

3C CINEMA CAMERA CONTROLLER

USER GUIDE



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3C CINEMA CAMERA CONTROLLER

WELCOME

Thank you for purchasing the by CDA-TEK's 3C Cinema Camera Controller app for the Blackmagic Design Pocket Cinema Camera 4K.

This user guide covers all operational functions contained in Version 1.1 of the 3C app and will be updated for future versions where appropriate.

To stay updated about the latest developments with the 3C app as well as our other products, please visit our website at www.cdatek.com



As the lens control functionality offered by 3C is only applicable to lenses currently supported by the Blackmagic Design Pocket Cinema Camera 4K, we recommend that you visit www.blackmagicdesign.com to check the latest lens compatibility information for the current firmware on your camera.

INTRODUCTION

FUNCTIONAL OVERVIEW

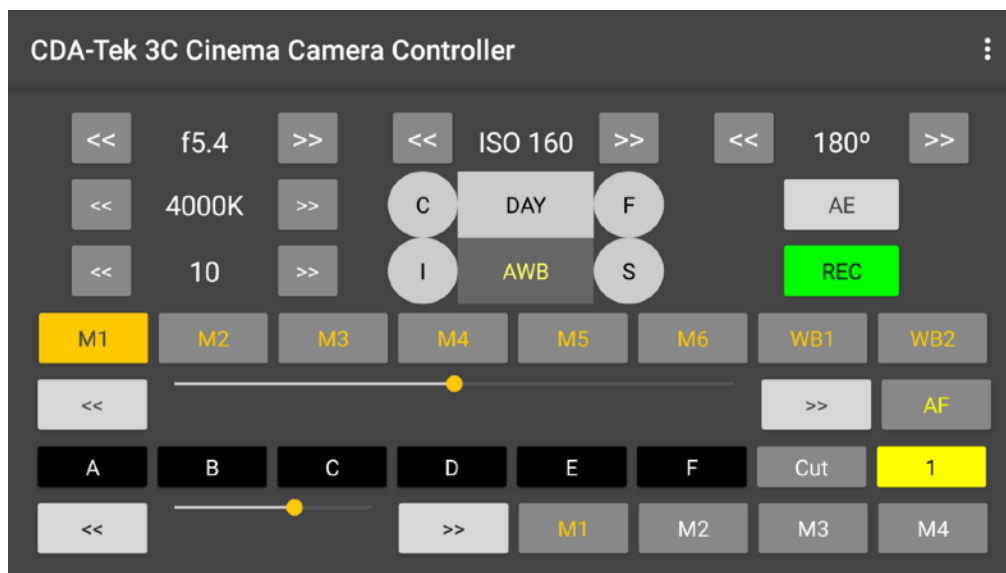
The 3C app enables you to remotely control and monitor the primary functions of your Blackmagic Design Pocket Cinema Camera 4K from an Android device using Bluetooth LE.

Using 3C, you have access to the following camera functionality.

- Aperture
- ISO
- Shutter Angle
- White Balance
- Record
- Focus & Zoom (*with compatible lenses*)

With 3C you can also store your own custom setting sets for exposure, focus and zoom parameters for later recall as well as automate transitions between stored focus points*.

For ease of use, 3C uses a single screen touch interface to control all of this functionality and avoid the need for you to have to activate any sub-menus to change settings.



3C has a scalable user interface to enable you to remove focus and zoom controls from the screen should you not require them and wish to run the app on a small screen Android device.

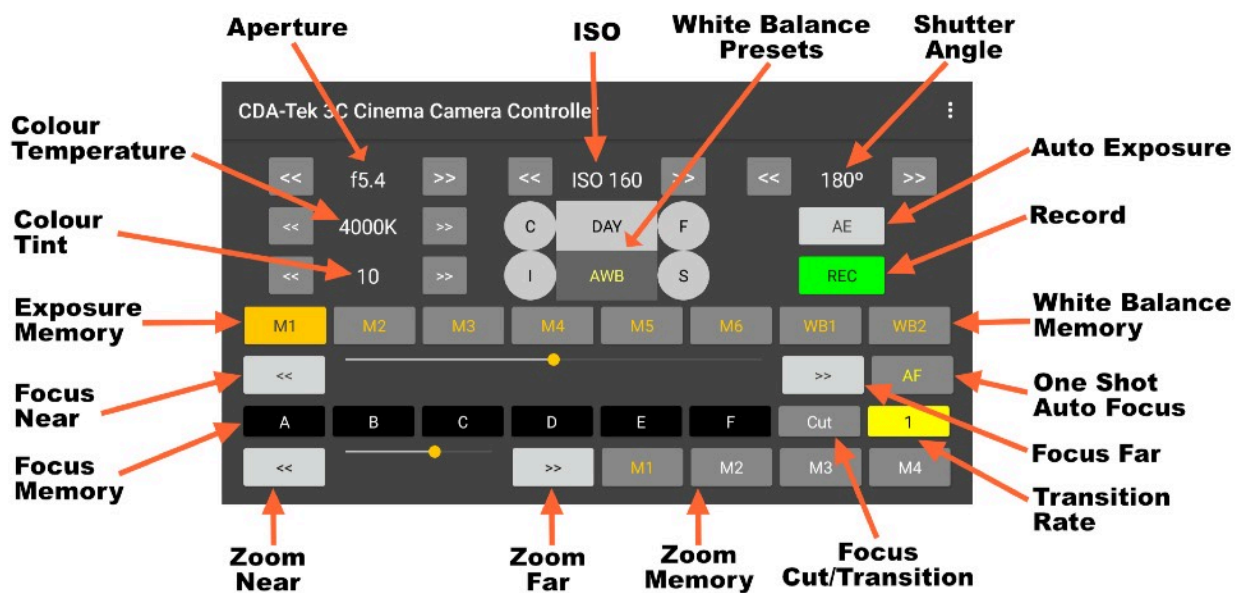
In addition, 3C can also be used as an interface hub to enable control of the camera from compatible Bluetooth gamepads.

USER INTERFACE

ILLUSTRATED INTERFACE OVERVIEW

3C is divided into three functional blocks

1. Image Control
2. Focus Control
3. Zoom Control



Within each block, there are also controls for the storage and recall of user presets for these functions.

There are six memory slots for you to store Exposure presets (M1-M6), two slots for White Balance only (WB1-WB2), six slots for Focus presets (A-F) and four slots for Zoom presets (M1-M4).

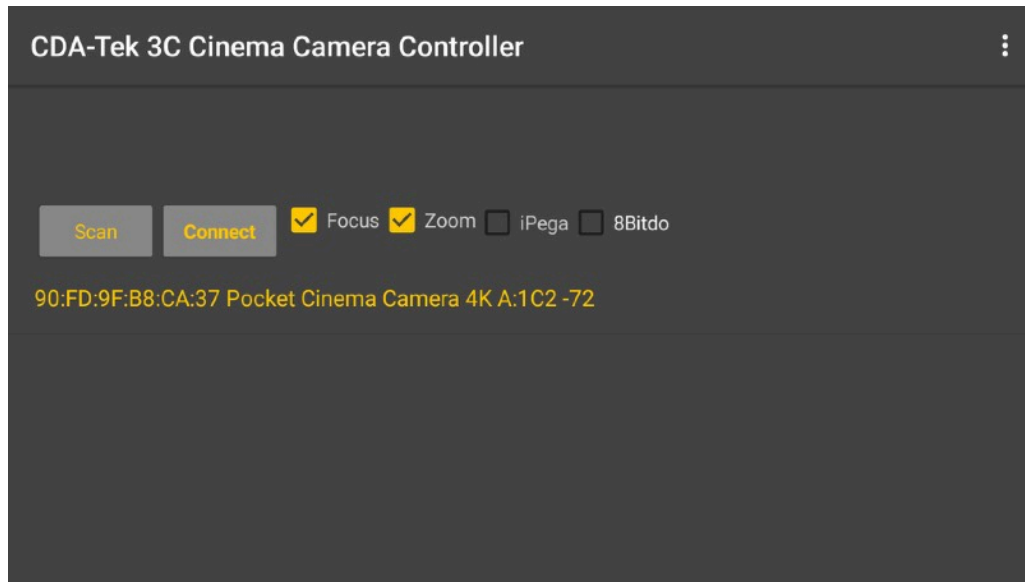
All of these memory slots are stored in non-volatile memory so are available every time you use 3C.

The user interface screen remains synchronised to the camera operations, so any changes you make to these settings on your Blackmagic Design Pocket Cinema Camera 4K will automatically be shown on 3C as well.

GETTING STARTED

CONNECT 3C TO YOUR BLACKMAGIC DESIGN POCKET CINEMA CAMERA 4K

Before opening 3C, please ensure that you have both Bluetooth and Location enabled in the Settings of your Android device and have selected Bluetooth to be ON in the Setup menu of your Blackmagic Design Pocket Cinema Camera 4K.



Upon opening 3C you will then be presented with the Scan and Connect screen.

Pressing the “Scan” button will then present you with a list of Bluetooth LE devices and you should then press to select your camera from the list and then press the “Connect” button.

3C will then connect to your camera and after a few moments the main screen will be displayed.

Note

If you are using a small screen Android device or do not wish to use the Focus and/or the Zoom controls of 3C the simply press each box to deselect them before you connect to the camera.

If your device screen cannot accommodate all of the selected elements, you can scroll to them by pressing the screen and sliding your finger up/down.

If you wish to use one of the two compatible Bluetooth gamepad device types then similarly select these before you connect to the camera. See GAMEPAD CONTROLS section of this guide for operational instructions.

Your choices for these settings will be stored for the next time you run 3C but can be changed at any time.

FIRST LAUNCH

BONDING YOUR ANDROID DEVICE TO YOUR CAMERA

When you launch 3C for the **very first time**, it will be necessary to bond your Android device to your Blackmagic Design Pocket Cinema Camera 4K.

To do this, go in to the SETUP menu on your camera and navigate to the Bluetooth page.

To initiate the bonding process, press **any** of the control buttons on the 3C screen (Aperture Up for example) and you will see a six digit PIN number displayed on the Camera screen.

Your Android device will also then instigate a pop-up for you to enter this PIN.

When you have done this, you will see a confirmation on the SETUP screen of the camera that your device is now connected to the camera and you are now able to control it.

However, to establish the correct initial synchronisation between the camera and 3C (see *Note*) we recommend that you exit and relaunch 3C once this initial bonding process is complete.

It is important to stress that this bonding process is only required on the **very first launch** of 3C and all subsequent launches will not require this step.

If you use 3C on multiple Blackmagic Design Pocket Cinema Camera 4K units then you will have to repeat the bonding process for each one but, again, only on the very first launch of each instance.

Note

When 3C is launched, it synchronises with the camera to update its settings to match those of the camera. This process is usually completed within 5-10 seconds so it is advisable not to make any changes during from 3C during this time.

OPERATION GUIDE PART 1

IMAGE CONTROLS



With 3C, you can operate and monitor the following image control settings on your Blackmagic Design Pocket Cinema Camera 4K.

- Aperture in f stops (for compatible lenses)
- ISO
- Shutter Angle in degrees
- White Balance Preset (**Daylight**, **Cloud**, **Fluorescent**, **Incandescent**, **Shade**)
- White Balance Temperature in K
- White Balance Tint
- Auto Exposure (**AE**)
- Auto White Balance (**AWB**)
- Record Start/Stop (**REC**)

Values for individual parameters are changed by pressing the “<<” and “>>” buttons or by pressing the appropriately labelled button for the White Balance presets (including Auto White Balance), Auto Exposure and Record.

When the camera is recording the **REC** button will change colour to red and back to green when it is stopped.

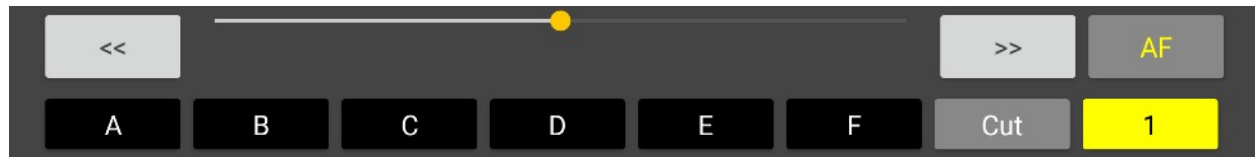
Any changes that you make to the image controls on the camera itself will be automatically synchronised and displayed on 3C

Note

Beneath the main image controls are the the related Preset Memory (M1-M6 and WB1-WB2) controls. Please see the **Managing Presets** section of this User Guide for operational guidance.

OPERATION GUIDE PART 2

FOCUS CONTROLS



With 3C, you can operate the following focus control settings on your Blackmagic Design Pocket Cinema Camera 4K when using a compatible lens.

- Focus Near
- Focus Far
- Auto Focus (**AF**)
- Cut/Transition Between Focus Points
- Transition Time Between Focus Points

Pressing the “<<” and “>>” buttons will incrementally move the focus point of the lens nearer (“<<”) or further (“>>”). The current position will be illustrated by the position of the slider and it can also be changed by holding and moving the slider left or right.

Holding down the “<<” or “>>” buttons will automatically move the focus point to the nearest or furthest position respectively.

Pressing the **AF** button will activate the one shot Auto Focus function of the camera.

The **CUT** button determines the behaviour when selecting a stored focus point (see [Note](#)) and toggles between **CUT**, whereby the recalled focus point will be moved to from the current focus point immediately, and **TRANS**, whereby an automatic gradual transition to the recalled focus point will be performed.

When set to **TRANS** the duration over which the focus transition happens is determined by the transition time (currently **1** in this illustration) which can be incremented from 1 to 5 seconds in half second intervals by pressing the button.

Note

*Beneath the focus controls are the related Preset Memory (A-F) controls. Please see the **Managing Presets** section of this User Guide for operational guidance.*

OPERATION GUIDE PART 3

ZOOM CONTROLS



With 3C, you can operate the following zoom control settings on your Blackmagic Design Pocket Cinema Camera 4K when using a compatible zoom lens.

- Zoom Out
- Zoom In

Pressing the “<<” and “>>” buttons will incrementally move the zoom point of the lens further out (“<<”) or further in (“>>”). The current zoom position will be illustrated by the position of the slider and it can also be changed by holding and moving the slider left or right.

Holding down the “<<” or “>>” buttons will automatically move the zoom point to the maximum zoom out or zoom in positions respectively.

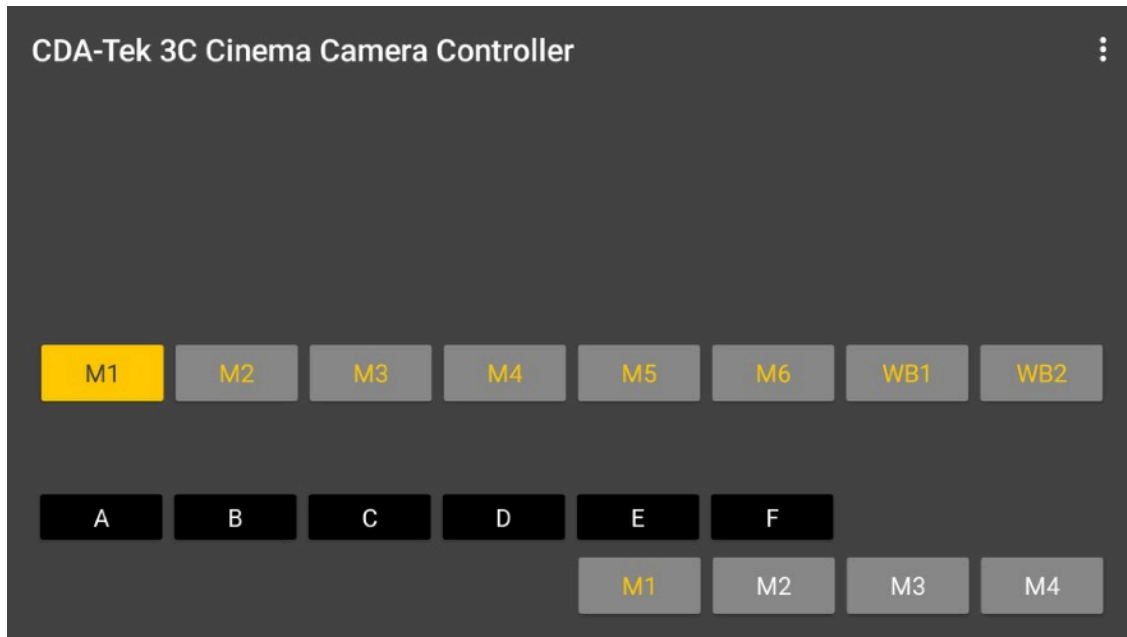
Note

*Beneath the zoom controls are the the related Preset Memory (M1—M4) controls. Please see the **Managing Presets** section of this User Guide for operational guidance.*

OPERATION GUIDE PART 4

MANAGING PRESETS

With 3C, you can store and recall Presets of Image, White Balance, Focus and Zoom settings.



The Image presets (labelled M1-M6) store ISO, Aperture, Shutter Angle, White Balance Temperature and White Balance Tint.

The White Balance presets (labelled WB1-WB2) store **only** the White Balance Temperature and White Balance Tint.

The Focus presets (labelled A-F) store focus points and the Zoom presets (labelled M1-M4) store zoom points.

To write or overwrite a Preset of the currently set parameters for a function, hold down the button for the slot in which you wish to save it and the screen will vibrate to confirm that it has been written.

To recall a Preset, simply press the button for the required slot and the settings will be recalled and immediately sent to the camera (see *Note*).

All Preset data is stored in non-volatile memory so they are available every time you use 3C.

Note

Please see the **Focus Controls** section of this User Guide for operational guidance for focus transitions.

OPERATION GUIDE PART 5

GAMEPAD CONTROLS

As well as allowing you to control your Blackmagic Pocket Cinema Camera 4K from the main screen, 3C can also act as an interface hub to allow you to simultaneously control it from compatible 3rd party Bluetooth gamepads.



3C supports Bluetooth gamepads from iPega and 8Bitdo when they are set to KEYBOARD mode. Please refer to the user manuals of the gamepads for instructions about how to set them into KEYBOARD mode and how to connect them to your Android device over Bluetooth.

When you have a compatible gamepad connected, the following mapping is used

iPega

KEY	FUNCTION	KEY	FUNCTION
X	Aperture (-)	B	Aperture (+)
A	ISO (-)	Y	ISO (+)
LEFT SHOULDER	AWB	RIGHT SHOULDER	AE
D PAD (LEFT)	Colour Temperature (-)	D PAD (RIGHT)	Colour Temperature (+)
D PAD (UP)	Colour Tint (+)	D PAD (DOWN)	Colour Tint (-)
RIGHT STICK (L)	Focus (-)	RIGHT STICK (R)	Focus (+)
LEFT TRIGGER	Focus Mem(A)	RIGHT TRIGGER	Focus Mem(B)
RIGHT STICK (PRESS)	AF	LEFT STICK (PRESS)	Record/Stop
RIGHT STICK (UP)	Zoom (+)	RIGHT STICK (DOWN)	Zoom (-)

8Bitdo

KEY	FUNCTION	KEY	FUNCTION
Y	Aperture (-)	A	Aperture (+)
X	ISO (-)	B	ISO (+)
D PAD (UP)	AWB	START	AE
D PAD (LEFT)	Focus (-)	D PAD (RIGHT)	Focus (+)
LEFT SHOULDER	Focus Mem(A)	RIGHT SHOULDER	Focus Mem(B)
D PAD (DOWN)	AF	SELECT	Record/Stop

Note 8Bitdo is configured to be used in a vertical orientation for easier one handed operation.