



Instruction Manual

V1.1

VOYAGE i20

Integrated Amplifier

Thank you for purchasing a Creek Audio Voyage i20 Integrated Amplifier. You are now in possession of a State-Of-The-Art audio product. The functions and operation of this integrated amplifier are designed to be simple and intuitive. This User Manual is intended to explain all aspects of its operation and use.

The User Manual may refer to the Voyage i20 as the “amp. amplifier or i20 “. Please check www.creekaudio.com for the latest versions of this manual. Go to the Voyage i20 product page and click on the tab marked Instructions.

UNPACKING AND LOCATING THE AMPLIFIER

When unpacking the amplifier, please reserve the packaging material in a safe place for possible future use. Inside the carton is a power cord suitable for connecting to the mains supply in the country of use. You will also find a remote-control handset and batteries, plus a small Bluetooth antenna.

MAINS CONNECTION

IMPORTANT: The amplifier will be factory-set (internally) to the correct power supply voltage for your region. The two nominal mains voltage options are 115V or 230V. Damage may occur if 230V is input to the amplifier when it is set internally for 115V.

The Voyage i20 can operate normally with a wide range of input voltage: Either from 180V to 260V, or 90V to 130V. 50 or 60Hz.

The amplifier is supplied with a good quality 3 core power cord to match the mains socket in your region or country. If this is not so or you are in doubt, please consult your hi-fi dealer, or the importer.

The amplifier must be grounded for correct operation and safety. If the power cord supplied is used, this should happen automatically. Do not use ground loop or ground lift power strips.

A mains safety fuse is located inside the amplifier. It is not a user serviceable part. The cartridge fuse is rated at T10AL 250V (10Amp, time-lag, or anti-surge, rated at 250V. Size = 5mm x 20mm). The fuse is carefully chosen to meet the amplifier’s maximum power requirements and should never be replaced with another value or type for any reason, as it will invalidate the warranty and could be dangerous. If the amplifier does not work, and the mains fuse has blown, it indicates a serious fault that requires the amplifier to be serviced by an approved service agent. Consult your dealer, importer, or write to info@creekaudio.com for advice if in doubt.

QUICK SET-UP

For experienced hi-fi users, the Voyage i20 is an extremely easy and intuitive integrated amplifier to use. Please read the following instructions to get set-up and running quickly:

Place the amplifier on a stable flat surface with easy access to the terminals at the rear and controls at the front. Avoid blocking the ventilation slots in the top and bottom of the case.

Plug the mains cable (cord) provided into the IEC socket on the rear panel. Plug the mains plug into the nearest wall socket or a good quality extension socket strip.

Connect a good quality speaker cable from each loudspeaker to the binding posts on the rear of the amplifier. Make sure the cables are terminated with either 4mm plugs or spade lugs. Bare wire is not recommended as frayed wires can cause short circuits between the terminals.

Connect an analogue source product, such as a streamer/DAC or Voyage CD DAC, with interconnect cables to one of the four analogue inputs.

Alternatively, connect a digital product like a computer, laptop, music streamer, or TV to one of the five digital inputs.

Power-up your source product and prepare to stream or play music to the amplifier via analogue or digital inputs.

Switch-on the amplifier by pressing the rocker switch on the back panel to position 1 (ON). The Standby symbol will light on the display screen.

FRONT PANEL CONTROLS

Press either left or right control knobs briefly to wake-up the amplifier from Standby.

Rotate the right-hand control knob to adjust the volume.

The left-hand knob selects Inputs and Menu. Rotate it left or right to select the desired input or push it to access the Menu and rotate the knob to select different options. Press the knob again to enter the menu options.

Press the input knob for two seconds to manually enter Standby. Standby mode will be entered automatically if no signal is amplified for 30 minutes or more.

REMOTE CONTROL

The Remote-control handset operation should be self-explanatory, but some functions may require more explanation.

ADVANCED SET-UP

PLACEMENT

Place the amplifier on a stable flat surface or on top of a dedicated hi-fi equipment rack or table, with access to a good mains supply. Always place the amplifier on the top of other equipment or, better still, on a separate shelf to allow for this. Do not place it at the bottom of a stack of equipment, as it may get too hot in use and switch-off, with an over-temperature message on the display. If this happens, locate the amplifier in a different position with better ventilation. Placing the amp inside a cupboard or on a middle shelf may also limit its full power capabilities.

VENTILATION

It is important to provide good ventilation to cool the amplifier. Airflow must not be restricted to the slots on the top and bottom of the case if the full performance of the amplifier is to be achieved.

POWERING THE AMPLIFIER

Plug the mains cable (power cord) provided into the three pin IEC mains socket on the rear panel. Plug the 3 pin mains plug at the other end into the nearest wall socket, or a good quality extension socket strip. Do not use multi-way adapters in one socket. Always ground the amplifier through the mains socket.

The mains POWER ON/OFF switch is located on the rear panel, above the mains input socket. The switch is marked 0 and 1. To power-up the amplifier, depress the mains switch to position 1. The STANDBY logo will illuminate on the display screen, indicating the status of the amplifier. To fully POWER-UP the amplifier press either control knob on the front panel.

To remotely POWER-UP the amplifier, press the blue AMP button on the remote handset, or the blue MUTE button marked with a loudspeaker symbol and X. The MUTE button has a dual function. Signal MUTE requires a short single press. Enter or leave Standby requires a longer press.

FRONT PANEL CONTROLS

Two large rotary control knobs control all the amplifier's functions.

VOLUME, BALANCE AND MUTE

Rotate the right-hand control knob to adjust the volume in 1dB (1 decibel) steps. It may seem confusing but 0dB is maximum volume and -80dB is the minimum setting, or MUTE. Press and hold the knob-in and turn it left or right to adjust the balance.

NOTE

If the volume control is set between -9dB to 0dB (which will be loud) and then muted, the level will be automatically reduced to -10dB when un-muted. All control settings are memorised after the power is turned off.

The maximum attenuation from the i20 volume control is -80dB. If the volume knob is turned one click more the output will be completely muted.

It is important to note that the power output of the amplifier is the product of both the volume setting AND the input signal level from the source equipment. Sources with a lower output signal will require a higher volume setting on the i20 to reach the required loudness. Do not be worried if you find the volume is approaching 0dBs to achieve your preferred listening level, it does not necessarily mean the amplifier is working too hard or delivering its full capability.

The current volume setting is stored during power off but when the i20 is turned back on, the value will be limited to a maximum level of -20dB.

MUTE

Press the volume knob once briefly to mute the output and press it again to un-mute.

LEFT HAND CONTROL KNOB

The left-hand control knob normally selects pre-amp inputs when rotated in either direction. Press the knob once to enter the **MENU** options:

DISPLAY SETTINGS

1. Select Always ON to never turn the display off.
2. Select Always OFF to cause the display to go blank after a few seconds of showing the settings. If any remote handset button or control knob on the amp is touched or moved the display will immediately light-up again for a few seconds.

DISPLAY BRIGHTNESS

Press the Menu control knob to enter the Menu. Select Display Brightness and press again to select - Low, Medium, or Full.

Alternatively, press DIM on the remote handset to select Low, Medium, or Full. This function, like several others requires AMP to be selected on the remote first.

PCM DIGITAL FILTERS

Press Menu and enter six PCM Filter options.

Select – 1. Short Sharp, 2. Short Slow, 3. Sharp, 4. Slow, 5. Super Slow or 6. Natural. Leave for a few seconds to confirm selection. Press the yellow Filter button on the remote to scroll through filter options.

DSD DIGITAL FILTERS

Press Menu control knob and select DSD Filter. Select Normal or Wide. Wait a few seconds to confirm selection. Pressing yellow filter button does not control DSD filter.

Display Info: Press Menu control knob to select Display Info.

Mod: Voyage i20

Software: v1.xx

Heatsink: Temperature of the heatsink in Centigrade.
Press or turn any control to exit this menu

HEADPHONE SWITCH

Press menu to select headphone switch and press again to select Disable Speakers or Simultaneous Use.

DISABLE SPEAKERS

The action of plugging a stereo headphone jack INTO THE 6.35mm (1/4") socket in the display window will MUTE the speaker output.

SIMULTANEOUS USE

Allows the headphones and speakers to play together.

When headphones are plugged in, a headphone symbol will show on the bottom left-hand corner of the display screen.

AUTO STANDBY

To comply with EU ECO regulations, the i20 will automatically enter Standby, low power mode, if not used amplifying a signal for 30 minutes or more.

Auto Standby MENU options also allow for 30 mins, 1 hour, 2 hours or OFF.

REMOTE CONTROL

The Remote-control handset operation should be self-explanatory, but some functions require more explanation.

The blue speaker Mute button at the top has two functions. Press the button once briefly to Mute or un-mute the output. Press and hold the MUTE button for two seconds to wake-up the amplifier from Standby or enter Standby mode.

The blue Volume up/down buttons on the right side of the remote adjust the level and the blue L or R buttons in the middle to adjust the balance. As the remote can manage more than one product, it may be necessary to press the blue AMP button at the top first if you have previously used the remote handset to control an action on the Voyage CD.

DISPLAY

An OLED graphical display in the centre of the front panel indicates the status of the amplifier.

When initially powering up, the CREEK logo will be displayed for a few seconds. Only during this period is the SETUP MENU available. See SETUP paragraph for more information. The amplifier is ready for use once the display changes to show selected input and volume setting. There will be a click from internal relays selecting the chosen input and output relay un-muting.

ANALOGUE INPUT CONNECTIONS

Inputs 1, 2, and 3 provide inputs for most unbalanced* analogue audio signals.

- | | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input 1 | Line level input via RCA sockets, with a signal sensitivity of approximately 650mV for full power. Unlike the other line inputs, Line 1 can also be configured as a Phono input by installing a Sequel mk4 Phono pre-amp. |
| Input 2 | Line level input via gold RCA sockets. |
| Input 3 | Line level input via gold RCA sockets.
The red marker indicates the right channel and white indicates the left channel. |
| Input 4 | Line level input via XLR plugs. Balanced audio*
Right and Left channel is printed above each of the XLR sockets. |
| Sequel mk4 | This optional Moving Magnet (MM) Phono pre-amplifier plugs into the pre-amplifier section of the Voyage i20, replacing a Link PCB. |

Please check with Creek Audio at info@creekaudio.com or your dealer for further information and installation. Dealer installation is recommended. Creek Audio also recommends using an external Phono pre-amp for low output Moving Coil (MC) cartridges.

DIGITAL INPUT CONNECTIONS

- | | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| USB Audio | Class 2 Audio via a USB type A male, to USB type B male cable is recommended.
The Voyage i20's DAC can operate with PCM signals up to 32-bit, 384kHz, and DSD music files up to 22.4MHz. |
| Coaxial 1 & 2 | The maximum resolution for passing SPDIF signals is 24-bit 192 kHz. Gold plated RCA sockets connect to the DAC via galvanic isolation transformers internally. Use a good quality 75 Ohm shielded cable for best results. Ask your dealer or Creek Audio for further details. |
| Optical 1 & 2 | SPDIF – TOSLINK optical socket. The maximum resolution = 24-bit 192kHz.
Optical cables are, by their nature, ground-isolated and can be purchased in various length and quality. Ask your dealer or Creek Audio for further details. |
| Bluetooth | A Comet BT aptX HD Bluetooth receiver module is built-in for streaming digital signals recorded with AAC or aptX HD coding.
Range is limited by propagation through walls and other solid objects. |

Screw the 11cm antenna provided into the brass coloured socket on the rear panel, bend and stand it vertically. Select the BlueT. input on the amplifier. Go to Settings on your phone, tablet, or computer and when Creek Audio BT appears in the listing, select it, and Return to your music application. Proceed to play your music choice. If necessary, select Creek Audio BT as the target, if it does not do so automatically. When streaming music to the amplifier check if the application has a volume control. For best results set the App volume to maximum to provide the best sound quality (lowest signal decimation). If that is not convenient, use the highest volume setting on the amp when the app it at maximum. Then adjust the level on the App only.

Qualcomm® aptX™ HD is a product of Qualcomm Technologies Inc. and/or its subsidiaries.

PRE-AMP OUTPUT

Any analogue or digital signal input to the amplifier will be output automatically through the Pre-amp Output RCA sockets and can be connected to another device, like a power amplifier. The Pre-amp output level must be adjusted by the volume and balance control.

GAIN

Means the amplification factor or volume level and is calculated in dBs (decibels). 0dB is maximum and -80dB is minimum. Example: +6dB is

twice the level (x2). -6dB is half the level (50% lower).

As shown in the display screen, when the volume control is turned fully clockwise to the maximum output level, the pre-amplifier gain is 0dB (x1). When the volume control is turned anti-clockwise until it reaches -80dB, that is the maximum attenuation or, minimum signal level. One more click anti-clockwise will Mute the output.

Volume levels can be adjusted in 1 dB steps from 0dB down to -50dB.

From -50dB down to -80dB can be adjusted only in 3dB steps.

The power amplifier circuit has an overall gain of +33.4dB, or x47 amplification factor.

In other words, if a constant 100mV (0.1 Volt) sine-wave signal is input with the volume set for 0dB (maximum), the output voltage will be (0.1 x 47) 4.7V RMS.

To reach 120 Watts maximum undistorted output level into an 8 Ohm load, or 240 Watts into 4 Ohms, an input signal level of 659mV (0.659 Volts) is required. The volume control can only attenuate the incoming signal and not amplify it. Therefore, having the volume control set to -6dB reduces the input level by half, so the amplifier can only output 60W into 8 Ohms or 120W into 4 Ohms.

If your source produces a low signal level it will require less attenuation to make the amplifier sound loud enough. So, 0dB may not always be enough for all circumstances. Therefore, the Voyage i20 has been designed with helpful pre-amp gain options.

If greater overall sensitivity is required, the pre-amplifier gain can be increased in four steps on any, or all, of its four analogue inputs.

See: **CONFIGURING ANALOGUE INPUTS** in the **SETUP MENU**

USB from PC using Win10+

Plug a good quality printer cable, USB type A male to USB type B male, from a spare port on your PC, laptop, or network device to the USB port on the rear of the amplifier. Avoid using cables longer than 5 metres as the i20 USB input may not work reliably.

When connecting initially, your computer will detect the Voyage USB Audio 2.0 device as an external sound card and flag that it is searching for the driver, providing the computer is connected to the internet. Once the Voyage USB Audio 2.0 is discovered, it will automatically go to the

Settings page. An ASIO driver for >24-bit 192kHz high-resolution replay is not required if running Windows 10 OS. For that reason, using older OS than Win 10 is not recommended.

Alternatively, using a streaming or network audio device with USB output, connect as above and if possible, control track selection from a remote-control app on a phone or tablet.

USB input from Apple iOS

Plug a good quality printer type cable, USB A male to USB B male, from a spare port on your computer to the USB socket on the rear of the amplifier. Avoid using cables longer than 5 metres as the i20 USB input may not work reliably.

Go to “**Sound**” settings. Voyage USB Audio 2.0 will show in the listing, along with any built-in speakers. Select Voyage USB 2.0 and it will direct sound to this output. It may also inform you that the selected device has no output controls. In other words, the signal is not attenuated, and you should use the volume control on the amplifier only.

Go to a preferred music app or network storage device on your desktop and play music as usual. Direct the output to the Voyage USB Audio 2.0. The amplifier will convert the digital audio signal to analogue. Control the volume from the amplifier as usual.

Alternatively, using a streaming or network audio device with USB output, connect as above and if possible, control track selection from a remote-control app on a phone or tablet.

CONFIGURING ANALOGUE INPUTS in the SETUP MENU

To enter the Setup Menu, Power-up the i20 from Standby mode by pressing either knob once. When the Creek logo shows, immediately press, and hold, the left-hand knob until the display shows Setup Menu. Do this before the normal display screen shows or you will not be in the Setup Menu.

The Setup Menu offers the following pre-amp gain options:
0dB, +3dB, +6dB, +9dB, +12dB and Power amp Direct.

For example: If you require 0dB on Line 1, +3dB on Line 2, 9dB on Line 3 and 12dB on Line 4, it can be changed easily in the Setup Menu. Select the value you want and press the Volume knob to start the amplifier with those settings or go to the next input in turn to adjust the gain to suit

your requirements.

Pre-amp bypass / Power Amp Direct

Any of the four Line inputs can be set to bypass the pre-amp and become Power Amp Direct inputs. This is particularly useful for a Home Theatre bypass but has other uses. However, it can only be done in the Setup Menu. Power Amp direct is not available if a Sequel mk4 Phono module is installed in the i20.

VINYL DISC INPUT

To listen to vinyl discs through the i20, requires an additional Phono pre-amp. This can be a stand-alone device, or a dedicated plug-in Creek pre-amp called Sequel mk4.

The Sequel mk4 Phono Pre-amp is a modular PCB that plugs into a socket on the internal PCB and reconfigures Line input 1. It will automatically indicate Phono on the display when Line 1 input is selected.

Creek Audio also produces a stand-alone OBH-8mk2 Phono pre-amplifier, which can be connect-ed to any analogue Line input.

The screw terminal situated between Input 1 and the loudspeaker terminals is a chassis ground post to ground your turntable's tonearm. It is to eliminate potential hum and buzzing noises. Most tonearms have a separate wire to connect to the amplifier's chassis ground and it should not be connected to the signal ground. However, there are notable exceptions, like REGA RESEARCH, so check with your dealer if in doubt.

LOUDSPEAKER CONNECTION

The loudspeakers should be connected using a high-quality low resistance speaker cable. Check with your dealer for advice, if necessary. The amplifier's speaker terminals on the back panel allow for 4mm plugs, spade lugs, or bare wires. Tighten the terminal fully after fitting side-entry wires of spade lugs to make a good connection. Avoid shorting the cable or connectors when in use. Please consult your dealer for advice if you are unsure.

Connect the cables to the speakers with the correct phase, relative to left and right channels. Speaker cables are normally polarised with a line or writing on the positive side to highlight this. Connect the positive red wire from the loudspeaker's terminal to the red terminal on the amplifier and likewise for the black. If both channels are not connected with the same relative polarity, the stereo signal will be "out-of-phase", and a poor stereo image and loss of bass will result.

It is important not to short-circuit the loudspeaker cables together when the amplifier is powered. The short circuit (over-current) protection will prevent damage but, it is better to be avoided if possible. Ensure there are no strands of wire bridging the terminals when connecting the loudspeakers and make all connections with the amplifier turned-off or in Standby mode. If it is necessary to change or move the location of the loudspeakers, make sure that you first turn the amplifier off and double check the wiring before powering up again.

REMOTE CONTROL

The handset allows the user to operate the amp remotely via an infra-red signal. The handset must be pointed approximately at the front panel for best performance. Range is limited to about 7 metres, or 23 feet. The Creek remote is designed to be intuitive in use. However, it is sometimes necessary to press the appropriate coloured button at the top of the remote first to select Amp (Blue), CD/DAC (Black). Note – not all the buttons and functions work for the Voyage, as the remote is universal and used by other Creek products.

The Creek remote transmits standard Philips RC5 type remote control codes.

The Voyage remote handset will also control other Creek products, like the Evolution 50/100A and CD, plus Destiny 1 and 2 and some older models as well. Contact info@creekaudio.com for advice if in doubt.

RC BUS – REMOTE CONTROL SENSOR EXTENDER

The amplifier is supplied with a remote extender. If there is no clear sight of the front panel, the sensor head can be placed where it can be seen, and the amplifier hidden away. The extender jack should be plugged into the socket on the rear panel marked RC Bus IN. An RC bus OUT socket allows the amp to be chain linked to a matching Voyage CD, where only one remote sensor will operate two products to prevent the possibility of the two products becoming un-synchronised, i.e. one switched on and the other switched off. If in doubt, please write to: info@creekaudio.com for further advice.

HEADPHONES

Most types of headphones (**from low to relatively high impedance**) can be enjoyed with the i20 through its dedicated high-quality headphone amplifier. Volume is controlled as usual by the left-hand control knob. The 6.35mm (1/4") socket is located on the left-hand end of the display window.

The i20 has a dedicated headphone amplifier built into its pre-amplifier circuit capable of driving most types of headphones. Gain or loudness

is proportional to the headphone's load impedance. Low impedance headphones will be louder than high impedance types for a given volume setting. Use the volume control carefully to set your preferred level and remember that the same rule applies to headphones as speakers. Warning: Listening for a prolonged period at high sound pressure levels can cause permanent hearing damage.

PROTECTION MECHANISMS

The amplifier will protect itself or its load from three types of potential failure:

1. Over-temperature.
2. Over-current and or short circuit.
3. DC offset.

The amplifier will isolate the loudspeaker output under any of these conditions to avoid potential damage to itself or the speakers. The fault status will be displayed. Speaker relays will reconnect the output after a short delay and only if the fault has been cleared.

Over-temperature

Like most amplifiers, the i20 needs to be well ventilated. Although it is designed to run cooler than conventional amplifiers with similar power capability, it still needs to have a clear path to cool its internal metal heatsink. The ventilation slots on the top and bottom of the case must be clear of obstructions. It is important to avoid placing other pieces of equipment on top of the amplifier, as this will restrict airflow and heat dissipation.

Immediately the display indicates an "Overheating" message it will automatically mute the loudspeaker output. The output will be reset when the temperature drops to an acceptable level. To prevent this from happening again, make sure the amp is not located inside a cupboard restricting airflow, on a shelf with limited space above it, or placed underneath other equipment. It may also be the result of the amplifier driving low impedance loudspeakers (less than 4 Ohms) at high levels for an extended time, causing the temperature to rise above the pre-set 90 Centigrade limit.

The internal temperature can be monitored. Press the left-hand knob and then select Display Info, by pressing again. The display will show the heatsink temperature in centigrade only. Turn the right-hand control knob to exit Display Info.

OVER-CURRENT

If you connect the i20 to a loudspeaker load that is too harsh for the amplifier to drive at high levels, or you accidentally short-circuit the output terminals, or speaker cables, the i20 will immediately protect itself by disconnecting the output through a relay in each channel. To avoid this happening, do not connect speaker cables with the amplifier powered and amplifying a signal. If the load is too low and the level too high, reduce the volume to a lower level. Once the fault has been cleared the amplifier will operate normally again. If that does not work, switch off the amplifier and check the speaker wiring for shorts.

DC OFFSET

Direct Current voltage will push a speaker drive unit backwards or forwards. It has the potential to damage a loudspeaker if unwanted DC is not removed quickly. Hence, this is automatically prevented by the amplifier's protection mechanism. If the 'DC presence' warning is displayed, try reducing the volume level until the signal returns after a few seconds. If the volume is reduced to -80dB or muted it may have been triggered by an internal fault. Contact your dealer or info@creekaudio.com for advice.

CAUTION

Never drive your amplifier to sound pressure levels that cause audible distortion. Distortion is an indication that either the amplifier or loudspeakers are being pushed beyond their design limits and may result in permanent damage to the loudspeakers.

Warning: Sustained sound pressure levels above 105dB for more than a few minutes is detrimental to human hearing. Tinnitus or permanent hearing damage may result.

POWER CONSUMPTION

It is appreciated by Hi-Fi enthusiasts that leaving equipment powered up continuously can improve the performance. However, this small improvement in sound quality for the first few minutes' use comes at the expense of a small, but continuous, power consumption from the mains, which will increase your electricity bill and reduced working life of the product. The amplifier draws approximately 20 Watts of power from the mains when switched on and idle.

Creek recommends switching the amplifier off from the mains at the rear panel or wall socket if it is not going to be used for a prolonged time – holidays and the like. Normal performance is achieved quickly due to its advanced thermal compensation circuitry.

Relays are used to route and mute signals inside the i20 and they produce a small mechanical clicking sound when operating. This is normal and does not indicate a malfunction with the product.

FIRMWARE

Like most modern electronic equipment, digital microcontrollers are used to manage almost every function. The programming of this microcontroller may need to be upgraded over time. To view the revision number, press the left-hand control knob briefly. Rotate the left-hand knob to select “Display Info”. Press the knob to select the “About this unit” screen. The firmware version will be displayed along with the heatsink temperature in Celsius. To return to the normal operation mode, press or rotate the volume control knob. Please check for the latest firmware available on Creek’s website. The DFU Device Firmware Update capability of the i20 will allow the user to update the device via USB and the internet.

RADIO INTERFERENCE

The i20 is designed to work properly in normal domestic operating conditions. However, its performance could be adversely affected if sited near to a radio transmitter such as a mobile phone, light dimmer, wi-fi modem, etc. This is particularly noticeable when using vinyl disc, with the Sequel mk4 installed. The cartridge mounted on your turntable has a coil of wire inside that acts like a tuned circuit in a radio set. Relocating the i20 or the radio transmitter should normalise the situation.

TECHNICAL SPECIFICATIONS

Power output @ 1% THD	120 Watts into 8 Ohms, both channels
Power output @ 1% THD	240 Watts into 4 Ohms, both channels
Power output @ 1% THD	480 Watts into 2 Ohms, one channel
Power output tolerance	Voltage stabilisation enables repeatable power output regardless of mains voltage or load. Current limited
Continuous max output current	>10A (sine wave) current limited
Peak output current	+/-26 Amps into 0.5 Ohm load for 100ms - current limited
THD and Noise	<0.002% - 20 Hz to 20 kHz @ 2/3 rated power 8 Ohms
Signal to Noise Ratio	102dBA Line input
Frequency Response	1Hz to 100 kHz, +/-2dB
Power amp gain	33.4dB (x 47) un-balanced
Pre-amplifier analogue gain	0dB (x1) default.
Optional pre-amp gain or bypass	3dB, 6dB, 9dB, 12dB, pre-selectable on inputs 1 to 4
Input sensitivity	659mV for 120W into 8 Ohms with 0dB pre-amp gain
Crosstalk	>80dB at 1 kHz
DC offset	< +/-5mV
Pre-Amp Inputs	4 x RCA (un-balanced) and 1 x XLR (balanced)
Pre-amp output	1 x RCA (unbalanced) and electronically buffered
Pre-amp output impedance	100 Ohms
Plug-in Phono options	Input 1 changes to Phono with Sequel mk4 MM Phono fitted
Digital inputs	2 x SPDIF Co-Axial – (192kHz, 24-bit) 2 x TOSLINK optical – (192kHz, 24-bit)
USB class 2 audio	PCM up to 384kHz, 32-bit. DSD 64 and 128 Bluetooth – aptX HD

DAC max performance	PCM 768kHz, 32-bit, DSD 22.4MHz
IR BUS IN	External IR sensor extender
IR BUS OUT	Daisy chain link to another Voyage device
Loudspeaker Outputs	4mm binding posts with rear and side entry, plus spade lug
Speaker output impedance	<0.02 Ohms 20Hz to 20 kHz (Damping factor >400)
Headphone Output socket	6.3mm stereo jack socket
Headphone output impedance	<22 Ohms, suitable for headphone 12 – 600 Ohms
Mains voltage range	230V nominal. Working range - 170V - 265V AC - 50Hz 115V nominal. Working range - 85V - 140V AC - 60Hz Factory set to either 230V or 115V. Not user adjustable
Mains fuse type and rating	T10AL 250V - 5 x 20mm glass cartridge fuse 10 Amp, Time-lag, or Anti-surge, rated at 250V
Ground connections	Turntable grounding post next to Line 1 / Phono
Ground Lift	A 2-way switch is located under the chassis on the right
Finish colours	Silver or Black front panel. Outer cover is black
Power Consumption	Idle, Max, Standby <20 Watts, 600 Watt, 0.5Watts
Auto Standby	The amp will switch off after 30 minutes with no signal
Auto Standby Menu	Status and options controlled in Menu
Power supply fuse	T10AL 250V = 10 Amp, Time-Lag, rated at 250V, 5 x20mm
Weight	9kgs (20 lbs) net 11.5kgs (25.35 lbs) gross, packed
Size W/H/D	43 x 8 x 35 cm (17 x 3 x 13.8") including feet, knobs, and terminals
Caution	Do not use outside or near water Please heed all safety warnings

TERMINOLOGY

Unbalanced* means the complete signal passed through two conductors (cables). The signal is passed through the middle conductor and is returned ground via the braided outer shield wire. Unbalanced* is the normal connection method for domestic audio equipment and normally uses an RCA, Phono or Chinch plug or socket.

Balanced* means the signal is divided into two phases (positive and negative) and passed through two separate wires, with an additional ground shield, which carries no signal or current. This is a normal method of connection in professional or semi-professional systems to eliminate interference or noise pick-up via the cable. When used in domestic systems, it can yield improvements but is not entirely helpful or necessary for short cable lengths. It is ideally used to eliminating ground loops, that cause unwanted hum or noise.

Decibels to voltage gain conversion:

0dB = x 1. +3dB = x 1.4. +6dB = x 2.0. +9dB = x 2.8. +12dB = x 4.0.

AFTERSALES SERVICE

The i20 is designed to provide years of reliable use. If you need more assistance, it is always advisable to go back to the supplying dealer for their expert help. If you are unfortunate enough to need service work to be carried out on your i20, it should be returned to your dealer, in the original packing material if possible.

Creek Audio reserves the right to change or modify the specification of its products without warning.

WARRANTY

If within two years of date of purchase, your i20 proves to be defective for any reason other than accident, misuse, neglect, unauthorised modification, or fair wear and tear, Creek Audio will, at its discretion, replace the faulty parts without charge for labour or return carriage within the United Kingdom.

This warranty is valid only in the United Kingdom and given in addition to statutory rights.

Service enquiries outside the United Kingdom should be addressed to the supplying dealer first or the Creek distributor/importer.

For list of distributors, please visit: www.creekaudio.com/distributors

Warranties granted in countries outside the UK are entirely at the discretion of the importer/distributor or governed by commercial law.