PLW215 II

Owners Manual

MONITOR AUDIO ®

Contents

Introduction from the Technical Director

How can a loudspeaker be made to sound more natural? This is the question that drives our endeavour day-in, day-out. We're motivated by the quest to eliminate distortion from the most important element in your audio system. How far we've come can be measured by the sound of Platinum II: the most accurate and beautiful loudspeakers Monitor Audio has ever made. Supported by painstaking analysis and a lifetime of listening, their evolution has refined our technologies, inspired new discoveries and achieved advances in every area of design - electrical, mechanical, magnetic, acoustic and aesthetic. The result is a speaker range of exceptional quality, dedicated to raising your emotional contact with music and film sound in all its natural glory. Built by audio lovers, for audio lovers, Platinum II provides our answer to the primary challenge of speaker design. To the big question we simply reply "like this"!

Dean Hartley
Technical Director

Company History

Since 1972, Monitor Audio's near fanatical commitment to quality in every aspect of loudspeaker design coupled with its willingness to innovate has inspired global recognition and acclaim. Daring to challenge design orthodoxy has been its signature approach.

When Monitor Audio launched its R852MD loudspeaker – the first model to incorporate a metal dome tweeter - it caused quite a stir. Until that time, most metal domes were single-metal types made from copper or titanium and virtually all sounded unconvincing. The R852 used an aluminium-magnesium alloy dome and sounded significantly better and smoother than all of its single-metal rivals. It also incorporated ferro-fluid damping/cooling of the metal voice-coil former and a vented voice coil mechanism for better heat dissipation. These radical design elements formed the basis for successive generations of C-CAM® metal domes.

By consistently refining and applying the technology, Monitor Audio has become the world's foremost proponent of metal dome drivers. Monitor Audio designs everything in house at their world headquarters in England, so that it can optimise the incomparable blend of virtues that makes Monitor Audio loudspeakers unique: clean, dynamic sound, superior build quality and innovative design. Because they share a philosophy of excellence and a consistency of quality and voicing, loudspeakers of different types: on-wall, in-wall, floor and stand-mounting, may be used together to create the perfect acoustic blend for any room.

In the strength and depth of Monitor Audio's evolving product portfolio, the ideal of a universal whole-house loudspeaker brand finds true expression. Decades of accumulated expertise and knowledge have refined the rare mix of innovation, reliability and sheer performance that has propelled the brand to global status and on which aficionados of music and movie sound have come to rely.

PLW215 II Technology

The PLW215 II has been designed to produce wall-shaking bass using the best technologies available to our team of designers and engineers. The sealed cabinet houses a vibration-cancelling driver configuration featuring 2 x 15" sub woofer drivers with an inverted surround, triple suspension, and a single layer edge wound, vented voice coil, to enable a massive 42mm (peak to peak) of excursion. Drawing power from the Hypex supply, each driver has its own 700w RMS Hypex amplifier providing a combined 1400W RMS power output. Controlling all of this is our bespoke, in house designed, 172MHz DSP Core. The DSP can handle 3500 instructions per sample, with 139dB of dynamic range and 56-bit double precision processing all dynamically updated by an 80MHz MCU. The Wolfson Microelectronics (Cirrus Logic) ADC & DAC @ 24bit/48KHz (WM8786 ADC & WM8740 DAC) handles all of the important conversions.

The DSP is set by our proprietary application, SubConnect. It can be used straight out of the box, being set by the control panel on the top of the sub woofer, or more advanced settings can be adjusted using the application. Refer to page 11.

One of the features of the DSP is the room calibration. This, again using our own algorithms, measures the room acoustics and smooths out any major peaks and troughs found in the room creating as a smooth a response as possible before applying the preset equalisation curves. That can also be customised in the application. Refer to page 15.

Real Wood Veneers

Just like a human fingerprint, no two trees are identical. Each wood grain has an exclusive aesthetic beauty that tells a story of a lifetime of growth. We use only the highest quality natural wood veneers, hand selected and pair matched from sustainable sources. Platinum II speakers are hand veneered after the cabinet structure is made, and then coated with 11 layers of clear gloss piano lacquer. These traditional techniques ensure close grain matching, and invisible veneer panel joining. The exquisite grain definition and rich colour variation provided by our Santos Rosewood and Natural Ebony veneers make a statement of quality, while blending naturally with any interior style or decor. Each cabinet is a unique and natural work of art!

Because of this, Monitor Audio Ltd. is unable guarantee that the veneer on different pairs of speakers will be identical in colour or grain definition. We can only assure you that the very best raw materials have been selected and applied.

Please refer to page 21 for advice on care and maintenance.

Amplifier
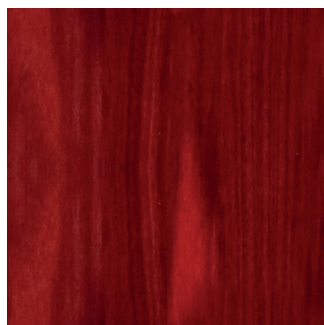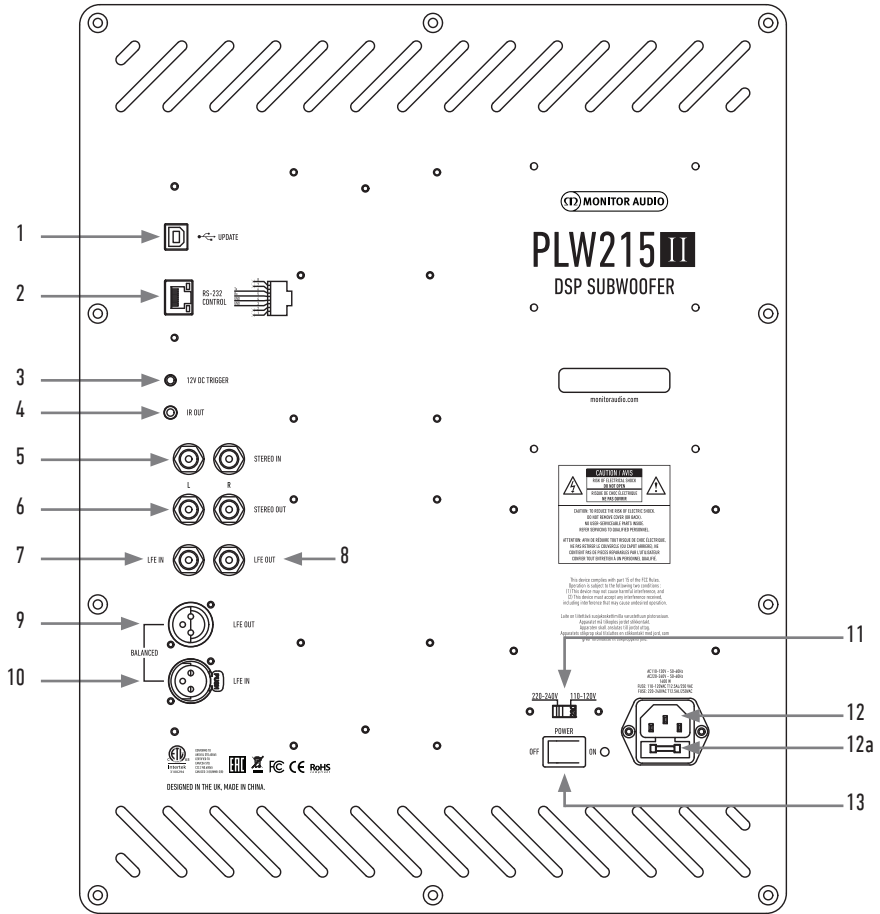
1. **USB Connector**
   This is provided to update the firmware and settings of the PLW215 II in conjunction with the SubConnect application (refer to page 11).   A USB cable is not included, please use the appropriate USB A to USB B cable.

2. **RS232 Input**
   For use with home automation systems through a conventional RJ45 connector. Please refer to page 16 for the wiring configuration and set up protocol.

3. **12 Volt Trigger Input ~ Centre Pin = +12Vdc.**
   For external power control from AV amplifier/receiver to the PLW215 II (lead supplied), and to toggle between different presets depending on set up via the SubConnect application (refer to page 11). The default setting controls the power. This 12 volt signal comes from the source amplifier and supplies the PLW215 II with a signal to perform a predetermined action: either to power up/down or to switch presets. When used to power PLW215 II up or down, the trigger is a very energy efficient method of power control. The auto off timer and signal sense will not operate when the 12V trigger is connected.

4. IR (Infrared) Output
For use when controlling other IR devices via the PLW215 II. Connect the PLW215 II with a second device using a mono 3.5mm jack connector and control the second device with its remote via the PLW215 II. This is ideal when the device is out of sight or in another room.

5. Line Level Inputs (Stereo Left & Right)
For connection to a 2 channel/ stereo amplifier system. Connection should be provided by a pair of high-quality signal cables from the pre-out section of an amplifier. Note: Cable lengths should not exceed 10 metres to avoid interference from other electrical appliances.

6. RCA Line Level Outputs (Stereo Left & Right)
To be used to feed additional sub-woofers or power amplifiers from the PLW215 II by 'daisy chain' type connection. The outputs are link-out only connections and do not provide any form of filtering or amplification. There must be a signal on the stereo input for the linked outputs to work.

7. LFE Input (RCA Type)
This input is to be used when connecting the PLW215 II to an AV amplifier/ receiver. When using the LFE input, the crossover function in the menu/ set-up is not used. This is due to the crossover function being controlled by the source to which it is connected. Input between LFE and Stereo input is switched automatically.

8. LFE Output/ Link (RCA Type)
To be used to feed additional PLW215 IIs (or another sub woofer) by 'daisy chain' type connection. The output is a link out only connection and does not provide any form of filtering.

9. Balanced LFE Output (Male XLR Type)
To be used when connecting to the balanced input on an additional sub woofer or amplifier. This is the best method of connection when using long runs of cables (over 10m, up to 100m). A balanced connection provides a much better (almost noise free) method of connection over analogue audio type connectors.

10. Balanced LFE Input (Female XLR Type)
To be used when connecting to the balanced output on the amplifier. This is the best method of connection when using long runs of cables (over 10m upto 100m). A balanced connection provides a much better, almost noise free method of connection over analogue audio type connectors.

11. Voltage Selection Switch
Factory preset to suit the voltage of the country of origin. This should not be adjusted.

12. IEC Mains Power Connector/Fuse Location
The PLW215 II is supplied with a three-pin mains input socket for connection to the mains supply. Use ONLY the appropriate IEC mains lead provided with the product. Also fitted is an external mains fuse. If a fuse blows during operation a spare fuse is provided within the fuse holder for replacement. If you wish to change the fuse, you can do this by removing the IEC mains lead and carefully levering out the original fuse from its holder below the IEC mains input socket (12a, opposite). If the fuse blows again it is advisable to seek help from an authorised service agent. DO NOT attempt to re-fit a further fuse as this could result in serious damage to the amplifier unit.

13. Mains Power Switch
Mains 'rocker switch' providing overall power off and on/ auto. In the on/auto mode, the unit will turn on when an input signal is sensed or the control dial/ power button on remote is pressed. It will turn off after 20 minutes (default setting) when the signal is removed (source turned off). Alternatively, using the 12V trigger (see above) to control the power by turning the source on or off.

Remote
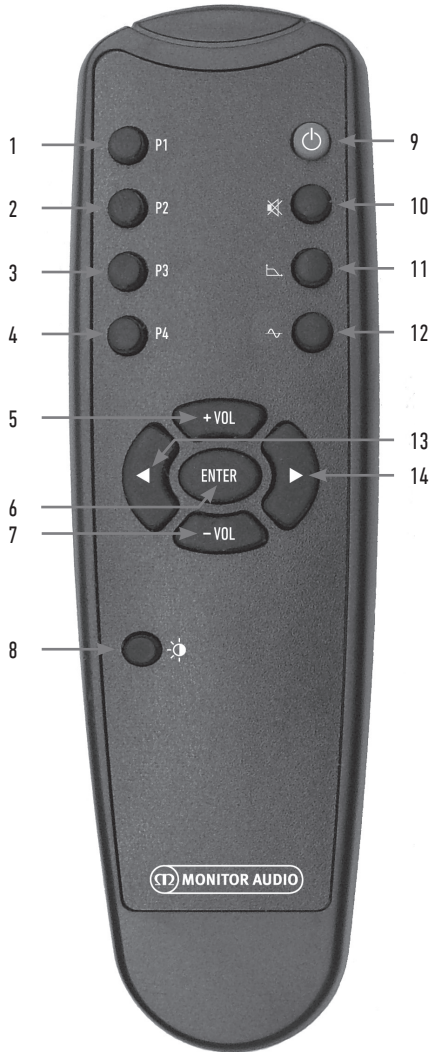
1. **Preset 1**
   Selects preset 1. The default EQ profile is Music mode.

2. **Preset 2**
   Selects preset 2. The default EQ profile is Movie mode.

3. **Preset 3**
   Selects preset 3. The default EQ profile is Flat mode.

4. **Preset 4**
   Selects preset 4. The default EQ profile is Impact mode.

5. **+ Vol**
   Increases the volume trim level.

6. **Enter**
   Selects/ confirms the command.

7. **- Vol**
   Decreases the volume trim level.

8. **LED Brightness**
   Toggles the LED display on or off.

9. **Standby**
   Puts the PLW215 II into standby or wakes it up from standby. Refer to page 9.

10. **Mute**
    Mutes all output from the PLW215 II.

11. **Crossover Point**
    Selects the crossover control on the PLW215 II. Use the left and right arrows to adjust the crossover frequency. This is set in 5Hz steps from 20 to 135 Hz.

12. **Phase**
    Selects the phase control of the PLW215 II. Use the left and right arrows to adjust the phase. This is set in 15 degree increments from 0 - 360 degrees.

13. **Left arrow**
    Adjusts the chosen control.

14. **Right Arrow**
    Adjusts the chosen control.

Front Panel

1. **PLW215 II IR Receiver**
   Aim the PLW215 II remote here for it to function.

2. **IR LED Indicator**
   Blinks when an IR signal is received.

3. **Room EQ Set Up Microphone**
   Connect the supplied set up microphone here and run the set up procedure detailed below.

Control Panel
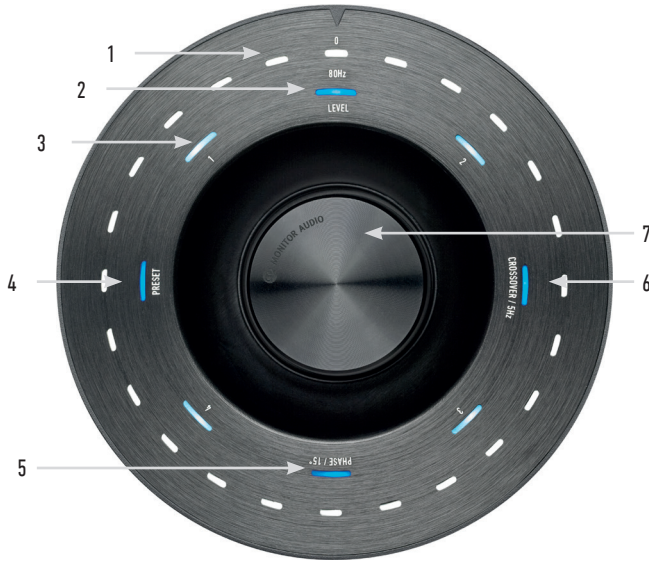
1. ## Main Indicator LEDs
   These LEDs show the levels and the presets selected depending on the mode being adjusted. It will by default show the trim volume level.
   In normal operation, the volume trim level will be displayed along with the Level LED (2) and numbered preset LED 1-4 (3) will be illuminated.

2. ## Trim Level Indicator
   When just turning the control dial, the trim level is the default mode. This can be adjusted +/- 11 dB and does not adjust the master volume control. This must be set by the SubConnect application.

3. ## Numbered LEDs
   These are the 4 presets. Only the selected preset will be illuminated and remain illuminated whilst the preset is in use.

4. ## Preset Select.
   By pressing down on the control dial repeatedly to illuminate the Preset LED, the preset selection mode is activated. Turn the dial to select the required preset. By default EQ profiles for each of the presets are: Music (1), Movie (2), Flat (3) and Impact (4). When adjusting the presets, the 7 Indicator LEDs around that preset will be illuminated

5. ## Phase Adjustment.
   Press down on the control dial repeatedly to illuminate the Phase LED. The phase is adjusted in 15 degree increments with the main LEDs illuminating to show the phase angle.

6. ## Crossover Adjustment
   Press down on the control dial to illuminate the Crossover LED. Here you adjust the LPF crossover frequency (when using the stereo inputs). This is adjusted in 5Hz steps from 20 to 135 Hz and is preset to 80Hz.

7. ## Control Dial
   Use this to adjust the trim level (just turn the dial) or select from the crossover selection, phase or presets by pressing the dial until the required feature is illuminated.

Positioning

The PLW215 II should be sited in the most suitable position, preferably not directly in the corner of a room as this may cause excessive bass boom. The optimal position is along the front wall in the centre of the front left and right speakers. Obviously this isn't always going to be possible in all instances, so as close to the optimum is advisable. Once a desirable position is achieved it is important to check if the cables are long enough to reach comfortably without being under tension. Leave the PLW215 II unplugged until you are happy with its location and the feet have been fitted.

Never connect or disconnect any of the input connections with the PLW215 II switched on.

Once in position, you should fit the feet/ spike assemblies in accordance with the guidelines below. Once the feet have been fitted, connect the signal cable(s) and mains cable and turn on at the main switch.

Spiked Foot Fixing For Carpeted Floors

The spiked foot assembly incorporates a spike for use on carpeted floors and also, a soft polymer pad (for use on wooden or tiled floors).

Please ensure there are no hidden wires under the carpet, or trailing mains leads that could be damaged by the spikes.

The foot comes fully assembled for use on carpeted floors. All that is required is fixing into the cabinet. This is achieved by simply screwing the feet fully into the 4, threaded inserts in the underside of the cabinet. If your carpet has a very thick pile, remove the soft polymer pad from the foot to ensure the spike goes right through the carpet onto the floor. Place the cabinet in your desired location, and check that it is level on all sides. If it is slightly uneven, unscrew the foot at the lowest point and check again. Continue this process until the cabinet is fully level. Use the locking nut on the foot to fix it in place and to stop any unwanted vibrations.

Spiked Foot Fixing For Wooden/Hard Floors

For use on solid floors or where spikes are inappropriate, it is possible to use the foot without the spike insert. To use the foot in this manner carefully grip the knurled portion of the spike and rotate anti clockwise to unscrew the spike fully.

You may find it easier to first remove the polymer pad to gain more purchase on the spike.

The pad should be replaced before carrying out the levelling operation previously described.

← Locking Nut

← Main Threaded Part

← Polymer Pad

← Spike
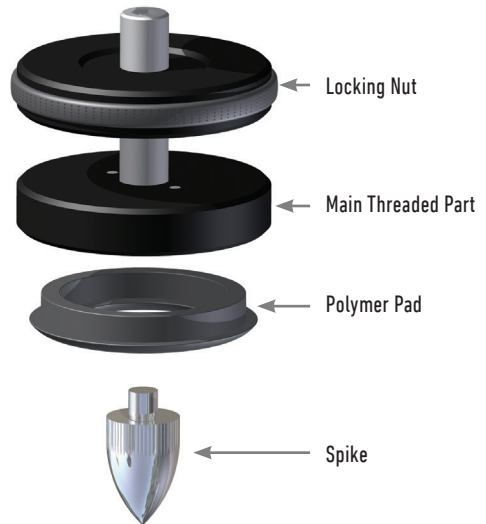
Using the PLW215 II

The default settings of the PLW215 II are enough to get you using the product as intended. You can then tweak and adjust them using the control dial for basic settings (refer to page 7), or more advanced settings via the SubConnect application. By default all of the presets are the same except for the EQ profiles (refer to page 15).

Once in position and the cables have been run and connected (mains cable last), turn on the PLW215 II but do not play any music or movies yet. The room correction should be run before any further settings are changed and before any automatic setup is started on the AV receiver.

Power Cycle

When woken up from standby by one of the below methods, all of the LEDs will illuminate on the top, then fading off in a sequence leaving only the volume trim level and selected preset number LEDs illuminated. These will then fade to 10% or off, dependant on the chosen settings. The fade settings can be adjusted in the SubConnect application.

Waking Up

There are a number of different ways that the PLW215 II becomes operational:

Remote: By pressing the standby button on the remote, the PLW215 II will wake from standby. When woken in this mode, the auto turning off will function as normal. However, if the PLW215 II is turned off by the remote, it will only turn on at next use, by either the control dial (see below) or by the remote. The auto signal sensing will be disabled.

Control Dial: When woken by pressing or turning the control dial, the PLW215 II will continue to remain on while a signal is present or until the defined auto off time has been reached (default 20 minutes)

Signal Sense: This method is fully automatic. The PLW215 II will wake when it receives a signal on any of its inputs. It will then go into standby after the defined period of time (default 20 minutes).

12V Trigger: This is a method of control by the AV receiver or amplifier. Whenever the source amplifier is turned on, the PLW215 II will wake. Likewise when the source amp is turned off, the PLW215 II will also turn off.

RS232: This method of control is defined by the home automation control. Further details on this method of control and the programming can be found on page 16.

Room Correction

The PLW215 II has a sophisticated room correction algorithm that detects any unwanted room modes and flattens them out to give the most accurate bass response possible.

> **NOTE**
>
> To ensure there are no interruptions in the room correction sweep tests, you must disconnect the RS232 cable (if connected) until the room correction has been completed.

To carry out the room EQ, simply connect the supplied microphone to the input socket on the front of the PLW215 II (Item 1 page 6) and place the microphone in the seating position. To get the most accurate response, point the mic up to the ceiling. The PLW215 II will run 2 sweeps by default, but this can be changed in the SubConnect application under Tools > Room Correction.

> **NOTE**
>
> This should be run on the sub woofer before running the set up calibration on any other equipment.

With the mic in the first position, press and hold the control dial as it counts down, it will illuminate all outer (main indicator) LEDs and then flash. When it flashes you can then release the dial. After the first sweep, there will be a pause of about 20 seconds. In this time you can either move to a new location or leave it in the same location before a second sweep is run. This pause can be cancelled by pressing the control dial again and the next sweep will start immediately.

The PLW215 II will then run through the room correction by playing a number of test tones. If the test has been successful, the LEDs will illuminate in a "happy face" arrangement. If it fails then it will be a "sad face" arrangement.


Successful Test   Failed Test

> **NOTE**
>
> If the sweep is run without the microphone connected an error code will be displayed, illuminating ALL LEDs. To reset it from this error state, just turn the dial.

Using SubConnect for Room Correction

To run the room correction on the SubConnect application, follow the steps below. For information on installing the application please refer to page 11.

1. With the PLW215 II on and connected to the PC by USB cable, open the SubConnect app on your PC and click on Tools > Room Correction
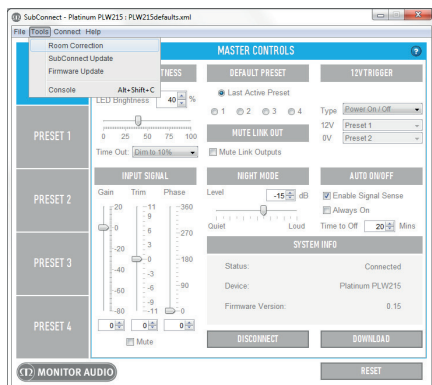
2. Select the number of cycles you wish to run (default is 2) and then click on the RUN button. The sweeps will start as soon as the RUN button is pressed. There will be a pause of around 20 seconds between sweeps.
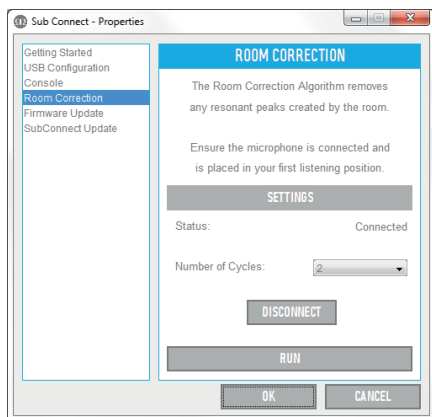
The PLW215 II will then run through the room correction by playing a number of test tones. If the test has been successful, the LEDs will illuminate in a "happy face" arrangement. If it fails then it will be a "sad face" arrangement. Refer to page 9.

Recommended Settings for AV Systems

When using the PLW215 II in an AV system, it is recommended to use Presets 2 (Movies) or 4 (Impact) as the starting points. You can then, if you wish, tweak these slightly to get it sounding just how you want in your room. For advice on adjusting the EQ settings, refer to page 15. When using the LFE input, the crossover adjustment feature will not work.

> **NOTE**
>
> If any adjustments are made by the Control Dial, they will only be remembered if the sub is left to turn off automatically or put into standby by the remote. If the mains switch on the amp is turned off or the power removed from the sub woofer, it will not remember the settings.

Recommended Settings for Stereo

When using the PLW215 II in a stereo system, it is recommended to use Presets 1 (Music) or 3 (Flat) as the starting points. You can then, if you wish, tweak these slightly to get it sounding just how you want in your room. For advice on adjusting the EQ settings, refer to page 15. Once the preset is selected, adjust the crossover frequency so that it blends in seamlessly with your main speakers. This may take some adjustment and the playing of various pieces of familiar music to get it sounding perfect.

> **NOTE**
>
> If any adjustments are made by the Control Dial, they will only be remembered if the sub is left to turn off automatically or put into standby by the remote. If the mains switch on the amp is turned off or the power removed from the sub woofer, it will not remember the settings.
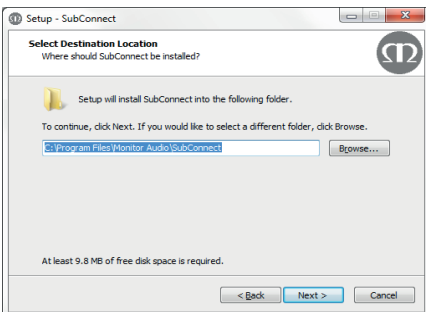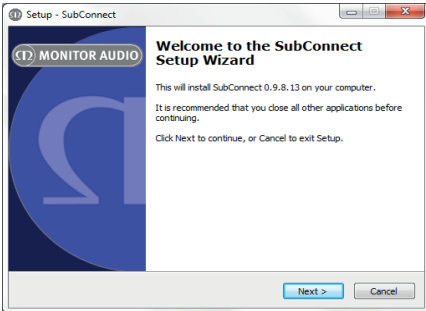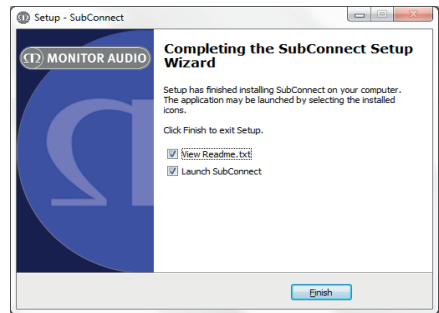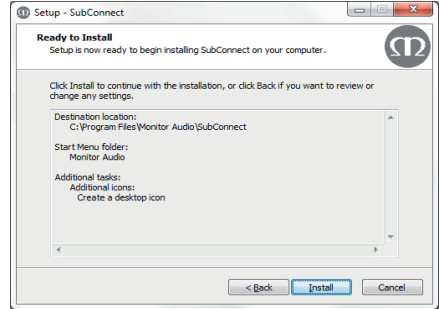
SubConnect Application

About the Application

The SubConnect application has been developed to enable the user to create the best sound regardless of room constraints. This application has an abundance of features and adjustments it just wouldn't be possible to have them all on the sub woofer itself.

Installation

You can download our SubConnect application from our website (www.monitoraudio.com) from the PLW215 II product page in the downloads section. Alternatively from the USB. Please then refer to the installation instructions below for Windows.

1. Unpack the zipped folder using your computer's designated application and run the file 'setup.exe', this will open up the SubConnect Setup Wizard. Press Next, accept the license agreement and then set your installation location, and follow the on screen instructions.


2. When prompted click install and wait for the progress bar to reach 100%, upon completion simply click Finish. If you wish to launch the application upon closing this window tick the box, if not you will now be able to find SubConnect amongst your computer's applications.
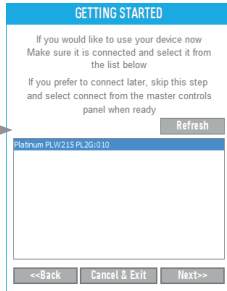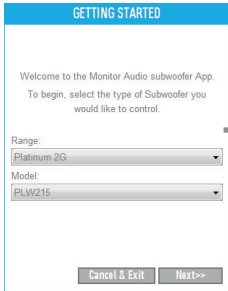
Initial Setup

With the SubConnect application now installed on your PC you are ready to start the setup procedure. Before launching the application first ensure your PLW215 II is connected to your PC using an appropriate USB cable and switched on. When you turn the PLW215 II on, it will automatically download the drivers on to the computer.
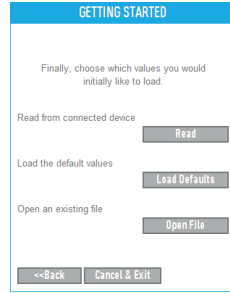
1.   Launch the SubConnect application.
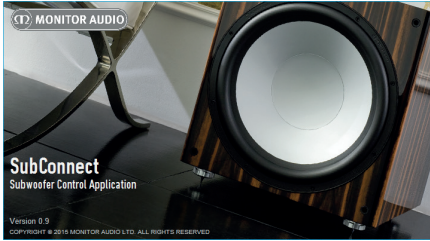
2.   When running it for the first time, the wizard will automatically start. Select Platinum 2G in the "Range" drop down list and PLW215 II as the "Model", as seen below. Press the Next button and you will see the Platinum PLW215 II, select it and press the Next button again.

NOTE

If your PLW215 is not seen in the SubConnect application then check that the sub is powered on by pressing the top control dial. The PLW215 II will not be detectable if in standby. You may also need to reconnect to establish a connection with your PC. Ensure drivers on your machine are kept up to date.

3.   Now you will have three options to choose from. You can either start the SubConnect App with your sub's current settings by clicking on the "Read" button; load the default values we have set for the application by selecting "load defaults", or open a pre-saved setting. If you're setting up the sub woofer for the first time we would recommend the default values as a good platform to work from. These will be the same settings that the PLW215 II uses as default out of the box..
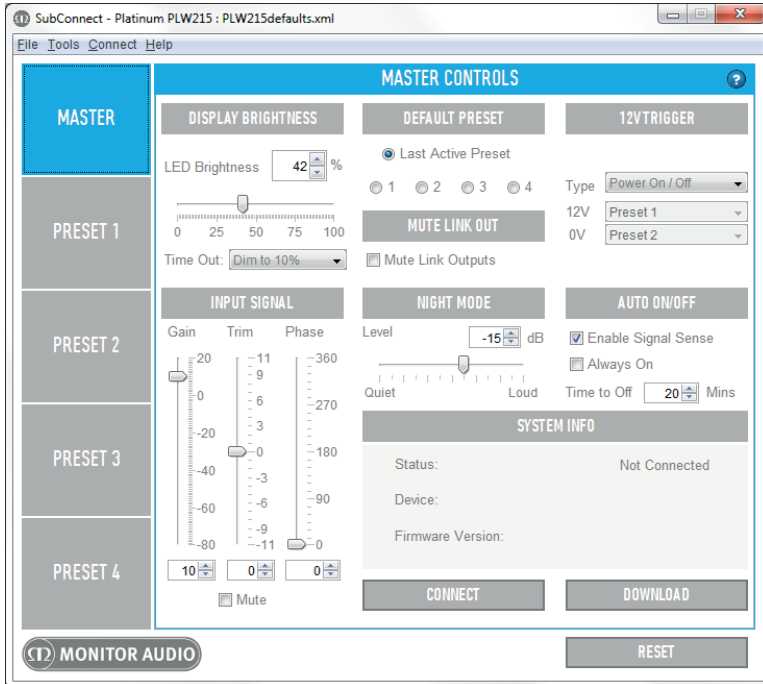

Every time you subsequently run the SubConnect program, it will start up without going through the wizard and will show the "Master" settings page.

Master Controls

The SubConnect application will enable you to control and adjust every part of the sub woofer you could imagine and more. Below are the descriptions of each feature and what they will do. The default settings are those we recommend setting the AV receiver up with. You can then adjust/ tweak them once the AVR's set up has been run.

> **NOTES**
>
> Save any changes before clicking on "CONNECT" or they will be lost and over written by the settings read from the PLW215 II.
>
> Any changes made within the application will need to be downloaded to the PLW215 II before their effect can be heard.
>
> The Master Controls are the same for every preset.

DISPLAY BRIGHTNESS

Here you can adjust the brightness of the PLW215 II LEDs. It can be adjusted using the slider: hovering the cursor over it and scrolling up and down using the wheel on the mouse or clicking on the up and down arrows. It is also possible to set the LEDs to dim (down to 10% brightness) or off completely following 2 minutes of inactivity.

DEFAULT PRESET

Choose whether to start the PLW215 II on a particular EQ preset or the preset active when the PLW15 was last turned off.

MUTE LINK OUT

If you are not daisy-chaining sub woofers together or linking from the stereo inputs to a power amp (for example) you can choose to mute the link outputs.

12V TRIGGER

The 12V trigger input can be used in 2 different ways: to simply turn the sub woofer on and off, or to use it to select different presets when it is high or low. This feature is ideal when connecting the PLW215 II to a stereo amplifier and an AV Receiver at the same time. You can have one preset for the stereo amplifier and one for the AV receiver. Whichever amplifier has the 12V trigger connected to the PLW215 II (normally the AV Receiver) set the preset you want to enable, to be the "12V" option. The "0V" option should be selected for the amplifier without the trigger.

When using it in "Preset X/Y" mode, the PLW215 II will turn on and off when it senses a signal and will automatically select the appropriate preset.

The PLW215 II is clever enough to know if there is a 12V trigger connected or not. When there isn't one connected, this feature is redundant and the PLW215 II will rely on the Auto on/off settings.

If using a multi-input set up, we recommend using the 12V trigger or RS232 connection (see page 16) to select the presets. The PLW215 II will still turn on using the auto on/ off.

INPUT SIGNAL

There are three parameters to be adjusted here: Gain, Trim and Phase. They can all be adjusted using the sliders, using the scroll wheel on the mouse, clicking on the up and down buttons or manually inputting the desired figure. The output can be muted in this section as well.

Gain is the master output level control. This can only be set in this application. We recommend leaving it set at zero and fine tuning the level using the Trim control. If this doesn't offer enough control, adjust the gain accordingly and fine tune it again with the trim control.

Trim is used to fine tune the output level of the PLW215 II. This is adjusted both on the application and on the product itself. The level it is set to will be displayed by the LEDs around the control dial on the top of the sub woofer.

Phase is used to synchronise any delay between the PLW215 II and main speakers. When the sub woofer is in phase with the main speakers the sound should be full bodied. Sit in a normal listening position whilst adjusting the phase settings. When set correctly the location of the sub woofer should be almost undetectable. Experimentation is advisable, however it should be noted that in most cases the phase control should be set to 0 degrees, especially when using a digital AV processor or AV receiver amplifier. The phase can also be adjusted on the PLW215 II itself.

NIGHT MODE

Night mode is a feature that reduces the peaks on the bass output by reducing the overall level but not the extension of the sub. You are able to adjust the amount of attenuation that is added when night mode is enabled by adjusting the slider. Night mode is enabled or disabled in the preset panels..

AUTO ON/ OFF

Enable signal sensing if a 12V trigger is not being used or the 12V trigger is being used to toggle between presets. If a 12V trigger is connected and it is set to turn the PLW215 II on and off, it will know there is one connected and will not wake on signal sensing. It will wait for the 12V trigger to go high.

The Auto Off time can be set manually to anything between 5 to 240 minutes. The arrows adjust the auto off time in 5 minute steps.

SYSTEM INFO

Here the PLW215 II information is displayed. The Status (connected, not connected or Boot Loader mode), the device (model name) and firmware version will all be displayed in this window.

CONNECT

Connect to the PLW215 II. You will be asked if you wish to read the settings from the PLW215 II or not. If you do read the settings from the sub woofer, any changes made within the app prior to reading the data will be lost.

> **NOTE**
>
> If you make changes to the settings on the application and then read the data from the PLW215 II before saving the changes, they will be lost.
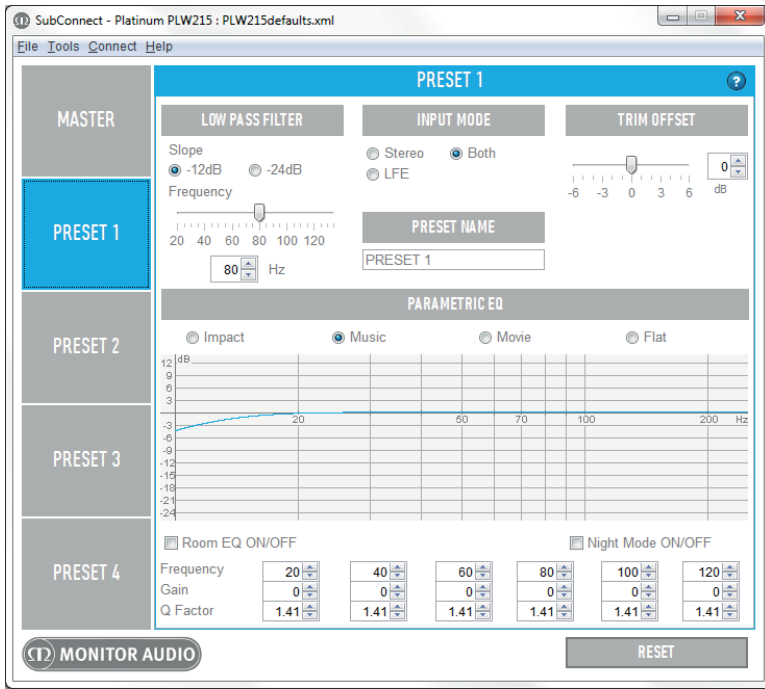
DOWNLOAD

Download the parameters from the application to the PLW215 II

RESET

Reset ALL parameters to the default settings.

Presets

The PLW215 II has 4 separate presets. These can all be set up for different situations. The presets can be selected by either the control panel on the sub, remote control, RS232 control or two can be selected to toggle between depending on the 12V trigger connection and settings.

LOW PASS FILTER

Here the cut off frequency and crossover slope is set. A ported loudspeaker naturally has a low frequency roll off of 24dB per octave, whereas a sealed loudspeaker has a 12dB per octave roll off. For best integration, set the roll off of the sub to match that of your speakers.

The actual frequency can also be adjusted in accordance with the main speakers. This can also be set on the control dial as well. When using the LFE input the low pass filter is not active as this is set by the AVR.

INPUT MODE

Select the input that is active on this preset. If selecting only LFE for example, only a LFE signal will be output. This helps to eliminate any potential interference from other connected devices.

PRESET NAME

The name of the preset can be customised for ease of use.

TRIM OFFSET

This can be customised for each preset in addition to the master gain and trim.

PARAMETRIC EQ

Here you are able to select the type of equalisation you want for the particular preset. There are 4 factory default modes each with its own characteristics. Alternatively, it is possible to customise them to suit your tastes. This customisation is in addition to the factory loaded EQ profile. We would recommend using 'Flat' as a starting point for your own custom EQ. Alternatively, you may want to start with your preferred default EQ and make adjustments to compensate for the response of your listening room. The customisation can only be done using the up and down arrows. You can toggle the Room Correction (see page 9) and Night Mode on and off.

Frequency: chose the frequency that you wish to adjust.

Gain: adjust the gain or attenuation of the selected frequency.

Q-Factor: adjusts the bandwidth relative to its centre frequency (set above)

EQ Profiles

PLW-215 II EQ Profiles
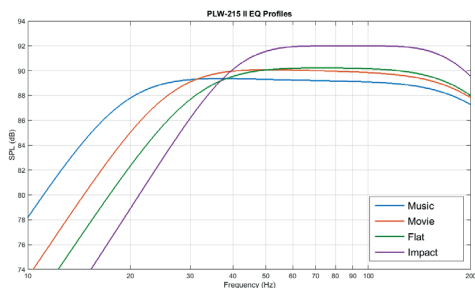
Impact: Uses the maximum natural efficiency of the drivers for explosive impact.

Flat: This is the sweet spot between a flat extended response and minimal use of DSP enhancement. A good starting point to create your own custom EQ profiles from.

Movie: The same flat response with good sensitivity, but a little more extension to create a balance between the explosive and atmospheric moments of a good film.

Music: Maximum low frequency extension to pick out the fundamental frequencies of every musical instrument.

Infra Red Remote Codes

The PLW215 II has discreet remote control commands for use with universal remote controls, along with additional commands not found on the supplied remote. The commands follow the standard NEC protocol.

Device Address: 7D28

POWER	48	DISPLAY	30
ON	D1	ENCODER	D0
OFF	F1	PRESET_SELECT	B8
MUTE	78	RIGHT_BUTTON	E0
VOL_UP	A0	LEFT_BUTTON	C0
VOL_DOWN	08	PLAY_PAUSE	D8
PRESET_1	28	TOGGLE_NIGHTMODE	A8
PRESET_2	58	NIGHTMODE_ON	D2
PRESET_3	88	NIGHTMODE_OFF	F2
PRESET_4	B8	ROOMEQ_ON	D3
TOGGLE_SOURCE	00	ROOMEQ_OFF	F3
VOLUME_SELECT	28	DISPLAY_ON	D4
LPF_SELECT	A8	DISPLAY_OFF	F4
PHASE_SELECT	D8		

RS232

The PLW215 II can be controlled via the RS232 port on the amplifier panel. The PLW215 II can be controlled by sending a string of characters to the RS232 connector.

RS232 Wiring Configuration

The RS232 communication socket uses a standard RJ45 connector. This should be wired as illustrated on the amp panel and below.
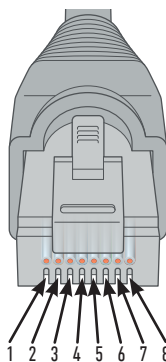
1. Not Used
2. Not Used
3. Ground
4. Ground
5. Rx
6. Tx
7. Not used
8. Not Used.

RS232 Communication Set-Up Parameters

Baud Rate: 57600
Data Size: 8
Parity: None
Stop Bits: 1
Handshaking/ Flow Control: None

Command Protocol

Each string of commands sent to the PLW215 II must follow the same structural protocol. These commands are detailed in the Command List opposite. To control the PLW215 II using RS232 commands, specific strings of characters (forming a command string) must be sent via a RS232 terminal. Each command string should be terminated by both:

<CR> (the ASCII carriage return character, 13 decimal)
<LF> (the ASCII line feed character, 10 decimal)

These are generally found in the RS232 terminal settings. The PLW215 II replies to a valid command with the updated information changed by a SET command, or the information that was requested by a GET command. If the PLW215 II receives an invalid command it will reply with **ERROR<CR><LF>**

Note: any SET command other than SET_0 during Standby is deemed invalid.

Command List

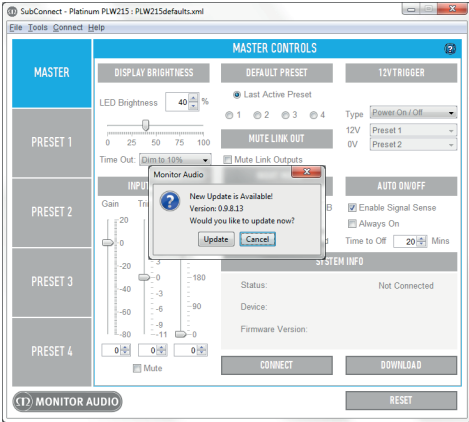The following GET commands are used to request information from the PLW215 II:

Command	Description	Reply from PLW215
GET_O	Requests the Power state of the PLW215 (Active/ Standby)	POWER_ON:X<CR><LF> Where X is either 1 (Active) or 0 (Standby)
GET_P	Requests the current Phase setting	PHASE:X<CR><LF> Where X is in the range 0 ⬚ 345
GET_M	Requests the current Mute state	MUTE_ON:X<CR><LF> Where X is either 1 (Muted) or 0 (Not Muted)
GET_L	Requests the current Mute Link Out state	MUTE_LINK_OUT_ON:X<CR><LF> Where X is either 1 (Link Out Muted) or 0 (Link Out Not Muted)
GET_S	Requests the current Preset	PRESET:X<CR><LF> Where X is in the range 1 ⬚ 4
GET_D	Requests the current Display state	DISPLAY_ON:X<CR>LF> Where X is either 1 (Display On) or 0 (Display Off)
GET_T	Requests the current Volume Trim Level	TRIM_LEVEL:X<CR><LF> Where X is in the range -11 ⬚ 11
GET_R	Requests the Room EQ state	ROOM_EQ:X<CR><LF> Where X is either 1 (Room EQ On) or 0 (Room EQ Off)
GET_N	Requests the Night Mode state	NIGHT_MODE:X<CR><LF> Where X is either 1 (Night Mode On) or 0 (Night Mode Off)

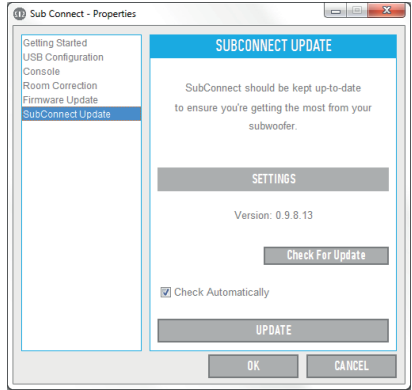The following SET commands control the operation of the PLW215 II

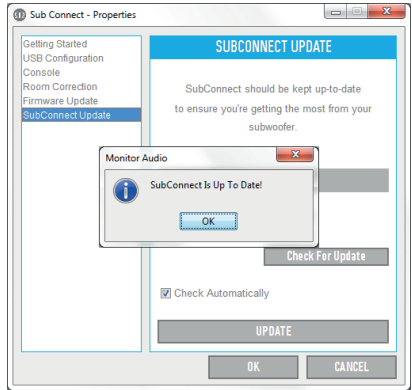| Command	Description	Reply from PLW215
SET_O:1	Go to Power On	POWER_ON:1<CR><LF>
SET_O:0	Go to Standby	POWER_ON:0<CR><LF>
SET_P:X	Select Phase setting Where X is in the range 0 ⬚ 345	PHASE:X<CR><LF> Where X is in the range 0 ⬚ 345
SET_M:1	Mute output	MUTE_ON:1<CR><LF>
SET_M:0	Unmute output	MUTE_ON:0<CR><LF>
SET_L:1	Mute Link Out output	MUTE_LINK_OUT_ON:1<CR><LF>
SET_L:0	Unmute Link Out output	MUTE_LINK_OUT_ON:0<CR><LF>
SET_S:X	Select the Preset Where X is in the range 1 ⬚ 4	PRESET:X<CR><LF> Where X is in the range 1 ⬚ 4
SET_D:1	Turn the Display on	DISPLAY_ON:1<CR>LF>
SET_D:0	Turn the Display off	DISPLAY_ON:0<CR>LF>
SET_T:X	Set the Volume Trim Level Where X is in the range -11 ⬚ 11	TRIM_LEVEL:X<CR><LF> Where X is in the range -11 ⬚ 11
SET_R:1	Turn Room EQ on	ROOM_EQ:1<CR><LF>
SET_R:0	Turn Room EQ off	ROOM_EQ:0<CR><LF>
SET_N:1	Turn Night Mode on	NIGHT_MODE:1<CR><LF>
SET_N:0	Turn Night Mode off	NIGHT_MODE:0<CR><LF>

Update Subconnect

Every time the SubConnect application is started, it checks for an update. If it finds one you will be notified as per the image below. Click on update and follow the installation instructions on screen.
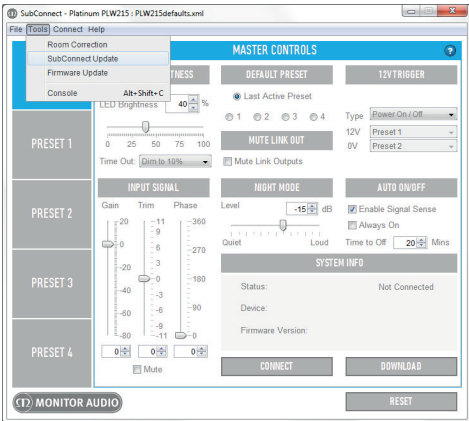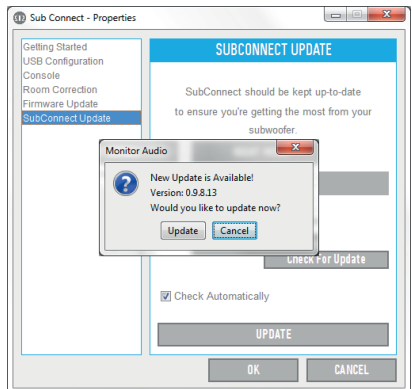

If you wish to check manually, you can do so by following the steps below.

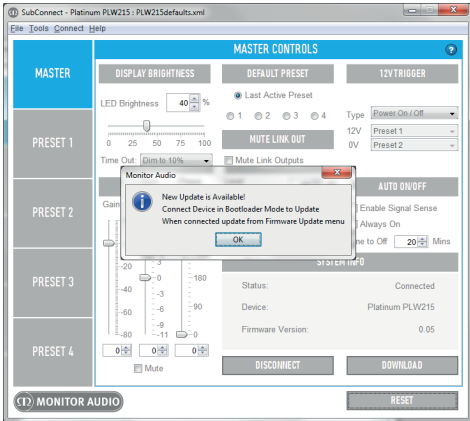1. Start the SubConnect application.

2. Click on Tools > SubConnect Update

3. Click Check for update.

4. If there is no update available, you will be notified accordingly.

5. If there is an update available, you will be notified and then follow the onscreen instructions.

Update Firmware on Sub

Once the SubConnect app has loaded and established connection with the sub woofer, either by automatic detection or by you manually pressing CONNECT, it will always check for a firmware update. If it finds one, you will see the below image.

Bootloader Mode

To get the PLW215 II into bootloader mode, you must first turn the sub woofer off by the mains switch. When it has shut down, press and hold the control dial while simultaneously turning the sub woofer back on.

The Inner blue and cyan LEDs will illuminate with the outer white LEDs flashing in a chase sequence finishing at "Phase" (as per illustration below). This is now in bootloader mode.

Now click on OK on the application. The "Status" will show that it is disconnected. Click on CONNECT and then when reconnected, the pop up showing there is an update available will reappear. Proceed to Automatic Update.
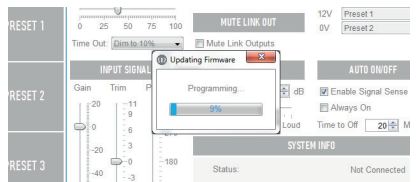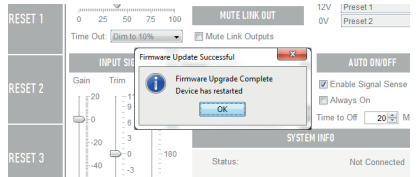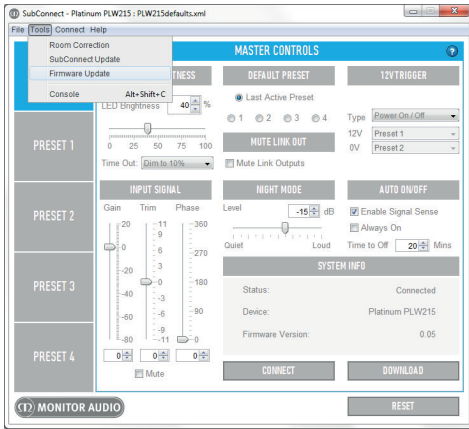
Automatic Update.

1. To carry out the update, click on OK. You will then see another pop up showing the product, version number and a brief summary of the changes.
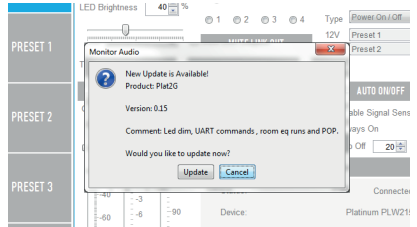
2. Click on Update and you will then see a progress bar showing the status of the update.

3. When it is complete you will get confirmation and the sub woofer will reboot (when you click on OK). If there is a signal going into the sub woofer, it will automatically start up. If there is no signal, the sub woofer will need to be woken up by applying a signal or by pressing or turning the Control Dial.

Manual Update

If the automatic update doesn't work, or you wish to manually check for an update, open the app and with the PLW215 II on and connected, click on Tools > Firmware Update.

1. Click check for update. If the PLW215 II is up to date, you will be informed, likewise, if there is an update available for it you will also be informed.


2. If it isn't already, you will receive a prompt asking for the PLW215 II to be put into Bootloader mode. For information on how to do this refer to page 19. Follow these steps and when you have re-established connection to the PLW215 II click on Tools > Firmware Update again and you will see a new prompt. Click on Update.
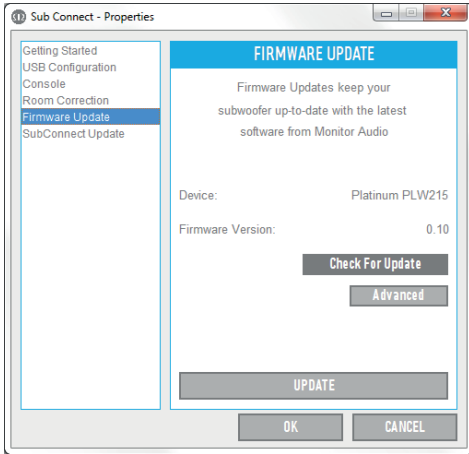
3. A progress bar will now be displayed showing the status of the update.
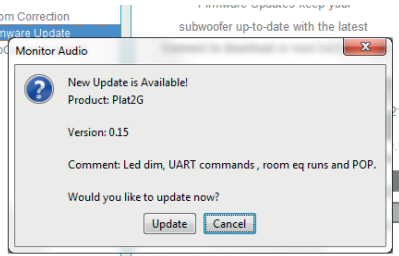
4. When it is complete you will receive confirmation and the sub woofer will reboot (when you click on OK). If there is a signal going into the sub woofer, it will automatically start up. If there is no signal, the sub woofer will need to be woken up.
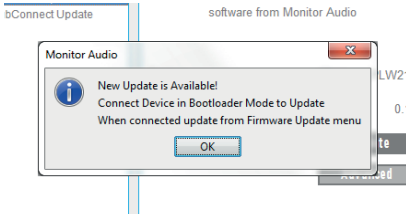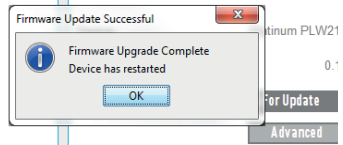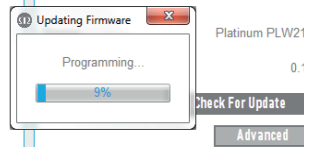
Factory Reset

Sometimes it may be necessary to carry out a factory reset. If this needs to be done, it can be done by the following.

1. Enter Bootloader mode (refer to page 19)

2. When in Bootloader mode illustrated by the below LED pattern, press and hold the Control Dial again.

3. As you are holding the Control Dial down, the LEDs will count down starting with the below pattern and then finish by flashing twice. When it flashes the Control Dial can be released.

4. After being reset, the PLW215 II will go into standby mode.

Care and Maintenance

The high gloss finish of the cabinet can be maintained by regular dusting using a soft or micro fibre cloth and standard furniture polish. The drive units should only be cleaned with a damp cloth if more than normal dusting is required. Please contact Monitor Audio for further information on cleaning and caring for your cabinet and for products available from us.

Warranty

Both the craftsmanship and the performance of this product is covered by the manufacturer's warranty against manufacturing defects provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. For the period of cover please refer to the product page on our website: monitoraudio.com for the product you have purchased.

When purchasing Monitor Audio products, please keep your receipt of purchase safe, as this validates your warranty.

Specifications

	Platinum PLW215 II
System Format	Sealed cabinet with vibration cancelling driver configuration. 25mm M.D.F construction with internal bracing and sealed amplifier compartment
Low Frequency Response	-3dB @ 23Hz / -10dB @ 18Hz (Free Field) default preset: Music -3dB @ 19Hz / -10dB @ 16Hz (In Room) default preset: Music Limited by low frequency protection filter (-3dB @ 12Hz)
Upper Frequency Limit	-3dB @ 150Hz
Driver Compliment	2 x 15" C-CAM® sub-woofer driver featuring inverted surround and triple suspension for increased support at high excursions. Black single layer, edge wound 3" voice coil with vented pole, vented coil and black CED coated motor unit to reduce power compression and increase thermal dissipation. FEA optimised cone, magnetics and suspensions for optimal performance and increased linearity.
Linear Driver Excursion	42mm Peak to Peak. Total displacement 6.4 Litres
Amplifier Power Output	Dual amplifier design with a single amplifier powering each driver. Combined 1400W RMS, 2000W Peak (Burst ratio 1:4 continuous, measured into two nonreactive 4 ohm loads)
Amplifier Classification	2 x Class-D amplifiers; Balanced differential Input; Differentially loaded power supply; DSP controlled. High current switch mode power supply (SMPSU)
DSP	172MHz DSP Core with 3500 instructions per sample, 139dB of dynamic range and 56-bit double precision processing, dynamically updated by an 80MHz MCU
Digital Conversion	Wolfson Microelectronics (Cirrus Logic) ADC & DAC @ 24bit/48KHz. (WM8786 ADC & WM8740 DAC)
LED UI Control Panel	Adjustable brightness 0% - 100%, configurable auto off feature. Quick access to menu items: Trim, LPF, Phase, Preset Select.
Room Correction EQ	6 System controlled parametric EQ filters set using advanced detection algorithm. Measurement can be initiated from the control panel or the SubConnect with up to 6 microphone positions (default 2).
Phase Control	0-360 degrees, Increments of 15 degrees with a pure invert at 180 degrees
Low Pass Filter	2nd or 4th order (12 or 24 dB/Octave), Increments of 5Hz from 35Hz to 135Hz
Auto Sensing Input Level Requirements	Line Level >1mV on unbalanced and balanced inputs. Auto Standby feature, adjustable between 5-240 minutes in increments of 5mins
Digital Volume Control	-11 to +11dB in 1dB increments, Via the control panel. -80 to +20 in 1dB increments, via SubConnect application
IR Remote Control	Supplied with IR remote. Front facing IR receiver with red LED response. Additional discrete IR codes for automation. All commands are on the Logitech database for use with their all in on remotes.
Audio Input Connection	LFE Input with balanced (XLR) and Unbalanced (RCA) inputs, Stereo Input with unbalanced (RCA) inputs. Inputs individually assignable to any Preset.

Control Connections/ Interfaces	12V Trigger in (3.5mm mono mini-jack, 6V threshold), assignable to On/Off or Preset change
	3.5mm Microphone input jack (mic supplied)
	RJ45 connector supporting RS232 (EIA/TIA - 561, Tx Pin 6, Rx Pin 5, Gnd Pin 4)
	IR repeater – Output (3.5mm mono mini-jack)
	USB – Type B, for connecting to SubConnect PC application and Firmware update
Electrical Certifications	CE / CB/ ETL / Fcc / ErP (Energy saving compliant)
Mains Input Voltage	110 - 120 VAC / 220 - 240 VAC 50/60Hz (Manually selected)
Power Consumption	Maximum 1200W, Standby <0.5W (ErP compliance)
Fuse Type	20mm T12.5AL 250VAC
Weight (unpacked)	57.54Kg (126lb 10oz)
Dimensions (inc amp, drivers and feet). (H x W x D)	546.3 x 504 x 512mm
	21 $^{1/2}$ x 19 $^{13/16}$ x 20 $^{3/16}$ Inches
Finished Available	Santos Rosewood veneer with piano lacquer, Ebony veneer with clear piano lacquer or Piano Black lacquer

SubConnect Specifications

SubConnect	Windows (7 onwards, 32/64bit) compatible setup application available from the Monitor Audio website and the USB stick
	Allows the user to control advanced sub woofer setup features.
	Settings can be saved while not connected to the sub woofer for off sight setup.
Global Settings	Display Brightness (0-100%), Dim (to 50% or to Off), Default Preset, Mute Link Outputs, 12V Trigger Assignment (Power on/off or Preset select), Input gain (Master -80 to +20dB, Trim -6 to +6dB, Mute), Phase (0-360 in 15 degree steps), Night Mode Threshold (-2dB to -20dB), Auto On / OFF (Enable Signal Sense, Always On, Time to off 5-240mins)
User Presets	4 fully configurable user Presets including, Preset Name, LPF Frequency (5Hz Steps from 20-135Hz), LPF Slope Order (-12 or -24dB/Oct), Input (Stereo, LFE or Both), Trim Offset (-6 to +6dB), EQ mode (Impact, Music, Movie or Default), User EQ (6 adjustable filters applied on top of EQ mode), Room EQ (On/OFF), Night Mode (On/OFF)
User Equalisation	6 fully controllable EQ filters and 6 default filters with gain offset per preset. Default settings: Flat / Music / Movie / Impact
Night Mode	Night mode, assignable (on or off) per Preset with global threshold (-2dB to -20dB). Introduces dynamic range reduction lowering the level of loud sections.

Trouble Shooting

The PLW215 II can show various fault codes on its LED user interface. The display will illuminate all of the inner circle of LEDs (blue and cyan) with a specific quarter segment of the outer white LEDs illuminated depending on fault.

In the first instance remove the power for 10 minutes, reconnect and turn back on. If it still displays the same pattern attempt to carry out a factory reset as shown on page 21. If that still fails to rectify the problem, try loading the firmware back onto the PLW215 II via the SubConnect app. Finally, if the problem still persists contact Monitor Audio or your approved Monitor Audio retailer.

MONITOR AUDIO

Version 4. 2018