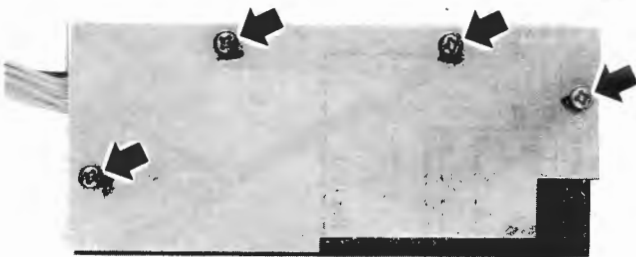


# F5D-9 INSTALLATION & PROGRAMMING

9266

## Jumper Settings

The Main Unit circuit board of the F5D-9 has twelve solder bridge jumper points which allow presetting of 5-tone system options according to the various standards (ZVEI, CCIR and EEA), and local regulations and operating requirements. To access the circuit board, remove the four screws affixing the shield cover, and the cover. Jumper locations are indicated in the diagram below.



The F5D-9A is preset at the factory for the ZVEI standard with 70ms tones, while the F5D-9B is preset for the CCIR standards with 100ms tones. No other jumpers are installed, but additional system options can be preset by installing or removing solder jumpers from between the pairs of numbered solder pads on the F5D-9, as follows:

## Jumper Location Number 1

Disables manual Alert beep turn-off by RESET Switch when shorted, so Alert tone will always sound for 10 seconds (if Jumper 6 is shorted). When open, the Alert beep will stop whenever the RESET button on the transceiver is pressed.

## Jumper Location Numbers 2 & 3

Signal tone duration selection:

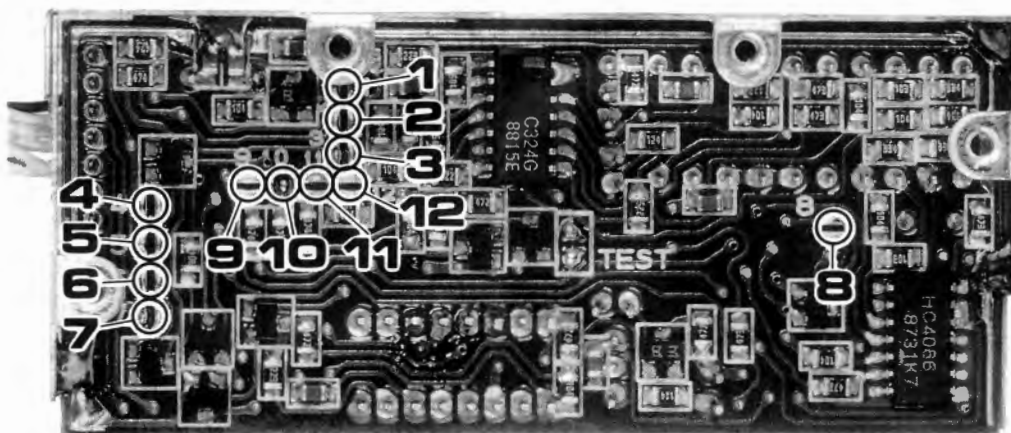
2	3	Duration (default)
short	short	40ms
open	short	70ms (F5D-9A)
short	open	100ms
open	open	100ms (F5D-9B)

## Jumper Location Number 4

Extends the first signalling tone to 700ms (regardless of settings of jumpers 2 and 3) when shorted. When open, the duration of the first tone is the same as the other four, and is equal to the tone duration set by jumpers 2 and 3.

## Jumper Location Number 5

Activates 5-tone transmission (each time the PTT switch is pressed) when shorted. When open, 5-tone codes are never transmitted.



### Jumper Location Number 6

Activates automatic reset, which causes the 5-tone decoder to reset itself automatically ten seconds after an incoming call is received (unless the operator responds to the call). When open, the decoder can be reset only by the operator pressing the RESET button.

### Jumper Location Number 7

Causes a special Reset tone to be transmitted automatically when the RESET button on the transceiver is pressed. When open, pressing the RESET button still resets the decoder, but does not cause transmission of a tone.

### Jumper Location Number 8

Causes all stations to be called when the PTT switch is pressed. When open, only the station whose code number is selected on the digital selectors will be called.

### Jumper Location Numbers 9, 10 and 11

These three jumpers select the 5-tone system standard, as follows:

<u>9</u>	<u>10</u>	<u>11</u>	<u>Std (default)</u>
short	short	short	ZVEI(F5D-9A)
open	short	short	ZVEI-2
short	open	short	ZVEI-3
open	open	short	ZVEI-S
short	short	open	DZVEI
open	short	open	CCIR(F5D-9B)
short	open	open	EEA
open	open	open	EEA

### Jumper Location Number 12

When shorted, the 5-tone signal is transmitted only when the CALL button is pressed. When open, the 5-tone signal is transmitted at the start of every transmission (whenever the PTT switch or CALL button is pressed).

## **Installation**

Make certain the 12 jumper locations are set as required by the user before installing the F5D-9. Replace the shield cover and its four screws, if removed.

- (1) Remove the five screws affixing the bottom cover of the transceiver, and remove the cover.
- (2) Referring to Figure 1, remove the metal plate from the front panel of the transceiver, and install the supplied plate in its place. Then press the digital selector into the hole until the latches click into place.
- (3) Connect 16-pin connector P01 from the F5D-9 to J1009 on the Main Unit of the transceiver, and install the 7-pin plug from the F5D-9 into the jack on the digital selector (Figure 2).
- (4) Replace the bottom cover and five screws.

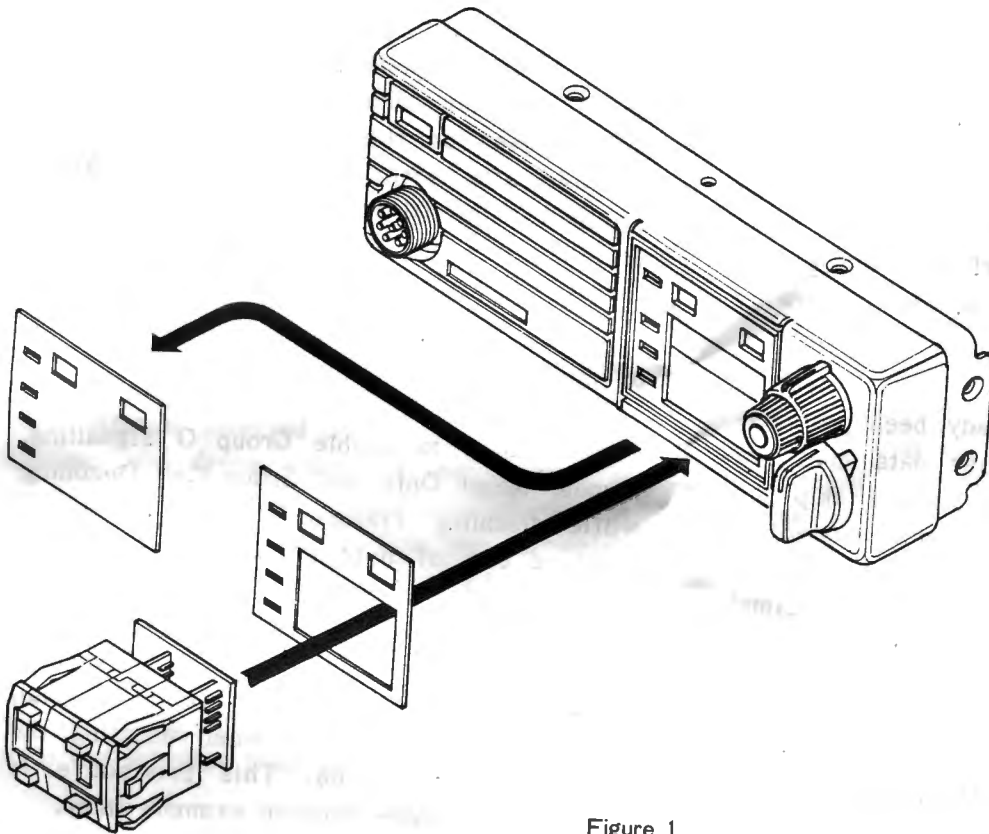


Figure 1

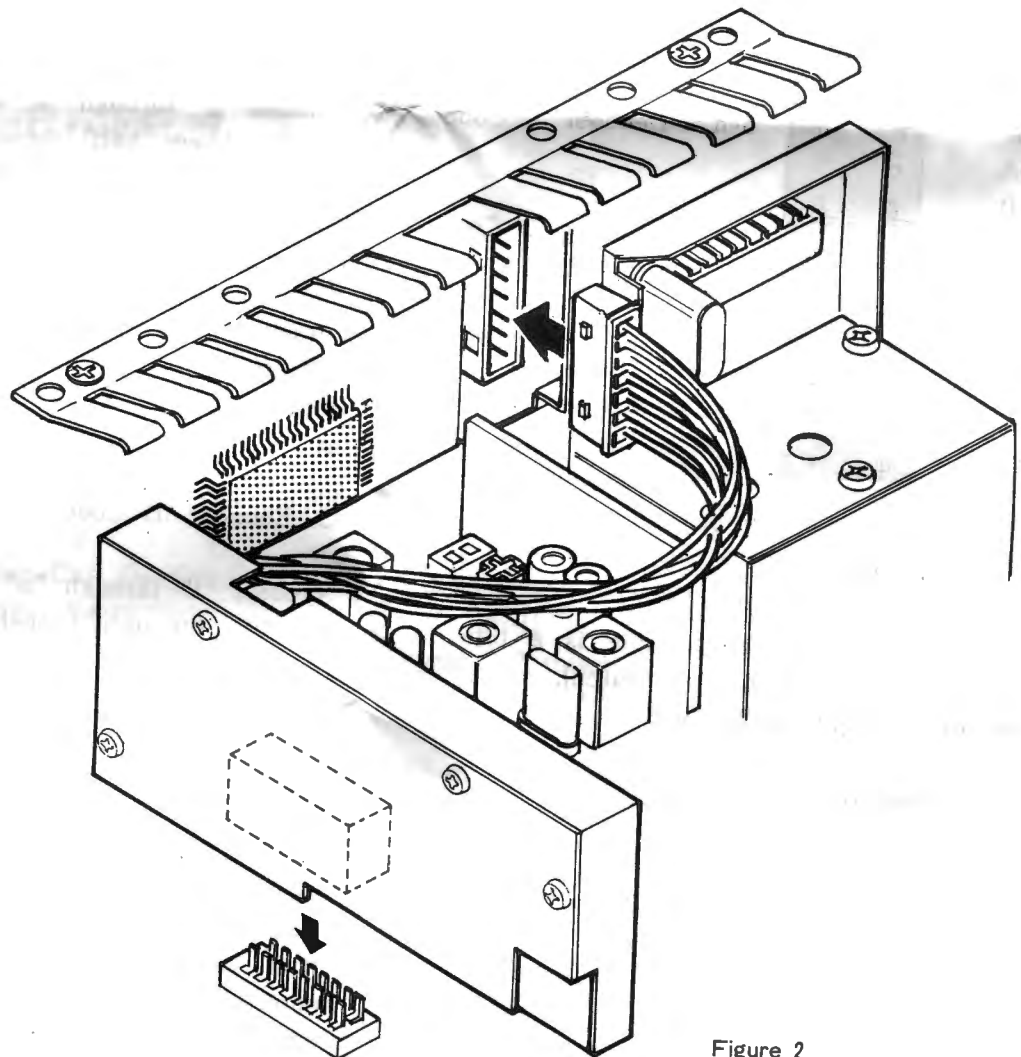


Figure 2



followed by "b"s corresponding to the one, two or three digits which will be selected from the front panel selectors.

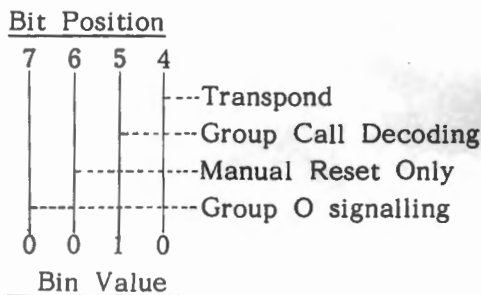
#### D. Transpond Code

Nybbles "p" through "v" at EEPROM addresses 0F (lower half) through 12 hold the first four digits of the 5-digit Transpond code, if this feature is activated (if not activated, these addresses should be filled with "F"s for each nybble). The last Transpond digit is selected by the leftmost selector on the front panel, if this feature is enabled. As in the above cases there are seven digit locations, the first two of which (p and q) must first be entered as "F"s, followed by the fixed numeric digits of the Transpond code common to all network stations, followed by a "b"; corresponding to the Transpond digit which will be selected from the leftmost front panel selector.

#### EXAMPLE:

Program the F5D-9 for Transpond disabled, Group Call decoding enabled, automatic reset of the alert tone and Group A signalling, with a decoder ID for this station of 12345, and an encoder code (for this network) of 123.

- (1) Calculate the value to enter for the high nybble of address 08:



The Bin Value is the binary representation of the digit to be entered, which in this case converts to "2".

- (2) The decoder ID for this station is 12345, which must be preceded by two "F"s, so nybbles b through h will be entered as FF12345.

- (3) The common encoder digits in this network are 123, and these must also be preceded by "FF", and succeeded by "bb" (for the digits that will be selected from the front panel), so nybbles i through o will be entered as "FF123bb".

- (4) Since the Transpond feature is disabled, nybbles p through v are simply entered as "FFFFFFF" (if Transpond were enabled, these would be set like the common encoder digits described above, except that only the last digit would be entered as "b", since only one digit of the Transpond code is front panel selectable).

In Tabular form, the calculated data for this example looks like this:

Address	Nybbles	Keys
08	a b	2 F
09	c d	F 1
0A	e f	2 3
0B	g h	4 5
0C	i j	F F
0D	k l	1 2
0E	m n	3 b
0F	o p	b F
10	q r	F F
11	s t	F F
12	u v	F F

After uploading the existing channel data from the transceiver (page 7 of the FYG-4 manual), refer to page 9, under "Altering General Parameters". Step (1) is already completed, and steps (2) and (3) can be skipped (except for displaying the general parameter codes and pressing the SET(DE) key until address 08 is displayed). Then press "2" followed by "F", SET(DE), "F" and then "1", SET(DE), and etc.

When finished entering the data into the FYG-4, transfer it to the transceiver as described on page 7 of the FYG-4 manual.

