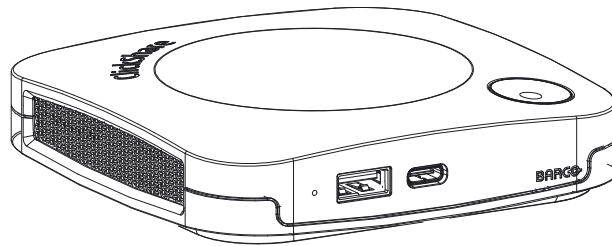


# CX-20

Model: C 3010S, R9861600D01C



User Guide

**Barco NV**

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| <b>PACKAGE</b> | <b>VERSION</b> | <b>SOURCE SITE</b>  |
|----------------|----------------|---|
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| libsamplerate  | 0.1.9          | <a href="http://www.mega-nerd.com/SRC">http://www.mega-nerd.com/SRC</a>   |
| libsndfile     | 1.0.28         | <a href="http://www.mega-nerd.com/libsndfile/files">http://www.mega-nerd.com/libsndfile/files</a>   |
| ncurses        | 6.1            | <a href="http://ftpmirror.gnu.org/ncurses">http://ftpmirror.gnu.org/ncurses</a>   |
| avahi          | 0.7            | <a href="https://github.com/lathiat/avahi/releases/download/v0.7">https://github.com/lathiat/avahi/releases/download/v0.7</a>   |
| dbus           | 1.12.16        | <a href="https://dbus.freedesktop.org/releases/dbus">https://dbus.freedesktop.org/releases/dbus</a>   |
| expat          | 2.2.7          | <a href="http://downloads.sourceforge.net/project/expat/expat/2.2.7">http://downloads.sourceforge.net/project/expat/expat/2.2.7</a>   |
| libselinux     | 2.8            | <a href="https://raw.githubusercontent.com/wiki/SELinuxProject/selinux/files/releases/20180524">https://raw.githubusercontent.com/wiki/SELinuxProject/selinux/files/releases/20180524</a> |
| libsepol       | 2.8            | <a href="https://raw.githubusercontent.com/wiki/SELinuxProject/selinux/files/releases/20180524">https://raw.githubusercontent.com/wiki/SELinuxProject/selinux/files/releases/20180524</a> |
| pcre           | 8.42           | <a href="https://ftp.pcre.org/pub/pcre">https://ftp.pcre.org/pub/pcre</a>   |
| python3        | 3.7.4          | <a href="https://python.org/ftp/python/3.7.4">https://python.org/ftp/python/3.7.4</a>   |

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|----------------------|----------------|---|
| bluez5_utils-headers | 5.50           | <a href="https://cdn.kernel.org/pub/linux/bluetooth">https://cdn.kernel.org/pub/linux/bluetooth</a>   |
| libffi               | v3.3-rc0       | <a href="https://github.com/libffi/libffi/archive/v3.3-rc0">https://github.com/libffi/libffi/archive/v3.3-rc0</a>   |
| libzlib              | 1.2.11         | <a href="http://www.zlib.net">http://www.zlib.net</a>   |
| libdaemon            | 0.14           | <a href="http://0pointer.de/lennart/projects/libdaemon">http://0pointer.de/lennart/projects/libdaemon</a>   |
| libglib2             | 2.56.4         | <a href="http://ftp.gnome.org/pub/gnome/sources/glib/2.56">http://ftp.gnome.org/pub/gnome/sources/glib/2.56</a>   |
| elfutils             | 0.176          | <a href="https://sourceware.org/elfutils/ftp/0.176">https://sourceware.org/elfutils/ftp/0.176</a>   |
| bzip2                | 1.0.8          | <a href="https://sourceware.org/pub/bzip2">https://sourceware.org/pub/bzip2</a>   |
| util-linux           | 2.33           | <a href="https://cdn.kernel.org/pub/linux/utils/util-linux/v2.33">https://cdn.kernel.org/pub/linux/utils/util-linux/v2.33</a>   |
| linux-pam            | 1.3.1          | <a href="https://github.com/linux-pam/linux-pam/releases/download/v1.3.1">https://github.com/linux-pam/linux-pam/releases/download/v1.3.1</a>                         |
| flex                 | 2.6.4          | <a href="https://github.com/westes/flex/files/981163">https://github.com/westes/flex/files/981163</a>   |
| readline             | 8.0            | <a href="http://ftpmirror.gnu.org/readline">http://ftpmirror.gnu.org/readline</a>   |
| bc                   | 1.06.95        | <a href="http://alpha.gnu.org/gnu/bc">http://alpha.gnu.org/gnu/bc</a>   |
| bellagio             | 0.9.3          | <a href="http://downloads.sourceforge.net/project/omxil/omxil/Bellagio%200.9.3">http://downloads.sourceforge.net/project/omxil/omxil/Bellagio%200.9.3</a>             |
| bitstream            | 1.4            | <a href="https://get.videolan.org/bitstream/1.4">https://get.videolan.org/bitstream/1.4</a>   |
| bluez5_utils         | 5.50           | <a href="https://cdn.kernel.org/pub/linux/bluetooth">https://cdn.kernel.org/pub/linux/bluetooth</a>   |
| libical              | 1.0.1          | <a href="https://github.com/libical/libical/releases/download/v1.0.1">https://github.com/libical/libical/releases/download/v1.0.1</a>                                 |
| eudev                | 3.2.7          | <a href="http://dev.gentoo.org/~blueness/eudev">http://dev.gentoo.org/~blueness/eudev</a>   |
| kmod                 | 25             | <a href="https://cdn.kernel.org/pub/linux/utils/kernel/kmod">https://cdn.kernel.org/pub/linux/utils/kernel/kmod</a>   |
| bridge-utils         | 1.6            | <a href="https://cdn.kernel.org/pub/linux/utils/net/bridge-utils">https://cdn.kernel.org/pub/linux/utils/net/bridge-utils</a>   |
| busybox              | 1.29.3         | <a href="http://www.busybox.net/downloads">http://www.busybox.net/downloads</a>   |
| dosfstools           | 4.1            | <a href="https://github.com/dosfstools/dosfstools/releases/download/v4.1">https://github.com/dosfstools/dosfstools/releases/download/v4.1</a>                         |
| e2fsprogs            | 1.44.5         | <a href="https://cdn.kernel.org/pub/linux/kernel/people/tytso/e2fsprogs/v1.44.5">https://cdn.kernel.org/pub/linux/kernel/people/tytso/e2fsprogs/v1.44.5</a>           |
| iproute2             | 4.19.0         | <a href="https://cdn.kernel.org/pub/linux/utils/net/iproute2">https://cdn.kernel.org/pub/linux/utils/net/iproute2</a>   |
| iptables             | 1.8.2          | <a href="https://netfilter.org/projects/iptables/files">https://netfilter.org/projects/iptables/files</a>   |
| netcat               | 0.7.1          | <a href="http://downloads.sourceforge.net/project/netcat/netcat/0.7.1">http://downloads.sourceforge.net/project/netcat/netcat/0.7.1</a>                               |
| ntp                  | 4.2.8p13       | <a href="https://www.eecis.udel.edu/~ntp/ntp_spool/ntp4/ntp-4.2">https://www.eecis.udel.edu/~ntp/ntp_spool/ntp4/ntp-4.2</a>   |
| libedit              | 20180525-3.1   | <a href="http://www.thrysoee.dk/editline">http://www.thrysoee.dk/editline</a>   |
| libbsd               | 0.10.0         | <a href="https://libbsd.freedesktop.org/releases">https://libbsd.freedesktop.org/releases</a>   |
| libevent             | 2.1.8-stable   | <a href="https://github.com/libevent/libevent/releases/download/release-2.1.8-stable">https://github.com/libevent/libevent/releases/download/release-2.1.8-stable</a> |
| libopenssl           | 1.1.1c         | <a href="https://www.openssl.org/source">https://www.openssl.org/source</a>   |
| pciutils             | 3.5.5          | <a href="https://cdn.kernel.org/pub/software/utils/pciutils">https://cdn.kernel.org/pub/software/utils/pciutils</a>   |
| unzip                | 60             | <a href="ftp://ftp.info-zip.org/pub/infozip/src">ftp://ftp.info-zip.org/pub/infozip/src</a>   |
| usbutils             | 010            | <a href="https://cdn.kernel.org/pub/linux/utils/usb/usbutils">https://cdn.kernel.org/pub/linux/utils/usb/usbutils</a>   |

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|------------------|----------------|---|
| libusb           | 1.0.22         | <a href="https://github.com/libusb/libusb/releases/download/v1.0.22">https://github.com/libusb/libusb/releases/download/v1.0.22</a>   |
| c-ares           | 1.15.0         | <a href="http://c-ares.haxx.se/download">http://c-ares.haxx.se/download</a>   |
| ca-certificates  | 20190110       | <a href="http://snapshot.debian.org/archive/debian/20190513T145054Z/pool/main/c/ca-certificates">http://snapshot.debian.org/archive/debian/20190513T145054Z/pool/main/c/ca-certificates</a> |
| cairo            | 1.15.12        | <a href="http://cairographics.org/snapshots">http://cairographics.org/snapshots</a>   |
| fontconfig       | 2.13.1         | <a href="http://fontconfig.org/release">http://fontconfig.org/release</a>   |
| freetype         | 2.9.1          | <a href="http://download.savannah.gnu.org/releases/freetype">http://download.savannah.gnu.org/releases/freetype</a>   |
| libpng           | 1.6.37         | <a href="http://downloads.sourceforge.net/project/libpng/libpng16/1.6.37">http://downloads.sourceforge.net/project/libpng/libpng16/1.6.37</a>   |
| libdrm           | 2.4.97         | <a href="https://dri.freedesktop.org/libdrm">https://dri.freedesktop.org/libdrm</a>   |
| libpthread-stubs | 0.4            | <a href="http://xcb.freedesktop.org/dist">http://xcb.freedesktop.org/dist</a>   |
| pixman           | 0.34.0         | <a href="http://xorg.freedesktop.org/releases/individual/lib">http://xorg.freedesktop.org/releases/individual/lib</a>   |
| collectd         | 5.7.2          | <a href="http://collectd.org/files">http://collectd.org/files</a>   |
| libgcrypt        | 1.8.4          | <a href="https://gnupg.org/ftp/gcrypt/libgcrypt">https://gnupg.org/ftp/gcrypt/libgcrypt</a>   |
| libgpg-error     | 1.33           | <a href="https://www.gnupg.org/ftp/gcrypt/libgpg-error">https://www.gnupg.org/ftp/gcrypt/libgpg-error</a>   |
| lm-sensors       | V3-5-0         | <a href="https://github.com/lm-sensors/lm-sensors/archive/V3-5-0">https://github.com/lm-sensors/lm-sensors/archive/V3-5-0</a>   |
| crda             | 4.14           | <a href="https://git.kernel.org/pub/scm/linux/kernel/git/mcgrof/crda.git/snapshot">https://git.kernel.org/pub/scm/linux/kernel/git/mcgrof/crda.git/snapshot</a>                             |
| libnl            | 3.4.0          | <a href="https://github.com/thom311/libnl/releases/download/libnl3_4_0">https://github.com/thom311/libnl/releases/download/libnl3_4_0</a>   |
| cryptsetup       | 2.0.6          | <a href="https://cdn.kernel.org/pub/linux/utils/cryptsetup/v2.0">https://cdn.kernel.org/pub/linux/utils/cryptsetup/v2.0</a>   |
| json-c           | 0.13.1         | <a href="https://s3.amazonaws.com/json-c_releases/releases">https://s3.amazonaws.com/json-c_releases/releases</a>   |
| lvm2             | 2.02.183       | <a href="ftp://sources.redhat.com/pub/lvm2">ftp://sources.redhat.com/pub/lvm2</a>   |
| libaio           | 0.3.111        | <a href="https://releases.pagure.org/libaio">https://releases.pagure.org/libaio</a>   |
| popt             | 1.16           | <a href="http://rpm5.org/files/popt">http://rpm5.org/files/popt</a>   |
| dhcp             | 4.3.6          | <a href="http://ftp.isc.org/isc/dhcp/4.3.6">http://ftp.isc.org/isc/dhcp/4.3.6</a>   |
| dnsmasq          | 2.79           | <a href="http://thekelleys.org.uk/dnsmasq">http://thekelleys.org.uk/dnsmasq</a>   |
| dropbear         | 2018.76        | <a href="https://matt.ucc.asn.au/dropbear/releases">https://matt.ucc.asn.au/dropbear/releases</a>   |
| dvblast          | 3.4            | <a href="https://get.videolan.org/dvblast/3.4">https://get.videolan.org/dvblast/3.4</a>   |
| libev            | 4.24           | <a href="http://dist.schmorp.de/libev/Attic">http://dist.schmorp.de/libev/Attic</a>   |
| faad2            | 2.8.8          | <a href="http://downloads.sourceforge.net/project/faac/faad2-src/faad2-2.8.0">http://downloads.sourceforge.net/project/faac/faad2-src/faad2-2.8.0</a>                                       |
| fbv              | 1.0b           | <a href="http://s-tech.elsat.net.pl/fbv">http://s-tech.elsat.net.pl/fbv</a>   |
| giflib           | 5.1.4          | <a href="http://downloads.sourceforge.net/project/giflib">http://downloads.sourceforge.net/project/giflib</a>   |
| jpeg-turbo       | 2.0.1          | <a href="https://downloads.sourceforge.net/project/libjpeg-turbo/2.0.1">https://downloads.sourceforge.net/project/libjpeg-turbo/2.0.1</a>   |
| ffmpeg           | 4.1.3          | <a href="http://ffmpeg.org/releases">http://ffmpeg.org/releases</a>   |
| libva            | 2.4.0          | <a href="https://github.com/intel/libva/releases/download/2.4.0">https://github.com/intel/libva/releases/download/2.4.0</a>   |
| wayland          | 1.16.0         | <a href="http://wayland.freedesktop.org/releases">http://wayland.freedesktop.org/releases</a>   |

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|-------------------|--|---|
| libxml2           | 2.9.9  | <a href="http://xmlsoft.org/sources">http://xmlsoft.org/sources</a>   |
| libvorbis         | 1.3.6  | <a href="http://downloads.xiph.org/releases/vorbis">http://downloads.xiph.org/releases/vorbis</a>                               |
| libogg            | 1.3.3  | <a href="http://downloads.xiph.org/releases/ogg">http://downloads.xiph.org/releases/ogg</a>                                     |
| libvpx            | v1.7.0                                       | <a href="https://github.com/webmproject/libvpx/archive/v1.7.0">https://github.com/webmproject/libvpx/archive/v1.7.0</a>         |
| opus              | 1.3.1  | <a href="https://downloads.xiph.org/releases/opus">https://downloads.xiph.org/releases/opus</a>                                 |
| speex             | 1.2.0  | <a href="https://downloads.xiph.org/releases/speex">https://downloads.xiph.org/releases/speex</a>                               |
| speexdsp          | 20e-d3452074664a-d07e380-e51321b148a-cebdf20 | <a href="https://git.xiph.org/speexdsp.git">https://git.xiph.org/speexdsp.git</a>   |
| file              | 5.36   | <a href="ftp://ftp.astron.com/pub/file">ftp://ftp.astron.com/pub/file</a>   |
| gdb               | 8.1.1  | <a href="http://ftpmirror.gnu.org/gdb">http://ftpmirror.gnu.org/gdb</a>   |
| gnupg2            | 2.2.17                                       | <a href="https://gnupg.org/ftp/gcrypt/gnupg">https://gnupg.org/ftp/gcrypt/gnupg</a>   |
| libassuan         | 2.5.2  | <a href="ftp://ftp.gnupg.org/gcrypt/libassuan">ftp://ftp.gnupg.org/gcrypt/libassuan</a>   |
| libksba           | 1.3.5  | <a href="ftp://ftp.gnupg.org/gcrypt/libksba">ftp://ftp.gnupg.org/gcrypt/libksba</a>   |
| libnpth           | 1.6  | <a href="https://www.gnupg.org/ftp/gcrypt/npth">https://www.gnupg.org/ftp/gcrypt/npth</a>                                       |
| sqlite            | 3280000                                      | <a href="https://www.sqlite.org/2019">https://www.sqlite.org/2019</a>   |
| gssdp             | 1.0.2  | <a href="http://ftp.gnome.org/pub/gnome/sources/gssdp/1.0">http://ftp.gnome.org/pub/gnome/sources/gssdp/1.0</a>                 |
| libsoup           | 2.62.3                                       | <a href="http://ftp.gnome.org/pub/gnome/sources/libsoup/2.62">http://ftp.gnome.org/pub/gnome/sources/libsoup/2.62</a>           |
| gst1-libav        | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gst-libav">https://gstreamer.freedesktop.org/src/gst-libav</a>                   |
| gst1-plugins-base | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gst-plugins-base">https://gstreamer.freedesktop.org/src/gst-plugins-base</a>     |
| gstreamer1        | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gstreamer">https://gstreamer.freedesktop.org/src/gstreamer</a>                   |
| gst1-plugins-bad  | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gst-plugins-bad">https://gstreamer.freedesktop.org/src/gst-plugins-bad</a>       |
| wayland-protocols | 1.17   | <a href="http://wayland.freedesktop.org/releases">http://wayland.freedesktop.org/releases</a>                                   |
| gst1-plugins-good | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gst-plugins-good">https://gstreamer.freedesktop.org/src/gst-plugins-good</a>     |
| libv4l            | 1.16.3                                       | <a href="https://linuxtv.org/downloads/v4l-utils">https://linuxtv.org/downloads/v4l-utils</a>                                   |
| qt5base           | 5.12.4                                       | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a> |
| icu               | 60.2   | <a href="http://download.icu-project.org/files/icu4c/60.2">http://download.icu-project.org/files/icu4c/60.2</a>                 |
| libinput          | 1.12.5                                       | <a href="http://www.freedesktop.org/software/libinput">http://www.freedesktop.org/software/libinput</a>                         |
| libevdev          | 1.6.0  | <a href="http://www.freedesktop.org/software/libevdev">http://www.freedesktop.org/software/libevdev</a>                         |
| mtdev             | 1.1.4  | <a href="http://bitmath.org/code/mtdev">http://bitmath.org/code/mtdev</a>   |
| pcre2             | 10.32  | <a href="https://ftp.pcre.org/pub/pcre">https://ftp.pcre.org/pub/pcre</a>   |
| gst1-vaapi        | 1.14.4                                       | <a href="https://gstreamer.freedesktop.org/src/gstreamer-vaapi">https://gstreamer.freedesktop.org/src/gstreamer-vaapi</a>       |

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|--------------------|----------------|---|
| htop               | 2.2.0          | <a href="http://hisham.hm/htop/releases/2.2.0">http://hisham.hm/htop/releases/2.2.0</a>   |
| hwdata             | v0.308         | <a href="https://github.com/vcrhonek/hwdata/archive/v0.308">https://github.com/vcrhonek/hwdata/archive/v0.308</a>   |
| input-event-daemon | v0.1.3         | <a href="https://github.com/gandro/input-event-daemon/archive/v0.1.3">https://github.com/gandro/input-event-daemon/archive/v0.1.3</a>   |
| iperf3             | 3.6            | <a href="https://downloads.es.net/pub/iperf">https://downloads.es.net/pub/iperf</a>   |
| iw                 | 4.14           | <a href="https://cdn.kernel.org/pub/software/network/iw">https://cdn.kernel.org/pub/software/network/iw</a>   |
| jansson            | 2.12           | <a href="http://www.digip.org/jansson/releases">http://www.digip.org/jansson/releases</a>   |
| jose               | 10             | <a href="https://github.com/latchset/jose/releases/download/v10">https://github.com/latchset/jose/releases/download/v10</a>   |
| jsoncpp            | 1.8.4          | <a href="https://github.com/open-source-parsers/jsoncpp/archive/1.8.4">https://github.com/open-source-parsers/jsoncpp/archive/1.8.4</a>   |
| libarchive         | 3.3.3          | <a href="http://www.libarchive.org/downloads">http://www.libarchive.org/downloads</a>   |
| libconfig          | v1.7.2         | <a href="https://github.com/hyperrealm/libconfig/archive/v1.7.2">https://github.com/hyperrealm/libconfig/archive/v1.7.2</a>   |
| libcurl            | 7.65.3         | <a href="https://curl.haxx.se/download">https://curl.haxx.se/download</a>   |
| libestr            | 0.1.10         | <a href="http://libestr.adiscon.com/files/download">http://libestr.adiscon.com/files/download</a>   |
| libfastjson        | v0.99.8        | <a href="https://github.com/rsyslog/libfastjson/archive/v0.99.8">https://github.com/rsyslog/libfastjson/archive/v0.99.8</a>   |
| libhttpparser      | v2.9.0         | <a href="https://github.com/nodejs/http-parser/archive/v2.9.0">https://github.com/nodejs/http-parser/archive/v2.9.0</a>   |
| liblogging         | 1.0.6          | <a href="http://download.rsyslog.com/liblogging">http://download.rsyslog.com/liblogging</a>   |
| libnspr            | 4.20           | <a href="https://ftp.mozilla.org/pub/mozilla.org/nspr/releases/v4.20/src">https://ftp.mozilla.org/pub/mozilla.org/nspr/releases/v4.20/src</a>                                   |
| libnss             | 3.42.1         | <a href="https://ftp.mozilla.org/pub/mozilla.org/security/nss/releases/NSS_3_42_1_RTM/src">https://ftp.mozilla.org/pub/mozilla.org/security/nss/releases/NSS_3_42_1_RTM/src</a> |
| libopusenc         | 0.2.1          | <a href="https://downloads.xiph.org/releases/opus">https://downloads.xiph.org/releases/opus</a>   |
| libpcap            | 1.9.0          | <a href="http://www.tcpdump.org/release">http://www.tcpdump.org/release</a>   |
| libqrencode        | 4.0.0          | <a href="http://fukuchi.org/works/qrencode">http://fukuchi.org/works/qrencode</a>   |
| libsha1            | 0.3            | <a href="https://github.com/dottedmag/libsha1/archive/0.3">https://github.com/dottedmag/libsha1/archive/0.3</a>   |
| libtool            | 2.4.6          | <a href="http://ftpmirror.gnu.org/libtool">http://ftpmirror.gnu.org/libtool</a>   |
| libuv              | v1.25.0        | <a href="https://github.com/libuv/libuv/archive/v1.25.0">https://github.com/libuv/libuv/archive/v1.25.0</a>   |
| libxkbcommon       | 0.8.2          | <a href="http://xkbcommon.org/download">http://xkbcommon.org/download</a>   |
| libyaml            | 0.2.1          | <a href="http://pyyaml.org/download/libyaml">http://pyyaml.org/download/libyaml</a>   |
| libzip             | 1.5.1          | <a href="http://www.nih.at/libzip">http://www.nih.at/libzip</a>   |
| lighttpd           | 1.4.53         | <a href="http://download.lighttpd.net/lighttpd/releases-1.4.x">http://download.lighttpd.net/lighttpd/releases-1.4.x</a>   |
| logrotate          | 3.13.0         | <a href="https://github.com/logrotate/logrotate/archive/3.13.0">https://github.com/logrotate/logrotate/archive/3.13.0</a>   |
| memtester          | 4.3.0          | <a href="http://pyropus.ca/software/memtester/old-versions">http://pyropus.ca/software/memtester/old-versions</a>   |
| monit              | 5.25.3         | <a href="http://mmonit.com/monit/dist">http://mmonit.com/monit/dist</a>   |
| net-snmp           | 5.8            | <a href="https://downloads.sourceforge.net/project/net-snmp/net-snmp/5.8">https://downloads.sourceforge.net/project/net-snmp/net-snmp/5.8</a>                                   |
| nodejs             | 8.15.1         | <a href="http://nodejs.org/dist/v8.15.1">http://nodejs.org/dist/v8.15.1</a>   |
| opkg               | 0.3.6          | <a href="http://downloads.yoctoproject.org/releases/opkg">http://downloads.yoctoproject.org/releases/opkg</a>   |

| <b>PACKAGE</b>       | <b>VERSION</b>   | <b>SOURCE SITE</b>  |
|----------------------|------------------|---|
| opus-tools           | 0.2              | <a href="https://downloads.xiph.org/releases/opus">https://downloads.xiph.org/releases/opus</a>   |
| opusfile             | 0.11             | <a href="https://downloads.xiph.org/releases/opus">https://downloads.xiph.org/releases/opus</a>   |
| php                  | 7.3.9            | <a href="http://www.php.net/distributions">http://www.php.net/distributions</a>   |
| portaudio            | v190600_20161030 | <a href="http://www.portaudio.com/archives">http://www.portaudio.com/archives</a>   |
| powertop             | 2.9              | <a href="https://01.org/sites/default/files/downloads/powertop">https://01.org/sites/default/files/downloads/powertop</a>   |
| protobuf             | v2.6.1           | <a href="https://github.com/google/protobuf/archive/v2.6.1">https://github.com/google/protobuf/archive/v2.6.1</a>   |
| python-pyyaml        | 4.2b4            | <a href="https://files.pythonhosted.org/packages/a8/c6/a8d1555e795dbd0375c3c93b576ca13bbf139db51ea604afa19a2c35fc03">https://files.pythonhosted.org/packages/a8/c6/a8d1555e795dbd0375c3c93b576ca13bbf139db51ea604afa19a2c35fc03</a> |
| python-serial        | 3.4              | <a href="https://files.pythonhosted.org/packages/cc/74/11b04703ec416717b247d789103277269d567db575d2fd88f25d9767fe3d">https://files.pythonhosted.org/packages/cc/74/11b04703ec416717b247d789103277269d567db575d2fd88f25d9767fe3d</a> |
| qt5declarative       | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5xmlpatterns       | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5graphical-effects | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5imageformats      | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5multimedia        | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5quickcontrols     | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5quickcontrols2    | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5serialport        | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5svg               | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5tools             | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5webchannel        | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5websockets        | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| qt5webengine         | 5.12.4           | <a href="https://download.qt.io/archive/qt/5.12/5.12.4/submodules">https://download.qt.io/archive/qt/5.12/5.12.4/submodules</a>   |
| webp                 | 1.0.1            | <a href="http://downloads.webmproject.org/releases/webp">http://downloads.webmproject.org/releases/webp</a>   |
| ramspeed             | 2.6.0            | <a href="http://www.alasir.com/software/ramspeed">http://www.alasir.com/software/ramspeed</a>   |
| rsync                | 3.1.3            | <a href="http://rsync.samba.org/ftp/rsync/src">http://rsync.samba.org/ftp/rsync/src</a>   |
| rsyslog              | 8.22.0           | <a href="http://rsyslog.com/files/download/rsyslog">http://rsyslog.com/files/download/rsyslog</a>   |
| strace               | 4.26             | <a href="https://strace.io/files/4.26">https://strace.io/files/4.26</a>   |
| tcpdump              | 4.9.2            | <a href="http://www.tcpdump.org/release">http://www.tcpdump.org/release</a>   |
| tpm-tools            | 1.3.9.1          | <a href="http://downloads.sourceforge.net/project/trousers/tpm-tools/1.3.9.1">http://downloads.sourceforge.net/project/trousers/tpm-tools/1.3.9.1</a>   |

| <b>PACKAGE</b>     | <b>VERSION</b>                              | <b>SOURCE SITE</b>  |
|--------------------|---|---|
| trousers           | 0.3.14                                      | <a href="http://downloads.sourceforge.net/project/trousers/trousers/0.3.14">http://downloads.sourceforge.net/project/trousers/trousers/0.3.14</a>   |
| tzdata             | 2018e                                       | <a href="http://www.iana.org/time-zones/repository/releases">http://www.iana.org/time-zones/repository/releases</a>   |
| weston             | 5.0.0                                       | <a href="http://wayland.freedesktop.org/releases">http://wayland.freedesktop.org/releases</a>   |
| wireless-regdb     | 2019.06.03                                  | <a href="https://cdn.kernel.org/pub/software/network/wireless-regdb">https://cdn.kernel.org/pub/software/network/wireless-regdb</a>   |
| wireless_tools     | 30.pre9                                     | <a href="https://hewlettpackard.github.io/wireless-tools">https://hewlettpackard.github.io/wireless-tools</a>   |
| xkeyboard-config   | 2.23.1                                      | <a href="http://www.x.org/releases/individual/data/xkeyboard-config">http://www.x.org/releases/individual/data/xkeyboard-config</a>   |
| zip                | 30  | <a href="ftp://ftp.info-zip.org/pub/infozip/src">ftp://ftp.info-zip.org/pub/infozip/src</a>   |
| splashutils        | 1.5.4.4                                     | <a href="http://dev.gentoo.org/~spock/projects/gensplash/archive">http://dev.gentoo.org/~spock/projects/gensplash/archive</a>   |
| libresample        | 0.1.3                                       | <a href="ftp://ftp.ubuntu.com/ubuntu/pool/universe/libr/libresample">ftp://ftp.ubuntu.com/ubuntu/pool/universe/libr/libresample</a>   |
| ta-arm-eabi        | 5_4-2016q3-20160926                         | <a href="https://launchpad.net/gcc-arm-embedded/5.0/5-2016-q3-update/+download">https://launchpad.net/gcc-arm-embedded/5.0/5-2016-q3-update/+download</a>                                 |
| alsa-plugins       | 1.1.1                                       | <a href="ftp://ftp.alsa-project.org/pub/plugins">ftp://ftp.alsa-project.org/pub/plugins</a>   |
| arphic-uming-fonts | 20080216                                    | <a href="http://archive.ubuntu.com/ubuntu/pool/main/t/ttf-arphic-uming">http://archive.ubuntu.com/ubuntu/pool/main/t/ttf-arphic-uming</a>   |
| dejavu-fonts       | 2.34  | <a href="http://downloads.sourceforge.net/project/dejavu/dejavu/2.34">http://downloads.sourceforge.net/project/dejavu/dejavu/2.34</a>   |
| sazanami-fonts     | 20040629                                    | <a href="http://sourceforge.jp/projects/efont/downloads/10087">http://sourceforge.jp/projects/efont/downloads/10087</a>   |
| unfonts            | 1.0   | <a href="http://kldp.net/frs/download.php/1425">http://kldp.net/frs/download.php/1425</a>   |
| liblockfile        | 1.09  | <a href="http://snapshot.debian.org/archive/debian/20151026T153523Z/pool/main/libl/liblockfile">http://snapshot.debian.org/archive/debian/20151026T153523Z/pool/main/libl/liblockfile</a> |
| lockfile-progs     | 0.1.17                                      | <a href="http://snapshot.debian.org/archive/debian/20141023T043132Z/pool/main/l/lockfile-progs">http://snapshot.debian.org/archive/debian/20141023T043132Z/pool/main/l/lockfile-progs</a> |
| mmc-utils          | 37c86e60c0442-fef570b75c-d81aeb1db4d0-cbafd | <a href="git://git.kernel.org/pub/scm/linux/kernel/git/cjb/mmc-utils.git">git://git.kernel.org/pub/scm/linux/kernel/git/cjb/mmc-utils.git</a>   |
| usbmount           | 0.0.22                                      | <a href="http://snapshot.debian.org/archive/debian/20141023T043132Z/pool/main/u/usbmount">http://snapshot.debian.org/archive/debian/20141023T043132Z/pool/main/u/usbmount</a>             |
| json               | 1.8.4-cs2                                   | <a href="http://json.org/">http://json.org/</a>   |
| flexnet            | 1.0.5                                       | <a href="https://www.flexerasoftware.com/monetize/products/flexnet-licensing.html">https://www.flexerasoftware.com/monetize/products/flexnet-licensing.html</a>                           |
| qca6174a-30        | 4.5.25.38                                   | <a href="https://source.codeaurora.org/external/wlan/qcaclid-2.0/">https://source.codeaurora.org/external/wlan/qcaclid-2.0/</a>   |
| wpa_supplicant     | a5ffe45908-cae43925bb5c-b13d98251-c802b4717 | <a href="http://w1.fi/hostap.git">http://w1.fi/hostap.git</a>   |
| wpa_passphrase     | a5ffe45908-cae43925bb5c-b13d98251-c802b4717 | <a href="http://w1.fi/hostap.git">http://w1.fi/hostap.git</a>   |
| wpa_cli            | a5ffe45908-                                 | <a href="http://w1.fi/hostap.git">http://w1.fi/hostap.git</a>   |



| PACKAGE             | VERSION   | SOURCE SITE   |
|---------------------|---|---|
|                     | cae43925bb5c-<br>b13d98251-<br>c802b4717                |   |
| hostapd             | a5ffe45908-<br>cae43925bb5c-<br>b13d98251-<br>c802b4717 | <a href="http://w1.fi/hostap.git">http://w1.fi/hostap.git</a>   |
| hostapd_cli         | a5ffe45908-<br>cae43925bb5c-<br>b13d98251-<br>c802b4717 | <a href="http://w1.fi/hostap.git">http://w1.fi/hostap.git</a>   |
| xz                  | 5.1.1   | <a href="https://tukaani.org/xz">https://tukaani.org/xz</a>   |
| libsrp              | 2.1.2   | <a href="https://github.com/secure-remote-password/stanford-srp/tree/master/libsrp">https://github.com/secure-remote-password/stanford-srp/tree/master/libsrp</a> |
| libfdk-aac          | 0.1.4   | <a href="https://github.com/mstorsjo/fdk-aac">https://github.com/mstorsjo/fdk-aac</a>   |
| libalac             | 4   | <a href="https://github.com/macOSforge/alac">https://github.com/macOSforge/alac</a>   |
| mDNSResponder       | 878.30.4  | <a href="https://opensource.apple.com/source/mDNSResponder">https://opensource.apple.com/source/mDNSResponder</a>   |
| nlohmann::json      | 3.7.3   | <a href="https://github.com/nlohmann/json">https://github.com/nlohmann/json</a>   |
| azure-iot-c-sdk     | 2019-10-07  | <a href="https://github.com/Azure/azure-iot-sdk-c">https://github.com/Azure/azure-iot-sdk-c</a>   |
| angular             | 7.2.0   | <a href="https://github.com/angular/angular.git">https://github.com/angular/angular.git</a>   |
| bcrypt              | 3.0.6   | <a href="https://github.com/kelektiv/node.bcrypt.js">https://github.com/kelektiv/node.bcrypt.js</a>   |
| bcryptjs            | 2.4.3   | <a href="https://github.com/dcodeIO/bcrypt.js">https://github.com/dcodeIO/bcrypt.js</a>   |
| body-parser         | 1.18.3  | <a href="https://github.com/expressjs/body-parser">https://github.com/expressjs/body-parser</a>   |
| bootstrap           | 4.3.1   | <a href="https://getbootstrap.com/">https://getbootstrap.com/</a>   |
| bunyan              | 1.8.12  | <a href="https://github.com/trentm/node-bunyan">https://github.com/trentm/node-bunyan</a>   |
| bunyan-prettystream | 0.1.3   | <a href="https://github.com/trentm/node-bunyan">https://github.com/trentm/node-bunyan</a>   |
| bunyan-syslog       | 0.3.2   | <a href="https://github.com/trentm/node-bunyan">https://github.com/trentm/node-bunyan</a>   |
| chromedriver        | 77.0.0  | <a href="https://github.com/giggio/node-chromedriver">https://github.com/giggio/node-chromedriver</a>   |
| Core-js             | 2.5.4   | <a href="https://github.com/zloirock/core-js">https://github.com/zloirock/core-js</a>   |
| cors                | 2.8.5   | <a href="https://github.com/expressjs/cors">https://github.com/expressjs/cors</a>   |
| dbus-native         | 0.4.0   | <a href="https://github.com/sidorares/dbus-native">https://github.com/sidorares/dbus-native</a>   |
| express             | 4.16.4  | <a href="https://github.com/expressjs/express">https://github.com/expressjs/express</a>   |
| generate-password   | 1.4.2   | <a href="https://github.com/brendanashworth/generate-password">https://github.com/brendanashworth/generate-password</a>   |
| inversify           | 5.0.1   | <a href="http://inversify.io/">http://inversify.io/</a>   |
| jquery              | 3.4.1   | <a href="https://jquery.com/">https://jquery.com/</a>   |

| <b>PACKAGE</b>     | <b>VERSION</b>                              | <b>SOURCE SITE</b>  |
|--------------------|---|---|
| js-yaml            | 3.12.0                                      | <a href="https://github.com/nodeca/js-yaml">https://github.com/nodeca/js-yaml</a>   |
| moment             | 2.24.0                                      | <a href="http://momentjs.com/">http://momentjs.com/</a>   |
| morgan             | 1.9.1                                       | <a href="https://github.com/expressjs/morgan">https://github.com/expressjs/morgan</a>   |
| multer             | 1.4.1                                       | <a href="https://github.com/expressjs/multer">https://github.com/expressjs/multer</a>   |
| ngx-cookie-service | 2.2.0                                       | <a href="https://github.com/7leads/ngx-cookie-service">https://github.com/7leads/ngx-cookie-service</a>   |
| npm                | 6.10.2                                      | <a href="https://docs.npmjs.com">https://docs.npmjs.com</a>   |
| passport           | 0.4.0                                       | <a href="http://github.com/jaredhanson/passport">http://github.com/jaredhanson/passport</a>   |
| passport-http      | 0.3.0                                       | <a href="http://github.com/jaredhanson/passport-http">http://github.com/jaredhanson/passport-http</a>   |
| popper.js          | 1.15.0                                      | <a href="https://popper.js.org">https://popper.js.org</a>   |
| reflect-metadata   | 0.1.13                                      | <a href="http://rbuckton.github.io/reflect-metadata">http://rbuckton.github.io/reflect-metadata</a>   |
| rxjs               | 6.3.3                                       | <a href="https://github.com/ReactiveX/RxJS">https://github.com/ReactiveX/RxJS</a>   |
| swagger-parser     | 6.0.5                                       | <a href="https://github.com/APIDevTools/swagger-parser">https://github.com/APIDevTools/swagger-parser</a>   |
| swagger-ui-express | 4.0.1                                       | <a href="https://github.com/scottie1984/swagger-ui-express">https://github.com/scottie1984/swagger-ui-express</a>   |
| tslib              | 1.9.0                                       | <a href="http://typescriptlang.org">http://typescriptlang.org</a>   |
| ws                 | 7.1.1                                       | <a href="https://github.com/websockets/ws">https://github.com/websockets/ws</a>   |
| zone.js            | 0.8.26                                      | <a href="https://github.com/angular/zone.js">https://github.com/angular/zone.js</a>   |
| uboot              | f44ca27357563-e9ed43f1ff76d3-bd8dd14f4747e  | <a href="https://github.com/rockchip-linux/u-boot">https://github.com/rockchip-linux/u-boot</a>   |
| linux              | 805e544f539-b96d-e96388960173-bb673dab5a9dd | <a href="https://github.com/rockchip-linux/kernel">https://github.com/rockchip-linux/kernel</a>   |
| avb-vbmeta         | 21e95266704-e572ced1c633-bbc4aea9f42a-fa0a5 | <a href="https://android.googlesource.com/platform/external/avb/+21e95266704e572ced1c633bbc4aea9f42afa0a5/avbtool">https://android.googlesource.com/platform/external/avb/+21e95266704e572ced1c633bbc4aea9f42afa0a5/avbtool</a> |
| bootcontrol        | b18c9afdb7-d02e1249cee5-cb430dc9f15a3-ccc27 | <a href="https://github.com/rockchip-linux/avb/tree/master/boot_control">https://github.com/rockchip-linux/avb/tree/master/boot_control</a>   |
| libavb             | 7617e69a524a-cc1a50a8a98-b257d1374ea6f-e4a4 | <a href="https://github.com/rockchip-linux/avb/tree/master/libavb">https://github.com/rockchip-linux/avb/tree/master/libavb</a>   |
| libavb-ab          | 7617e69a524a-cc1a50a8a98-b257d1374ea6f-e4a4 | <a href="https://github.com/rockchip-linux/avb/tree/master/libavb_ab">https://github.com/rockchip-linux/avb/tree/master/libavb_ab</a>   |
| libavb-user        | 7617e69a524a-                               | <a href="https://github.com/rockchip-linux/avb/tree/master/libavb_user">https://github.com/rockchip-linux/avb/tree/master/libavb_user</a>   |

| PACKAGE                   | VERSION  | SOURCE SITE   |
|---------------------------|--|---|
|                           | cc1a50a8a98-<br>b257d1374ea6f-<br>e4a4                       |   |
| rockchip-<br>linux-bin    | d6676eb02-<br>c8a1b4966df7-<br>d8c4bb203e-<br>a25fc98b2      | <a href="https://github.com/rockchip-linux/bin">https://github.com/rockchip-linux/bin</a>   |
| rockchip-tee-<br>user     | 1e3bdb582-<br>c52707d71e5c-<br>be29-<br>ca1064d7c04-<br>b696 | <a href="https://github.com/rockchip-linux/rk_tee_user">https://github.com/rockchip-linux/rk_tee_user</a>   |
| rockchip-<br>binary       | 04e55089bb4b-<br>ba-<br>de7c50d9b54-<br>b5a1c-<br>fa70771cd6 | <a href="https://github.com/rockchip-linux/rkbin">https://github.com/rockchip-linux/rkbin</a>   |
| rockchip-<br>gststreamer1 | 59c3bdd06-<br>a22844957fe20-<br>f47c998bb8255-<br>bedd2      | <a href="https://github.com/rockchip-linux/gstreamer-rockchip">https://github.com/rockchip-linux/gstreamer-rockchip</a>   |
| rockchip-mpp              | 862b0d89363-<br>e18e45e5db5c-<br>c6c316a173-<br>c5ac2e7      | <a href="https://github.com/rockchip-linux/mpp">https://github.com/rockchip-linux/mpp</a>   |
| rockchip-<br>libmali      | f226-<br>e982386287a4-<br>df669e2832d9d-<br>dd613d4153b      | <a href="https://github.com/rockchip-linux/libmali">https://github.com/rockchip-linux/libmali</a>   |
| rockchip-<br>linux-rga    | 72e7764a9f-<br>e358e6a-<br>d50eb1b21176-<br>cc95802c7fb      | <a href="https://github.com/rockchip-linux/linux-rga">https://github.com/rockchip-linux/linux-rga</a>   |
| NXP-SDK                   | 2.5.0  | <a href="https://www.nxp.com/support/developer-resources/software-development-tools/mcuxpresso-software-and-tools/mcuxpresso-software-development-kit-sdk:MCUXpresso-SDK?tab=Design_Tools_Tab">https://www.nxp.com/support/developer-resources/software-development-tools/mcuxpresso-software-and-tools/mcuxpresso-software-development-kit-sdk:MCUXpresso-SDK?tab=Design_Tools_Tab</a> |
| unlz4                     | -  | <a href="https://github.com/lz4/lz4/blob/dev/lib/lz4.h">https://github.com/lz4/lz4/blob/dev/lib/lz4.h</a>   |
| ring-buff                 | -  | <a href="https://code.google.com/archive/p/ring-buff">https://code.google.com/archive/p/ring-buff</a>   |
| wpa_<br>supplicant        | 2.6  | <a href="http://w1.fi/wpa_supplicant">http://w1.fi/wpa_supplicant</a>   |

## EN55032-CISPR32 Class B ITE (Information Technology Equipment)

This is a class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

If this equipment does cause interference to radio or television reception, the user may try to correct the interference by one or more of the following measures :

- Re-orientation of the receiving antenna for the radio or television.
- Relocate the equipment with respect to the receiver.
- Plug the equipment into a different outlet so that the equipment and receiver are on different branch circuits.

- Fasten cables connectors to the equipment by mounting screws.

## **Federal Communication Commission Interference Statement**

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commissions rules.

In order to maintain compliance with FCC regulations shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio & television reception.

**FCC RF Radiation Exposure Statement:** This device is capable of operating in 802.11a mode. For 802.11a devices operating in the frequency range of 5.15 - 5.25 GHz, they are restricted for indoor operations to reduce any potential harmful interference for Mobile Satellite Services (MSS) in the US. WIFI Access Points that are capable of allowing your device to operate in 802.11a mode (5.15 - 5.25 GHz band) are optimized for indoor use only. If your WIFI network is capable of operating in this mode, please restrict your WIFI use indoors to not violate federal regulations to protect Mobile Satellite Services.

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Base Unit FCC ID: 2AAED-R9861511

Buttons FCC ID (model R9861600D01C): 2AAED-R9861600D01

ClickShare Buttons 2AAED-R9861600D01 has been tested and meets the FCC RF exposure guidelines. The maximum SAR value reported is 1.19 W/kg.

ClickShare Buttons 2AAED-R9861600D01 should be installed and operated with a minimum distance of 5 mm between the radiator and your body.

**FCC responsible:** Barco Inc., 3059 Premiere Parkway Suite 400, 30097 Duluth GA, United States, Tel: +1 678 475 8000

### **For country code selection usage (WLAN devices) :**

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

## Canada, Industry Canada (IC) Notices

This device complies with Industry Canada licence-exempt RSS standard (s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

### Radio Frequency (RF) Exposure Information

The radiated output power of the Barco Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Barco Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

#### Caution: Exposure to Radio Frequency Radiation.

1. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
2. To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Base Unit IC: IC: 21559-R9861511

Buttons IC (model R9861600D01C): 21559-R9861600D01

### IC Antenna statement

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter 23575-R9861511 has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

### Indoor use only warning

Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

### Certification information (SAR)

This device is also designed to meet the requirements for exposure to radio waves established by the Industry Canada.

The SAR limit adopted by Canada is 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported to the IC for this device type complies with this limit.

The highest SAR value reported to the IC for this device type when using in portable exposure conditions is 1.14 W/kg.

### Canada, avis d'Industry Canada (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil Barco est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil Barco de façon à minimiser les contacts humains lors du fonctionnement normal.

#### Avertissement: L'exposition aux rayonnements fréquences radio

1. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

2. Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil et toutes les personnes.

IC Base Unit: 23575-R9861511

IC Buttons (modèle R9861600D01C): 21559-R9861600D01

### **Déclaration d'antenne d'Industrie Canada (IC)**

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio 23575-R9861511 a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

### **Utilisation à l'intérieur seulement**

La bande 5 150-5 250 MHz est réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

### **Informations de certification (DAS)**

Cet appareil est également conçu pour satisfaire aux exigences concernant l'exposition aux ondes radioélectriques établies par Industrie Canada.

Le seuil du DAS adopté par le Canada est de 1.6 W/kg pour 1g de tissu. La plus grande valeur de DAS signalée à IC pour ce type d'appareil ne dépasse pas ce seuil.

La valeur maximale de DAS signalée à IC pour ce type d'appareil lors du test dans des conditions d'exposition portative est de 1.14 W/kg.

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# Introduction

1

## 1.1 Versions of the product

### Regional versions

Depending on the location where you buy the CX-20 product, the Base Unit and accessories are regionalized. By the time of release of this manual, 6 regional versions of CX-20 are available:

- EU
- US
- NA
- CN
- ZH
- RW



The regional version of your CX-20 cannot be changed. That means that you cannot use it in another region.

For more information on the regional variants, refer to the CX-20 Installation Guide.

### Link between Barco product brand name and the model group

CX-20 is a Barco product of the model group C 3010S

## 1.2 About this guide

### About the documentation

This user guide explains the practical use of the CX-20 .

### Available System documentation

A printed copy of the Safety Guide is included in the CX-20 box at purchase. Other documentation such as user guide, installation manual and service manual can be downloaded from Barco's website, [www.barco.com/clickshare](http://www.barco.com/clickshare).








Depending on the CX-20 version, some graphics might be different to the ones used in this manual. This however does not have any effect on the functionality.

## 1.3 Symbols and fonts

### Symbol overview

The following icons are used in the manual :

|   |   |
|---|---|
|  | Caution   |
|  | Warning   |
|  | Info, term definition. General info about the term        |
|  | Note: gives extra information about the described subject |
|  | Tip: gives extra advice about the described subject       |

## Font overview

- Buttons are indicated in bold, e.g. **OK**.
- Menu items are indicated in *italic*.
- Step related notes, tips, warnings or cautions are printed in *italic*.
- Procedure related notes, tips, warnings or cautions are printed in **bold** between 2 lines preceded by the corresponding icon.



# Introduction to the CX-20

# 2

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## 2.1 About the CX-20

### CX-20 sets

With the Conferencing Buttons, in seconds, you are automatically connected to cameras, mics, soundbars and any other AV peripherals in the room for a better, more immersive meeting experience. Everything becomes part of your laptop.

This CX-20 not only helps the presenter get the presentation on-screen in a second, but it also allows the other people in the conference to participate more actively. The result is enhanced meeting efficiency and better decision-making.

The set is compatible with any laptop, desktop tablet or smartphone OS. It works with most conferencing platforms and connects instantly with most brands of peripherals (speakers, microphones, webcams, soundbars) when using the Conferencing Buttons.

At the moment 5 different sets are available on the market. Each set is sold in its specific region and it can only be used in that specific region because of WiFi regulations.

### Components CX-20 set

A standard CX-20 set consists of a Base Unit and 1 Conferencing Buttons. Depending on the location where you buy the product, the software of the Base Unit is different. If needed, you can buy additional Conferencing Buttons and a tray to store the Buttons.

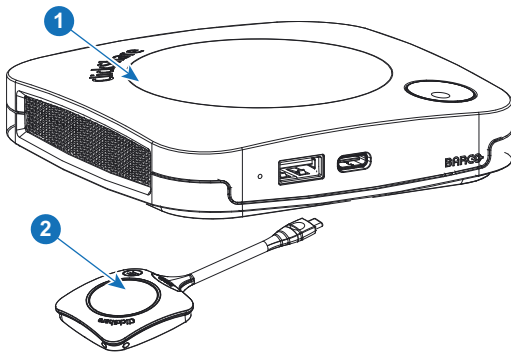


Image 2-1

- |   |                                   |
|---|-----------------------------------|
| 1 | Base Unit                         |
| 2 | Conferencing Buttons <sup>2</sup> |

### Accessories included

Depending on the country where you buy the product, the following regionalized accessories are also included in the CX-20 box.

| Products                  | Contains  | Accessories included   |
|---------------------------|---|--|
| R9861512xx <sup>3</sup>   | <ul style="list-style-type: none"> <li>R9861511</li> <li>1x R9861600D01C</li> </ul> | <ul style="list-style-type: none"> <li>DC adapter with AC clips type A, C, G, I<sup>4</sup></li> <li>Wall mount system</li> <li>Printed safety manual</li> </ul> |
| R9861600D01C <sup>5</sup> | 1x R9861600D01C <sup>5</sup>  |  |

Contact your local sales representative for the correct regional variant to be used in your country.

2: Futher called Buttons  
 3: xx=EU, CN, NA, US, ZH, RW,  
 4: Included AC clips can be different according to the region  
 5: For US, R9861600D01CUS

## 2.2 About the Base Unit

### Base Unit functionality

The Base Unit receives the wireless input from the Buttons and controls the content of the meeting room display and the peripherals connected to the Base Unit (speakers, microphones, webcam and soundbar). Furthermore, it will send out the content from the camera and/or the echo-cancelling speakerphone towards the Buttons.

The Base Unit can be put on the meeting room table or mounted on a wall or ceiling. Check the installation guide for instructions on how to install the Base Unit.

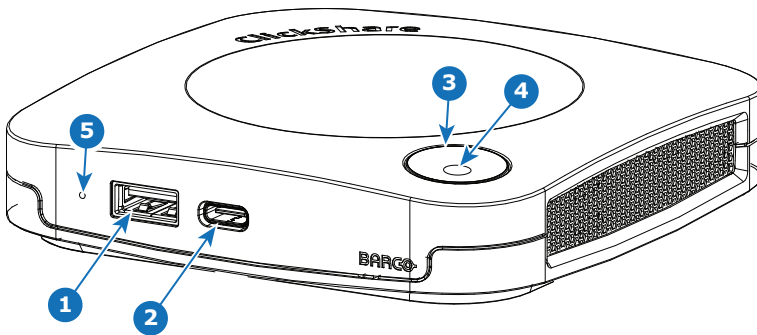


Image 2-2

- |   |                           |
|---|---------------------------|
| 1 | USB Type-A port (USB 2.0) |
| 2 | USB Type-C port (USB 2.0) |
| 3 | Status LED ring           |
| 4 | Standby Button            |

### USB ports

Both USB ports, one USB Type-C™ and one USB Type-A, are used to connect a USB camera or USB echo-cancelling speakerphone to the Base Unit. Additionally these ports are also used to pair the Buttons or update the software when both are not done via XMS.

When plugging in the Buttons into the Base Unit, the Buttons is paired to the Base Unit. The Base Unit checks whether the software and firmware of the Buttons is up to date. If not, the Base Unit updates the software and/or firmware.

The use of a convertor is sometimes necessary to connect to one of these ports.

### Status LED ring

The color of the LED ring around the power button of the Base Unit give information on the status of the system.

| LEDs behavior   | Explanation  |
|-----------------|--|
| static red      | <ul style="list-style-type: none"> <li>receiving content from the Buttons and streaming towards the display.</li> <li>during the first phase of the Base Unit boot process.</li> </ul>   |
| blinking white  | <ul style="list-style-type: none"> <li>system is starting up (during the second phase)</li> <li>Buttons pairing is in progress</li> <li>software update of the Base Unit</li> </ul>  |
| breathing white | <ul style="list-style-type: none"> <li>ECO standby mode</li> </ul>   |
| static white    | <ul style="list-style-type: none"> <li>awake and ready (i.e. showing the welcome message on the display)</li> <li>pairing and software update of the Buttons is done, you can now unplug the Buttons from the Base Unit..</li> </ul> |

| LEDs behavior | Explanation   |
|---------------|---|
| red blinking  | <ul style="list-style-type: none"> <li>an error occurred</li> </ul> |
| dark          | <ul style="list-style-type: none"> <li>deep standby/off</li> </ul>  |

## Power button

The button on top of the Base Unit has a standby function once the Base Unit is powered.

- When the system is in normal operational mode, a push makes the system go into a pre-defined standby mode.
- When the system is in standby, a push triggers the system to start up and it goes into normal operational mode.

## 2.3 About the Buttons

### Buttons layout

A Buttons consists of five main components

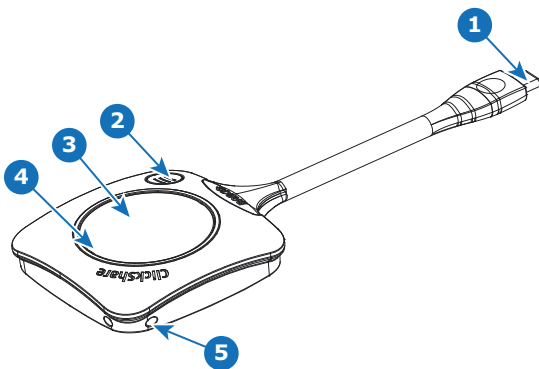


Image 2-3

|   |                       |
|---|-----------------------|
| 1 | USB Type-C™ connector |
| 2 | Quick access button   |
| 3 | Buttons               |
| 4 | LED ring              |
| 5 | Strap hole            |

### USB connector

Using the USB connector the Buttons can be plugged into a laptop (for sharing your screen) or the Base Unit (for pairing the Buttons to the Base Unit or updating its software). Buttons R9861600D1C has a USB Type-C™ connector. Depending on the type of USB port on your laptop or on the Base Unit a convertor must be used.

### Buttons

By inserting the Buttons, the peripherals attached to the Base Unit can be used in the tool of your preference. Click the Buttons to display the content of the laptop's screen on the meeting room display. Clicking the Buttons during the meeting will toggle the sharing of the screen. Click the small button to get additional functionality and controls.

### LED ring

The LED ring indicates the current status of your ClickShare.




| LEDs behavior         | Explanation   |
|-----------------------|---|
| white ring filling up | <ul style="list-style-type: none"> <li>Buttons is plugged in the laptop and initializing.</li> <li>Buttons is updating/pairing</li> </ul>   |
| green ring            | <ul style="list-style-type: none"> <li>pairing and software update is done. You can now unplug the Buttons from the Base Unit.</li> </ul>   |
| spinning white circle | <ul style="list-style-type: none"> <li>Buttons is busy (no end time known).</li> <li>ClickShare App is setting up the connection with the Base Unit.</li> </ul>   |
| white blinking        | <ul style="list-style-type: none"> <li>the Buttons is waiting for the user to start the ClickShare application.</li> </ul>  |
| static white          | <ul style="list-style-type: none"> <li>ClickShare is ready to start sharing your screen.</li> </ul>   |
| static red            | <ul style="list-style-type: none"> <li>sharing your screen with the display<sup>6</sup>.</li> </ul>   |
| red blinking          | <ul style="list-style-type: none"> <li>an error occurred.</li> </ul>  |
| off (no light)        | <ul style="list-style-type: none"> <li>the Buttons is not or not properly inserted into the USB port.</li> <li>the Buttons might be defective.</li> <li>the USB port or computer might be defective.</li> </ul> |

## 2.4 Mobile Device Support

### Overview

The below list of Apps are supported by ClickShare and can be installed on your mobile device from Google Play or Apple App Store. Or can be installed on your Windows or Mac pc

Before you can use your mobile device with ClickShare, you have to connect the mobile device Wi-Fi with the ClickShare Base Unit Wi-Fi. Follow the instructions as given in your mobile device user guide. Or connect the Base Unit to the network, then you do not need to switch your Wi-Fi.

| App            | Used on                             | Logo  |
|----------------|-------------------------------------|---|
| ClickShare App | iOS<br>Android<br>Windows<br>Mac OS |  |

Apps can be downloaded from [www.clickshare.app](http://www.clickshare.app).

<sup>6</sup>: While sharing content, the laptop will not go to standby. Once sharing is stopped, the laptop will again be capable of going to standby.



# Getting started

# 3

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| 3.14 | Chromecast .....                                 | 50 |

## 3.1 Activating the Base Unit

### About power mode

The Base Unit is powered via an external power adapter. Once connected, the Base Unit is automatically switched in standby mode. For more information about power connection, see CX-20's installation manual.

### Standby button

1. Push the button shortly.

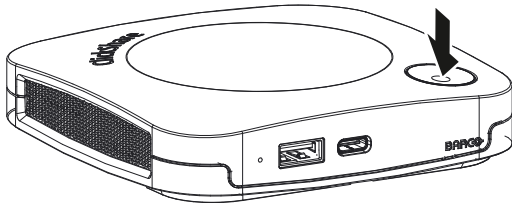


Image 3-1

When the Base Unit was on, it goes to standby.

When the Base Unit was in standby, it starts up.

## 3.2 Basic Use, with Buttons

### Basic functionality

When entering a meeting room equipped with ClickShare and if the display is not in screensaver mode, the ClickShare wallpaper is shown on the display. The content of the wallpaper depends on the setup. Connected peripherals to the Base Unit and their status are indicated on the wallpaper.

Starting to use ClickShare is now very simple.

### To start using CX-20 with a Buttons

1. Take a Buttons and insert the Buttons into a USB port of your laptop. Depending on the USB port on your laptop a convertor must be used. This convertor is not delivered by Barco.

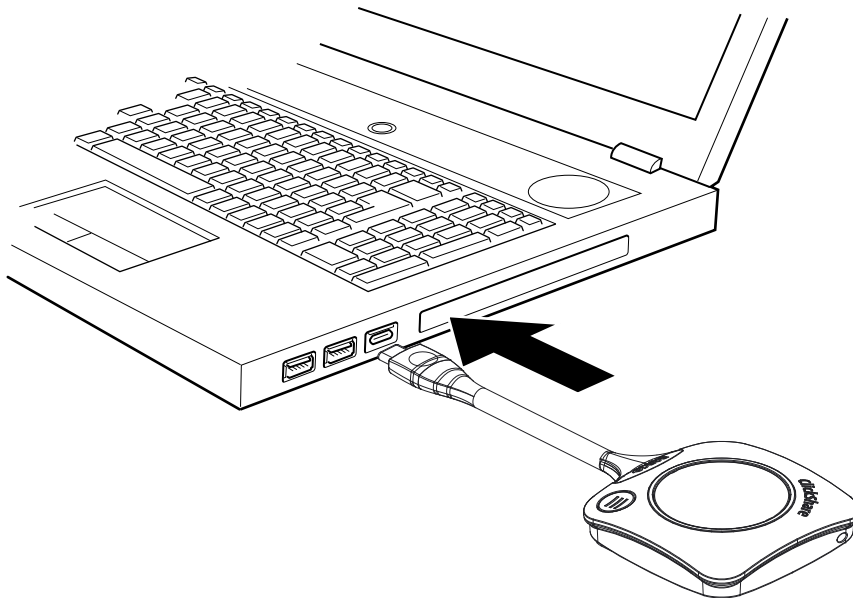


Image 3-2

The white ring on the Buttons is filling up. When totally filled up it goes to static white and is ready to share or it starts blinking to indicate that you have to start clickshare.exe on your computer.

On your laptop a new drive appears.  
Different situations are possible now:

- Nothing installed, LED ring fills up and starts flashing, indicating that the executable needs to be started by the user. Double-click the ClickShare application.
- For Windows environment: when connected to internet, driver will be installed and the executable will be started by the driver.
- For Mac environment: CD-ROM drive will appear, open it and launch the application to get started.
- A launcher or the ClickShare desktop app is preinstalled on your laptop (downloaded from the Base Unit or Barco website, or deployed company-wide by your IT department). ClickShare is immediately available. You can continue with go to step 2.

## 2. The application is started



The icon appears in the system tray.

When the system is ready for use, a message appears close to the systray icon. Message is as follow:  
Ready to share to <ClickShare name>

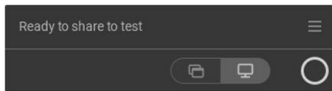


Image 3-3

The LEDs of the Button are static white.

The peripherals such as USB camera, echo cancelling audio device, etc. can now be used in the tool of your preference on your device.

Your screen or a typical application can be shared.

## 3. To share your screen on the display, click the Buttons.

The LEDs of the Buttons become static red and your screen appears on the display. When audio is enabled on the ClickShare Base Unit, the audio of your laptop is also available on the audio output of the Base Unit, and it will be played via the meeting room audio system. The icon returns to the same state as in step 3.

When a USB echo cancelling audio device is connected to the Base Unit, all audio, content audio and speaker audio is played via the speakerphone system.



The Ready to share message is reduced to to a red icon 110% .

ClickShare automatically scales the content of your screen to the resolution of the meeting room display. The aspect ratio of your screen is maintained to make sure the proportions are correct.

## 4. To freeze the content on the screen while you look up something on your PC, just click on freeze icon (1) next to the ClickShare icon. The icon will change to a release icon (2)

To resume the content sharing, click on the the release icon (2).

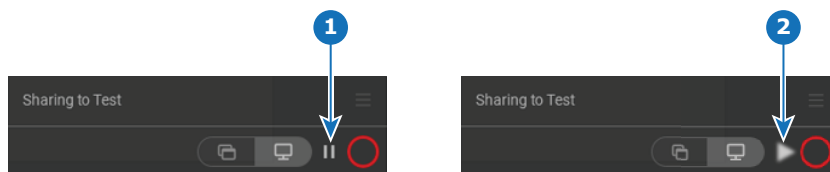


Image 3-4

- To remove your content from the display, click the Buttons again.  
The LEDs of the Buttons become static white.
- When leaving the meeting room, unplug the Buttons from your laptop.  
No trace of the ClickShare application is left on your laptop.



As second user can replace the current presenter with a long press on his Buttons.

## Use in a fully equipped conference room

When connecting with the Buttons, it allows you to connect the room speakerphone, microphone and camera wireless to your laptop and use the better equipment of the room in your video conferencing call.

Icons on the wallpaper indicate the availability and status of the peripherals in the room. When one of them is not attached to the Base Unit allowing to create an audio only meeting room or a video only meeting room, the corresponding icon will not be shown on the wallpaper.

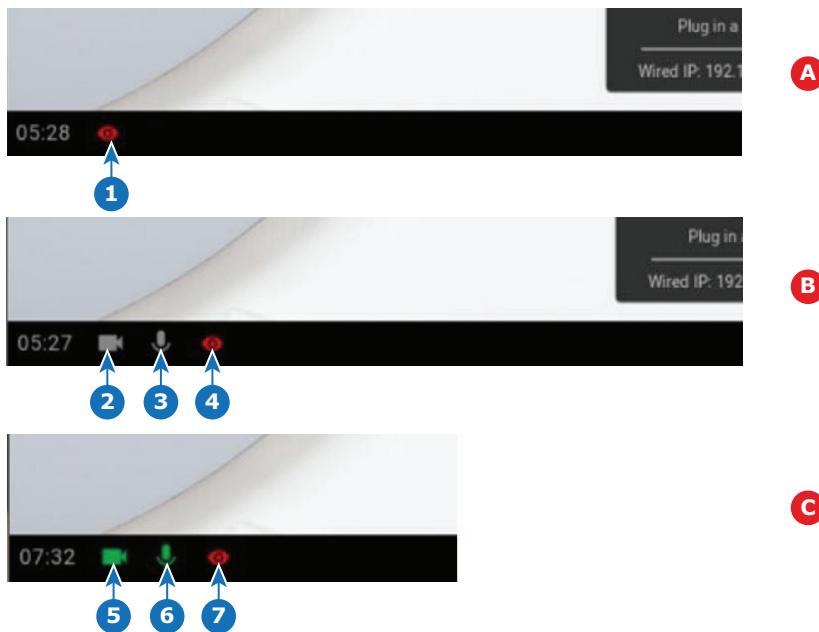


Image 3-5

- |   |  |
|---|--|
| <b>A</b> No peripherals attached, local view active                     | <b>3</b> Speakerphone connected, not active            |
| <b>B</b> Camera and speakerphone attached, only local view              | <b>4</b> Local view active                             |
| <b>C</b> Camera and speakerphone attached and active, local view active | <b>5</b> Camera connected and active                   |
| <b>1</b> Local view active  | <b>6</b> Speakerphone connected and active, not muted. |
| <b>2</b> Camera connected, not active                                   | <b>7</b> Local view active                             |

## Quick access button

This quick access button opens a selection window to make the choice what will be displayed on the screen.

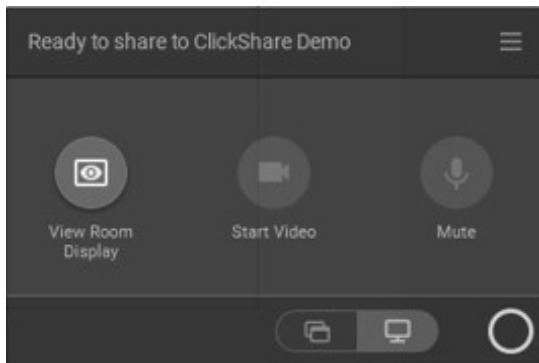


Image 3-6

Examples of some choices are:

- View the room display
- Start video
- Mute micro

## 3.3 Basic Use, with ClickShare desktop app

### About the ClickShare desktop app

With the ClickShare desktop app installed on your computer you can enter a meeting room and get on the screen in a few seconds.

The ClickShare desktop app connects to the meeting room screen in order to share your content. Presence detection technology is used to do so. The ClickShare desktop app uses Wi-Fi beacons and an inaudible audio signal to detect the most nearby meeting rooms and show a list of maximum 5 most nearby meeting rooms, sorted based on signal strength on your computer. Just click on your meeting room name. This means you will never have to enter IP addresses or scroll long lists of meeting rooms before being connected to your meeting room.

The ClickShare desktop app can be used with or without a Buttons.

### ClickShare desktop app installation

When the ClickShare desktop app is not pre-deployed in your IT environment, you can download and install the software without administrator rights from [www.clickshare.app](http://www.clickshare.app).

### How to use

1. Enter a meeting room.

The ClickShare desktop app will list up to 5 most nearby meeting rooms and sort them based on the signal strength.

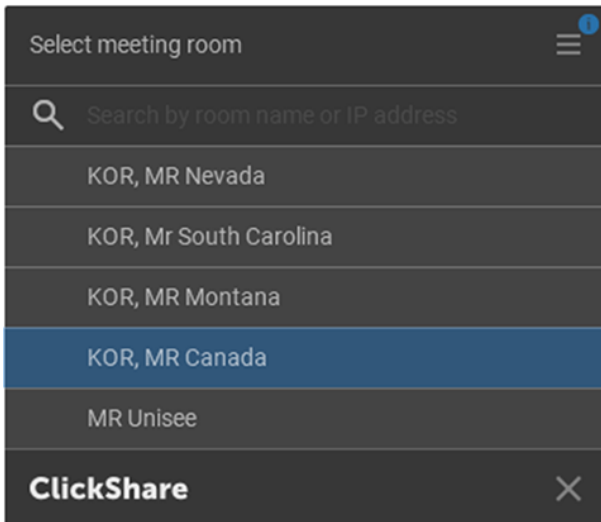


Image 3-7 Meeting room list

2. If the use of a pin is enabled on the Base Unit, the ClickShare desktop app will prompt you to enter the pin that is shown on the meeting room screen.

Enabling the pin on the Base Unit (this can be done in the ClickShare Configurator) provides an additional layer of security. This way you will never share your content to the wrong meeting room screen.

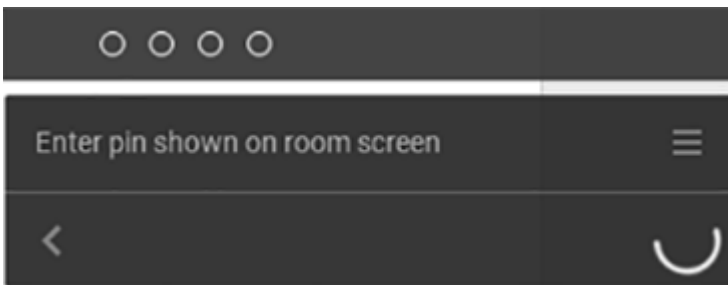


Image 3-8 Enter pin

After having entered the pin, the ClickShare desktop app will connect to the meeting room.



Image 3-9 Prepare connection

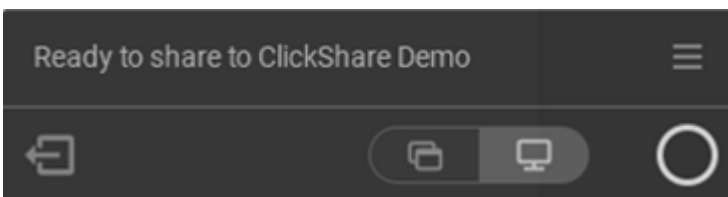


Image 3-10 Ready to share

3. Click the white circle to start sharing your content.

When the sharing is started, the ClickShare desktop app will minimize to the side through an animation. A subtle red bar remains visible on your screen.

Hover over the red bar on the side to open the full interface of the ClickShare app. to either pause your sharing session and freeze the content on the screen while you work on your laptop (invisible for people in the meeting room), to change what you are sharing (a single application or your full screen) or to stop sharing (by clicking on the red circle).





Image 3-11

4. Stop sharing by hovering over circle and clicking on the full red circle.

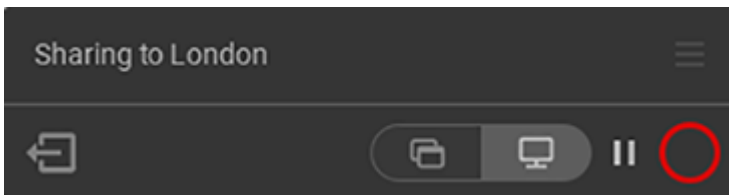


Image 3-12

5. Disconnect from the meeting room by clicking the “leave room” icon

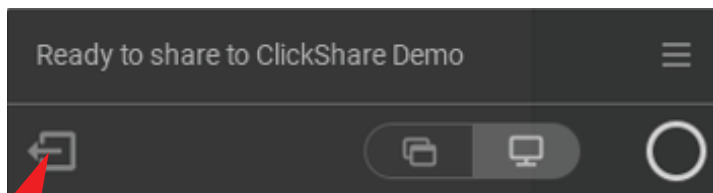


Image 3-13 Leave meeting room

or

when you walk away from the meeting room the app will show a message indicating you probably left the meeting room and you are still connected to the screen.

### ClickShare Desktop app in a conference room

When connected to a meeting room using the ClickShare desktop app that is enabled for use with ClickShare Conference you might receive a notification upon connection, notifying you that a ClickShare Buttons is required to use the wireless conferencing capability. This notification will only be shown the first 5 times you connect with the ClickShare Desktop App to a wireless conferencing enabled meeting room. The notification can be dismissed by clicking the button **OK, Got it**.

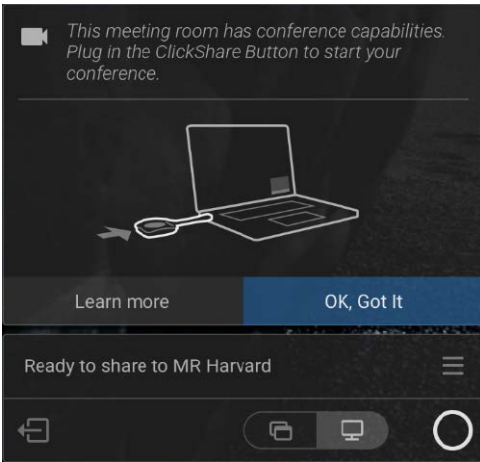


Image 3–14 Conference room message

Limitations when not using the ClickShare Buttons to connect:

When connected using the ClickShare Desktop App, without the ClickShare Buttons plugged-in, your experience is limited to the collaboration capabilities available on ClickShare. You will not be able to use the room camera, room speakers, microphone or speakerphone for wireless conferencing until a ClickShare Buttons is plugged-in.

### Joining a conference

When using Outlook for creating appointments or invites, you will get an immediate overview in the ClickShare Desktop app of your next meetings.

Just click to join your next conference call whether in Teams, Zoom or WebEx. The appropriate application will open automatically.

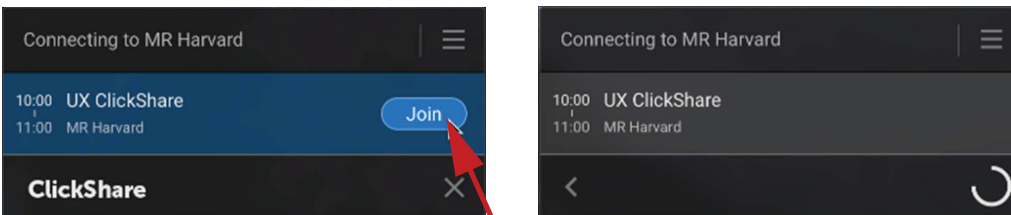


Image 3–15

## 3.4 User Interface

### User Interface functionality

When a Buttons is plugged in or the ClickShare desktop app is running and ready for sharing (not sharing yet), additional functionality (context menu) can be selected via the hamburger menu icon.

### Context menu

1. Click on the menu icon on the Ready to share message.

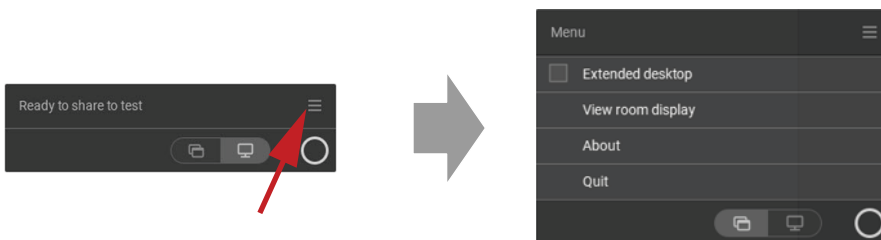


Image 3–16

The context menu appears.

- From the list, click the action you want to perform.

## 3.5 Extended desktop

### About extended desktop

Depending on your selection, your primary screen or your extended screen will be captured and displayed via ClickShare. That extended screen can be a physical screen or a virtual screen.

The use of the extended desktop functionality does require the extension pack to be installed on your device. More information on the extension pack can be found on the ClickShare Extension pack product page (<https://www.barco.com/en/product/clickshare-extension-pack>).

With extended desktop you can take advantage of both your laptop screen and the central meeting room display. Presentation notes or other material on primary screen will not be displayed to everyone (so-called PowerPoint Presenter mode) or when you want to take notes whilst sharing something else..

Note that the Presenter mode can also be achieved without the use of the extended desktop and one can also choose to share only the application you wish to share in the room via the sharing mode toggle (see “Share an application”, page 44).

PC with virtual extended screen:



Image 3-17

Primary screen displayed on the PC, extended screen displayed on the meeting room display.



Image 3-18

PC with one extended screen connected. That extended screen will be captured and displayed on the meeting room display.



Image 3-19

PC with two extended screens connected. The first extended screen, screen 2 will always be captured and displayed on the meeting room display.

### How to select

1. Click on the menu icon of the Ready to share message.

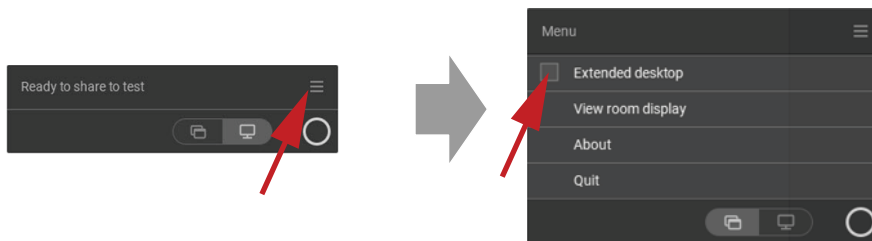


Image 3-20

The content menu opens.

2. Check the check box before Extended desktop.

## 3.6 Share an application

### About sharing an application

When *Share an application* is selected, you will be presented with an overview of open applications on your computer. Once you select an application to share, only this application will be shared on the big screen

### How to select via the content menu

1. Click on the share application icon of the Ready to share message when a Buttons is plugged in or the ClickShare desktop app is ready to share..



Image 3-21

The last 6 open applications on your computer are displayed.

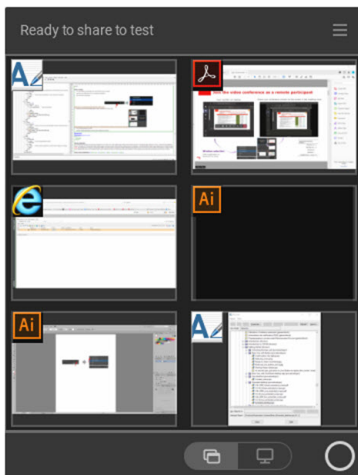


Image 3-22

2. Hover your mouse over the application to share. That window becomes blue.
3. Click on that application to select.  
Only the selected application is shared on the meeting room display.

### Via the Quick access button

1. Push the quick access button and click on the *share an application* icon.

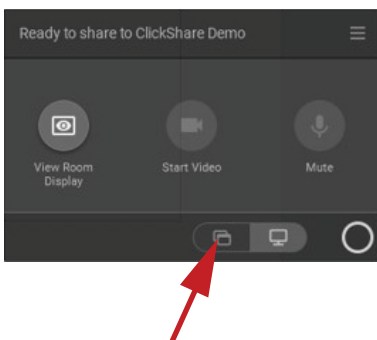


Image 3-23

2. To display an application, select *Share an Application*.  
The last 6 open applications on your computer are displayed.

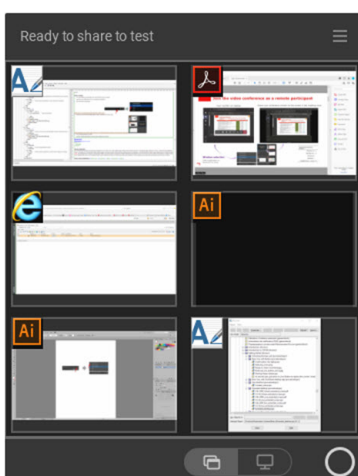


Image 3-24

3. Hover your mouse over the application to share. That window becomes blue.

4. Click on that application to select.

Only the selected application is shared on the meeting room display.

## 3.7 Microsoft Office PowerPoint Presenter mode

### Overview

To view your speaker notes on your pc when sharing a presentation on the room display, one can make use of the PowerPoint Presenter mode functionality in Microsoft Office PowerPoint without the need for a second (virtual) display.

When sharing a Slide Show using Share an application you will be reminded of the Presenter Mode functionality through a useful notification. This notification remains on screen for 10 seconds and is only shown the first five times you share a Slide Show.

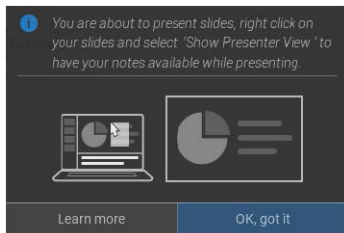


Image 3–25

### Presenter mode on Windows

1. Open your PowerPoint and start your Slide Show. This will show your presentation full screen on your PC.
2. With a Button plugged in or the ClickShare app ready to share, select *Share an application* from the hamburger menu.  
An overview of the current available application on your laptop will be displayed;
3. Select the PowerPoint Slide Show to share to the meeting room display.
4. On the full screen presentation, right-click on the slide and select Show Presenter View to see speaker notes while sharing the Slide Show to the meeting room display

### Presenter mode on macOS

1. Open your PowerPoint and start your Slide Show
2. With a Button plugged in or the ClickShare app ready to share, select *Share an application* from the hamburger menu.  
An overview of the current available application on your laptop will be displayed;
3. Select the PowerPoint Slide Show to share to the meeting room display
4. Right-click on the slide and select Use Presenter View to see speaker notes while sharing the Slide Show to the meeting room display

## 3.8 View room display

### About view room display

When connected to a Base Unit, you can access the content which is shown on the meeting room display by selecting *View room display*. When doing so, a new window will open in which you will find an exact copy of what is on the meeting room display. This is useful when e.g. sitting in the back of the room, when you are taking meeting notes or when you wish to share what is shown in the room (by yourself or others) to remote participants in a UC&C call.

## How to view

1. With a Buttons plugged in or the ClickShare desktop app ready, click on the hamburger menu and select View room display.

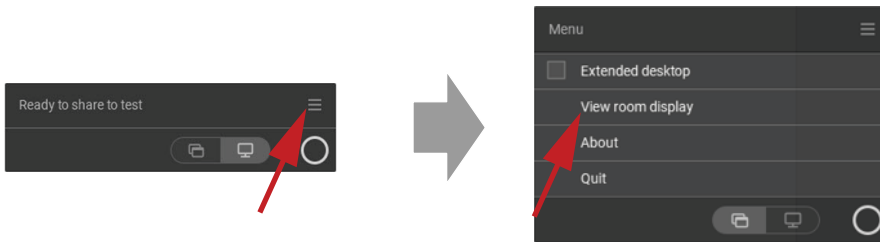


Image 3-26

The content of the meeting room display is transferred to a new window on your laptop. A red eye will be shown at the bottom left on the meeting room display splash screen.



Image 3-27

## 3.9 Stop sharing and leave

### With the ClickShare desktop app

When your meeting has come to an end, stop sharing by hovering over the red bar to expand the interface and clicking the full red circle.

Disconnect from the meeting room by either clicking the “leave room” icon (see below) or by simply closing your laptop.

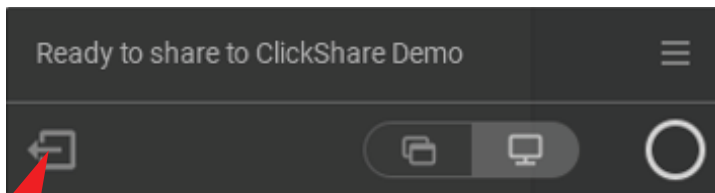


Image 3-28 Leave meeting room

### With a Buttons

Click the Buttons and unplug the Buttons from your laptop.

## 3.10 Audio configuration

### Audio configuration

The connected user must control his own audio signal using the audio configuration of his computer. If he does not want to broadcast his audio signal, he has to mute audio on his computer.

For some operating system, it is necessary to set ClickShare as your default output device. Once you unplug the Buttons, the default setting is switched back to the previous setting. The speakerphone selection is also selected.

### Audio configuration

The following configuration is the expected configuration for the playback devices when plugging the Button. ClickShare speaker as default device and room speakerphone as default communications device.

The speakerphone is available and can be used even when not on screen. The sound coming out of the speaker is only heard when sharing content. With this defaults, the content audio will be played by the speakers and communication clients (UC&C and conferencing tools) will use the room speakerphone. For best experience, the room speakerphone should be selected in the communications client at all times. Difference is that the audio from the Speakers will be lip-synced with the content, but will have higher latency. The communications device is optimized for the lowest latency possible, but no lip-sync is guaranteed with the video. For an optimal conference, the audio should always be transferred with lowest latency possible and will get priority over video.

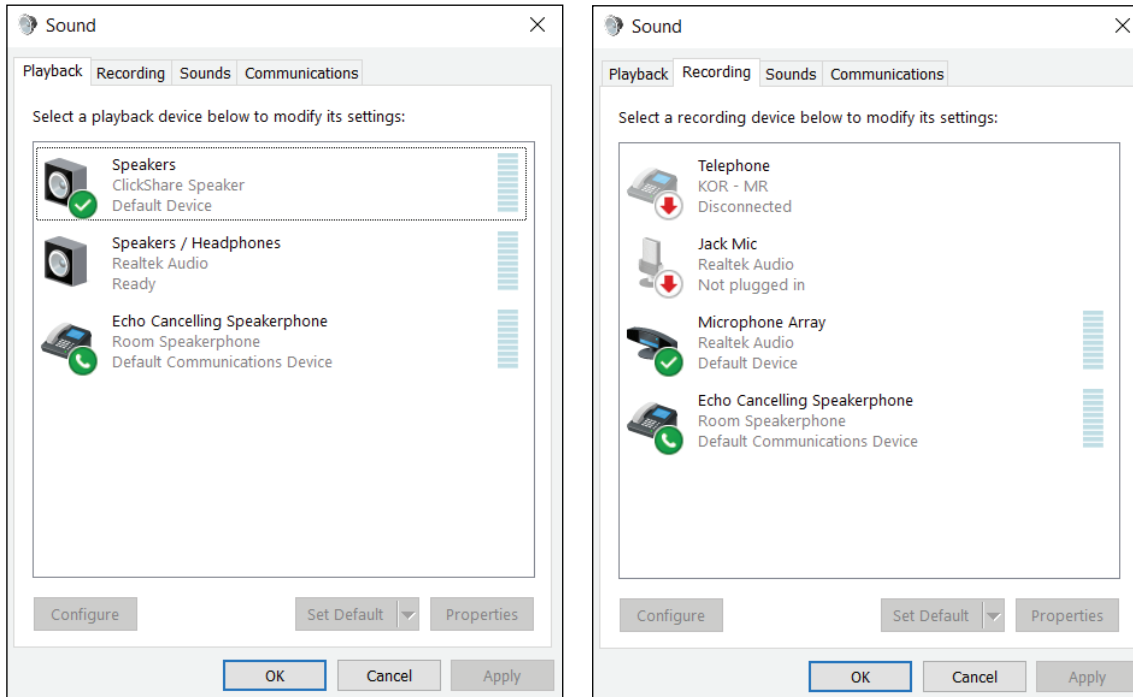


Image 3–29 Audio setup

## 3.11 Pairing

### Pairing of the Buttons with the Base Unit

To be able to use a Buttons it should be assigned to the Base Unit you are using. This process is called pairing. All Buttons will need to be updated and paired before use.

In case you buy additional Buttons or when a Buttons should be assigned to another Base Unit, the Buttons needs to be paired (again). The Buttons software update runs in the background and will not impact users while using the system. When downgrading or updating to an older version of the Base Unit software the Buttons need to be paired manually to update their software.



A Buttons can only be paired to one Base Unit at a time.  
The Buttons will always make connection to the Base Unit it was last paired to.

Pairing a Buttons can be done in two ways:

- by plugging the Buttons to the Base Unit.
- by using the Buttons Manager application running on your laptop.

### To pair a Buttons to the Base Unit by plugging in

1. Insert the Buttons in one of the USB port available on the Base Unit you are using (image is only given as example, all USB connectors can be used).



*Note:* For some ports or Buttons, it can be necessary to use a convertor.



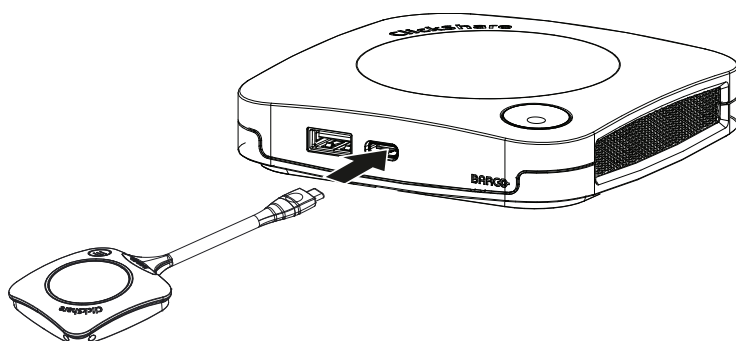


Image 3–30 Pair Buttons

The Base Unit LED is blinking while the Buttons LED fills up a circle. This means pairing is in progress.

The Base Unit automatically checks whether the software of the Buttons is up to date. If not, the Base Unit updates the Buttons software. This may take more time.

The result of the pairing process can be as follows:

- When the LEDs on the Buttons become green and on static white on the Base Unit, the Buttons is paired to the Base Unit. You can unplug the Buttons from the Base Unit.

## 2. Unplug the Buttons from the Base Unit.

The Buttons is now ready for use.



Image 3–31

## 3.12 Room Dock

### About

Room Dock allows to create a wireless bridge for echo-cancelling speakerphone and USB camera attached to the Base Unit. This allows the user to take advantage of the installed meeting room peripherals to have better audio and video conferencing using their typical videoconferencing tools like Skype or Zoom.

The echo-cancelling speakerphone and USB camera is accessible to any user that has a Buttons plugged in.

## 3.13 Airplay

### About Airplay

Airplay is a protocol that allows wireless streaming between devices of audio, video, device screens and photos. The ClickShare Base Unit can be configured to receive the airplay streaming

### Why Airplay

You want to show multiple people your photos and videos or your PowerPoint and Keynote presentation on a big screen? Connect your device to the ClickShare Base Unit which can be configured to receive the Airplay streaming.

### How to use Airplay

1. Make sure your device is connected with the ClickShare WiFi in the meeting room.
2. Open the control panel of your device and swipe up from the bottom left of the screen or swipe down from the top right of the screen, depending of your device.

3. Click on  Synchronise display and select the ClickShare device in the meeting room.

For more information about using Airplay with a typical device, consult the user manual of that device.

## 3.14 Chromecast

### About Chromecast

Chromecast is a protocol that allows wireless streaming between devices of audio, video, device screens and photos. The ClickShare Base Unit can be configured to receive the Chromecast streaming.

### Why Chromecast

You want to show multiple people your photos and videos or your PowerPoint and Keynote presentation on a big screen? Connect your device to the ClickShare Base Unit which can be configured to receive the Chromecast streaming.

### How to use Chromecast

1. Make sure your device is connected with the ClickShare WiFi in the meeting room.
2. Click on the cast-icon to display the content of you device on the meeting room screen.

For more information about using Chromecast with a typical device, consult the user manual of that device.

# Troubleshooting

# 4

## 4.1 Basic troubleshooting

### Problem solving

In this chapter some problems that might occur while using CX-20 are listed. For each problem possible causes are given and a solution is proposed. If you cannot solve the problem yourself, please contact your local IT administrator.

### Generic issues

| Problem  | Cause   | Solution  |
|--|---|---|
| Your screen is not shown on the display when pressing the Button.                        | Wrong input is selected on the display.   | Select the correct input on the display or on the room control system   |
|  | Base Unit in standby  | Briefly push the standby button on the Base Unit or plug in a Button and run the ClickShare client software.  |
|  | You are the third person that wants to share the content to the display.        | The first or second user has to push his button to remove his content so that a third user can share his content. or<br>As third user, click and hold the Button to use the Show me function of ClickShare. |
|  | The ClickShare client software is not running.                                  | Go to the ClickShare drive and run the software.  |
| Your screen is shown, but your audio is not playing on the meeting room audio system     | Your audio signal on your PC is muted   | Right click on the speaker icon and switch off the mute.  |
|  | Audio system of the meeting room is not switched on                             | Switch on the audio system of the meeting room.   |
|  | When using separate audio, audio cable is not connected                         | Check audio connection between the Base Unit (audio out, green connector) and the audio system of the meeting room.   |
|  | Default speaker is not correctly set  | With a Button inserted, set ClickShare speaker as your default speaker.   |
|  | Buttons are not re-paired after changing the audio setting on the web interface | Re-pair the buttons.  |
|  | Audio setting on the web interface is not correctly set.                        | Consult your administrator to select the correct audio setting.   |
| Your content is removed from the display and the LEDs of your Button are blinking white. | Connection to the Base Unit has been lost.                                      | ClickShare tries to restore the connection automatically. If this fails, the LEDs of the Button start blinking red. You should unplug the Button from your laptop and start a new.                          |
| Nothing is shown on the display at all.  | The display is switched off.  | Switch on the display.  |
|  | Wrong input is selected.  | Select the correct input.   |
|  | The display cable is not connected (correctly).                                 | (Re)insert the display cable to the display and the Base Unit.  |

| <b>Problem</b>   | <b>Cause</b>  | <b>Solution</b>   |
|--|---|---|
|  | The display does not recognize or is not able to display the Base Unit output resolution. | You or an administrator should change the corresponding setting via the web interface.  |
|  | The Base Unit is in standby mode.   | Briefly push the standby button on the Base Unit or plug in a Button and run the ClickShare client software.  |
|  | The Base Unit is powered off.   | Check if power adapter is connected to the Base unit and to the wall outlet.  |
|  | Wallpaper is disabled   | If you connect a Button and start sharing, the content should be shown.   |
| After inserting the Button into your laptop, you cannot find the ClickShare drive. | No automatic refresh of drives.   | Refresh the view on your laptop.  |
|  | Bad connection at USB port on laptop.   | <ul style="list-style-type: none"> <li>• Reconnect to the USB port.</li> <li>• Try another USB port.</li> <li>• Reboot your laptop.</li> </ul>                              |
|  | Windows tries to assign the ClickShare drive to an already reserved drive letter          | Use Microsoft Windows Disk Management to assign it to a free drive letter.  |
|  | IT policy not mount USB drives  | Contact your IT responsible.  |
| Some programs of Windows are not shown on the display.                             | Use of overlays, 3D or hardware acceleration in the GPU.                                  | <ul style="list-style-type: none"> <li>• Disable overlays or hardware acceleration in the GPU.</li> <li>• Disable AeroGlass in Windows 7</li> <li>• Capture mode</li> </ul> |

### Issues related to first time use and updating

| <b>Problem</b>   | <b>Cause</b>  | <b>Solution</b>  |
|--|---|--|
| Ethernet cable is inserted, but the Base Unit does not receive an IP address | Fixed IP address not configured.<br>802.X authentication required     | Contact your IT responsible  |
| Update server not reachable  | Proxy server to be configured.<br>Firewall is blocking the connection | Contact your IT responsible  |
| Buttons do not connect after first time installation                         | Buttons not paired  | Please pair the Buttons by plugging them into the USB ports of the Base Unit. Manual pairing only needs to be done once, after this, the Buttons will be automatically updated when updating the Base Unit |
| Unable to connect to internet  | No internet available at the customer's site                          | Contact your IT responsible  |

### Issues related to screen sharing (video/screen sharing)

| <b>Problem</b>   | <b>Cause</b>                         | <b>Solution</b>   |
|--|--------------------------------------|---|
| After inserting the Button into your laptop, you cannot find the ClickShare drive. | Bad connection at USB port on laptop | Reconnect to the USB port, try another USB port, or reboot your laptop. |

| <b>Problem</b>  | <b>Cause</b>  | <b>Solution</b>  |
|---|---|--|
|   | Windows tries to assign the ClickShare drive to an already reserved drive letter    | Use Microsoft Windows Disk Management to assign it to a free drive letter.   |
|   | Bad block on the mass storage   | Please re-pair the Button with the Base Unit to restore the flash  |
| I cannot start the ClickShare App   | Running 3rd party applications is blocked by IT                                     | Contact your IT responsible.<br>In the meantime, you can share your screen using your device's native protocols  |
|   | You are using a Linux PC or ChromeBook  | Use the device's native protocols to share on screen   |
| Button LEDs are blinking  | Clickshare Application has not been started   | Start the application on the ClickShare Button's mass storage or download and run the ClickShare Desktop App.  |
| Screen is not shown when pressing the Button although Button LED is static white. | Already two people on screen  | Long press the Button to kick off all other sources from screen.<br>Or ask for somebody to remove its source from screen   |
|   | Somebody is moderating the session  | Request the moderator to put you on screen or claim the moderation role from the ClickShare application  |
| Your shared content becomes grayed out.   | Connection between the ClickShare application (or Button) and the Base Unit is lost | ClickShare tries to restore the connection automatically.<br>If this fails, the LEDs of the Button start blinking red. You should unplug the Button from your laptop and start a new                                   |
| Button cannot connect to the Base Unit. Button LEDs keep spinning.                | Button is not paired to correct Base Unit.  | Pair the Buttons with the Base Unit  |
|   | Base Unit settings have changed and Button has not been paired again.               | Pair the Buttons with the Base Unit.   |
| When network integrated, the Button cannot find the Base Unit.                    | IP address of the Base Unit has changed.  | Pair the Buttons with the Base Unit.   |
|   | The Button cannot connect to the Base Unit due to firewall settings.                | Contact your IT responsible.   |
| Quality of the image displayed is not satisfactory.                               | Button is using a channel with high utilization.                                    | Contact your IT responsible.   |
|   | Base Unit antennas are obstructed.  | Make sure no insulation or metal plating or a cage is placed around the Base Unit. If too far, place the Base Unit closer to the location of the Buttons. Preferably, have line of sight between Base Unit and Button. |
|   | Low signal strength   | Place the Base Unit closer to the location of the Buttons. Check the settings of the Base Unit to see if the power of the wireless signal has not been set too low.  |

| Problem  | Cause  | Solution   |
|--|--|--|
|  | Laptop performance                                       | <p>If the video performance is acceptable with a higher performing laptop, laptop performance might be the cause of bad video playback. To reduce the load on the laptop, you can:</p> <ul style="list-style-type: none"> <li>• Lower the resolution of the laptop screen</li> <li>• Use application sharing in the ClickShare app to only share a part of the screen.</li> <li>• Disable hardware acceleration for video.</li> <li>• Disable extended screen sharing</li> </ul> |
| Some programs of Windows are not shown on the display. | Use of overlays, 3D or hardware acceleration in the GPU. | <p>Disable overlays or hardware acceleration in the GPU. In Windows 7, disable AeroGlass.</p>  |
| Unable to share from extended desktop.                 | Mac OS   | <p>The Clickshare Extension pack only works with Windows. This feature is available to Mac users through Airplay. An alternative is to use the Window sharing functionality in the ClickShare Desktop App</p>  |
|  | Extension pack not installed                             | <p>In order to have a second screen on your computer when using ClickShare, you will need to download and install the ClickShare extension pack. <a href="http://barco.com/clickshare/extensionpack">barco.com/clickshare/extensionpack</a></p>  |
|  | Old Extension pack installed                             | <p>ClickShare will only work with the latest version of the Extension Pack. Please uninstall the extension pack and install the latest version. <a href="http://barco.com/clickshare/extensionpack">barco.com/clickshare/extensionpack</a></p>   |

### Issues related to screen sharing (audio of shared content)

| Problem   | Cause  | Solution   |
|---|--|--|
| Your screen is shown, but your audio is not playing on the meeting room audio system. | Your audio signal on your PC is muted.                                 | Right click on the speaker icon and switch off the mute.   |
|   | Audio system of the meeting room is not switched on or not connected.  | Switch on the audio system of the meeting room. Check audio connection between the Base Unit and the audio system of the meeting room. |
| There is no ClickShare audio device for me to select on my computer.                  | Audio output of the Base Unit is not correctly configured.             | Ask your administrator to configure audio of the Base Unit.  |
|   | Audio device is not available in my OS when I plug in the Button after | Re-pair the Buttons with the Base Unit.  |

| Problem  | Cause  | Solution  |
|--|--|---|
|  | changing audio settings on my Base Unit.               |   |
| ClickShare audio device is visible, but sound is coming out of my own device or other audio device connected to my computer. | Audio output of the Button is not selected.            | In Windows, left click on the speaker icon and select the ClickShare Speaker.   |
|  | ClickShare speaker is not selected as default device.  | In Windows, right click on the speaker icon and select "Playback devices". In the Playback tab, right click on the ClickShare Speaker and select as "Default device", on the ClickShare Speakerphone if available, right click and select as "Default communications device". |
| Audio is heard in the room while not sharing on the big screen.  | ClickShare speakerphone is selected as default device. | In Windows, right click on the speaker icon and select "Playback devices". In the Playback tab, right click on the ClickShare Speaker and select as "Default device", on the ClickShare Speakerphone if available, right click and select as "Default communications device". |
| Audio and video are not in sync.   | ClickShare speakerphone is selected as audio device.   | In Windows, left click on the speaker icon and select the ClickShare Speaker See also above for to select the ClickShare Speaker as default audio device.   |



# Environmental information

# 5

## 5.1 Disposal information

### Disposal Information

Waste Electrical and Electronic Equipment



■ This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

For details, please visit the Barco website at: <http://www.barco.com/AboutBarco/weee>

### Disposal of batteries in the product



This product contains batteries covered by the Directive 2006/66/EC which must be collected and disposed of separately from municipal waste.

If the battery contains more than the specified values of lead (Pb), mercury (Hg) or cadmium (Cd), these chemical symbols will appear below the crossed-out wheeled bin symbol.

By participating in separate collection of batteries, you will help to ensure proper disposal and to prevent potential negative effects on the environment and human health.

## 5.2 Rohs compliance

### Turkey RoHS compliance



■ Türkiye Cumhuriyeti: AEEE Yönetmeliğine Uygundur.

[Republic of Turkey: In conformity with the WEEE Regulation]

### 中国大陆 RoHS – Chinese Mainland RoHS

根据中国大陆《电器电子产品有害物质限制使用管理办法》（也称为中国大陆RoHS），以下部分列出了Barco产品中可能包含的有毒和/或有害物质的名称和含量。中国大陆RoHS指令包含在中国信息产业部MCV标准：“电子信息产品中有毒物质的限量要求”中。

According to the “Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products” (Also called RoHS of Chinese Mainland), the table below lists the names and contents of toxic and/or hazardous substances that Barco’s product may contain. The RoHS of Chinese Mainland is included in the MCV standard of the Ministry of Information Industry of China, in the section “Limit Requirements of toxic substances in Electronic Information Products”.

零件项目(名称) 有毒有害物质或元素  
Component Name Hazardous Substances or Elements

|        | 铅<br>(Pb) | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>(Cr6+) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
|--------|-----------|-----------|-----------|---------------|---------------|-----------------|
| 印制电路配件 | x         | 0         | x         | 0             | 0             | 0               |

|                                     |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|
| Printed Circuit Assemblies<br>电(线)缆 | x | 0 | x | 0 | 0 | 0 |
| Cables<br>底架                        | x | 0 | x | 0 | 0 | 0 |
| Chassis<br>电源供应器                    | x | 0 | x | 0 | 0 | 0 |
| Power Supply Unit<br>文件说明书          | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper Manuals                       |   |   |   |   |   |   |

本表格依据SJ/T 11364的规定编制

This table is prepared in accordance with the provisions of SJ/T 11364.

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 标准规定的限量要求。

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.

在中国大陆销售的相应电子信息产品 (EIP) 都必须遵照中国大陆《电子电气产品有害物质限制使用标识要求》标准贴上环保使用期限 (EFUP) 标签。Barco产品所采用的EFUP标签 (请参阅实例, 徽标内部的编号用于指定产品) 基于中国大陆的《电子信息产品环保使用期限通则》标准。

All Electronic Information Products (EIP) that are sold within Chinese Mainland must comply with the "Marking for the restriction of the use of hazardous substances in electrical and electronic product" of Chinese Mainland, marked with the Environmental Friendly Use Period (EFUP) logo. The number inside the EFUP logo that Barco uses (please refer to the photo) is based on the "General guidelines of environment-friendly use period of electronic information products" of Chinese Mainland.



Image 5-1

## 限用物質含有情況標示聲明書 (Declaration of the Presence Condition of the Restricted Substances Marking) — Taiwan RoHS compliance

設備名稱： 影音共享控制中心， 型號 (型式)： CSE-800

Equipment name: wireless presentation system, Type designation: CSE-800

| 單元<br>Unit                        | 限用物質及其化學符號<br>Restricted substances and its chemical symbols |                      |                      |   |   |  |
|-----------------------------------|--|----------------------|----------------------|---|---|--|
|                                   | 鉛<br>Lead<br>(Pb)  | 汞<br>Mercury<br>(Hg) | 鎘<br>Cadmium<br>(Cd) | 六價鉻<br>Hexavalent<br>chromium<br>(Cr6+) | 多溴聯苯<br>Poly-<br>brominat-<br>ed<br>biphenyl<br>(PBB) | 多溴二苯醚<br>Poly-<br>brominated<br>diphenyl<br>ethers<br>(PBDE) |
| 電路板<br>Printed Circuit Assemblies | —  | 0                    | —                    | 0                                       | 0   | 0  |

|                            |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|
| 電 (線) 纜<br>Cables          | — | ○ | — | ○ | ○ | ○ |
| 機箱<br>Chassis              | — | ○ | — | ○ | ○ | ○ |
| 電源供應器<br>Power Supply Unit | — | ○ | ○ | ○ | ○ | ○ |

備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。

Note 1 : “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 2 : “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. “—”係指該項限用物質為排除項目。

Note 3 : The “—” indicates that the restricted substance corresponds to the exemption.

## 5.3 Production address

### Factory

Barco N.V.  
12F, Citychamp Building, No. 12, Tai Yang Gong Zhong Lu, Chaoyang District, Beijing, P.R.C

### Made in information

The made in country is indicated on the product ID label on the product itself.

### Production date

The month and year of production is indicated on the product ID label on the product itself.

## 5.4 Importers contact information

### Contact

To find your local importer, contact Barco directly or one of Barco's regional offices via the contact information given on Barco's web site, [www.barco.com](http://www.barco.com).





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