



SELECT ENTRY SYSTEMS

User / Installer Guide



Sept 15

SAT3R SAT3R/D

Self Identifying Automatic Telephone 3R & 3R/D



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SAT3R Self Identifying Automatic Telephone Introduction

What a SAT3R Does.

The SAT3R is a telephone device that connects to a telephone line. The SAT3R 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 SAT3R before it disconnects is programmable from 1 to 9 minutes, or 20 minutes. The SAT3R can identify itself by sending a 4-8 digit Account number as a series of Touch-Tones™. Another device, like the SATDBRX, can interpret those tones and determine where the call originated. SAT3R does all of this without requiring an external power source, because it is telephone line powered.



Note: 2 button model SAT3R/D not shown.

SAT3R Features.


Features of the SAT3R include:


F  **Call Progress** for dialing phone numbers and for automatic hang-up. SAT3R detects these Call Progress tones:


Dial Tone

- Busy
- Fast Busy
- Off Hook Alert
- Ring Back
- Voice
- Phone Line Reversal
- Disconnect


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 SAT3R Feature

SAT3R Features, continued.

☎ Stores up to 10 phone numbers up to 16 digits. Depending on the programming, SAT3R 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 SAT3R has Touch-Tone detection for:

- Remotely hanging up the SAT3R.
- Sending the 4-8 digit account number on command.
- Remote Touch-Tone Programming.
- Acknowledging Call. (Lights the flashing Talk LED).

☎ Talk Time.

This is the time from 1 to 9 minutes, in 1-minute increments, or 20 minutes (fixed), that a SAT3R remains connected for talking, before it times out and hangs up.

☎ Acknowledge Tone.

If programmed, will light up the flashing TALK light, after the SAT3R places a call and the Acknowledge Tone has been received.

☎ Password Control.

The SAT3R has a 4 digit-programming password. This is used for remote programming from a Touch-Tone phone.

☎ Account Cycle Time.

This is how the SAT3R can automatically send its 4 to 8-digit account number. It does this in 10-second increments.

☎ Account Confirm.

This function, (when programmed to do so), will automatically dial the next number in it's memory, if the SAT3R does not send it's 4 to 8 digit account number. SAT3R keeps doing this until it does send the account number, or until it has dialed all the numbers (up to 10 total) programmed into it.

☎ 1200/300 Baud modem.

The SAT3R has a 1200/300 Baud modem for remote programming from a computer, as opposed to a Touch-Tone phone



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SAT3R Feature

SAT3R Features, continued.

☎ Central Station signals.

This allows the SAT3R to automatically call a central station using the SIA “fast” format (300 Baud) for off-site monitoring, using central station digital receivers with two-way voice capability.

☎ Account Number.

The SAT3R allows from a 4 to 8 digit account number, primarily for Central Station alarm monitoring usage.

☎ Zone Number.

Allows up to 1000 zones, when using a single account code. An example would be, grouping several SAT3R’s on a site together, again for Central Station alarm monitoring usage.

☎ Second dial button. (SAT3R/D only)

The SAT3R/D has a second button, to dial a single 16-digit phone number, such as for further information, or to a different location other than ones programmed into the 10 pre-programmed locations. The second button when pressed, will dial a single 16-digit phone number. This number may be used to call a non-emergency number for instructions, etc. This number will be dialed once and if not answered, or if the number is busy, the unit will hang up. The user must press this button again, to try again.

☎ Relay 1 or 2 Timed.

When the SAT3R places a call, and receives a valid Touch-Tone™ number, this relay will energize for between 3 and 45 seconds. The SAT3R will immediately hang up.

☎ Relay 1 or 2 Controlled.

When the SAT3R is called and receives a valid Touch-Tone™ number it, will energize the relay for 3 to 45 seconds.

☎ Relay 1 or 2 SAT3R Active.

Energizes when the SAT3R goes off-hook, and stays energized for as long as the SAT3R is active (as controlled by talk-time).

☎ Relay 1 or 2 Latched.

When the SAT3R is called and receives a valid Touch-Tone™ number, it will energize the relay for as long as the SAT3R is off-hook, as determined by the Talk-time setting programmed into the SAT3R. This allows conversation to continue after the relay is latched.



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	Installers Note
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	SAT3R Feature

SAT3R Programming

How To Program a SAT3R (Getting into Program Mode)

The SAT3R can be programmed with the optional hand programmer (OptSAT3RPrgm), or it can be programmed with an ordinary Touch-Tone™ telephone. The SAT3R is designed to answer immediately and prompt (with a beep) for the 4 digit password. SAT3R comes from the factory with all 4 digits set to 7 (7777 is the password).

To program a SAT3R, from a Touch-Tone Phone, get into programming mode by:

☺ Calling the SAT3R's phone number.

☺ After 1 ring, SAT3R 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, SAT3R will immediately hang up.**

☞ **If you do not key in the password within 5 seconds, SAT3R hangs up.**

📖 **Once the password is entered, if more than 1 minute goes by with out a key being pressed on your phone, SAT3R will hang up.**

📖 **Any programming key press error will cause SAT3R to send a long tone (Error Tone) instead of 3 beeps (Command Accepted).**

How To Get Out of Program Mode.

☺ Use your Touch-Tone™ phone to key in 999 *. Then SAT3R can be used immediately.

Example: To exit program mode, key in 999 *.

☞ **If you simply hang up, the SAT3R cannot be used for at least one minute.**



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☺ User Note

☎ SAT3R Feature

SAT3R Programming Cont.

How To Put in a Single Phone Number

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 10, followed by the phone number, and *.

Example: To make the SAT3R call 555 -1212, key in 10 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. 4) use your Touch-Tone™ phone to key in 10, followed by 0, and *.

Example: To make the SAT3R erase 555 -1212, key in 10 0 *.

How To Put in Second Button Phone Number (SAT3R/D only)

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 21, followed by the phone number, and *.

Example: To make the SAT3R call 555 -1212 when 2nd button is pushed, key in 21 5551212 *. It will dial only the programmed phone number and has no central station capability.

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

How To Call from a PABX.

SAT3R 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 pause of between 1 and 9 seconds. (Pause time is programmable.)

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 10, followed by 9 # the phone number, and *.

Example: To make the SAT3R dial 555 -1212, from behind a PABX that uses 9 to get an outside line, and requires a pause, key in 10 9 # 555 1212 *.

👉 **The 9 and the # both count as one digit each of the maximum allowable 16 digit phone number.**



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☺ User Note

📞 SAT3R Feature

SAT3R Programming Cont.

How To Program Pause Time Duration.

SAT3R can be set to pause from 1 to 9 seconds when the # key is pressed during programming. This is useful for overseas exchanges that might require longer pauses.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 45 and a digit from 1 to 9 and *.

Example: To set the SAT3R Pause Time from the factory default of 2 seconds, to 4 seconds, key in 45 4 *.

How To Change SAT3R Talk Time.

SAT3R can be set to stay active for conversation from 1 to 9 minutes, or 20 minutes. The factory default talk time is 1 minute. It beeps 3 times, 10 seconds before disconnecting.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 41 and a digit from 1 to 9 and *. To set talk time to 20 minutes, key in 0 and *.

Example: To set the SAT3R Talk Time from the factory default of 1 minute, to 4 minutes, key in 41 4 *.

How To set SAT3R 4–8 digit Account number.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 51, the 4 - 8 digit Account number and *.

Example: To change the SAT3R Account number from the factory default of 0000 to 1950 key in 51 1950 *.

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

How To set SAT3R 4 digit Zone number.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 52, the 4 digit Zone number and *.

Example: To change the SAT3R Zone number from the factory default of 0000 to 2525 key in 52 2525 *.

If less than 4 digits are entered the Zone number will not change.

How To set SAT3R Account Cycle Time.

When the SAT3R has called, it can automatically send its 4 - 8 digit Account 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 SAT3R is sending.



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☎ SAT3R Feature

SAT3R Programming Cont.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 53, the Touch-Tone number between 1 and 9 and *.

Example: To set the SAT3R Account Cycle Time from the factory default of 0 (Account on Command) to every 20 seconds, key in 53 2 *.

📖 **Account on Command is when Account Cycle Time is set to 0. To force the SAT3R to send an Account on Command, press the *.**

How To set SAT3R Account Confirm.

When the SAT3R has called, Account Confirm is the function where it must send it's Account number at least once. If SAT3R does not send it's Account 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 SAT3R). If the next number is called and the Account number was not sent it would 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. 4) use your Touch-Tone™ phone to key in 54, the Touch-Tone number 1, and *.

Example: To set the SAT3R Account Confirm from the factory default of 0 (No Account Confirm) to On, key in 54 1 *.

How To Put in Multiple Phone Numbers.

SAT3R can hold up to 10 phone numbers in memory. These phone numbers are stored in locations. The locations are numbered 10, 11, 12, etc. all the way to 19.

☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 10 followed by the location number, followed by the phone number, and *.

Example: To make the SAT3R call 555 -1212 in the first location and 1 800 342-5737 in the second location, key in 10 5551212 * 11 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 its Account number when Account Confirm is on. Or, you could put 2 numbers in five times; alternating locations so that SAT3R tried one number then the other, 5 times in a row.**



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📞 SAT3R Feature

SAT3R Programming Cont.

- ☞ Remember, SAT3R dials locations in order, starting at the 1st location it finds a number: 10, 11, 12, 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. 4) use your Touch-Tone™ phone to key in 11 followed by the location number, followed by 0, and *.
Example: To make the SAT3R erase the fifth phone number in memory, key in 14 0 *. (Remember, the first location is 10).

How To Change SAT3R Ring Time.

SAT3R 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. 4) use your Touch-Tone™ phone to key in 44, a digit from 1 to 9, and *.
Example: To set the SAT3R Ring Detect from the factory default of 40 seconds to 60 seconds, key in 44 6 *.

- ☞ Do NOT set SAT3R ring time to 10 seconds, unless you have special circumstances. In most cases, the local phone company can not connect the SAT3R fast enough to keep the SAT3R from dialing the next stored phone number, if Ring Time is set to 1 (10 seconds).



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☎ SAT3R Feature

How To Set SAT3R Acknowledge tone.

When the SAT3R calls, if an acknowledge tone is pressed by the called party, the green light will begin flashing. This lets the person using the SAT3R know that the phone call was received and acknowledged.

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 42, the Touch-Tone number between 1 and 9 and *.
Example: To set the SAT3R Acknowledge tone from the factory default of 0 (which is disabled) to 1 key in 42 1 *.

SAT3R Programming Cont.

How To Change SAT3R Password.

SAT3R password comes from the factory as 7777. This number can be any 4 digits.

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 55, 4 digits from 0000 to 9999, and *.

Example: To set the SAT3R Password from the factory default of 7777 to 1234 (An incredibly dumb choice), key in 55 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, SAT3R may have to be returned to the factory to be reset.**

How To Change SAT3R Back To Original Factory Settings.

SAT3R 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. 4) use your Touch-Tone™ phone to key in 91 1, and *.

Example: To set the SAT3R back to factory defaults, key in 91 1 *.

How To Set SAT3R Relay 1 Open Tone.

SAT3R can be set to energize Relay 1 when it receives a Touch-Tone™. The factory default Relay 1 Open Tone is 6.

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 31, a digit from 1 to 9, and *.

Example: To set the SAT3R Relay 1 Open Tone from the factory default of 6 to 3, key in 31 3 *.



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☎ SAT3R Feature

SAT3R Programming Cont.

How To Set SAT3R Relay 1 Latch Tone.

SAT3R can be set to latch Relay 1 for as long as talk-time is set. The factory default Relay 1 latch tone is 0.

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 32, and a tone from 1-9 and *.

Example: To set the SAT3R Relay 1 latch enable from the factory default of 0 (off) to 3, key in 32 3 *.

How To Set SAT3R Relay 1 Type.

SAT3R can be set either to energize when the SAT dials out, or to energize when it receives an open or latching tone .

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 33, and either a 0 or 1, and *. Selecting 1 will energize the relay upon SAT3R dial out. Selecting 0 will energize the SAT3R only when receiving a valid Relay 1 touch-tone

Example: To set the SAT3R Relay 1 Type from the factory default of 0 (off) to 1 (on), key in 33 1 *.

How To Set SAT3R Relay 1 Time.

SAT3R can be set to energize Relay 1 between 3 and 45 seconds.

- ☺ Adjust the timing wheel on the SAT3R relay module according to the diagram on Pg. 25 .

How To Set SAT3R Relay 2 Open Tone.


SAT3R can be set to energize Relay 1 when it receives a Touch-Tone™. The factory default Relay 2 Open Tone is 0.


- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 31, a digit from 1 to 9, and *.

Example: To set the SAT3R Relay 2 Open Tone from the factory default of 0 to 4, key in 34 4 *.




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 SAT3R Feature

SAT3R Programming Cont.

How To Set SAT3R Relay 2 Latch Tone.

SAT3R can be set to latch Relay 2 for as long as talk-time is set. The factory default Relay 2 latch tone is 0.

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 35, and a tone from 1-9, and *.

Example: To set the SAT3R Relay 2 latch tone from the factory default of 0 to 7, key in 35 7 *.

How To Set SAT3R Relay 2 Type.

SAT3R can be set either to energize when the SAT dials out, or to energize when it receives an open or latching tone .

- ☺ After getting into program mode, (see Pg. 4) use your Touch-Tone™ phone to key in 36, and either a 0 or 1, and *. Selecting 1 will energize the relay upon SAT3R dial out. Selecting 0 will energize the SAT3R only when receiving a valid Relay 2 touch-tone.

☺

Example: To set the SAT3R Relay 2 Type from the factory default of 0 (off) to 1 (on), key in 36 1 *.

(This is required to be set to 0 on SAT3EMT series SAT3 products.)


How To Set SAT3R Relay 2 Time.


SAT3R can be set to energize Relay 2 between 3 and 45 seconds.

- ☺ Adjust the timing wheel on the SAT3R relay module according to the diagram on Pg. 25 .



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 SAT3R Feature

SAT3R Programming Cont.

How To Change SAT3R To Ring Down.

SAT3R 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. 4) use your Touch-Tone™ phone to key in 43, and 1, and *.

Example: To set the SAT3R from a phone line unit to a Ring Down unit, key in 43 1 *.

To set the SAT3R back to a phone line unit, key in 43 0 *.

0 = Normal dialing

1 = Ring down.

📖 When set to ring down, SAT3R will NOT dial. There will be no dial tone. SAT3R just goes off hook and remains off hook until time out. Pressing * to force Account on command is operative, and Account cycle is operative.

How To Set SAT3R To Call a Central Station

SAT3R can be set to call a Central Station using the built-in 300/1200 Baud modem. Place two pause signals ahead of the phone number and the SAT3R will call the number and immediately start up the modem.



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SAT3R Feature

SAT3R OPERATION



The operation of SAT3R 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 SAT3R is starting the call.

☞ **The SAT3R 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, SAT3R 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), SAT3R will hang up. If additional numbers (up to 10 total) have been programmed, SAT3R will automatically dial the next available phone number.

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 9 minutes or 20 minutes.) 10 seconds before SAT3R times out, it will send three beeps to alert both caller and called party that SAT3R is about to disconnect.

📖 **Pressing a 0 before the SAT3R disconnects, will reset the timer to its programmed value, to extend the conversation.**

📖 **The called party may force SAT3R to hang up before Talk Time times out by pressing # on the called party's phone.**

If SAT3R Account Cycle Time has been set (See Pg. 6), it will transmit a 4 digit Touch-Tone™ at the programmed intervals (anywhere from 10 to 90 seconds in 10 second increments). If Account Cycle Time was set to 00 (disabled) it will send only when receiving a * from the called party. This is called Account on Command.

📖 **While SAT3R is transmitting its account, account tones may sometimes interfere with conversation.**

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☎ SAT3R Feature

SAT3R Operation Cont.

After the SAT3R calls, if an acknowledge tone was programmed (See Pg. 8) and is pressed by the called party, the green light marked TALK, will begin

flashing once per second. This lets the person using the SAT3R 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.

If the optional Info Button is installed (SAT3D/R only), pushing that button will automatically call the number stored in the info location. It will NOT dial any additional phone numbers if it fails to get a response.

How To Remotely Call a SAT3R.

- ☺ Call the SAT3R by dialing its number from another phone on another line. When the SAT3R answers with its acknowledgement beep; press the first 2 digits of the Password and*. (e.g. 77 and *.) This will open the audio channel to permit 2-way conversation without the SAT3R having first called out by pressing the PUSH FOR HELP button.

Example: Dial 555-1212 and wait for the beep. Press 77 *. Begin talking.

How To Remotely Energize a SAT3R Relay.

- ☺ Call the SAT3R by dialing its number from another phone on another line. When the SAT3R answers with its acknowledgement beep; press the first 2 digits of the Password and * and the open tone for the SAT3R relay you wish to energize. (e.g. 77*6.) This will energize relay 1.

Example: Dial 555-1212 and wait for the beep. Press 77*6. Relay 1 energizes.

How To Remotely Latch a SAT3R Relay.

- ☺ Call the SAT3R by dialing its number from another phone on another line. When the SAT3R answers with its acknowledgement beep; press the first 2 digits of the Password and * and the latch tone for the SAT3R relay you wish to energize. (e.g. 77*5.) This will energize relay 1.

Example: Dial 555-1212 and wait for the beep. Press 77*5. Relay 1 latches for the duration of the conversation. (SAT3R Talk Time.)



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SAT3R Feature

SAT3R RELAY OPERATION

Timed: When the SAT3R places a call, the called party can open (energize) either Relay 1 or Relay 2 by pressing the appropriate Relay 1 or 2 tone on their Touch-Tone™ phone. The SAT3R relay will stay open for the length of time determined by the timer wheel setting (see Pg. 25), which is approximately 3 to 45 seconds.

Controlled: The calling party calls the SAT3R and when the SAT3R answers, keys in the Control password, which is the first two digits of the programming password followed by a * and the Relay 1 or 2 tone from their Touch-Tone™ phone. The SAT3R relay will stay open for approximately 3 to 45 seconds.

Example: To remotely open the SAT3R Relay 1, call the SAT3R and when it answers, key in **77 * 6**. (If 6 is Relay 1 Open tone.)

SAT3R Active: If Relay 1 and/or Relay 2 type has been programmed to 1, the relay energizes as soon as the SAT3R goes off-hook, and stays energized until the SAT3R hangs up. This is useful for controlling auxiliary equipment such as lights, or indicators, or closed-circuit camera equipment.

Latched: The calling party calls the SAT3R and when it answers, keys in the Control password, which is the first two digits of the programming password followed by a * then 0, and the Relay 1 or 2 tone from their Touch-Tone™ phone. The SAT3R relay will stay energized for the length of time the SAT3R is off-hook. This is useful when it is desired to energize a relay, (to provide a light or indicator for example) and continue the conversation. SAT3R talk-time will control the length of time the relay is latched.

Example: To remotely latch the SAT3R Relay 1, call the SAT3R and when it answers, key in **77 * 9**. (If 9 is Relay 1 Latch tone.)



SAT3R Central Station Operation

The SAT3 has a built-in data modem that will call a Central Station using the universal SIA 1 (“Fast”) protocol. Placing 2 pause commands (#, #) in front of the phone number will cause the modem to dial the number and connect with the Central Station equipment.

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User Note

SAT3R Feature

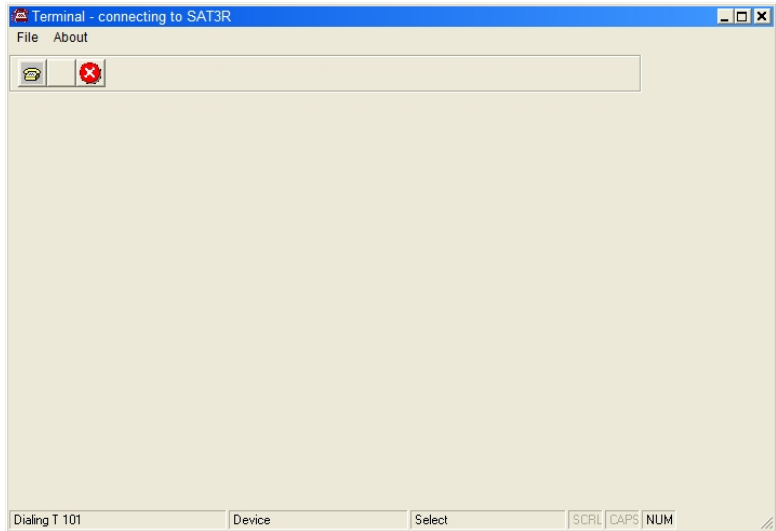
SAT3R Modem Operation

The SAT3R has a built-in data modem that will connect at 300 or 1200 Baud. Any modem terminal program that can call at 300 or 1200 Baud can call the SAT3R. The SAT3R screen formatting emulates a VT-100 terminal. After the SAT3R answers, it will transmit a "PASSW =" prompt. After connection, key in the 4-digit password and follow all menu prompts. The main menu choices and the secondary menu choices follow the same functions as normal programming either through a Touch Tone, or the optional SAT3R Programmer. For example, changing the password is Main menu choice 5 and sub-menu 5 and then the password, just like 55 and the password is, from the SAT3R Programmer or a Touch-Tone phone.

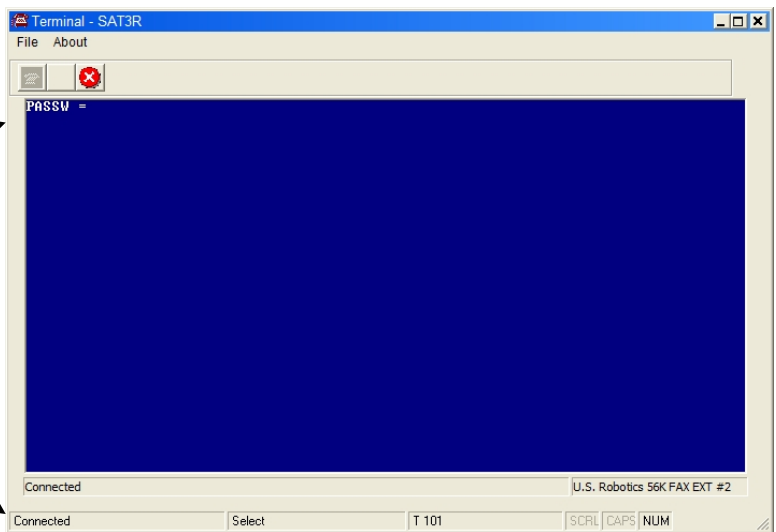
Call the SAT3R with a terminal program and a modem capable of communicating at 1200 or 300 baud, with no error correction or compression selected, in the modem parameters.



Dialing SAT3R →



SAT3R Password Prompt →

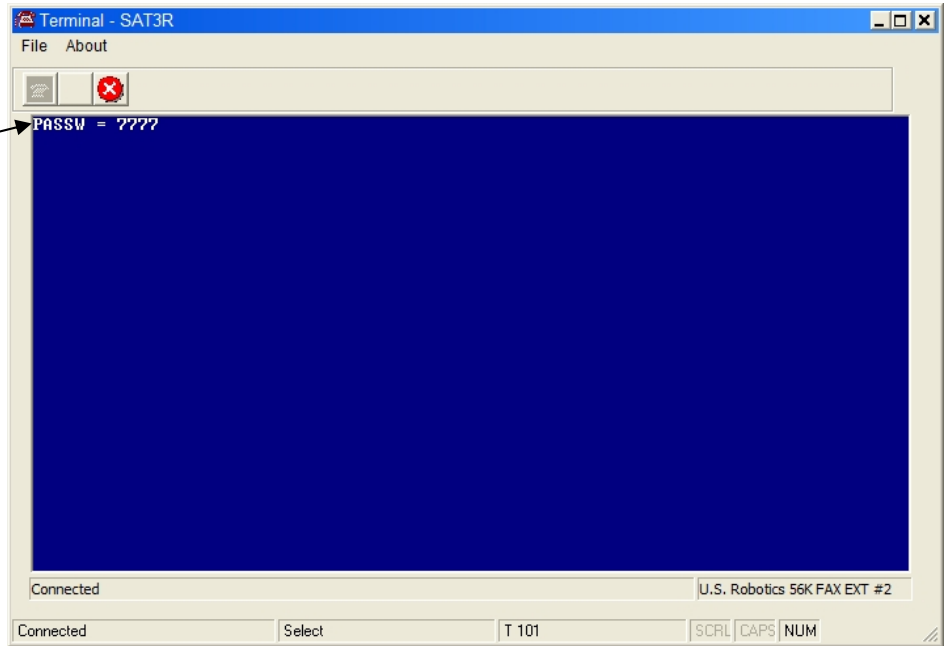


SAT3R connected →

I C O N K E Y	
	Valuable Info
	Be Carefull!
	Installers Note
	User Note
	SAT3R Feature

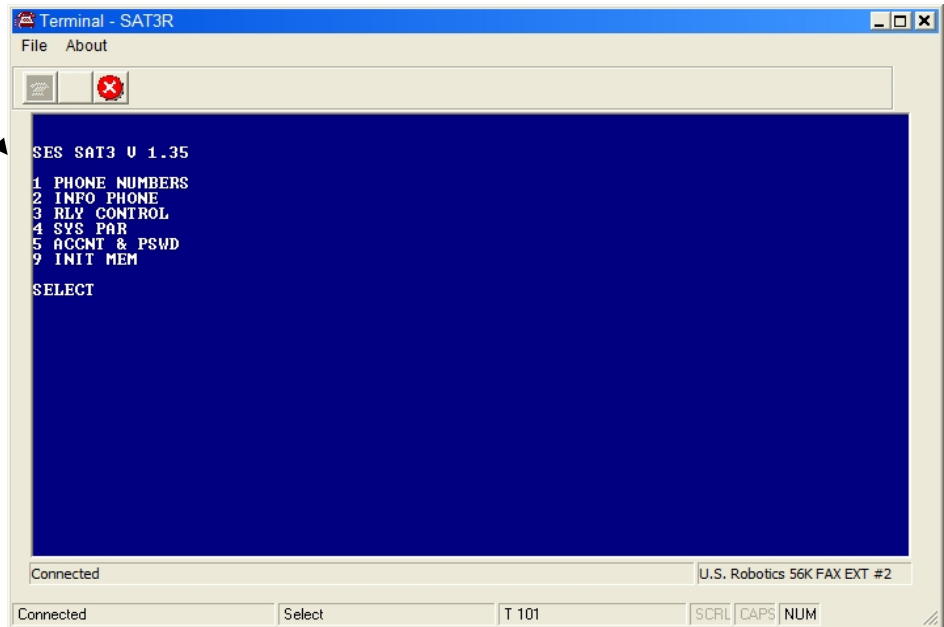
SAT3R Modem Operation (Cont.)

SAT3R password
Keyed in



Key in the SAT3R's password (factory default shown here) and press the Enter key. Everywhere the terminal screen prompts for a CR (Carriage Return) press the Enter key. You will see the following screen, showing SAT3R firmware version and menu choices:

SAT3R Main Screen



ICON KEY

Valuable Info

Be Carefull!

Installers Note

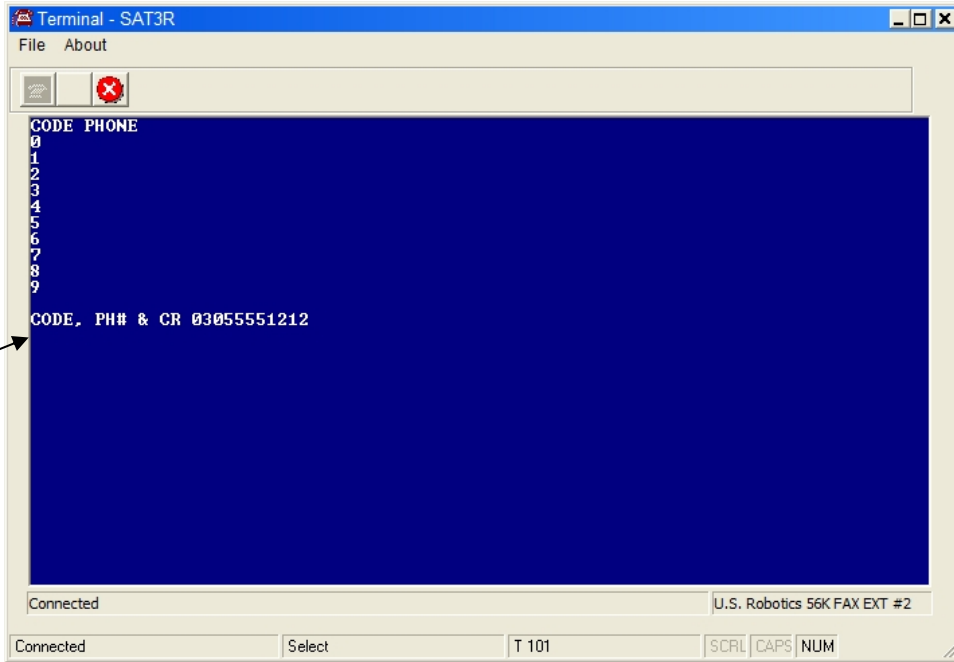
User Note

SAT3R Feature

To key in SAT3R phone numbers (up to 10) press the 1 key and the Enter key.

SAT3R Modem Operation (Cont.)

This will take you to the SAT3R phone menu.



SAT3R Phone number to dial in 1st location. (0)

To key in the first number for the SAT3R to dial, press 0, (1st code location) then the phone number (up to 16 digits) then the Enter key. Everywhere the terminal screen prompts for a CR (Carriage Return) press the Enter key. In this example, the code location 0 and the phone number 3055551212 was keyed in. This gives us the following result::



ICON KEY

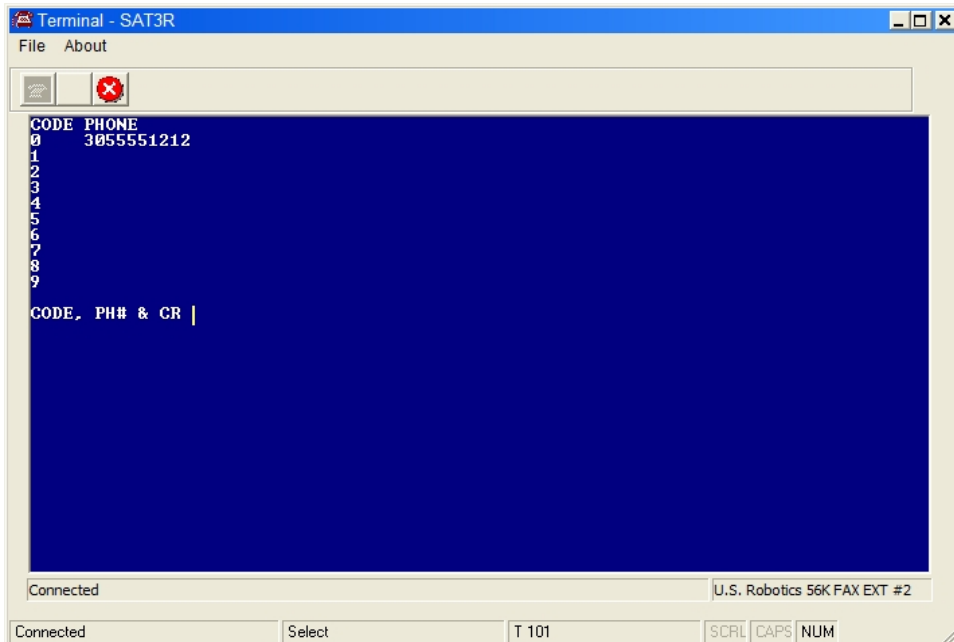
Valuable Info

Be Careful!

Installers Note

User Note

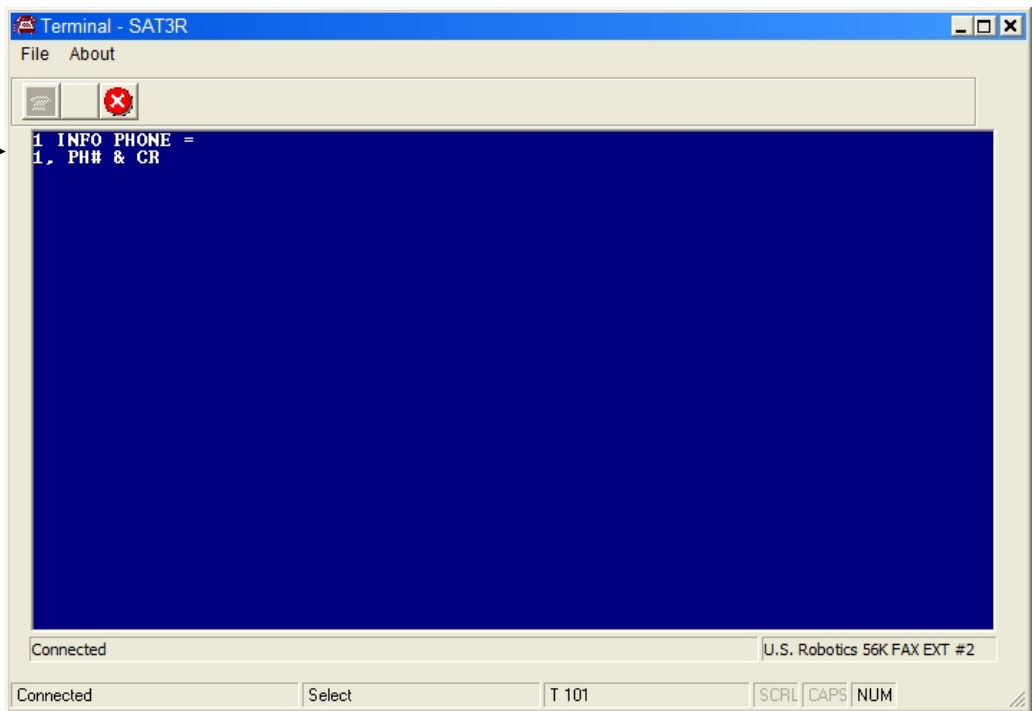
SAT3R Feature



SAT3R Modem Operation (Cont.)

Menu 2 (Info Phone) is used only on the (optional) 2-button SAT3R/D for dialing a single 16-digit number for further information or to dial a different location other than ones programmed into the 10 pre-programmed locations. The second button when pressed, will dial a single 16-digit phone number. This number may be used to call a non-emergency number for instructions, etc. This number will be dialed once and if not answered, or if the number is busy, the unit will hang up. The user must press this button again, to try again.

SAT3R Info Phone #



To program the Info Phone number, press 1, then the phone number (up to 16-digits) and press the Enter key.

ICON KEY

Valuable Info

Be Carefull!

Installers Note

User Note

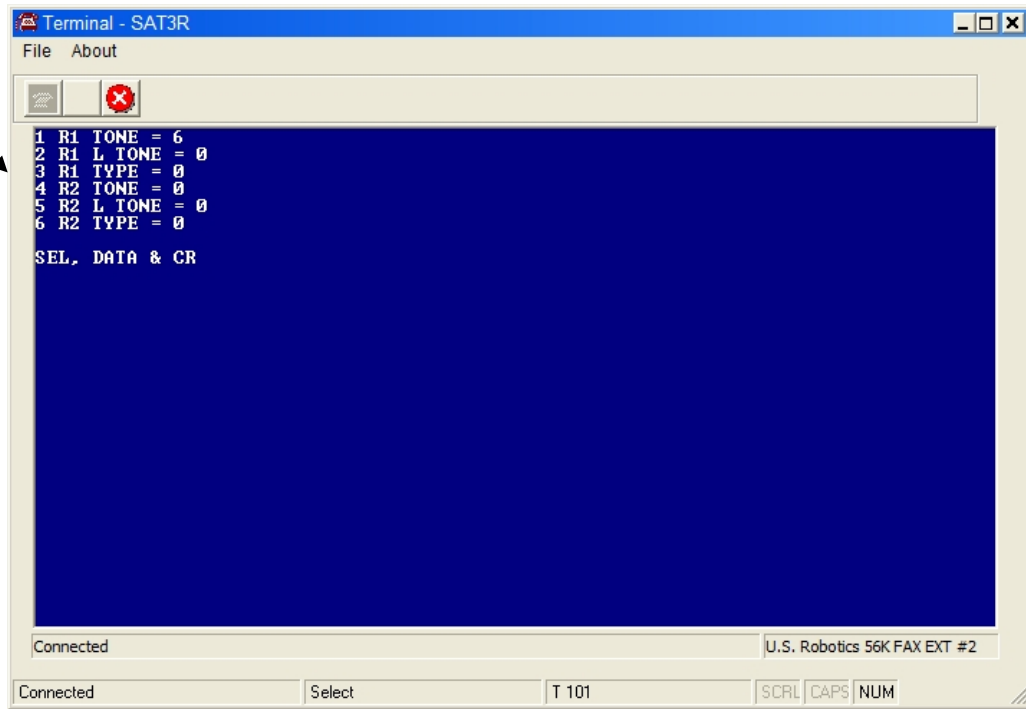
SAT3R Feature

SAT3R Modem Operation (Cont.)

Menu 3 controls relay choices. They are:

- 1) Relay 1 Open Touch-tone. (Pg. 9)
- 2) Relay 1 Latch tone. (Pg .10)
- 3) Relay 1 type (Pg .10)
- 4) Relay 2 Open Tone (Pg .10)
- 5) Relay 2 Latch tone (Pg .11)
- 6) Relay 2 Type (Pg .11)

SAT3R Relay Choices



The relay open times for Relays 1 and 2 are individually adjustable from 3 – 45 seconds, by adjusting the timing wheel on the SAT3R relay module as shown on Pg 25.

ICON KEY

Valuable Info

Be Carefull!

Installers Note

User Note

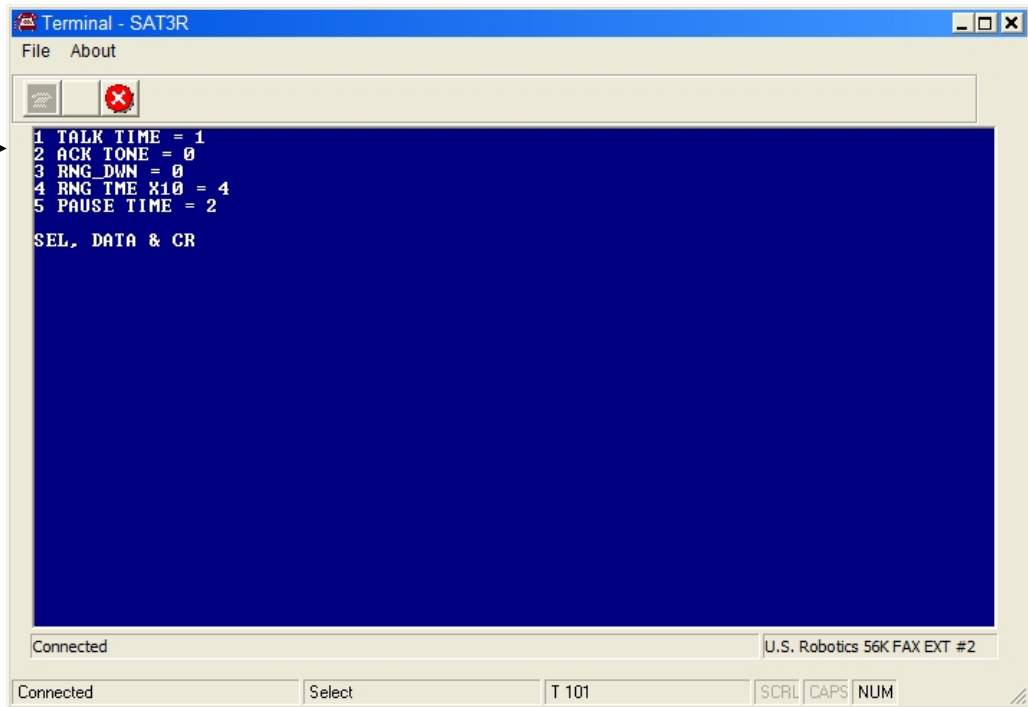
SAT3R Feature

SAT3R Modem Operation (Cont.)

Menu 4 controls SAT3R System Parameters. These are:

- 1) Talk Time from 1 to 9 minutes, or 20 minutes.
- 2) Acknowledge Tone between 1 and 9.
- 3) Whether Ring Down function is enabled or not.
- 4) Pause Time duration from 1 to 9 seconds.

SAT3R
System Parameters



Press the appropriate menu number, then the desired value, then the Enter key to set the parameters required. Factory defaults are shown above.

☺ User Note

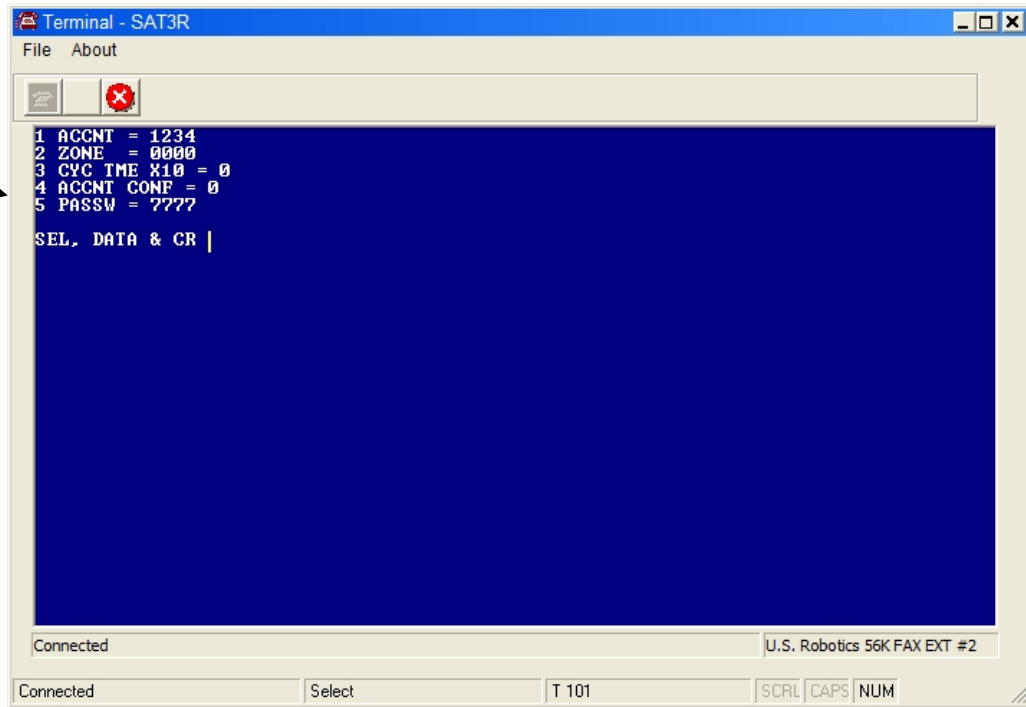
☎ SAT3R Feature

SAT3R Modem Operation (Cont.)

Menu 5 controls:

- 1) Account ID from 0000 – 9999
- 2) Zone number from 0000 – 9999
- 3) Account cycle time in second increments from 10 -90
(Key in 1 to 9.)
- 4) Account confirm. See Pg 7
- 5) 4-digit Password.

SAT3R Password
and Account ID



Factory default settings are displayed above.



ICON KEY

Valuable Info

Be Careful!

Installers Note

User Note

SAT3R Feature

Installation of SAT3R

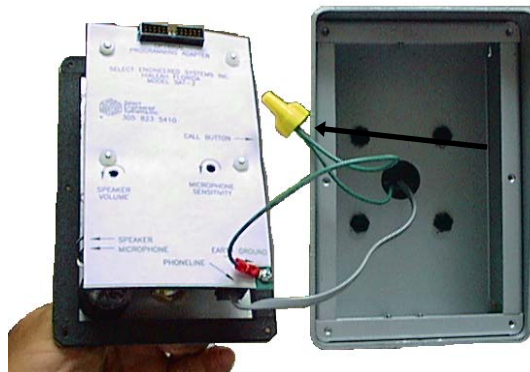
S AT3R Installation is simple and straightforward.

- ☞ 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 19.
- ☞ 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 SAT3R 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 SAT3R, AND THE SAT3R BACK BOX ARE GROUNDED TO GOOD EARTH GROUND.**



ICON KEY

📖 Valuable Info

☞ Be Careful!

☞ Installers Note

😊 User Note

☎ SAT3R Feature

🔧 Installation of SAT3R (Continued)



🔧 Connect the RJ-11 cable to the RJ-11 jack on the SAT3R. The RJ-11 cable must be attached to a standard telephone line with at least 25 ma of line current, or an analog port on a PABX switch having at least 24 volts and 25ma of line current.

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

🔧 Press the call button. If the SAT3R 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 SAT3R 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 SAT3R 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 SAT3R 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 sensitivity, (this is NOT a volume adjustment) call someone on the SAT3R. 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

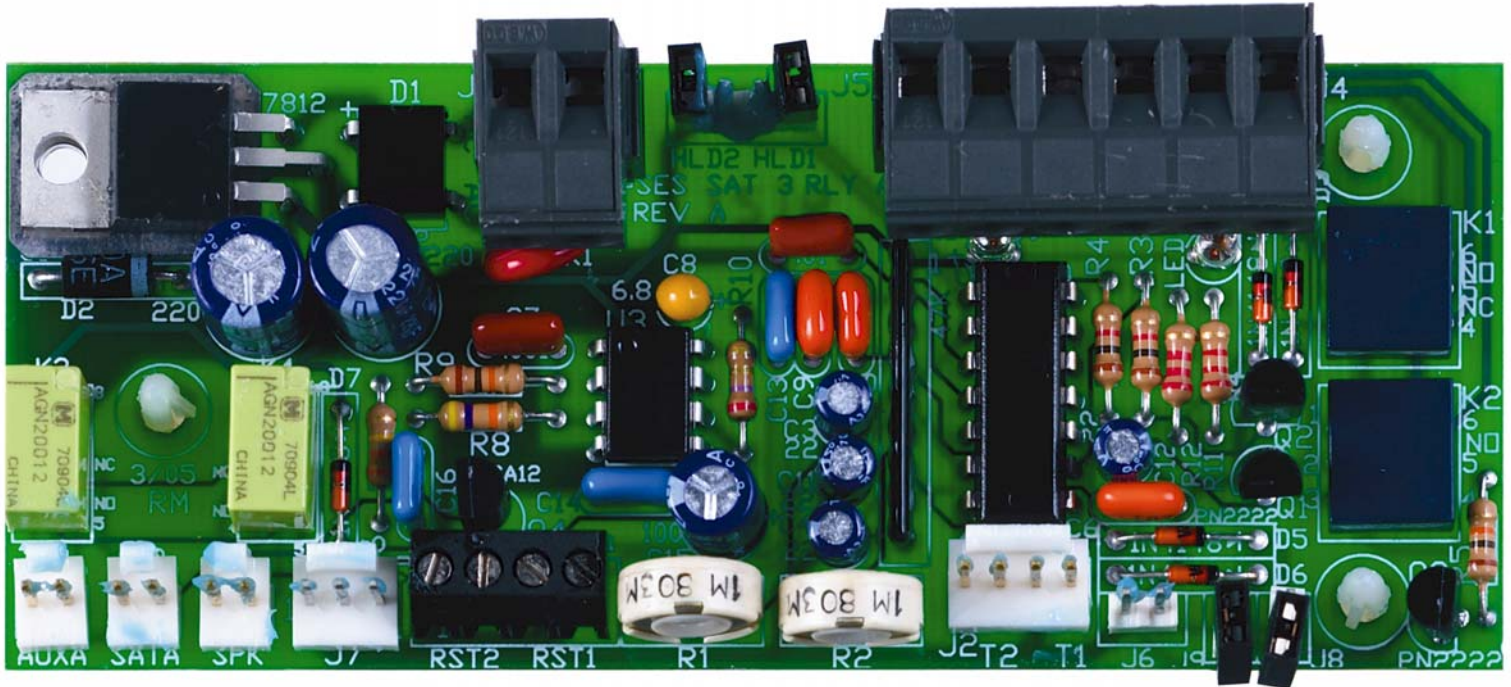
😊 User Note

☎ SAT3R Feature

Installation of SAT3R Cont

Relay Module Hook-up Diagram (Old Design)

12 VAC **Install jumpers** **Relay 2** **Relay 1**
 for Hold 1 & 2
 N C N N C N
 C O O C O O
 150 ma Hold 2 Hold 1 M M



25-Ohm Auxiliary Audio Input	Spkr. Conn. on PCB	To SAT3R Speaker	3-Pin Harness from SAT3R PCB	Release Hold For Relay 2	Release Hold For Relay 1	Relay 1 Time Adjust 3 - 45 Sec	Relay 2 Time Adjust 3 - 45 Sec	Relay Control Harness from SAT3R PCB	N/C Input to Activate SAT3R Relays 1 & 2	R R E E L L A A Y Y 1 2	Place jumper(s) on relay(s) to be activated by J6 N/C input.
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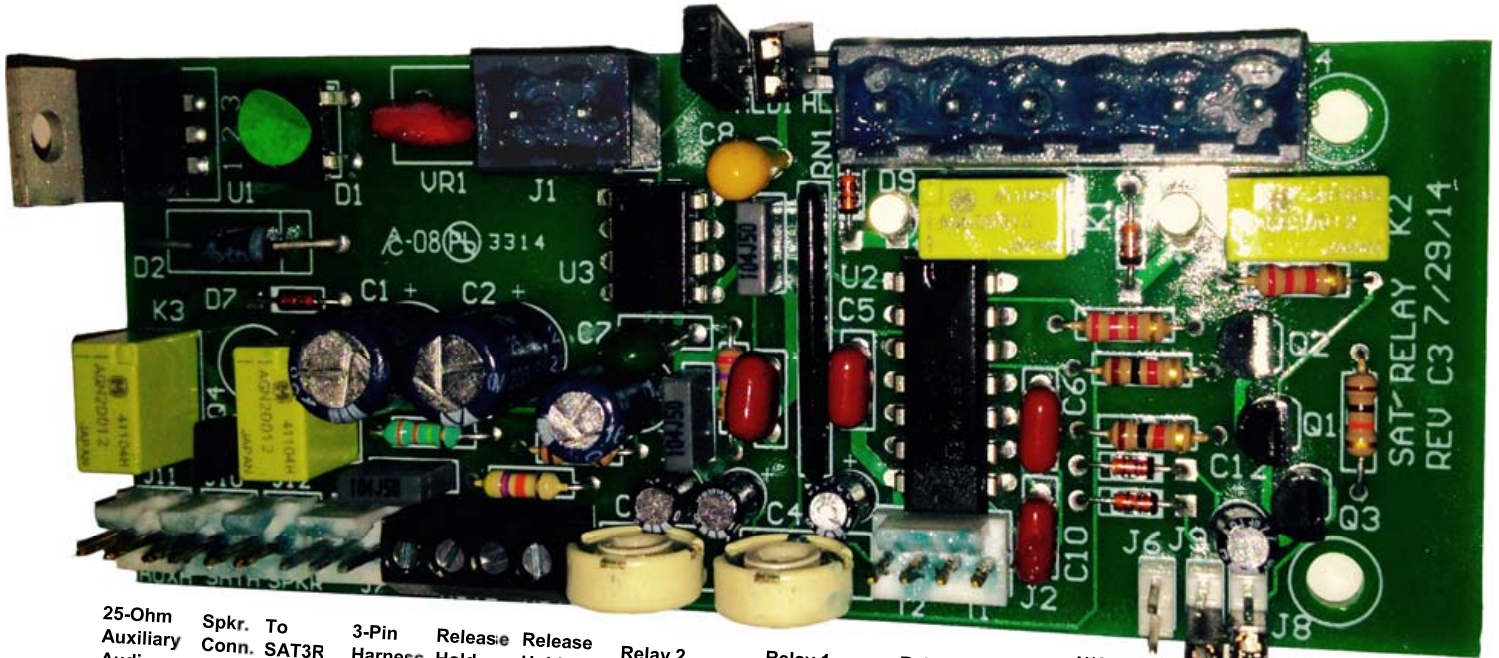
(Disconnects
when Call
button
pressed.)



ICON KEY	
	Valuable Info
	Be Careful!
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	User Note
	SAT3R Feature

Installation of SAT3R Cont Relay Module Hook-up Diagram (New Design)

12 VAC	Install jumpers for Hold 1 & 2	Relay 1	Relay 2
		N C N N C N	N C N
		C O O C O O	C O O
150 ma	Hold 2 Hold 1	M	M



- 25-Ohm Auxiliary Audio Input (Disconnects when Call button pressed.)
- Spkr. Conn. on PCB
- To SAT3R Speaker
- 3-Pin Harness from SAT3R PCB
- Release Hold for Relay 2
- Release Hold for Relay 1
- Relay 2 Time Adjust 3 – 45 Sec
- Relay 1 Time Adjust 3 – 45 Sec
- Relay Control Harness from SAT3R PCB
- N/C Input to Activate SAT3R Relays 1 & 2
- Place jumper(s) on Relay(s) to be activated by J6 N/C input

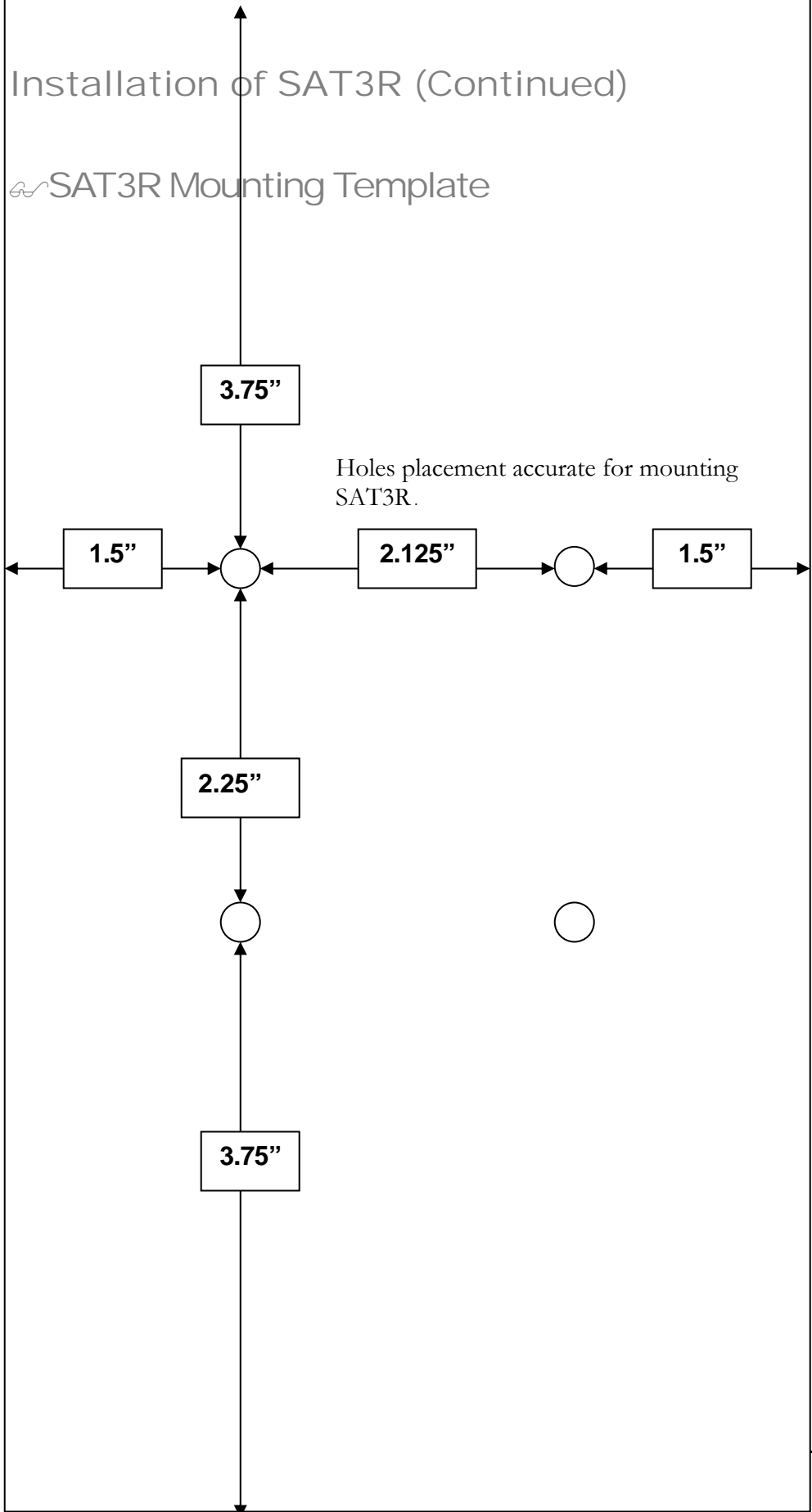
R
R
L
L
A
Y
1
2




- ICON KEY**
- Valuable Info
 - Be Careful!
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 - User Note
 - SAT3R Feature


Installation of SAT3R (Continued)

SAT3R Mounting Template



ICON KEY

 Valuable Info

 Be Careful!

 Installers Note

 User Note

 SAT3R 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 SAT3R 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 SAT3R is malfunctioning, it may affect the telephone lines. In this case, disconnect SAT3R 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 SAT3R 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 SAT3R 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

ICON KEY

Valuable Info

Be Carefull

Installers Note

User Note

SAT3 Feature

SAT3R Specifications:

Signaling DTMF (50 msec tone bursts)

Phone Line voltage 24 – 48 VDC

Loop Current 25 ma minimum

Relay Output: Dry contact relay 2A 48V maximum.

Normally open relay. Form C.

Number of relays: 2

System Connections:

Individual phone lines or PBX analog extensions recommended.

Temp. -20°F to +140°F (6°C to 60°C);

Relative humidity: 5% - 95% non-condensing.

Faceplate: Stainless steel

Weather resistant call button, microphone and speaker openings reduce damage from vandalism.

Water resistant 3½" speaker, water resistant microphone.

Technical tools required for basic troubleshooting and repair:

Lineman's Test Set (Butt set)


Digital Multimeter (capable of DC current measurements)


3/32" Slotted Screwdriver

#15 Tamper-Torx™ Security Bit



ICON KEY

 Valuable Info

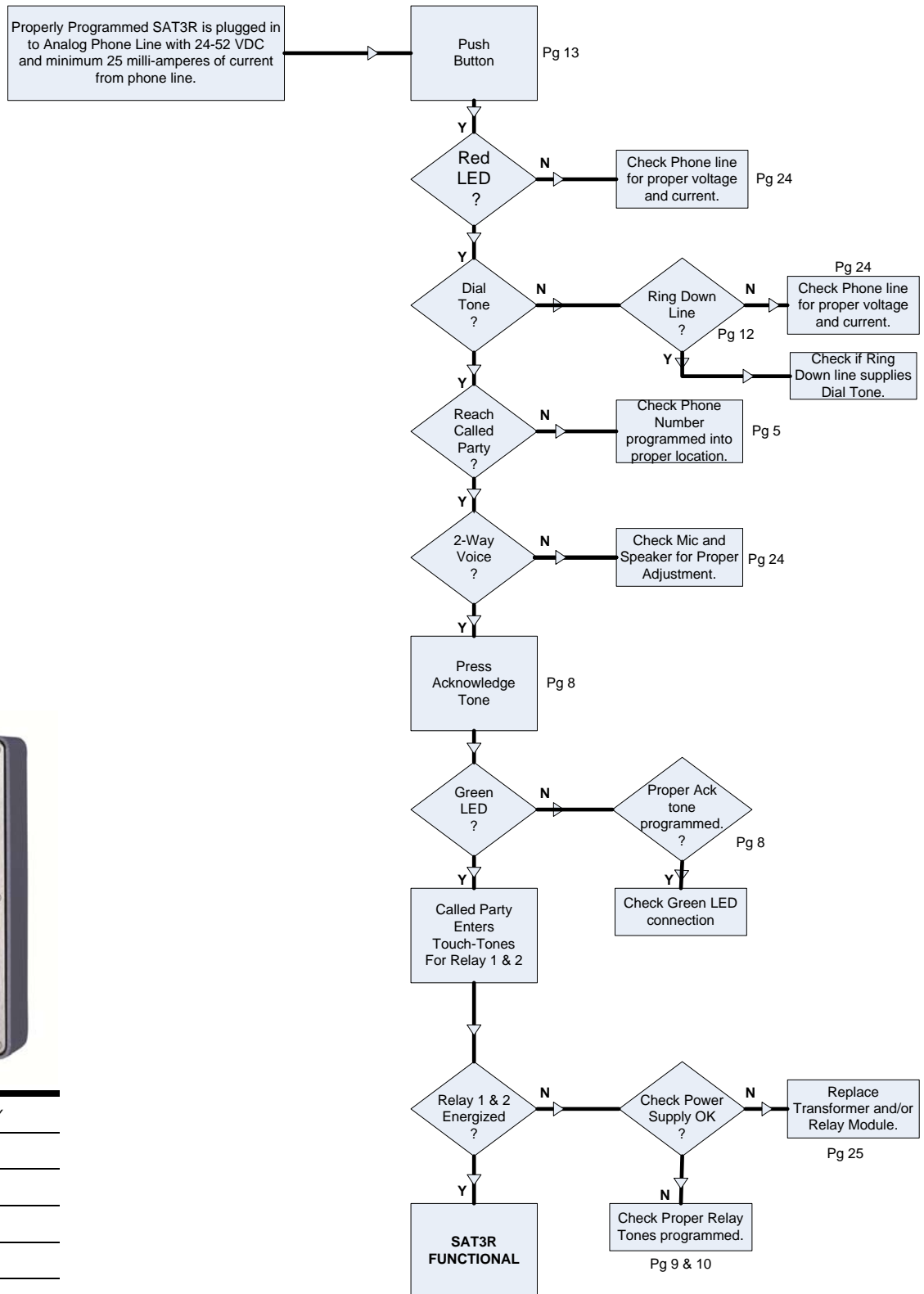
 Be Careful!

 Installers Note






 User Note

 SAT3 Feature

SAT3R Troubleshooting Flow Chart



ICON KEY

-  Valuable Info
-  Be Careful!
-  Installers Note
-  User Note
-  SAT3 Feature

SAT3R Programming Quick Guide

Menu 1 (Phone numbers)

- 10 + Phone # 1 + * (Up to 16 digits, including pause characters)
- 11 + Phone # 2 + *
- 12 + Phone # 3 + *
- 13 + Phone # 4 + *
- 14 + Phone # 5 + *
- 15 + Phone # 6 + *
- 16 + Phone # 7 + *
- 17 + Phone # 8 + *
- 18 + Phone # 9 + *
- 19 + Phone # 10 + *

Menu 2 (2nd Phone number for optional SAT/D & SAT3R/D)

- 21 + Phone # + * (Up to 16 digits, including pause characters)

Menu 3 (Relay functions)

- 31 + 1-9 + * Relay 1 Open Tone (0 = Disabled)
- 32 + 1-9 + * Relay 1 Latch Tone (0 = Disabled)
- 33 + 0 or 1 + * Relay 1 Relay Type
- 34 + 1-9 + * Relay 2 Open Tone (0 = Disabled)
- 35 + 1-9 + * Relay 1 Latch Tone (0 = Disabled)
- 36 + 0 or 1 + * Relay 2 Relay Type

Menu 4 (System Control)

- 41 + 1-9 + * Talk Time in Minutes (0 = 20 Minutes)
- 42 + 1-9 + * Acknowledge Tone (0 = Disabled)
- 43 + 0 or 1 + * Ring Down
- 44 + 1-9 + * Ring Time (In 10's of seconds)
- 45 + 1-9 + * Pause Time (In seconds)

Menu 5 (Account & Password)

- 51 + 4-8 digits + * Account #
- 52 + 4 digits + * Zone #
- 53 + 1-9 + * Cycle time (In 10's of seconds)
- 54 + 0 or 1 + * Account Confirm
- 55 + 4 digits + * Change Password



Menu 9 (Memory Initialization)

- 9 + 1 + 1 + * Sets ALL parameters to Factory Defaults
- 9 + 9 + 9 + * Hangs up SAT3

ICON KEY

Valuable Info

Be Careful!

Installers Note

User Note

SAT3 Feature

“BETTER TECHNOLOGY MAKES BETTER SYSTEMS”

Last Revision Date

09/15



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