

Omnia-5 EX / EXi AM Software Update

Revised June 2006

Applicable to Front Panel (Display) Software Version FP5.2.1
Motherboard DSP (Release) Software Version 5.02.01

NOTE: This update is for Omnia-5EX and EXi AM units only. Omnia-4.5 units can be upgraded to 5EX with a factory-only upgrade. Please contact Omnia Support for details.

*** Important Notes! Please Read! ***

- Omnia-5 Remote Control Version 5.2.1 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 5.2.1 of Omnia-5 Remote Control may be freely downloaded from:
<http://www.omniaaudio.com/support/updates.htm>.

If you have questions or find that you require assistance with this upgrade, you may call Customer Support at 1.216.241.7225. Please have the serial number of your unit handy if you need to call us. The serial number can be found on a small barcode sticker on the rear panel that looks like this: 4700xyyyy.

The memory card enclosed with this upgrade kit will allow you to update your Omnia-5 to the latest version of enhanced DSP code. The user interface software is updated via the Ethernet network port. These enhancements are the result of ongoing research at Telos and 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-5 software release.

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

- The memory card containing the enhanced DSP algorithms and motherboard software is labeled as Version 5.02.01.

Please see the " Brief Summary of Changes and New Features " section on Page 5 for a summary of the enhancements, as well as an introduction to the new features that have been added since the previous software versions were released.

Software Update Procedure

The front panel (Display) software of Omnia-5EX and EXi units currently running version 5.00b and higher can be updated by downloading new code to it over the Ethernet connection. To use this feature, you must first have the Omnia-5 Remote Control software and the proper front panel software update (.upd) file. This file can be obtained from Telos / Omnia Customer Support via email or by download from:

<http://www.omniaaudio.com/support/updates.htm>.

We recommend downloading the file to a new folder on your PC' s desktop for convenient access during the procedure.

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

1. Find the (.upd) file obtained from Telos / Omnia Customer Support or downloaded from the Omnia website.
2. Configure Omnia Remote Control (version 5.00b or higher) for connection to the Omnia over a network. Note that if you don' t have a network you can still use Ethernet if you use a crossover cable between the PC and Omnia. Such cables can be obtained from many computer products stores.
3. Connect to the Omnia over Ethernet.
4. Using the Options menu, navigate to the “Upgrade Front Panel” menu option. When you select it, an Open File dialog box will appear. Point the program to the folder on your PC where you downloaded the .upd file.
5. Select the ‘omn5hd.upd’ file and click the Open button. A message box will appear, detailing the process of downloading the file to the front panel. The update process can take several minutes, and may appear to be stuck at some points in the process. This is normal! Therefore do not interrupt the update! When the update is finished, a new message box will appear stating “Upgrade Successful”.
6. It will now be necessary to reboot the front panel using the menu option \System\Network\Reboot Display feature in order to load and run the new software that was just downloaded. This may be done immediately after downloading the update, or at a more convenient time if necessary. Rebooting the front panel should not interrupt the audio.
7. If you are updating the front panel software as part of an update kit that includes a new rear panel (v5.02.01) PCMCIA card as well, continue as follows:
8. Turn the Omnia off and disconnect the power. Re-orient the unit so that you have a clear view of the Omnia-5' s rear panel. Remove the rearpanel memory card from the top Expansion Card slot by pressing in on the black ejector tab. Set the old card aside for now.
9. Locate the software card labeled “Omnia Memory Card v5.02.01AM”. This is the new motherboard and DSP software.

10. Carefully insert the memory card into the top slot of the Omnia's rear panel with the large Omnia logo facing up and the version number sticker facing down. Make certain that the card is properly aligned with the socket. Note that inserting the memory card upside down or into the bottom slot (which is for the optional modem only) can irreparably damage the card and/or the socket.
11. Press the card gently but firmly into the top slot until it is fully seated. Do NOT apply excessive force! Card should seat easily into the socket with only slight resistance. When fully seated the black ejector tab should pop out about a half-inch or so.
12. 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 a flashing square cursor should appear on the screen. After a few seconds, a rotating Omnia logo should appear, followed shortly by the main menu screen.

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

You will now need to return the old card you just removed to Telos / Omnia using the supplied jewel case and padded self-addressed return envelope. Once we have received the cards, a full credit will be issued.

STAY IN TOUCH

Please log on to <http://www.omniaaudio.com/> to register for our email newsletter and to take advantage of upgrades and other important information designed to keep your Omnia at optimum performance.

Brief Summary of Changes and New Features

Omnia-5 EX AM v5.2.1 / FP5.2.1 / Remote v5.2.1 (as of June 16, 2006)

- Added day event scheduler to the Front Panel software. This executes events (preset changes or script executions) reliably at a specified day of the week and time. This replaces the previous daypart scheduler system.
- Improved Ethernet remote connection reliability.
- Added TCP port selection in the “Edit Connection” dialog of the Remote Control Software. This allows the remote to connect to a port other than 23 when port redirection is being performed on a router/firewall.
- Added option to select up to 9 serial ports in the “Edit Connection” dialog of the Remote Control Software.

• Omnia-5 EX AM v5.1.0 / FP5.1.0 (as of August 11, 2005)

- Added support for the new Diversity Delay / LoIMD Clipper functions and their associated DSP card. (Exi style only)
- Added selectable L+R/L-R matrix processing mode, selectable output matrix and their associated controls
- Added new “AM Options” submenu to the Output menu and moved some controls to it from the Clip and Output menus.

• Omnia-5 EX AM v5.0.2 / FP5.06 (as of April 10, 2005)

- Added AES external sync fail-over, which reverts AES output 1 to a selected internal sample rate if external sync is selected but the signal on the external sync input is not valid. Sync automatically returns to external as soon as a valid signal is present.
- Fixed a bug that could cause the front panel to lock-up upon disconnection of the remote control.
- Rearranged and cleaned up the AM clipper screen.
- Cleanup of graphics on several screens, particularly the order in which the controls are selected by turning the jog wheel.
- Added “reboot front panel” option in remote. This only works when the remote is connected via direct serial or modem.
- Added more choices for the AM final low-pass filter. Choices are now 4.5k, 5k, 5.5k, 6k, 7k, 8k, and 10k. 4.5k and 6k are for ITU; 10k is for NRSC; others are intermediate values, mostly for use with IBOC digital broadcasting.
- Increased the bandwidth of the 4.5kHz filter slightly, to push closer to the limits allowed in the ITU spec.
- Fixed bug where the O5 remote would not save the girth bass clipper parameters to .prs files.
- Fixed bug where O5 remote and O6 remote used the same registry key to implement “auto-connect to last” .

Omnia-5 EX / EXi Manual Addendum

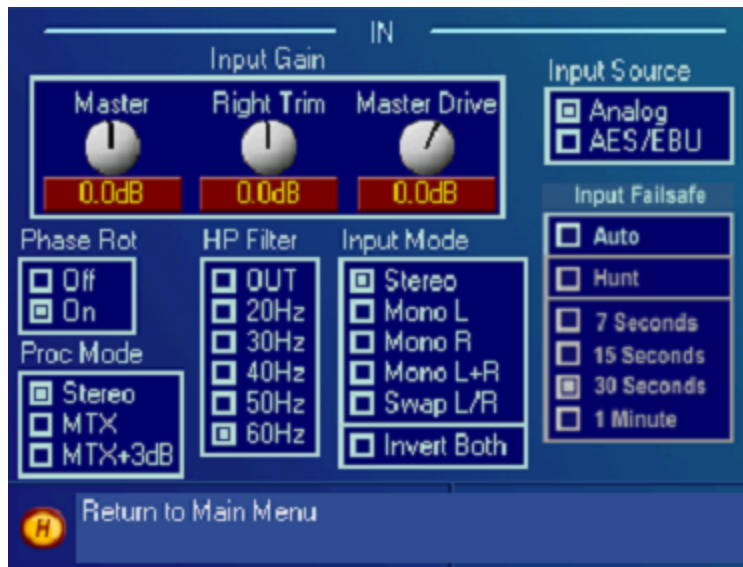
(Applicable to Release Software v5.1.0 AM and Higher)

Software version 5.1.0 adds several new features and their associated new controls to the Omnia-5EX / EXi. Also, several existing controls have been moved to different control screens.

Software version 5.2.1 adds a re-vamped daypart Schedule function.

This manual addendum contains screenshots of the control screens that have changed as well as full descriptions of any new controls that are present.

Input Menu



There is one new control in the Input menu, “Proc(ess) Mode”.

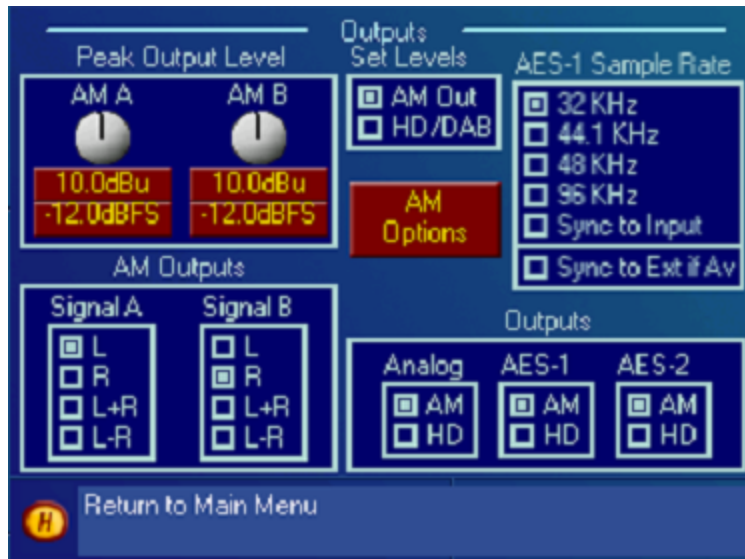
Proc(ess) Mode:

There are three choices for Process Mode. “Stereo” will process the left and right channels in the normal conventional stereo manner. “MTX” (Matrix) will process in a L+R / L-R matrix format where the L+R is processed through the Omnia’s left channel and the L-R is processed through the Omnia’s right channel. “MTX+3dB” will process as in matrix mode but with 3 dB of additional gain in the L+R channel.

This control only affects the processing of the conventional AM signal. It has no effect on the HD signal.

Descriptions of the other controls in the Input menu that have not changed can be found in your Omnia-5 EX AM manual on Pages 36-38.

Output Menu



New in the Output menu are the “AM Options” submenu, “AM Outputs” matrix and “Sync to Ext(ernal) if Av(ailable) controls. The “AM Options” submenu contains the controls for adjusting the new built-in HD Diversity Delay (Exi only) as well as the Polarity for both analog outputs (formerly in the main Output menu) and “Asymmetry, LPF Freq, Tilt EQ and Tilt Freq” . (formerly in the Clip block of the Process menu)

Sync to Ext if Av(ailable):

When checked, this will cause the Omnia’ s AES/EBU output sample rate to follow a valid AES/EBU signal applied to the rear panel “Ext Sync” input. If a valid signal is not present, it will revert back to the sample rate selected above.

AM Outputs:

These controls allow you to independently set what conventional analog channel signals are output through each channel of the Omnia’ s analog and digital XLR output jacks when they are set to “AM” in the “Outputs” section to the right.

These controls have no effect on outputs that are set to “HD”.

“Signal A” corresponds to the left channel analog output and channel A of the AES/EBU digital output.

“Signal B” corresponds to the right channel analog output and channel B of the AES/EBU digital output.

NOTE: You actually get what you ask for here!

For example:

If the “Process Mode” control in the Input menu is set to “Stereo” and the “Signal A” and “Signal B” controls are set to “L+R” and “L-R” respectively, processing through the Omnia will be done in the conventional stereo mode and the matrix will be generated just before the output.

If the “Process Mode” control in the Input menu is set to one of the “MTX” (matrix) modes, and the “Signal A” and “Signal B” controls are set to “L” and “R” respectively, processing through the Omnia will be done in matrix mode and the outputs will be de-matrixed, conventional left and right channel stereo.

If you are an HD station processing stereo (or matrixed) audio and will be using one of the analog outputs to feed a mono auxiliary transmitter, set the output to be used (“Signal A” or “Signal B”) to “L+R”

Descriptions of the other controls in the Output menu that have not changed can be found in your Omnia-5 EX AM manual on Page 39.

AM Options Submenu



There are four new controls in this new submenu that adjust the Diversity Delay. (Exi only) Also moved here now are the “Polarity” control (formerly in the main output menu) and the “Asymmetry, LPF Freq, Tilt EQ and Tilt Freq” controls. (formerly in the Clip block of the Process menu)

Polarity A and Polarity B:

These controls now adjust the polarity for each of the 2 analog outputs separately. These are handy to use instead of swapping pins 2 & 3 on XLR connectors or if the wiring is inaccessible.

Diversity Delay: (Exi Only)

The four controls in this box are used to turn on and adjust the delay time of the conventional channel’s audio to precisely match the delay of the HD channel’s audio. The diversity delay is engaged or defeated using the “Delay” On or Off settings. The delay time can be adjusted using “Coarse”, “Medium” and “Fine” controls. The “Coarse” control adjusts the delay time from 0 to 10 seconds in 0.1 second (100 ms) increments. The “Medium” control adjusts the delay time from the “Coarse” control over the range of +/- 50 ms in 1ms increments and the “Fine” control adjusts the delay time from the previous two controls over the range of +/- 500us in very precise 10.4us increments.

Asym Mod, LPF Freq, Tilt EQ and Tilt Freq:

Full Descriptions of these controls can be found on Page 71 in your Omnia-5 EX AM manual. They have been moved here from the Clip block of the Process menu.

Schedule Submenu

The daypart Schedule function has been completely re-written to run on the front panel instead of the motherboard.

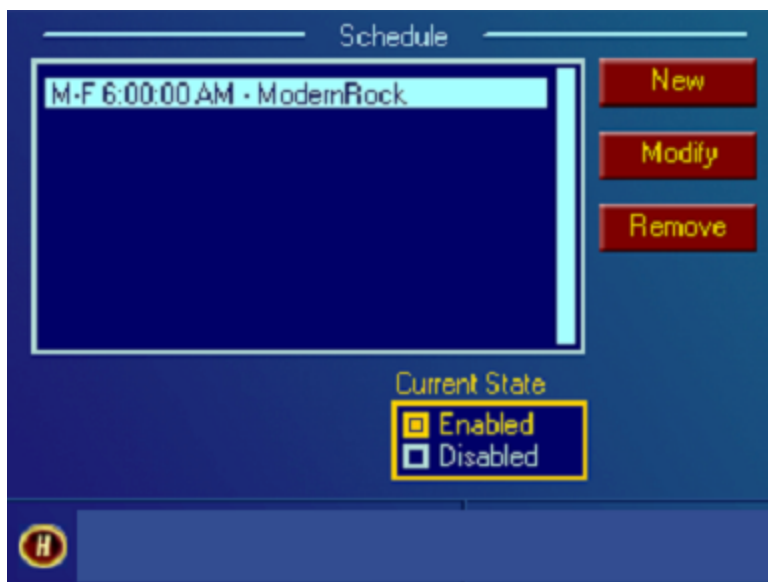
Because of this the Scheduler can only be programmed directly from the front panel of the unit (limited to preset changes) or over an Ethernet Remote Control connection using the free Omnia Remote Control software.

The Omnia Remote Control software can be freely downloadable from here:

<http://www.omniaaudio.com/support/updates.htm>.

The Schedule can no longer be programmed using a serial port or modem connection.

Here is the new main Schedule window:



Schedules are now programmed as individual events so the schedule shown at left (from an Omnia-6) will change to the "ModernRock" preset at 6AM Monday thru Friday and stay there.

If a return to a previous or different preset is desired another event will need to be programmed after this one.

The 4 controls here are New, Modify, Remove and Current State.

New:

Click this button to add a new event to the schedule list.

Modify:

Click on this button to make changes to an existing scheduled event.

Remove:

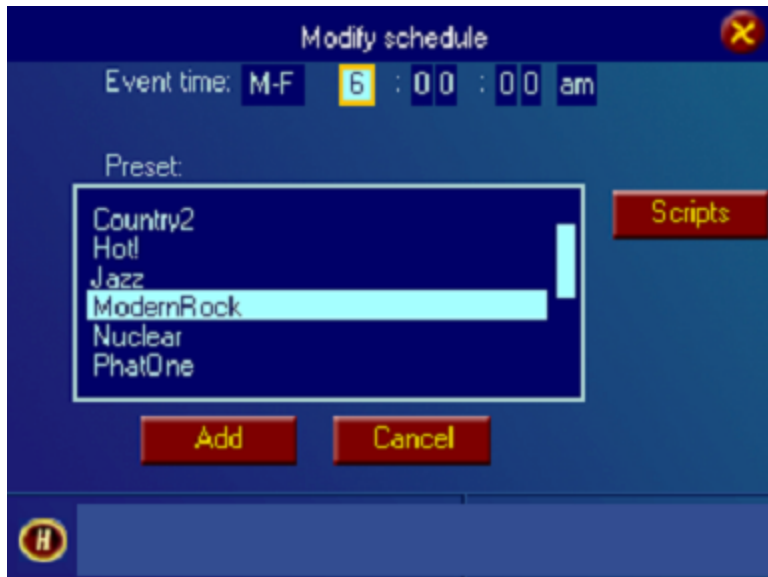
Click on this button to remove an existing event from the schedule list.

Current State:

Checking "Enabled" will activate the entire schedule list and the events contained in the list will occur at their scheduled day and time.

Checking "Disabled" will de-activate the entire schedule list and no events contained in the list will occur.

Below is the Schedule editing window that is accessed by clicking on “New” in the main Schedule window of the free Remote Control software. (The “ Scripts” button is not present when accessing the Schedule function directly at the Omnia’ s front panel)



Here you will see the “ Event Time” entry fields, a list of all the presets on the Omnia’ s memory card and the “ Add” (or “ Modify”)and “ Cancel” buttons.

The “ Scripts” button will only appear when accessing the Schedule function from the Remote Control software.

Event Time:

This is where the date and time that the scheduled event will occur is entered or edited.

Clicking in the first field and rotating the Jog Wheel will allow you to select between “All” days of the week, any individual day of the week, “M-F” , (Monday through Friday only) and “S-S” (Saturday and Sunday only) for the event being edited.

Preset:

This is a list of all of the presets that are saved to the Omnia’ s memory card.

If no Preset is selected only a programmed Script will run at the scheduled day and time.

To select the preset that the Omnia will change to at the scheduled day and time, rotate the Jog Wheel to highlight the Preset list box and then click.

Rotate the Jog Wheel and click to select the desired Preset.

Add: or Modify:

When the entered or edited event is correct click this button to save it and to the Schedule list in the main Schedule window.

Cancel:

Clicking on this button cancels any changes you may have made to this event and returns to the main Schedule window.

Scripts: (Remote Control Software Only)

Clicking on this button (present only in the Remote Control software when connected via Ethernet) will open a “ Scripts” dialog entry box with “ OK” , “ Clear” and “ Test” buttons.

Scripts can be entered into this dialog that will be executed at the scheduled date and time with or without a preset change.

For full information about Scripts, please see the Trigger Scripts section in Chapter 6 of the manual.