



 **|| CON 4PRO**

**AVC PREAMPLIFIER  
OWNER'S MANUAL**



## Dear Music Lover,

Congratulations on your purchase of our icOn 4PRO passive preamplifier! We are pleased that you choose a Life-Changer Audio UK product, as by doing so you have acquired a preamplifier with an outstanding sonic performance which will provide enjoyment for many years to come.

icOn 4PRO has been designed by us to provide the highest sound quality possible and provide an enjoyable user experience free from the hassles normally associated with manually controllable passive preamplifiers. It includes intuitive software for controlling inputs, volume and balance via Apple IR Remote from the convenience of the arm-chair, front-panel optical encoder and the 7 segment LED display.

This manual provides a technical reference for hardware, setup, interconnectivity, warranty, and safety.

Again, thank you for choosing the icOn 4PRO preamplifier.

*Pal Nagy*  
designer

# QUICK START

---

## UNPACKING

- Carefully unpack your icOn 4PRO
- Keep the packing for future transportation
- Please treat the acrylic window surface on the faceplate with care
- Position the icOn 4PRO on a stable base.

## CABLING

- Switch off all appliances of your system
- Connect the icOn 4PRO with your amplifier
- Connect the icOn 4PRO with your source components
- While changing cables your power amplifier should be switched off.
- Default values for all functions are programmed
- Selected input: 1st
- Volume: -47 dB
- Balance: 0 dB
- No additional programming is required for the start-up.

## SWITCH-ON

- Switch-on the icOn 4PRO on the back plate's power switch
- Select a moderate volume level or leave at the initial -47dB
- Switch-on your source components and last your power amplifier
- Double check the cabling before switch-on

# DESCRIPTION

icOn 4PRO is a magnetic passive - autoformer based smart preamplifier. Sonically transparent without addition or subtraction of anything.

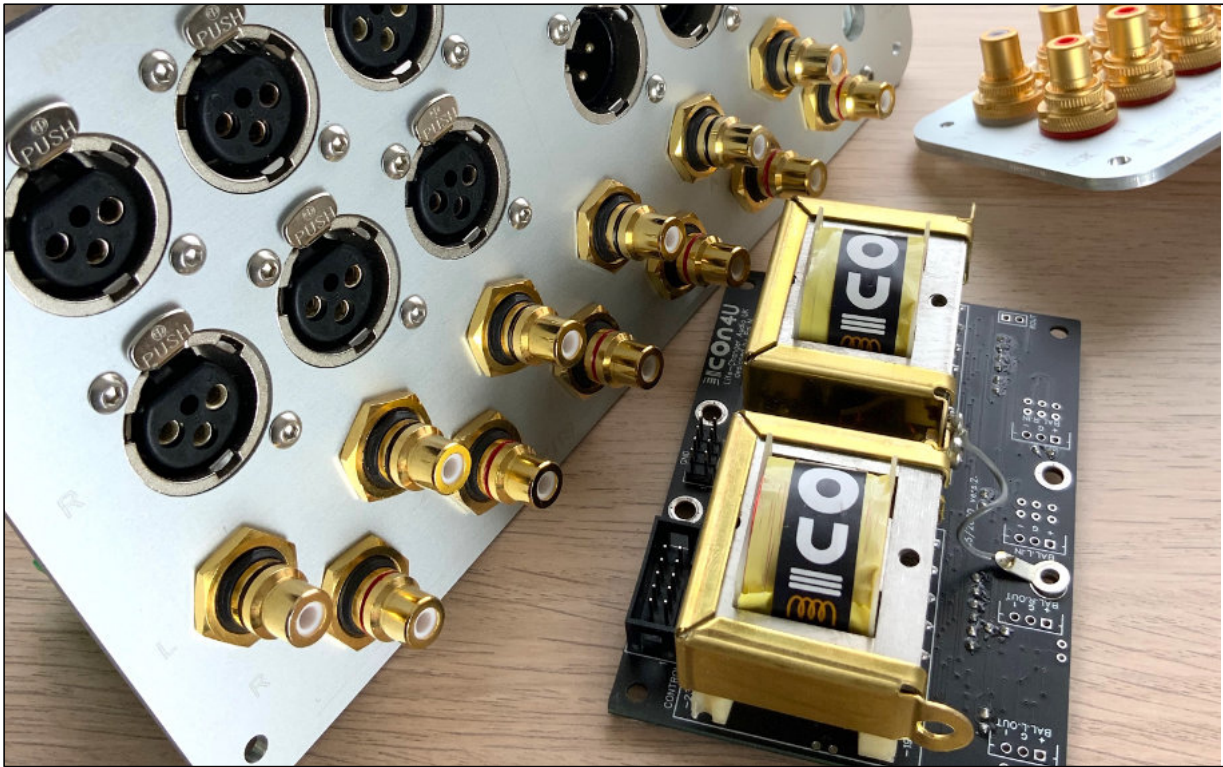
The sound level can be adjusted remotely with a total of 68 volume positions. 58 steps are 1 dB and the remaining 9 steps are 2 dB, scattered between low volume positions. The changes in level are seamless, with the channel balance adjusted in 1 dB steps / channel should this be necessary. .

Unlike the resistive passive preamps, icOn 4PRO overcomes any impedance mismatching between source and power amplifier, which is a key factor in preserving the sound quality.

Level switching is carried out using state of the art analogue switches which eliminates the possibility of contact errors from conventional open rotary switches used on many other passive preamps.

The channel balance is exemplary at max. 0.1 dB - virtually undetectable by the human ear. The balance function provide 2x6 dB difference in 1 dB steps.





icOn 4PRO can be connected to equipment without any sensitivity issues to cable lengths and capacitance, thus improving its interconnect flexibility.

It has a sleep mode and mute functions, which preserves any settings made prior to this being activated, and negating the needs to reset the levels every time.

All functions such as volume, balance, mute, source selection are controlled remotely with an Apple Remote which enables the listener to make adjustments from the seating position, and not where the equipment is located. Except the balance, every function is reachable through the knob and touch sensor of the faceplate with the combination of short and long touches or turning.

**The manual volume control on the faceplate is realised with an industrial grade optical encoder giving instructions to the built in microprocessor. The way of working of the optical encoders provide a smooth, very precise control with adjustable sensitivity, but may differ from what you are used to. The volume control must be adjusted carefully, as it has the ability to get loud quickly. Do not spin the volume control knob.**

The 7 segment amber colour LED display provides important information on the status of icOn 4PRO, so it's easy to see what is happening and view any changes.

# USING THE APPLE REMOTE



- 1** Volume Up
- 2** Volume Down
- 3** Input / Balance adjustment
- 4** Mute / Unmute
- 5** Status (active input and volume on the display), goes to Sleep when pushed in Muted state
- 6** Enter and Exit to Balance adjustment, Night mode when pushed in Mute (pushing again in Muted state switches back to normal display mode)

**Volume:** turn the Volume up with the button on top (1) and turn down with the button on bottom (2).

**Changing the Balance:** Select the Balance function with the Menu button (6). Two dashes will appear on the screen, showing the approximate state of the balance. When both sides has equal value the dashes will appear in the middle. The dash in the top position will indicate higher volume on the relevant side. Adjust the Balance (in range max. 12 dB) with the left and right (3) buttons. When you push the left button the level of the left channel is increasing and the right channel's volume decreasing (and vice versa). After that you should press again the Menu button to go back to the normal listening mode, where you can change the Inputs with the right and left (3) buttons. The balance adjustment is disabled below -63 dB and above -3 dB volume ranges to preserve the integrity of the channels.

**Changing the Inputs:** Inputs can be changed with the left and right buttons (3) if Balance adjustment is not active. If Balance adjustment is active to go back to normal listening mode push the Menu button again.

**Central Button:** The button 5 (in the centre of the black circle) has two different functions. Pushing the central button the number of activated input and the volume level are displayed for 2 seconds to check the status of icOn anytime without any change. If icOn 4PRO is muted then this button will take icOn into **sleep mode**. In sleep mode the display is dark with a dim dash at the left. Every preamp function is disabled, the outputs are inactive. Double touch the sensor on the faceplate to wake up icOn from sleep. The remote is disabled in sleep mode, you can't wake up icOn with the remote.

**MUTE:** Press the PLAY/PAUSE (4) button on the remote to mute or unmute the music. Pressing the 1,2 or 3 buttons in Mute initiates an Unmute too. The Mute/Unmute changes are not abrupt but quick, pleasant up or down sweeps. In Mute state -99 is shown on the display.

**LED Display Night Mode:** First activate Mute and after that you can activate/deactivate the Night Mode pushing the Menu button (6). Go back to the normal Listening Mode with the PLAY/PAUSE button. In Night Mode the volume numbers are not displayed, only a dimmed dash but it goes back to full display for a short time when you initiate any change.

# USING THE KNOB AND THE TOUCH SENSOR

Turn the knob right: Volume Up

Turn the knob left: Volume Down

**Touch sensor:** the small silver metal hemisphere on the left side of the front plate. In order to reach certain functions you will need to combine short (•) and long (–) touches.

**Here you can find the combinations:**

- next input (after last input comes input 1 again)
  
- mute / un-mute
  
- – night mode activation/deactivation. After activation a dim dash will be displayed in night mode. Deactivate the night mode with one short and one long touch again on the sensor
  
- sleep mode / wake up from sleep state

**Personalisation possibilities:**

- You can choose between two display brightness. They alternate with every 3 clicks between the brighter and dimmer state
  
- – switch between 'L' - low sensitivity and 'H' - high sensitivity of the optical encoder. In high sensitivity mode adjust volume carefully and do not spin the volume control knob.

## **Important note:**

*If you bought your icOn 4PRO with the optional AV pass-through function enabled for a particular input, on the output the input signal will appear without attenuation (full volume, 0 dB) and you will see 0 (dB) on the display. In AV pass-through state every function (volume adjustment, mute, balance) is disabled, only input change is possible to finish the AV pass-through mode and listening normally from the other inputs. Please be careful with the AV pass function, because using it in a wrong way you can destroy your loudspeakers. If you don't understand fully how does it work - do not enable this function.*



## FACEPLATE

Handle the faceplate with care, it's easy to scratch it with sharp objects. Clean it only with soft cloth and window cleaner if it's necessary.

## 7 SEGMENT LED DISPLAY

The display shows the volume in dB (or optionally in numbers from 0 to 67. Max. volume is +3.0 dB (67), minimum level is - 72 dB (1), when muted -99 dB (0). The night mode without showing the volume numbers (only a dim dash) is reachable through the sensor on the faceplate and from the remote.

## REAR PLATE

Power switch: You can leave icOn 4PRO switched ON, using the sleep mode for deactivation from the Apple remote or the sensor.

*Power connector:* use only the supplied wall wart power supply.

icOn 4PRO can have unbalanced (RCA) or balanced (XLR) connector pairs in great variety. For product versions with XLR connectors we have to use bigger enclosures.

The grounds (cold) of RCA inputs and outputs pins are connected parallel all the time and are connected to the chassis. There is no galvanic isolation between the inputs and outputs due to the nature of autoformers.

## PAIRING AN APPLE REMOTE

icOn 4PRO works with its supplied (and paired) Apple remote to prevent any disturbance by other Apple remotes used together with an Apple TV, etc. If you want to use another Apple remote with icOn 4PRO you have to "pair" them. icOn 4PRO will learn the unique ID code of the new Apple remote and will work only with it afterwards. Steps of pairing:

1. Switch on icOn 4PRO with the power switch on the back and keep touching the sensor immediately till 'ir' will appear on the display.
2. Push the Volume Up button in the next 5 seconds on the remote. After few more seconds a 'YA' shows that the remote is paired successfully with icOn 4PRO.
3. If 'no' shows, the pairing was unsuccessful. Please try it again.

## **REMARKS**

The input to the icOn 4PRO must be COMPLETELY free of DC offset. The presence of DC voltage degrades the performance of the icOn 4PRO, both with respect to level handling and frequency response. In addition when changing the inputs or volume a small “clicking” sound will appear at the output.

## **SAFETY INSTRUCTIONS**

- Please read and follow all instructions
- Do not use this apparatus near water.
- Exclusively use only the original power adaptor. Unplug this apparatus when moving it & during lightning storms or when unused for long periods of time. Only use attachments/ accessories specified by the manufacturer.
- Clean only with dry cloth. We suggest using a non abrasive micro fibre towel. Please do not use any solvents or liquids.
- We service icOn 4PRO with return to base. Service is needed when the power adaptor is damaged, liquid has been spilled, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.

## **GUARANTEE**

icOn 4PRO comes with a 2 years return to base warranty.

## **PACKAGING**

Please save all packaging. Your icOn 4PRO preamplifier is a precision electronic instrument and should be returned in its case and properly cartoned any time shipment is made. Should you need to ship your icOn 4PRO it should be packed carefully.

## **SCOPE OF DELIVERY**

1. icOn 4PRO preamplifier
2. Apple Remote controller
3. 6 or 7.5V/ min. 0.5A wall wart power adaptor
4. User's Manual

This manual belongs to the firmware version: 1



# HOW TO MAKE A FIRMWARE UPGRADE

## 1. You will need

- Windows PC/laptop with a normal USB 2.0 port.
- RCT Firmware uploader program downloaded and installed on your computer. (instructions in the next section).
- The special firmware upgrade cable for icOn 4PRO (optional item, you can order it together with your icOn or later when you need it).

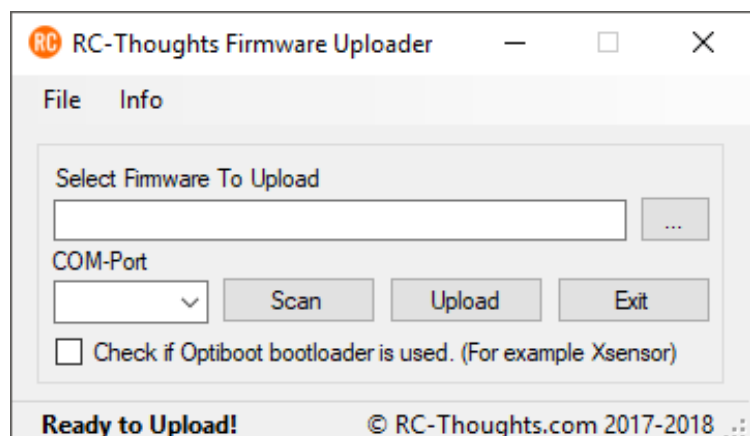
## 2. Preparing for the upgrade

- Switch off your power amplifier or disconnect it from icOn.
- Download the RCT Firmware uploader program from the Download section of this page: <https://www.rc-thoughts.com/rct-firmware-uploader/>
- After downloading please unzip it into a new folder on your computer. You will be able to start the program by double-clicking the executable RCT-FW\_Uploader.exe file (you can find more detailed instructions on the Installation section of the download page).
- You can keep this folder for the next icOn 4PRO firmware upgrade.
- Save the icOnxxxx.hex binary file provided by Life-Changer Audio UK on your PC/laptop.

## 3. Upgrade

- Start the RCT Firmware uploader program (RCT-FW\_Uploader.exe) on your PC/laptop.

You should see this window:



- From the COM-port drop-down list please check your available ports and remember it or make a note of them.
- Connect the USB end of the cable to your PC/laptop.
- Connect the 3.5mm jack connector to icOn through the 3.5mm socket on the back end of the right side of icOn.
- Switch on icOn.
- Click on Scan on the RCT Firmware uploader program.
- Check the ports again and select the one that was not there when you checked the first time.
- Click on the 3 dot button next to the Select Firmware To Upload and locate the provided icOnxxxx.hex file on your computer.
- Click on the Upload button, the Uploading - please wait! message should appear at the bottom left of the window. 2 red LEDs will start to flash on the USB connector. This indicates that the upload process started. Wait until the Upload successful! message will appear there. It should take around 5 sec.
- The uploading of the new firmware to icOn has ended and icOn should restart automatically with the new firmware.
- Close the RCT Firmware uploader program, disconnect the USB cable from icOn and your PC/laptop.
- Start using your icOn 4PRO as usual and enjoy the new features. If you have any problems with the upgrade process or with the new icOn control program please contact our software support specialist Agnes Kocsis at [agnes@passivepreamp.com](mailto:agnes@passivepreamp.com) and we will do our best to help.

If you have any feedback, suggestions regarding the upgraded program version we are happy to hear from you.

<https://www.passivepreamp.com/contact/>

You can share your experience with icOn on social media or on our Facebook page: <https://www.facebook.com/iconpassivepreamp/>

*Thank you for using our product!*

**Life-Changer Ltd.**

18 Old Lane,  
Manchester M11 1BE,  
United Kingdom

[www.passivepreamp.com](http://www.passivepreamp.com)

[pal@passivepreamp.com](mailto:pal@passivepreamp.com)

+44 7462 538 212