
25 CHANNEL - AUTOMATIC CHANNEL SELECTION MECHANISM
MODEL: 33012/33013 (Combo)

TALK MODE

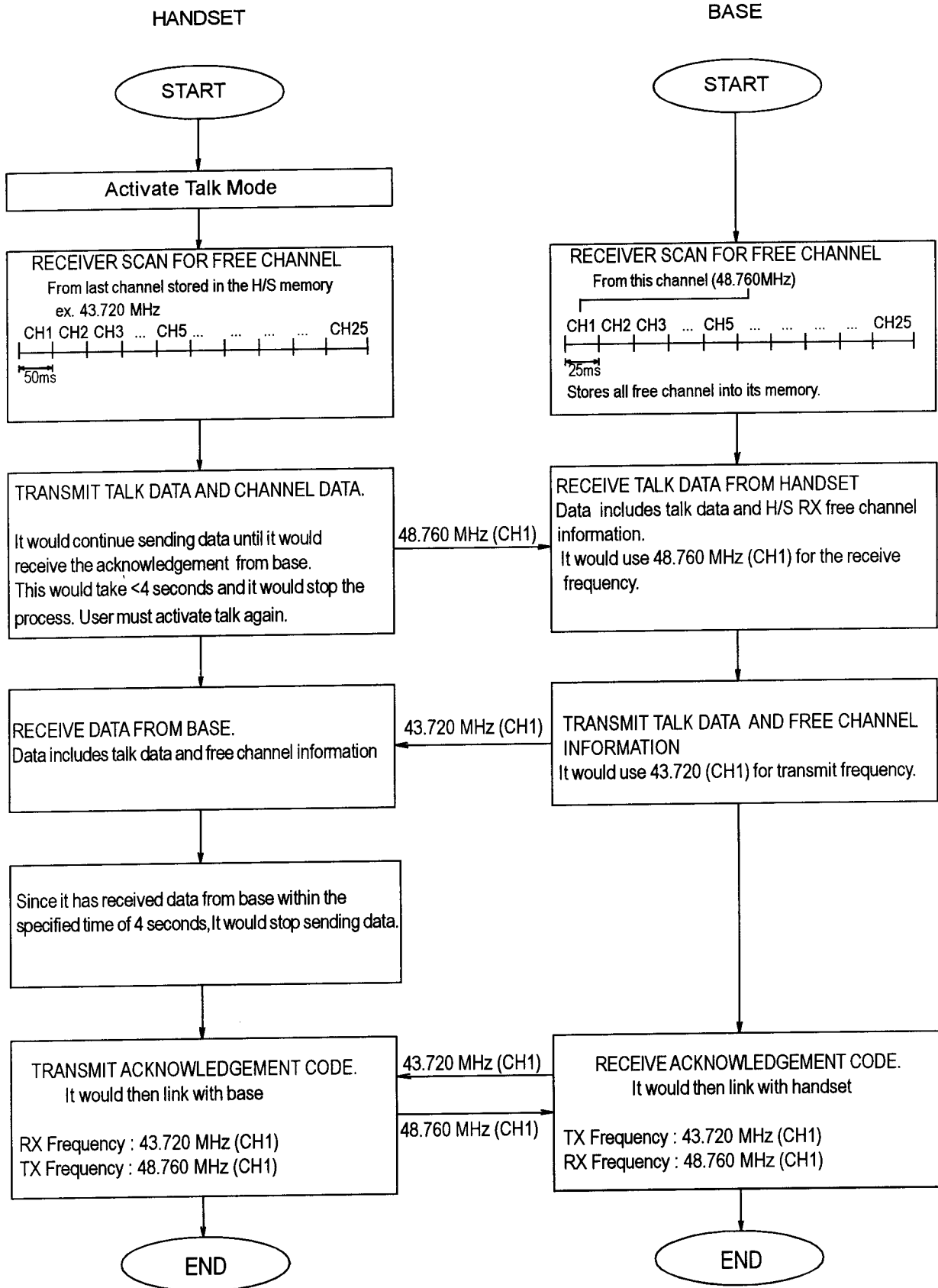
During the activation of Talk, the Handset receiver scans for free channel from its last linked receiver channel (about 50ms per channel). The Handset transmits the Talk instruction to Base together with the receiver's Free Channel Information for the Base to use this free channel as the Transmit channel.

Likewise, the Base receiver continuously scans each channel (25ms per channel) and stores all free channels into its memory. Once the Base receiver received the instruction from its Handset, it will stop from scanning and transmits its receiver free channel information. When the Handset receives this Base free channel information, it will transmit the acknowledgement command to Base and both will link on a clear channel. The Handset and Base scan and find their receiver's clear channel separately. If all transmit channels of Handset and Base are occupied (all busy), Handset will transmit the data using its default channel. (NOTE: Default channel is the last link channel). Since the data does not contain free channel information the base will not acknowledge, Therefore no link will be establish.

Channel Number	Base Transmitter (MHz)	Handset Transmitter (MHz)
1	43.720	48.760
2	43.740	48.840
3	43.820	48.860
4	43.840	48.920
5	43.920	49.020
6	43.960	49.080
7	44.120	49.100
8	44.160	49.160
9	44.180	49.200
10	44.200	49.240
11	44.320	49.280
12	44.360	49.360
13	44.400	49.400
14	44.460	49.460
15	44.480	49.500
16	46.610	49.670
17	46.630	49.845
18	46.670	49.860
19	46.710	49.770
20	46.730	49.875
21	46.770	49.830
22	46.830	49.890
23	46.870	49.930
24	46.930	49.990
25	46.970	49.970

TALK MODE

CONDITION 1 : All channels are unoccupied (Free channel)

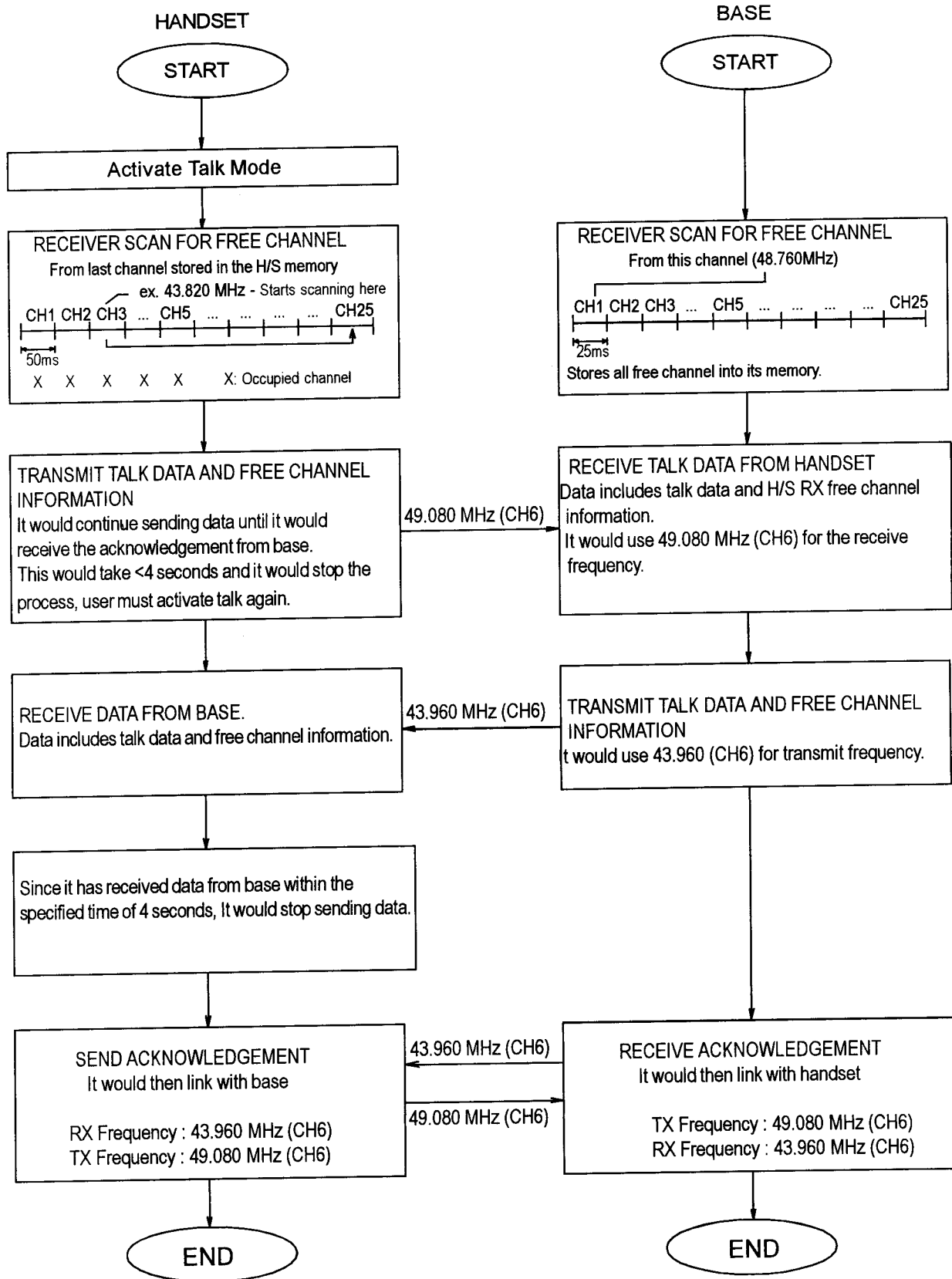


TALK MODE

CONDITION 2 : Multi channel on the base TX frequency are occupied.

Ex. CH 1: 43.720 MHz CH 4: 43.840 MHz
 CH 2: 43.740 MHz CH 5: 43.920 MHz
 CH 3: 43.820 MHz

CH 3: 43.820 MHz - Stored channel during the last link in handset memory

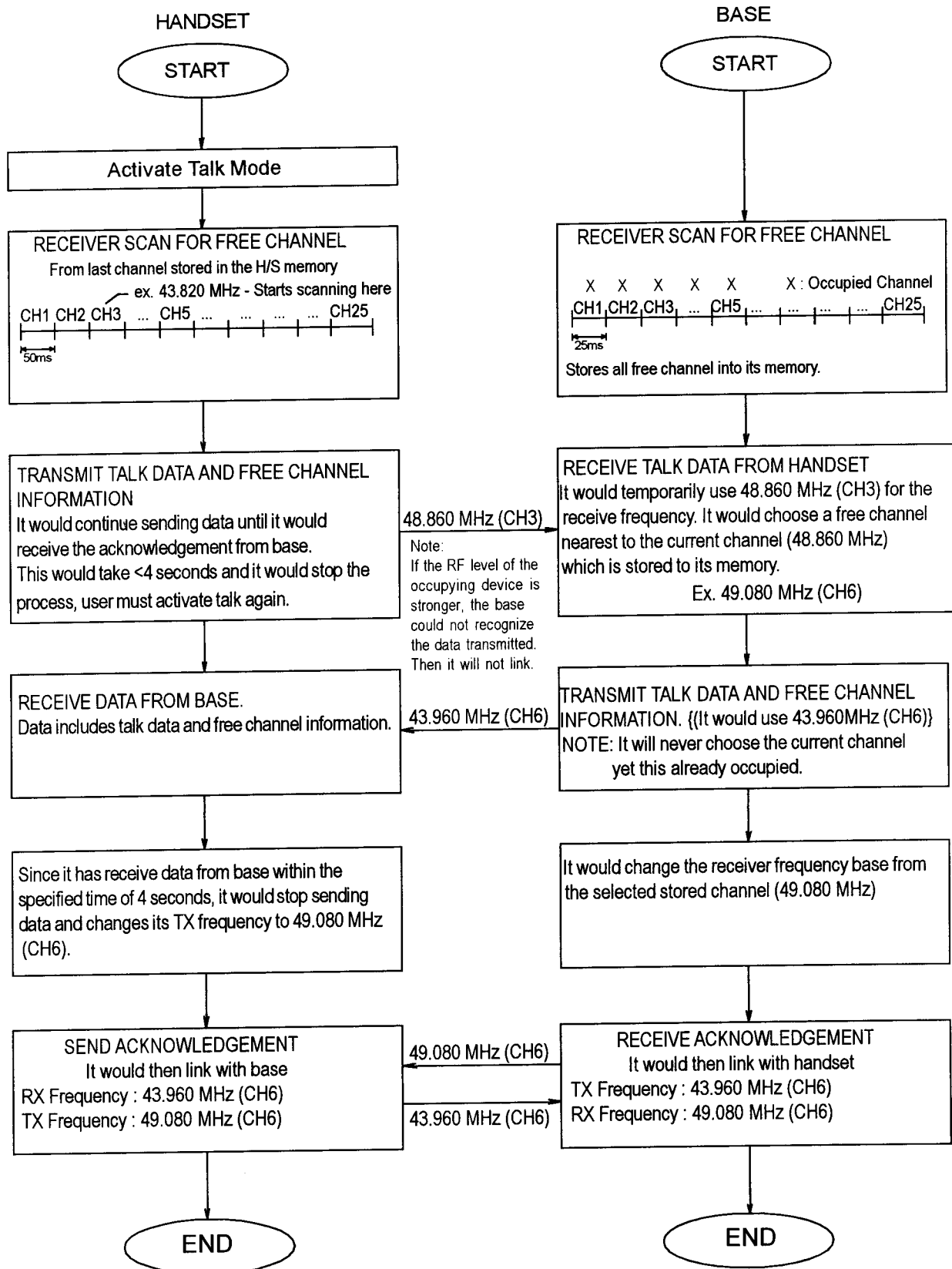


TALK MODE

CONDITION 3 : Multi channel on the Handset TX frequency are occupied.

Ex. CH 1: 48.760 MHz CH 4 : 48.920 MHz
 CH 2: 48.840 MHz CH 5 : 49.020 MHz
 CH 3: 48.860 MHz

CH 3: 43.820 MHz - Stored channel during the last link in handset memory

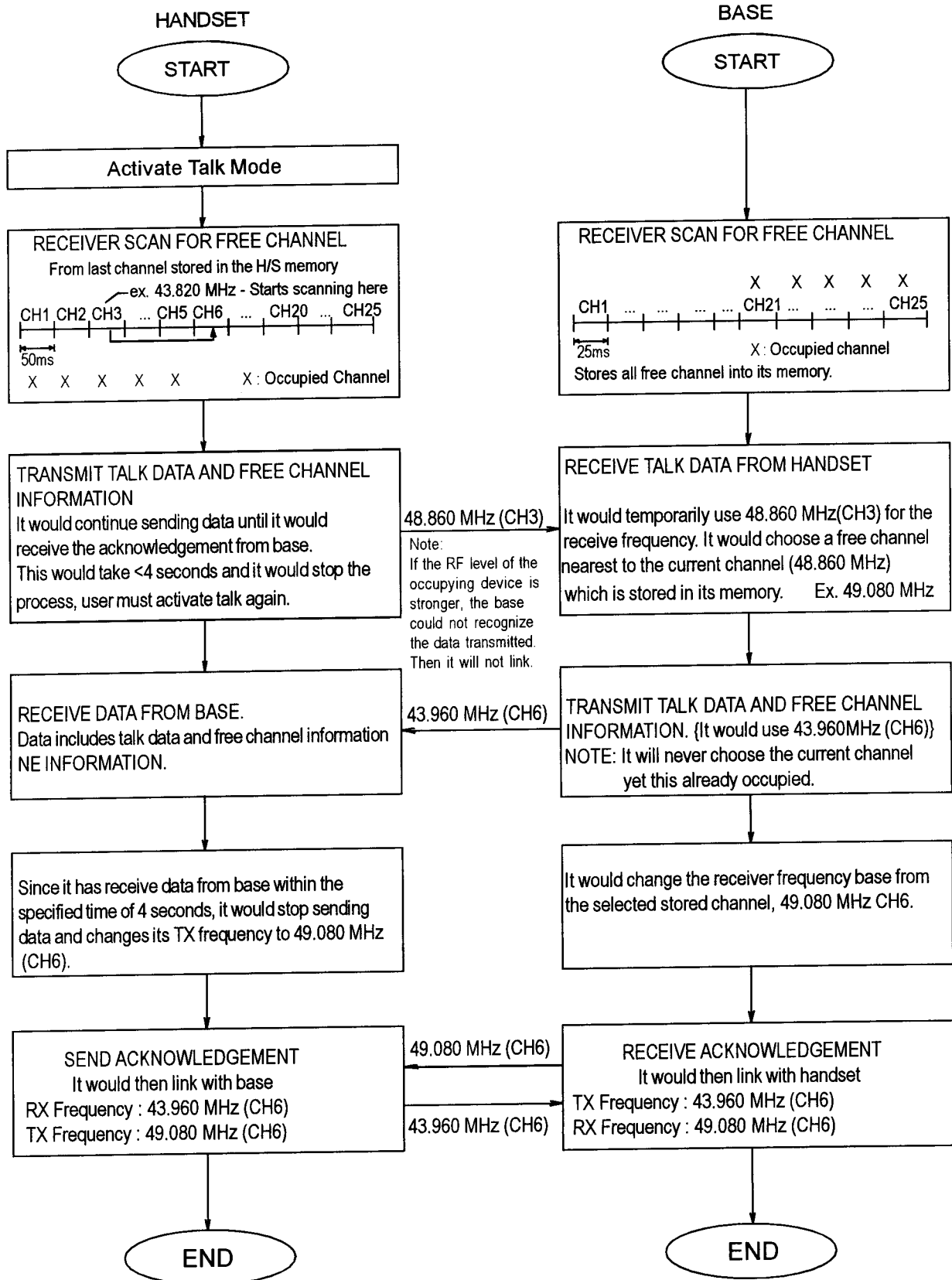


TALK MODE

CONDITION 4 : Multi channel on the Base TX and Handset TX frequency are occupied.

Ex. CH 1: 48.760 MHz CH 4 : 48.920 MHz CH 21: 49.830 MHz CH 24: 49.990 MHz
 CH 2: 48.840 MHz CH 5 : 49.020 MHz CH 22: 49.890 MHz CH 25: 49.970 MHz
 CH 3: 48.860 MHz CH 23: 49.930 MHz

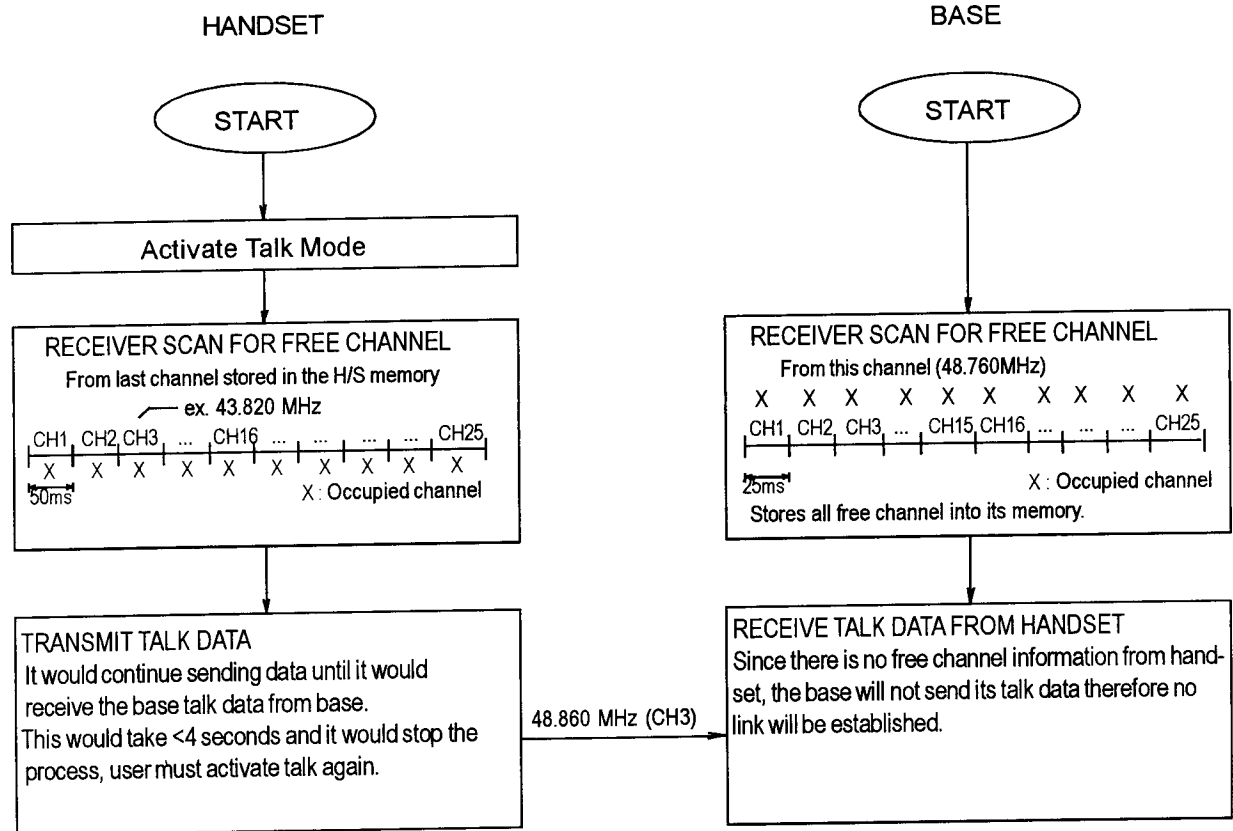
CH 3: 43.820 MHz - Stored channel during the last link in handset memory



TALK MODE

CONDITION 6 : All TX channels of Handset and Base are occupied (All Busy)

CH3 : 43.820 MHz - Stored channel during the last link in Handset memory.



The above condition, if all transmit channels of Handset and Base are occupied (all busy), Handset will transmit the data using its default channel. (NOTE: Default channel is the last link channel), Since the data does not contain free channel the base will not acknowledge, Therefore no link will be establish.

END

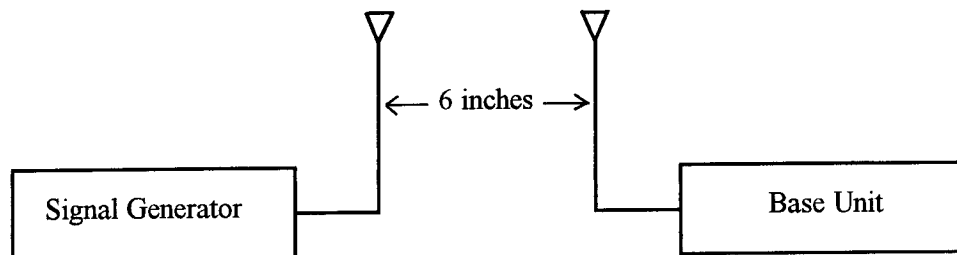
33012 AUTOMATIC CHANNEL SELECTION

The following tests were performed to show the incorporation of automatic channel selection.

Equipment Used to Perform the Tests

- JUNGJIN JSG-1051B Signal Generator
Interference Signal 1KHz, 5KHz deviation

Test Set-Up



Test Procedures

1. Set signal generator at a certain channel (e.g. channel 1), then turn the generator off.
 2. Turn on the phone, set the phone at the same channel as in step 1, then turn off the phone.
 3. Turn on the signal generator.
 4. Turn on the phone, investigate and record the locked channel. If scan functions correctly, it will lock to any channel, but not the one in step 1.
 5. Repeat Step 1-4 for 25 channels
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Test Results

INTERFERENCE CHANNEL AT	PHONE PRE-SET CHANNEL AT	PHONE AUTO-SCAN TO CHANNEL AT -13 dBm
1	1	2
2	2	3
3	3	4
4	4	5
5	5	7
6	6	7
7	7	8
8	8	9
9	9	10
10	10	11
11	11	12
12	12	14
13	13	14
14	14	15
15	15	16
16	16	17
17	17	18
18	18	19
19	19	20
20	20	22
21	21	22
22	22	23
23	23	24
24	24	25
25	25	1

Summary

The phone under test has an automatic selection mechanism that will prevent establishment of a link on any occupied frequency channel.