

SELECT ENTRY SYSTEMS

User / Installer Guide



Self Identifying Automatic Telephone 2



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SAT2 Self Identifying Automatic Telephone Introduction

What a SAT2 Does.

The SAT2 is a telephone device that connects to a telephone line. The SAT2 dials a pre-programmed number, when the **PUSH FOR HELP** button is pressed. It can dial up to 9 additional 16 digit phone numbers.

After dialing, it permits two way voice communication without having to hold a handset (Hands Free). The amount of time that you can talk on the SAT2 before it disconnects, is programmable from 1 to 99 minutes. The SAT2 can identify itself by sending a 4 digit ID number as a series of Touch-Tones™. Another device, like the SATDBRX, can interpret those tones and determine where the call originated. SAT2 does all of this without requiring an external power source, because it is telephone line powered.



SAT2 Features.

Features of the SAT2 include:

☎ Call Progress for dialing phone numbers and for automatic hang-up. SAT2 detects these Call Progress tones:

- Dial Tone
- Busy
- Reorder
- Off Hook Alert
- Ring Back
- Forced Disconnect

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	SAT2 Feature

SAT2 Features, continued.



☎ Stores up to 10 phone numbers up to 16 digits. Depending on the programming, SAT2 can dial 2 numbers alternating back and forth 5 times, or ten different phone numbers one after the other. The combinations (up to 10) will depend on the programming, and can be easily changed.

☎ Touch-Tone[®] Detect. The SAT2 has Touch-Tone detection for:

- Remotely hanging up the SAT2.
- Sending the 4 digit ID number on command.
- Remote Touch-Tone Programming.
- Acknowledging Call. (Lights the flashing Talk LED).

☎ Ring Detect.

This controls how many rings the SAT2 will receive before it answers.

☎ Talk Time.

This is the time from 1 to 99 minutes, in 1 minute increments, that a SAT2 remains connected for talking, before it times out and hangs up.

☎ Acknowledge Tone.

If programmed, will light up the flashing TALK light, after the SAT2 places a call and the Acknowledge Tone has been received.

☎ Password Control.

The SAT2 has a 4 digit-programming password. This is used for remote programming from a Touch-Tone phone.

☎ ID Cycle Time.

This is how the SAT2 can automatically send it's 4 digit ID number. It does this in 10 second increments.

☎ ID Confirm.

This function, (when programmed to do so), will automatically dial the next number in it's memory, if the SAT2 does not send it's 4 digit ID number. SAT2 keeps doing this until it does send the ID number, or until it has dialed all the numbers (up to 10 total) programmed into it.

☎ Ring Down Count Retry.

If used in Ring Down mode, and the called phone does not answer, or the SAT2 receives a dial tone or busy, will cause the SAT2 to hang up and retry the call. This is programmable from 1 to 9 retries.

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SAT2 Programming

How To Program a SAT2

The SAT2 can be programmed with the optional hand programmer (OptSatPrgm), or it can be programmed with an ordinary Touch-Tone™ telephone. The SAT2 is designed to answer after 3 rings, (this is programmable) and prompt (with a beep) for the 4 digit password. SAT2 comes from the factory with all 4 digits set to 7 (7777 is the password).

To program a SAT2, from a Touch-Tone Phone, get into programming mode by:

☺ Calling the SAT2's phone number.

☺ After 3 rings, SAT2 answers and beeps once.

☺ From your phone, key in 7777 *.

📖 **If the password is valid you will hear two beeps. If the password is not valid, SAT2 will immediately hang up.**

☞ **If you do not key in the password within 10 seconds, SAT2 hangs up.**

📖 **Once the password is entered, if more than 1 minute goes by with out a key being pressed on your phone, SAT2 will hang up.**

📖 **Any programming key press error will cause SAT2 to send a long tone (Error Tone) instead of 2 beeps (Command Accepted).**

How To Get Out of Program Mode.

☺ Use your Touch-Tone™ phone to key in 99. Then SAT2 can be used immediately.

Example: To exit program mode, key in 99.

☞ **If you simply hang up, the SAT2 can not be used for at least one minute.**

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📖 Valuable Info

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☺ User Note

📞 SAT2 Feature

SAT2 Programming Cont.

How To Put in a Single Phone Number

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 110, followed by the phone number, and *.

Example: To make the SAT call 555 -1212, key in 110 5551212 *.

📖 **You can key in up to 16 digits, for long distance or toll free numbers.**

How To Take Out or Remove a Phone number.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 110, followed by 0, and *.

Example: To make the SAT erase 555 -1212, key in 110 0 *.

How To Call from a PABX.

SAT2 can be used behind most Private Automatic Branch Exchange (PABX) systems. The PABX must be able to send and receive Touch-Tones. Some systems need to dial an 8 or a 9, and pause briefly before dialing the phone number. The # key on your phone will add a 5 second pause.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 110, followed by 9 # the phone number, and *.

Example: To make the SAT dial 555 -1212, from behind a PABX that uses 9 to get an outside line, and requires a pause, key in 110 9 # 555 1212 *.

☞ **The 9 and the # both count as one digit each of the maximum allowable 16 digit phone number.** For example, if you had to dial a long distance number from another country to the United States and your PABX required a 9 second pause (needs two # keys) your number would be: 9 # # 01 1 800 342 5737. This is 16 digits long.

How To Change SAT2 Talk Time.

SAT2 can be set to stay active for conversation from 1 to 99 minutes. The factory default talk time is 1 minute. It beeps 3 times, 10 seconds before disconnecting.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 31 and two digits from 01 to 99 and *.

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📖 Valuable Info

☞ Be Careful!

🔧 Installers Note

☺ User Note

📞 SAT2 Feature

SAT2 Programming Cont.

Example: To set the SAT2 Talk Time from the factory default of 1 minute, to 4 minutes, key in 31 04 *.

How To set SAT2 4 digit ID number.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 42, the 4 digit ID number and *.

Example: To change the SAT ID from the factory default of 1357 to 1950 key in 42 1950 *.

☞ **If less than 4 digits are entered the ID number will not change.**

How To set SAT2 ID Cycle Time.

When the SAT2 has called, it can automatically send it's 4 digit ID number in increments of 10 seconds from 10 to 90 seconds. This is for security or monitoring equipment, which know how to interpret the tones that SAT2 is sending.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 43, the Touch-Tone number between 1 and 9 and *.

Example: To set the SAT ID Cycle Time from the factory default of 0 (ID on Command) to every 20 seconds, key in 43 2 *.

📖 **ID on Command is when ID Cycle Time is set to 0. To force the SAT2 to send an ID on Command, press the *.**

How To set SAT2 ID Confirm.

When the SAT2 has called, ID Confirm is the function where it must send it's ID number at least once. If SAT2 does not send it's ID number at least one time, then when it hangs up, it will dial the next number in it's memory (if additional numbers have been programmed into the SAT2). If the next number is called and the ID number was not sent it will dial the next number, and so on, until all 10 phone numbers (if they were programmed) have been called.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 44, the Touch-Tone number 1, and *.

Example: To set the SAT ID Confirm from the factory default of 0 (No ID Confirm) to On, key in 44 1 *.

ICON KEY

📖 Valuable Info

☞ Be Careful!

☞ Installers Note

☺ User Note

📞 SAT2 Feature

SAT2 Programming Cont.

How To Put in Multiple Phone Numbers.

SAT2 can hold up to 10 phone numbers in memory. These phone numbers are stored in locations. The locations are numbered 110, 111, 112, etc. all the way to 119.

☞ **There must ALWAYS be a phone number in location 110, or SAT2 will not call out.**

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 11 followed by the location number, followed by the phone number, and *. Example: To make the SAT call 555 -1212 in the first location and 1 800 342-5737 in the second location, key in 110 5551212 * 111 18003425737 *.

📖 **Any number can be put in any location. You could put the same number in all 10 locations and it would call 10 times if it did not send ID number when ID Confirm is on. Or, you could put 2 numbers in five times, alternating locations so that SAT2 tried one number then the other, 5 times in a row.**

☞ **Remember, SAT2 dials locations in order: 110, 111, 112, etc. Pay attention to which numbers you put in which locations, if you desire a specific calling sequence.**

How To Take Out or Remove a Phone number In a specific location.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 11 followed by the location number, followed by 0, and *. Example: To make the SAT erase the fifth phone number in memory, key in 11 4 0 *. (Remember, the first location is 11 0).

How To Take Out or Remove all Phone numbers at once.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 91 1 followed by *. Example: To make the SAT erase all phone numbers in memory, key in 91 1 *.

ICON KEY

📖 Valuable Info

☞ Be Careful!

🔧 Installers Note

☺ User Note

📞 SAT2 Feature

SAT2 Programming Cont.

How To Change SAT2 Ring Time.

SAT2 can be set to ring from 10 to 90 seconds before it quits trying and hangs up. Ring Time is in 10 second increments. The factory default Ring Time is 40 seconds.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 45, a digit from 1 to 9, and *.

Example: To set the SAT2 Ring Detect from the factory default of 40 seconds to 60 seconds, key in 45 6 *.

How To Set SAT2 Acknowledge tone.

When the SAT2 calls, if an acknowledge tone is pressed by the called party, the green light will begin flashing. This lets the person using the SAT2 know that the phone call was received and acknowledged.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 33, the Touch-Tone number between 1 and 9 and *.

Example: To set the SAT Acknowledge tone from the factory default of 0 (which is disabled) to 1 key in 33 1 *.

How To Change SAT2 Password.

SAT2 password comes from the factory as 7777. This number can be any 4 digits.


☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 41, 4 digits from 0000 to 9999, and *.


Example: To set the SAT2 Password from the factory default of 7777 to 1234 (An incredibly dumb choice), key in 41 1234 *.

☞ **You must key in all 4 digits or your password will not change.**

☞ **Make sure you keep your password recorded and stored safely. If you forget the password, SAT2 may have to be returned to the factory to be reset.**


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 Valuable Info

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 SAT2 Feature

SAT2 Programming Cont.

How To Change SAT2 Ring Detect.

SAT2 can be set to ring between 1 and 9 times before it answers. The factory default Ring Detect is 3 rings.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 32, a digit from 1 to 9, and *.

Example: To set the SAT2 Ring Detect from the factory default of 3 to 4 rings, key in 32 4 *.


How To Change SAT2 Back To Original Factory Settings.


SAT2 can be set back to original factory settings. This is useful if you think you may have mis-keyed a function, or if you did not realize the consequences of some of your choices.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 92 1, and *.

Example: To set the SAT2 back to factory defaults, key in 92 1 *.


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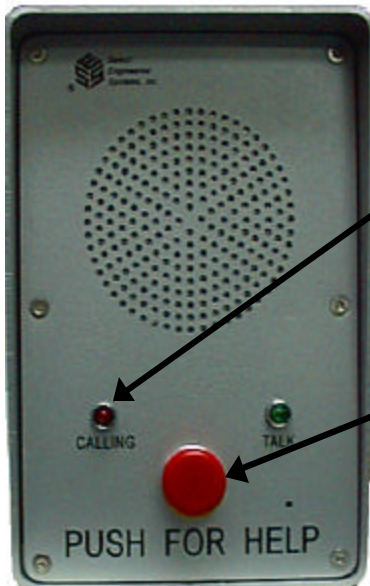
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☺ User Note

 SAT2 Feature

SAT2 OPERATION



The operation of SAT2 is straight forward from the users' point of view. Simply push the button. When the PUSH FOR HELP button is depressed, the red CALLING light will turn on. There will be a brief

dial tone to let the user know SAT2 is starting the call.

☞ **The SAT2 MUST sense a dial tone within 6 seconds, or it will hang up, and not automatically re-dial again.**

📖 **After the button is pushed, pushing on it again, (until call is completed) is ignored.**

The audio will be disabled momentarily to keep the dialed number confidential. After dial out, SAT2 enables the audio to let the caller hear the progress of the call. If there is no answer, or the line is busy, or there is a circuits busy (reorder), SAT2 will hang up. If additional numbers (up to 10 total) have been programmed, SAT2 will automatically dial the next available phone number (See Pg. 6).

Once the dialed number has been answered, two-way conversation may begin. Conversation may go on for whatever length of Talk Time was programmed (1 to 99 minutes, see Pg. 4). 10 seconds before SAT2 times out, it will send three beeps to alert both caller and called party that SAT2 is about to disconnect.

📖 **The called party may force SAT2 to hang up before Talk Time times out by pressing # on the called party's phone.**

If SAT2 ID Cycle Time has been set (See Pg. 5), it will transmit a 4 digit Touch-Tone™ at the programmed intervals (anywhere from 10 to 90 seconds in 10 second increments). If ID Cycle Time was set to 00 (disabled) it will send only when receiving a * from the called party. This is called ID on Command.

📖 **While SAT2 is transmitting ID, ID tones may sometimes interfere with conversation.**

ICON KEY

📖 Valuable Info

☞ Be Careful!

🔧 Installers Note

😊 User Note

☎ SAT2 Feature


SAT2 OPERATION, Continued


After the SAT2 calls, if an acknowledge tone was programmed (See Pg. 7) and is pressed by the called party, the green light marked TALK, will begin

flashing once per second. This lets the person using the SAT2 know that the phone call was received and acknowledged. This is useful for the hearing impaired, to help comply with ADA requirements in some systems.




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 SAT2 Feature

 Installation of SAT2


S AT2 Installation is simple and straightforward.




 Remove the 6 tamper resistant screws with the #15 Tamper Torx™ tool provided.

 Remove the door assembly

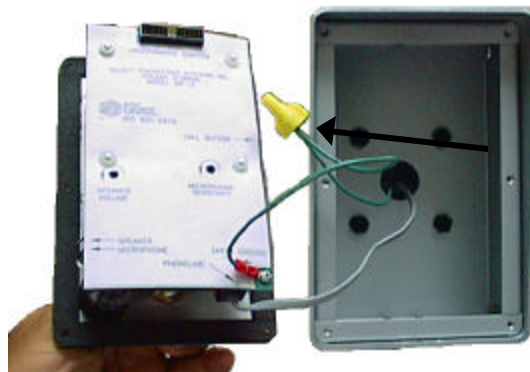
 Mount the back-box to a wall or pedestal, using the gasket provided. A Template for the mounting holes is provided toward the back of this manual on Page 14.

 Bring the ground wire and the RJ-11 cable through the center hole. Seal any penetrations with a good grade of RTV silicon sealant.


 **MAKE SURE THE SAT2 IS SEALED AGAINST WEATHER AND WATER INTRUSION.**


 Using a wire nut connect the ground wire to a 16 gauge wire that is connected to a ground rod or a cold water earth ground.

 **MAKE SURE THE SAT2, AND THE SAT2 BACK BOX ARE GROUNDED TO GOOD EARTH GROUND.**




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 SAT2 Feature

🔧 Installation of SAT2 (Continued)



🔧 Connect the RJ-11 cable to the RJ-11 jack on the SAT2.

🔧 Re-Install the door and screw the 6 tamper resistant screws back in the front door.

🔧 Press the call button. If the SAT2 has not been programmed, it will give a brief dial tone, and then hang up. If it has been programmed, it will dial the programmed phone number.

🔧 If the audio needs adjustment, see the following steps on adjusting audio.

🔧 Adjusting SAT2 Audio

🔧 In most cases, the factory audio adjustment should work fine, but if there are other circumstances that require adjustment, proceed with care.

📖 **The speaker volume and microphone sensitivity interact with each other. An extreme imbalance in adjustment can cause the SAT2 to perform poorly, or not at all.**

🔧 Remove the 6 tamper resistant screws with the #15 Tamper Torx™ tool provided.

🔧 Remove the door assembly.

🔧 Press the call button, and while the dial tone is on (it will be on only for a few seconds), adjust the speaker volume with a 3/32" slotted screwdriver or a slotted alignment tool. The volume increases in the direction of the arrowhead.

📖 **The speaker volume in the SAT2 is only valid while the door assembly is in the back box, due to resonance. After making any speaker adjustment, place the door temporarily in the back box and listen again.**

🔧 To adjust the microphone volume, call some one on the SAT2. After they answer, start counting and after every three counts or so, adjust the microphone sensitivity with a 3/32" slotted screwdriver or a slotted alignment tool. The sensitivity increases in the direction of the arrowhead.

🔧 **If the sensitivity is too low the called party will not be able to hear you. If the sensitivity is too high, you will not be able to hear the called party.**

🔧 Re-Install the door and screw the 6 tamper resistant screws back in the front door.



ICON KEY

📖 Valuable Info

🔧 Be Careful!

🔧 Installers Note

😊 User Note

📞 SAT2 Feature

Converting SAT2 To Ring Down

How To Change SAT2 To Ring Down.


SAT2 can be set to function as a ring down type unit. The factory default is Ring Down mode = OFF.

☺ After getting into program mode, (see Pg. 3) use your Touch-Tone™ phone to key in 34, and 1 - 9, and *.


Example: To set the SAT2 from a phone line unit to a Ring Down unit with 3 attempts, key in 34 3 *. To set the SAT2 back to a phone line unit, key in 34 0 *.


0 = Normal dialing

1 - 9 = Number of attempts the SAT2 will make to call, if the called phone does not answer, or if the SAT2 detects dial tone or busy tone.

 **When set to ring down, SAT2 will NOT dial. There will be no dial tone. Sat2 just goes off hook and remains off hook until time out. Pressing * to force ID on command is operative, and ID cycle is operative.**


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☺ User Note


 SAT2 Feature

 Installation of SAT2 (Continued)

 SAT2 Mounting Template


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 SAT2 Feature

FCC REQUIREMENTS:

FCC REGISTRATION NUMBERS

FCC68: XXX 00X-00000-XX-X

RINGER EQUIVALENCE: 0.0X/.0X

COMPLIES WITH PART 15 SUBPART J OF FCC RULES

1. The Federal Communications Commission (FCC) has established Rules which permit SAT2 to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin lines.
2. If SAT2 is malfunctioning, it may affect the telephone lines. In this case, disconnect SAT2 until the source of the difficulty is traced and corrected. If this is not done, the telephone company may temporarily disconnect this service.
3. The telephone company may make changes in its' technical operations and procedures; if such changes affect the compatibility or operation of this device, the telephone company is required to give adequate notice of the changes.
4. If the telephone company requests information on what equipment is connected to their lines inform them of:
 - a. The telephone number to which SAT2 is connected.
 - b. The ringer equivalence number.
 - c. The USOC jack required (RJ-11).
 - d. The FCC registration number.

RADIO AND TELEVISION INTERFERENCE

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. The SAT2 has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation.

FOR CANADIAN USERS: DOC # 000 0000 X

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