



Camera One User Manual

We mix technology and intelligence to make broadcasting **smarter**.

We're Broadcast Bionics.

Manual version	Reference	Notes
1.0	CYOTOXMAR	AC/JC

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Registered office: The Barn, Hurstwood Grange, Hurstwood Lane, Haywards Heath, West Sussex. RH17 7QX United Kingdom

P: +44 (0) 1444 473999 F: +44 (0) 1444 473888 sales@bionics.co.uk

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Camera One

User Manual

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Introduction

Camera One is a simple radio visualisation system which allows you to automatically (or manually) record video of your radio or podcast studio, so that you can easily share your best content online.

Camera One takes care of the recording without the need for monitoring multiple screens, which leaves you free to concentrate on your show.

You can live stream to places like Facebook, YouTube, Twitch or your own website, and download clips to edit using your existing video editing software, ready to share on social media.

This guide outlines what each of the buttons and features on the system do. Sometimes, manuals can make things seem more complicated than they actually are, so please also see our training videos at http://bionic.radio/training

Tip! Recording law and regulations vary around the world. Make sure you check with your lawyer for any local rules about recording permissions, livestreaming, copyright and so on.

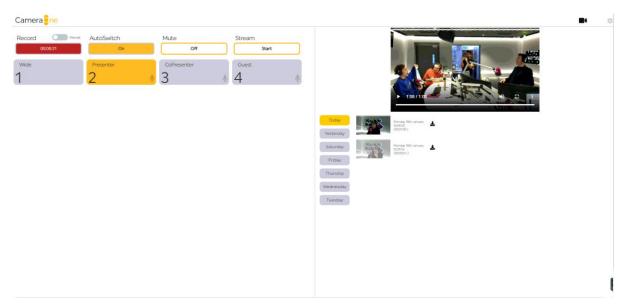
It is good practice to ensure notices about recording are clearly displayed in your studio areas, and to inform guests that they may be in-vision, so they may give their informed consent to appear – not everyone expects that they may be on camera when visiting a radio station or recording a podcast!

Note! This user guide assumes that your system has already been installed and configured. For more information on installing and configuring Camera One, please see our separate installation & configuration manual.

Overview

Camera One has a simple and easy layout which you can view in a web browser.

You can control the system manually, or automatically – which means all you need to do is select your preferred options at the start of your show and then you can 'set and forget', leaving you with more time to concentrate on your show's content.



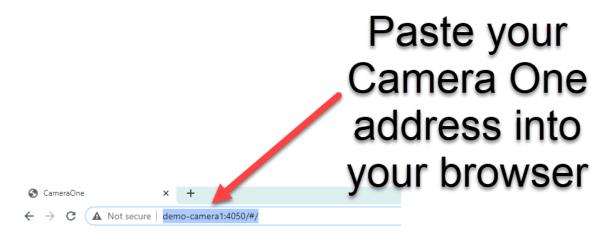
CAMERA ONE SCREEN

The Camera One screen has two main areas: the left-hand side has the recording controls, and the right-hand side contains the playback and download options.

Launching Camera One

To open Camera One, you will need to know the system address used for your Camera One system. This is a bit like a URL for a website.

Copy and paste this address into an internet browser (Chrome is recommended), and Camera One should appear.



ACCESS CAMERA ONE VIA A BROWSER - YOUR ADDRESS WILL BE DIFFERENT FROM THE ONE ABOVE

You may be asked for a login password, depending on how your system has been configured.

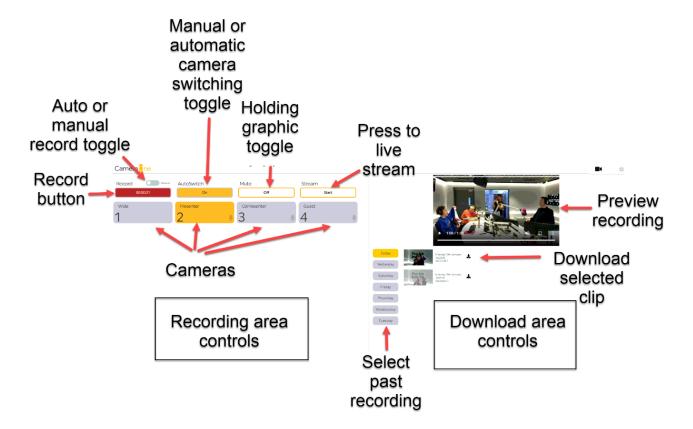
It's a good idea to add a shortcut to Camera One to your desktop, to make it easier to find!



CAMERA ONE SHORTCUT (CHROME)

Tip! The address for Camera One will be different for each station and studio – please ask your local support team if you do not know which address to use.

Screen layout



CAMERA ONE CONTROLS

The left-hand side of the screen contains the options for recording and selecting the cameras.

The right-hand side of the screen contains the previously-recorded clips. In this area, you can view recordings and download them to your local machine, ready for editing on your own video editing software.

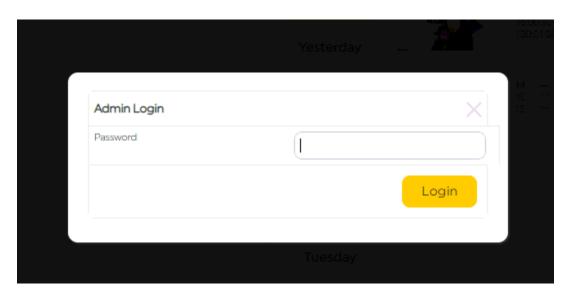
Settings area

The top right-hand corner of the screen has a camera and a settings icon.

If the camera icon is dark, it means you can see the recording area controls (default).



CAMERA ICON SHOWS THE RECORDING CONTROLS AREA. PRESS THE GREY COG ICON TO ACCESS THE SETTINGS.

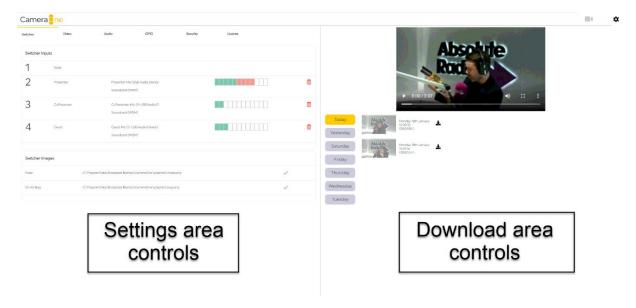


A PASSWORD IS REQUIRED TO ACCESS THE SETTINGS AREA

If the cog icon is dark, it means you are in the Settings area, where the system settings and configurations can be adjusted.



COG ICON DARK = SETTINGS AREA CONTROLS ACTIVE



SETTINGS AREA ON THE LEFT; DOWNLOAD AREA ON THE RIGHT. PRESS THE CAMERA ICON IN THE TOP RIGHT-HAND CORNER TO RETURN TO THE USUAL RECORDING AREA SCREEN.

Please see the separate configuration & installation manual for details on how to adjust these settings.

Recording area controls

The recording area allows you to adjust **what** Camera One is <u>recording</u>, and **how** it records it. It also allows you to start a <u>livestream</u>.



RECORDING AREA CONTROLS

Let's start from the top and look at the controls row-by-row:



RECORDING AREA CONTROLS - TOP ROW

Recording Controls

Auto



RECORD TOGGLE - AUTO

The **Record Toggle** defines which recording mode will be activated.

Set to the right, the Record mode will be 'Auto' (Automatic). This means the recording will stop and start automatically, depending on the state of the

microphone faders. When all the faders are closed/off, the recording will stop. Once a fader is open/turned on, the recording will start again.

This mode is a good default option, because it means you will always capture the action when people are talking, but won't accidently create very long files.

Tip! Once Auto mode is on, the recording is done automatically – the 'Start' button is not needed and is inactive.

Manual



RECORD TOGGLE - MANUAL

When the **Record Toggle** is set to the left, the Record mode will be 'Manual'. This means that the recordings need to be started and stopped manually by pressing the 'Start' button. Once started, the recording will continue until you stop it, no matter the state of the faders.

Tip! In Manual mode, you need to start and stop the recording yourself by using the 'Start' button below the toggle.

This is useful if you want to capture the action even when no-one is speaking. For example, you may have an item where a series of clips are played in and the presenters and guests will react.

When the clips are played in, it would be usual for the microphones to be switched off, so having Camera One in manual mode at this point would mean that the video would still be captured.

Warning! Leaving the system in manual mode can result in long recordings – make sure you do not leave the recording running for too long by accident.

To start a manual recording, press the **Start** button.



The Start button will go red, and the counter will start counting up.



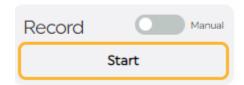
To **stop a recording**, press the red count-up timer area.

The counter will pulse between red and amber for 5 seconds.



If you have made a mistake, you can press the count-up timer area again. The button will go back to being red, and the recording will continue uninterrupted.

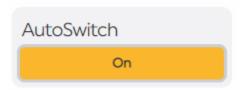
If you do want the recording to stop, after 5 seconds, the button will return to displaying 'Start', and your recording will have ended.



At this, point, your recording will be available in the <u>Download area</u>.

AutoSwitch

The AutoSwitch button determines how the camera switching behaves.



Press the button On to allow the system to automatically switch the camera shots, depending on who is speaking in the studio.

The system has some clever programming underneath to ensure that the camera switches smoothly. It ignores short interjections, and can automatically switch between presenters and to wide shot when needed (for example, to give some shot variety for a solo presenter).

AutoSwitch is the easiest option, and is recommended – a true 'set and forget' approach!

To operate the cameras yourself, turn AutoSwitch off.



When AutoSwitch is off, whichever camera button you press in the row below (see below) will be the one which is captured in the recording.

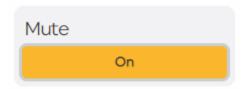
You can move between AutoSwitch and Manual modes at will – for example, if you want to capture a 'reaction' shot from a guest (perhaps your presenter is about to tell them they have won \$1 million), you can turn AutoSwitch off, press the camera of your choice at the right moment, and then put AutoSwitch mode back on again.

Mute



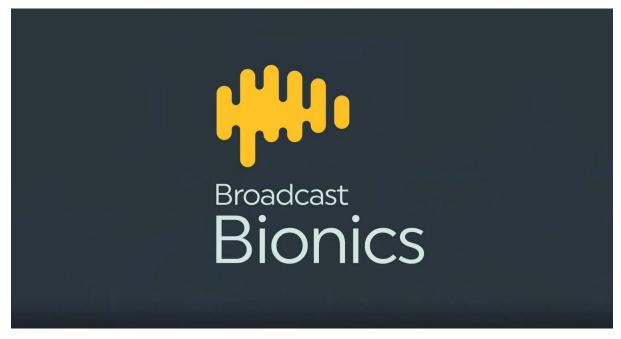
The Mute button allows you to put a holding graphic onto the camera feed.

Press the button to turn Mute mode on.



This is useful if you have a guest who does not want to be recorded, or if something is happening in the studio that you do not wish to be captured for some reason.

The holding graphic is set up when your system is installed and is usually a station logo.



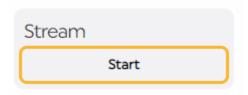
HOLDING GRAPHIC FOR BIONIC FM - TODAY'S REASONABLY OK MUSIC MIX FOR HAYWARDS HEATH AND WEST SUSSEX...

AutoMute

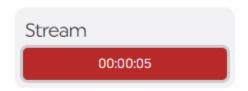
Depending on how your system has been configured, you may have the 'AutoMute' option enabled behind-the-scenes. This means that the holding graphic (Mute button) will automatically be enabled once a recording has finished and be disabled when a recording starts.

Livestreaming

The **Stream** button starts a live stream on whichever streaming platform has been configured on your system.

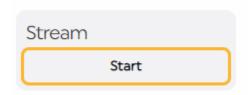


To begin the stream, press 'Start'.



The button will go red, and a count-up timer will begin.

To stop the stream, press the red count-up timer button.



Tip! If you aren't sure which platform or page is connected, ask your local support team to check the settings. Options available include Facebook, YouTube, Twitch or any stream which accepts RTMP/RTMPS format, but you are only able to stream to one of these per Camera One system.

Camera Controls



CAMERA CONTROLS

The second row of button in the recording controls area are the cameras.

Each button relates to a different camera shot.

The 'Wide' shot is the default view of the whole studio.

The other cameras are usually linked to a specific microphone.

The Camera Controls work in two ways.

If the system is in **AutoSwitch** mode, the amber highlighted camera shows which shot the system is currently automatically selecting.

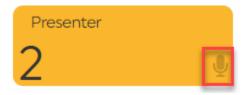
If the system is in **manual** mode, you can press any of the camera buttons to manually change the shot.



CAMERA 2 - PRESENTER IS CURRENTLY SELECTED

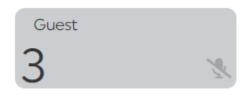
Tip! You can also manually switch the cameras by pressing the buttons on your <u>ATEM Mini</u> unit – the highlighted button shows the currently-active shot.

The microphone logo in the corner shows that the camera shot is linked to a specific microphone.



MICROPHONE ICON

On some systems (depending on your mixing desk), you may see a microphone which is struck through.

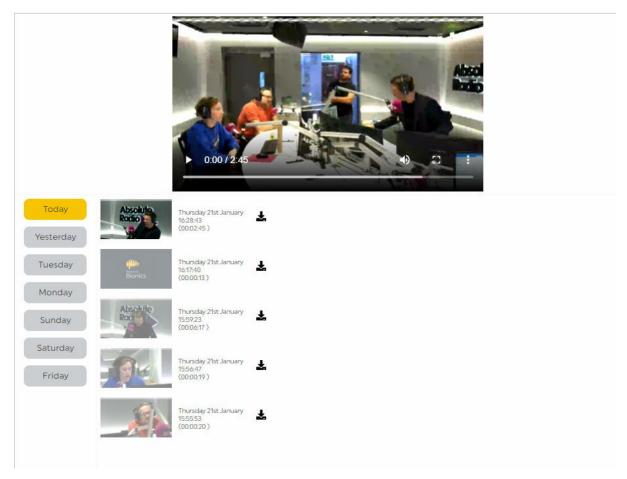


MICROPHONE STRIKETHROUGH ICON

This shows that the microphone fader is down/off, and that the camera will not be selected in AutoSwitch mode.

Download area controls

The **Download Area** lets you preview your recordings, and choose which ones to download so that you can edit them and share on social media.



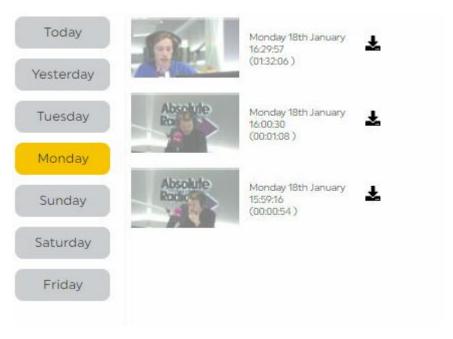
DOWNLOADS AREA

The vertical day of the week buttons allow you to select a day in the past, to access recordings from earlier days.



To view recordings from a previous day, press that day's button.

The related recordings will then appear to the right.



MONDAY'S RECORDINGS DISPLAYED

You can see more detailed information about when the clip was recorded, and how long it is, next to the thumbnail.



RECORDING SUMMARY DISPLAYED NEXT TO THE THUMBNAIL

Press on any recording to view. The **player** at the top will then display the recording.



PRESS THE CLIP THAT YOU WANT. IT WILL THEN DISPLAY IN THE PLAYER AT THE TOP

To preview the clip, you can press play on the player.



PRESS PLAY TO PREVIEW

You can drag the play cursor to skip forward and backwards through the recording.



PLAY CURSOR

The **Loudspeaker** icon mutes/unmutes the audio.

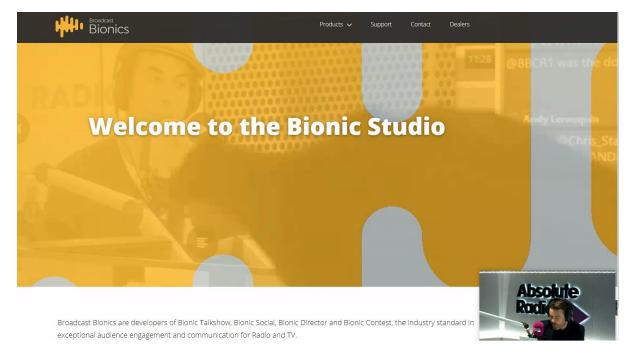


The Fullscreen icon makes the player display full screen (press 'Esc' [Escape] to exit).

The **three vertical dots** allow you to select the 'Picture-in-picture' option. This means you can watch the clip whilst using a different program on the same machine.

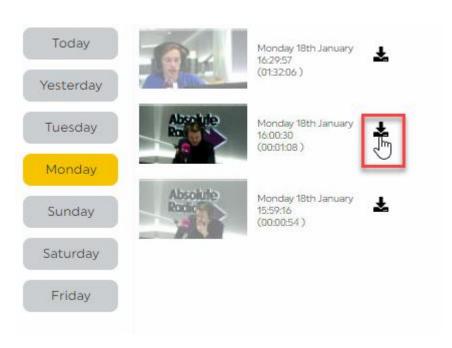


PRESS THE VERTICAL DOTS AND THE SELECT 'PICTURE-IN-PICTURE'...



...THE PLAYER WILL THEN APPEAR IN THE CORNER OF YOUR SCREEN SO YOU CAN LOOK AT OTHER PROGRAMS AND PREVIEW THE CLIP AT THE SAME TIME

To **download** a clip, select the recording you wish to use and then press the 'Download' button.



PRESS TO DOWNLOAD

The recording will then download to the default downloads area on your machine.





CLIP DOWNLOADED

Once the clip has been downloaded, you can import it into your video editing software to trim it, add subtitles and any extra graphics or effects you wish to include before sharing it on social media. Newsworthy clips can also be shared with your news teams!

If your system has been configured to automatically display your station's logo in the corner of the screen (sometimes known as a 'Bug' or a 'DOG'), this will automatically be added to the recording.



CORNER LOGO AUTOMATICALLY ADDED TO RECORDING

ATEM Mini Pro view

If you have an ATEM Mini Pro, ATEM Mini Pro ISO, ATEM Mini Extreme or ATEM Mini Extreme ISO unit connected to your Camera One system, you have the option to connect an external monitor so you can see a preview of the different camera outputs on a 'multiview' screen.

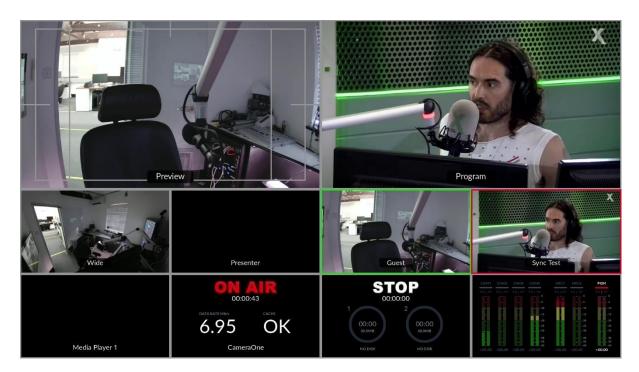
We'd recommend having this on a separate screen in your cubicle or studio control area, if space allows.

Here's an example of the preview view you might see:

Tip! Your ATEM Multiview screen may look a bit different from the examples shown here – it depends how you have chosen to configure the layout and display on your unit.



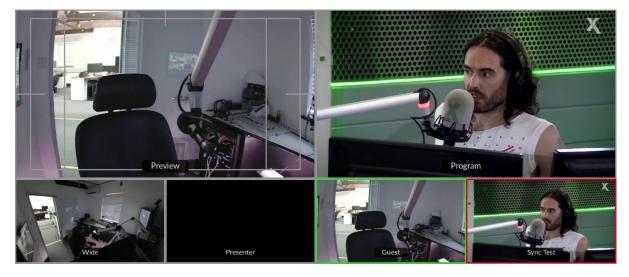
ATEM MULTIVIEW EXAMPLE



ATEM MULTIVIEW EXAMPLE 2

This screen can be accessed by plugging in an HDMI monitor and running the ATEM Software Controller software which comes with your ATEM unit.

The top Multiview rows allow you to see which camera feed is connected to which shot, and which camera is currently selected.



ATEM MULTIVIEW TOP ROWS - SHOT SELECTED, SHOT PREVIEW AND LINK TO CAMERA FEEDS

The bottom row of controls relate to external indicators / monitoring.



ATEM MULTIVIEW - BOTTOM ROW - EXTERNAL MONITORING

The 'Media Player' box will display either your Mute graphic or your 'DOG' (on-screen logo), depending on what state the switcher is running (and if you have configured these options in your Camera One settings).



MEDIA PLAYER

The 'ON AIR' indication will display when a livestream is in progress.



LIVESTREAM NOT IN PROGRESS



LIVESTREAM IS IN PROGRESS

The 'Recording' indication will display when a local recording via USB on the ATEM unit is in progress (not when Camera One is in record mode). You can ignore this box!



USB RECORDING NOT CURRENTLY IN PROGRESS

The Audio Levels allow you to see at a glance that your audio is correctly connected.



AUDIO LEVELS METER

Tip! The multiview screen is only available with the ATEM Mini Pro, ATEM Mini Pro ISO, ATEM Mini Extreme or ATEM Mini Extreme ISO. The ATEM Mini unit only allows the Program / Main output to be viewed, without the ability to monitor the individual camera feeds.

For further details on how to use the ATEM Mini series of physical switching units, please see: https://www.blackmagicdesign.com/uk/products/atemmini*

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^{*} Broadcast Bionics is not responsible for the content of external websites.

Recording check list

- 1. If you have an ATEM Mini PRO, ATEM Mini Pro ISO, ATEM Mini Extreme or ATEM Mini Extreme ISO, check the camera and adjust the camera shots in your system's shot preview window (you can press the PGM button on the ATEM console to see each individual camera shot if desired).
- 2. Decide if you want to record your whole show automatically, or if you want to record a certain segment. Decide if you need to record pictures even if the microphones are off. (Manual recording v Auto recording mode).
- 3. Decide if you want the system to switch the cameras automatically, or if you wish to control the cameras yourself. (AutoSwitch on or AutoSwitch off).
- 4. For automatic camera switching ensure the 'AutoSwitch' button is on, and that **Mute mode is off** (if your system is set to <u>AutoMute</u>, you can ignore this step).
- When you and the on-air team are ready, either put the Recording toggle to 'Auto' for automatic recording, or press the 'Start' button for manual recording.
- 6. To live stream to social media, press the 'Stream' button.
- 7. When your show has finished, make sure you turn the recording button **off** (manual mode only happens automatically in Auto)!
- 8. Your **clips** are available in the downloads area immediately, ready for you to preview and save to your local machine.
- 9. Once you have downloaded your chosen clip(s), you can **edit** them in your preferred video editing software and then **share** online or to your TV service partner.

Suggested default settings

If in doubt, ensure Mute is off*, AutoSwitch is on, and that your recording is in Auto mode. The controls should look like this:



SUGGESTED DEFAULTS - RECORDING HAS BE STARTED, RECORDING MODE IS 'AUTO', 'AUTOSWITCH' IS ON AND MUTE IS OFF.

This means the cameras will record automatically whenever a microphone is on, and that the cameras will switch shot selection automatically, too!

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^{*} Mute will be turned off automatically once the recording begins if <u>AutoMute</u> is set on your system.

Common Questions

Is there a way to see what is being recorded as it happens?

If you own an ATEM Mini Pro, ATEM Mini Pro ISO, ATEM Mini Extreme or ATEM Mini Extreme ISO, it's possible to have a preview screen which shows what is being recorded as it happens. See <u>ATEM Mini Pro view</u> for details.

Alternatively, the recordings are available within 5 seconds of the recording being ended, so you will be able to see the recording almost straight away on Camera One itself. This means that if you don't have an ATEM unit which allows you to preview, you can always do a quick test recording on your system before your show begins, to check that your guests are in shot and framed correctly.

For how long are the recordings kept on the system?

This varies between stations, and is decided when your system is configured, so please check locally.

The default option is seven days.

Is there a maximum recording length?

We do not recommend a continuous recording of more than six hours, as the resulting file will be very large and could cause system stability issues.

If you have a very long show, it's easy to stop and start a recording part-way through if needed.

The technical limit depends on how much recording space you have on your system, as video files can end up being rather large!

In which format are the videos recorded?

MP4, 1920 x 1080, (16:9 ratio).

The frame rate depends on what you have set in your ATEM unit – you can choose between 1080p25, 1080p30, 1080p50 and 1080p60.

How do I edit the recordings?

<u>Download the clip</u> of your choice and then import it into whichever video editing software you use.

How do I use my ATEM Mini / ATEM Mini Pro / ATEM Mini Extreme?

The ATEM manuals can be found here: https://www.blackmagicdesign.com/uk/products/atemmini

(Please note that the ATEM controllers are made by a different company, and Broadcast Bionics is not responsible for the content of external websites).

How do I add or remove the corner logo (DOG)?

This is controlled in the system Settings. Please see the Camera One configuration & installation guide for more details.

My screen looks different from this manual!

Depending on your licence, you may have up to 8 camera shots on your system, which might mean you can see more buttons.

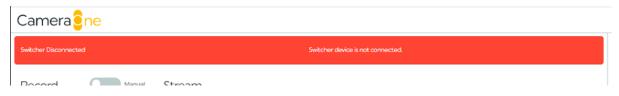
You may also choose to label the names of your camera shots in whichever way makes most sense when setting up your Camera One system.

Don't worry - the buttons still work in the same way as described in this manual, even if you have more of them or they are named a bit differently!

My system says it is 'Disconnected'

There are two system 'Disconnected' errors.

The first is 'Switcher Disconnected'.



SWITCHER DISCONNECTED ALERT

This means that Camera One has lost its connection to your ATEM unit.

To fix this, simply reconnect your physical ATEM switcher and refresh the Camera One window.

The other 'Disconnected' error happens when either Camera One is not running or a technical problem is preventing the browser on your machine from connecting to it.



DISCONNECTED

To fix it, first check that the machine that runs Camera One is switched on and Camera One is running. If you don't know how to do this, or this doesn't work, contact your local <u>support</u> engineers.

I've just closed down my browser window or computer by mistake! Have I lost the recording?

In most cases - no!

Camera One runs independently of the browser and a recording will not stop because the browser has disconnected.

This means that you can use the web viewer to control your system, but that if the web browser window is accidentally closed when the recording is taking place, the recording will still carry on.

The only exception to this is if you shut down the machine where Camera One's 'under-the-bonnet' part of the system has been installed.

We usually recommend that the user machines and the main 'brains' machine are kept separate for this reason – but check with your local support team if you are not sure.

The recordings themselves are kept for a set period of time – usually seven days, but this may vary, so check locally to see how your system has been configured.

The audio on my recording doesn't sound right

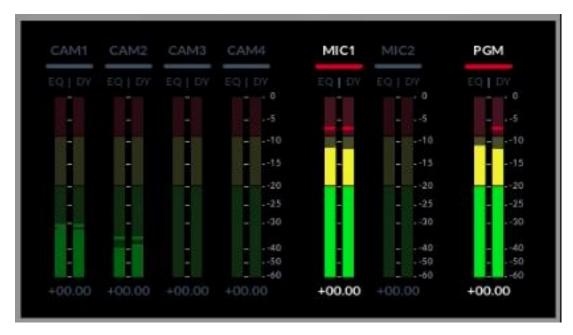
It's possible that one of the audio routing buttons on the ATEM unit has been accidentally knocked.

To check, look at the Audio Levels box on the Multiview screen.

The MIC1 and PGM levels should match.

If the audio levels on any of the CAM channels are being sent to the PGM feed, that means the system is picking up audio directly from the cameras themselves – which is not what we want!

Ask your local engineering team for help in this case.



AUDIO LEVELS VIEW ON ATEM MULTIVIEW SCREEN - MIC1 AND PGM SHOULD MATCH

What are the best practices for using video for my radio or podcast show?

- Make sure the guests know and have consented to appearing in-vision.
- If you are choosing to livestream, be intentional about what you share. Nobody really wants to watch 3 hours of a presenter picking their nose between songs! You could do a livestream for a big-name guest, or share a behind-the-scenes Q&A once your show is over.
- The real power of socially-sharing audio comes from sharing clips of the best bits on social media. Content that's around 2-4 minutes long can work really well. You can ask your audience to share, or signpost them to your main show so they can hear the whole thing (e.g. share an amazing question from your celebrity interview, and then link to the whole item on your listen-again service).
- You can also use clips for a show promo e.g. an extract from a pre-recorded interview with details on when the full episode will be live.
- Check to make sure you have the correct copyright permissions for the different social media platforms you don't want to be banned or face a lawsuit. Be especially careful with music.
- Provide subtitles/captions, as some of your 'listeners' may no be able to hear your clip (e.g. scrolling on Facebook, or on a busy train). Plus, it's good for Accessibility.
- Have fun and experiment, and if a particular clip works really well, we'd love to hear about it – we're @broadcastbionic (no 's') on Twitter.

Glossary

16:9 - A video aspect ratio (size and shape) which is used as standard proportion for YouTube and TV - also known as 'widescreen'. It's a horizontal rectangle shape.

ATEM – The brand name of a range of video production switchers manufactured by Blackmagic Design. Camera One uses the ATEM Mini range (models include the ATEM Mini, ATEM Mini Pro and ATEM Mini Extreme).

Auto (Record Mode) - Camera recording stops and starts automatically, depending on fader / microphone state. Not to be confused with AutoSwitch (see below).

AutoSwitch – method of having the cameras switching automatically, without a human needing to trigger the shot change.

Bug - also known as 'network bug' - see DOG.

DOG – Digital On-screen Graphic – the logo or icon you put in the corner of your screen to brand your station's video content.

FPS – Frames Per Second. How many individual pictures ('frames) are part of a video, per second.

Livestream – send the output from your Camera One cameras to the internet, live. Often via Facebook Live, YouTube Live or similar platforms. This can be done as well as, or as an alternative to, saving clips to edit later.

Switcher – machine or software which allows you to 'switch' a feed to a different source – in this case, cameras.

Visualisation - way of adding pictures to audio, to make audio easier to share on social media. In this case, Camera One does this for you, by adding video automatically to your amazing audio!

Further sources of help and support

There are demonstration videos for how to use Camera One on the Broadcast Bionics website: https://bionics.co.uk/training

A more detailed installation and configuration guide is also available: https://bionics.co.uk/manuals

If you need help on using the system at your station, please contact your local support/engineering department in the first instance.

If you **are** the engineering/support team, please contact your local dealer or Broadcast Bionics HQ: support@bionics.co.uk or +44 (0)1444 884 141.