Upgrading a MOON Product to "MiND 2" Status

M O O N

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This document describes all the possible scenarios whereby a MOON product that has MiND built-in, or can have MiND built-in, can be upgraded to incorporate MiND 2 technology.

For all upgrades done in the field, it is imperative that a firmware update of the product be done before installing the MiND 2 streaming module.

Full details on the upgrade procedure are enclosed with the MiND 2 Upgrade Kit. It is also important that you have the latest MiND app installed in your mobile device and/or tablet.

Here are the products which can be upgraded:

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ACE All-In-One



Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- Up to DSD256 streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the ACE's firmware prior to installing the **MiND 2** module. This must be done via the **MiND** app.

If this is not possible, it would be because the ACE being upgraded has an early firmware version (older than v.1.05). In such a case, this firmware update must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. Once this is done, future firmware updates will be possible via the **MiND** app. As of this writing, the current firmware version for the ACE is 1.09.



280D



(without **MiND** installed)

Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- Up to DSD256 streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 280D's firmware prior to installing the **MiND 2** module. This must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. As of this writing, the current firmware version for the 280D is 1.18.



280D MiND

Network Player/DAC



Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- Up to DSD256 streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 280D's firmware prior to installing the **MiND 2** module. This must be done via the **MiND** app.

If this is not possible, it would be because the 280D being upgraded has an early firmware version (older than v.1.13). In such a case, this must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. Once this is done, future firmware updates will be possible via the **MiND** app. As of this writing, the current firmware version for the 280D **MiND** is 1.18.



380D Network Player/DAC



(with or without **MiND** installed)

Note that this also applies to early (i.e. "pre-Neo") 380D's.

Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 380D's firmware prior to installing the **MiND 2** module*. This must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. As of this writing, the current firmware version for the 380D is 18.

Note that this version of the 380D, which does not support DSD, will not play DSD files.

* Note that the 380D's firmware, unlike other models, cannot be updated via the **MiND** app.



380D DSD Network Player/DAC



(with or without **MiND** installed)

Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- Up to DSD256 streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 380D's firmware prior to installing the **MiND 2** module*. This must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. As of this writing, the current firmware version for the 380D DSD is 18.

* Note that the 380D's firmware, unlike other models, cannot be updated via the **MiND** app.



780D Network Player/DAC



Below are the most important new features, above and beyond all original features which remain:

- Roon support;
- MQA decoding (via network only);
- Ability to send streamed music to another MiND 2-equipped product;
- Up to 32-bit/384kHz streaming (via Ethernet only);
- Up to DSD256 streaming (via Ethernet only);
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 780D's firmware prior to installing the **MiND 2** module. This must be done via the **MiND** app.

If this is not possible, it would be because the 780D being upgraded has an early firmware version (older than v.1.11). In such a case, this must be done using the MOON RS232-to-USB adaptor, a USB cable, a laptop, our Flash Updater Program, and an internet connection. For more information, consult our document describing this procedure. Once this is done, future firmware updates will be possible via the **MiND** app. As of this writing, the current firmware version for the 780D is 2.01.

* Note that a 780D upgraded with **MiND 2** is not a 780D v2. There will be further upgrades possible for the 780D (not **MiND** related). Various announcements will be made about this.



180 MiND

Network Streamer



Below are the most important new features, above and beyond all original features which remain:

- MQA pass through;*
- DSD64 via DoP (DSD over PCM);**
- Ability to stream any source to another MiND 2-equipped product;
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the 180 **MiND**'s firmware prior to installing the **MiND 2** module. This must be done using the **MiND** app. Once this update is done, future updates can be done using the **MiND** app. As of this writing, the current firmware version of the 180 **MiND** is 1.40.

* The **MiND** will play files designated as TIDAL Masters, which are MQA encoded. However, if the connected DAC is not MQA certified, the file will play as its regular, non-MQA decoded equivalent. The **MiND** app will still show it as an MQA file, but you will not be hearing the MQA version. In order to hear the MQA version, the connected DAC must be MQA-certified and compatible with the **MiND**'s digital outputs for MQA decoding. While all MOON products that have streaming capability built-in will play and decode MQA files, the only one that will be able to play MQA from an external source is the 780D. For all others, MQA is possible only via the built-in **MiND**.

** The connected DAC must support DoP in order to decode DSD64 incoming data.



MiND (i.e. Neo MiND) Network Streamer



Below are the most important new features, above and beyond all original features which remain:

- MQA pass through;*
- DSD64 via DoP (DSD over PCM);**
- Ability to send streamed music to another MiND 2-equipped product;
- TIDAL Masters, Qobuz Sublime+ and Deezer Hi-Fi support.

You must update the **MiND**'s firmware prior to installing the **MiND 2** module. This must be done using the **MiND** app. As of this version, the current firmware version of the **MiND** is 1.03.

* The **MiND** will play files designated as TIDAL Masters, which are MQA encoded. However, if the connected DAC is not MQA certified, the file will play as its regular, non-MQA decoded equivalent. The **MiND** app will still show it as an MQA file, but you will not be hearing the MQA version. In order to hear the MQA version, the connected DAC must be MQA-certified and compatible with the **MiND**'s digital outputs for MQA decoding. While all MOON products that have streaming capability built-in will play and decode MQA files, the only one that will be able to play MQA from an external source is the 780D. For all others, MQA is possible only via the built-in **MiND**.

** The connected DAC must support DoP in order to decode DSD64 incoming data.



Additional Info

The new MOON 390 will be shipped with **MiND 2** from the beginning. The MOON 390 has additional features which are **MiND 2** related, but are not possible with the **MiND 2** Upgrade Kit for other models. The following are features that exist only in the MOON 390:

- Ability to stream not only streamed music, but also any local source (analog or digital) to another MiND 2 equipped product;
- USB input that allows connection of a USB stick or hard disk, with its music accessible via **MiND** app;
- Extra Ethernet port which acts as an Ethernet switch, allowing additional items to be connected to the network (for example: a NAS drive).

