

**PHOENIX-S
PHOENIX-SX**

**PROGRAMMING INSTRUCTIONS
USING
4EX22A10 PROGRAMMER**

LBI31266B

GENERAL  ELECTRIC

DESCRIPTION

These instructions are to be used in conjunction with the instructions for the 4EX22A10 EEPROM Programmer (LBI31189). The worksheets, tables and examples in this manual are for programming Phoenix-S/SX field programmable radios. While much of the data may also pertain to other radios, there may be some differences. For this reason, the data and procedures should be used for programming ONLY Phoenix-S or SX radios.

TO PROGRAM PHOENIX-S/SX

Preparation

1. The radio must be turned OFF.
2. Remove the cover. Remove option board, if present.
3. Plug P1 (10-pin connector) and P2 (11-pin connector) onto the pins of J802 located on either side of EPROM U805 and extending above it. Note the orientation notch on the plug labels and the notch on U805.
4. Turn the radio ON to provide power.
5. Set the Prom Switch S6 on the Programmer to PROM 1.

You may now begin programming the radio.

PROGRAMMING PROCEDURE
(See Example Worksheet)

1. Determine and record the Channel Guard Type, CG Frequency (Tone or Digital Code), RF, RX & TX Frequencies and CCT time for each channel to be programmed on the worksheet. NOTE: CCT timing is the same for all channels but CCT can be present or deleted on a channel by channel basis.
2. Look up Hex codes in tables and record on worksheet.

NOTE

The reference divisor (0.005 MHz 0.00625 or 0.0125 MHz) listed at the top of Table 7 MUST be the same for Transmit and Receive for any given channel.

3. Set PROM Switch (S6) to 1.
4. Set Channel Address (S3).
5. Set Function Address (S4).
6. Set Data Hex Code in column below it with (S5).
7. Push (S1) to write Data in Memory.

8. Repeat steps 5 thru 7, digit by digit, as often as needed to write the data for that channel.
9. Move to next channel by advancing S3 and repeating the above procedure 4 thru 8 entering data.
10. When all channels have been written, push (S2) to store data permanently in radio.
11. Turn the radio off and remove programmer.
12. Test radio to assure proper programming.

Number of Channels

Program the number of channels in the radio to limit EEPROM search. If six channels or less, put the Hexadecimal code (Table 5) in the (0) position on the worksheet.

If there are more than six channels in Mode A or seven in Mode B, use the following procedure:

1. From Table 7-C select the Hex Code for 466.300 MHz. (Hex = 83283). The first transmit function code is the 8.
2. From Table 5 select the Hex Code for 8 channels. (Hex = 7).
3. Find the sum of the two and convert back to HEX.

1st function code		
for TX FREQ	8	(Table 7)
Code for 8 channels	7	(Table 5)
	15	
	15 converted to HEX = F	(Table 6)
4. Enter F on S5 for the (0) position.

The number of channels must be programmed in Mode A and Mode B.

CCT Time Out

The CCT time out may be enabled or disabled on a per channel basis. The time out delay that is selected will be the same for all channels.

CCT Enable/Disable Bit Code (Table 4-A)

The CCT enable/disable bit code is entered under Transmit Functions (CCT) on the worksheet.

CCT Bit Delay Code (Table 4-B)

The CCT delay code must be programmed in the channel 8 (*) position on the worksheet. Get CCT code from Table 4-B.

If channel 8 is used, the codes must be summed.

EXAMPLE

- From Table 7-C select the Hex Code for 466-425 MHz (Hex = 83228). The first Transmit function code is the 8.
- From Table 4-B select the Hex Code for 3:00 minutes. (Hex = 5)
- Find the sum of the two and convert back to HEX.

1st function code for TX FREQ 8 (Table 7-C)
CCT Code for 3:00 Min 7 (Table 4-B)
13

13 Converted to HEX = D (Table 6)

- Enter D on S5 for the (*) position.

Channel Guard

The Channel Guard may be selected on a channel by channel basis in several possible configurations, such as:

- No Channel Guard
- Tone CG only
- Digital Code CG - RX & Tx
- RX DCG & TX Tone CG or no TX CG
- TX DCG & RX Tone CG or no RX CG

See Table 2 for Hex codes for the type of Channel GUARD SELECTION. THE HEX CODES FOR CG TONES OR DIGITAL CODE ARE FOUND IN TABLE 3.

NOTE

ON WIDEBAND RADIOS USING DCG, AN INVERTED DIGITAL CODE MUST BE USED (TX & RX). REFER TO TABLE 3-C.

NOTE

On narrowband, VHF, hi-split radios (combination number digit 4 and 6 = K and N) with DCG, the Inverted Digital code MUST be used for the Receive CG ONLY. The TX DCG is NOT inverted.

Disable Transmitter

"Open" transmit or receive channels may be programmed. When a receive channel is blank, the receiver will stay muted. When a transmit channel is blank, the transmitter is disabled. To program an open channel the data address (under the 'Mode A' function 5 or 'Mode B' function D) is set to F. The remaining four data addresses no longer have any effect.

TABLE 1
CHANNEL ADDRESS MODE A OR B

Channel	RX Address	TX Address
1	2	3
2	4	5
3	6	7
4	8	9
5	A	B
6	C	D
7	E	F
8	0	1

TABLE 2
CHANNEL GUARD TYPE

FUNCTION	W/O STE HEX CODE	WITH STE HEX CODE
NO CG or TONE CG ONLY	0	2
RX & TX DCG	C	C
RX DCG & TX TONE CG or NO TX CG/DCG	8	A
TX DCG & RX TONE CG or NO RX CG/DCG	4	6

TABLE 3-A
TONE CG DATA

TONE FREQ (A) (B)	HEX CODE 6 7 E F	HEX CODE 0 1 2 3 4 5 6 7 8 9 A B C D E F 0 1 2 3 4 5 6 7 8 9 A B C D E F 0 1 2
NO CG	0	0
67.0	1	0
71.9	2	0
74.4	3	0
77.0	4	0
79.7	5	0
82.5	6	0
85.4	7	0
88.5	8	0
91.5	9	0
94.8	A	0
97.4	1	2
100.0	B	0
103.5	C	0
107.2	D	0
110.9	E	0
114.8	F	0
118.8	0	1
123.0	1	1
127.3	2	1
131.8	3	1
136.5	4	1
141.3	5	1
146.2	6	1
151.4	7	1
156.7	8	1
162.2	9	1
167.9	A	1
173.8	B	1
179.9	C	1
186.2	D	1
192.8	E	1
203.5	F	1
210.7	0	2

PHOENIX-S/SX WORKSHEET

MODE A

NARROWBAND WIDEBAND

Chan Addr	CG Type (S3)	Receive Functions (Frequency) (CG)						Chan Addr (S3)	Transmit Functions (CCT) (Frequency) (CG)						Set		
		0	1	2	3	4	5		6	7	0	1	2	3		4	5
Channel 1 Mode A	2	0	9	D	2	2	8	00	3	0	8	3	2	2	2	00	← S4
		NONE	461.025	NONE						DIS	466.025	NONE				← S5	
Channel 2 Mode A	4	0	9	D	2	4	8	81	5	8	8	3	2	4	2	81	← S5
		T	461.050	156.7						EN	466.050	156.7				← S5	
Channel 3 Mode A	6	C	9	D	2	6	8	03	7	8	8	3	2	6	2	03	← S5
		D	461.075	116						EN	466.075	116				← S5	
Channel 4 Mode A	8	8	9	D	2	8	8	03	9	8	8	3	2	8	2	81	← S5
		D/T	461.100	116						EN	466.100	156.7				← S5	
Channel 5 Mode A	A	F OPEN						B	F OPEN						← S5		
Channel 6 Mode A	C	4	9	D	2	A	8	81	D	8	8	3	2	A	2	03	← S5
		T/D	461.125	156.7						EN	466.125	116				← S5	
Channel 7 Mode A	E	0	9	D	2	8	9	00	F	8	F	3	2	8	3	00	← S5
		NONE	461.300	NONE						EN	466.300	NONE				← S5	
Channel 8 Mode A	0	0	9	D	2	2	A	00	1	8	D	3	2	2	8	00	← S5
		NONE	461.425	NONE						EN	466.425	NONE				← S5	

Channel Address - Table 1 CG Type - Table 2 CG - Table 3

CCT - Table 4 Frequency (RX & TX) - Table 7

@ SPECIAL - To set number of channels in Mode A (see instructions)

* SPECIAL - CCT time set (see instructions)

- Determine and record the Channel Guard Type, CG Frequency (Tone or Digital Code), RF, RX & TX Frequencies and CCT time for each channel to be programmed on the worksheet. NOTE - CCT timing is the same for all channels but CCT can be enabled or disabled on a channel by channel basis.
- Look up data in tables and record on worksheet.
- Set PROM Switch (S6) to 1.
- Set Channel Address (S3).
- Set Function Address (S4) and Data Address in column below it with (S5). Push (S1) to write Data in Memory.

Chan Addr	CG Type	Receive Functions					Chan Addr	Transmit Functions					Set								
		(S3)	8	9	A	B		C	D	E	F	(S3)		8	9	A	B	C	D	E	F
Channel 1 Mode B	2	0	9	D	2	2	8	0	0	0	0	0	0	8	0	2	2	1	0	0	← S4
		NONE	461.025	NONE				DIS	461.025	NONE											← S5
Channel 2 Mode B	4	0	9	D	2	4	8	8	0	2	4	8	1	8	0	2	4	1	8	1	← S5
		T	461.050	156.7				EN	461.050	156.7											← S5
Channel 3 Mode B	6	C	9	D	2	6	8	8	0	2	6	0	3	8	0	2	6	1	0	3	← S5
		D	461.075	116				EN	461.075	116											← S5
Channel 4 Mode B	8	4	9	D	2	8	8	8	0	2	8	1	0	8	0	2	8	1	0	3	← S5
		T/D	461.100	156.7				EN	461.100	116											← S5
Channel 5 Mode B	A	0	9	D	2	0	8	8	0	2	0	2	1	8	0	2	0	2	1	1	← S5
		TX TONE	461.200	NONE				EN	461.200	123.0											← S5
Channel 6 Mode B	C						D														← S5
Channel 7 Mode B	E						F														← S5
Channel 8 Mode B	0						1														← S5

Channel Address - Table 1 CG Type - Table 2 CG - Table 3

CCT - Table 4 Frequency (RX & TX) - Table 7

@ SPECIAL - To set number of channels in Mode B (see instructions)

- Repeat step (5) digit by digit as often as needed to write the data for the channel. Move to next channel and enter data.
- When all channels have been written, push (S2) to store data permanently in radio.
- Test radio to assure proper programming.

TABLE 3-B
DIGITAL CHANNEL GUARD DATA

DIG CG (A) (B)	HEX CODE (A) (B)	DIG CG (A) (B)	HEX CODE (A) (B)	DIG CG (A) (B)	HEX CODE (A) (B)
023	3 1	261	7 9	654	3 7
025	5 1	263	B 8	662	3 F
026	6 1	265	9 7	664	4 E
031	9 1	271	9 B	703	8 6
032	A 1	306	7 6	712	E 5
043	3 2	311	9 C	723	D 9
047	7 2	315	D C	731	4 0
051	9 2	331	9 D	732	4 7
054	C 2	343	4 D	734	6 3
065	5 3	346	6 E	743	A C
071	9 3	351	9 E	754	E 3
072	A 3	364	8 5	036*	E 1
073	B 3	365	7 4	053*	B 2
074	C 3	371	F 8	122*	2 5
114	C 4	411	F 4	145*	5 6
115	D 4	412	7 5		
116	0 3	413	B 5	212*	A 8
125	5 5	423	C 9	225*	5 9
131	9 5	431	2 B	246*	6 A
132	A 5	432	E B	252*	A A
134	C 5	445	2 9	255*	D A
143	3 6	464	F 9	266*	6 B
152	A 6	465	E 2	274*	C B
155	D 6	466	4 6	325*	5 D
156	E 6	503	F 6	332*	A D
162	2 7	506	4 9	356*	E E
165	5 7	516	3 7	446*	3 0
172	A 7	532	1 7	452*	5 0
174	2 6	546	F C	454*	6 0
205	D 5	565	7 C	455*	7 0
223	3 9	606	B 6	462*	8 0
226	4 4	612	C A	523*	9 0
243	3 A	624	D 3	526*	A 0
244	E 7	627	F 1		
245	5 A	631	9 9		
251	E 9	632	3 5		

*Exclusive GE Codes

This Digital CG table is used with Phoenix-S/SX as follows:

1. VHF, Narrow band, TX.
2. VHF, Narrowband, RX, 150-162 MHz
3. UHF, Narrowband, TX & Rx.

TABLE 3-C
INVERTED DIGITAL CHANNEL GUARD DATA

DIG CG (A) (B)	HEX CODE (A) (B)	DIG CG (A) (B)	HEX CODE (A) (B)	DIG CG (A) (B)	HEX CODE (A) (B)
023	7 2	261	4 7	654	A C
025	E 7	263	D 5	662	4 6
026	F 9	265	E 6	664	9 C
031	F 1	271	5 3	703	7 C
032	9 2	306	9 3	712	C 4
043	2 9	311	4 E	723	2 B
047	3 1	315	C 9	731	D 6
051	A 1	331	E 2	732	7 9
054	B 5	343	1 7	734	F 8
065	9 B	346	C A	743	3 7
071	7 6	351	3 A	754	0 3
072	5 A	364	9 5	036*	A 7
073	4 9	365	5 5	053*	5 0
074	2 6	371	6 3	122*	5 9
114	E 5	411	4 4	145*	C B
115	A 6	412	3 6		
116	E 3	413	C 2	212*	E E
125	7 4	423	D C	225*	2 5
131	8 5	431	D 9	246*	9 0
132	F C	432	7 3	252*	8 0
134	3 9	445	3 2	255*	3 0
143	7 5	464	6 1	266*	6 0
152	D 4	465	9 D	274*	5 6
155	4 0	466	3 F	325*	A 0
156	9 7	503	2 7	332*	7 0
162	F 6	506	B 3	356*	A 8
165	E 9	516	E B	446*	D A
172	E 1	532	4 D	452*	B 2
174	C 3	546	A 5	454*	6 B
205	B 8	565	8 6	455*	A D
223	C 5	606	9 9	462*	A A
226	F 4	612	6 E	523*	6 A
243	9 E	624	3 5	526*	5 D
244	5 1	627	9 1		
245	A 3	631	B 6		
251	5 7	632	D 3		

*Exclusive GE Codes

This Inverted Digital CG table is used with Phoenix-S/SX as follows:

1. VHF, Narrowband, RX, 162-174 MHz
2. VHF & UHF, Wideband, TX & Rx.

TABLE 4-A
CARRIER CONTROLLED TIMER (CCT)

	HEX
CCT Enabled	8
CCT Disabled	0

TABLE 4-B
CARRIER CONTROLLED TIMER (CCT)

CCT TIME OUT DELAY (MINUTES:SECONDS)	HEX CODE
0:30	0
1:00	1
1:30	2
2:00	3
2:30	4
3:00	5
3:30	6
4:00	7

TABLE 5
CHANNEL CODE

NUMBER OF CHANNELS	HEX CODE
1	0
2	1
3	2
4	3
5	4
6	5
7	6
8	7

TABLE 6
DECIMAL - HEX EQUIVALENTS

DECIMAL	HEX
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	A
11	B
12	C
13	D
14	E
15	F

TABLE 7-A
PHOENIX - S (NARROW BAND, DIV. = 5.00 KHZ)

FREQUENCY	ADDRESS, S4 (RX)					MODE A MODE B	ADDRESS, S4 (RX)					MODE A MODE B	ADDRESS, S4 (TX)					MODE A MODE B		
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5			
DISABLE																				
150.815																				
150.830																				
150.845																				
150.860																				
150.875																				
150.890																				
150.905																				
150.920																				
150.935																				
150.950																				
150.965																				
150.980																				
150.995																				
151.010																				
151.025																				
151.040																				
151.055																				
151.070																				
151.085																				
151.100																				
151.115																				
151.130																				
151.145																				
151.160																				
151.175																				
151.190																				
151.205																				
151.220																				
151.235																				
151.250																				
151.265																				
151.280																				
151.295																				
151.310																				
151.325																				
151.340																				
151.355																				
151.370																				
151.385																				
151.400																				
151.415																				
151.430																				
151.445																				
151.460																				
151.475																				
151.490																				
151.505																				
151.520																				
151.535																				
151.550																				

TABLE 7-B
PHOENIX - SX (WIDE BAND, DIV. = 5.00 KHZ)

PHOENIX - SX (WIDE BAND, DIV. = 5.00 KHZ)

FREQUENCY	ADDRESS S4 (RX)					MODE A MODE B	ADDRESS S4 (RX)					FREQUENCY	ADDRESS S4 (TX)					MODE A MODE B	ADDRESS S4 (TX)																
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5		1	2	3	4	5												
	A	A	A	A	A		A	A	A	A	A		A	A	A	A	A		A	A	A	A	A												
DISABLE																																			
150.815	A	1	3	3	B																														
150.830	-	-	-	-	-																														
150.845	A	2	3	1	0																														
150.860	-	-	-	-	-																														
150.875	A	2	3	7	0																														
150.890	-	-	-	-	-																														
150.905	A	2	3	D	0																														
150.920	-	-	-	-	-																														
150.935	A	2	3	2	1																														
150.950	-	-	-	-	-																														
150.965	A	2	3	6	1																														
150.980	-	-	-	-	-																														
150.995	A	2	3	9	1																														
151.010	-	-	-	-	-																														
151.025	A	2	3	2	2																														
151.040	-	-	-	-	-																														
151.055	A	2	3	8	2																														
151.070	-	-	-	-	-																														
151.085	A	2	3	1	3																														
151.100	-	-	-	-	-																														
151.115	A	2	3	7	3																														
151.130	-	-	-	-	-																														
151.145	A	2	3	D	3																														
151.160	-	-	-	-	-																														
151.175	A	2	3	6	8																														
151.190	-	-	-	-	-																														
151.205	A	2	3	6	9																														
151.220	-	-	-	-	-																														
151.235	A	2	3	8	8																														
151.250	-	-	-	-	-																														
151.265	A	2	3	2	9																														
151.280	-	-	-	-	-																														
151.295	A	2	3	8	9																														
151.310	-	-	-	-	-																														
151.325	A	2	3	1	A																														
151.340	-	-	-	-	-																														
151.355	A	2	3	7	A																														
151.370	-	-	-	-	-																														
151.385	A	2	3	D	A																														
151.400	-	-	-	-	-																														
151.415	A	2	3	3	B																														
151.430	-	-	-	-	-																														
151.445	A	2	3	6	B																														
151.460	-	-	-	-	-																														
151.475	A	2	3	F	B																														
151.490	-	-	-	-	-																														
151.505	A	2	3	2	0																														
151.520	-	-	-	-	-																														
151.535	A	2	3	3	0																														
151.550	-	-	-	-	-																														

TABLE 7-C

PHOENIX - S (NARROW BAND, DIV. = 12.5 KHZ)		PHOENIX - S (NARROW BAND, DIV. = 12.5 KHZ)	
FREQUENCY	ADDRESS	FREQUENCY	ADDRESS
MODE A	MODE B	MODE A	MODE B
1	2	1	2
3	4	3	4
5	6	5	6
S4 (TX)	S4 (RX)	S4 (TX)	S4 (RX)
1	2	1	2
2	3	2	3
3	4	3	4
4	5	4	5
5	6	5	6
ADDRESS	ADDRESS	ADDRESS	ADDRESS
9	9	9	9
A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D
DISABLE			
450.026	8 9 1 2 2	451.275	8 9 1 2 2
450.050	8 9 1 4 2	451.300	8 9 1 4 2
450.075	8 9 1 6 2	451.325	8 9 1 6 2
450.100	8 9 1 8 2	451.350	8 9 1 8 2
450.125	8 9 1 A 2	451.375	8 9 1 A 2
450.150	8 9 1 C 2	451.400	8 9 1 C 2
450.175	8 9 1 E 2	451.425	8 9 1 E 2
450.200	8 9 1 0 3	451.450	8 9 1 0 3
450.225	8 9 1 1 3	451.475	8 9 1 1 3
450.250	8 9 1 2 3	451.500	8 9 1 2 3
450.275	8 9 1 4 3	451.525	8 9 1 4 3
450.300	8 9 1 6 3	451.550	8 9 1 6 3
450.325	8 9 1 8 3	451.575	8 9 1 8 3
450.350	8 9 1 A 3	451.600	8 9 1 A 3
450.375	8 9 1 C 3	451.625	8 9 1 C 3
450.400	8 9 1 E 3	451.650	8 9 1 E 3
450.425	8 9 1 0 8	451.675	8 9 1 0 8
450.450	8 9 1 1 8	451.700	8 9 1 1 8
450.475	8 9 1 2 8	451.725	8 9 1 2 8
450.500	8 9 1 4 8	451.750	8 9 1 4 8
450.525	8 9 1 6 8	451.775	8 9 1 6 8
450.550	8 9 1 8 8	451.800	8 9 1 8 8
450.575	8 9 1 C 8	451.825	8 9 1 C 8
450.600	8 9 1 E 8	451.850	8 9 1 E 8
450.625	8 9 1 0 9	451.875	8 9 1 0 9
450.650	8 9 1 1 9	451.900	8 9 1 1 9
450.675	8 9 1 2 9	451.925	8 9 1 2 9
450.700	8 9 1 4 9	451.950	8 9 1 4 9
450.725	8 9 1 6 9	451.975	8 9 1 6 9
450.750	8 9 1 8 9	452.000	8 9 1 8 9
450.775	8 9 1 A 9	452.025	8 9 1 A 9
450.800	8 9 1 C 9	452.050	8 9 1 C 9
450.825	8 9 1 E 9	452.075	8 9 1 E 9
450.850	8 9 1 0 A	452.100	8 9 1 0 A
450.875	8 9 1 1 A	452.125	8 9 1 1 A
450.900	8 9 1 2 A	452.150	8 9 1 2 A
450.925	8 9 1 4 A	452.175	8 9 1 4 A
450.950	8 9 1 6 A	452.200	8 9 1 6 A
450.975	8 9 1 8 A	452.225	8 9 1 8 A
451.000	8 9 1 C A	452.250	8 9 1 C A
451.025	8 9 1 E A	452.275	8 9 1 E A
451.050	8 9 1 0 B	452.300	8 9 1 0 B
451.075	8 9 1 1 B	452.325	8 9 1 1 B
451.100	8 9 1 2 B	452.350	8 9 1 2 B
451.125	8 9 1 4 B	452.375	8 9 1 4 B
451.150	8 9 1 6 B	452.400	8 9 1 6 B
451.175	8 9 1 8 B	452.425	8 9 1 8 B
451.200	8 9 1 A B	452.450	8 9 1 A B
451.225	8 9 1 C B	452.475	8 9 1 C B
451.250	8 9 1 E B	452.500	8 9 1 E B
451.275	8 9 1 0 C		
451.300	8 9 1 1 C		
451.325	8 9 1 2 C		
451.350	8 9 1 4 C		
451.375	8 9 1 6 C		
451.400	8 9 1 8 C		
451.425	8 9 1 A C		
451.450	8 9 1 C C		
451.475	8 9 1 E C		
451.500	8 9 1 0 D		
451.525	8 9 1 1 D		
451.550	8 9 1 2 D		
451.575	8 9 1 4 D		
451.600	8 9 1 6 D		
451.625	8 9 1 8 D		
451.650	8 9 1 A D		
451.675	8 9 1 C D		
451.700	8 9 1 E D		
451.725	8 9 1 0 E		
451.750	8 9 1 1 E		
451.775	8 9 1 2 E		
451.800	8 9 1 4 E		
451.825	8 9 1 6 E		
451.850	8 9 1 8 E		
451.875	8 9 1 A E		
451.900	8 9 1 C E		
451.925	8 9 1 E E		
451.950	8 9 1 0 F		
451.975	8 9 1 1 F		
452.000	8 9 1 2 F		
452.025	8 9 1 4 F		
452.050	8 9 1 6 F		
452.075	8 9 1 8 F		
452.100	8 9 1 A F		
452.125	8 9 1 C F		
452.150	8 9 1 E F		
452.175	8 9 1 0 G		
452.200	8 9 1 1 G		
452.225	8 9 1 2 G		
452.250	8 9 1 4 G		
452.275	8 9 1 6 G		
452.300	8 9 1 8 G		
452.325	8 9 1 A G		
452.350	8 9 1 C G		
452.375	8 9 1 E G		
452.400	8 9 1 0 H		
452.425	8 9 1 1 H		
452.450	8 9 1 2 H		
452.475	8 9 1 4 H		
452.500	8 9 1 6 H		

TABLE 7-D
PHOENIX -- SX (WIDE BAND , DIV. = 12.5 KHZ)

FREQUENCY	ADDRESS S4 (RX)					MODE A MODE B	FREQUENCY	ADDRESS S4 (TX)					MODE A MODE B	FREQUENCY	ADDRESS S4 (TX)				
	1	2	3	4	5			1	2	3	4	5			1	2	3	4	5
DISABLE							451.375	9	6	3	6	1		451.375	8	A	1	6	0
450.025	9	5	3	2	7	9	451.300						451.300	8	A	1	8	0	
450.050	9	5	3	4	3	8	451.325	9	6	3	9	1	451.325	8	A	1	A	0	
450.075	9	5	3	5	3	8	451.350	9	6	3	0	1	451.350	8	A	1	A	0	
450.100	9	5	3	6	3	8	451.375	9	6	3	2	1	451.375	8	A	1	E	0	
450.125	9	5	3	7	3	8	451.400	9	6	3	0	2	451.400	8	A	1	0	1	
450.150	9	5	3	8	3	8	451.425	9	6	3	2	2	451.425	8	A	1	0	1	
450.175	9	5	3	9	3	8	451.450	9	6	3	4	2	451.450	8	A	1	4	1	
450.200	9	5	3	0	9	8	451.475	9	6	3	6	2	451.475	8	A	1	6	1	
450.225	9	5	3	1	8	8	451.500	9	6	3	8	2	451.500	8	A	1	8	1	
450.250	9	5	3	2	8	8	451.525	9	6	3	9	2	451.525	8	A	1	A	1	
450.275	9	5	3	3	8	8	451.550	9	6	3	0	3	451.550	8	A	1	E	1	
450.300	9	5	3	4	8	8	451.575	9	6	3	2	2	451.575	8	A	1	C	1	
450.325	9	5	3	5	8	8	451.600	9	6	3	0	3	451.600	8	A	1	E	1	
450.350	9	5	3	6	8	8	451.625	9	6	3	2	3	451.625	8	A	1	A	2	
450.375	9	5	3	7	8	8	451.650	9	6	3	3	3	451.650	8	A	1	E	2	
450.400	9	5	3	8	8	8	451.675	9	6	3	4	3	451.675	8	A	1	E	2	
450.425	9	5	3	9	8	8	451.700	9	6	3	5	3	451.700	8	A	1	E	2	
450.450	9	5	3	0	9	8	451.725	9	6	3	6	3	451.725	8	A	1	E	2	
450.475	9	5	3	1	9	8	451.750	9	6	3	7	3	451.750	8	A	1	E	2	
450.500	9	5	3	2	9	8	451.775	9	6	3	8	3	451.775	8	A	1	E	2	
450.525	9	5	3	3	9	8	451.800	9	6	3	9	3	451.800	8	A	1	E	2	
450.550	9	5	3	4	9	8	451.825	9	6	3	0	3	451.825	8	A	1	E	2	
450.575	9	5	3	5	9	8	451.850	9	6	3	2	8	451.850	8	A	1	E	2	
450.600	9	5	3	6	9	8	451.875	9	6	3	4	8	451.875	8	A	1	E	2	
450.625	9	5	3	7	9	8	451.900	9	6	3	6	9	451.900	8	A	1	E	2	
450.650	9	5	3	8	9	8	451.925	9	6	3	8	8	451.925	8	A	1	E	2	
450.675	9	5	3	9	9	8	451.950	9	6	3	9	8	451.950	8	A	1	E	2	
450.700	9	5	3	0	0	8	451.975	9	6	3	0	8	451.975	8	A	1	E	2	
450.725	9	5	3	1	0	8	452.000	9	6	3	1	8	452.000	8	A	1	E	2	
450.750	9	5	3	2	0	8	452.025	9	6	3	2	9	452.025	8	A	1	E	2	
450.775	9	5	3	3	0	8	452.050	9	6	3	4	9	452.050	8	A	1	E	2	
450.800	9	5	3	4	0	8	452.075	9	6	3	6	9	452.075	8	A	1	E	2	
450.825	9	5	3	5	0	8	452.100	9	6	3	8	9	452.100	8	A	1	E	2	
450.850	9	5	3	6	0	8	452.125	9	6	3	9	9	452.125	8	A	1	E	2	
450.875	9	5	3	7	0	8	452.150	9	6	3	0	9	452.150	8	A	1	E	2	
450.900	9	5	3	8	0	8	452.175	9	6	3	1	9	452.175	8	A	1	E	2	
450.925	9	5	3	9	0	8	452.200	9	6	3	2	9	452.200	8	A	1	E	2	
450.950	9	5	3	0	1	8	452.225	9	6	3	3	9	452.225	8	A	1	E	2	
450.975	9	5	3	1	1	8	452.250	9	6	3	4	9	452.250	8	A	1	E	2	
451.000	9	5	3	2	1	8	452.275	9	6	3	5	9	452.275	8	A	1	E	2	
451.025	9	5	3	3	1	8	452.300	9	6	3	6	9	452.300	8	A	1	E	2	
451.050	9	5	3	4	1	8	452.325	9	6	3	8	9	452.325	8	A	1	E	2	
451.075	9	5	3	5	1	8	452.350	9	6	3	9	9	452.350	8	A	1	E	2	
451.100	9	5	3	6	1	8	452.375	9	6	3	0	9	452.375	8	A	1	E	2	
451.125	9	5	3	7	1	8	452.400	9	6	3	1	9	452.400	8	A	1	E	2	
451.150	9	5	3	8	1	8	452.425	9	6	3	2	9	452.425	8	A	1	E	2	
451.175	9	5	3	9	1	8	452.450	9	6	3	3	9	452.450	8	A	1	E	2	
451.200	9	5	3	0	2	8	452.475	9	6	3	4	9	452.475	8	A	1	E	2	
451.225	9	5	3	1	2	8	452.500	9	6	3	5	9	452.500	8	A	1	E	2	
451.250	9	5	3	2	2	8													