

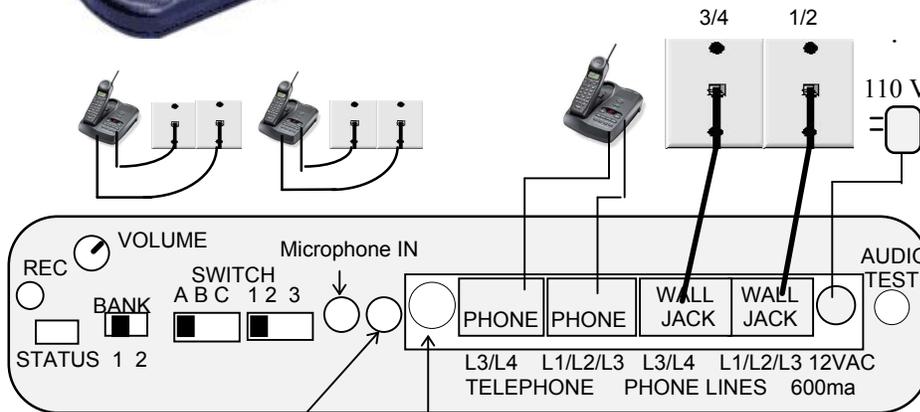


**All-In-One Music-On-Hold
Player/Recorder/Adapter
Model # SX8500** Rev 25.5

- Plug the included AC adapter. (110V AC to 12V AC)
- Confirm that all 4 Red LED lights in front of this unit are double **BLINKING**
- Use one of your telephones and unplug the cord for L1/L2 from it and connect it to 1/2/3 PHONE LINES jack on SX8500 (the 1st jack from 12VAC), now connect 1/2/3 TELEPHONE jack on SX8500 (3rd jack) to your telephone using the provided phone cord, make sure you have dial tone on your lines 1 and 2
- Now unplug the cord for L3/L4 from your phone and connect it to 3/4 PHONE LINES jack on SX8500 (the 2nd jack from 12VAC) and connect 3/4 TELEPHONE jack on SX8500 (4th jack) to your telephone using the provided phone cord, make sure you have dial tone on your lines 3 and 4
- Observe that as you connect the lines the blinking lights turn OFF. (on non existing lines the lights keep blinking and that is OK)
- Alternatively you may use a splitter (T adapter) at the Wall jack to connect both this device and a telephone (in that case the 3rd and 4th jacks are not connected)

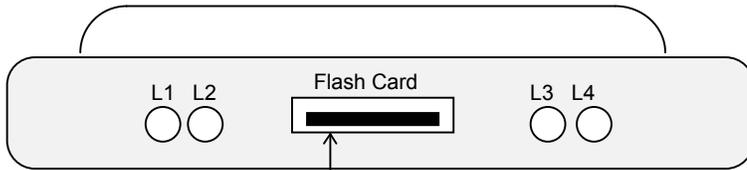


Please note: just one telephone may be connected to this device, other telephones remain connected to their own wall jacks.



Audio IN for recording to flash card

External audio: digital player, Radio, CD player, PC speaker (when flash card not inserted)
Audio from Flash card (if flash card is inserted)



Only the MX9008 style flash cards may be inserted here.

If you have SX8500-4 model you must upgrade it to SX8500 before it can use a Flash card

- Set the volume to mid level.
- If your order included the Flash card insert into the blue connector in the front of unit (the Green status LED in the back of the unit will turn ON) other wise connect your audio source to External audio source jack above (digital player, Radio, CD Player, PC, etc.)

Connection Test: To confirm that you have connected everything correctly, select line 1 on the phone, confirm that L1 Red LED on SX8500 turns ON then press the L1 Audio Test button to hear the audio. Double check your connections or adjust the volume if needed.

Switch setting: *Please Read the Operation instructions for each setting carefully*

There are two 3 position switches on the SX8500 that control the activation method, you need to select the proper setting based on your type of phones:

A1, A2, A3: Hold button activation

Use one of these settings when all phones are corded & are same model (for example all are ATT 984) and are compatible with Hold button activation (see the list in page 3) for GE 2-9487GE2-A, GE 2-9488GE2-A & RCA 25403 use the B3 setting.

B1, B2: These two settings utilize **Flash then Hold** activation method, this setting supports any phone and any mix of brands with instant activation after you press the Flash then Hold

- Use B1 or B2 settings if your phones are Cordless type (including corded base station + portables)
- If you have mixed cordless type phones with corded type phones
- If you have corded type phones that are not all the same model for example ATT brand and Panasonic brand are both used in your office
- If you have non compatible corded phones (for example ATT 962 or ATT 972 or Casio phones)

C1, C2: Voice Activation Mode These two settings utilize **Delayed Hold activation** method, most phones cordless or corded or mixed can be activated for music on hold in less than 15 seconds after you press HOLD.

There is also:

C3: Hold button activation or Flash See page P5 for full details.

IMPORTANT NOTE: The audio may activate in the middle of a call due to factors like excessive wiring (see page 12 item 8), bad or old wiring, existing unstable lines, sparks, too many wall jacks, Noisy phone lines, Bad telephones, "Hot Lines" (see P6 special cases)

If that ever happens, press the **FLASH** button to stop the audio! and continue your conversation. The **FLASH** button is found on every telephone, it could be labeled as **CALL WAIT / FLASH** or **LINK** or **ON** or **TALK** button

Audio Test on Line 1:

select L1 on your phone and press the **Audio Test** switch located next to power connection.

Adjust the volume to mid level to hear the audio.

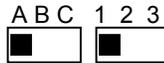
Note1: You can not perform audio test on lines 2, 3 or 4

Note2: Do not set the volume too loud it may flicker or shut off the on-hold audio.

Note3: Do not use a Cell phone to setup or test the device. Use a fax line, etc.

Operation in Hold activation:

Hang up and set left switch to A position



Start with A1, make or receive a real call, the LED on the SX8500 turns ON solid, then simply press the **HOLD** button on your telephone, the Music will be heard to the caller and the LED on the SX8500 will start to BLINK , to return to the call just re-select that line. (Be sure to allow 1 or 2 seconds before putting a call on HOLD). If it did not work hang up and try it again 2 or 3 times.

A2: if after 2 -3 times it is not working hang up and change the switch to A2 and try it 2-3 times. **A3:** this setting works better on smaller offices with just a few phones, it is not as powerful as A1 or A2, if your phones work fine in A3 just leave it in A3.

Deactivating hold music manually If for any reason the hold music is activated inadvertently, it can be deactivated by pressing the **FLASH** button

The following are examples of phones that work in B1, B2 or C1,C2,C3 settings: American Venture, ATT 962, ATT 972, Casio any model , Airway 2 line, Airway 4 line, Panasonic KX-TG 2000B, KX-TG4000B, KXTG2000, KX-TG2720, KX-TG2730, KX-TG2740, KXTG4000, KX-TGA200, KXTGA400, KX-TGA420, SBC 410,

List of corded phones compatible via Hold Button activation:

Please note: This is a partial list, there are other factors relevant to activation via Hold button in these settings-see the trouble shooting section or special setting, If your phone is not on this list try it any way or use the B1, B2 or C1, C2 settings. B1, B2 works on all phones.

AT&T: 21070, 262, 272, 412, 422, 4952, 612, 622, 712, 722, 732, 742, 752, 812, 822, 830, 832, 842, 843, 853, 854, 874, 902, 912,922, 944, 945, 952, 953, 954, 955, 964, 974,984, 982, 992, SIGNATURE, FT483

Brother Quatro: 412

Bell: 223, 232, 259, 261, 268, 367, 470, 52905, Sonacor 412, 412CID, 4900, BE5200, BE5300, Techline 420

Bell South: 225, 420 (these phones are guaranteed compatible via Hold button, these phones are also sold at <http://www.invotel.com>)

GE: 187, 2-9315-A, 2-9318, 2-9435-A -B -C, 2-9436-A, 2-9438-A, 2-9450-A -B -C -D -E -F, 2-9439-A to -EGL, 2-9451A, 2-9481, 2-9487GE2-A, 2-9488, 2-9638-A, 2-9975, 2-9488GE2-A

IBM: 412, 412CID, 4900

Northern Telecom: Unity

Phonemate: PMG-4600

Panasonic: KX-T3110 3120 3122 3135 3145 3155 3160 3165 3170 3175 3280 3980-H 3980-R7 3981, KX-TC930, KX-TS20, KX-TS21, KX-TS25, KX-TS27, KX-TS208, VA-8400

Radio Shack: 206, 208, 209, 210, 212, 411, 412, 612, 43-373D, 43-430, 43-642, ET-180, 43-470, ET-184, ET-192, ET-193, 43-622, 43-469 , 1710, 1753

RCA 25403 RCA, 25413 RCA-2, all models.

Sony: IT-M804

SBC: 2105, 4000, 225, 420

Southwestern Bell: FT325, FT360, FT365BL FT383, FT412, FT483, FT484

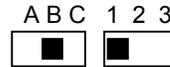
Sprint/Radio Shack: SP-702 / 43-5702, SP-705

TT Systems: 4012, 412, 412CID, 4900, 4300, 5100, 5200, 5300, 7993

Vtech: 4121

Operation in B1, B2 settings:

Hang up and set left switch to middle and right switch to left



To activate: press **FLASH** then **HOLD**

To deactivate just re-select that line and press **FLASH**

Voice Deactivation: if the call has been on Hold at least a few seconds, it can also be deactivated by just **speaking** over the Audio for example say : **“Hi I am Back”** .

If for some reason you are not able to voice -deactivate, try speaking a little louder and more direct into the microphone, if that does not work hang up and set the switch to **B2**. Remember you can always use the Flash button to deactivate the audio as well.

Want to use just one button ? Press **FLASH** to activate MOH and when ready to go back to caller just speak over the audio!. Or press Flash again. Note: this does not hold the line so the other party may still hear you, set the volume louder to mask it.

In **B1** or **B2** or **C3** settings the Flash button is used in order to activate the audio so if you have any service such as: Call waiting , 3 way calling, Centrex Call Transfer

Use **FLASH** **FLASH** to access an out side line or to answer a call waiting call etc.

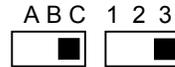
Example 1 (B1 or B2 settings) to take a call waiting call press **FLASH** **FLASH**

Example 2 (B1, B2) to make a 3 way or conference call press **FLASH** **FLASH** you will get a dial-tone now dial the desired phone number & press **FLASH** **FLASH** to join the two calls together.

NOTE: If you have **“Call Waiting”** service, only one call may be placed on Music-On-Hold, the other call is held in the phone company central office in silence not in your office.

Tip: If you have audio flicker problem , Reduce the Volume

Operation in C1, C2 or C3 settings:



C1 and C2 use “**voice activation**” method, this mode of operation supports most phones or brands by just using the Hold button but with slightly longer activation time (about 10 to 15 seconds after hold is pressed)

In “**Voice activation**” mode, the device needs to hear you well therefore speak as close as possible to the microphone. If you are on a speakerphone or using a headset speak clearly and louder into the microphone. Be sure to read the NOTES in this section.

To **activate**: after you receive or make a call, you need to speak and say something before pressing the **(HOLD)** button. Audio activates less than 15 seconds later and the corresponding L1 ... L4 light on this device will start blinking.

To **deactivate** hold music just re-select that line and **Speak Over** the audio, for example say : “*Hi I am Back*” , the moment the device hears it will stop the hold-music.

Note: You may also deactivate the hold-music audio by pressing the **(FLASH)** button.

NOTE1: If you hear a Low Volume audio during your conversation , say something to prevent full volume hold music activation, this can happen if you or your party are not talking to each other for about 7 seconds.

NOTE2: If for any reason the hold music is playing, do not panic, simply speak over the audio to stop it or press FLASH to stop it.

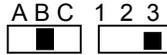
C2: If for some reason you are not able to voice activate or voice -deactivate, Hang up and set the switch to **C2** then try again following the above instructions.

C3: In this switch setting to **activate** the Hold music press **(FLASH)** then Hold or just press the hold button (if you have a phone which is compatible to hold button activation -see page P3). This mode is useful when you have Mix of phones that some are compatible with Hold only activation and some activate via Flash then Hold.

To **deactivate** hold music re-select that line and press the **(FLASH)** button. If it is a compatible phone it will automatically deactivate hold music. In C3 mode of operation the flash button is being used, so be sure to read the examples related to call waiting in page P4 if you have call waiting service or need to make 3 way callings etc.

Tip: If you have audio flicker problem , Reduce the Volume

Other settings:



for **GE 2-9487GE2-A** , **GE 2-9488GE2-A** and **RCA 25403** phones use the B3 setting and follow the instructions on page 3 it should work by just pressing the HOLD button, if still it did not work use the B1 or B2 settings Via Flash then Hold-see page 4 for full details, these two models of GE phones beep every 3 seconds and do not work in C1 or C2 settings.

Special Case: If audio activates suddenly in A1 or A2 switch settings , your lines may be “too powerful” Try A3 setting.

Digital Player Advanced Features:

Player /repeater with full recording capability
Dual Banks
Dual function Input /Output 8Ω

Package Content:

SX8500 Digital Player/Recorder/adapter unit
Power adapter 110v AC to 12v AC 600 ma
3.5mm male to 3.5mm male audio cord 6'
2 Rj-14 phone cords
User's Manual
MX9008 or MX9017 True Audio Card (optional)

MX9008 “True Audio Card”

The MX9008 is a Flash card usually pre-recorded with the audio prior to your installation and it holds the audio all the time even if power is removed. When the power is restored the play back automatically resumes from the MX9008 card. To re-install the MX9008 card or install another MX9008 **just remove it and then plug the new one in**. This device is designed for automatic player turn OFF once the flash card is removed, and it automatically turns ON in 2 seconds when the flash card is re-inserted. If you had any trouble remove the power by un plugging the AC adapter from the player, Install the new MX9008 card, then apply the power.

Unlike other Flash based cards that compress the audio, voice and audio signals are recorded directly into solid state memory in the MX9008 card in their natural, un-compressed form, providing superior quality voice and music

Message Duration: There is a total of 8 minutes 20 seconds available for recordings of Bank1 and Bank2 with MX9008 card and 17minutes with MX9017 card.

BANK Selection: There are 2 Banks in SX8500, BANK1 & BANK2 - one Bank holds the primary audio file, the other BANK holds the extra audio file(optional) such as “Holidays”, special events, weekend special sales, promotions, etc. You can switch from Bank1 to Bank2 or vise versa any time via the BANK selection switch.

If you have SX8500-4 model you must upgrade it to SX8500 before it can use a Flash card

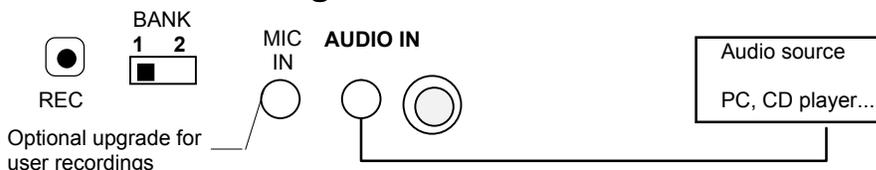
Adjusting Output VOLUME

If the On Hold audio volume is too low turn the VOLUME control clockwise; If it is too loud turn the VOLUME control counter clockwise to desired level.

Dual function input/output RCA jack (8Ω)

If the Flash card is inserted, the bigger (RCA jack) is output for external use as well as being used internally for the adapter. To connect a speaker to this jack be sure to use a 5 inch or smaller speaker to avoid overloading the out put beyond it's limits. If the Flash card is removed, the built in digital player turns OFF and this jack is used as "input" for connection to an external audio source like digital player, Radio, CD player. PC, etc.

Manual Recording: Connecting to an external audio source:



Connect the Audio IN jack to your audio source speaker or headphone jack using the 3.5mm to 3.5 mm audio cord. Select the bank you want to record

1. Press REC to stop the playback, GREEN/ RED STATUS LEDs Blink ON/OFF continuously.
2. Start your music/audio, email MP3 file etc. Recording starts **automatically** (or you may press REC to start recording manually if you prefer)
3. RED STATUS LED light turns ON solid to indicate recording in progress.
4. Recording stops automatically after 15 seconds of silence in the end of recording, the unit then removes the silences and resumes playback operation. (You may also press REC to stop recording if you prefer to control it manually). RED Status light turns OFF and Green Status will turn ON.

Automatic Start / Stop: This feature on SX8500 allows you to **just start the audio and walk away, no need to watch the unit for end of recording.**

The device automatically starts it's normal playback, and will play what you just recorded repeatedly. If you need to re-record repeat the above steps.

If you have SX8500-4 model you must upgrade it to SX8500 before it can use a Flash card

Manual BANK2 Recording:

The SX8500 model has dual banks and a Bank1/Bank2 switch for immediate playback of bank1/bank2 by just flipping the bank switch, the total default recording time on the MX9008 is 8 minutes (17 minutes on the MX9017), you must 1st record bank1 before recording in bank2 so for example if your Bank1 recording is 3 minutes long then Bank2 can be used for a second production of up to 5 minutes duration.

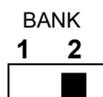
Flexible duration: Bank2 addressing is not fixed, you can record any duration in BANK1 and any duration in BANK2 as long as the total is 8 minutes or less(MX9008) or is less than 17minutes if you are using the MX9017 Flash card.

Examples of recording for the extra bank are “Holidays”, special events, sale promotions, etc. The SX8500 automatically calculates the Bank2 start point when you finish recording BANK 1.

You need to record BANK1 1st Before you can record BANK2
after you finish recording bank1, the SX8500 automatically calculates the bank2 starting point

To record into Bank2:

set switch to BANK2



and do the same 4 steps
as recording in BANK 1

The device automatically starts it's normal playback, and will play what you just recorded and will keep repeating. If you need to re-record just repeat the 4 steps. During the playback you may flip the switch to Bank1 or bank 2 any time and device will play back that bank repeatedly.

Frequent production recording tip: If you need to re-record the Bank1, then you need to re-record the Bank2, therefore we suggest to keep the production that is not changed frequently in bank1 like “holidays recording” and the main production in bank2, so you only need to re-record bank2 each time you update.

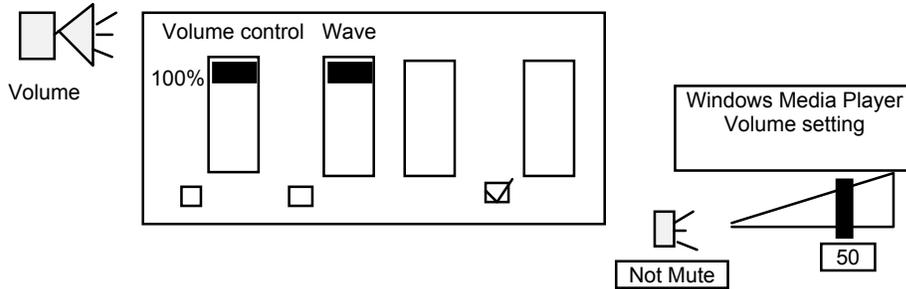
(please note some music titles are not royalty-free and you may want to use the royalty-free music titles to avoid annual licensing payments to ASCAP and BMI for playing those titles on-hold)

Automatic Email Recording: (This feature is available on SX8500E only)

SX8500E is the 1st device in the world with an exclusive feature: “It can be automatically recorded by playing an email”. The production audio emailed to you from your dealer contains a “coded noise file” that automatically activates & then stops the recording process (The RED Status LED light indicates recording is in progress, the noise codes themselves will not be recorded), all other audio that you play on your PC will not effect the SX8500E.

Volume setting for recording

The recording volume is directly effected by the volume setting on your PC, we recommend you set the volume to about 50% level. Please note your PC volumes is adjusted as follows: Double click on speaker symbol (located on lower right hand side of your screen) and set the Volume control and Wave to 100%, but the Media player to 50%



Note on PC audio connection: You may use male to female extension audio cords or other methods if you need to extend the length of the connecting cord (Maximum audio cord length 500 feet)

Automatic CD recording (CD Auto Load):

(This feature is available on SX8500E only)

SX8500E can automatically be recorded from a PC CD ROM drive or a CD player, Just insert the CD you received from your dealer into the CD ROM drive of your PC or insert it into your CD player (volume mid level), press the play button on the CD player and walk away. The CD contains a code that starts the recorder in SX8500E (RED Status LED turns ON) and then stops the recorder, the LED Green Status turns back ON and play back resumes. The CD player stops on its own.

Optional “Instant Messenger”™ (INSTANT USER ADVERTISEMENT)

This exclusive exciting feature on SX8500, allows you to record a short message (maximum 15 seconds) in your voice to automatically playback at 30 seconds intervals during the playback of your normal production audio of Bank1 or Bank2. For example:

“We interrupt this to make this special announcement, the sale special pricing ends this Friday, be sure to ask your representative about it...”

You may edit, update, phase or delete this information at any time quickly without a need for a PC connection, any external software or wait for a production update. It is a “Plug & Play operation in seconds.

This Add On Module plugs into the MIC IN jack and allows personalized messages complete with **fade in/ fade out**. You have the choice to allow your normal production to play continuously or let it be intercepted every 30 seconds with your own special announcement.

You must have purchased the MIC/Headphone option in order to use this feature, For more information on this option or purchasing the upgrade, please contact your dealer/ re-seller or Invotel.

Player Specifications

File Formats supports any sound file format such as Windows .wav, MP3, WMA, etc.

Frequency response 20Hz to 20 KHz.

Sampling rate 8-bit/16-bit uncompressed PCM @ 8, 11, 12, 16, 22, 24, 32, 44 & 48 KHz

Distortion less than 0.1% THD

Audio Quality supports better than CD Quality at 188 KB/s

Special effects: supports Windows Media Files and SRS WOW Effects

Memory Capacity 1 to 16 minutes (8 minutes 40 seconds @ full 188 KB/s sample rate).

Memory Type Multi-level Flash, 100 years retention time at no power, 100K re-recordable

Playback auto-repeat

Message loading Email load, automatic via playing the email; CD load automatic

Power supply 110VAC 60 Hz. To 9VAC 100ma

Audio output 1000 mili watts, Mono RCA , 2V p-p @ 8Ω 4V p-p @ 600Ω, 8V p-p @1200Ω

Size 5.5" x 4" x 1.5" (L x W x H) **Color** Black, or metallic blue

Weight 1.00 pounds (1.50 pounds with power supply)

Warranty

This product is warranted against defects for a period of five (5) year from the date of original invoice. We will repair/replace the Product with no charge for parts or labor within this time. To obtain warranty service the Product needs to be returned freight prepaid by the customer with a copy of original invoice. This warranty does not apply if in the sole opinion of Innovative Telecommunication Technology LLC, the product has been tampered with or damaged by lightning or any other acts of nature, misuse, neglect or unauthorized service.

EXCEPT AS SPECIFICALLY PROVIDED IN THIS AGREEMENT, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A SPECIAL PURPOSE. IN NO EVENT SHALL INNOVATIVE TELECOMMUNICATION TECHNOLOGY LLC BE LIABLE FOR LOSS OF PROFITS OR BENEFITS, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHERWISE ARISING FROM ANY BREACH OF THIS WARRANTY OR OTHERWISE.

Trouble Shooting:

Problems	Possible Cause / Solution
1. Adapter not working or stopped working	Unplug the 12VAC plug from the back of the Invotel adapter and unplug the phone lines; Wait 60 seconds then plug them back in, make sure the AC adapter is plugged in securely.
2. Adapter does not activate or stopped activating	telephone was changed or power failure - <u>do as above</u> , then select L1, L2, L3, L4 making sure that dial tone is there.
3. Red LED double blinks ON then turns OFF on some lines	Some phone Lines are removed from MOH adapter or do not exist. on non existing lines the lights keep blinking and that is OK) Un-plug phone lines for 5 seconds and plug it back in .
4. No Audio or Audio not Loud enough	Select the line 1 on the phone and push the Audio Test button located in the back of unit to hear the Audio, adjust the volume if needed to hear it. Check the flash card, Unplug -Plug back IN.
5. Audio Test is OK but no audio when Hold is pressed in <u>A1 A2 or A3</u> settings.	<ul style="list-style-type: none"> • If answering a call allow 1 second before pressing Hold. • You may need your "Local service" with the dominant phone company in your area (not 3rd party local service) • Is your location within city limits? are all your phone numbers DSL qualified? your location may need to be close enough to your phone company's central office to guarantee for Hold button activation. That is why some discount phone companies service does not work even though you have compatible phones for Hold activation. If so you need to use the device in B1 or B2 setting via Flash then Hold or C1, C2 settings with delayed activation. • Some telephones need other settings via Hold(see page 6). • Try the unit in B1,B2 or C1,C2 or C3 settings.

DSL: If you have DSL line, this device needs to be installed after the DSL filter (otherwise internet may not work properly)

VOIP/Vonage: if you have D-Link VTA-VD phone adapter, you must use single line phone cords to connect it to SX8500

Problems	Possible Cause / Solution
6. MOH works but audio does not stop when call is picked up in A1 or A3 settings.	<ul style="list-style-type: none"> • Wire distance to adapter is too long, Centralize the location of device to be as close as possible to all the phones. Try the A2 setting. • If you are re-wiring “daisy chain” wiring works better than ” star” or “home run” or Independent wiring • Press FLASH button to stop the music.
7. Some Phones work , some do not	<ul style="list-style-type: none"> • All your phones need to be similar model for activation in A1...A3 settings. If you mix different phone models, Use the B1, B2 settings or Voice Activation in C1, C2, C3 settings. Refer to pages 4 or 5 for more details.
8. Randomly Hold music starts to play by it self or does not activate in A1, A2 or A3 settings	<ul style="list-style-type: none"> • The call needs to be on Hold min. 2 sec. before you may pick it up. • When you hang up, wait 2 seconds before selecting the same line again. • Check for extra devices sharing that line like Message indicator, Answering machine, Alarm system, Modem etc. Use a “privacy module” between the line and that extra device to keep them off the line when line is being used by your phone. • Set your Alarm system and/or your DSL line to share FAX line. • <u>Excessive wiring</u>- Total wire length per line must be under 500 feet (Ex: if you have 9 wall jacks -no matter spare or a phone plugged in- each connected via a 100 foot wire to a common point then your total wire length is 9 x 100=900 feet) • Use FLASH button to deactivate music.
9. Audio shuts off or flickers	<ul style="list-style-type: none"> • Extensive audio volume. Lower the volume to proper level.
10. Hold Music activates in a conference call or when two phones pick up at same time	<ul style="list-style-type: none"> • If for any reason the hold music is activated inadvertently, it can always be deactivated by pressing the FLASH button in any setting. • Conference calls can be done a better way: Press FLASH, you will get a dial-tone now dial the phone number of the 2nd party then press FLASH to join the two calls together.

If you have SX8500-4 model you must upgrade it to SX8500 before it can use a Flash card