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SBE Console VI Owner's Manual

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Console VI

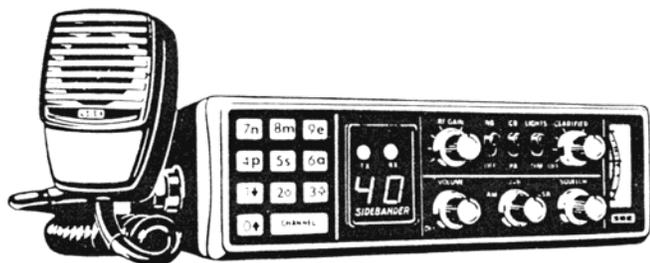


OWNER'S MANUAL





Mobile Companion For Your Console VI Base Station



SIDEBANDER VI Full-Feature AM/SSB Transceiver

Mobile Companion to the Console VI

- Direct channel entry with "musical tone" (adjustable level)
- All channel scan with 2-second pause
- Alternate channel push button
- Selectable (never forgets) priority sampled every 2 seconds with pause
- 10 addressable memories
- Memory scan
- Down channel scroll at two speeds plus single step
- Instant emergency
- Memory keep-alive

Specifications: 40CH AM/SSB • power supply voltage 13.8VDC \pm 15%, \pm ground (12VDC nominal) • transmitter output 4W AM and 12W SSB • receiver usable sensitivity 0.7 μ V AM and 0.25 μ V SSB, minimum audio output 2.0W AM/SSB • adjacent channel selectivity and desensitization at 65dB AM \pm 10KHz and 65 dB SSB \pm 10KHz • spurious rejection inband 70dB AM/SSB • cross modulation 65dB AM and 70dB SSB • image rejection 65dB AM/SSB • unwanted sideband rejection 40dB • AGC compression 3 μ V - 0.5V is 10dB AM/SSB • audio output 2.5W AM/SSB at less than 10% T.H.D. • clarifier range \pm 1500Hz AM/SSB • RF gain control range 40dB AM/SSB • squelch threshold 0.7 μ V AM, 0.5 μ V SSB • battery drain on RX squelch 0.8A AM/SSB, on full audio 1.3A AM/SSB • battery drain on TX 3.0A AM/SSB • carrier suppression 40dB SSB • unwanted sideband suppression 40dB.

ACCESSORIES

BASE STATION MIC. with amplifier



Model 100X, distinctive, functional desk top microphone, has built-in amplifier and other desirable features that make it the ideal answer for SSB or AM base station use.

The streamlined design features a swept back support column and a stable, weighted base. Built-in solid state amplifier provides up to 40 db adjustable gain to match individual voice levels and characteristics. Microphone unit is quality dynamic type with excellent frequency response. Dual "tab" switches on front allow momentary p-t-t hold-down or latch-in with quick release tab. Microphone is supplied with coil cord terminated in a 4 conductor plug with locking ring.

Size (overall): 8.2"H, Base 4"W, 5"D.
MM: 209H, Base 101W, 127D.

100X

INSTRUCTION MANUAL

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The CB Story

The Citizens Band lies between the shortwave broadcast and 10 meter amateur bands, and was established by law in 1949. The Class D two-way communications service was opened in 1959. CB also includes Class A business and Class C remote control frequencies. Acquiring a Class D license requires no detailed technical or Morse code knowledge that is required for a Ham license.

Frequency Range

The Console VI transceiver represents one of the most unique advanced two-way citizens band radios ever designed for use as a Class D station in the Citizens Radio Service. The unit features keyboard channel entry through the use of an advanced microprocessor circuit. This allows an operator to channel select with the keyboard and, in addition, provides numerous secondary keyboard functions. The unit features PLL (phase-lock-loop) circuitry which provides complete coverage of the 40 AM and SSB Class D Citizens Band channels shown below.

Channel	Channel Frequency in MHz	Channel	Channel Frequency in MHz
1	26.965	21	27.215
2	26.975	22	27.225
3	26.985	23	27.255
4	27.005	24	27.235
5	27.015	25	27.245
6	27.025	26	27.265
7	27.035	27	27.275
8	27.055	28	27.285
9	27.065	29	27.295
10	27.075	30	27.305
11	27.085	31	27.315
12	27.105	32	27.325
13	27.115	33	27.335
14	27.125	34	27.345
15	27.135	35	27.355
16	27.155	36	27.365
17	27.165	37	27.375
18	27.175	38	27.385
19	27.185	39	27.395
20	27.205	40	27.405

F.C.C. LICENSE

The Console VI transceiver is type accepted by the Federal Communications Commission for operation on any of the 40 Citizens Band channels. You are required to read and understand Part 95 of the F.C.C. rules and regulations prior to operation of this unit. A copy of 95 is enclosed.

You must obtain a Class D station license before transmitting. If you do not have a license, obtain one with the enclosed application Form 505. You may operate under a temporary permit for 60 days after Form 505 is mailed to the F.C.C. provided that you complete and comply with the enclosed Temporary Permit, Form 555-B.

Warning — Transmitter section adjustments must be performed by a qualified technician holding a valid First or Second class F.C.C. radio-telephone license.

The use of substitute components in the transmitter section of this equipment may cause a violation of F.C.C. rules and regulations. Use only the exact replacement parts specified in the parts list with this instruction manual.

GETTING ON THE AIR

You must have an F.C.C. Class D Station License before operating the transmitter section of this unit. If you presently have one, and your Console VI is already installed, you may proceed directly to the next section — OPERATING INSTRUCTIONS. For those who prefer to do their own installation detailed installation instructions are contained on page 12.

OPERATING INSTRUCTIONS

A more detailed explanation of the capabilities of the Console VI and the method for programming and operating the keyboard of your unit are contained in the CONTROLS AND INDICATORS section in this manual. You should refer to this section before attempting to operate this unit.

To Receive:

1. Set the MANUAL/AUTO switch to the MANUAL position. Set the RF GAIN to its maximum position, SQUELCH control to its minimum position, VOLUME control to a mid-range setting and the CLARIFIER to its center position.
2. Place the ON/OFF switch to the ON position. The SWR, modulation, squelch micrometer and channel indicator lamps should illuminate. The unit will come up on channel 9.
3. Adjust the volume control until a rush or voice conversation is heard at a comfortable level.
4. Select either AM or SSB mode of operation. If SSB mode is selected then the USB/LSB switch must be placed in the desired sideband mode.
5. If atmospheric or electrical impulse noise is present in the received audio, place the NB/OFF switch to the NB position.
6. Slowly advance the squelch control until the rush or background noise disappears.
7. Select the channel that you desire to monitor by any of the methods described under channel selection.

To Transmit:

You must have a Class D Station License before transmitting. All channels except channel 9 may be used for normal communications. Channel 9 is reserved by the F.C.C. for emergency communications, such as the protection of property or assistance to a motorist.

1. Select the desired channel; listen, and when clear, press the PTT button. The RF power meter will show transmitter power output.
2. Place the microphone so that it is one to two inches away from your mouth and speak in a normal tone of voice.
3. Release the PTT button and listen for a reply.

CONTROLS AND INDICATORS



To simplify the explanation of the programming and operation of the Console VI keyboard, the controls will be broken down into the following five categories; Mode Switch and Meter Functions, Slide Control Functions, Clock Keyboard Functions, Rear Panel Controls/Connectors, and Channel Entry/Microprocessor Keyboard Functions.

MODE SWITCH AND METER FUNCTIONS

1. OFF/ON Switch — applies primary power to the transceiver.
2. MANUAL/AUTO Switch — a two position switch used with the alarm function of the Console VI. Unless the alarm function of the Console VI is used, this switch will normally be left in the MANUAL position.
3. CAL/REV Switch — a two position switch which is used in conjunction with the RFO/SWR switch when operating the SWR function of the Console VI.
4. RFO/SWR Switch — selects the function of the left hand SWR/Power meter in the Console VI. When placed in the RFO position, the bottom scale of the meter will indicate transmitter power output. When placed in the SWR position, the SWR of the antenna may be checked. Simply place the CAL/REV Switch in the CAL position. Select AM operation and key the transmitter. Adjust the SWR CAL control so that the meter needle is set at the extreme right-hand side of the SWR meter scale. Now place the CAL/REV switch in the REV position and the meter needle will indicate the SWR reading for your antenna system.
5. AM/SSB — selects the primary mode of operation of the unit, either AM or SSB.
6. USB/LSB — used in conjunction with the AM/SSB switch. When in the SSB mode, this switch selects either upper sideband (USB) or lower sideband (LSB).
7. NB/OFF — in the NB position, this switch provides additional noise blanking in the receiver to further reduce impulse atmospheric or ignition noise.
8. CB/PA Switch — in the PA position, the Console VI may be used with an external PA speaker as a public address system. Press the PTT button and microphone audio will be amplified through the PA speaker; release PTT button and receiver audio will be heard through the speaker. The volume control on the Console VI will control the level of the audio present over the PA speaker.
9. Modulation/Signal Meter — in AM transmit operation, the top scale of this meter will indicate AM transmitter modulation percentage. In AM or SSB receive mode, the bottom scale of this meter will indicate the signal strength of incoming signals in "S" units.
10. Micro-margin Squelch Meter — this meter indicates the proper setting for the squelch control in the unit. The squelch control should be set so that the meter indicates slightly above the "break" indication on the meter. Further advancing of the squelch will require that stronger signals be present at the receiver of the unit in order to break the squelch setting.

SLIDE CONTROL FUNCTIONS

1. SWR/CAL — this sliding control allows the operator to properly calibrate the SWR meter in the Console VI.
2. Clarifier Control — the clarifier permits variation of the receiver operating frequencies above and below the assigned channel frequencies. Although this control is intended primarily to tune in SSB signals, it may be used to optimize the reception of AM signals as well.
3. RF Gain Control — the RF Gain Control is used to adjust the sensitivity of the receiver during AM or SSB operation. When the control is in its highest setting, the receiver sensitivity will be maximum. As the setting of the RF Gain Control is reduced, only the strongest signals will be heard.
4. Squelch Control — the squelch control blanks out unwanted noise when no signals are present. Place this control at its minimum setting and then slowly advance it until receiver noise disappears. A visual indication of the selected squelch setting is provided by the micro-margin squelch meter. Once the squelch control has been set at slightly above the "break" point, any signal to be received must now be slightly stronger than the average receiver noise. Further advancing of this control will increase the threshold level which a signal must overcome in order to be heard. At the maximum setting of the squelch control, only strong signals will be heard.
5. Volume Control — the volume control is used to set the desired listening level.

CLOCK KEYBOARD FUNCTIONS

When the Console VI is initially plugged into an AC outlet, the clock display will indicate 12:00 A.M. The A.M. indicator will be blinking or flashing off and on which indicates that it is necessary for the operator to set the correct time on the clock. Additionally, should there be any interruption in AC power to the Console VI, the clock display will revert to 12:00 A.M. with the A.M. indicator blinking or flashing off and on.

SETTING THE LED CLOCK

To set the proper time on the clock display, proceed as follows:

1. Depress and hold the **TIME SET** key.
2. Depress and hold the **FAST** key until the clock display indicates an A.M. or P.M. time approximately 3 to 4 minutes before the correct local time.
3. Depress the **SLOW** key to set the clock display for a time approximately 1 minute ahead of the correct local time.
4. Depress and hold the **SEC. DISP.** key. The minutes and seconds will now be shown in the clock display. While continuing to hold the **TIME SET** and **SEC. DISP.** keys, depress and hold the **ZERO SEC.** key. The clock display will now indicate the minute and 00 seconds. Once the correct local time reaches the minute indicated on the clock display, release all keys. The clock should now be set to the correct local time.

SETTING THE AUTO ALARM CLOCK FUNCTION

The Auto Alarm Function in the Console VI allows the operator to select a predetermined time at which the radio will automatically be turned on for a period of 60 minutes.

To set the auto function, proceed as follows:

1. Depress and hold the **TIMER** key. If any numbers other than 00 appear in the clock display, proceed to step 2. If 00 appears in the clock display, proceed to step 3.
2. Using both the **FAST** and **SLOW** keys, set the clock display to read 00. Release the **TIMER** key.
3. Depress and hold the **ALM DISP** key.
4. Using the **FAST** and **SLOW** advance keys, set the time on the clock display to select the predetermined alarm time. Release the **ALM DISP** key.
5. Place the POWER ON/OFF Switch in the OFF position and the MANUAL/AUTO Switch in the AUTO position.
6. Once the clock time reaches the previously selected alarm time, primary power will be applied to the radio and the radio will turn on.
7. Once the radio has been turned on by the Auto Alarm, it may be shut off by depressing the **ALM OFF** key once or placing the MANUAL/AUTO POWER Switch in the MANUAL position.

SETTING THE "SLEEP FUNCTION"

The sleep function in the Console VI will allow the operator to select a predetermined period of time between 1 and 60 minutes of operation after which period of time the Console VI will automatically shut itself off.

To set the Sleep function, proceed as follows:

1. Depress and hold the **TIMER** key. The clock display will now indicate 00.
2. Using the **FAST** and **SLOW** keys, select a predetermined period of time between 1 and 60 minutes. Release the **TIMER** key.
3. Place the POWER ON/OFF Switch to the OFF position. Place the POWER MANUAL/AUTO Switch to the AUTO position.
4. The Console VI will now remain on for the period of time selected above. After reaching the predetermined period of time, the unit will automatically shut itself off.

REAR PANEL CONTROLS/CONNECTORS

1. PA Jack — permits connection for an 8 ohm, 4 watt or better public address speaker.
2. EXT. SPR. Jack — permits connection of a 4 or 8 ohm, 4 watt or better speaker to be connected for external listening. When the external speaker is plugged in, the internal speaker is disconnected.
3. SO-239 — permits connection of PL-259 antenna connector.
4. Keyboard Audio Level Control — a variable potentiometer to adjust the level of the keyboard audio tone.
5. Emergency Power Connection — a two position terminal strip to permit connection of an emergency 12 volt storage battery.

CHANNEL ENTRY/MICROPROCESSOR KEYBOARD FUNCTIONS

The Console VI has two modes of operation; a function mode and a numeric entry mode. The function modes provided by the keyboard are:

1. Channel Stepping — keys **0↑** **1↓** **2↓** **3↑**.
2. Alternate Channel Selection — key **6**.
3. Memory and Scan Function — keys **5** **7** **8**.
4. Channel 9 Direct Access — key **9**.
5. Priority Channel Selection — key **4**.
6. Function — Numeric Entry Conversion — key **CHANNEL**. The keyboard in the Console VI is normally in the Function mode. To place the keyboard in the numeric entry mode, the **CHANNEL** key must first be depressed.

In addition to the functions listed above, four additional keys are provided in order to address the microprocessor in the Console VI when the unit is used in memory scan mode, normal 40 channel scan mode or priority scan modes of operation. These four keys are Used Channel, Clear Channel, Stop Scan and Continue Scan.

CHANNEL SELECTION

There are two methods of channel selection in the Console VI:

1. Direct Channel Entry.
2. Stepping.

Direct Channel Entry — To enter channels directly, the **CHANNEL** key must first be depressed. Then simply depress the two keys to enter the desired channel, i.e. **0** **1** for channel 1. Once the last key is struck, this will immediately latch the displayed channel into the microprocessor. For example, depress **CHANNEL** **0** **1**. Channel 1 will now appear in the channel display window and the unit will operate on channel 1.

Attempting to enter an illegal channel into the Console VI will cause the channel display to flash or blink off and on. For example, depress **CHANNEL** **4** **5**. Channel 45 will now appear in the channel display window, however, the channel display will blink off and on. To revert the unit to normal operation, simply select another legal channel, i.e. **CHANNEL** **2** **3**. Channel 23 will now appear in the display window and the unit will be locked on to operation on channel 23. An alternate method would be to strike the **7 NORM** key. This would cause the unit to change to the last legal channel which has been selected. For example, depress **CHANNEL** **1** **3**. Channel 13 would now appear in the channel display. Depress **CHANNEL** **4** **5**. Channel 45 would now appear in the display but would be blinking. Simply depress the **7 NORM** key and channel 13 would once again appear in the channel display and the unit will revert to operation on channel 13.

Channel Stepping — It is possible to step up or down through the channels by using the stepping keys.

- 0↑** FAST — rapid step up
- 1↓** FAST — rapid step down
- 2↓** SLOW — slow step down
- 3↑** SLOW — slow step up

40 CHANNEL AND MEMORY SCAN

The following pages describe the procedure to program the microprocessor in the Console VI for 40 channel and memory scan operation. Once the microprocessor has been programmed for any of the scan modes, all the operator need do is simply adjust the squelch level to mute the background noise and then depress the **[5 SCAN]** key. The Console VI will now commence scan operation. Should the operator wish to manually override the scan function, he may simply depress the **[5 SCAN]** key. This will stop the scan operation of the Console VI. To again commence scan operation, simply depress the **[5 SCAN]** key.

Should the transmitter in the Console VI be keyed during scan operation, the unit will automatically lock onto the channel being scanned at the instant the microphone button was depressed. Once the transmitter is unkeyed, scan operation may be again initiated by depressing **[5 SCAN]** key.

40 CHANNEL NORMAL SCAN

The Console VI may be programmed to scan all 40 of the Citizens Band channels using any of the methods described below:

1. Occupied (USED CHNL), Continuous (CONTINUE) Scan

The microprocessor in the Console VI has been designed to operate in this mode unless otherwise instructed by the operator. In this mode of operation, simply set the squelch control to mute the background noise and depress the **[5 SCAN]** key. The Console VI will now commence searching through the channels until an occupied or busy channel is found. This will be indicated by the squelch breaking and the unit stopping on the channel. The Console VI will remain on this channel until such time as the squelch again closes. After a two or three second delay, the Console VI will once again continue scanning the channels for the next used or occupied channel.

To program the Console VI for this method of operation simply address the keyboard in the following manner: Depress **[7 NORM]**, **[USED CHNL]**, **[7 NORM]**, **[CONTINUE]**, **[5 SCAN]**. The Console VI microprocessor has now been programmed for Used Channel, Continuous Scan.

2. Occupied (USED CHNL), Lock (STOP) Scan.

In this method of operation, the Console VI will be programmed to search through the channels until a busy or occupied channel is found. Once the squelch is broken, the unit will lock on to that channel and remain there, regardless of squelch setting, until the operator depresses the **[5 SCAN]** key to commence scanning again.

To place the Console VI microprocessor in this mode of operation, simply address the keyboard in the following manner: Depress **[7 NORM]**, **[USED CHNL]**, **[7 NORM]**, **[STOP]**, **[5 SCAN]**. The microprocessor in the Console VI is now programmed for this mode of operation.

3. Vacant (CLR CHNL), Lock (STOP) Scan.

In this mode of operation, the Console VI will commence scanning the channels looking for a channel on which the signal and/or noise level is lower than the squelch setting of the unit. If such a channel is found, the Console VI will stop and lock on that channel. Should the operator wish to continue scanning, he need simply to depress the **[5 SCAN]** key.

To place the Console VI microprocessor in this mode of operation, simply address the keyboard in the following manner: Depress **[7 NORM]**, **[CLR CHNL]**, **[7 NORM]**, **[STOP]**, **[5 SCAN]**.

4. Vacant (CLR CHNL), Continuous (CONTINUE) Scan

In this mode of operation, the Console VI will commence scanning the channels looking for a channel on which the signal and/or noise level is lower than the squelch setting of the unit. If such a channel is found, the Console VI will stop on that channel. The unit will remain there for a period of 2 to 3 seconds after which the Console VI will once again continue scanning the channels for the next vacant or clear channel.

To place the Console VI microprocessor in this mode of operation, simply address the keyboard in the following manner: Depress **[7 NORM]**, **[CLR CHNL]**, **[7 NORM]**, **[CONTINUE]**, **[5 SCAN]**.

The Console VI microprocessor may be addressed in any of the above four methods for scanning all of the 40 citizens band channels. If the unit is in any of the scan modes of operation, the operator may interrupt the scan by simply depressing the **[5 SCAN]** key. To place the unit back in the scanning mode of operation, simply once again depress the **[5 SCAN]** key.

INSTANT CHANNEL 9 ACCESS

Channel 9 may be accessed instantly by depressing the **[9 EMRG]** key. Use of the **[CHANNEL]** bar is not necessary. By depressing the **[9 EMRG]** key, the Console VI will automatically override any other function selected and automatically revert both transmit and receive to channel 9.

MEMORY SCAN

The Console VI has the capability of storing up to 10 channels in its memory register. Once the memory has been programmed for those 10 channels, the Console VI may be directed to scan only those channels rather than all 40 channels.

The Console VI microprocessor will assign a memory location to each memory channel as it is entered into the radio and will scan through those memory channels in the order in which they were programmed into the memory register. The memory register positions in the Console VI are identified as 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. Depressing and holding the **[8 MEMORY]** key will recall the 0 or first position of the memory register. The left hand channel display numeral will show "0" indicating the first memory. Releasing the **[8 MEMORY]** key will then show channel 9, which is automatically programmed in the first memory register position. Depressing and holding the **[8 MEMORY]** key once again will show the numeral 1 in the left hand channel display numeral indicating the second memory register position. Releasing the key will then show "00" in the channel display indicating that no channel has been programmed into that memory register position. Depressing and holding the **[8 MEMORY]** key once again, will cause the numeral "2" to appear on the left hand channel display numeral indicating the third memory register position. Releasing the key will cause the channel display to show "00" indicating that no channel has been programmed into that memory register position. This procedure may be used to step through and recall each of the 10 memory register positions.

The memory positions in the Console VI may be **individually** recalled and reviewed using the following procedure; depress **[8 MEMORY]**, **[6 ALT]**, **[1]**. This will recall the second memory position in the Console VI and any channel programmed into that position will be displayed on the channel display. Should the position be vacant, the digits "00" will appear in the display window. If you now wish to enter a channel in that position or change the channel previously entered, simply depress the **[CHANNEL]** bar and strike the keys for the new channel, i.e. **[CHANNEL]** **[4]** **[0]**. Channel 40 would now be entered into the second memory register position. This procedure may be used to individually recall any of the 10 memory register positions.

To program the 10 memory positions, the following procedure should be used; press the **[8 MEMORY]** key once. This will gain access to the memory function and place you in the first memory register position. Channel 9 should now appear in the display window since this channel is automatically programmed in the number 1 memory register position. If you wish to reprogram the number 1 position, simply depress the **[CHANNEL]** bar once and then the numerals of the channel you wish to program. For example, **[CHANNEL]** **[1]** **[2]**. Channel 12 should now appear in the channel display window and be locked into the number 1 memory register position.

Depress the **[8 MEMORY]** key again to select the number 2 memory register position. If nothing has been entered into that position, the digits "00" will appear in the channel display window. To enter a channel, such as, channel 40 into the number 2 position, simply press **[CHANNEL]** **[4]** **[0]**. Channel 40 has now been entered into the number 2 memory position. To access the number 3 memory position, simply press the **[8 MEMORY]** key again and the third memory position will be recalled. To enter a channel, such as 20, to the third memory register position, simply press **[CHANNEL]** **[2]** **[0]**. Channel 20 has now been entered into the number 3 memory register position. The above procedure may be used to program up to 10 channels into the Console VI memory. It is not necessary that all 10 memory positions be filled. You may program the Console VI memory for anything between 1 and 10 channels.

Scanning of the memory channels may be set up in the same manner as was described under 40 channel scan, i.e. Used Channel Scan, Clear Channel Scan, Stop Scan or Continuous Scan. Unless the memory position is otherwise programmed, it will automatically be programmed for Used (Occupied) Continuous Channel Scan. In this mode of operation, the memory scan may be initiated by setting the squelch control to mute background noise and then depressing **[8 MEMORY]** **[5 SCAN]**. The Console VI will commence searching the programmed memory channels until one in use is found. Upon finding an active channel, the unit will stop on that channel and remain there until such time as the conversation on the channel ceases and the squelch once again closes. Approximately 2 seconds after the closing of the squelch, the unit will again commence scanning the memory channels.

Listed below are the procedures to be used for programming the microprocessor memory for the various types of scan mode operation:

1. Occupied (USED CHNL), Continuous (CONTINUE) Scan

Depress **8 MEMORY**, **USED CHNL**, **8 MEMORY**, **CONTINUE**, **5 SCAN**. In this mode of operation, simply set the squelch control to mute the background noise and depress the **5 SCAN** key. The Console VI will now commence searching through the programmed memory channels until one in use is found. Upon finding an active channel, the unit will stop on that channel and remain there until such time as the conversation on the channel ceases and the squelch once again closes. Approximately 2 seconds after the closing of the squelch, the unit will again commence scanning the memory channels.

2. Occupied (USED CHNL), Lock (STOP) Scan

Depress **8 MEMORY**, **USED CHNL**, **8 MEMORY**, **STOP**, **5 SCAN**. In this mode of operation, the Console VI will be programmed to search through the memory channels until a busy or occupied channel is found. Once the squelch is broken, the unit will lock onto that channel and remain there, regardless of the squelch setting, until the operator depresses the **5 SCAN** key to commence memory scanning again.

3. Vacant (CLR CHNL), Lock (STOP) Scan

Depress **8 MEMORY**, **CLR CHNL**, **8 MEMORY**, **STOP**, **5 SCAN**. In this mode of operation, the Console VI will commence scanning the memory channels looking for a channel on which the signal and/or noise level is lower than the squelch setting of the Console VI. If such a channel is found, the Console VI will stop and lock on that channel. Should the operator wish to continue scanning, he need simply to depress the **5 SCAN** key.

4. Vacant (CLR CHNL), Continuous (CONTINUE) Scan

Depress **8 MEMORY**, **CLR CHNL**, **8 MEMORY**, **CONTINUE**, **5 SCAN**. In this mode of operation, the Console VI will commence scanning the memory channels looking for a channel on which the signal and/or noise level is lower than the squelch setting of the Console VI. If such a channel is found, the Console VI will stop on that channel. After a 2 or 3 second delay, the Console VI will once again commence scanning the channels again looking for a vacant or clear channel. Should you wish to remain on any vacant channel, simply press the **5 SCAN** key to stop the unit.

To take the Console VI out of the memory function and return it to normal keyboard operation, simply depress the **7 NORM** key. Depress the **7 NORM** key will leave the memory in the Console VI intact and return you to normal operation on the last channel you had selected prior to entering the Console VI's memory. You should always depress the **7 NORM** key when you wish to leave the memory function of the Console VI. **Failure to do so could result in erroneous entries in the memory register of the unit.**

PRIORITY CHANNEL OPERATION

The Console VI microprocessor is designed to allow the operator to select any one of the 40 Citizens Band channels as a priority channel in the unit. Once the operator has selected and programmed the priority channel into the Console VI's microprocessor, you may select another channel as a primary operating channel, i.e. the Console VI may be programmed to make channel 9 a priority channel and select channel 19 as the primary operating channel.

The following procedure should be used to program the priority function in the Console VI: Depress the **[4 PRI]** key. Depress the **[CHANNEL]** bar and enter the channel number of the priority channel, **[4] [0]**. Channel 40 has now been selected as a priority channel. Depress the **[CHANNEL]** bar again and enter your primary operating channel, **[1] [0]**. Channel 10 has now been entered as the primary operating channel. To commence priority scan, simply set the squelch control and depress **[5 SCAN]** key and the Console VI will commence scanning the priority channel. Should a conversation break the squelch on the priority channel, the Console VI will latch onto channel 40 and remain there until the conversation ceases. Approximately 2 seconds after cessation of the conversation, the Console VI will commence scanning again.

The priority function of the Console VI may be programmed for Used Channel, Clear Channel, Stop Scan or Continue Scan. Listed below are the methods and descriptions of the programming of the Console VI for these functions:

1. Occupied (USED CHNL), Continuous (CONTINUE) Scan

Depress **[4 PRI]**, **[USED CHNL]**, **[4 PRI]**, **[CONTINUE]**, **[5 SCAN]**. In this mode of operation, simply set the squelch control to mute the background noise and depress the **[5 SCAN]** key. The Console VI will now commence scanning the priority channel until a conversation on the priority channel occurs. The unit will stop on the priority channel and remain there until such time as the conversation on the channel ceases and the squelch once again closes. Approximately 2 seconds after the closing of the squelch, the unit will again commence scanning the priority channel.

2. Occupied (USED CHNL), Lock (STOP) Scan

Depress **[4 PRI]**, **[USED CHNL]**, **[4 PRI]**, **[STOP]**, **[5 SCAN]**. In this mode of operation, the Console VI will be programmed to scan the priority channel until a conversation on the channel occurs. Once the squelch is broken, the unit will lock on the priority channel and remain there, regardless of the squelch setting, until the operator depresses the **[5 SCAN]** key to commence scanning again.

3. Vacant (CLR CHNL), Lock (STOP) Scan

Depress **[4 PRI]**, **[CLR CHNL]**, **[4 PRI]**, **[STOP]**, **[5 SCAN]**. In this mode of operation, the Console VI will commence scanning the priority channel until the signal and/or noise level is lower than the squelch setting of the Console VI. If this occurs, the unit will stop and lock on the priority channel. Should the operator wish to continue scanning, he need simply depress the **[5 SCAN]** key.

4. Vacant (CLR CHNL), Continuous (CONTINUE) Scan

Depress **[4 PRI]**, **[CLR CHNL]**, **[4 PRI]**, **[CONTINUE]**, **[5 SCAN]**. In this mode of operation, the Console VI will commence scanning the priority channel until the signal and/or noise level is lower than the squelch setting of the Console VI. If this occurs, the unit will stop on the priority channel. After a 2 or 3 second delay, the Console VI will once again commence scanning the priority channel. Should you wish to remain on the priority channel, simply press the **[5 SCAN]** key to stop the unit.

ALTERNATE CHANNEL OPERATION

The alternate channel function of the Console VI gives the operator the capability to shift back and forth instantaneously between any two preselected channels. Let's assume that contact has been established with a party on a local calling channel (call it channel 11) and that you wish to find a clear channel. Simply press the **[6 ALT]** (alternate) key once and then step through the channels until a clear channel is found (channel 40). Channel 40 will now be in the Console VI's alternate memory position. Pressing the **[6 ALT]** key again, will automatically return the unit to channel 11. Once on channel 11, tell your calling party that channel 40 is clear and then press the **[6 ALT]** key and you will instantaneously return to channel 40.

OPERATING SINGLE SIDEBAND

There are three types of signals presently in use for communications in the Citizens Band radio service. The Console VI's receiver is capable of receiving any of these types when the proper mode of operation is selected. When the Console VI mode switch is placed in the AM position, only standard double sideband full carrier signals will be detected. An SSB signal may be recognized while in the AM mode by its characteristic intermittent pulsing or fluttering and the inability of the AM receiver to produce an intelligible output.

The SSB modes will detect upper sideband, lower sideband, double sideband (DSB) and standard AM signals. In order to determine whether to use upper sideband or lower sideband, the following explanation should be considered.

SSB reception differs from standard AM reception in that the SSB receiver does not require a carrier or opposite sideband to produce an intelligible signal. A single sideband transmitted signal consists only of the upper or lower sideband and no carrier is transmitted. A double sideband (DSB) signal consists of two sidebands, each sideband being equal in amplitude and equally distant in frequency above and below the operating frequency of the transmitter. The operating frequency is defined as the frequency where the carrier would normally be during AM operation. In AM operation a carrier, or reference signal, is transmitted along with two sidebands; each sideband being of equal amplitude and equal distance above and below the carrier frequency. It can be seen that since a single sideband receiver requires only one of the sidebands and no carrier, all modes of transmission may be received since all modes contain at least one sideband. The SSB receiver selects only the required portion of the signal (the sideband) and rejects the carrier and opposite sideband of an AM signal and rejects the opposite sideband of a DSB signal. The method of tuning AM and DSB signals in the SSB mode is explained later on in this chapter.

An SSB signal may only be received when the listening receiver is functioning in the same mode. In other words, an upper sideband signal (USB) may be made intelligible only if the receiver is functioning in the USB position. A lower sideband (LSB) signal will be heard when the receiver is in the USB mode, however, no amount of tuning will make the signal intelligible. The reason for this may be understood if you consider that when in the USB mode, a transmitter's output frequency is in direct proportion to the modulating tone whereas in the LSB mode the transmitter's output frequency is in inverse proportion to the modulating tone. When modulation is applied to the transmitter's microphone in the USB mode, the transmitter's output frequency is increased whereas in the LSB mode the transmitter's output frequency is decreased. The result in listening to the receiver is that when the mode switch is in the proper position (either USB or LSB), a true reproduction of a single tone of modulation will result, and if the tone is increased in frequency, such as a low pitched whistle to a high pitched whistle, you will hear the increase in the output tone of the receiver. If the incorrect mode is selected, an increase in tone of a whistle applied to the transmitter will cause a decrease in the resultant tone from the receiver. Thus when a voice is used in place of a whistle or tone, in the proper listening mode the voice will be received correctly whereas in the incorrect mode, the voice will be translated backwards and cannot be made intelligible by the clarifier control. When listening to an AM or DSB transmission, a correct sideband is heard in either mode since both an upper and lower sideband are received.

Once the desired SSB mode has been selected, frequency adjustment may be necessary in order to make the incoming signal intelligible. The clarifier control allows the operator to vary frequency above and below the exact center frequency of the received signal. If the sound of the incoming signal is high or low pitched adjust the clarifier to produce the correct sound. In order to understand the operation of the clarifier, consider it as performing the same function as a phonograph speed control. When the speed is set too high, voices will be high pitched and if set too low voices will be low pitched. There is only one correct speed that will make a particular record produce the same sound that was recorded. If the record is played on a turntable that rotates in the wrong direction (opposite sideband) no amount of speed control (clarifier) will produce an intelligible sound.

An AM signal received while listening in one of the SSB modes will produce a steady tone (carrier) in addition to the intelligence unless the SSB receiver is tuned to exactly the same frequency by the clarifier control. For simplicity it is recommended that the AM mode be used to listen to AM signals.

DSB signals may be received in either SSB mode and the clarifier control is adjusted in the same manner as in true single sideband operation.

INSTALLATION

A good installation is the most important factor in achieving maximum performance from your Console VI. Complete installation service is available from many CB radio dealers. While no special tools are needed for installation, the antenna system should be checked out after assembly is complete using the built-in VSWR meter in the Console VI.

GENERAL

The first step in the installation of the Console VI is to select a site which is convenient and permits accessibility to a good antenna location. The selection of an antenna system and its mounting location are the most critical factors in determining performance.

A vertical ground plane antenna will provide the most uniform horizontal coverage. This type of antenna is best suited for communications with a mobile unit. For point-to-point operation where both stations are fixed, a directional beam antenna will usually increase communication range since this type of antenna concentrates energy in one direction. Beam antennas also allow the receiver to "listen" in only one direction thus reducing interfering signals. F.C.C. regulations limit antenna height of directionals to 20 feet above ground or any formation and omnidirectionals and supporting structure to 60 feet above ground.

For antenna lead-in lengths of under 50 feet, RG-58A/U coaxial cable is satisfactory. For less line loss or longer lead-in runs, RG-8A/U is recommended. Extreme caution should be used when attaching the PL-259 coaxial cable. Insure that the center and braided shield on the cable is satisfactorily soldered to the PL-259 coaxial cable. Once the connectors have been installed on both ends of the cable, it is recommended that the cable be checked with an ohm meter to insure that there are no open or short circuits present. After the PL-259 connector has been fitted to the antenna, it is recommended that the connector be wrapped with a vinyl electrical tape to shield it from the elements.

ANTENNA CHECKOUT

The final step in the installation of your Console VI is to check the antenna VSWR. This may be done using the built-in VSWR in the Console VI. The VSWR should be checked on channels 1, 20, 40. Channel 20 should show the lowest VSWR with channels 1 and 40 being slightly higher. If the antenna VSWR on any of those channels measures in excess of 1.5 to 1, it is recommended that you recheck the antenna lead-in and antenna installation.

If the antenna system in use presents a poor load, as indicated by a high VSWR reading, transmitter range will be substantially reduced and damage to the transmitter final amplifier may occur. Extremely high VSWR readings, may be indicative of a defective transmission line, antenna, or connections.

FINAL CHECKOUT

Make an operational checkout of the transceiver to insure operation of it and all the accessories installed. Contact other stations and inquire about their location and their reception of your signal. If an omnidirectional antenna is used, the distance to other stations contacted should be about the same in all directions. A directional antenna should reach more distant stations in the direction in which it is beamed. Also inquire whether the stations contacted are omnidirectional or directional and if directional, which way they are beamed.

EMERGENCY DC POWER

If it is anticipated that the unit may be used in the event of a power failure, a 12 volt storage battery may be connected to the terminal strip on the rear panel. Connect the negative and positive battery terminals to the corresponding points on the terminal strip using #14 or larger wire. In the event of AC power failure, the unit will automatically draw primary power from the battery source. When AC power is restored, the unit will automatically return to normal AC operation. It is not necessary to disconnect the emergency DC power source when the AC line is being used. It is recommended that a means to keep the storage battery fully charged be provided.

PUBLIC ADDRESS

An external 4 or 8 ohm, 4 watt speaker may be connected to the PA jack located on the rear panel of the unit when it is to be used as a public address system. The speaker should be directed away from the microphone to prevent acoustical feedback.

EXTERNAL SPEAKER

The external speaker jack on the rear panel is used for remote receiver monitoring. The external speaker may have a 4 or 8 ohm impedance and should be rated at 3 watts power dissipation. When the external speaker is plugged in, the internal speaker is disconnected. Suitable units are the model SBE-1SP Non-amplified speaker or SBE-1SP/AMP Amplified speaker.

ALTERNATE MICROPHONE INSTALLATION

The Console VI is supplied with the SBE 200X Non-amplified Base Station Microphone. Should you wish, SBE has available the 100X Pre-amplified Base Station Microphone which comes supplied with a suitable microphone connector ready for use on the Console VI. If another microphone is selected for use with the Console VI, refer to the schematic diagram below for the proper wiring connections for the microphone jack.

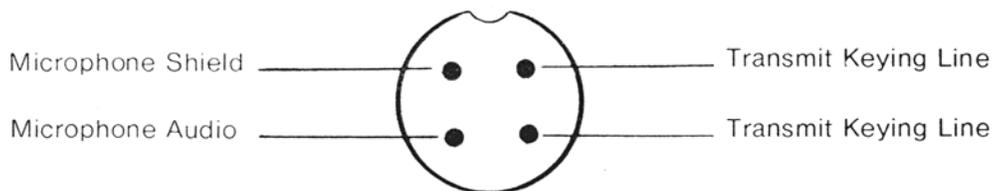


FIGURE 1
MICROPHONE JACK WIRING DIAGRAM
REAR VIEW

SPECIFICATIONS

General

Compliance	F.C.C. Type Accepted (Part 95, Class D)
Channels	40
Frequency Range	26.965 to 27.405 MHz
Frequency Control	Crystal control, digitally Synthesized
Frequency Tolerance	0.003%
Operating Temperature Range	-30°C to +50°C
Humidity	+95%
Input Voltage	115V AC - 50/60 Hertz or 13.8V DC positive or negative ground
Microphone	Dynamic
Size	Height: 125mm (4.92") Width: 425mm (16.73") Depth: 350mm (13.78")
Weight	8.54 Kg. — 18.8 pounds

Receiver

Sensitivity	AM: 0.7uV for 10db S + N/N ratio SSB: 0.25uV for 10db S + S/N ratio
Selectivity	AM: -65db @ 10 KHz
IF Frequencies	7.8 MHz
Image Rejection	-65db
Automatic Gain Control	Less than 10db change in audio output for signal input from 3-500.000uV
Squelch	Threshold 1uV
Clarifier Range	±1500 Hertz
Audio Output Power	2.5 watts at less than 10% distortion at 1 KHz
Frequency Response	350-2500 Hertz
Built-in Speaker	8 ohms, 3" round
External Speaker (not supplied)	8 ohms, disables internal speaker when connected

Transmitter

Power Output	AM: 4 watts (maximum) SSB: 12 watts PEP (maximum)
Modulation	AM: limited to 100%
Modulator Response	350-2500 Hertz
Output Impedance	50 ohms unbalanced
Spurious Emission	greater than 60db
Carrier Suppression	greater than 60db
Unwanted Sideband	greater than 50db
ALC Control	holds PEP output to 1db increase with 10db increase in audio input

PA System

Power Output	2.5 watts into external 8 ohm PA speaker.
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Power Requirements

AC	70 watts
DC	Received mode squelched 1.5 amps. Received mode full audio 2.5 amps TX mode AM — no modulation 2.5 amps. 100% modulation 3.0 amps SSB TX mode — no modulation 1.5 amps SSB full modulation 3.5 amps

SERVICE

If your Console VI fails to perform as stated in this manual, it is recommended that SBE be contacted in writing at the following address:

SBE, INC.
220 Airport Boulevard
Watsonville, California 95076

SBE will either authorize return of the unit to the factory or refer you to an authorized SBE repair agency in your area. Do not ship equipment without prior written authorization from SBE. Your letter to SBE must include the following particulars.

1. Model number and serial number of equipment.
2. Date of purchase of equipment.
3. Nature of trouble.
4. Cause of trouble if known
5. Name of distributor from whom the equipment was purchased.
6. Your return address.
7. Method of shipment by which the equipment should be returned.
8. Should your unit require warranty service, proof of purchase will be necessary.

Also, include any information that you feel will be helpful in locating or correcting the problem.

ORDERING PARTS

When ordering replacement parts, direct your order to an SBE distributor or SBE's parts facility at:

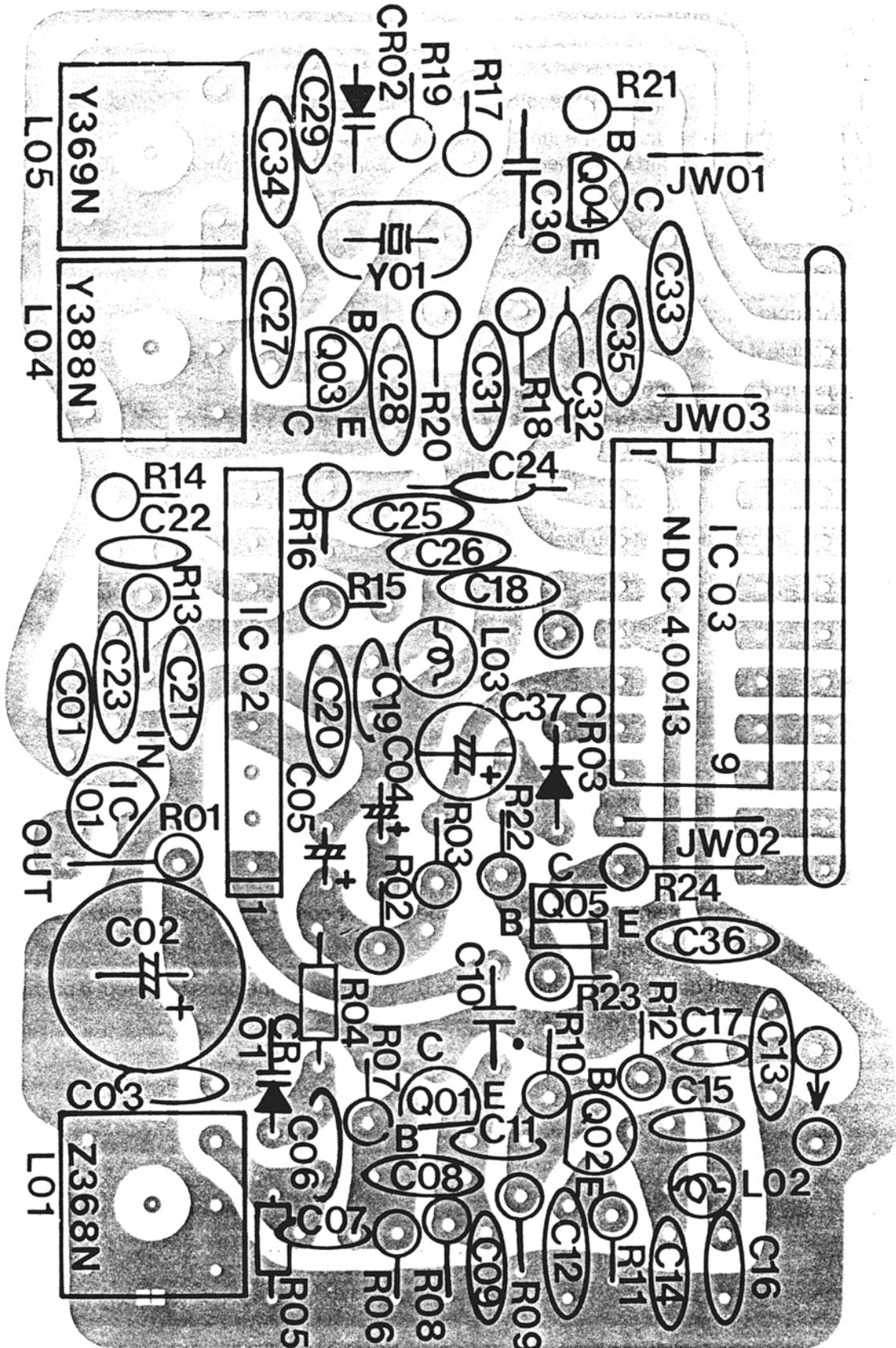
220 Airport Boulevard
Watsonville, California 95076

Please furnish the following information:

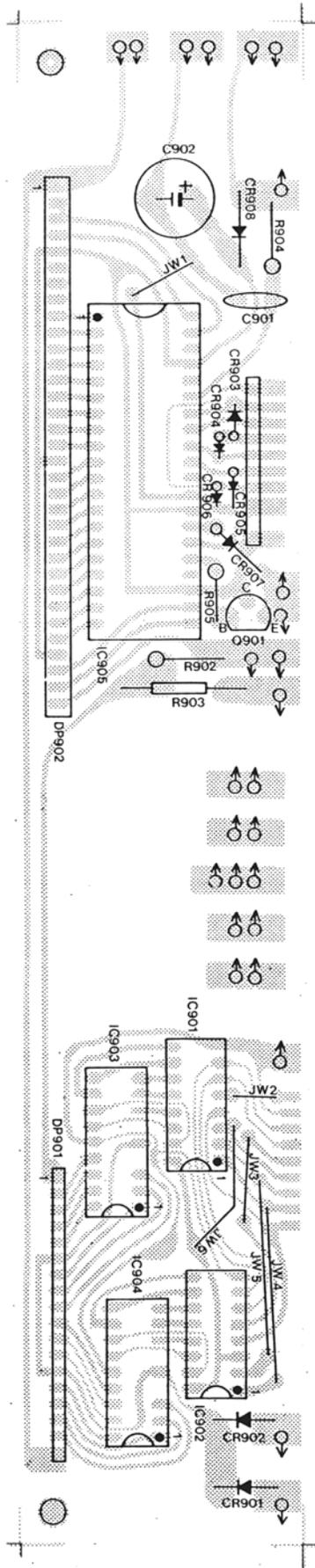
1. Quantity required.
2. SBE part number and description.
3. Item or symbol number obtained from parts list, schematic or component location drawing.
4. SBE model number and serial number.

Unless specified, SBE will determine the best method of shipment for the parts involved. If payment does not accompany the order, parts will be sent C.O.D.

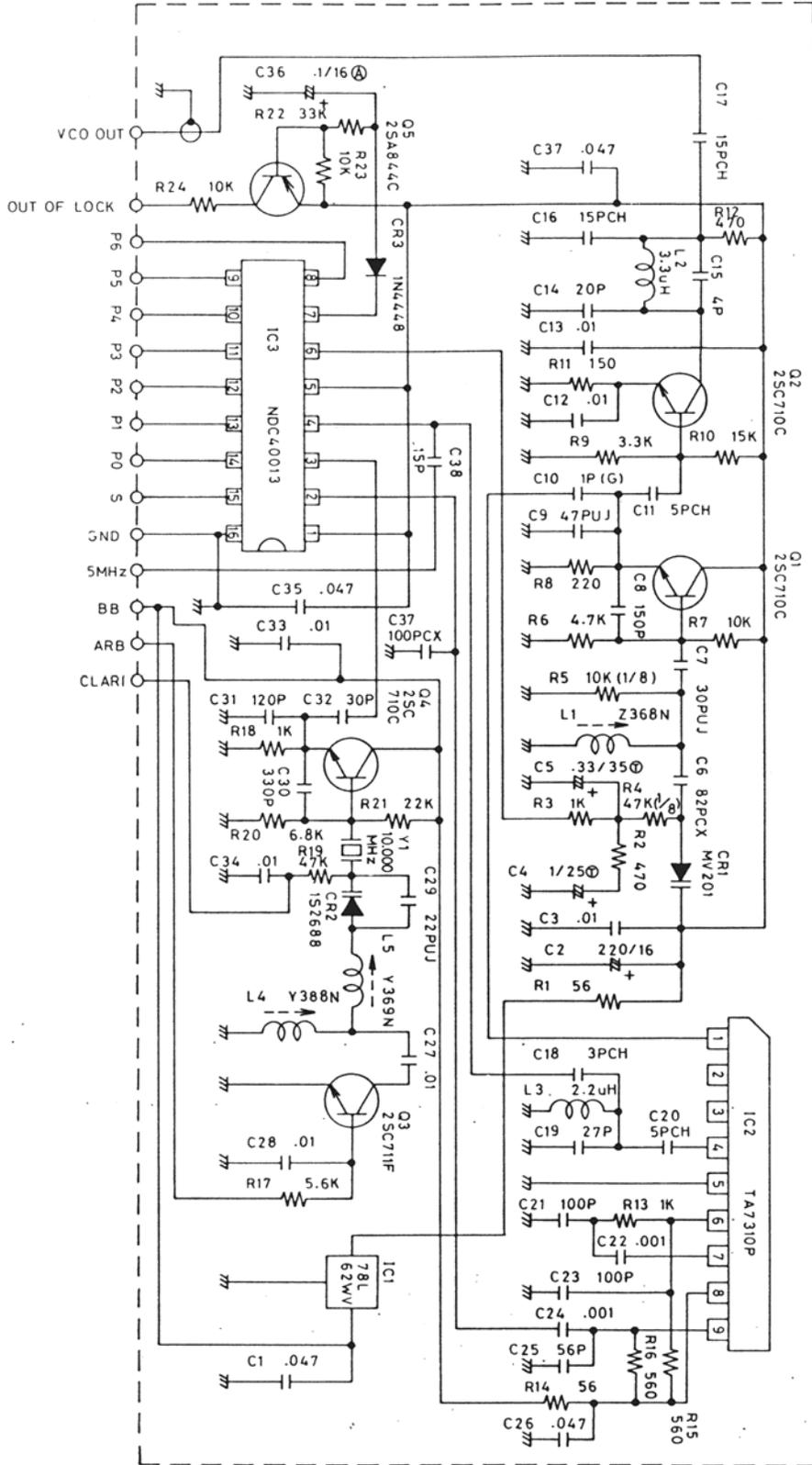
CLOCK POWER SUPPLY PCB



CLOCK PCB



PLL SCHEMATIC DIAGRAM



CONSOLE VI PARTS LIST

SYMBOL #	PART #	DESCRIPTION
C1	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C2	4-220M16	Capacitor, 220mfd, 16V, Electrolytic
C3	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C4	5-1M25	Capacitor, 1mfd, 25V, Tantalum
C5	5-.22M35	Capacitor, 0.22mfd, 35V, Tantalum
C6	2-56P50	Capacitor, 56pfd, 50V, Mica
C7	2-30P50-UJ	Capacitor, 30pfd, UJ, 50V, Mica
C8	2-150P50	Capacitor, 150pfd, 50V, Mica
C9	2-47P50-UJ	Capacitor, 47pfd, UJ, 50V, Mica
C10	6-1P	Capacitor, 1pfd, Gimmic
C11	1-5P50	Capacitor, 5pfd, 50V, Ceramic
C12	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C13	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C14	1-20P50	Capacitor, 20pfd, 50V, Ceramic
C15	2-4P50	Capacitor, 4pfd, 50V, Mica
C16	1-15P50	Capacitor, 15pfd, 50V, Ceramic
C17	1-15P50	Capacitor, 15pfd, 50V, Ceramic
C18	1-3P50	Capacitor, 3pfd, 50V, Ceramic
C19	1-27P50	Capacitor, 27pfd, 50V, Ceramic
C20	1-5P50	Capacitor, 5pfd, 50V, Ceramic
C21	1-100P50	Capacitor, 100pfd, 50V, Ceramic
C22	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C23	1-100P50	Capacitor, 100pfd, 50V, Ceramic
C24	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C25	1-56P50	Capacitor, 56pfd, 50V, Ceramic
C26	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C27	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C28	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C29	2-22P50-UJ	Capacitor, 22pfd, UJ, 50V, Mica
C30	2-330P50	Capacitor, 330pfd, 50V, Mica
C31	1-120P50	Capacitor, 120pfd, 50V, Ceramic
C32	1-30P50	Capacitor, 30pfd, 50V, Ceramic
C33	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C34	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C35	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C36	4-.1M16	Capacitor, 0.1mfd, 16V, Aluminum
C37	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C38	1-15P50	Capacitor, 15pfd, 50V, Ceramic
C101	2-35P50	Capacitor, 35pfd, 50V, Mica
C102	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C103	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C104	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C105	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C106	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C107	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C108	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C109	6-1P	Capacitor, 1pfd, Gimmic
C110	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic

SYMBOL #	PART #	DESCRIPTION
C111	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C112	2-15P50	Capacitor, 15pfd, 50V, Mica
C113	3-.02M50	Capacitor, 0.02mfd, 50V, Mylar
C114	3-.01M50	Capacitor, 0.01mfd, 50V, Mylar
C115	Not Used	
C116	3-.01M50	Capacitor, 0.01mfd, 50V, Mylar
C117	2-15P50	Capacitor, 15pfd, 50V, Mica
C118	2-15P50	Capacitor, 15pfd, 50V, Mica
C119	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C120	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C121	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C122	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C201	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C202	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C203	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C204	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C205	Not Used	
C206	2-24P50	Capacitor, 24pfd, 50V, Mica
C207	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C208	Not Used	
C209	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C210	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C211	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C212	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C213	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C214	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C215	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C216	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C217	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C218	2-100P50	Capacitor, 100pfd, 50V, Mica
C219	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C220	2-220P50	Capacitor, 220pfd, 50V, Mica
C221	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C222	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C223	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C224	4-4.7M25	Capacitor, 4.7mfd, 25V, Electrolytic
C225	4-.22M16	Capacitor, 0.22mfd, 16V, Aluminum
C226	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C227	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C228	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C229	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C230	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C231	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C232	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C233	2-5P50	Capacitor, 5pfd, 50V, Mica
C234	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C235	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C236	5-.22M35	Capacitor, 0.22mfd, 35V, Tantalum
C237	2-5P50	Capacitor, 5pfd, 50V, Mica
C238	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C239	4-.47M16	Capacitor, 0.47mfd, 16V, Aluminum
C240	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic

SYMBOL #	PART #	DESCRIPTION
C241	3-1M50	Capacitor, 0.1mfd, 50V, Mylar
C242	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C301	1-33P50	Capacitor, 33pfd, 50V, Ceramic
C302	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C303	1-33P50	Capacitor, 33pfd, 50V, Ceramic
C304	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C305	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C306	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C307	1-33P50	Capacitor, 33pfd, 50V, Ceramic
C308	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C309	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C310	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C311	Not Used	
C312	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C313	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C314	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C315	4-4.7M25	Capacitor, 4.7mfd, 25V, Electrolytic
C316	Not Used	
C317	2-15P50	Capacitor, 15pfd, 50V, Mica
C318	2-56P50	Capacitor, 56pfd, 50V, Mica
C319	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C401	2-30P50	Capacitor, 30pfd, 50V, Mica
C402	2-30P50	Capacitor, 30pfd, 50V, Mica
C403	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C404	2-1P50	Capacitor, 1pfd, 50V, Mica
C405	2-1P50	Capacitor, 1pfd, 50V, Mica
C406	2-35P50	Capacitor, 35pfd, 50V, Mica
C407	2-330P50	Capacitor, 330pfd, 50V, Mica
C408	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C409	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C410	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C411	2-130P50	Capacitor, 130pfd, 50V, Mica
C412	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C413	2-33P50	Capacitor, 33pfd, 50V, Mica
C414	2-270P50	Capacitor, 270pfd, 50V, Mica
C415	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C416	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C417	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C418	2-35P50	Capacitor, 35pfd, 50V, Mica
C419	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C420	2-150P50	Capacitor, 150pfd, 50V, Mica
C421	4-22M16	Capacitor, 22mfd, 16V, Electrolytic
C422	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C423	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C424	2-56P50	Capacitor, 56pfd, 50V, Mica
C425	2-170P50	Capacitor, 170pfd, 50V, Mica
C426	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C427	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C428	2-270P50	Capacitor, 270pfd, 50V, Mica
C429	2-510P50	Capacitor, 510pfd, 50V, Mica
C430	Not Used	
C431	2-200P50	Capacitor, 200pfd, 50V, Mica

SYMBOL #	PART #	DESCRIPTION
C432	2-15P50	Capacitor, 15pfd, 50V, Mica
C433	1-33P50	Capacitor, 33pfd, 50V, Ceramic
C434	Not Used	
C435	Not Used	
C436	2-100P50	Capacitor, 100pfd, 50V, Mica
C437	2-2P50	Capacitor, 2pfd, 50V, Mica
C438	Not Used	
C439	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C440	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C441	2-2P50	Capacitor, 2pfd, 50V, Mica
C442	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C443	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C444	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C445	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C446	2-150P50	Capacitor, 150pfd, 50V, Mica
C447	Not Used	
C448	2-65P50	Capacitor, 65pfd, 50V, Mica
C449	2-65P50	Capacitor, 65pfd, 50V, Mica
C450	2-20P50	Capacitor, 20pfd, 50V, Mica
C451	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C501	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C502	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C503	4-22M16	Capacitor, 22mfd, 16V, Electrolytic
C504	4-10M16	Capacitor, 10mfd, 16V, Electrolytic
C505	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C506	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C507	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C508	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C509	5-10M16	Capacitor, 10mfd, 16V, Tantalum
C510	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C511	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C512	4-47M16	Capacitor, 47mfd, 16V, Electrolytic
C513	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C514	3-.1M50	Capacitor, 0.1mfd, 50V, Mylar
C515	4-220M16	Capacitor, 220mfd, 16V, Electrolytic
C516	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C517	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C518	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C519	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C520	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C521	4-10M16	Capacitor, 10mfd, 16V, Electrolytic
C522	3-.02M50	Capacitor, 0.02mfd, 50V, Mylar
C523	3-.02M50	Capacitor, 0.02mfd, 50V, Mylar
C524	3-.02M50	Capacitor, 0.04mfd, 50V, Mylar
C601	Not Used	
C602	Not Used	
C603	Not Used	
C604	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C605	4-4.7M25	Capacitor, 4.7mfd, 25V, Electrolytic
C606	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C607	3-.005M50	Capacitor, 0.005mfd, 50V, Mylar

SYMBOL #	PART #	DESCRIPTION
C608	5-22M35	Capacitor, 0.22mfd, 35V, Tantalum
C609	5-22M16	Capacitor, 22mfd, 16V, Tantalum
C610	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C611	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C612	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C613	5-22M35	Capacitor, 0.22mfd, 35V, Tantalum
C614	4-47M16	Capacitor, 47mfd, 16V, Electrolytic
C615	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C616	3-.005M50	Capacitor, 0.005mfd, 50V, Mylar
C617	3-.1M50	Capacitor, 0.1mfd, 50V, Mylar
C618	3-.04M50	Capacitor, 0.04mfd, 50V, Mylar
C619	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C620	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C621	4-1M50	Capacitor, 1mfd, 50V, Electrolytic
C622	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C623	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C624	Not Used	
C625	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C626	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C627	3-.047M50	Capacitor, 0.047mfd, 50V, Mylar
C628	2-75P50	Capacitor, 75pfd, 50V, Mica
C629	2-20P50	Capacitor, 20pfd, 50V, Mica
C630	2-100P50	Capacitor, 100pfd, 50V, Mica
C631	2-150P50	Capacitor, 150pfd, 50V, Mica
C632	1-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C633	2-510P50	Capacitor, 510pfd, 50V, Mica
C634	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C635	2-5P50	Capacitor, 5pfd, 50V, Mica
C636	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C637	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C638	3-.047M50	Capacitor, 0.047mfd, 50V, Ceramic
C639	1-.01M50	Capacitor, 0.01mfd, 50V, Mylar
C640	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic
C701	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C702	4-220M16	Capacitor, 220mfd, 16V, Electrolytic
C703	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C704	4-6800M35	Capacitor, 6800mfd, 35V, Electrolytic
C705	4-470M16	Capacitor, 470mfd, 16V, Electrolytic
C706	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C707	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C708	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C709	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C710	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C711	4-.0022M125	Capacitor, 0.0022mfd, 125V, Electrolytic
C712	4-.0022M125	Capacitor, 0.0022mfd, 125V, Electrolytic
C713	4-220M16	Capacitor, 220mfd, 16V, Electrolytic
C714	4-220M16	Capacitor, 220mfd, 16V, Electrolytic
C715	4-2200M16	Capacitor, 2200mfd, 16V, Electrolytic
C716	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C717	4-100M16	Capacitor, 100mfd, 16V, Electrolytic
C801	1-.001M50	Capacitor, 0.001mfd, 50V, Ceramic

SYMBOL #	PART #	DESCRIPTION
C802	4-22M25	Capacitor, 0.22mfd, 25V, Aluminum
C803	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C804	5-1M25	Capacitor, 1mfd, 25V, Tantalum
C805	4-22M16	Capacitor, 22mfd, 16V, Electrolytic
C806	3-.1M50	Capacitor, 0.1mfd, 50V, Mylar
C901	1-.01M50	Capacitor, 0.01mfd, 50V, Ceramic
C902	4-220M35	Capacitor, 220mfd, 35V, Electrolytic
CR1	22-1-68	Diode, MV201
CR2	22-1-59	Diode, 1S2688
CR3	22-1-93	Diode, 1N4448
CR101	22-1-102	Diode, M1301
CR102	22-1-102	Diode, M1301
CR103	22-1-5	Diode, 1N60
CR104	22-1-5	Diode, 1N60
CR105	22-1-5	Diode, 1N60
CR201	22-1-5	Diode, 1N60
CR202	22-1-5	Diode, 1N60
CR203	22-1-5	Diode, 1N60
CR204	22-1-5	Diode, 1N60
CR205	22-1-6	Diode, 1N34A
CR206	22-1-93	Diode, 1N4448
CR207	22-1-5	Diode, 1N60
CR208	22-1-93	Diode, 1N4448
CR209	22-1-93	Diode, 1N4448
CR210	22-1-93	Diode, 1N4448
CR211	22-1-5	Diode, 1N60
CR212	22-1-50	Diode, 1S2472
CR213	22-1-93	Diode, 1N4448
CR301	22-1-93	Diode, 1N4448
CR302	22-1-5	Diode, 1N60
CR303	22-1-5	Diode, 1N60
CR304	22-1-6	Diode, 1N34A
CR401	22-1-15	Diode, 1S990S
CR402	22-1-15	Diode, 1S990S
CR403	22-1-15	Diode, 1S990S
CR404	Not Used	
CR405	22-1-5	Diode, 1N60
CR406	22-1-5	Diode, 1N60
CR407	22-1-93	Diode, 1N4448
CR408	22-1-50	Diode, 1S2472
CR409	22-1-93	Diode, 1N4448
CR410	22-1-50	Diode, 1N4448
CR501	22-1-50	Diode, 1N4448
CR502	22-1-50	Diode, 1N4448

SYMBOL #	PART #	DESCRIPTION
CR601	22-1-50	Diode, 1N4448
CR602	22-1-50	Diode, 1N4448
CR603	22-1-112	Diode, WZ061 or BZ061
CR604	22-1-93	Diode, 1N4448
CR605	22-1-93	Diode, 1N4448
CR606	22-1-93	Diode, 1N4448
CR607	22-1-93	Diode, 1N4448
CR701	22-1-155	Diode, BZ140
CR702	22-1-93	Diode, 1N4448
CR703	22-1-93	Diode, 1N4448
CR704	22-1-77	Diode, 1N4002
CR705	22-1-93	Diode, 1N4448
CR706	22-3-3	Diode, KBL-04 or KBL-02
CR707	22-1-111	Diode, BZ100
CR801	22-1-93	Diode, 1N4448
CR802	22-1-93	Diode, 1N4448
CR803	22-1-93	Diode, 1N4448
CR804	22-1-77	Diode, 1N4002
CR805	22-1-51	Diode, BZ090
CR901	22-1-93	Diode, 1N4448
CR902	22-1-93	Diode, 1N4448
CR903	22-1-93	Diode, 1N4448
CR904	22-1-93	Diode, 1N4448
CR905	Not Used	
CR906	Not Used	
CR907	22-1-93	Diode, 1N4448
CR908	22-1-77	Diode, 1N4002
CV601	9-10P	Capacitor, Trimmer, 10pfd
DP901	22-2-22	Vacuum Fluorescent Tube, 2LT-02
DP902	22-2-23	Vacuum Fluorescent Tube, 5LT-16
EXT POW	8-11-128	Power Supply Terminal, 2P
F1	99-1-2	Fuse 1A for AC
F2	99-4	Fuse 4A for DC
FIL-1	50-2-22	Crystal Filter, 7.8MHz
IC1	11-60	Integrated Circuit, 78L62WV
IC2	11-84	Integrated Circuit, TA7310P
IC3	11-118	Integrated Circuit, NDC40013
IC301	11-119	Integrated Circuit, SN76600P
IC501	11-83	Integrated Circuit, HA1366W
IC502	11-120	Integrated Circuit, MC14016 B
IC601	11-52	Integrated Circuit, SL1626

SYMBOL #	PART #	DESCRIPTION
IC602	11-55	Integrated Circuit, SL1640
IC801	11-121	Integrated Circuit, MC14001
IC802	11-122	Integrated Circuit, MM5799NBR
IC803	11-81	Integrated Circuit, NM74C93
IC901	11-80	Integrated Circuit, MC14511
IC902	11-80	Integrated Circuit, MC14511
IC903	11-123	Integrated Circuit, DS8654N
IC904	11-123	Integrated Circuit, DS8654N
IC905	11-124	Integrated Circuit, IMS1943NL
INT SP	8-11-057	Speaker, B-26
J1	8-4-069	Antenna Connector, S0239
J2	8-4-070	Mike Jack, 4P
J3	8-6-088	PA Jack
J4	8-6-088	EXT Jack
K.B. 1	8-67-001	Keyboard (channel)
K.B. 2	8-67-002	Keyboard, (clock)
L1	44-613	Coil, Z368N
L2	33-3.3B	Choke, 3.3uH
L3	33-2.2B	Choke, 2.2uH
L4	44-614	Coil, Y388N
L5	44-482	Coil, Y369N
L201	33-22A	Choke, 22uH
L202	33-22A	Choke, 22uH
L203	33-22A	Choke, 22uH
L401	33-.65A	Choke, 0.65uH
L402	44-436	Coil, C813
L403	33-.65A	Choke, 0.65uH
L404	44-477	Coil, C996N
L405	33-1.2B	Choke, 1.2uH
L406	33-22A	Choke, 0.22uH
L407	44-054	Coil, C043N
L408	44-435	Coil, C997N
L409	33-22A	Choke, 0.22uH
L410	44-615	Coil, Z839NZ
L501	44-432	Coil, K69
L601	44-432	Coil, K69
L602	44-432	Coil, K69
L603	33-22A	Choke, 22uH
L604	44-437	Coil, Y372N
L605	33-22A	Choke, 22uH
L701	44-209	Choke, 22uH

SYMBOL #	PART #	DESCRIPTION
	33-22F	Choke, Air Wound, .22uH
	33-150B	Choke, 150uH
T-25-2	44-617	Troidal Coil
M1	8-67-012	Meter, "S" & Modulation
M2	8-67-011	Meter, RFO/SWR
M3	8-67-010	Meter, Squelch
MDL1	8-4-142	Lamp, 16V 40mA
MDL2	8-4-142	Lamp, 16V 40mA
MDL3	8-4-142	Lamp, 16V 40mA
ML1	8-67-009	Lamp, 14V 200mA
ML2	8-67-009	Lamp, 14V 200mA
ML3	8-67-009	Lamp, 14V 200mA
Q1	2SC710C	Transistor, 2SC710C
Q2	2SC710C	Transistor, 2SC710C
Q3	2SC711F	Transistor, 2SC711F
Q4	2SC710C	Transistor, 2SC710C
Q5	2SA844C	Transistor, 2SA844C
Q101	3SK41L	Transistor, 3SK41L
Q102	2SK55E	Transistor, 2SK55E
Q103	2SC710C	Transistor, 2SC710C
Q201	2SC710C	Transistor, 2SC710C
Q202	2SC710C	Transistor, 2SC710C
Q203	2SC710C	Transistor, 2SC710C
Q204	2SC710C	Transistor, 2SC710C
Q205	2SC710C	Transistor, 2SC710C
Q206	2SC710C	Transistor, 2SC710C
Q207	2SC710C	Transistor, 2SC710C
Q208	2SC710C	Transistor, 2SC710C
Q209	2SK34E	Transistor, 2SK34E
Q210	2SC710C	Transistor, 2SC710C
Q211	2SC710C	Transistor, 2SC710C
Q212	2SC710C	Transistor, 2SC710C
Q213	2SC710C	Transistor, 2SC710C
Q214	2SA844C	Transistor, 2SA844C
Q215	2SC710C	Transistor, 2SC710C
Q501	2SC710C	Transistor, 2SC710C
Q502	2SC1061D	Transistor, 2SC1061D
Q601	2SC710C	Transistor, 2SC710C
Q602	2SC710C	Transistor, 2SC710C
Q603	2SC710C	Transistor, 2SC710C
Q604	2SC710C	Transistor, 2SC710C
Q605	2SC710C	Transistor, 2SC710C
Q606	2SC710C	Transistor, 2SC710C
Q607	2SC710C	Transistor, 2SC710C

SYMBOL #	PART #	DESCRIPTION
Q701	2SC710D	Transistor, 2SC710D
Q702	2SC710D	Transistor, 2SC710D
Q703	2SC710D	Transistor, 2SC710D
Q704	2SC710D	Transistor, 2SC710D
Q705	2SC710D	Transistor, 2SC710D
Q706	2SC710D	Transistor, 2SC710D
Q707	2SC710D	Transistor, 2SC710D
Q708	2SC710D	Transistor, 2SC710D
Q709	2SA844C	Transistor, 2SA844C
Q710	2SD180	Transistor, 2SD180
Q711	2SD355C	Transistor, 2SD355C
Q712	2SC710D	Transistor, 2SC710D
Q713	2SC1061D	Transistor, 2SC1061D
Q714	2SK19Y	Transistor, 2SK19Y
Q715	2SC1014	Transistor, 2SC1014
Q716	2SC710D	Transistor, 2SC710D
Q801	2SC710C	Transistor, 2SC710C
Q802	2SK355C	Transistor, 2SK355C
Q803	2SC710C	Transistor, 2SC710C
Q901	2SC710C	Transistor, 2SC710C
RL-1	8-30-022	Relay, HT-C-DC12V
RL-2	8-4-141	Relay, MY-4-02
SW1	88-3-7	Lever Switch
SW2	88-3-7	Lever Switch
SW3	88-3-7	Lever Switch
SW4	88-3-7	Lever Switch
SW5	88-3-7	Lever Switch
SW6	88-3-7	Lever Switch
SW7	88-3-7	Lever Switch
SW8	88-3-7	Lever Switch
T101	44-433	Transformer, C366Z
T102	44-438	Transformer, C1931
T103	44-438	Transformer, C1931
T104	44-215	Transformer, S183AT
T105	44-215	Transformer, S183AT
T201	44-215	Transformer, S183AT
T202	44-215	Transformer, S183AT
T203	44-216	Transformer, S190AT
T204	44-217	Transformer, Z185Z
T301	44-370	Transformer, C544N
T302	44-490	Transformer, Z561D
T303	44-490	Transformer, Z561D
T304	44-371	Transformer, S518A
T305	44-434	Transformer, Z542R

SYMBOL #	PART #	DESCRIPTION
T401	44-223	Transformer, C181Z
T402	44-370	Transformer, C544NT
T403	44-222	Transformer, C182Z
T404	44-70	Transformer, C042Z
T701	44-616	Transformer, Power
VR1	60-10K-20	Clarifier Control, 10K ohm B
VR2	64-10K-1	Resistor, Variable, 10K ohm B, 3T
VR101	60-10K-21	RF Gain Control, 10K ohm A
VR201	65-10K-5	Resistor, Variable, 10K ohm, 2T
VR202	65-5K-2	Resistor, Variable, 5K ohm, 2T
VR203	65-10K-5	Resistor, Variable, 10K ohm, 2T
VR204	60-10K-21	Squelch Control, 10K ohm, A
VR205	65-10K-5	Resistor, Variable, 10K ohm, 2T
VR206	65-1K-1	Resistor, Variable, 1K ohm, 2T
VR401	65-50K-1	Resistor, Variable, 50K ohm, 2T
VR402	60-10K-20	SWR Control, 10K ohm
VR403	65-500-1	Resistor, Variable, 500 ohm, 2T
VR404	64-10K-1	Resistor, Variable, 10 ohm, 3T
VR501	60-10K-22	Volume Control, 10K ohm D
VR502	60-10K-3	Tone Control, 10K ohm B
VR503	65-50K-1	Resistor, Variable, 50K ohm, 2T
VR601	65-10K-5	Resistor, Variable, 10K ohm, 2T
VR602	64-10K-1	Resistor, Variable, 10K ohm, 3T
VR603	64-10K-1	Resistor, Variable, 10K ohm, 3T
VR604	64-10K-1	Resistor, Variable, 10K ohm, 3T
Y1	50-1-84	Crystal, 10.000 MHz
Y601	50-1-112	Crystal, 7.8015 MHz
	9-10P	Trimmer Capacitor, 10pfd
	8-67-003	Connector, 9P
	8-67-004	Connector, 8P
	8-11-124	Fuse Holder
	8-67-062	PC Board, PLL
	8-67-066	PC Board, Clock
	8-67-063	PC Board, Power Supply
	8-67-065	PC Board, SWR
	8-67-036	PC Joinner, N = 14
	8-67-035	PC Joinner, N = 9
	8-67-005	Wafer Connector, 8P
	8-67-006	Wafer Connector, 9P
	8-11-158	Terminal Strip, 6P
	8-67-013	Front Chassis
	8-67-014	Main Chassis
	8-67-015	Side (right) Chassis

SYMBOL #	PART #	DESCRIPTION
	8-67-016	Side (left) Chassis
	8-67-017	Rear Chassis
	8-67-018	Bottom Chassis
	8-67-019	Capacitor Mount
	8-67-020	Meter Mount
	8-67-021	Channel Mount
	8-67-022	Speaker Mount
	8-67-023	VFO Shield
	8-67-024	PLL Bottom Shield
	8-67-025	PLL Top Shield
	8-51-069	Plate, 20 X 53"
	8-67-026	Plate, earth
	8-67-027	Heat Sink, HS-U-130
	8-67-028	Heat Sink, HS-P-131
	8-67-029	Heat Sink, HS-L-132
	8-55-015	Heat Sink, HS-L-64
	8-67-031	Nut Connector, MK
	8-67-032	Bezel
	8-67-033	Bushing TR
	8-67-034	Trim
	8-50-029	Bushing
	8-55-012	Rivet
	8-67-037	Cord Bushing
	8-67-038	Lamp Grommet
	8-67-039	Slide Knob
	8-67-040	Toggle Knob
	8-55-002	Filter Plate
	8-67-041	SWR Plate
	8-67-042	Clarifier Plate
	8-67-043	RF Gain Plate
	8-67-044	Warning Plate
	8-67-045	Squelch Plate
	8-67-046	Volume Plate
	8-67-047	Keyboard Plate
	8-67-048	Mode Plate
	8-67-049	Escutcheon
	8-67-050	Escutcheon
	8-67-051	Console VI Plate
	8-67-052	Speaker Grill
	8-67-053	FCC Plate
	8-57-037	Warranty Number Plate
	8-67-054	Caution Plate
	8-67-055	Cabinet, Left Side
	8-67-056	Cabinet, Right Side
	8-67-057	Cabinet, Top
	8-67-058	Microphone Stand
	8-67-059	Rubber Foot
	8-67-060	Display Box
	8-67-061	Styrofoam Packing
	8-67-067	Accessory Pack

LIMITED WARRANTY*

SBE, Inc., warrants equipment manufactured by it to be free from defects in material or workmanship and agrees to repair or, at the option of manufacturer, to replace such equipment which, under normal use and service, develops defects arising from the fault of the manufacturer (and existing at the date of original purchase). Equipment must be returned to the manufacturer or to one of the Certified Service Stations; transportation prepaid, at the address set forth below, within one year from the date of original purchase. Unless the warranty card has been filled in and returned within ten days of original purchase, this warranty shall be void.

This warranty does not apply to equipment which (1) has been repaired or altered by anyone in any way so as, in our judgment, to injure its stability or reliability, (2) has been subject to misuse, negligence, or accident, (3) has had the serial number altered, defaced or removed, or (4) has been connected, installed, adjusted other than in accordance with our written instructions.

The foregoing is in lieu of any other express warranty. ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY, APPLICABLE TO EQUIPMENT MANUFACTURED BY SBE, INC. SHALL EXIST FOR THE LESSER OF ONE YEAR OR THE DURATION OF THE EXPRESS WARRANTY HEREIN. In no event shall SBE, Inc. be liable for incidental or consequential damages.

Some states do not allow either limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

The warranty gives you specific legal rights and you may also have other rights which vary from state to state.

SBE, Inc., neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with this equipment.

SBE, INC.
220 Airport Boulevard
Watsonville, California 95076
(408) 728-2071

We recommend that you record the following information at the time you purchase your Console VI. If your unit becomes damaged or lost, this information may then be supplied to your insurance company and/or the local police department.

- | | |
|--------------------------|------------------------|
| 1. Model Number _____ | 4. Dealer's Name _____ |
| 2. Serial Number** _____ | 5. City _____ |
| 3. Date Purchased _____ | 6. State _____ |

*Should your unit require warranty service, proof of purchase will be necessary.

**Permanent number on case of radio.

