket, and install the KCH-5 (X24C16PI). (Fig. 15-b)
   Note : Install the IC in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   5) Remove R33 (R92-0670-05) of the display unit. (Fig. 15-b)

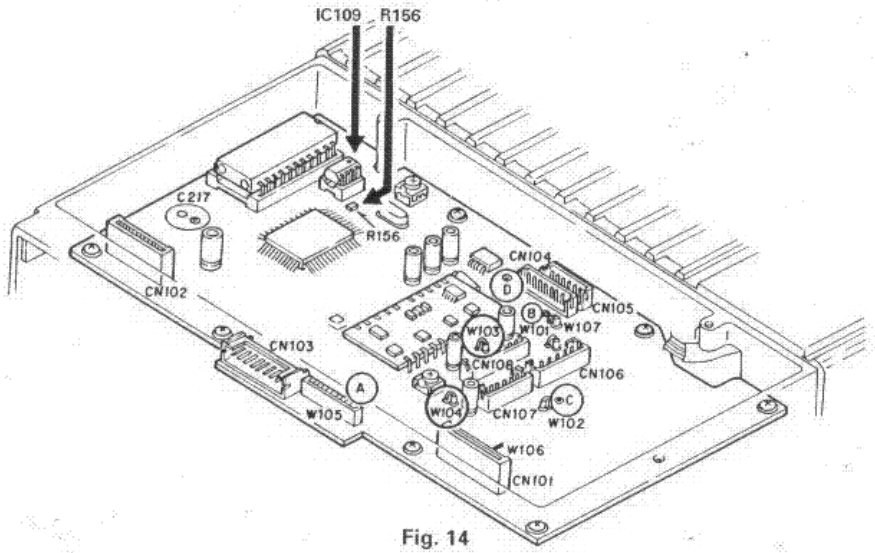
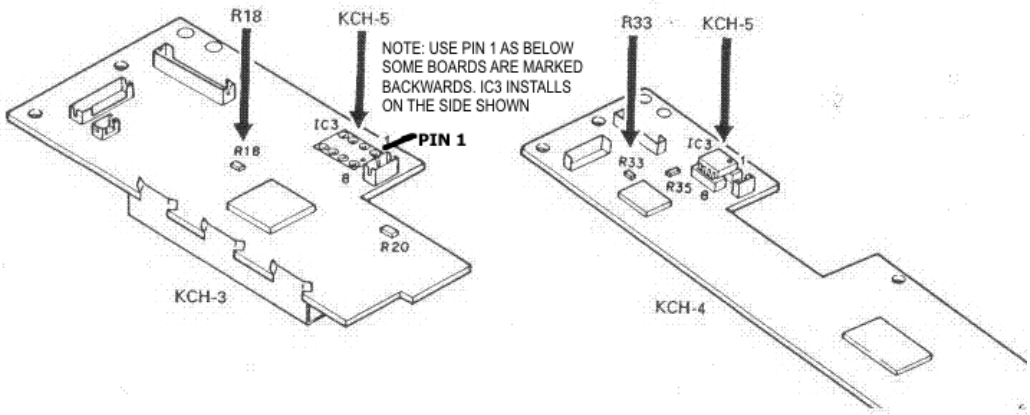


Fig. 14



KENWOOD

KCH-5 Dealer Channel/Alphanumeric Expansion Kit

Contents: 2 x 16K eeproms. 

Total Number KCH-5's to order= (KCH-5 @ mobile) x (No. of mobiles)

Round up to nearest whole number. Refer to table below for KCH-5 @ mobile requirements.

Ordering Information				Dealer Installation Guide (see service manuals for details)			
Front panel used:	KCH-5 @ mobile			Per Front Panel[1]		RF Deck(#1)[2]	
KCH-3 Basic Front	D/SH	DH	DB	IC3	R18	IC109	R158
32 Ch. (factory)	----	----	----	----	In	(4K)*	In
32A Ch.	0.5	1.0	0.5	16K	In	(4K)*	In
99 Ch.	0.5	0.5	1.0	----	In	16K	Out
99A Ch.	1.0	1.5	1.0	16K	Out	16K	Out
KCH-4 Full Front	D/SH	DH	DB	IC3	R33	IC109	R158
32A Ch. (factory)	----	----	----	(4K)*	In	(4K)*	In
160A Ch.	1.0	1.5	1.0	16K	Out	16K	Out

D= Dash Mount
SH= Single Head remote
DH= Dual Head remote
DB= Dual Band remote
A= Alphanumeric capable

(4K)*= factory installed 4K eeprom; replace with 16K eeprom for upgrade
16K= a KCH-5 eeprom
Per Front Panel [1]: for dual head mobiles a 16K eeprom must be installed in each head for alphanumeric upgrade.
RF Deck(#1) [2]: in Dual Band mobiles, this is the deck the control head is connected to; it is not necessary to install an eeprom in RF Deck#2 for channel memory upgrade.

"BASIC RULE-OF-THUMB":
Upgrade eeprom in front panel for alphanumerics upgrade (DH mobiles- upgrade each front panel)
Upgrade eeprom in rf deck for channel memory upgrade (DB mobiles- rf deck#1 only).

-OR-

L613: Install Channel/Alphanumeric Expansion- upgrades **any mobile to maximum** ch./alpha. capability; w/KCH-3 to 99A; w/KCH-4 to 160A. Includes labor & required quantities of KCH-5. List=83.00 (KCH-5's for self-upgrade; list=$49.00).

10. Channel Expansion Kit (KCH-5)

This optional kit increases the number of channels and AN (alphanumeric) channels of the radio.

10-1. System configuration

*32B : Basic control head (32 ch)
99B : Basic control head (99 ch)
32A : Basic + Alphanumeric (32 ch)
99A : Basic + Alphanumeric (99 ch)
*32F : Full featured control head (32 ch)
160F : Full featured control head (160 ch)
* : Factory setting

10-2. System modification

- **KCH-3 (basic control head) is used**

1. 99B (basic control head : 99 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 99-channel display.
   1) Remove the upper half of the radio case.
   2) Remove IC109 from the control unit (X57-5060 A/4) and install the KCH-5 EEPROM (X24C16PI) by soldering. (Fig. 14)

   Note : Install it in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   3) Remove R156 (R92-0670-05) of the control unit. (Fig. 14)
2. 32A (basic + alphanumeric display : 32 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 32-channel alphanumeric display.
   1) Install the KCH-5 EEPROM in IC3 of the KCH-3 display unit (X54-3100-20 A/2) by soldering.

   Note : Install it in the correct direction. Check the mark on the IC (KCH-5), and insert it. (Fig. 15-a)
   2) Remove R18 (R92-0670-05) of the display unit. (Fig. 15-a)
3. 99A (basic + alphanumeric display : 99 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 99-channel and alphanumeric display.
   1) Install the KCH-5 EEPROM in the control unit by soldering, and remove R156. Remove R18 of the display unit.

- **KCH-4 (full-feature control head) is used**

1. 160F (Full-featured control head : 160 channels)
   Modify the radio with the basic control head (32 channels) so that it supports a 160-channel and alphanumeric display.
   1) Remove the upper half of the radio case.
   2) Remove IC109 (X24C04PI) of the control unit (X57-5060 A/4) from the socket, and install the KCH-5 (X24C16PI). (Fig. 14)

   Note : Install the IC in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   3) Remove R156 (R92-0670-05) of the control unit. (Fig. 14)
   4) Remove IC3 (X24C04PI) of the KCH-4 display unit (X54-3110-20 A/2) from the socket, and install the KCH-5 (X24C16PI). (Fig. 15-b)

   Note : Install the IC in the correct direction. Check the mark on the IC (KCH-5), and insert it.
   5) Remove R33 (R92-0670-05) of the display unit. (Fig. 15-b)

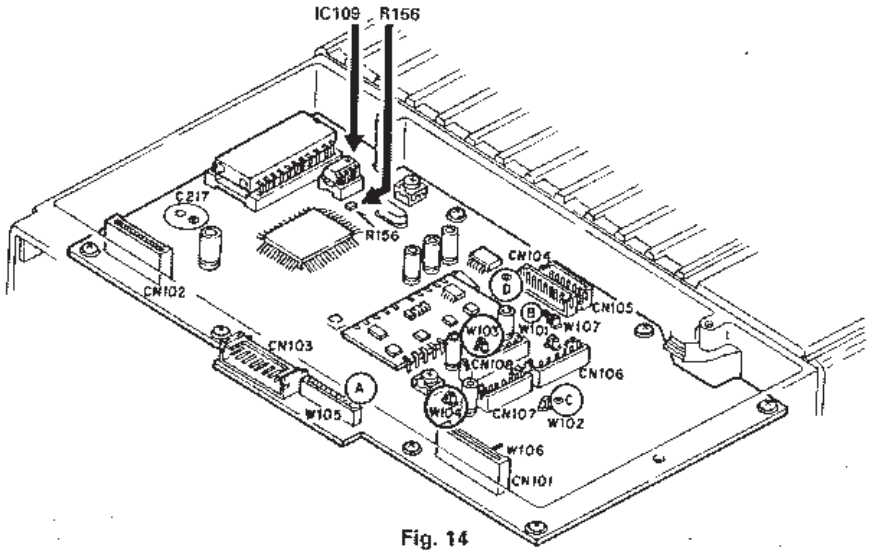
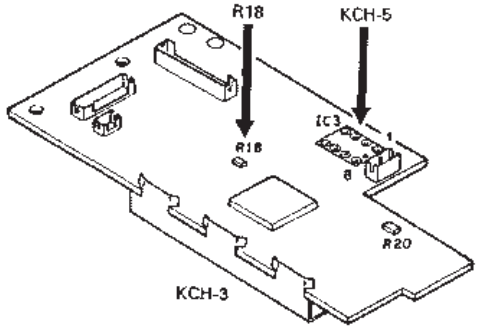
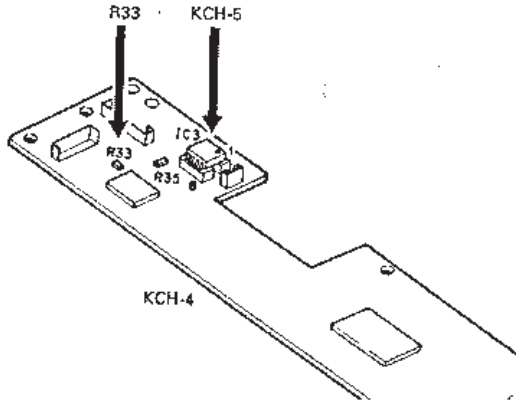


Fig. 14





KENWOOD

KCH-5 Dealer Channel/Alphanumeric Expansion Kit

Contents: 2 x 16K eeproms. 

Total Number KCH-5's to order= (KCH-5 @ mobile) x (No. of mobiles)

Round up to nearest whole number. Refer to table below for KCH-5 @ mobile requirements.

Ordering Information			
Front panel used:	KCH-5 @ mobile		
KCH-3 Basic Front	D/SH	DH	DB
32 Ch. (factory)	---	---	---
32A Ch.	0.5	1.0	0.5
99 Ch.	0.5	0.5	1.0
99A Ch.	1.0	1.5	1.0
KCH-4 Full Front	D/SH	DH	DB
32A Ch. (factory)	---	---	---
160A Ch.	1.0	1.5	1.0

Dealer Installation Guide (see service manuals for details)			
Per Front Panel[1]		RF Deck(#1)[2]	
IC3	R18	IC109	R156
---	in	(4K)*	in
16K	in	(4K)*	in
---	in	16K	Out
16K	Out	16K	Out
IC3	R39	IC109	R156
(4K)*	in	(4K)*	in
16K	Out	16K	Out

D= Dash Mount
SH= Single Head remote
DH= Dual Head remote
DB= Dual Band remote
A= Alphanumeric capable

(4K)*= factory installed 4K eeprom; replace with 16K eeprom for upgrade
16K= a KCH-5 eeprom
Per Front Panel[1]: for dual head mobiles a 16K eeprom must be installed in each head for alphanumeric upgrade.
RF Deck(#1)[2]: in Dual Band mobiles, this is the deck the control head is connected to; it is not necessary to install an eeprom in RF Deck#2 for channel memory upgrade.

"BASIC RULE-OF-THUMB":
Upgrade eeprom in front panel for alphanumerics upgrade (DH mobiles- upgrade each front panel)
Upgrade eeprom in rf deck for channel memory upgrade (DB mobiles- rf deck#1 only).

-OR-

L613: Install Channel/Alphanumeric Expansion- upgrades **any mobile to maximum** ch./alpha. capability; w/KCH-3 to 99A; w/KCH-4 to 160A. Includes labor & required quantities of KCH-5. List=83.00 (KCH-5's for self-upgrade; list=$49.00).

TSI-3oC5G6B-un Jw 7/82