BBC MODEL #6000
SECURITY SYSTEM

INSTALLATION MANUAL

PRELIMINARY COPY
(APPROVALS PENDING)

AUGUST 1998

BBC Corp.
433 East Little Canada Road
St. Paul, MN 55117
Telephone: (612) 490-1936
Fax: (612) 490-0495
Electronic Mail: info@birchbridge.com

1.0 INSTALLATION PROCEDURE STEPS

>>**NOTE:** We recommend following this installation outline **after** gaining familiarity with **both** the **System User and Installation Manuals.** (The Installation Manual contains a **"Ready Reference Guide"**, a small card which has a brief list of instructions of commonly used features. It also has a **System Installation Sheet** (form for listing types and locations of transmitters) on the back of it.

1.1 Locate the two **System Installation Reference Guide Inserts and the Sample Insert** in Section 5.2 of this manual for guidance on entries.

1.2 Walk through premise with purchaser, determining the number and type of Sensors and their installation locations. Discuss location of the Control Panel. Keep in mind that if key FOBs may be used in the future, the user should be able to hear the status feedback signals from the activation location. The Panel Status Light should be generally visible. Enter the Sensor location information and assigned Sensor number on one of the **installation work sheets.** (See Sections 2 and 5).

1.3 Install the Control Panel and complete power and telephone connections. Reset the Panel Memory if required (see Section 5.1), then test Panel operation from all Touch-Tone (TT) telephones by using the " # * " status request (i.e., enter TT " # * ") (See Section 2).

1.4 Make Program Memory selections for options * 06, * 07, and * 08 for best system operation. >>**IMPORTANT: For best programming operation, make TT entries after the speech prompts.** (See section 5.3).

1.5 Find a work location where a system Touch-Tone telephone is available--cordless phones work very well. Gather all transmitters and attach the appropriate two-digit Sensor number labels to each transmitter using the System installation sheet assignments.

1.6 Now assign these Sensor numbers to the System using the procedure outlined in Section 5.3.

1.7 Enter the programmed two-digit transmitter numbers (Step 1.6) into the appropriate Sensor Behavior Groups * 21 through *59. (See Sections 6-9).

1.8 Complete the program requirements for Program Memory locations * 60 through * 71. (See Sections 10-11 for details). When programming is complete, enter TT " * 99 " to leave Program Memory and return to "Level One-Off".

1.9 At this point, install all the programmed fixed Sensors. Test Sensors by selecting " Level 9- Sensor Test ", by entering the operator default Access Code (TT " # 1234- 9 "). Confirm operation by listening for at least four transmission packets (BEEPs) from each transmitter when activated. (See Section 7 of Users Manual for further details).

1.10 Select Central Station communication test, by entering TT " # 1234 – 8 ". (See Section 3 of Users Manual).

1.11 Familiarize the system user with system operation. Demonstrate changing Access Codes, Chime option, and status selections, in addition to arming, disarming, and determining status of system by entering TT " # * ".

1.12 Familiarize the system user with the following important features:
a) All Sirens are set to Reset after 4 minutes.
b) An alarm condition will continue to disable the green LED color until the System is reset (returned to Level One-Off). System trouble conditions will also behave in the same way. Whenever the green LED is off, enter "#*" for an announcement of the problem in the detailed Status Report.

2.0 BBC #6000 CONTROL PANEL

2.1 CONNECTIONS REQUIRED

2.1.1 TELEPHONE

The Control Panel requires a connection to the telephone line via a special telephone jack (RJ-31X) provided by the alarm or telephone companies. The jack and its wiring provide complete disconnect from the premise telephones during alarm communications.

A telephone "T" Adapter jack may also be used, but it will disconnect **only** the telephone connected into it along side the Panel connection. This hookup does not provide the integrity of the RJ jack, as other premise telephones could block an alarm call if one were "off hook," keeping the system from obtaining a dial tone. The telephone line circuit is monitored. Phone Line failure will be annunciated as "Phone Line Failure." It will automatically reset when the telephone line is returned to normal.

2.1.2 AC POWER

Operation requires 14 volts DC. This voltage is provided by the 14VDC-.35 amp Class II power supply that plugs into a non-switched 115VAC-wall outlet. This provides power for operation and maintaining charge on the 12-volt internal battery.

AC power is monitored. "Power Failure" will be annunciated typically within 60 minutes of no AC Power. It will restore automatically after AC power is restored.

>>IMPORTANT! DISCONNECT THE SYSTEM BATTERY WHEN SYSTEM IS NOT IN SERVICE. IF AC POWER IS OUT OF SERVICE FOR MORE THAN 16 HOURS, TECHNICIAN SERVICE MAY BE REQUIRED TO RESTORE THE SYSTEM.

2.2 CONTROL PANEL TAMPER CIRCUIT

The control tamper circuit and system battery test are software selectable in Location *89 of System "Program Memory." The System powers up with *89 "Off." This means that the Panel tamper circuit and internal battery test will not function. It is recommended that this option be turned On after the System is completely installed, the battery connected, AND the System cover screwed on. **CAUTION!!** The tamper audible annunciation is LOUD--this could be dangerous to an installer on a ladder, if the System is activated when the installer is next to it.

>>NOTE: Once Tamper and Battery Test is turned On, the System must be Reset (see Section 5.1) to remove.

2.3 CONTROL PANEL RADIO ANTENNA

The Control Panel Radio Receiver has two internal antennas attached. The antennas will provide adequate reception for most installations. Installations where Sensors are located 100 feet or more from the Panel may require use of external antennas. The external antennas provide better radio reception if required. Use of external antennas requires that the internal antennas be removed. The external antenna kit (E. A. K.-1) is available for this application. Installation instructions are included with the kit.

The external antenna kit should be used in wall mount installations only.

2.4 SELECTING A PANEL LOCATION

Where **security** is a major concern, the Panel should be located well within the protected area, and wall mounted as high as possible to discourage tampering. The Panel telephone and power connections can be brought in through the backside, or into the lower front of the box, by using surface mounted wire cover products such as " Wiremold NM1". In installations where **personal assistance** is the primary use, the Panel may be located on a tabletop, kitchen counter, or other

LEAVE ABOUT ONE PAGE FOR DRAWINGS

(TWO DRAWINGS OF PANEL, (COVER OFF AND ON), SHOWING CABLE CONNECTIONS for POWER, battery, speaker-led, TELCO HOOKUP SHOULD GO HERE.)

RJ jack, T adapter, cover cable, Panel's 4 pin 2 pin connector, power, battery, and telephone connections. Point out bus connection, and auxiliary enunciator interface location.

2.4 SELECTING A PANEL LOCATION (Cont.)

convenient location with telephone access and AC power available from a non-switched outlet. Keep in mind the advantage of easy access to viewing the system status light. Hardware for both tabletop and wall mounting are provided. **>>CAUTION. Good radio communication requires that the Panel not be mounted on metallic wallpaper, or walls with metallic wallpaper or mirrors on the backside. Installations that use the two-way audio feature should avoid close proximity to air conditioners, hot air ducts, TV's or radios, and other devices that are intermittently noisy and could reduce audio reception.**

3.0 BBC ALARM SYSTEM PROGRAM OVERVIEW

Alarm system Control Panels are shipped from the factory with a **basic alarm control program** installed. For this program to be functional it needs much more information about the installation. This additional information (number and type of Sensors, Access Codes, alarm report telephone numbers, etc.) must be added before the system can be operational. All of this additional information is added **at installation time** to a part of the System Program called **Program Memory.** Organization is such that **Section A,** below, appears first in the program list, then **B**, then **C**.

There are **three primary sections** to Program Memory:

A. The **USER** Section--Used to control the system operation. It allows the user to enter custom Access Codes, select status audible gain and voice/tone status format, and select the Chime feature. Enter "NNNN-0" for access.

B. The **OPERATING** Section—Used to assign transmitters to groups that have response characteristics for different types of alarm conditions.

C. The **COMMUNICATION** Section--has options and information necessary for alarm reporting. This includes Central Station telephone numbers, digital account number, two-way audio option On-Off selection, etc.

The #6000 System allows the Access Code holder access to **Section A** only. The alarm maintenance provider has access to all sections **except** the user Access Code portion of section A.

3.1 RADIO TRANSMITTERS/SENSORS THEORY OF OPERATION

Radio transmitters are used to the control the system and to sense movement within the premise. All transmit six-digit **Id**entification numbers, status, and supervisory signals. These signals are referred to as **"radio packets".** Their six-digit **ID** number is too cumbersome to relate to the system user. In the Sensor programming process, we assign this six-digit number to be recognized as part of the system. Once part of the system, it is re-assigned a system two-digit **ID** number. These are the numbers referred to as "Sensor" numbers.

The "Sensor" numbers are now recognized by the system, and the system has to be told "what to do" when it hears signals from them. We accomplish this by assigning Sensors to **"Behavior Groups"** in **Program Memory**. These groups define specific steps the system will go through upon hearing a Sensor signal assigned to them. For example, a **Call Button** (assigned Sensor number 03), may be assigned to group "*40". On hearing Sensor "03" send an alarm radio packet signal (button pressed), the Panel program will search for and find Sensor number 03 in group " *40 ". At this point, the system will implement all of the "*40" requirements. The alarm audible will activate. "Help, Help, Call Button 03 Alarm" will be annunciated (followed by Siren) (along with optional Central Station notification and two-way audio). Any activated Sensor assigned to group " *40 " will cause the system to activate in the same manner, and will cause the other necessary Alarm steps to be taken.

➢ **SUMMARY**

Radio transmitters send a **6-digit transmitter ID number** along with their present status. These numbers must be programmed to be recognized by the system, as part of the system. Once recognized by the Panel, they are **re-assigned a two-digit system ID number**. The two-digit ID number is then assigned to a **Program Memory System Behavior Group** (for example: *21, Delayed Intrusion Sensor). The Behavior Group will determine how the system behaves when a signal from a Sensor assigned to it is received.

- **SUPERVISED SENSORS.**

All system transmitters emit an hourly supervisory signal. All the Sensor Behavior Groups except for some portable transmitter groups monitor for supervisory signals. Supervised groups will report a supervisory failure if a Sensor is not heard from in a twenty-four hour interval.

4.0 SYSTEM PROGRAM MEMORY ACCESS

>>**NOTE:** System must be in "Level 1, Off" for access to Program Memory.

>>**NOTE:** The system will not respond to alarms during programming.

>>**NOTE:** You may want to consider delaying any Access Code changes until the installation is complete, to reduce confusion.

All unprogrammed systems will respond to Technician Default Access Code, " # 4321 " and user Default Access Code " # 1234 ".

Once in Program Memory and "Program---Program--" is annunciated, a new Technician Code can be assigned by entering program level * 65, and then following the procedure for entering the new Technician Access Number ("NNNN). Once programmed with a new number, the Default Technician Access Code will no longer work.

The BBC Security System memory is programmed using a Touch-Tone telephone either **locally** or from a **remote location.** The programming procedure is the same for each method. The difference is how the Panel is accessed.

4.1 LOCAL ACCESS

With **local access,** the system memory is programmed on site. Access to Program Memory requires the use of the **Technician Access Code.** Program Memory in an **unprogrammed system** is accessed as follows:

Enter Default Technician Access Code (TT " # 4321 ") or a new Technician Access Code if one has already been assigned.

"Program---Program---Program" is annunciated when Program Memory is accessed.

4.2 REMOTE ACCESS

Technician remote programming uses the remote call in feature to gain access to the system. To do this, the system user would give the alarm maintenance provider a Temporary Access Code. The technician would then call the premise following the remote call in procedure, disarm the system, enter the Technician Access Code, perform maintenance operations, and leave System Arming Level as it was when calling in.

>>**IMPORTANT!** The system user must give the service technician an Access Code for system access. The system user may give a **temporary code** that is replaced after service is done. After gaining system access, and disarming system, enter the Technician Code the same as is done in **local access.**

The remote access feature requires that the premise control answer the telephone. The premise Panel will answer if either the **Ring-Pause Ring (R-P-R)** option or the **Twelve-Ring** answer option is used. These options are described below. (The R-P-R option is programmed to default to "On" when System is powered up.)

4.2.1 Ring-Pause-Ring (R-P-R) Option

Call premise. After two ring signals, hang up the phone. About 10 seconds later, pick up the phone and call in again. The System will answer after about two rings, after which "Code Please ----- Code Please" will be annunciated for 20 seconds. During this time, you may enter detailed status (" # NNNN * ") or any other status codes, and the System will work the same as on premise. At this point, turn System off and enter Technician Access Code to enter Program Memory.

4.2.2 12 Ring Answer Option

Call premise and let the phone ring 12 times. The System will annunciate "Code Please ----- Code Please". Follow the same procedure as described in Section 4.2.1 above.

5.0 DETAILED PROGRAMMING PROCEDURES

5.1 SYSTEM PROGRAM RESET

This procedure removes the entire system program and returns selection options back to System "default" settings. It would typically be used at the beginning of a new installation and is required when a system is taken out of service and re-installed in a new location. Reset requires disconnecting the system battery and removing AC power. AC Power is then re-applied while momentarily pressing the TT "* " button on a system telephone during the first 5 seconds of "Power On" (LED blinks during this time). The system will annunciate a "Ping-Pong" alert after the TT " * " button is released and Reset is complete. Re-connect the battery at that point. **>>IMPORTANT! Remember to bypass the Tamper circuit BEFORE removing the cover. (Enter "Access Code + 6 + 00" to bypass Tamper). Resetting the System will turn *89 (Panel Tamper and Low Battery detection) Off. This is the battery test and tamper bypass. Remember to select this option to "On" again.**

5.2 READY REFERENCE GUIDE AND SYSTEM INSTALLATION SHEET

The "Ready Reference Guide" is a small card which has a brief list of instructions of commonly used features. It also has a System Installation Sheet (form for listing types and locations of transmitters) on the back of it. A sample reproduction of both sides of a Ready Reference Guide/System Installation Sheet is included as Page 7. This sample should be used as a guide to fill out the necessary system information. **A copy of the System Sensor location and assignment should be folded and inserted in back of the battery within the Alarm Panel box.**

Program Memory Group Number (left column): This entry defines the Sensor and Call Button Behavior characteristics. Transmitter Behavior Group numbers are listed in Section 6.0.

Sensor (Device) Identification Number (next column): This entry number is used to identify each Sensor and Call Button used in the system. Note that many Sensor numbers are not used. Simply leave out entries for unused Sensor numbers. **>>NOTE: To avoid confusion in identifying Sensors, label each Sensor as it is identified using the attached "Sticky-Back" labels.**

Key Holder information (bottom of sheet): These entries are the responsibility of the system Master Key holder to fill out. It is a good idea to assist users in how to make these entries, but make them aware that the actual codes are **their responsibility.**

>>NOTE: The **maximum total number of transmitters** that can be used in the system is **19**. There is no limit on the number of transmitters that can be assigned to each behavior group as long as the total is 19 or less. There is no need for numbering Sensors in any kind of order. Only the Control Panel (Sensor 00) number is pre-assigned.

SAMPLE READY REFERENCE GUIDE AND SYSTEM INSTALLATION SHEET

READY REFERENCE GUIDE

Preliminary Copy

- **ALL ENTRIES ARE MADE WITH TOUCH-TOUCH PHONE.**
- **NNNN DESIGNATES YOUR ACCESS CODE.**

***TO DISARM SYSTEM**
To turn off burglary protection.
Enter # NNNN 1

***TO ARM SYSTEM WHILE IN PREMISE (STAY)**
To turn perimeter sensors on, inside sensors off.
Enter # NNNN 2

***TO ARM SYSTEM WHILE LEAVING PREMISE (AWAY)**
To turn perimeter sensors and inside sensors on.
Enter # NNNN 3

***TO CANCEL ACCIDENTAL ALARM**
To stop sirens and cancel call to Central Station.
(Telephone No. ____-_____-_____)
Enter # NNNN 1

***TO REMOVE DELAY TIMES ("INSTANT")**
To remove delay times in Level 2 or 3.
Enter 5 during EXIT delay time

***"OOGA" SOUND WHEN YOU TRY TO ARM YOUR SYSTEM**
If you hear an "OOGA" sound when you try to arm your system, a sensor is open. Either close the sensor, or bypass it using the bypass procedure described below.

***TO BYPASS A SPECIFIC SENSOR**
To turn on system with a specific sensor open.
Enter # NNNN 6 SS
>>where SS is the specific sensor to bypass.

***TO CHECK STATUS OF SYSTEM**
To determine the current protection level.
Enter # *

***REMOTE PHONE ACCESS**
To access System from remote locations. See Manual for calling instructions, then:
Enter # NNNN * (REMOTE STATUS)

***TESTING YOUR SYSTEM**
To make sure that your system is operating properly, you should test it frequently (at least once each week). Consult your Owner's Manual for procedures.

SYSTEM INSTALLATION SHEET

DATE_____

PROGRAM GROUP	DEVICE ID NO.	DEVICE	LOCATION
Pre-Assigned	00	Control Panel	First Floor Hallway
	01		
	02		
	03		
* 41	04	Call Button	Portable
	05		
	06		
* 21	07	Door Sensor	Front Door
* 22	08	Window Sensor	Den Window-South
* 22	09	Window Sensor	Den Window-West
*21	10	Door Sensor	Kitchen Entry Garage Door
*22	11	Door Sensor	Patio Door, Basement Walkout
*22	12	Door Sensor	Bedroom Sliding Glass Door
* 35	13	Smoke Sensor	Bedroom Hallway
* 23	14	Motion Sensor	Living Room Foyer
	15		
	16		
	17		
	18		
	19		

MONITORING FACILITY _____ **PHONE NO.** _____ **ALARM SERVICE** _____ **PHONE NO.** _____

CONFIDENTAL CODE LIST:

	ACCESS CODE	KEY FOB# *(FUTURE OPTION)*	ASSIGNED TO
1ST CODE	_____	_____	_____
2ND CODE	_____	_____	_____

5.3 MEMORY PROGRAMMING

Once the Panel Program is accessed by **local access** or **remote access** and "Program---Program--" is annunciated, the Memory is ready to be programmed. Programming the system requires making TT entries into the proper locations. A description of the entry locations and required entries is given below.

>>NOTE: Wait for completion of voice message before entering TT commands.

>>NOTE: SYSTEM MUST BE IN "LEVEL 1, OFF" FOR ACCESS TO SYSTEM PROGRAM MEMORY. The system will return to "Level 1, Off" after 90 seconds of no activity, or on a TT entry of "*99 ".

Basic TT Entry	Feature	Detailed TT Entry	Description of Detailed Feature
***01 to *02**	**Access Codes**	See " Level 0 " (page 10, User Manual)	User access only
* 03 to *05	**NOT USED**		
* 06	Chime (Ping-Pong)	"* 06 " Each entry toggles between ON and OFF (ON-OFF-ON-OFF-...)	ON (default)/OFF
* 07	Audible Gain Status	" * 07 0 " " * 07 1 " (Default) " * 07 2 "	LOW MEDIUM HIGH
* 08	Status Level Announcement	" * 08 0 " " * 08 1 " (Default)	Status annunciated verbally only. Status annunciated with BEEPS.
* 09	System entry delay	"* 09-NN", where NN is time in seconds (2 digits). Default is 45 seconds. Example: " * 09-09 "	Allows time to enter premise before Alarm activates. After nine seconds delay time "On" will be annunciated
* 10	System exit delay	"* 10-NN " where NN is the time in seconds, up to 60 seconds (2 digits). Default is 45 seconds.	Allows time to exit before System is Armed.
* 11 to * 18	**NOT USED**		

5.3 MEMORY PROGRAMMING (Continued)

Basic TT Entry	Description of Feature

*19 **Identifies a Transmitter's "System Sensor" Number.**

>>**NOTE:** Do this test after entering all Sensors (*20) to confirm proper Sensor ID number. Enter "*19". "Begin System Sensor Test" will be annunciated. Activate transmitter alarm. Shortly after last packet "BEEP" is annunciated, Sensor identification will be annunciated. System returns to Program Memory 45 seconds after last entry or new program selection.

*20 **Provides for conversion of each transmitter's six-digit ID number to a two-digit system ID Number.** System will return to Program Memory after 45 seconds of no entries.

- **To assign a transmitter ID number to a system sensor number:**

Enter "*20" in Program Memory. On hearing the annunciation "Enter Sensor", **immediately** enter the Sensor 2-digit number you want to assign to a transmitter. On hearing the annunciation "Begin Sensor Test", activate an Alarm condition on that transmitter only (packet BEEPs will be annunciated).

Enter TT "#" after hearing the "BEEPing". "OK" will be annunciated. Repeat same procedure for each transmitter to be added. **This step causes the beginning Sensor to be assigned the Sensor ID Number.**
>>**NOTE: If a Sensor Number has already been assigned to a Transmitter, "ON" will be replaced with an "Ooga" annunciation, and no entry will occur.**

- **To remove an assigned transmitter ID and system sensor number:**

Enter TT "*20" in Program Memory. On hearing the annunciation "Enter Sensor", **immediately** enter TT "#" followed by the Sensor Number you wish to delete. "OFF" will be annunciated when Sensor Number has been removed.
>>**NOTE: The Sensor Number will also be removed from the group (if any) it was assigned to.**

- **To replace a defective transmitter:**

Follow the removal and replacement *20 procedure described above. Confirm Sensor/Transmitter ID using *19 procedure. After this is done, re-enter the Sensor into the group it was previously assigned to.

Example: To remove Sensor " 03 ", enter Memory * 20, then enter " # ", then number " 03". "Off" will be annunciated. Place Sensor "03" tag on new transmitter. Enter Program Memory *20. Alarm Sensor newly assigned number "03". After hearing the Packet BEEPs annunciated from the Sensor, enter the TT " # ". "On" will then be annunciated. Confirm new "03" Sensor ID by using *19 Sensor verification procedure. Now re-enter "03" into the appropriate Behavior Group.

Procedures for programming individual transmitters are as follows:

>**DWS:** Move magnet toward, and then away from, Sensor reed switch.

>**Smoke Sensor:** Push test button and hold for five seconds while Alarm is sounding

>**PIR:** Place Sensor on a flat surface, pattern facing down, for five minutes. Make sure that no motion of the Sensor occurs during this time. Then pick up the Sensor and rotate it. This will cause motion to be sensed, and a transmission to be sent. The five minute delay is necessary because PIR's are designed to require this "no motion detected" time in between activations, in order to conserve battery life.

>>**NOTE:** This procedure must be followed for all system Sensors. Once this is done, the two-digit system Sensor numbers (hereafter called **Sensor Numbers)** must be assigned to the Sensor **Behavior Groups** on the following pages.

6.0 ASSIGMENT OF TRANSMITTERS TO BEHAVIOR GROUPS

Transmitters can be assigned to **Program Locations** in various **Behavior Groups,** as listed below.

>>**NOTE:** The **total number of Transmitters** that can be used in a system is **19**. From zero to all nineteen transmitters can be assigned (* 21 through * 51). A Sensor Number **cannot be assigned to a group until a transmitter ID number is assigned to it using the *20 procedure. (See Section 5.3).**

BEHAVIOR GROUP	PROGRAM LOCATION
Intrusion Sensors	*21 to *25 (*26 to *29 NOT USED)
Special Sensors	*30 to *32 (*33 to *34 NOT USED)
Fire Sensors	*35 (*36 to *39 NOT USED)
Call Buttons	*40 to *45 (*46 to *58 NOT USED)

6.1 TO ADD A SENSOR TO A GROUP

Once a Behavior Group is selected, "Enter Code" will be annunciated. Sequentially enter the two-digit numbers of the Sensors to be assigned to it. "OK" is annunciated after each successful entry. Once all Sensors in a group are entered, re-select the group. At that time the Panel will annunciate all Sensor Numbers associated with that Group Number.

6.2 TO REMOVE A SENSOR FROM A GROUP

A Sensor is removed from the system by removing it by using * 20 Program Memory. (See Program Memory * 20 for procedure). Doing this will **automatically** remove it from the assigned group. Re-enter the Sensor in *20, and re-assign it to the desired group.

6.3 TO REPLACE A DEFECTIVE SENSOR IN A GROUP

See Program Memory "*20" procedures.

6.4 TO MOVE A SENSOR FROM ONE GROUP TO ANOTHER

Entering a Sensor into a Behavior Group will automatically remove it from any previously programmed group.

7.0 SENSORS

7.1 INTRUSION SENSORS

These Sensors will activate the Siren, and cause "Intrusion, Intrusion, Sensor NN, Intrusion, Intrusion, Sensor NN" to be annunciated intermittently with the Siren. The Siren is enabled after four minutes plus communication time, but will re-start on detection of a new alarm. The **various types** of Sensors are described below:

Delay: Refers to the entry exit delay times explained on page 6 of the Users Manual.

Instant: Refers to alarm activation immediately on Sensor alarm detection.

Initiate delay: Refers to Sensors detecting an alarm condition, but activating the entry delay (allowing user time to disarm) instead of causing an immediate alarm.

Delay follower: These are Sensors that will normally cause an "Instant" alarm, but are not active during delay times. Some applications are: to provide control protection, to use in hallways from bedrooms to main living area, etc.

Program Locations for the various types of Sensors are as follows:

PROGRAM LOCATION	SENSOR GROUP	INACTIVE ARMING LEVELS	ACTIVE ARMING LEVELS
* 21	Door, Window: Initiate Delay	1	2 & 3
* 22	Door ,Window, Perimeter: Instant	1	2 & 3
* 23	Interior Motion: Delay Follower	1, 2	3
* 24	Interior Motion: Initiate Delay	1, 2	3
* 25	Door ,Window, Interior: Initiate Delay	1, 2	3
* 26 to * 29	**NOT USED**		

7.2 SPECIAL SENSORS

PROGRAM LOCATION	SENSOR GROUP	INACTIVE ARMING LEVELS	ACTIVE ARMING LEVELS	ALARM ANNUNCIATION
* 30	24 hour "Special". Used for gun cabinets, stored motor homes, etc.	Bypass for Off	1, 2,& 3	Siren & "BEEP", "Sensor NN Alarm", then Siren
* 31	24 hour "Special" Auxiliary. Used for water detection, freeze detection, etc.	Bypass for Off	1, 2, & 3	"BEEP", "Sensor NN Alarm", repeated every few seconds
* 32	24-hour "special" Used for medicine cabinet, child alert, etc. **No communication report.**	Bypass for Off	1, 2, & 3	"BEEP", "Sensor NN Alarm", repeated every few seconds
* 33 to * 34	**NOT USED**			

7.3 FIRE SENSORS

These Sensors activate the four-minute time out Audible Alarm. The alarm will re-start on the detection of a new alarm event. **These Sensors cannot be bypassed.** (The Bypass feature is described on page 9).

PROGRAM LOCATION	SENSOR GROUP	INACTIVE ARMING LEVELS	ACTIVE ARMING LEVELS	ALARM ANNUNCIATION
* 35	FIRE-HEAT SENSOR	Momentary Reset on Return to Level 1.	1, 2, & 3	Siren and "Fire, Fire, Sensor NN"
* 36 to * 39	Not used			

8.0 CALL BUTTON GROUP ASSIGMENTS

Call Buttons that permanently remain on premise are typically programmed to report supervisory failure if the system does not hear from them **at least once in a four-hour period.** Silent Buttons are typically used for break-in or other duress applications. Status audio Level "HELP" Buttons provide Low Level Alert Alarm in applications where there is no one available to hear a loud audible alarm. Choose the application that best serves the need.

PROGRAM LOCATION	CALL BUTTON GROUP	ALARM SOUND AND VOICE ANNUNCIATION	ARMING LVLS ACTIVE
* 40	Stays on premise. Supervised.	Siren and "HELP" with Call Button Number annunciated.	0, 1, 2
* 41	Can be removed from premise. Unsupervised.	Siren and "HELP" with Call Button Number annunciated.	0, 1, 2
* 42	Stays on premise. Supervised.	Status audio level, "HELP" with Call Button Number annunciated.	0, 1, 2
* 43	Can be removed from premise. Unsupervised.	Status audio level, "HELP" with Call Button Number annunciated.	0, 1, 2
* 44	Stays on premise. Supervised.	Silent Alarm	0, 1, 2
* 45	Can be removed from premise. Unsupervised.	Silent Alarm	0, 1, 2
* 46 to * 58	**NOT USED**		

9.0 OTHER ASSIGNMENTS

>>NOTE: SYSTEM INCORPORATES TOUCH-TONE DIALLING ONLY

Basic TT Entry	Feature	Detailed TT Entry	Description of Detailed Feature
* 60	Central Station Telephone Number	" NN...Up to 16 Digits, then "# ". The number of digits in the telephone number MUST EXCEED four digits. A " # " Inserted within the first four digits will program a pause(s), each of which is annunciated as "Ping-Pong".	
* 61	Central Station back up number	No entry followed by " # " will disable. Alternate attempts, 3 first, 2 second, then repeat for ten attempts total.	
* 62 to *63	**NOT USED**		
* 64	Central Station account number	" * 64 NNNN ". Default is " 0000 ". (Assigned Account Number must be >5000 for BBC Central Station).	
* 65	Technician Access Code	"* 65 ", then "NNNN ", then "NNNN" again. Default is " 4321 ".	
* 66	**NOT USED**		
* 67	2-Way Radio on. Central Station reports (can be used to remove 2-Way option).	" * 67 " (Default is On).	Toggles between "ON" and "OFF": ON: Reports Alarm Condition, No Restore Report
*87	Enables either Call Back Option	" * 87 " (Default is On).	Toggles between "ON" and "OFF":
*88	1. Ring-Pause-Ring (R-P-R) Option 2. 12 Ring Answer Option	*88 (Default is R-P-R Option)	Toggles between 1. And 2.
*89	System 12-Hour Battery Test and Control Panel Tamper Detection.	*89 (Default is "OFF")	Once selected, Panel must be Reset, to turn Off.

BBC MODEL #6000
SECURITY SYSTEM

OWNER'S MANUAL

PRELIMINARY COPY
(APPROVALS PENDING)

AUGUST 1998

BBC Corp.
433 East Little Canada Road
St. Paul, MN 55117
Telephone: (612) 490-1936
Fax: (612) 490-0495
Electronic Mail: info@birchbridge.com

TABLE OF CONTENTS

FCC NOTICES

FCC Part 15 Information to the User

Changes or modifications not expressly approved by BBC Corp. can void the user's authority to operate the equipment.

FCC Part 15 Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interferences in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interferences to radio communications. However, there is no guarantee that interferences will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the owner is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the affected equipment and the panel receiver to separate outlets, on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Part 68

This equipment complies with part 68 of the FCC Rules. Located on this equipment is a label that contains, among other information, the FCC registration number and the Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the maximum number of devices that may be connected to your telephone line. In most areas, the sum of all device RENs should not exceed five (5.0).

If this equipment causes harm to the telephone network, the telephone company may temporarily disconnect your service. If possible, you will be notified in advance. When advance notice is not practical, you will be notified as soon as possible. You will also be advised of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. You will be given advanced notice in order to maintain uninterrupted service/

If you experience trouble with this equipment, please contact the company that installed the equipment for service and repair information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

BBC Corp.
433 East Little Canada Road
St. Paul, MN 55117
Telephone: (612) 490-1936
Fax: (612) 490-0495
Electronic Mail: info@birchbridge.com

LIMITATIONS OF ALARM SYSTEMS

- Even the most advanced alarm system cannot guarantee protection against burglary, fire, or environmental problems. Any alarm system is subject to possible compromise or failure-to-warn, **IF:**

- ❑ Sirens are not located within hearing range of persons who are asleep.
- ❑ Sirens are located in remote parts of the premise.
- ❑ Sirens are located behind doors or other obstacles.
- ❑ Intruders gain access through unprotected points of entry or areas where Sensors have previously been.
- ❑ Intruders have the technical means of bypassing, jamming, or disconnecting all or part of the system.
- ❑ Power to Sensors is inadequate or is disconnected.
- ❑ Freeze Sensors or other environmental Sensors are not located in areas where the appropriate condition can be detected.
- ❑ Smoke does not reach a Smoke Sensor. For example:
  - ♦ Smoke Sensors cannot detect smoke in: chimneys, walls, roofs, or areas blocked by a closed door.
  - ♦ Smoke Sensors may not warn in time when fires are caused by: smoking in bed, explosions, improper storage of inflammable materials, overloaded electrical circuits, or other hazardous conditions.
  - ♦ Smoke Sensors may not detect smoke in other levels of the building.
- ❑ Telephone lines are out of service. Telephone lines are also vulnerable to compromise by any of several means.

- The most common cause of alarm failure is **inadequate maintenance.** Therefore, test your system at least monthly to ensure that all Sensors, sirens, and telephone communications are **working correctly**.

- Although you may be eligible for reduced insurance premiums by having an alarm system, your system is **no substitute for insurance**.

- **WARNING:** Security system devices cannot compensate you for the loss of life or property.

- **Service**

  If you have any questions about your security system, or if you ever need service, please contact your security consultant:

  Company Name_____

  Address_____

  Telephone Number_____

BASIC COMPONENTS OF YOUR SECURITY SYSSTEM

Picture of Control Panel detailing status light, speaker, mic.

Legend---- Receives Status and Control signals from transmitters and premise telephones. Announces System Status and Alarms. Contains communication and control electronics and includes standby power.

Picture of Call Button, with necklace, pinned on user clothing lapel, with belt and clip,

Legend---Universal Call-Button Transmitter.

Picture of DWS

Legend---Door-Window-Sensor (DWS). Most commonly used transmitter. Contains a magnetically activated switch that when used with magnet, provides open-close sensing. Also has provisions for an externally activated switch input.

Picture of Smoke Sensor

Legend---Provides smoke detection and alarm annunciation independent of the panel annunciation.

Picture of PIR

Legend—Motion Sensor. Detects and reports movement of individuals within its viewing area. Uses Passive InfraRed Sensing (PIR).

Picture of typical premise telephone

Legend---System can be controlled by using your premise telephones or remotely with an off-premise Touch-Tone (TT) telephone.

COVER, with pictures and captions.

BASIC THINGS YOU SHOULD KNOW ABOUT YOUR BBC #6000 SECURITY SYSTEM

➢ ACCESS CODE

Your System is designed to be controlled by using your Touch-Tone (TT) telephone. Control is obtained by picking up the phone and pushing TT buttons to select the level of protection desired. The results of the entry will be announced over the System speakers, or over the telephone in the case of remote call in.

The #6000 Security System can accommodate two Access Codes. The second code can be temporary and may be given to alarm maintenance people to gain access for remote programming purposes.

Your System is shipped to work with Access Code "1234" (**DEFAULT** Access Code). A Touch-Tone (TT) " # " is entered **before** the Access Code, then the Level protection desired is entered after the Access Code; for example, enter " # 1234 -1 " for "Level 1, Off". **>>NOTE:** This DEFAULT Access Code number should be changed to your private Access Code as soon as practical, for security purposes. (See page 10). Touch-Tone entries and resulting Arming Levels are as follows:

TOUCH TONE ENTRY	ARMING LEVEL	ACTIONS
" # 1234 -1 "	Level 1, Off	Resets alarms. Intrusion protection (except 24-hour) turned Off
" # 1234 -2 "	Level 2, Stay	Intrusion protection with interior Sensors turned Off.
" # 1234 -3 "	Level 3, Away	All intrusion protection turned on.
" # * " At any time	No change	System status audibly annunciated.

➢ TURNING YOUR SYSTEM OFF: USE THIS TO CANCEL AN ALARM

Intrusion protection and any alarm conditions can be can be turned **OFF** by picking up a Touch-Tone telephone and entering " # ", then your **Access Code**, then " 1 ".

Example:

ENTER " # **NNNN -1** ". You will hear "**Level 1, Off** ". (NNNN represents your Access Code).

This procedure is NECESSARY upon entering a premise with intrusion protection **ON**.

Additional measures will likely be required to CANCEL an alarm condition for communicating alarms. These requirements vary with the monitoring service provider.

SUPPLEMENTAL "CANCEL" INFORMATION

➢ INTRUSION SELECTIONS

❑ PERIMETER PROTECTION--USE WHILE PREMISE IS OCCUPIED

Pick up any phone and enter Touch-Tone " # **NNNN 2** ".

You will hear "**BEEP-BEEP, LEVEL 2, STAY** ", followed by "**LEVEL 2, STAY, ON** " after the exit delay time expires.

❑ TOTAL PROTECTION--USE WHILE PREMISE IS UNOCCUPIED

Pick up any phone and enter Touch Tone " # **NNNN 3** ".

You will hear "**BEEP-BEEP-BEEP, LEVEL 3, AWAY** ", followed by "**LEVEL 3, AWAY, ON** " after the exit delay time expires.

BASIC THINGS YOU SHOULD KNOW ABOUT YOUR BBC #6000 SECURITY SYSTEM

➢ INTRUSION SELECTIONS (Cont.)

❑ IF YOU TRY TO SELECT PROTECTION, AND A SENSOR IS "NOT SECURE":

This situation can occur if a protected window, door, etc, is open, when arming System. (>>**NOTE:** Level 2 does not require interior doors to be armed. These Sensors may be listed as "Not Secure", but are not used in level 2 protection and their status can be ignored).
After entry of the Access code and Protection Level, you would hear an annunciation of all Sensors (if any) that are not secure.

You can bypass Sensors by entering Access Code + 6 + Sensor number (TT " NNNN 6 SS").
You will then hear "**Sensor SS Bypassed".**

Or, you can go to the Sensor and secure it (close door or window) and repeat the arming procedure.

❖ INTRUSION PROTECTION

Several types of Detection Sensors may be used in the System. These include **DWS (Door and Window Switch activated)** Sensors, Motion Sensors, and Glass Break Sensors. The Sensors are usually arranged to provide **Perimeter Protection** (Sensors arranged at entry points around the perimeter of the premise) and Interior Sensors (provided to pick up any intrusion that escapes the perimeter detection). The **Perimeter Protection** usually allows for entry and exit time delays on frequently used entry points. Entry time delay provides for an adjustable time period upon entry to reach a telephone to cancel the pending alarm activation. Exit delay allows the user to become clear of the premise before the **Intrusion Protection** is activated.

➢ FIRE PROTECTION

Smoke and/or heat detectors are active in Levels 1, 2, and 3. Smoke detectors also annunciate a local audible signal for both alarm and some trouble conditions. The Control Panel supplements the alarm annunciation and forwards the detector trouble and alarm status in reporting Systems.

➢ SIRENS

All Sirens are set to Reset in about 4 minutes.

➢ SYSTEM STATUS LED INDICATOR

The System LED Indicator provides System status information:

1. The LED will display the System Arming Level status by red blinking patterns:
   - One blink — Level 1
   - Two blinks — Level 2
   - Three blinks — Level 3

2. The light will display a continuous red during test reports and alarm conditions.

3. The red color will disappear during a System trouble condition, or if the System was previously in an alarm condition and the alarm was not cleared (i. e., System returned to "Level 1, Off").

➢ RESET

An Alarm condition that is **not returned to Level 1, Off** will cause LED green color to be replaced with red color **until System is Reset.**

BASIC THINGS YOU SHOULD KNOW ABOUT YOUR BBC #6000 SECURITY SYSTEM

➢ CALL BUTTONS

Call Buttons may be used to summon assistance in reporting Systems. The Control Panel can be programmed to respond to a pushed Call Button in three different modes. The number in front of the behavior statement indicates the Call Button number in your System that will respond accordingly.

___ Activates a loud "HELP—HELP" annunciation with audible siren alarm. Used to summon assistance and discourage intruders.
___ Activates a "HELP-HELP" annunciation only. Used when assistance is required, and deterrent annunciations are not necessary.
___ Activates Silent Alarm, with no annunciation. Usually used in reporting Systems for armed robbery type situations.

➢ ALARM MEMORY

The System LED indicator green color will extinguish after an alarm condition and remain off until the System is returned to "Level 1, Off". This can be used to provide an alarm caution indication when observing this condition. Note that the same display will occur for a System trouble condition.

Entering a System status command will cause an annunciation of any previous alarm conditions not Reset, or present trouble conditions:

1. Enter "# NNNN *" (works for remote or local access), or

2. Enter "#*" (works for local access only).

BBC SECURITY SYSTEM FEATURES

1. OPERATOR PROTECTION SELECTION

>>**NOTE:** Selection of arming Levels 2 or 3, will cause ALL System Sensors that are "not secure" to be listed. Level 2 does not require interior doors to be armed. These Sensors may be listed as "not secure", but are not used in the level 2 protection and their status can be ignored.

LEVEL	TT ENTRY	DESCRIPTION	PANEL LIGHT (LED)	SOUND AND VOICE ANNUNCIATION
1	" # NNNN -1 "	System Disarmed	Blinks red repeatedly once every two seconds. Background color normally green, but will go to "Off" if a trouble condition exists.	Single "BEEP" precedes voice annunciation. "Level One, Off" upon entering Level 1.
2	" # NNNN -2 "	Used for protection with someone in premise (at home)	Blinks red repeatedly twice every two seconds. Background color normally green, but will go to "Off" if a trouble condition exists.	Double "BEEP" precedes voice annunciation. "Level Two, Stay" on entering Level 2. "Level Two" every four seconds during entry time until delay time is expired, or System is disarmed. "Level Two--On" at end of delay time. "Level Two--On" when entry is detected.
3	" # NNNN -3 "	Used for protection when premise is vacant	Blinks red repeatedly three times every two seconds. Background color normally green, but will go to "Off" if a trouble condition exists.	Triple "BEEP" precedes voice annunciation. "Level Three, Away" on entering Level 3. "Level Three" every four seconds during entry time until delay time is expired, or System is disarmed. "Level Three--On" at the end of delay time. "Level Three--On" when entry is detected.
4	NOT USED			

2. PROTECTION MODIFIERS

LEVEL	TT ENTRY	DESCRIPTION	PANEL LIGHT (LED)	SOUND AND VOICE ANNUNCIATION
5		**"Instant" modifier.** Entry of TT " 5 " during exit delay times of Level 2 or Level 3 removes entry delay time. System will revert back to delays after returning to Level 1.	Same as without Instant selected.	"Instant".
6	" # NNNN -6 " followed by Sensor Number (SS) to be bypassed.	**Bypass selection.** For use in situations requiring a Sensor or Sensors being bypassed. Enter TT " NNNN SS " to bypass a specific Sensor. Sensor will un-bypass when Level 1 selected. **>>NOTE: Fire Sensors cannot be bypassed.** **>>NOTE: The Bypass entry will bypass Sensor's tamper and alarm reporting only. Transmitter supervisory and low battery detection features are not effected during bypass.**	Same as without Bypass selected.	"Sensor SS Bypassed."
7		NOT USED		

3. SYSTEM TESTS

LEVEL	TT ENTRY	DESCRIPTION	PANEL LIGHT (LED)	SOUND AND VOICE ANNUNCIATION
8 **>>NOTE: Accessible only in reporting Systems**	" # NNNN -8 "	**>>NOTE: For reporting alarms only.** Entry to this level causes a Central Station communication test. System will return to Level 1 after successful test. Refer to COMMUNICATION TEST (Page 13) for details.	RED during test Stays RED after ten unsuccessful communication attempts).	"Level 8, Call Test On". Test results annunciated after test. "Call Test OK", or "Call Test failure".
9	" # NNNN -9 "	Used for Sensor and Call Button test. System will return to Level 1 after 120 seconds. Refer to SENSOR TEST (Page 13) for details.	RED until returned to Level 1.	"Level 9, Sensor Test On". " BEEP, SS" on Sensor activation.

BBC SECURITY SYSTEM FEATURES

4. SYSTEM OPERATION OPTIONS--LEVEL 0.

Radio detection is disabled in much of Program Memory.

For best results, make TT entries slowly, after the voice prompts are done.

LED is solid red during Tests and Program Memory. System will not respond to alarms during Programming and Sensor Test.

TT ENTRY	DESCRIPTION	SOUND AND VOICE ANNUNCIATION
" # NNNN-0 "	**For Option 0, enter TT " # NNNN -0 ", then " * NN " to define the task required:**	"Level 0, On", then "Program---Program" repeated every 5 seconds until after 90 seconds of no TT entries.
Then Enter:	**TO ASSIGN OR CHANGE USER ACCESS CODES:**	
	TO CHANGE MASTER ACCESS CODE:	
" * 01 "	Enter " * 01 " and follow audible instructions.	"Enter New Master Access Code", then "Enter New Master Access Code again". Then "OK" when complete.
	TO ADD OR CHANGE USER CODE 2:	
"* 02 "	Enter " * 02 " and follow audible instructions.	"Enter new Access Code", then "Enter New Access Code again". Then "OK" when complete.
*03 to *05	**NOT USED**	
	CHIME SELECTION	
" * 06 "	" * 06 " for CHIME ON/OFF (toggles on entry)	"Off" (Default)
	STATUS VOLUME	
" * 070 "	Enter "* 070 " for STATUS volume LOW	" On" in Low Volume
" * 071 "	Enter " * 071 " for STATUS volume MEDIUM	"On" in Medium Volume (Default)
" * 072 "	Enter " * 072 " for STATUS volume HIGH	"On" in High Volume
	STATUS LEVEL ANNOUNCEMENT	
" * 080 "	Enter " * 080 " for status level verbal announcement only.	"On"
" * 081 "	Enter " * 081 " to add arming level "BEEPs"	"On" (Default)
	LEAVING PROGRAM MEMORY	
" * 99 "	To leave Program Memory and return to "Level 1" After each successful entry in Program Memory, the System will acknowledge the new selection. When done programming, enter " * 99 " to return to Level 1. **>>NOTE: Enter " * 99 " at any time to return to Level 1. Will return automatically after 1.5 minutes if there are no entries.**	" BEEP", then "Level 1, Off ",

BBC SECURITY SYSTEM FEATURES

5. OTHER TT ENTRIES

FEATURE	TT ENTRY	DESCRIPTION	SOUND ANDVOICE ANNUNCIATION
System Status	" # * " or " # NNNN * "	Annunciates audible status of System over the loudspeaker(s). This includes protection selection and any abnormal conditions that may exist. See "Abnormal Conditions" (Page 7) for list.	Typically something such as "BEEP, Level One, Off. Sensor 03 Open. AC Power On"

6. TELEPHONE REMOTE ACCESS

The Remote Access feature requires that the premise Control Panel answer the telephone.

The telephone is answered if the panel **Ring-Pause Ring (R-P-R)** option is selected. This option is programmed to default to "On" when System is powered up.

Example: Remote Access Programming using R-P-R answer option:

Call premise, let phone ring two times, then hang up. Wait 10 seconds, then call premise again. Panel will now answer during first ring signal and annunciate " Code---Code" for 12 seconds, then hang up. During this time, enter "# NNNN * ". The System will annunciate the present status. This is the same announcement you would receive by selecting System Status (TT " # * ") from a premise telephone. At this point, the System will operate the same as if you were on premise. The status sound will be annunciated over the telephone. The premise will automatically hang up phone after 1 minute of no TT entries.

7. SYSTEM TESTS AND TROUBLE ANNOUNCMENTS

♦ SYSTEM AUTOMATIC TESTS

>>**NOTE:** Some trouble conditions may require assistance from your security provider for correction.

The System contains many **Self-Test** routines. Failure of a test routine will cause a trouble condition. A trouble condition is indicated by **no green** color on the **System Status Light**. An **"Ooga"** sound (trouble alert) followed by a trouble message identifying the specific trouble will be annunciated when trouble is first recognized. The detailed trouble announcement will occur during a " # * " TT status request. Trouble conditions will automatically restore to normal when the trouble is corrected and System is disarmed.

- **Sensor Trouble conditions** include one or more of the following:
  - ❑ Supervisory failures (No Signal).
  - ❑ Low battery.
  - ❑ Tamper situations (cover removed).

- **Control Panel trouble conditions** also include one or more of the following:
  - ❑ Panel Tamper conditions (cover loosened without Tamper disables).
  - ❑ AC Power failure.
  - ❑ Phone Line failure.
  - ❑ System Low Battery.

Panel running on battery power only will have status LED blink status only until low battery is detected.

7. SYSTEM TESTS AND TROUBLE ANNOUNCMENTS (Cont.)

♦ SYSTEM AUTOMATIC TESTS (Cont.)

- The System Status **LED** green indication will disappear in "Trouble" and any other **abnormal conditions**, including operator selection levels other than Levels 1, 2, or 3 and when an alarm condition exists.

Your Control Panel power is backed up with a rechargeable **12-volt battery** that provides at least 12 hours of standby power during an AC power failure. AC power failure is not annunciated until the condition persists, typically for more than half an hour.

**Sensor low battery and supervisory (no signal) troubles require selecting SENSOR TEST (" # Master Access Code –9 "), and then activating the faulty Sensor to clear problem immediately.

>>**IMPORTANT NOTE:** The **"Self Tests"** are supplemented with the two Manual Tests listed below, which must be performed by the System user.

♦ SYSTEM MANUAL TESTS

The **Manual Tests** provide assurances the total System is working. They should be done monthly, and before leaving the premise for an extended period of time

- **LEVEL 8, COMMUNICATION TEST (Available on reporting Systems only)**

Select Communication Test **Level 8** by picking up any System phone and entering TT " # Access Code (NNNN) -8 ". You will hear "Begin System Call Test". Successful test will return System to Level 1, and "Call Test OK, Level 1, Off" will be annunciated. If the Communication Test is unsuccessful, "Call Test Failure, Level 1, Off" will be annunciated.

- **LEVEL 9, SENSOR TEST**

Select Sensor test **Level 9** by picking up any phone and entering TT " # Access Code (NNNN)-9 ". "Begin System Sensor Test" will be annunciated from System status speaker(s). Activate each System Sensor and Call Button (see Sensor type description (Page 2) for test procedure) and listen for four or more radio packet **BEEPs.** Refer to the Call Button and Sensor ID number Location Sheet to locate all Sensors. Test will return to "Level 1" after 45 seconds of no Sensor activity. A 2-second loud warning signal annunciates automatic test time out. A System battery test is automatically done at the end of the test when installer selected.

♦ TROUBLE CONDITIONS

A trouble condition will be announced when it is first recognized. The announcement is preceded by an annunciated **"Ooga"** trouble alert. The trouble condition will be annunciated during any TT " # * " telephone status request.