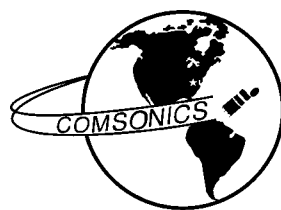
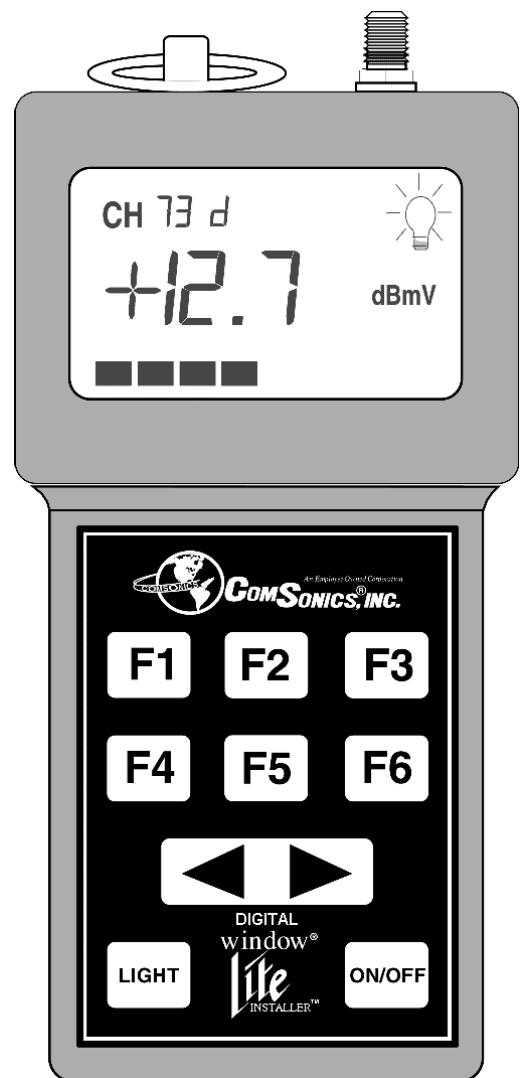


window[®] **lite** INSTALLER[™]

With Digital Capability

User's Guide



COMSONICS, INC. *An Employee Owned Corporation*
We Set the Standards

Warranty

ComSonics, Inc. warrants this product to be free of material and workmanship defects for a period of one year from the original date of shipment.

Remedies provided under Warranty are exclusive and in lieu of all other warranties express or implied. The liability to ComSonics is limited to product repair or replacement at the discretion of ComSonics. ComSonics shall not be held liable for any incidental or consequential damages.

The following are not covered by this warranty:

- 1) Parts or components not supplied by ComSonics, or parts or components that have been modified.
- 2) Any product or part failure that results from accident, abuse, misuse, neglect, or unauthorized repairs or modifications by individuals other than ComSonics personnel.
- 3) Failures caused by use of this product in extreme climates or moisture conditions.
- 4) WindowLite Installer Battery Pack

Technical Support

ComSonics maintains a Technical Support Service for customer convenience. Should the need arise, contact a Technical Support Representative by phone at 1-800-336-9681 or 1-540-434-5965; Fax at 1-540-432-9794; or Email at tech-support@comsonics.com.

Return Information

Products returned for repair, calibration, etc., must be safely packed. Please enclose information on the reason for return. Ship the material prepaid.

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Specifications

Operating specifications:

<i>Tuning range</i>	5.00 MHz ~ 860.00 MHz.
<i>Amplitude range</i>	-30 dBmV (+30 dBmV) ~ +40 dBmV (99.9 dBmV).
<i>Amplitude accuracy</i>	±1.0 dB at room temperature; ±1.5 dB over operating temperature.
<i>Analog Television Types</i>	NTSC / PAL; peak carrier sync, preprogrammed audio offset
<i>Digital Modulation Types</i>	QPSK, QPR, QAM, and VSB; bandwidth up to 20 MHz.
<i>Tuning increments</i>	Fixed (tuned by pre-loaded tables).
<i>Tuning accuracy</i>	Auto-seeking to ≤ 62.5 kHz.
<i>Auto-seeking range</i>	±312 kHz.
<i>(Direct access) quick-tuned channels</i>	6 channels - user-configurable (factory pre-sets per Country Set).
<i>Step-tuned channels</i>	Pre-loaded channel set dependent.
<i>Pre-loaded channel sets</i>	25 standard, picture carrier plus associated sound carrier
<i>Audio Output</i>	Frequency modulation detector produces low impedance output to earphone jack (earphone optional)

Powering specifications:

<i>Battery</i>	User rechargeable, 6.0 V @ 0.55 ah.
<i>Battery recharge life</i>	> 550 measurements*.

Technical specifications:

<i>Size</i>	7.7" high X 3.5" wide X 2.3" deep (19.6 cm X 8.9 cm X 5.8 cm).
<i>Weight</i>	23 oz. (0.65 kg).

Environmental specifications:

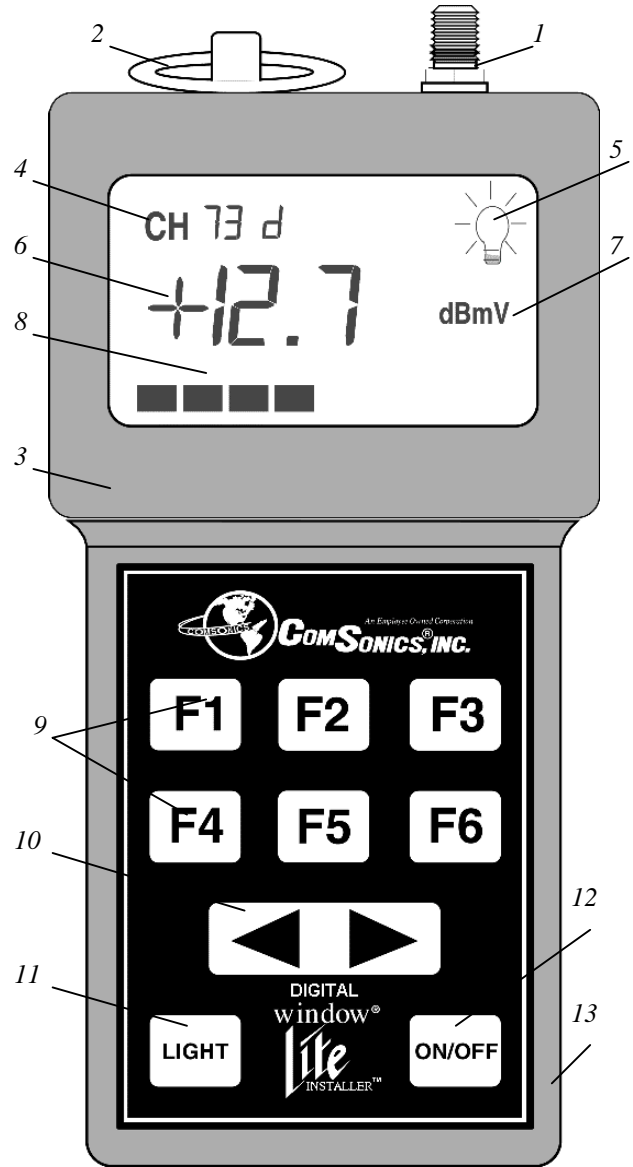
<i>Storage temperature range</i>	-20 °F ~ 150 °F (-29 °C ~ 66 °C)
<i>Operating temperature range</i>	0 °F ~ 120°F (-18 °C ~ 49 °C)
<i>Humidity</i>	Weather resistant (withstands total immersion into 1 foot of water for 30 minutes without intrusion).
<i>Shock</i>	Uniquely rugged.

**Beginning with a new, fully charged battery. Room temperature lab tests produced more than 1,100 measurements by repeatedly activating F1 through F6 at 10 second intervals until automatic shut-down occurred.*

1: Description

The ComSonics WindowLite Installer is the first signal level meter dedicated to installer use. It features the ability to easily choose for evaluation any one of six pre-selected channels from the full tuning range available. The WindowLite Installer makes measurements on the chosen channel with a single keystroke, showing the results on a backlight-capable liquid crystal display (LCD).

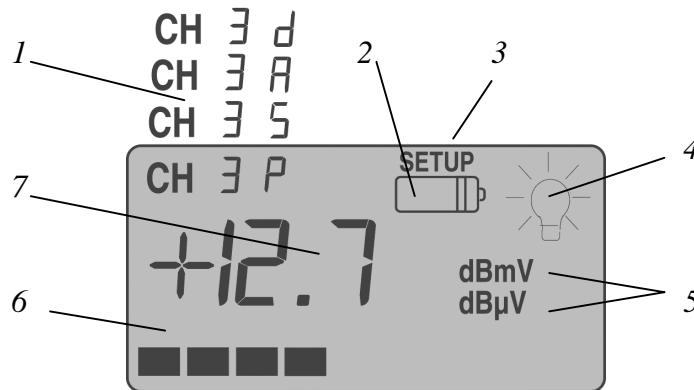
The Installer's controls have been simplified to make its operation as easy as possible. The keypad has six function keys (F1 through F6), each capable of tuning a picture carrier frequency and its sound carrier frequency or a single digital channel in the 5 MHz to 860 MHz range. It also has arrow keys for single-step tuning the unit within this range. There are keys to control the backlight feature as well as for powering the unit on and off. The LCD features the channel being measured, its level readout, and the unit of measure. A light bulb symbol appears when the backlight is in use; a battery symbol appears when the battery level is low. Unless the battery charge life is nearing an end, a bar graph shows the relative signal strength. When the battery symbol is present, the bar graph indicates remaining battery life.



- 1 Input
- 2 Lanyard Ring
- 3 ABS plastic housing
- 4 Tuned channel
- 5 Backlight indicator
- 6 Level indicator
- 7 Units of measure (dBmV or dBμV)
- 8 Level strength indicator
- 9 Function (channel) keys
- 10 Arrow selection keys
- 11 Backlight key
- 12 Power ON / OFF key
- 13 Earphone jack

2: Power-Up

When first powered-on, Installer is in a low power state to reduce battery consumption. In this state, the LCD provides the user with the channel name, units of measure, the last measured value and a bar graph. “Backlight” and/or “Battery Low” annunciators may also appear.



- 1 The **selected channel name** in the format [CH XX88 X]. CH for channel, followed by the channel name comprised of a combination of two alpha-numeric and two numeric characters. The channel name is followed by P for picture carrier, or S sound carrier, or A for channels with a second audio channel, or d for a programmed digital channel. Digital channels are user programmed via a computer program. See section on *Installer Programmer Utility*.
- 2 **Battery symbol** is illuminated if a battery low condition is sensed.
- 3 **SETUP** is illuminated when the User Preference mode is activated.
- 4 **Lightbulb symbol** is illuminated if the backlight is active.
- 5 **dBmV** or **dBµV** Units of Measure conforming to internationally used conventions.
- 6 The **bar graph** provides a visualization of the measured signal level relative to the total dynamic range.

-OR-

- The **bar graph** provides a relative indication of the remaining battery life while the battery low signal is activated.
- 7 At Power-Up, the **measured value** displays the level of the last channel measured prior to power-down. The display updates with each function keypress.

3: *User Preferences*

Three built-in features are available for the user to customize the WindowLite Installer: the Country Set, the Unit of Measurement and the selection of six Quick-Tune Measurement Channels.

One custom user channel line-up set or group can be created and installed to the WindowLite Installer using the Installer Programmer Utility. The utility is a Windows 95/98 program necessary for the customization and installation of a user defined channel set. Digital channel definitions can only be installed by use of the utility. See section *Installer Programmer Utility* for more details.

User Preferences are made available sequentially to the user through the SETUP mode. In each sequence, the display blinks, showing current settings. Any displayed setting can be changed with the arrow keys or left alone; changes are saved automatically.

To enter the SETUP mode, press and hold **F6** while powering the unit ON using the **ON/OFF** key.

Automatically, WindowLite Installer activates the **Country Set Define** sequence (described on page 4). The currently selected Country Set code number blinks. Arrow keys step through the sets available (see Appendix B for a complete listing). Pressing **F1** leaves this sequence and initiates the **Units of Measure Define** sequence.

The **Units of Measure Define** sequence (described on page 5) of the SETUP mode is indicated by a blinking **Units of Measure** selection. Pressing either the right or left arrow key toggles between dBmV and dBuV. Pressing **F2** ends this sequence and activates the **Quick-Tune Channels Define** sequence.

The **Quick-Tune Channels Define** sequence (described on page 6) is the final stage of the setup mode. **F1** through **F6** can refer to any six picture/sound carrier pairs contained within the selected Country Set. At the beginning of the sequence, the channel display blinks, showing the setting for **F1**. Press any of the six function keys, and the unit displays the current video carrier channel setting. (If the unit has never been programmed, or if a new Country Set has been selected in the SETUP mode, the factory preset channel for that function key is displayed.) Use the arrow keys to change the channel setting if desired. This can be done for each function key, in any order, and more than once if desired.

End the SETUP mode by pressing **ON/OFF**; this saves the setup and shuts the unit off.

3.1: Country Set Define

From a preprogrammed list of countries, the user selects the one best suited to their area by: (a) placing WindowLite Installer into SETUP mode; (b) keying to the desired Country Set.

- Country sets are displayed (1 to 25).
- See Appendix B for a listing of the available countries and their access codes.



Changing the Country Set automatically changes the channel settings to a default set of channels for that country set.

During this sequence, the Channel Name, Units of Measure, and the Bar Graph are suppressed from the display.

STEP KEYPRESS RESULTS

1. **F6** + **ON/OFF** Power-on WindowLite Installer in SETUP mode; this activates Country Set Define sequence. The current Country Set code blinks, indicating that this code can be changed.

2. **◀▶** Scroll through the available country sets:
 ▶ scrolls forward (1 to 25, with the standard configuration), rolling over to the first set when the last set is passed.
 ◀ scrolls backward, rolling over to the last set when the first set is passed.

Note: If a user channel set is installed, the country set range is 0 to 25. Set 0 is the user channel set. See section *Installer Programmer Utility* for more details.

Important: To reinitialize a country set, scroll forward by at least one number and then scroll back to the desired country set. The Quick-Tune keys and the channel center frequencies (learned) are reset to default whenever the county set is changed.

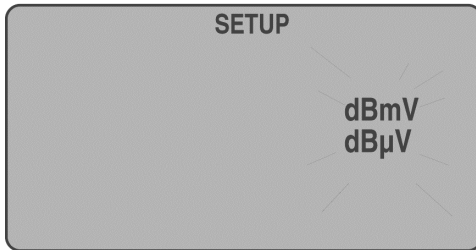
3. **F1** The device continues to the next sequence in the SETUP mode, **Units of Measure Define**, described on the next page.

F2 ~ **F6** Keys remain inactive during **Country Set Define**.

*Going straight to Step 3 below without touching **◀▶** leaves current **Country Set Define** setting unchanged and continues to the next sequence in the SETUP mode, **Units of Measure Define**.*

3.2: Units of Measure Define




WindowLite Installer makes available two Units of Measure to provide worldwide measurement compatibility. The user selects between dBmV and dBµV by: (a) placing WindowLite Installer into Units of Measure Define mode; (b) choosing between dBmV and dBµV; and (c) selecting Quick-Tune Channels Define.



During this sequence, the Channel Name, Measured Value, and the Bar Graph are suppressed from the display.

(continued from previous page)

STEP KEYPRESS RESULTS

- The **dBmV / dBµV** display blinks, indicating that this setting can be changed.
- 4.  Toggles between dBmV and dBµV. ◀ or ▶ may be used.
- 5.  The device continues to the next sequence in the SETUP mode, **Quick-Tune Channels Define**, described on the next page.
-  Keys remain inactive during **Units of Measure Define**.

*Going straight to Step 5 leaves current **Units of Measure Define** setting unchanged and continues to the next sequence in the SETUP mode, **Quick-Tune Channels Define**.*

3.3: Quick-Tune Channels Define

WindowLite Installer's function keys allow the user to easily tune to one of 6 preselected channels. Choices are selected for the key locations by: **(a)** placing WindowLite Installer into the SETUP mode; **(b)** stepping to the Quick-Tune Channels Define sequence; **(c)** selecting channel choices; and **(d)** changing the displayed setting (any change is automatically stored).










During this sequence, the Measured Value, Units of Measure, and the Bar Graph are suppressed from the display.

*If the unit has never been programmed (or if a new Country Set has been entered in the **Country Set Define** sequence), the channels displayed in this function will be channel defaults determined by the Country Set; otherwise the last channel values programmed for each key will be displayed.*

(continued from previous page)

STEP KEYPRESS RESULTS

The Selected Channel setting blinks, displaying the video carrier setting stored under **F1**. NOTE: The display will blink if the channel has never been tuned before, or is changed here; if the channel has been previously tuned, it will *not* blink.

6.  Change the channel setting:
- ▶ Increments setting from a low channel to a high channel;
 - ◀ Increments setting from a high channel to a low channel.
- No additional keypresses are required to lock a setting. Pressing ◀ or ▶ changes and stores the setting simultaneously. If ◀ or ▶ are *not* used, the setting is *not* changed. Changes will be effective at the next power-up.
7.  or  or  or  or  or  The display will react as above for the selected function key.
8. Repeat Step 6 for as many function keys as desired.

If you wish to tune a channel at this time, press the function key indicated on the display to have the Installer search for a center frequency. If the center frequency is found, the F Key indicator ceases to blink. If the center frequency is not found, the F Key indicator will continue to blink. (In measurement mode, the center frequency search process takes place automatically when a channel is selected for the first time.)

9.  Ends the SETUP mode and shuts off the unit.

4: Making Measurements

Each user request for a measurement causes WindowLite Installer to tune to the channel assigned to the function key pressed: the Installer displays the picture carrier, and another press of the same key toggles to the sound carrier, and subsequent keypresses toggle back and forth between the two. First-time tuning may experience a slightly longer delay than subsequent measurements as the WindowLite Installer learns and stores the exact location of the carriers within the channel. (This will happen once for each function key selection; it can take place here or during the SETUP mode. See Section 3.3, **Quick-Tune Channels Define**.)

Several samples of the tuned channel peak amplitude are measured, averaged, augmented with temperature and characteristic data particular to each instrument, and displayed. The value is displayed as the Installer changes to a low power mode. Automatic power down occurs if a key is not pressed for 1 minute. Repowering always furnishes the last measurement made before power-down. The value will be blinking to serve as a reminder that a previously measured value is being displayed.











is also active during normal measurement operation; automatic power-down occurs if keys remain idle for 1 minute.

*During measurement mode, if the signal is less than -30 dBmV, the display substitutes **LO** for the signal level readout. If the signal level is greater than 40 dBmV, the display substitutes **HI** for the signal level readout.*

As an additional aid to verification of tuned signals, the Installer produces a low impedance sound signal, provided through the earphone jack in the Installer's case. This sound signal is extracted by the Installer from sound, picture, digital, or other carriers. When a channel is tuned by pressing an arrow key or one of the function keys, sound can be heard through an earphone connected to the earphone jack. The sound is turned on 15 seconds for video and 20 seconds for audio. (This is to preserve battery power.)

Signal level measurements are made by (a) powering-on WindowLite Installer, and (b) selecting the channel to tune: first the picture carrier, then the sound carrier.

4: Making Measurements

STEP	KEYPRESS	RESULTS
1.		Power-on WindowLite Installer.
2.	 or  or  or  or  or 	Requests tuning to pre-defined location, measures value, displays value of the picture carrier; a second press of the key toggles to the sound carrier, another press toggles back to the picture carrier. Pressing F1 for instance, displays the picture carrier of that channel; pressing F1 again displays the sound carrier; pressing F1 yet again displays the picture carrier again. (Channels with a second audio carrier behave differently: see the next page.)
3.		Allows tuning from the currently displayed channel to another in the country set sequence. As each channel has a picture and a sound carrier channel, the sequence would be <i>picture - sound - picture</i> if starting from a sound channel, or <i>sound - picture - sound</i> if starting from a picture channel.

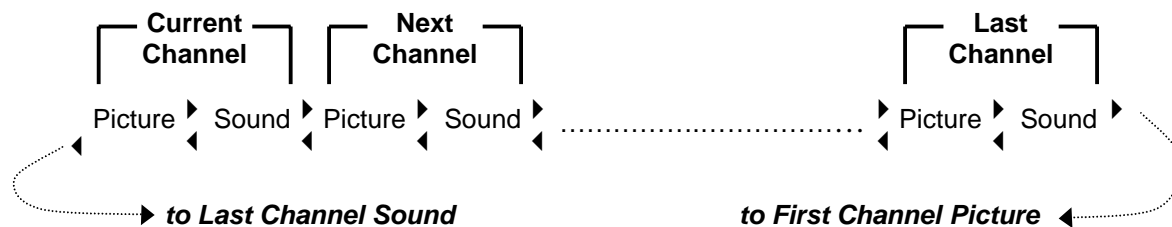
Note:

For user modified channel sets containing digital channels, a 'd' appears when a digital channel is selected. A digital channel has just one tuning selection. It does not have separate picture and sound carrier measurements. When a digital channel is selected, pressing ◀ moves to the next lower channel or pressing ▶ moves to the next higher channel.

If the Installer displays the picture carrier for Channel 3, for instance, pressing ▶ displays the sound carrier of Channel 3; pressing ▶ again displays the picture carrier of Channel 4. If the Installer displays the sound carrier for Channel 3, pressing ▶ displays the picture carrier of Channel 4; pressing ▶ yet again displays the sound carrier of Channel 4.

Similarly, if the Installer displays the picture carrier for Channel 3, pressing ◀ displays the sound carrier of Channel 2; pressing ◀ yet again displays the picture carrier of Channel 2. If the Installer displays the sound carrier of Channel 3, pressing ◀ displays the picture carrier of Channel 3; pressing ◀ yet again displays the sound carrier of Channel 2.

When pressing ▶ at the upper range, or ◀ at the lower range, the tuning loops back. Pressing ▶ when the Installer displays the sound carrier of the last channel causes the device to display the picture carrier of the first channel. Pressing ◀ when the Installer displays the picture carrier of the first channel causes the device to display the sound carrier of the last channel.



The Installer's tuning hierarchy

4: Making Measurements (Second Audio Carrier Channels)

Some Country Sets include channels with second audio carriers; the keypress sequences for these channels are different.

STEP KEYPRESS RESULTS

1. Power-on WindowLite Installer.

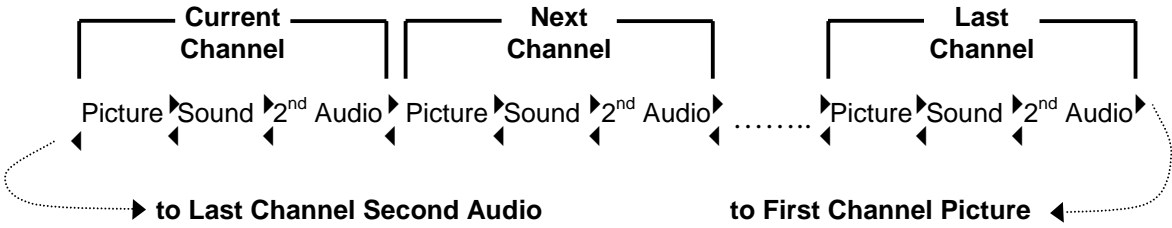
2. or or or or or Requests tuning to pre-defined location, measures value, displays value of the picture carrier; a second press of the key toggles to the sound carrier, a third press toggles to the second audio carrier, and a fourth press toggles back to the picture carrier. Pressing **F1**, for instance, displays the picture carrier of that channel; pressing **F1** again displays the sound carrier; pressing **F1** yet again displays the second audio carrier; pressing **F1** once more displays the picture carrier again.

3. Allows tuning from the currently displayed channel to another in the country set sequence: *sound - 2nd audio - picture - sound* if starting from a picture carrier, or *2nd audio - picture - sound - 2nd audio* if starting from a sound carrier, or *picture - sound - 2nd audio - picture* if starting from a second audio carrier.

Note:
For user modified channel sets containing digital channels, a 'd' appears when a digital channel is selected. A digital channel has just one tuning selection. It does not have separate picture and sound carrier measurements. When a digital channel is selected, pressing **◀** moves to the next lower channel or pressing **▶** moves to the next higher channel.

If the Installer displays the picture carrier for Channel 3, for instance, pressing **▶** displays the sound carrier of Channel 3; pressing **▶** again displays the second audio carrier of Channel 3; pressing **▶** again displays the picture carrier of Channel 4. If the Installer displays the sound carrier for Channel 3, pressing **▶** displays the second audio carrier of Channel 3; pressing **▶** displays the picture carrier of Channel 4; pressing **▶** yet again displays the sound carrier of Channel 4.

Similarly, if the Installer displays the picture carrier for Channel 3, pressing **◀** displays the second audio carrier of Channel 2; pressing **◀** again displays the sound carrier of Channel 2; pressing **◀** yet again displays the picture carrier of Channel 2. If the Installer displays the sound carrier of Channel 3, pressing **◀** displays the picture carrier of Channel 3; pressing **◀** yet again displays the second audio carrier of Channel 2; pressing **◀** yet again displays the sound carrier of Channel 2.

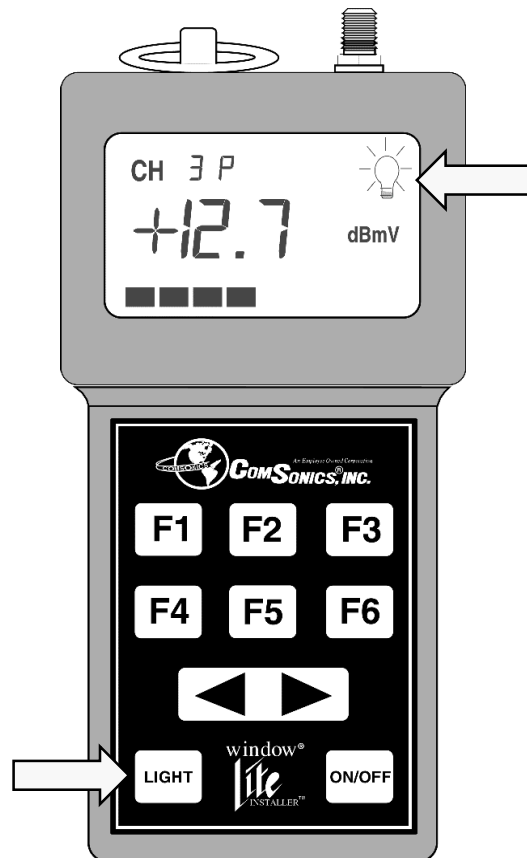


The Installer's tuning hierarchy for channels with a second audio carrier

5: Backlight

As a standard feature, the LCD is provided with a backlight to enable the instrument's use in low lighting conditions. Backlights require extra power and will significantly reduce available battery life.

The WindowLite Installer features automatic backlight deactivation and reactivation at strategic points during normal use. Pressing the **LIGHT** key illuminates the backlight. After 10 seconds, the backlight automatically deactivates. After deactivation and prior to power-down, the backlight will reactivate with each function keypress as well as with the **LIGHT** key, automatically deactivating 10 seconds after each keypress. When the backlight is on, pressing the **LIGHT** key turns the backlight off.



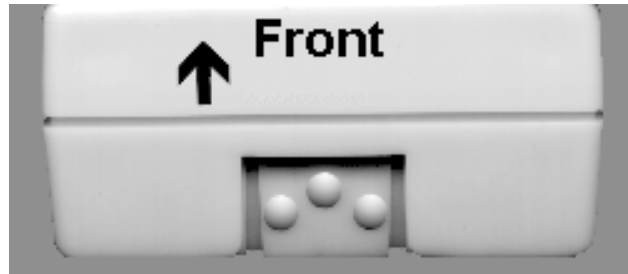
6: Battery Care

The Installer uses a rechargeable battery. For recharging this battery, ComSonics includes a single-unit battery charger as a standard accessory.

The single-unit charger's contact end (see illustration) consists of a yellow plastic housing, with flanges on either side, and two spring-loaded prongs. It fits into the slot on the bottom edge of the Installer, which has contacts corresponding to the charger prongs (see illustration).




Prongs of a single-unit charger



Contact end of Installer unit and points

To engage the contacts properly, hold the Installer face up, place the yellow housing so the flanges fit into the corresponding grooves in the Installer unit's contact end, and push towards the front of the Installer. When the housing is completely inserted, the prongs will be in contact with the Installer's contact points. Plug in the charger to begin recharging your Installer. Fully recharging a depleted battery takes approximately 10 to 16 hours.

When the battery charge drops below a set level, the battery low indicator () appears. The bar graph of the display blinks while this indicator is present, and shows the relative amount of charge remaining.

6: Battery Care (cont.)

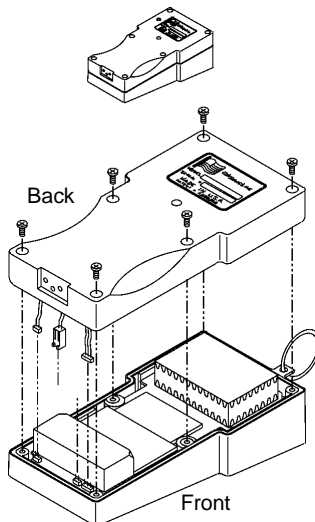
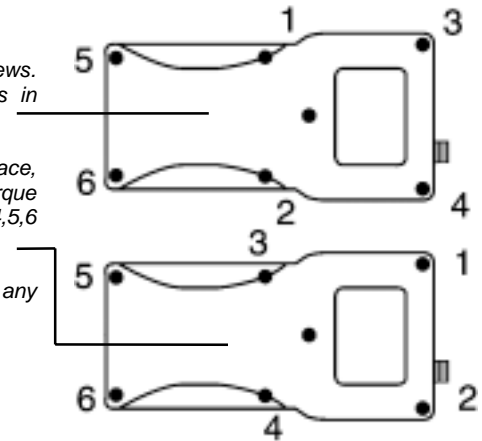
Eventually, repeated depletion and recharging of the battery will decrease the battery's efficiency and require its replacement. Care must be taken when replacing the battery so as to maintain the Installer's waterproof seal. The following instructions have been provided to make this possible.

1. With the back of the Installer facing up, remove the screws from the casing. The battery is attached to the back of the unit by a metal bar (see below).
2. Remove the screws holding the metal bar over the battery and remove the bar.
3. Detach the battery's two-pin Methode connector and remove the battery. Discard properly.
4. Put the new battery in place and attach its two-pin Methode connector. Be sure to insert the connector correctly; the connector should not have to be forced on.
5. Place the metal bar over the battery and replace the screws. Note that the bar is placed under the black battery wire as pictured below.

6. Replace the casing, making sure that none of the internal cables are pinched between the rubber pads and the Installer's internal parts.
7. Replace the screws, in the order shown.

To Close the Unit:

1. Loosely reinstall the screws. Tighten to 2 inch pounds in this order; 1,2,3,4,5,6.
2. Once all screws are in place, tighten them to a final torque of 4 inch pounds in 1,2,3,4,5,6 order.
3. Take care NOT to pinch any wires.





The battery is attached to the back of the unit with a metal bar. Some battery models, because of the location of the lead, require the lead to be placed over the bar in order to close the unit properly. Battery may be different from pack shown.





Appendix A: Keypress Reference


KEYPRESS ACTIVITY or RESULTS


 Toggles Installer on and off.


 Quick-Tune Selection 1: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*


 Quick-Tune Selection 2: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*


 Quick-Tune Selection 3: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*


 Quick-Tune Selection 4: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*

 Quick-Tune Selection 5: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*

 Quick-Tune Selection 6: defaults to picture carrier; press again for sound carrier, press again to return to picture carrier*

 Arrow Keys for channel selection by scrolling.

 If tuned to a picture carrier, tunes to the sound carrier of the current channel; if tuned to a sound carrier, tunes to the (next higher) adjacent channel's picture carrier†

 If tuned to a picture carrier, tunes to the (next lower) adjacent channel's sound carrier; if tuned to a sound carrier, tunes to the picture carrier of the current channel‡

 Toggles LCD backlight on and off.

 Activates SETUP mode

 Changes Country Set

 Changes Units of Measure

 Changes Quick-Tune channel settings

* *If using a Country Set with channels with second audio carriers: the first keypress defaults to picture carrier; press again for sound carrier, press again for second audio carrier, press again to return to picture carrier. See 4: Making Measurements.*

† *If using a Country Set with channels with second audio carriers: if tuned to a picture carrier, tunes to the sound carrier of the current channel; if tuned to a sound carrier, tunes to the second audio carrier of the current channel; if tuned to a second audio carrier, tunes to the (next higher) adjacent channel's picture carrier.*

‡ *If using a Country Set with channels with second audio carriers: if tuned to a picture carrier, tunes to the (next lower) adjacent channel's second audio carrier; if tuned to a sound carrier, tunes to the picture carrier of the current channel; if tuned to a second audio carrier, tunes to the sound carrier of the current channel.*



Appendix B: Channel Line-Up Set and Country Set Codes

CODE	NAME
0	Custom User Set
1	US STD EIA
2	US HRC EIA
3	US IRC EIA
4	Australia
5	BCST US (US Off Air)
6	Belgium
7	Canada
8	China
9	Denmark
10	France
11	Germany
12	Hong Kong
13	India
14	Israel
15	Japan
16	Korea
17	New Zealand
18	Netherlands 1
19	Netherlands 2
20	Poland
21	Sweden
22	Switzerland
23	Taiwan
24	United Kingdom 1
25	United Kingdom 2

Country Set Codes 1 through 25 are included in the Installer Programmer Utility as factory default channel groups. Use the utility to view the details of factory groups and to modify a factory group, including the addition of digital channels. Save the modified group under a new user name and send it to the WindowLite Installer. The new user group is Country Set Code 0. Factory Channel Set Groups are protected and can not be modified. See section *Installer Programmer Utility* for more details.

Appendix C: Pressure Relief

The Installer case is sealed against water. Because of this seal, taking the Installer to extremes of air pressure (e.g., from sea level to a very high elevation) may cause air pockets within the keypad. To alleviate this, the Installer is fitted with a pressure relief “valve”: a Phillips screw directly beneath the label on the back of the unit.

Loosen the screw a few turns and wait five minutes for the air pressure within the unit to equalize.



Do not forget to re-tighten the screw after performing this action!



Appendix D: European Community Declaration of Conformity



Manufacturer: ComSonics, Inc.
P.O. Box 1106
1350 Port Republic Road
Harrisonburg, VA USA 22801
Tel. # 540-434-5965

Product: WindowLite™ Installer
Models: 100671-001, 100671-002, 100671-003

ComSonics, Inc. of Harrisonburg, Virginia, USA, hereby declares that the above-referenced product, to which this declaration relates, is in conformity with the provisions of:

Council Directive 89/336/EEC (May 3, 1989), on Electromagnetic Compatibility, as amended by Council Directive 92/31/EEC (April 28, 1992), and

Council Directive 73/23/EEC (February 19, 1973), on Low Voltage.

The Technical File required by these directives, including the original of this Declaration of Conformity, are maintained at the corporate headquarters of ComSonics, Inc. (as listed above) and within the European Community at ComTec Cable Accessories, Ltd., Over Industrial Park, Over, Cambridge CB4 5QE, United Kingdom.

Exceptions noted to the above: None

Appendix E: Installer Programmer Utility

The Installer Programmer Utility is a Windows 95/98 program necessary for the customization and installation of a user defined channel line-up set or group. Digital channel definitions can only be installed by use of the utility. A special interface cable is used with a standard DB-25 serial communications port. An adapter may be needed (not supplied) for computers with DB-9 ports. Only one user defined group can reside in the Installer. It is selected in the Installer by choosing country set 0. See section 3.1: *Country Set Define*.

Install Programmer Utility

Place the CD-ROM into the drive. The installation program will automatically start. If the PC auto-start function is turned off, follow the instructions below to manually install the program.

Manual Install:

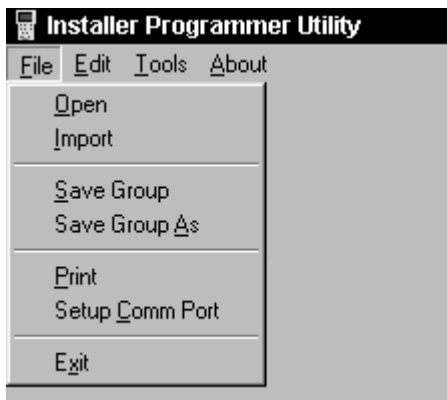
Click Start, then click Run. Type D:\SETUP (If your CD-ROM drive is not D, substitute with your drive letter) or choose Browse and select your drive, then select SETUP.EXE. Click OK and follow on-screen instructions.

Run Programmer Utility

Double-click the desktop icon to start the Utility.

or

From the Program list, move the pointer to Programmer Utility. Then click on Programmer Utility.



Select a Channel Group

From the File Menu select Open. Click on the selected group. Click OK.

or

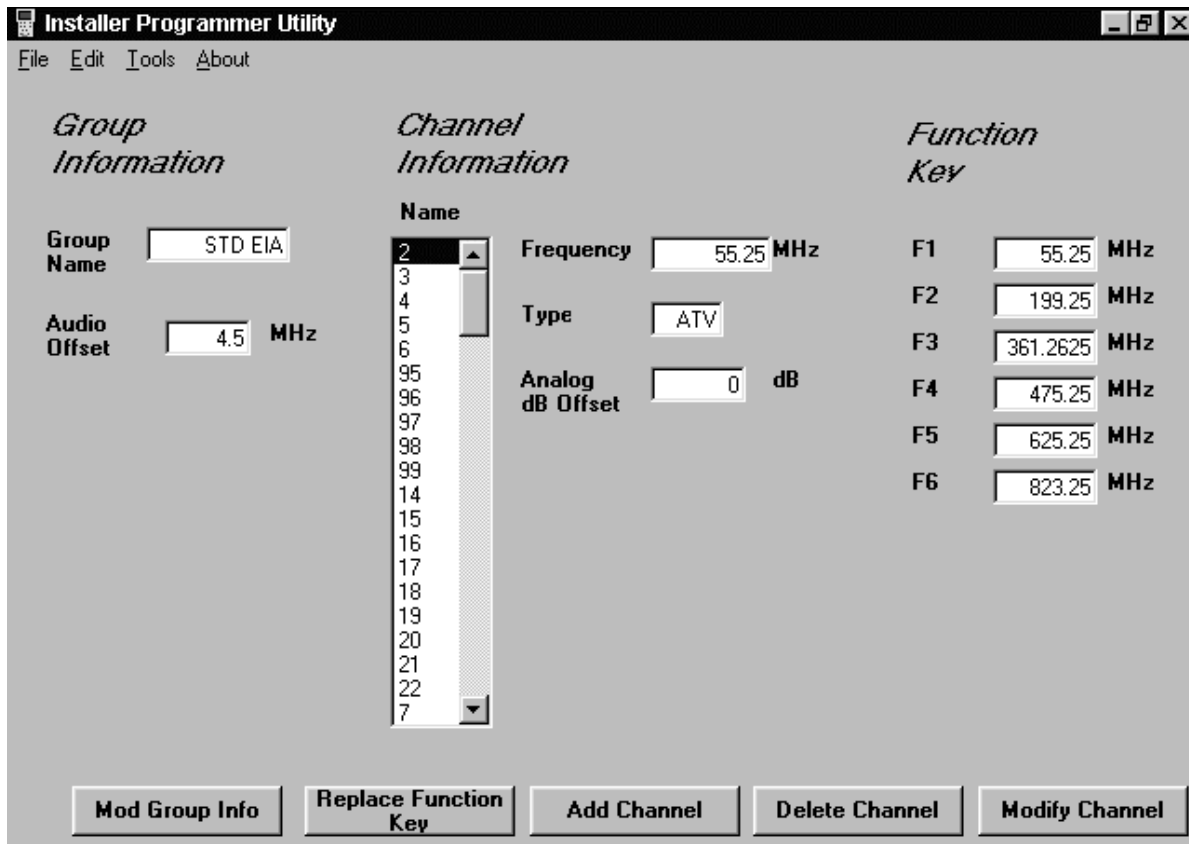
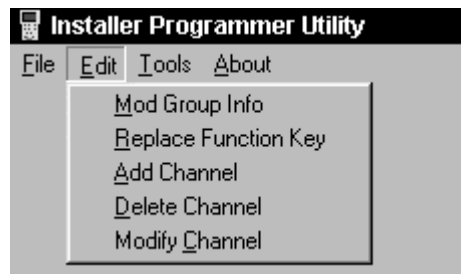
From the File Menu select Import. A properly formatted text file can be imported, modified, and saved as a group. Select the text file to import and click on Open.

Note: For a sample of the format needed for an import file, open a copy of a factory default group in a text editor program.

Modify the Channel Group

From the Edit Menu or by use of the Command Buttons select and modify these properties.

- Group Information
- Function Key (Quick-Tune) Channels
- Add Channel
- Delete Channel
- Modify Channel



Save the Channel Group

From the File Menu select Save Group As to rename the group. Modified factory default groups must be renamed. If the current group is a user group and is to be saved under the same name, select Save Group.

Print the Channel Group Information

From the File Menu select Print. A tabular listing of the current group is sent to the default printer.

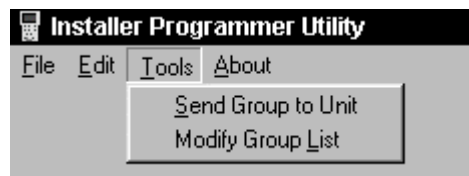
Send Group to Unit

From the File Menu select Setup Comm Port. Select the proper communications port and click OK.

Connect the communications cable and power on the WindowLite Installer while holding the F1 key. SL and CL appear on the Installer's display.

From the Tools Menu select Send Group to Unit.

Groups containing: digital channel descriptions, more than 128 channels, or analog dB offsets will not load into non-digital units.



Modify Group List

From the Tools Menu select Modify Group List. Select the group to remove and click Delete Group.

Only user defined groups are listed. Factory default groups are protected and can not be deleted.

Exit WindowLite Programmer Utility

From the File Menu select Exit.

or

Click the Close button in the upper right corner of the display.

Access Installed Channel Group

With the WindowLite Installer off, press and hold F6 while powering the unit on.

Press an arrow key to select country set 0.

Important: If the Installer was on country set 0 during the installation, scroll to country set 1 and then back to country set 0 to properly load the new set.

Power the unit off.

The installed channel group is active on the next power-up.

See *Section 3.1: Country Set Define* for detailed instructions.

