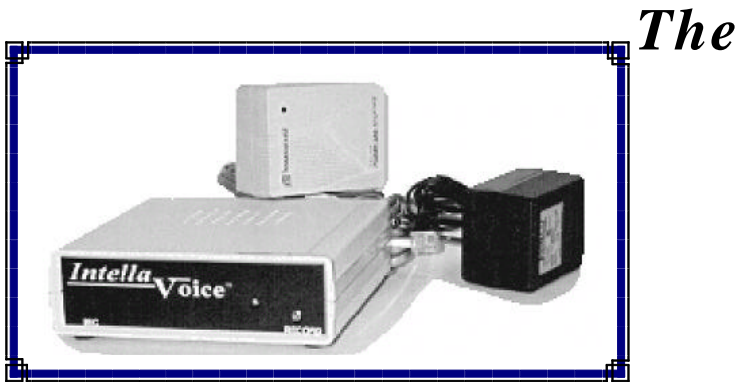# *Intella*Voice™

First Stand Alone
X-10 Message Controller

"Now Every Automated Home Can Speak"

By
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Produced in the United States Of America

Intella-Home Inc reserves the right to make changes to its products or specifications at any time, without notice, in order to improve performance and supply the best possible product.

Intella-Home Inc assumes no liability nor responsibility for the use of its products or any losses or damages resulting from its use.

NOTICE: *IntellaVoice* may be used to complement, **not** replace, the warning device of any alarm application. As all X-10 users know, line noise and other factors may at times interfere with signal transmissions. It's not reasonable therefore to expect 100% perfect operation.

THEORY OF OPERATION

*Intella*Voice was created to allow the owner of a
X-10 based automation systems, the ability to
create custom announcements, in their own voice,
to accompany selected key X-1 0 commands.
Announcement lengths can be from one 120
second message, up to thirty-two nearly 4 second
messages. Using a patented recording process,
spoken announcements are, pre-amplified, passed
through automatic gain control circuits and stored in
EEPROM memory. Messages may be changed
thousands of times without loss and can be
retained for up to 10 years without power.

A microprocessor monitors the a/c electrical system
using a Powerhouse TW523 interface module.

When it detects your system sending a key message command code, using one of its pre-set addresses, it will repeat the correct message for that command.

Messages can be heard through *Intella*Voice*'s* internal speaker, or by plugging into the supplied AUX-OUT jack, disconnecting the internal speaker. (**WARNING:** Read the section concerning external amplifiers before connecting to an amplifier.)

*Intella*Voice has it's own internal operating system. Once powered, simply record your announcements, then set your X-1 0 system to send the command codes you will be using.

GETTING TO KNOW YOUR UNIT

IMPORTANT: Read this manual carefully before plugging in your *Intella*Voice unit. Improper setup may damage the processor. *Intella*Voice will operate with any X-10 system known to be is use at this time.

Unit Description

TW523 - This optically isolated and UL approved interface, plugs into your house wiring and "reads" the X-10 commands used in your system. Before plugging in this interface, it is recommended that you test the outlet location for signal reception. An *Intella*Test Speaking Diagnostic Aid will announce all received commands at the

chosen location. For problem areas a Leviton Signal Indicator Set will measure your signal strength. If you do not have an *Intella*Test, you might try to plug in a lamp/ appliance module and see if it operates from all your sending controller locations. If your system has problems communicating in some areas of your home, you may need a signal bridge, amplifier or line noise filter. A strong signal location will assure that your unit will not miss key message commands. The telephone type cord supplied with your unit is a standard four wire phone cable.

Aux. Output - This Mini jack may be used to connect an external speaker or connect to the 'aux. in' of your amplifier, for whole house announcing. **Be sure not to push plug all of the way into your unit, stop when you feel it snap in place.** *Intella*Voice's on board Amp will drive several 15 Watt, 8 Ohm remote speaker(amount depends on wire length and configuration). When using an external speaker your units' speaker will be disconnected.

Aux. Output(cont) - If connecting your unit to an amplifier, you should lower the output by turning the volume set screw before you power up either unit. Once powered, slowly increase output, until you have distortion free sound. Please note that *Intella*Voice has worked well with the amplifiers we have tested. However, because of the large differences in systems, use this option at your own risk. (See Notes)

Volume - Volume is preset at the factory, however if it is too loud, you may gently adjust it with a small screw driver through this hole.

Play/Record switch - When recording your announcements move to the up position, back down to play. If left in up position and the unit receives a start command, your message will be erased.

REAR PANEL
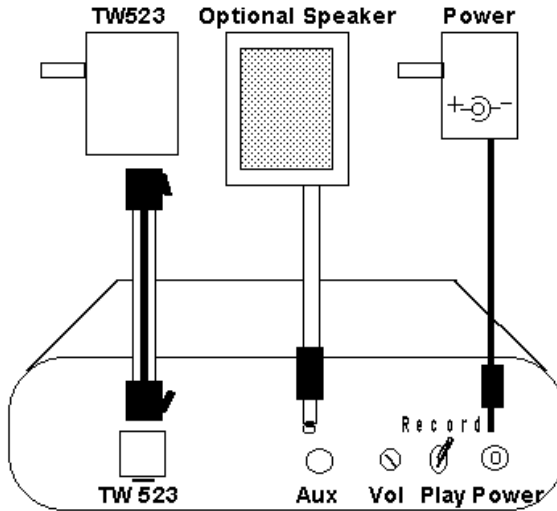
Power - Use the supplied transformer to power your unit. If replacement is ever required, only use a 9 volt DC, 300 Ma or greater with a positive center post.

Mic - *Intella*Voice uses a very sensitive electret microphone, it is recommended that all recording be done in a quite area. Speak directly into the mic hole from about 8 to 12 inches.

Micro-amp - An onboard micro-amp has been added to deliver more power to remote speakers. The units speaker is used to verify announcements during recording and is generally not used as the sole speaker in most application. Over driving this speaker can cause message distortion, greater care should be taken adjusting the volume to prevent this.
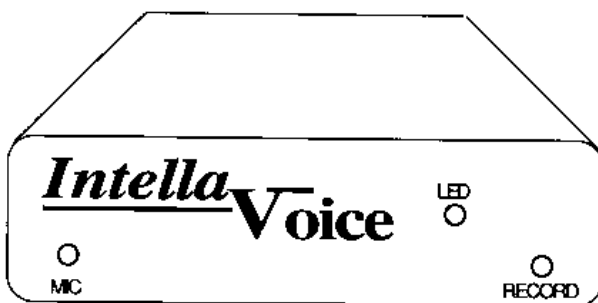
LED - The LED will be on whenever the unit is powered. It will blink off to play a message or remain off during message recording.

Record - This button should be gently held in when recording extended length messages. Handle the unit carefully during recording as the Mic will pick up any sliding or finger noise. This button will also play your first message, if the play/record switch is set to play and it is pushed and quickly released.

GETTING STARTED

Before you can use your unit, you should understand how *Intella*Voice stores and plays your announcements. You must decide what you want to say, and what X-10 events you are going to announce. We suggest you write down your announcements, label them with the corresponding X-10 event, and the length of time for each recording.

Message start locations are pre-programmed, to simplify your setup time. There is a total message storage space of 120 seconds, divided into thirty-two sections. Think of each location as an envelope, able to hold a short message, like "Front porch light on" or "Visitors entering driveway".

Selector Dial

Code Key

A-9	I-1
B-8	J-0
C-D	K-5
D-C	L-4
E-7	M-F
F-6	N-E
G-3	O-B
H-2	P-A

Front
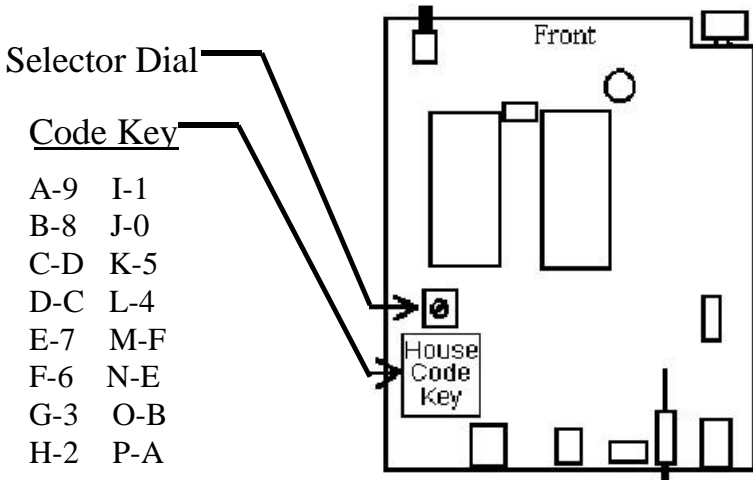
House Code Key

IntellaVoice units ship with the pre-set 'J' house code, as standard. The 'J' code has become universally accepted as the 'Voice Code' to many installers. The complete J house code is used, all 16 'ON' & 16 'OFF' commands. J1-ON to J11-OFF are 4 second envelopes, J12-ON to J16-OFF are 3.5 second envelopes. *IntellaVoice* will always respond to a J code, even if you have not used that location for an announcement, therefore it is recommended that NO J codes be used elsewhere in your system.

NOTE:
    If your system does not use macros or has any reason not to use the 'J' Code, *IntellaVoice* will allow you to change to any house code desired.

    To change a house code, first disconnect all power to unit. Remove the two screws holding the top and bottom of the unit together. Gently lift the top off, paying special attention to the speaker wire holding the sections together.

    Using a small screw driver, adjust the dial to a new code according to the selection chart listed on the circuit board under the dial.
    Example: to change to a 'E' code set dial to '7'

You may use all thirty-two locations for individual announcements, or combine locations to form longer announcements. It should be noted that *Intella*Voice does not relate an 'on' or 'off' command to an action event, but only as an address locator. Your system will determine how you relate to 'on' or 'off' commands. For example: If you have the ability to create group macros with your system, you may use 'J1-On' to announce "Pool pump Off" - ie: If 7PM Then B3-Off (Pool Pump) & J1-On (Announcement) If you can not create macros you will need to be more aware of 'ON's' & 'OFF's'. For example: If you have a wireless motion detector watching your driveway set to J5, you will use J5-on to announce "Visitors entering driveway". You can not however put an announcement for another event in J5-off, because when the detector times out it will send a J5-off triggering the wrong announcement.

To record announcements longer than 4 seconds, you will have to override the hands free recording method, by holding in the manual record button. This will be explained in detail later, at this time we only want to know where the announcement will be located. Lets say your first 17 messages fall within their 4 second envelopes, then you have one 9 second, one 19 second and one 6 second announcement. The first 17 will fill J1-ON to J9-ON, the next being 9 seconds will begin at J9-OFF and include J1O-ON & OFF. The next 19 second message will begin at J11-ON and include J11-OFF, J12-ON & OFF and J13-ON. The last message of 8 seconds will begin at J13-OFF include J14-ON & OFF.   (Remember from J12-ON to J16-OFF message length is reduced to *3.5* Seconds)

SUMMARY

To sum up, *IntellaVoice* will begin speaking at its programmed address code, and stop when it reaches an end of message flag. Start locations and end flags are pre-set for each of the 32 message locations. To record longer messages, you will use a pre-set start location but extend the end flag by holding the manual record button, until you finish speaking. The next announcement will begin at the pre-set start location next in line. Start locations <u>can not be changed</u>, and since *IntellaVoice* will **always** respond to a J command, you must not use a start location in the middle of an extended announcement. In the above example, a J12-ON code will begin speaking in the middle of your 19 second message.

HANDS-FREE RECORD METHOD

Now that you know what you are going to say and where you want to say it, lets record your announcements. First if possible unplug your system controller, to prevent any unwanted signals, while you record. You will then need a maxie controller, wireless remote or similar controller. You need a way to send signals manually. If your system uses only Motion Detectors, Universal Modules or the like, and you can not send a command by hand, you may need a second person to activate the sensor sending the start recording commands while you record.

In a quiet location, plug your TW523 and power cords in. The LED should be on. Watching a clock second hand, say your announcement aloud a few times. This will give you a more natural sound, as well as checking the message time. When you are ready to record, flip the play/record switch, on the rear panel up, to record. Looking at the front of the unit, send a J1-ON from the controller. When you see the LED go oft, begin speaking your announcement. If you are not finished speaking when the LED comes back on, your message is longer than the envelope. Re-record until satisfied, repeated use does not reduce quality. To review what you just recorded put the rear switch back down to play, and send a J1-ON. The LED will only blink and you will hear your announcement. Repeat for each announcement according to your chart. Any announcement may be changed without affecting other messages already in storage.

Announcements that are longer then the pre-set envelope require an additional manual step to record. Place the rear switch up to record and send the start code just as in the hands-free method, however when the LED goes out, begin

speaking the announcement and also depress the record button. Hold the button in until message is finished. When you release the record button an "end of message" flag is placed in the unit. **The total message time is from the instant the LED goes out, until you release the button.** Repeat for all the J's on your list, then put the play/record switch back down to play. You may then unplug the unit and move it to it's permanent location. Remember that power is not required to retain messages.

<u>RECORDING TIPS</u>

1. *IntellaVoice* can go into an overflow condition, which can cause it to stop speaking. This can happen when it comes to the end of the message storage space without finding an end of message flag. To prevent it from happening, record something in J16-OFF even if not used. This will place a flag at the storage end.

2. *Intella*Voice suspends **code reading** while speaking. When setting up macros, allow a few seconds after each J command before sending another command to prevent lost commands.

3. Due to the sensitive nature of the mic, some practice is necessary when recording extended messages. Built-in auto gain circuits deliver top quality announcements, however when recording begins the unit is most sensitive while searching for a level check. Since you have 3 seconds to push and hold the record button, it is better to begin speaking before you push it. Your voice will set a level and also mask any button noise.

EXAMPLE

John has a Time Commander controlling devices throughout his home. He has selected the events to announce by code number and set up a chart, with announcement times, as follows:

The power in his area sometimes goes out at night, leaving him without a morning alarm. He would like a wake up message daily, when his system turns on the coffeepot appliance module.

A Floodlight Motion Detector watches his car, in the driveway, at night. He would like a verbal message if someone comes near it.

His baby is learning to walk, he wants to know if the sliding door by the pool is ever opened. A Magnetic Contact on the door, to a Powerflash Interface will be used to send the X-l0 command.

Johns' 8 year old never wants to go to bed at night. She is always distracting him at bedtime. The Lamp Module, he set up to turn off the bed lamp, has only made bedtime more traumatic, they are never ready for it. The Water Sensor located in the basement was blinking a lamp in the family room for six hours one night. A voice announcement will demand an immediate response. The alarm system provides a relay contact if an entry door is opened when it is armed to away. A Powerflash connected to the relay sends an X-10 command to the time commander which he uses to turn on lights and air when he returns home. He has set up several macros that he would like to announce. They are good night, party, movie time, ceiling fans and vacation.

Msg	Start Code	Announcement	Seconds
1	J1-on	"Setting to entertain	3
2	J1-off	"Away we go" (sound bite fm Honeymooners)	4
3	J2-on	"All ceiling fans on...."	4
4	J2-off	"All ceiling fans off...."	4
5	J3-on	"Welcome Home, Please disarm security.."	7
6	J4-on	"Goodnight, all living area lights off in	6
7	J5-on	"Good morning John, coffee is ready	9
8	J6-off	"Warning Basement alert. Water Detected.."	9
9	J8-on	"Driveway alert, Please check the car..."	7
10	J9-on	"10 Min's to lights out, Brush your teeth.."	13
11	J11-on	"Sliding door open, Pool Alert...(Repeated)"	17

(J 13-off is next available start code)

John will use his nightstand maxie controller to program his IntellaVoice unit. He will first set the base unit to the J house code, and unplug his time commander. When his IntellaVoice unit is plugged in, he will switch the play/record switch up to record. Notice that John arranged his messages in order of length. This will keep his 4 second messages away from the 3.5 second locations. John then pushes the J1-ON.

When the LED blinks off, he speaks the message into the MIC. Checking his watch second hand while speaking. This is repeated for the rest of the 4 second announcements. John then begins recording the extended announcements using the record button. He is careful to begin speaking as soon as the LED goes out, and then holds the button in while he finishes the announcement. The "end of message" flag is moved to the right time spot when he releases the record button. To prevent an accidental overflow condition, John records a dummy message in J16-OFF. The play/record switch is moved back down to play. Before resetting the controller to the correct house code, John plays each announcement to be sure they play correctly. When satisfied, he moves *Intella*Voice to the bedroom nightstand. John then adds the correct J codes to his macros.
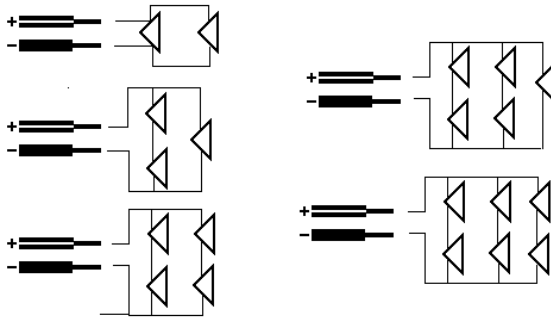
Connecting Optional External Speakers

*Intella*Voice will power up to six individual room speakers without additional amplification. Optional speakers, are 8 ohm, 10-15 watt with all weather mylar cones. If you choose to use your own speakers, results may vary somewhat. It is recommended that you stay between 5 to 8 ohms at the aux. out jack. The following chart should keep you about right if you don't have a meter. (wire size & length also need to be considered) Volume loss may occur as the number of speakers increase.

Warning: Connecting speakers other then authorized Intella-Home Inc optional speakers may void your warranty. Never ground or drive an unused speaker output.

House Code _____   Date of Purchase _____

1 ON _____   OFF _____
2 ON _____   OFF _____
3 ON _____   OFF _____
4 ON _____   OFF _____
5 ON _____   OFF _____
6 ON _____   OFF _____
7 ON _____   OFF _____
8 ON _____   OFF _____
9 ON _____   OFF _____
10 ON _____   OFF _____
11 ON _____   OFF _____
12 ON _____   OFF _____
13 ON _____   OFF _____
14 ON _____   OFF _____
15 ON _____   OFF _____
16 ON _____   OFF _____
17 ON _____   OFF _____
18 ON _____   OFF _____
19 ON _____   OFF _____
20 ON _____   OFF _____
21 ON _____   OFF _____
22 ON _____   OFF _____
23 ON _____   OFF _____
24 ON _____   OFF _____
25 ON _____   OFF _____
26 ON _____   OFF _____
27 ON _____   OFF _____
28 ON _____   OFF _____
29 ON _____   OFF _____
30 ON _____   OFF _____
31 ON _____   OFF _____
32 ON _____   OFF _____

NOTES

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