

Omnia-4.5 Software Update – October 2002 **Applicable to Front Panel Software Version 1.0.6** **Motherboard Software Version 4.01.01**

Congratulations!

The memory cards enclosed with this upgrade kit will allow you to update your Omnia-4.5 to the latest versions of enhanced DSP code and user interface software. These enhancements are the result of ongoing research at Telos Omnia, as well as valuable and appreciated input from our thousands of loyal customers. Please tell us what you think, and let us know what you would like to see in the next Omnia-4.5 software release.

The memory cards in this kit can be identified as follows:

- *The memory card containing the enhanced DSP algorithms and motherboard software is labeled as Version 4.01.01.*
- *The memory card containing the enhanced front panel software is labeled as Version 1.0.6.*

Please see the "Description of Enhancements" section for a complete explanation of the enhancements, as well as an introduction to the new features that have been added since the previous software versions were released.

Important Note!

- Omnia-4.5 Remote Control Version 4.00.19 is the ONLY version that is approved for use with the software enclosed in this update kit. Previous versions are now incompatible and will not operate properly. Version 4.00.19 of Omnia-4.5 Remote Control may be freely downloaded from <http://www.omniaaudio.com/>

If you have questions or find that you require assistance with this upgrade, you may call Telos Omnia Customer Support at 1.214.5.241.7225. Please have the serial number of your unit handy if you need to call us.

Software Card Installation:

Before you can use the features included with the Omnia-4.5's new software, the software must be installed. We've included new software for both the front panel and for the motherboard in this kit, and both cards must be installed in the correct locations for proper operation. In order to accomplish the upgrade, the Omnia will need to be temporarily removed from on-air service, and you should allow approximately thirty minutes in which to complete the upgrade procedure.

Please follow the next steps exactly in the order that they are presented:

1. Remove the Omnia-4.5 from service and disconnect power from the unit.
2. Using a #2 Philips screwdriver, remove all 30 screws from the Omnia's top lid and set the lid aside. Note that the lid is not symmetrical, so you should keep track of which way it was facing when removed. Mark the lid if necessary to assist with reinstallation later.
3. With the Omnia-4.5 front panel facing you and the top lid removed, locate the PCMCIA memory card slot on the right side of the front panel PC board.
4. Gently press down on the black ejector tab on the PCMCIA socket to remove the memory card. Note that it is normal to encounter a significant amount of resistance to removal of the card. Note also that using tools to remove the card can damage it and void the Omnia's warranty. Set the old card aside for now.
5. Locate the new front-panel software card labeled as Version 1.0.6. This card contains the new front-panel software features and their enhancements.
6. Carefully install the new card, paying close attention to its orientation. The thin end of the card containing the female connector socket should be facing down. The rear side of the card containing the software version label should be facing you. Carefully align the card with the card guides in the connector, and gently but firmly push the card into the socket until it becomes fully seated. The black ejection tab should move back up to the position it was in before the old card was removed.
7. Locate the two-pin jumper labeled "S1" on the left rear corner of the Omnia motherboard. Carefully remove the jumper from the rear-most pins 2&3 labeled "NC", and move it to the front-most pins 1&2 labeled "NO". After 30 seconds, move the jumper back to the original "NC" position. This step clears the motherboard's non-volatile memory, removing any contents that may be incompatible with the new software. Failure to do this step may cause unpredictable software upgrade results.
8. Reinstall the top cover of the Omnia using all 30 screws. For safety reasons the unit should never be powered up with the top lid removed.

9. Reorient the unit so that you have a clear view of the Omnia-4.5's rear panel. Remove the rear-panel memory card from the top Expansion Card slot by pressing in on the black ejector tab. Set the old card aside for now.
10. Locate the software card labeled 4.01.01. This is the new motherboard and DSP software.
11. Carefully insert the memory card into the top slot of the Omnia's rear panel, making certain that the card is properly aligned with the socket. Note that inserting the memory card into the bottom slot (which is for the optional modem only) can irreparably damage the card!
12. Press the card gently but firmly into the top slot until it is fully seated.
13. Connect the AC power cord, and turn on the power switch. Upon power up, the front panel display should briefly flash, go blank, and then show a boot progress bar along the bottom of the display. The boot message should be "Load image <ATA>". After a few seconds, a rotating Omnia logo should appear, followed shortly by the main menu screen. If this test is successful, power down the unit and replace the rest of the lid screws.

The update procedure is completed. You may now re-install the unit to its previous location.

You have two options regarding what to do with the old software cards you just removed:

1. Use the supplied jewel cases and padded self-addressed return envelope to return the old cards to Telos / Omnia for full credit.
2. Keep the old card set for spare use and pay the upgrade invoice. You can always contact Telos / Omnia Customer Support or your Dealer (for International customers) and arrange to have the spare cards updated to the latest version.

"Description of DSP and Motherboard Enhancements"

Here is a brief description of the changes implemented in software Version 4.01.01:

- Fixed intermittent corruption of the displayed names in the preset list window.
- Fixed problems that caused invalid data to be sent to the remote control application and front-panel. This could cause strange characters to appear in the preset name list.
- Added optional “!!!” argument to the following command line commands: Preset, Delete, Rename, and Saveas. In all cases, this is intended for non-interactive use of these commands and causes the commands to execute fully without prompting the user for any further confirmation - even when their execution causes destructive behavior (e.g. unintentionally overwriting an existing preset). This can be useful for writing trigger scripts that must ignore the previous state of a preset, such as one that has been modified but not saved.

For example, in the previous software version, a user could have modified a preset but not yet have saved it before a trigger script event occurred that was intended to change presets. Then, if the trigger script had selected a new preset, it could not have been successful because there was no way for the user to first be prompted by the “Lose Changes To Current Preset” message beforehand.

In the new software version, trigger scripts can be written using the “!!!” option to enable unconditional selection of a new preset, regardless of the state of the previously running one. The proper Trigger Script syntax to use in this case would be “Preset ‘x’ !!!”, where ‘x’ is the preset number (not name).

- Renaming a preset to the same name is now disallowed. In previous software versions, attempting to do this would inadvertently cause the deletion of a preset. This action now results in a warning message to the user, and no action.
- Users can no longer use the “Save Current As” command to save settings to an existing preset name. In previous software versions, this resulted in the user receiving a false prompt for confirmation, and could have possibly created two presets with the same name. This action now results in an error message.
- The “Save Current As” command can no longer be used to save a preset with a blank name. Preset names must contain at least one character.
- The confirmation message “Preset xxx Exists. Write Over?” when executing the save command on an existing preset has been eliminated. This confirmation was deemed

superfluous because “Save Current” only saves the current preset, which must have existed in order to be recalled in the first place.

- Fixed bug that caused some system parameters (specifically, those that affect the audio processing DSP's) to load incorrectly from the PC card or factory defaults.

Front Panel User Interface Enhancements

- The Discrete Output Level Controls now operate in 0.1dB steps, allowing an even finer resolution for modulation setting. This was done to complement the Limiter Mixer Output controls, which also increment in 0.1dB steps.

Overview of Changes Made in Previous Software Versions

- Corrected a bug in the Security Menu that caused inadvertent lockout if the security level was downshifted to levels 1 or 2.
- Added a new System Menu item for complete system reboot, including support for complete system reboot by Omnia remote control.
- Corrected a bug in the Ethernet driver which caused problems only when connecting the Omnia to 10BaseT networks. (This was not an issue when connecting with 100BaseT networks.)
- Added a new feature to assist customers who, through password manipulation, may become inadvertently locked out of their units. Omnia Customer Focus personnel can now assist customers in unlocking their units without a returning them to the factory. (Security note: an internal, rolling access code generator algorithm allows users to unlock their Omnia-6 and restore its factory password defaults. The "master unlock" access code changes on a daily basis and is unique to every Omnia-6.)
- Added menu "end stops" to each of the submenu screens to simplify and speed up navigation. In each menu or submenu there will be either one or two "end stops", shown as "H", for "Home", and "X", for "Back". All submenus now have the "Home" button, and submenus with submenus have both the Home and Back button selections. When the cursor is on the "H", pressing the jog wheel navigates the user back to the main Omnia menu. When the cursor is on the "X", pressing the jog wheel navigates the user up one level to the previous submenu.
- Modified main Meter screen to display the Input audio source that has been selected in the "Input" menu. The input source name now appears above the word "INPUT" on the main meter screen.

- The main Meter screen now displays the time of day to the second.
- "Stealth Mode" added to Omnia-4.5's security system. Stealth Mode can be selected in the Security Config menu. When this mode is selected and the system is locked, the processing bargraphs on the meter screen are idled, and the Preset Name in the lower left corner of the meter menu is replaced by the words "System Locked".
- When Ethernet is in use, an Exclamation point is displayed, the main menu is grayed-out, and the Help Text box explains that local control is not possible.
- Limiter Mixer output controls have been re-calibrated to match the new DSP code which increments the mixers in 0.10dB steps instead of the previous 0.50 dB steps.
- Phase Rotator selections on the Input Menu have been revised to include the choices 1-2-3, plus an OFF setting.
- ITU BS-412 Multiplex Power controls have been removed from the Encode menu and placed in the Output Menu to clarify its functionality.
- The ITU BS-412 Multiplex Power Limiter operating range has been extended to include settings up to +9.0dB. Previously the algorithm only allowed settings up to +4.5.0 dB.
- The System Menu has updated with a Security Configuration page. In the Security Configuration page, the Master user can enable or disable submenus in each of the two lesser security levels. This allows restricted access to certain features. You may also save these settings to onboard memory for future recall. Stealth Mode is also selected from within this menu.
- The System Menu now supports setting and displaying system time to the second. Note that this change also affects the Scheduled events like Dayparts, which can now activate events with one-second resolution.
- We've added the capability to send UDP test packets over the Omnia's TCP/IP Ethernet interface. This feature is useful for troubleshooting different types of network packet routing difficulties, which may be encountered on some networks.
- Added the capability to restart the front panel display processor independently of the motherboard. This feature becomes useful when Networking parameters have been entered into the system, and restarting of the front panel is necessary to put those changes into effect. Note that when the front panel display processor is re-started, on-air audio is not disrupted. The button for this feature is labeled "Reboot Display".

- The DHCP option has been removed from the Network configuration page. This was done for two reasons: 1) Many broadcast facilities are still using static IP on their networks, and 2) the network might dynamically assign a new TCP/IP address to the Omnia. If this occurred, you would not be able to remotely locate and control the Omnia over the network until its new IP settings were determined.
- The "In Progress" preset and its associated functionality were removed. This improves system response time to the user interface by reducing the number of background tasks being run by the front panel controller.
- The allowable length for Preset Names has been shortened to twelve (12) characters.