Connect Spark™ Pro

UHD NDI® Adapter

Operating Instructions
Trademarks: NewTek, NewTek VMC1, NewTek VMC1 IN, NewTek VMC1 OUT, NewTek NC1, NewTek NC1 IN, NewTek NC1 I/O, TriCaster, TriCaster TC1, TriCaster Advanced Edition, TriCaster XD, TriCaster 8000, TriCaster TCXD8000, TCXD8000, TriCaster 860, TriCaster TCXD860, TCXD860, TriCaster 460, TriCaster TCXD460, TCXD460, TriCaster 410, TriCaster TCXD410, TCXD410, TriCaster Mini SDI, TriCaster Mini, TriCaster 40, TriCaster TCXD40, TCXD40, TriCaster 855, TriCaster TCXD855, TCXD855, TriCaster 455, TriCaster TCXD455, TCXD455, TriCaster EXTREME, TriCaster 850 EXTREME, TriCaster TCXD850 EXTREME, TCXD850 EXTREME, TriCaster 450 EXTREME, TriCaster TCXD450 EXTREME, TriCaster 450 EXTREME, TriCaster 850, TriCaster TCXD850, TCXD850, TriCaster 450, TriCaster TCXD450, TCXD450, TriCaster 300, TriCaster TCXD300, TCXD300, TriCaster PRO, TriCaster STUDIO, TriCaster BROADCAST, TriCaster DUO, MediaDS, MDS1, 3PLAY, 3Play 3P1, 3Play 4800, 3PX4800, 3Play 440, 3PX440, 3Play Mini, 3Play 820, 3PX820, 3Play 425, 3PX425 3Play 330, 3PX330, TalkShow, TalkShow VS 4000, TalkShow VS100, Network Device Interface, NDI, NewTek Connect, NewTek Connect Spark, NewTek IsoCorder, ProTek, ProTek Care, ProTek Elite, ivGA, SpeedEDIT, IsoCorder, LiveText, LiveGraphics Creator, LiveGraphics, DataLink, LiveSet, LiveGraphics, TriCaster Virtual Set Editor, Virtual Set Editor Advanced Edition, TriCaster VSE, TriCaster VSE Advanced Edition, LiveMatte, TimeWarp, VT, VT[3], VT[4], VT[5], Video Toaster, Toaster, Inspire 3D, 3D Arsenal, Aura, LightWave, LightWave 3D and LightWave CORE are trademarks, service marks, and registered trademarks of NewTek. All other brand names, product names, or trademarks belong to their respective holders.
# Table of Contents

SECTION 1 QUICKSTART .................................................................................................................. 1

SECTION 2 INTRODUCTION AND SETUP .................................................................................. 5

2.1 Overview .................................................................................................................................. 5

2.2 Getting Ready ......................................................................................................................... 6

2.3 Making Connections ............................................................................................................... 6

2.4 Web Configuration ................................................................................................................ 7
  2.4.1 Studio Monitor ................................................................................................................ 7
  2.4.2 Logging In ....................................................................................................................... 10
  2.4.3 Audio/Video Settings ..................................................................................................... 10
  2.4.4 Video Format ................................................................................................................ 10
  Audio Input ............................................................................................................................. 11

2.5 Administration ...................................................................................................................... 11
  2.5.1 Network Settings ........................................................................................................... 12

2.6 Tally ....................................................................................................................................... 13
  2.6.1 External Tally ................................................................................................................. 14

APPENDIX A: ABOUT NDI® ......................................................................................................... 15

2.7 A ‘Video Internet’ .................................................................................................................. 15

2.8 NDI Benefits ........................................................................................................................ 16

2.9 NDI Virtual Input ................................................................................................................ 16

APPENDIX B: END USER LICENSE AGREEMENT ..................................................................... 18

CREDITS ........................................................................................................................................ 27
This section explains how to connect and configure your NewTek Connect Spark™ Pro. It also explains how to update the device, and where you can find additional NDI® software to extend your workflow. After completing this short section, you'll be all set to begin using your new camera.

This document briefly describes how to prepare your new NewTek™ device for use. Please note that more detailed information is provided in the next chapter.

**Step 1 – Downloads**

1. Visit http://new.tk/NCSPInfo using the web browser of a computer and download the following:
   a. NewTek NDI® Tools pack

2. Install NDI Tools on your computer.

**Step 3 – Connect Spark Pro**

3. Connect Spark Pro to your local network router or switch with an Ethernet cable.
   a. If you connect a PoE (power over Ethernet) cable, the unit will power up.
4. Otherwise, connect power from the supplied power adapter to Spark Pro’s USB-C port, located beside the Ethernet connector. (If using another adapter, it should have a full-size USB (type A) output connector and supply at least 2.4 amps at 5V.)

**Step 4 – Access Spark’s Webpage**

5. Use the NewTek Studio Monitor application installed with your NDI® Tools pack to locate Spark Pro on the network as follows:
   a. Click the menu gadget at upper-left to view NDI sources.
   b. Use the menu to select your Spark Pro unit.
   c. Then click the gear icon at lower right when your mouse pointer is over Studio Monitor to open Spark’s webpage in your web browser.

*Note: Step 4, accessing the device webpage, varies slightly for OS X users. Please refer to Section 2.4 for details.*

6. Log into the webpage using the default user name (“admin”) and password (also “admin”).

*Note: The Microsoft Edge™ web browser is not fully supported at this time. On Windows platforms, please another modern web browser or Internet Explorer™.*

**Step 5 – Update Spark Pro’s Firmware**

We encourage you to keep the firmware on your NewTek™ device up to date. Firmware updates may contain bug-fixes, provide improved performance, or even enable new features. The update process is not complicated – simply follow the steps listed below:
7. Download and unzip the firmware update archive to extract the `.bin` file.
8. Click the Administration tab at the top of Spark Pro’s webpage, and compare the Firmware Version shown to the number in the filename of the firmware version you downloaded. If the download has a higher revision number, continue below to perform the update.

9. Click the Update Firmware button, and click Choose File to show a file explorer.

10. Use the file explorer to locate the firmware .bin file, and follow the prompts to perform the update.

   Spark will reboot during this process, which may take up to ten minutes. Please be careful not to interrupt power to the device during the update process.

11. Following a firmware update, we recommend performing a Factory Reset. The Reset button is located just right of the HDMI connector on Spark Pro’s chassis.

   Normally, pressing this button simply restarts the device. However, during a brief period at the beginning of the restart process, the device lights flash white. Pressing Reset again during this period performs a full Factory Reset operation, restoring default settings. (Note: if you have previously set a manually configured IP address for the unit, you will need to reconfigure the IP settings again following a Factory Reset).

   **Hint:** On some web browsers, you may occasionally need to clear the browser’s cache (history) to see the result of a firmware update or Factory Reset. Also, please note that it can take a minute or two before the NDI channel name shown in NDI Studio Monitor refreshes.

**Conclusion**

This completes the initial setup of your NewTek™ Spark Pro. You should see its output displayed on Studio Monitor. The sections that follow provide more in depth coverage of Spark’s features and options.
Thank you for purchasing this NewTek™ product. NewTek is extremely proud of its record of innovation, and its commitment to excellence in design, manufacture, and superb product support.

NewTek provides some of the most advanced live production tools available anywhere, and we are confident you will find them exceptionally powerful and versatile.

Your NewTek Connect Spark Pro™ unit delivers a huge amount of functionality in a compact package. Prosumers and video professionals alike will appreciate the convenience and flexibility it provides in connection with both video production and capture.

Unlike typical encoders or capture card systems, your NewTek Connect Spark Pro™ Pro unit leverages the ground-breaking benefits of NewTek’s NDI-based IP workflow, supported by leading video software and hardware developers around the globe. This manual will assist you to install and configure your new Spark Pro™.
2.2 GETTING READY

Your NewTek Connect Spark Pro uses the NDI® protocol for audio/video transmission, and more. Your first step will be to install a few NDI utilities appropriate for your computer platform or device:


NDI Tools provide a very valuable array of practical NDI learning tools and utilities, including NewTek’s NDI Studio Monitor, which will not only locate and display the network video output from your Spark Pro unit, but also makes it easy access to its settings.

2.3 MAKING CONNECTIONS

![Figure 2-1](image)

1. Supply power supply to the unit, either by

   a. Connecting the supplied power adapter to Spark Pro’s USB-C port, located beside the Ethernet connector.

   **Note:** *If using another adapter, please use one with a full-size USB (type A) output connector that supplies at least 2.4 amps at 5V.*

   b. Or by connecting a ‘Power over Ethernet’ (PoE) cable to Spark Pro’s network connector – see note below.

   **Note:** *Spark Pro’s PoE support conforms to the IEEE 802.3af-2003 specification.*

   The unit boots as soon as power is supplied by one of the methods above. At this point, the NewTek logo will illuminate. (If this does not happen, check your connections and retry.)

2. If did not choose option b above (PoE), please continue to connect one end of a network cable to Spark Pro’s RJ-45 Ethernet port.

3. Connect the other end of the cable to your network switch or router.

4. Optional steps:

   a. Connect an HDMI video cable from a suitable video source to Spark Pro’s HDMI input connector.
b. If you wish, connect an analog audio source to the 6.35mm stereo audio input.

If you connected a video source in step 3 above, your NewTek Connect Spark Pro is already sending NDI audio and video to your local network. We’ll talk about how to access and use it soon, but first let’s discuss how to access Spark Pro’s settings and features.

Hint: In ‘mission’ critical installations, it is wise to use an uninterruptable power supply (UPS). Likewise, consider A/C “power conditioning”, especially in situations where local power is unreliable or ‘noisy’. Surge protection is especially important in some locales. Power conditioners can reduce wear on power supplies and other electronics, and provide a further measure of protection from surges, spikes, lightning and high voltage.

2.4 WEB CONFIGURATION

NewTek Connect Spark Pro is very easy to use. In many installations, all you need to do is supply power, connect a video source and your network, and you’re ready to go.

Sometimes, though, you will want to access Spark Pro’s settings – perhaps to configure login credentials, update firmware, etc. Settings are made available by means of Spark Pro’s configuration webpage, which you can access from any suitable device (i.e., one with a web browser) on the same network.

Note: As web browsers vary widely, you may occasionally find it necessary to delete cached files (sometimes referred to as the browser’s “history”) before the display refreshes to properly show some recent change. This can happen, for example, after a firmware update.

KEEP READING TO LEARN HOW TO ACCESS YOUR CAMERA’S WEBPAGE.

Some devices provide direct, easy access to Spark Pro’s configuration webpage. For example, when you select output from a Spark Pro unit as the source for a NewTek TriCaster® switcher input, a convenient “Device Webpage” button is shown in TriCaster’s Input Configuration panel. Simply click this to open the corresponding web control page.

2.4.1 STUDIO MONITOR

For other platforms, you can use the Studio Monitor application you installed back in Section 2.2 in a similar manner.

Windows platform users can launch Studio Monitor from the system’s Start menu (Figure 2-2), where it will appear in the NewTek NDI Tools folder. Among its capabilities, Studio Monitor (Windows) can detect and display NDI sources available on your network.
OSX users will also find a similar NDI Video Monitor application available to them after installing the NewTek NDI Tools pack for their preferred platform.

**Locating Spark Pro on the Network – Windows™**

1. Launch Studio Monitor, and click the small menu ('hamburger') gadget at upper left to open the application menu. Among other things, this menu displays all NDI sources detected on your network.

2. Shortly, you should see a new main entry named SPARK_PRO added to the menu. Roll the mouse pointer over this label to show the names for NDI output streams from any Spark Pro units detected.

   *Hint: Detection of newly-connected NDI sources can take a few moments; in network settings with a great number of NDI sources available, a complete refresh of the source list can take a minute or even more.*

   *When the sub-menu lists multiple NDI channels with the same name, the device IP addresses are shown to further identify them. (NDI users seldom need to bother with mundane matters such as IP addresses. 😊)*

Select the newly listed channel for the Spark Pro unit you wish to configure. In a few moments, its video output will appear in the Studio Monitor window.

3. For NDI sources that, like Spark Pro, host a configuration web page, a small configuration (gear) icon appears at lower right when you the mouse pointer is over the Studio Monitor window – Figure 2-4.

4. Click the gear to open the corresponding web page, popping up a request for you to enter login credentials (Figure 2-5).

*Note: The Microsoft Edge™ web browser is not fully supported at this time. On Windows platforms, please use another modern web browser or Internet Explorer™.*
The process is very similar for OS X users.

1. Having launched the Video Monitor application, use the File menu at the top of the Desktop to locate a new main entry named SPARK_PRO.

2. Rolling the mouse pointer over this label shows the individual names for the NDI output channels of any Spark Pro units detected on the network.

*Hint: Detection of newly-connected NDI sources can take a few moments; in network settings with a great number of NDI sources available, a complete refresh of the source list can take a minute or even more.*

*When the sub-menu lists two or more NDI channels with the same name, the source device IP address is shown to further identify them. (Otherwise, NDI users seldom need to bother with mundane matters such as IP addresses.😊)*
Select the newly listed channel for the Spark Pro unit you wish to configure. In a few moments, its video output will appear in the Studio Monitor window.

3. The Video Monitor Settings menu shows an option near the bottom that lets you open the Device Webpage in your system web browser. Select this item, and continue as follows.

2.4.2 LOGGING IN

Note: See Section 2.5.1 for details of an alternative method to locate your Spark unit on the network should you have difficulty with the method detailed above.

1. Enter the Username “admin” and the default Password - also "admin".

![FIGURE 2-7](image)

2.4.3 AUDIO/VIDEO SETTINGS

After logging in, Spark’s options and controls are shown in your web browser (Figure 2-8).

Hint: The preview shown on the web page is not a full motion video monitor, but updates periodically to allow you to confirm the results of changes you make to various settings.

2.4.4 VIDEO FORMAT

The first tab shown on the Spark Pro web page is labeled Audio/Video Settings.

Video Format controls (Figure 2-9) allow you to enable the 4k Video option. Doing so effectively announces to connected HDMI video sources that Spark Pro can accept UHD video, potentially resulting in higher bandwidth usage for NDI output when required.

![FIGURE 2-8](image)
Depending on your network throughput capabilities and other traffic, and of course your production requirements, you may choose to leave this option off when it is not required.

**Note:** Multiple connections to UHD video can quickly saturate a gigabit network. Use the 4K option only when it is really needed. And if many 4K connections are required, consider using the Multicast setting (although this requires special care when configuring the network – see Section 2.5.1).

The current video format the device has negotiated with your source is displayed at right.

![4k Video](image)

---

### Audio Input

**FIGURE 2-10**

Just below, you will see the Audio Input group (Figure 2-10). It is comprised of two buttons, labeled Digital and Analog. These determine whether Spark Pro uses the embedded audio source (digital audio included with the HDMI video source) or analog audio supplied to Spark’s 1/8” line level stereo input connector. Spark Pro’s nominal audio level is +4dBu.

---

### 2.5 Administration

**FIGURE 2-11**

The second tab in the configuration web page is labeled Administration. Here you will find information and settings related to your Spark device, and its network connection.
The uppermost section of this tab displays the Device Name and NDI Channel Name which determine how your Spark device is identified on your NDI network. These names are editable, allowing you a convenient way to identify the output of specific Spark units to downstream NDI-enabled devices and systems.

In this section, you will see the Firmware version currently installed on your Spark Pro displayed, along with the unit’s SKU. Buttons just below allow you to actually update the installed firmware version, to modify the default network password, or to reboot the device (please see the hint re: browser history in Section 2.4).

**Hint:** Should you set a custom password and then forget it, you can reset the device to factory defaults using the Factory Reset process described in Section 1.

Controls in the Network Settings section will be familiar to anyone who has connected a computer or mobile device to a network, and require little explanation.

Typically, networks are configured to automatically supply IP addresses to devices you connect to it by means of a DHCP server. Your Spark Pro’s IP Address resolution method is set to Dynamic by default, to take advantage of this scheme. To assign a static IP address to your unit, change the IP Address setting to Manual.
**LOCAL-LINK (FAILSAFE)**

If Spark's default IP Address setting (Dynamic) should ever fail to provide a usable IP address within a minute or two – as when an active DHCP server is not found on the network – you can locate your Spark Pro on the network using its failsafe Local-Link (APIPA) feature.

In this scenario, temporarily set the network adapter of your computer to a static IP address in the APIPA address block (such as 169.254.0.254, with a netmask of 255.255.0.0) and connect the Spark Pro.

Then run Studio Monitor on the computer, as described earlier to locate the unit. This will allow you to use Spark Pro's web page to set a suitable static IP of your choosing, after which you can restore the computer's normal network configuration settings.

**MULTICAST**

Click Multicast to transmit video using multicast, rather than the default unicast method. *Please take time to consider the following information before enabling multicast.*

**MULTICAST OR UNICAST?**

Multicast can seem like a bandwidth-saving miracle. Unlike NDI’s default mode (unicast), multicast does not require a unique stream from the source to each receiver. When using unicast, each connection to the sender reduces the bandwidth available by a similar amount.

By contrast, multicast connections do not add significantly to the bandwidth required as connections multiply. You might wonder why anyone would ever turn this option off – yet, it is off by default. Why?

This is because *multicast requires more careful network configuration.* While you might not notice any issues in a simple network setting; *a poorly configured multicast environment can have serious impact on more complex networks.*

- Specifically, it is essential that IGMP snooping be enabled for each switch on the network. This lets the device listen to traffic between other hosts, switches and routers, and identify receiving ports using various IP multicast streams.

- We *strongly* recommend that all network switches be of the ‘managed’ type (see the sidebar above), and that you obtain assistance from IT professionals if you have multiple switches online.

**2.6 TALLY**

Your Spark Pro unit provides ‘tally’ notification from NDI devices supporting it. Specifically, two large LEDs, on red and the other green, will light up to tell you when video

**Managed vs. Unmanaged**

An un-managed (a.k.a., ‘dumb’) network switch will broadcast a multicast stream to all devices on the network, with potentially very serious ramifications.

For example, even though a device broadcasts a multicast stream, the un-managed switch will pass *unicast* packets to downstream switches and clients. This can flood the network with unnecessary traffic, and slow it down as upstream devices are forced to wait for responses from the over-saturated devices.

The result of a poor setup can fairly be likened to a self-inflicted Denial of Service attack, and will definitely not endear you to your colleagues.
output from the device is visible on the Program output or Preview row of a video switcher, as illustrated by Figure 2-15.

![Figure 2-15](image)

2.6.1 EXTERNAL TALLY

The external Tally connector, located near the USB-C port on Spark Pro’s chassis, allows you to send Program tally notification to external studio systems. This 1/8” connector uses the common ‘contact closure’ method to provide electrical tally indication, as follows:

- When Program tally is *not* active, measurement from tip to sleeve will be open.
- Otherwise, when Program tally *is* active, measurement from tip to sleeve will typically be between 75 and 90 ohms.
APPENDIX A:  ABOUT NDI®

NDI is much more than simply ‘video over IP’. As you begin using it, you’ll increasingly discover its many advantages. Soon you’ll realize you never want to go back to simple ‘point A to point B’ methods of video transport.

This section provides a brief overview of NDI and the power it delivers to unleash your creativity and provide newfound production efficiency.

We live in a world in which virtually every computer system in the world is potentially connected to every other. Likewise, our countless mobile devices are connected too. These devices have high quality screens, fast processors and cameras. It is no surprise, then, that efficient, economical, non-linear video transfer in IP space is augmenting and even superseding traditional linear connection methods (SDI, HDMI, etc.) and systems.

NewTek NDI® (Network Device Interface) makes it easy to share high-quality video over a local Ethernet network. However, the NDI vision is vastly exciting than any mere ‘cable upgrade’. Production systems using IP to integrate data, video, and audio are transforming live video production in ways that would have seemed miraculous just a few years ago. You can think of NDI as turning your network into a ‘video internet’.

2.7 A ‘VIDEO INTERNET’

Like a webpage, each NDI source is instantly available to many viewers and devices. Wherever your network extends – throughout your office, broadcast studio, hospital, campus (etc.) – NDI is ready for immediate display, capture, replay, production, and more. NDI operates bi-directionally over a local area network, and supports many ultra-low latency, ultra-high quality video streams on shared connections. It is resolution and framerate independent, and natively supports tally, metadata, access management, and more.
NDI's superb performance over standard 1Gbit/s networks makes it possible to transition facilities to an incredibly versatile IP video production pipeline without negating existing investments in SDI infrastructure, or costly new high-speed network installations. (NDIHX is a related high-efficiency NDI mode expressly designed to facilitate wifi and long distance connections).

2.8 NDI BENEFITS

The NDI concept is simple: You supply a video source, and send it to your network as an NDI stream by means of your NewTek Connect Spark Pro™. At that point, anyone else on that network can see it and work with it just as if it was a locally connected to their system (unless you deliberately limit access).

In this brave new world of IP video, you hardly need to think about capture cards, SDI, HDMI connections, a/v formats, etc. You also enjoy freedom from dependency on distribution amps, video matrix routers, and the like. There are many hundreds of software and hardware systems with native NDI input and output support – both commercial and open source. Now you can supply your video to these without running bulky cables over long distances.

More than simply replacing a cable, though, NDI enables multiple applications to access the same sources at the same time. For example, you might simultaneously send high-quality, low latency video to your video mixer system, while also streaming it and capturing it elsewhere on your network. For a deeper introduction to the world of NDI, download and install the free NewTek NDI Tools pack from www.NDI.NewTek.com, which includes a Getting Started with NDI guide.

2.9 NDI VIRTUAL INPUT

If you installed the NDI Tools for Windows™, you were given the opportunity to install NewTek NDI Virtual Input at the same time. This is a very useful application that allows you to make a designated NDI source available on the local as a proxy 'webcam'.

In turn, this means that you can quickly and flexibly assign NDI sources from your network to supply video to applications like Skype™, Google + Hangouts™, GoToMeeting™, and many more.

*Hint: At the time of installation, you will be asked whether you would like to Virtual Input to be launched automatically when you boot the system. In most situations you may want to choose this option.*

When running, NDI Virtual Input adds a small icon to the Windows task tray (Figure 2-16).

![NewTek NDI Virtual Input](image)

**FIGURE 2-16**

Configuring (and using) Virtual Input is very easy:

- Simply right-click the icon to select an NDI source from your network.
• The Settings menu item allows you mute or adjust audio levels, or select a Low Bandwidth mode, as you might do to make optimal use of your network when a lower resolution image will suffice.

![Settings menu showing NewTek NDI Video option](image)

**FIGURE 2-17**

• Afterward, you will see an entry named NewTek NDI Video (or Audio) listed along with any other qualified sources available to applications like Skype™, etc.
This NewTek Software License and Limited Warranty applies to combined software/hardware product provided including but not limited to:


PLEASE READ THIS CAREFULLY BEFORE USING THIS PRODUCT. BY USING THIS PRODUCT YOU AGREE TO BE BOUND BY THESE TERMS OF THE SOFTWARE LICENSE AND LIMITED WARRANTY. CERTAIN PRODUCTS, INCLUDING BUT NOT LIMITED TO THE MDS1 AND NVG1 HAVE ADDITIONAL END USER LICENSE AGREEMENTS THAT ARE BINDING. IF YOU DO NOT AGREE TO THESE LICENSES AND THESE TERMS, RETURN THE PRODUCT TO THE PLACE WHERE YOU OBTAINED IT WITHIN 15 DAYS OF PURCHASE FOR A FULL REFUND.

THIS PRODUCT IS AN INTEGRATED Hardware/Software PRODUCT. YOU OWN THE HARDWARE AND LICENSE THE SOFTWARE.

THIS SOFTWARE LICENSE AND LIMITED WARRANTY APPLIES TO THE PRODUCTS LISTED ABOVE. TRICASTERS, 3PLAY AND TALKSHOW ARE REFERRED TOGETHER AS “PRODUCT” IN THIS SOFTWARE LICENSE AND LIMITED WARRANTY.

This license does not replace the NDI License for developers, which are under separate SDK license agreement.

SOFTWARE LICENSE AND LIMITED SOFTWARE WARRANTY

1. Grant of License

The computer program(s) (the "Software") installed and/or enclosed with the Product is licensed, not sold, to you by NewTek, Inc. (NEWTEK) for use only under the terms of this License, and NEWTEK reserves any rights not expressly granted to you. You own the any disk(s) and/or tangible media that might be enclosed with the Product on which any Software is recorded or fixed, but the Software and all copyright rights therein, foreign and domestic, is owned by NEWTEK or its suppliers and is protected by United States and foreign copyright laws and international treaty provisions. You do not have any grant of a license herein if you acquired the Product and/or software by fraud, stealth, or other unlawful means, including but not limited to acquiring the product by means of credit card fraud, mail fraud or the like.

The copyright restrictions of this license extend to any further updates, software patches, or bug fixes made available to you by NEWTEK, regardless of how the software is delivered (by downloading, through magnetic media, or other). Any Software updates and/or patches later obtained by you from NewTek may be used on, and only on, a Product that has a valid and legal Software License for which the update was obtained. IF YOU USE A SOFTWARE UPDATE, IT MAY INCLUDE TERMS THAT MODIFY OR CHANGE THIS LICENSE; YOUR
ACCEPTANCE AND USE OF SUCH PATCH WILL CONSTITUTE YOUR CONSENT AND AGREEMENT TO MODIFY THIS LICENSE TO THE EXTENT THE PATCH INDICATES THIS LICENSE IS MODIFIED.

This License allows you to use one copy of the Software and when installed on this Product’s hardware. However, if the Product is an NDI/HX driver, you may use up to five (5), and no more than five, copies on separate machines at one time.

You may make one copy of the Software in machine readable form solely for backup purposes. The Software is protected by copyright law. As an express condition of this License, you must reproduce on the backup copy the NEWTEK copyright notice in the following format "(c) 1990 - 2017 NEWTEK."

On Products that include the Network IN feature, this license permits you to copy certain files to other computers, for the purpose of bringing their display into the Product host computer for viewing.

EXCEPT WITH REGARD TO THE PROHIBITIONS ON TRANSFER AND ASSIGNMENT PERTAINING TO THE TALKSHOW PRODUCT AND SOFTWARE IN PARAGRAPH 14 BELOW, you may permanently transfer all your rights under this License to another party, if transferred along with the hardware, by providing such party all copies of the Software licensed under this License together with this License, and all licenses of any subsequent updates that modify this license, and all written materials accompanying the Software, provided that the other party reads and agrees to accept the terms and conditions of this License and other licenses pertaining to the Software and its updates. Your rights under this license terminate upon such transfer. You may not transfer any rights under this agreement if you acquired the Product and/or software by fraud, stealth, or other unlawful means, including but not limited to acquiring the product under fraud and/or false pretenses of any kind, including by means of credit card fraud, or mail fraud. Some of these restrictions may not apply to the GPL, LGPL, or other licensed software/libraries referenced in paragraph 9 below.

Limited Educational License. If the Product was obtained for Educational Use with an Educational price discount, this license is a limited Educational License, and as such the Software is not licensed to be used for any commercial or other use that is not an Educational Use. Educational Use means use by students, instructors, educational and/or government facilities directly connected with the user’s employment with, or as a student of, a bona fide educational institution of primary, secondary, graduate, or postgraduate level. The terms of purchase relating to restrictions to educational uses in effect at the time of purchase also are part of this license to the extent they don’t conflict. These Educational Uses may be stated from time to time on NewTek’s website, including restrictions on availability of technical support, and are part of the terms of this Educational license. Any non-educational use will be considered, as with other uses in contravention of this license, copyright infringement. You may determine whether it is a Limited Educational License by referring to the serial number and letter code. **Call NewTek to determine the nature of the license for this Product.

2. Restrictions.

The Software contains trade secrets in its human perceivable form and, to protect them, YOU MAY NOT COPY (EXCEPT AS EXPRESSLY AUTHORIZED HEREIN), AND YOU MAY NOT DISTRIBUTE, MODIFY OR CREATE DERIVATIVE WORKS, OR REVERSE ENGINEER, DECOMPILE, DISASSEMBLE, OR OTHERWISE REDUCE THE SOFTWARE TO ANY HUMAN PERCEIVABLE FORM. YOU MAY NOT MODIFY, ADAPT, TRANSPILE, RENT, LEASE, LOAN, RESELL FOR PROFIT, OR CREATE ANY MODIFICATIONS OR OTHER DERIVATIVE WORKS BASED UPON THE SOFTWARE OR ANY PART THEREOF.
3. Termination

This License is effective until terminated. This License will terminate immediately without notice from NEWTEK, or by judicial resolution, if you fail to comply with any provision of this License. Upon such termination you must destroy the Software, all accompanying written materials and all copies thereof. You may also terminate this License at any time by destroying the Software, all accompanying written materials and all copies thereof.


You agree to comply with all applicable export/import laws and regulations when using or transferring this software. You agree that neither the Software nor any direct product thereof is being or will be shipped, transferred or re-exported, directly or indirectly, into any country prohibited by the United States Export Administration Act and the regulations thereunder or will be used for any purpose prohibited by the Act. Any violation of this provision will terminate the license and void the transfer.

5. Limited Warranty and Disclaimer, Limitation of Remedies and Damages.

YOU ACKNOWLEDGE THAT THE SOFTWARE MAY NOT SATISFY ALL YOUR REQUIREMENTS OR BE FREE FROM MINOR DEFECTS. NEWTEK WARRANTS THE DISCS OR OTHER TANGIBLE STORAGE MEDIA PROVIDED, IF ANY, ON WHICH THE SOFTWARE IS RECORDED TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP UNDER NORMAL USE FOR 90 DAYS FROM PURCHASE.

ALL IMPLIED WARRANTIES RELATING TO THE PRODUCT SOFTWARE ARE DISCLAIMED (INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). YOUR EXCLUSIVE REMEDY FOR BREACH OF WARRANTY WILL BE THE REPLACEMENT OF THE MEDIA OR REFUND OF THE PURCHASE PRICE. IN NO EVENT WILL NEWTEK OR ITS DEVELOPERS, SHAREHOLDERS, DIRECTORS, OFFICERS, EMPLOYEES OR AFFILIATES BE LIABLE TO YOU FOR ANY CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, AND THE LIKE), WHETHER FORESEEABLE OR UNFORESEEABLE, ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE OR ACCOMPANYING WRITTEN MATERIALS, REGARDLESS OF THE BASIS OF THE CLAIM AND EVEN IF NEWTEK OR AN AUTHORIZED NEWTEK REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IF THIS IS AN EVALUATION OR BETA VERSION, YOU ACKNOWLEDGE THAT THE SOFTWARE AND ACCOMPANYING MATERIALS ARE ACCEPTED “AS IS” AND MAY NOT BE FREE FROM DEFECTS.

NEWTEK DISCLAIMS ANY IMPLIED OR OTHER WARRANTY OF TITLE. NEWTEK EXPRESSLY DOES NOT WARRANT THAT THE SOFTWARE DOES NOT INFRINGE ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY, AND SUCH WARRANTY OR ANY OTHER WARRANTY OF TITLE IS EXPRESSLY DISCLAIMED. THIS EXCLUSION OF WARRANTY AGAINST INFRINGEMENT IS INAPPLICABLE WHERE SUCH EXCLUSION IS PROHIBITED BY LAW.

NO WARRANTIES OF ANY KIND APPLY TO THE X264 SOFTWARE.

SPECIAL WARRANTY TERMS APPLY TO AUSTRALIA, SEE BELOW.

Other Legal Disclosures and Limitations. The above warranty is exclusive and in lieu of all other warranties, express or implied. Because some states and jurisdictions have different laws that are ever-changing, and because we have no desire to conflict with these laws, then any term of this warranty or the warranty limitations that is prohibited by applicable law shall not apply. IF ANY STATE OR JURISDICTION PROHIBITS
EXCLUSION OF ANY IMPLIED OR OTHER WARRANTY, THEN SUCH MANDATED IMPLIED or OTHER WARRANTY SHALL BE LIMITED TO SUCH WARRANTY CLAIMS BEING BROUGHT WITHIN ONE (1) YEAR FROM DATE OF PURCHASE. YOUR SOLE REMEDY IN ANY EVENT SHALL BE TO TERMINATE THE LICENSE.

ALL ACTIONS ON ANY BREACH OF WARRANTY OF ANY KIND MUST BE BROUGHT WITHIN ONE (1) YEAR OF DATE OF PURCHASE AND ANY LONGER STATUTE OF LIMITATION SHALL NOT APPLY. Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

The above warranty limitations will not apply in case of personal injury where and to the extent that applicable law requires such liability.

6. Trademarks.

The following are trademarks of NewTek, Inc.: TriCaster®, 3Play®, NDI®, TalkShow®, NDI®, NewTek, NewTek TC1, NewTek VMC1, NewTek NC1 IN, NewTek NC1 I/O, NewTek VMC1 OUT, NewTek MDS1, MDS1, MediaDS, NDI/HX, NewTek NDI Connect Spark SDI, NewTek NDI Connect Spark HDMI, Connect Spark, Spark, NewTek NDI PTZ, PTZ-1, NewTek NVG1, NVG1, TriCaster Advanced Edition, TriCaster XD, TCXD8000, TriCaster 8000, TC, TCXD 860, TriCaster 860; TCXD855, TriCaster 855, TCXD850, TCXD850 Extreme, TriCaster 850 Extreme, TriCaster Extreme, TriCaster 850, TCXD455, TCXD460, TriCaster 460, TCXD410, TriCaster 410, TriCaster Mini, TriCaster Mini SDI, TriCaster TCXD455, TriCaster 455, TCXD450, TCXD450 Extreme, TriCaster TCXD450 Extreme, TriCaster 450, TriCaster 450 Extreme, TCXD300, TriCaster 300, TCXD 40, TriCaster 40, TriCaster PRO, TriCaster STUDIO, TriCaster BROADCAST, TriCaster DUO, Media DS, MDS1, TalkShow VS 4000, TalkShow VS100, Network Device Interface, NewTek Connect, NewTek Connect Pro, NewTek IsoCorder, NewTek IsoCorder Pro, DataLink, TriCaster Virtual Set Editor, Virtual Set Editor Advanced Edition, TriCaster VSE, TriCaster VSE Advanced Edition, SpeedEDIT, NewTek AutoLink for Panasonic PTZ, VMC1, VMC1 IN, VMC1 OUT, 3P, 3PLAY 425, 3PXD440, 3PLAY 440, 3PXD425, 3PXD820, 3PLAY 4800, 3PLAY 820, 3PXD820, 3Play Mini, TriCaster LC-11, LC-11, RS-8, DataLink, iVGA RS-8, ProTekSM, ProTek CareSM, ProTek EliteSM, IsoCorder, Broadcast Minds®, DataLink, Digital Confusion, Endomorphs, HardFX, HyperVoxels, LiveTime, LScript, Motion Mixer, Morph Mixer, Particle FX, Partigons, Skelegons, SkyTracer, SoftFX, LiveText, LiveSet, LiveMatte, TransWarp, TimeWarp, NewTek VT, VT, VT[3], VT[4], VT[5], Video Toaster, Toaster, LiveControl, Chronosculpt, NevronMotion, Inspire 3D, 3D Arsenal, Aura, LightWave, LightWave 3D® and LightWave CORE. The list is not intended to be exhaustive, and others are or may be claimed by NewTek related to these or other NewTek products, some of which may be found at www.newtek.com. All other brand names, product names, or trademarks belong to their respective holders.

7. MPEG-2, MPEG-4, AVC/H.264

Use of this product commercially, including the distribution of content media, may require additional licenses from MPEG sources, depending on your usage.

MPEG-2: ANY USE OF THIS PRODUCT IN ANY OTHER MANNER THAN CONSUMER PERSONAL USE THAT COMPLIES WITH THE MPEG-2 STANDARD FOR ENCODING VIDEO INFORMATION FOR PACKAGED MEDIA IS EXPRESSLY PROHIBITED WITHOUT A LICENSE UNDER APPLICABLE PATENTS IN THE MPEG-2 PATENT PORTFOLIO, WHICH LICENSE IS AVAILABLE FROM MPEG LA, L.L.C., 250 STEELE STREET, SUITE 300, DENVER, COLORADO 80206.
MPEG-4; THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER FOR (i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD (“MPEG-4 VIDEO”) AND/OR (ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED BY MPEG LA TO PROVIDE MPEG-4 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL AND COMMERCIAL USES AND LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE HTTP://WWW.MPEGLA.COM.

AVC/H.264: The use within this product of any files using AVC/H.264 encoding and/or decoding are subject to the following restrictions: CERTAIN SOFTWARE HEREIN IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (I) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD (“AVC VIDEO”) AND/OR (II) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE HTTP://WWW.MPEGLA.COM.

8. Other MPEG – No warranty

Your use of this product to distribute CD’s, streaming video, or other media, or certain other commercial uses, may require additional licensing from other appropriate MPEG licensing sources, and no warranty is made otherwise. **9. Other Licenses – Any use by you of Adobe Reader®, Adobe Flash Player®, and/or Windows Media® viewers and/or players constitutes your acceptance of the terms of the respective licenses by Adobe and Microsoft for such viewers and players. Adobe®, Adobe Flash Player® are trademarks of Adobe®; Windows®, Windows Media® are trademarks of Microsoft®. HDMI®, the HDMI logo, and High-Definition Media Interface® are trademarks of High Definition Licensing, Inc. ADOBE AIR AND FLASH PLAYERS ARE LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (I) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD (“AVC VIDEO”) AND/OR (II) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE HTTP://WWW.MPEGLA.COM. Other licenses from third parties are referenced elsewhere in this manual, and by agreeing to this License you also agree to the terms of those licenses.

This Product may include certain software, including libraries, licensed under the GNU General Public License (GPL) and Lesser General Public License (LGPL) of the Free Software Foundation and some of the above restrictions may not apply to such software, and no warranties apply to such software. Information on these programs, the rights and limitations, is in the ABOUT BOX for you to review and are incorporated herein.


If this Software was acquired by or on behalf of a unit or agency of the United States Government this provision applies.

(a) This Software was developed at private expense, and no part of it was developed with government funds,
(b) This Software is a trade secret of NEWTEK for all purposes of the Freedom of Information Act,

(c) This Software is "commercial computer software" subject to limited utilization as provided in the contract between the vendor and the government entity, and

(d) This Software in all respects is proprietary data belonging solely to NEWTEK.

(e) For units of the Department of Defense (DoD), this Software is sold only with "Restricted Rights" as that term is defined in the DoD Supplement to the Federal Acquisition Regulations, 52.227-7013 (c) (1) (ii).

(f) Use, duplication or disclosure is subject to restrictions as set forth in subdivision (c) (l) (ii) of the Rights in Technical Data and Computer Software clause at 52.227-7013. Manufacturer: NEWTEK, 5131 Beckwith Boulevard, San Antonio, TX 78249.

(g) Title to and ownership of this Software and documentation and any reproductions thereof shall remain with NEWTEK,

(h) Use of this Software and documentation shall be limited to the facility for which it is required;

(i) If use of the Software is discontinued to the installation specified in the purchase/delivery order and the US Government desires to use it at another location, it may do so by giving prior written notice to NEWTEK, specifying the type of computer and new location site. US Governmental personnel using this Software, other than under a DoD contract or GSA Schedule, are hereby on notice that use of this Software is subject to restrictions which are the same as or similar to those specified.

(j) If this Software was acquired under a GSA Schedule, the US Government has agreed to refrain from changing or removing any insignia or lettering from the software or the accompanying written materials that are provided or from producing copies of manuals or disks (except one copy for backup purposes)


This Software License will be construed under the laws of the State of Texas, except for that body of law dealing with conflicts of law. If any provision shall be held by a court of competent jurisdiction to be contrary to law, that provision will be enforced to the maximum extent permissible and the remaining provisions of this License will remain in full force and effect.


The following additional Limited Warranty terms apply to Australian original purchasers (licensees) only and controls over any expressly contradicting warranty terms above. NewTek warrants to the original Australian purchaser (licensee) of this Software that the recording media on which the software programs are recorded will be free from defects in materials and workmanship for 90 days from the date of purchase. During such period defective media will be replaced if the original product is returned to NewTek at the below address, together with a dated proof of purchase, a statement describing the defects, the faulty media and your return address. This warranty does not apply to the software program itself, which is provided “as is”, nor does it apply to media which has been subject to misuse, damage or excessive wear. The benefits to you by this Limited Warranty are in addition to other rights or remedies you may have under law in relation to the goods to which the warranty relates:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably
foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods. If you have any questions please contact NewTek at www.newtek.com, or call at 1-210-370-8000, or write to NewTek, Inc. 5131 Beckwith Blvd., San Antonio, TX, USA, 78249. If goods covered by this Limited Warranty are defective, NewTek will reimburse you for the reasonable direct costs which you incur in making your claim subject to you providing us with original receipts of those direct costs with your claim.

13. Limited Content License.

The following terms apply to the use of the Content that is provided with the TriCaster®. The computer software ("Software"), images ("Images"), printed materials ("Index") and other content files, including any files containing photos, video clips, or music, whether contained on Content CD’s or otherwise included with the Product on Content directories or elsewhere, as predesigned images or files of any kind ("Files"), distributed with or in connection with the Products and/or subsequent updates and versions thereof (all such Images and Files collectively called the "Content Data"), are proprietary and all copyrights are owned by NewTek and/or its Licensors. These copyrights are protected under U.S. and International copyright law. NewTek, Inc. ("NewTek") and the parties who granted NewTek special permission to include their respective material as part of the Content Data own and reserve all rights. The Content is for your use only, and not to be distributed in whole or in part by you, with or without being incorporated into any other content or Work, unless expressly granted such right to incorporate the Content Data into your work, granted in writing by NewTek. Certain specific Content Data may have express permissions granted with it. You agree to indemnify and hold harmless NewTek and all of its officers, directors, employees and agents ("Indemnitees") for any and all losses, damages, liabilities, claims, costs or expenses, including reasonable attorneys’ fees, incurred directly or indirectly by the Indemnitees in connection with the use of the Content Data for any unlawful, unauthorized or prohibited purpose. You may not sell, sublicense, loan, give, or transfer any part of the Content Data or a copy thereof (except in accordance with the aforementioned permitted use in a work created by you), to another person or company. Under no circumstances shall the Content Data be transferred to third parties through the use of on-line services or networks. The remaining terms of this License apply except where in conflict, in which case the provisions of this Limited Content License shall control.


In addition to the other terms in this Software License and Limited Warranty, the following terms apply to the TalkShow product and its software:

a. In order to make or receive Skype calls to be processed using TalkShow and its software, you will need Skype Client Software from Skype™, a Microsoft™ company. You will be directed to create your own Skype™ user account(s) and your use of the Skype client software thereunder will be governed by the standard Skype™ Terms of Use. NewTek is not responsible for that license nor a party to it and you agree to be bound by it and comply with the Skype™ Broadcast Terms of Use as found at:


b. NewTek is solely responsible for the TalkShow product.
c. You agree that NewTek may share certain information about the use and performance of the TalkShow system with Skype™ and Microsoft

d. As with other software licensed elsewhere in this License, your license of the TalkShow software is limited to the object code only, and all other provisions of this license apply, including those in paragraph two.

e. You are further prohibited from any transfer, assignment, or sublicensing of the TalkShow software.

Limited Hardware Warranty

This limited warranty covers only the hardware portion of the Product and extends to the original purchaser only. Software with the Product, installed or uninstalled, is licensed to you, not sold, under the separate license agreement, above, that has its own limited warranty terms.

Except for Factory Reconditioned products dealt with hereafter, NewTek warrants that for a period of one (1) year from the date of your original purchase of the Product the hardware shall be free from defects in material and workmanship, subject to the limitations herein. If a defect is determined to be covered by this warranty as determined by NewTek, NewTek will correct it, and may do so using new or remanufactured components.

IF THIS IS AN EVALUATION OR BETA VERSION, YOU ACKNOWLEDGE THAT THE HARDWARE AND MATERIALS ARE ACCEPTED “AS IS” AND MAY NOT BE FREE FROM DEFECTS.

IF THIS PRODUCT IS A FACTORY RECONDITIONED PRODUCT, THE WARRANTY IS LIMITED TO NINETY (90) DAYS. All other terms of the Limited Warranty apply, including exclusions. A Factory Reconditioned product is a refurbished product that has been used and/or returned as trade in or for other reasons. Such products may have replacement parts that are used. Factory Reconditioned products (sometimes referred to as B Stock) will be noted on the Product and/or accompanying product literature as Factory Reconditioned, or with the “B” notation on the front label and/or at initial sign in.

LIMITATIONS ON WARRANTY AND LIMITATIONS ON NewTek's Liability. NewTek's obligations are only as expressly stated herein. NewTek is not liable for loss or damage for inconvenience or interruption of service, loss of business, data or anticipatory profits, or consequential, incidental or punitive damages resulting from the use (or operation) of any of the Product. NewTek's liability is limited solely to the repair or replacement of the defective Product. NewTek is under no obligation or responsibility to enhance or update the product. This warranty does not cover damage or malfunctions resulting from improper handling, accident, misuse, abuse, neglect, electrical surges, failure of electrical power, use with other products not manufactured or approved by NewTek, installation or removal charges or damages, damage while in transit for repair, repair attempted by any unauthorized person, or any other reason not due to defects in materials and workmanship. This warranty is also void if any applicable serial number has been altered, defaced, or removed, OR IF THE PRODUCT WAS PURCHASED UNDER FRAUD OR FALSE PRETENSES.

The hardware and software in this product are designed to work in conjunction with each other. Any termination of the Software License, and any use of the software, or any portion of the software, not in conjunction with the hardware, will void all warranties and any technical support service otherwise available.

TO THE BEST OF NEWTEK'S KNOWLEDGE, NEITHER THE SOFTWARE NOR THE HARDWARE OF THE PRODUCT INFRINGE ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY; NO WARRANTY IS PROVIDED AGAINST SUCH INFRINGEMENT OR CLAIMS
OF INFRINGEMENT. THIS EXCLUSION OF WARRANTY AGAINST INFRINGEMENT IS INAPPLICABLE WHERE SUCH EXCLUSION IS PROHIBITED BY LAW.

To Obtain Warranty Service. To obtain free repair under this warranty, contact NewTek Technical Support for confirmation, at www.newtek.com, or call at 1-210-370-8000, or write to NewTek, Inc. 5131 Beckwith Blvd., San Antonio, TX, USA, 78249 to receive a Returned Materials Authorization (RMA), and deliver the product along with proof of ownership (such as the original invoice, or a photocopy) to NewTek. You will be responsible for any costs associated with the delivery to and from our service center.

Other Legal Disclosures and Limitations. The above warranty is exclusive and in lieu of all other warranties, express or implied. Because so many states have different laws that are ever-changing, and because we have no desire to conflict with these laws, then any term of this warranty or the warranty limitations that is prohibited by applicable law shall not apply. IF ANY STATE PROHIBITS EXCLUSION OF ANY IMPLIED OR OTHER WARRANTY, THEN SUCH MANDATED IMPLIED OR OTHER WARRANTY SHALL BE LIMITED TO SUCH WARRANTY CLAIMS BEING BROUGHT WITHIN ONE (1) YEAR FROM DATE OF PURCHASE.

ALL ACTIONS ON ANY BREACH OF WARRANTY OF ANY KIND MUST BE BROUGHT WITHIN ONE (1) YEAR OF DATE OF PURCHASE AND ANY LONGER STATUTE OF LIMITATION SHALL NOT APPLY. Some states do not allow limitations on how long an implied warranty lasts or the exclusion Of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. The above warranty limitations will not apply in case of personal injury only where and to the extent that applicable law requires such liability.

For certain purchasers in Australia of certain of our Products governed by the Australian Consumer Law, the following applies:

“Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods. If you have any questions please contact NewTek at the above address. If goods covered by this Limited Warranty are defective, NewTek will reimburse you for the reasonable direct costs which you incur in making your claim subject to you providing us with original receipts of those direct costs with your claim.”

This Limited Hardware Warranty will be construed under the laws of the State of Texas, USA, except for that body of law dealing with conflicts of law. If any provision shall be held by a court of competent jurisdiction to be contrary to law that provision will be enforced to the maximum extent permissible and the remaining provisions of this Limited Warranty will remain in full force and effect.
APPENDIX C: CREDITS, LICENSES, AND TRADEMARKS

Acknowledgments: Tim Jenison, Jim Plant


C.1 3RD PARTY RIGHTS

The NDI libraries use other third party libraries, for which we are very grateful to the authors. These licenses are listed below.

C.1.1 CIVETWEB

Copyright (c) 2013-2018 The CivetWeb developers
Copyright (c) 2004-2013 Sergey Lyubka
Copyright (c) 2013 No Face Press, LLC (Thomas Davis)
Copyright (c) 2013 F-Secure Corporation

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,

FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
C.2 RAPiDJSON

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

C.3 TRADEMARKS

NewTek, NewTek VMC1, NewTek VMC1 IN, NewTek VMC1 OUT, NewTek NC1, NewTek NC1 IN, NewTek NC1 I/O, TriCaster, TriCaster TC1, TriCaster Advanced Edition, TriCaster XD, TriCaster 8000, TriCaster TCXD8000, TCXD8000, TriCaster 860, TriCaster TCXD860, TCXD860, TriCaster 460, TriCaster TCXD460, TCXD460, TriCaster 410, TriCaster TCXD410, TCXD410, TriCaster Mini SDI, TriCaster Mini, TriCaster 40, TriCaster TCXD40, TCXD40, TriCaster 855, TriCaster TCXD855, TCXD855, TriCaster 455, TriCaster TCXD455, TCXD455, TriCaster EXTREME, TriCaster 850 EXTREME, TriCaster TCXD850 EXTREME, TCXD850 EXTREME, TriCaster 450 EXTREME, TriCaster TCXD450 EXTREME, TCXD450 EXTREME, TriCaster 850, TriCaster TCXD850, TCXD850, TriCaster 450, TriCaster TCXD450, TCXD450, TriCaster 300, TriCaster TCXD300, TCXD300, TriCaster PRO, TriCaster STUDIO, TriCaster BROADCAST, TriCaster DUO, MediaDS, MDS1, 3PLAY, 3Play, 3Play 3P1, 3Play 4800, 3PXD4800, 3Play 440, 3PXD440, 3Play Mini, 3Play 820, 3PXD820, 3Play 425, 3PXD425 3Play 330, 3PXD330, TalkShow, TalkShow VS 4000, TalkShow VS100, Network Device Interface, NDI, NewTek Connect, NewTek Connect Spark, NewTek IsoCorder, ProTek, ProTek Care, ProTek Elite, iVGA, SpeedEDIT, IsoCorder, LiveText, LiveGraphics Creator, LiveGraphics, DataLink, LiveSet, LiveGraphics, TriCaster Virtual Set Editor, Virtual Set Editor Advanced Edition, TriCaster VSE, TriCaster VSE Advanced Edition, LiveMatte, TimeWarp, VT, VT[3], VT[4], V[T5], Video Toaster, Toaster, Inspire 3D, 3D Arsenal, Aura, LightWave, LightWave 3D and LightWave CORE are trademarks, service marks, and registered trademarks of NewTek. All other brand names, product names, or trademarks belong to their respective holders.