

CM-CON100

Avonic PTZ Camera Controller



User Manual

Version 2.2

Update notes:
Preset instructions added

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Introduction

Congratulations

Thank you for purchasing this product. Before beginning to operate this device, please read this manual in order to make sure the best performance is obtained. Save this manual for future reference.

Safety Notes

- Installation and servicing should only be done by Qualified Service Personnel and conform to all local codes.
- This unit is designed for indoor use only and it must not be installed where exposed to water or other liquids and moisture.
- Before powering on the device, check the input power voltage carefully.
- Avoid shock and vibration when transporting and installing the device.
- Use wall mount brackets or ceiling mount brackets available at Avonic for safe installation.
- Electronic devices produce heat. Do not block the ventilation slots of the device and make sure the installation environment is well ventilated to avoid overheating.
- Before cleaning, unplug the power cable. Use a soft, damp cloth to clean the device, do not use strong or abrasive detergent to clean that will damage the device.
- If you wish to dispose this product, please contact Avonic to obtain info about the recycle procedure.

Maintenance

Before cleaning, unplug the power cable. Use a soft, damp cloth to clean the device, do not use strong or abrasive detergent to clean that will damage the device.

Contact

For any questions or suggestions, contact the reseller or the local Avonic distributor. Find the local distributor on the Avonic website. For support questions mail to support@avonic.eu

For the recent manual or datasheet, look at the Avonic website www.avonic.eu

Product Overview

The Avonic CM-CON100 is a compact PTZ camera controller. With this controller it is possible to control up to 255 camera's and using up to 255 pre-sets.

The controller supports the Visca, Pelco-D and Pelco-P protocol and can be connected with RS232/485. The Avonic CM-CON100 is therefore compatible with the Avonic camera's as well with other brands that supports these protocols.

Switch easily between auto and manual focus, save and load presets, and connect multiple controllers to multiple camera's

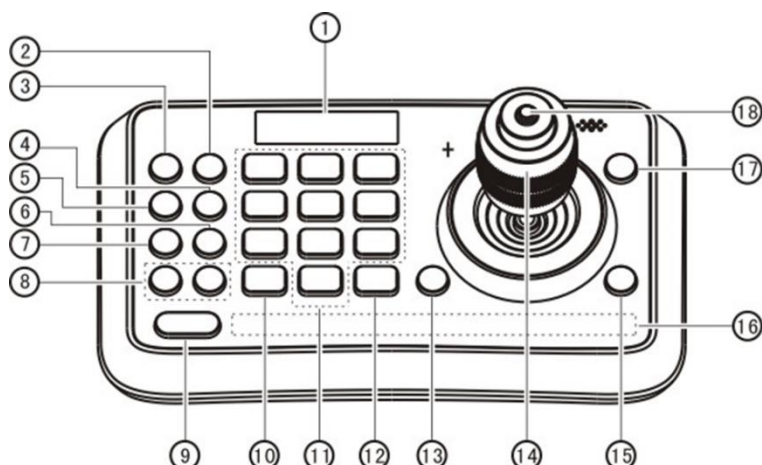
Features

- Number of presets: With this compact controller, it is possible to control up to 255 cameras and use up to 255 pre-sets.
- Connection: Easy to connect with RS232 , RS485
- Control: Every setting of the camera can be controlled by accessing the OSD of the camera through the controller. Directly control the camera's Pan, Tilt, Zoom and Focus.4D joystick for pan/tilt/zoom/focus control, ergonomic design and excellent finishing;

Package contents and Accessories

Quantity	Description	Avonic SKU
1 pc	PTZ Camera Keyboard Controller	CM-CON100
1 pc	Power Supply	CM-CON100-PSU

Product Description



1. OLED screen. The OLED screen displays status of current operation.
2. CALL (Call preset) Input preset number, then press CALL key to call a preset
3. CAMERA (Switch cameras) Input camera number, then press CAMERA key to switch to another camera.
4. SET (Set / Clear preset) Input preset number, then press SET key to set or delete a preset (Short press to “set”; long press to “clear”).
5. SETUP (Enter setup menu) Press SETUP key to enter menu and program the keyboard
6. CRUISE (Auto Cruise) Press CRUISE key to do auto cruise.
7. PATTERN (Pattern Scan) Press PATTERN key to do pattern scan
8. F1, F2 Toggle between Auto Focus and Manual Focus (also see 18.)
9. SHIFT (Extension key) It is an extension key to be used with other keys for special functions.
10. ESC (Exit / Delete) It is a key to EXIT in a menu or DELETE in other operations.
11. 0~9 (Numbers) Those are keys used to input numbers. Combine with SHIFT key to activate various functions shown on number keys. For example, press SHIFT + 1 will turn on DIS function of the camera.
12. ENT (Confirm) It is used to confirm menu setting.
13. OPEN (IRIS Open) This key is used to activate IRIS open of the camera. It is also a “confirm” key in a menu.
14. Joystick This joystick is used to Pan, Tilt, Zoom and Focus
 Non-Menu State:
 Left/Right/Up/Down: Pan/Tilt the camera correspondingly
 Twist clockwise: Zoom In,
 Twist anti-clockwise: Zoom Out;
 Press Zoom/ Focus Switch Key and Twist: Focus Near/Far
 Menu State:

Right: Enter a submenu or Confirm;

Left: Return to previous menu or exit (expect some not returnable menus);

Up: Move to last option;

Down: Move to next option.

15. CLOSE (IRIS Close) This key is used to activate IRIS close of the camera; it is “return” key in a menu.
16. Status Display area This area is used to display status of functions that are turned on, relative icons will be back lighted.
17. MENU (Enter Camera Menu) This key is used to enter camera menu.
18. Zoom / Focus Switch Key. (See also 8.) This key is used to switch between zoom and focus function.
Operation: Press this key, the red cross indicatorlight near the joystick will go out, twist the joystick to zoom in / out; press this key again, the red cross indicatorlight will be lightened, twist the joystick adjust focus value.

Installation

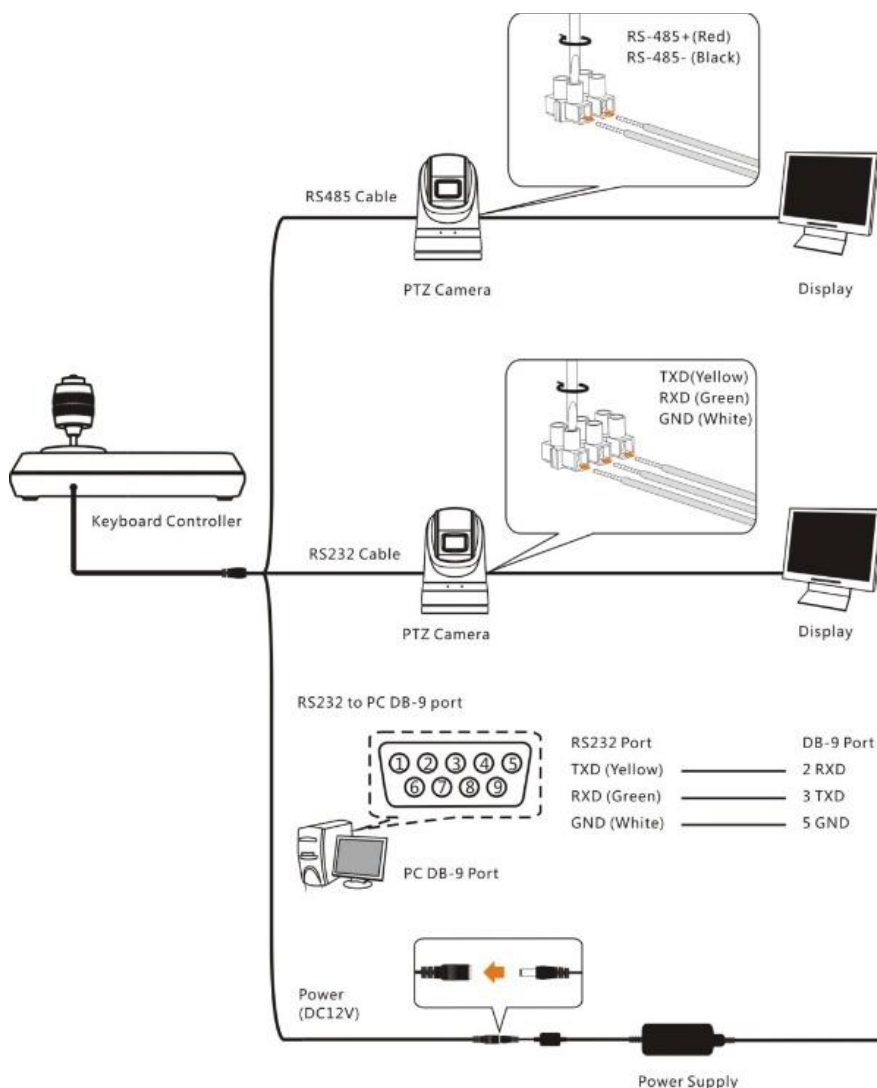
The controller has 3 wires:

- Power with female JEITA connector
- RS232 with 3 pin Terminal Strip
- RS485 with 2 pin Terminal Strip

Maximum distance for RS232 is about 10 meters. Maximum distance for RS485 is about 1200 meters.

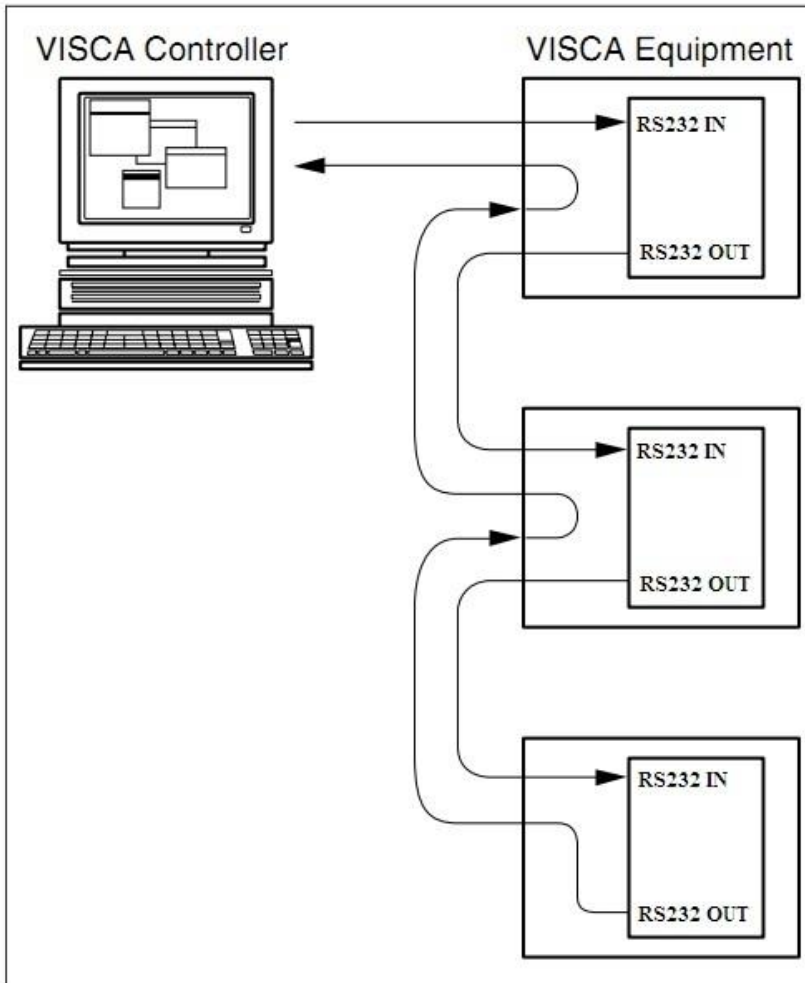
Connection Diagram

Power + RS-232 + RS-485



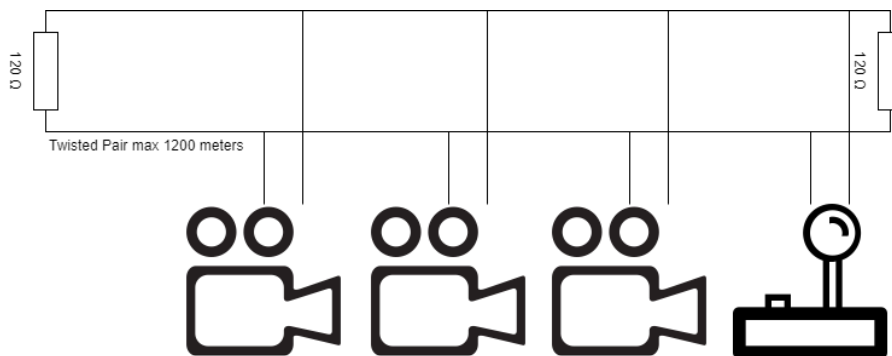
Connecting multiple cameras by RS232

The VISCA protocol supports up to 7 cameras and can be cascaded by connecting RS232-out from each camera to RS232-in of the following according to the picture:



Connecting multiple cameras by RS485

To connect multiple cameras by RS485, the cameras need to get attached to a 2-wire twisted pair bus that is terminated at both ends with a 120 Ω impedance resistor. The maximum distance from the bus to the camera or controller is 5 meters



Addressing Multiple Cameras

In case more cameras are connected to the controller, each camera needs to be addressed the right way to a camera number of the controller.

The following settings need to match in both camera and controller:

1. Protocol (VISCA, PELCO-p or PELCO-d)
2. Camera address number (1, 2 or n)
3. Communication settings as baud rate (9600), parity, etc.

See the Operation Instruction in the manuals of the cameras for more detail. The following section of this manual describes how to set up the controller.

Operation Instructions



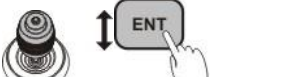

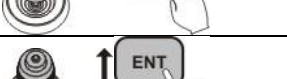

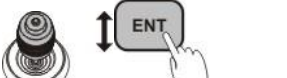




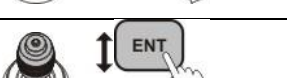


Menu




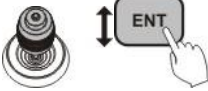
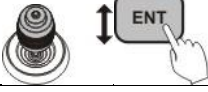
After powered on, "USER PIN" will show on the controller's screen. The initial pin is "111111".

Operation	Button	Screen	Comment
Enter USER PIN			The initial USER pin is "111111" See "PIN SETTING" to set pin.
<p>Pin Error : When "USER PIN : ERROR" shows on screen, it indicates wrong pin was input. Enter correct pin to get to next step</p> <p>Pin Correct : Screen shows "1" camera icon and default camera number. If there is no operation, after 5 seconds the screen will display the current time. If still no operations, the controller will enter sleepmode (30sec, 1min, 5min, 10min, 30 min or 60 min.)</p>			
Enter menu	 Press SETUP key		The initial ADMIN pin is "111111" See "PIN SETTING" to set pin.
<p>Menu List</p>			
Camera Setting			Move up / down the joystick, choose "CAMERA SETTING"
Camera ID			0-255, use num keys, press ENT to confirm
Protocol setting			PELCO D/PELCO P /VISCA
Baud rate setting			2400/4800/9600 / 19200/38400
Address Setting			0-255
Increment			1-20



The controller can also batch program cameras in the system. It will set the same baud rate, protocol for the 10 cameras next to the current one while the cameras' address to be increased by increment number sequentially. After step 5, press SHIFT to enter menu "INCREMENT:" Input a number within 1~20, press ENT to confirm.

The address increment between two sequential cameras. For example, the current camera address is 1 and the increment is 2, then the next camera address is 3.



Time Setting		TIME SETTING ▶	
Set time in 24 hour format.		10 : 52 : 59	
Volume Setting		VOLUME SETTING	OFF (switch off sound) 1~6 (6 levels from low to high)
Backlight Setting		BACKLIGHT MODE	AUTO/ON/OFF
Sleep Setting		SLEEP SETTING ▶	OFF/ 30S/ 1M/ 5M/10M / 30M/60M
PIN setting		PIN SETTING ▶	USER/ADMIN
<p>【Note】 In non-menu status, quickly lock function can be realized by simply pressing SHIFT + ENT. "USER PIN" or "ADMIN PIN" is required for operation the controller again.</p>			
Joystick calibration		JOYSTICK CALIB ▶	After long-time use, the joystick may require calibration
Pan left		PAN LEFT	Move the joystick to left limit and press ENT
Pan right		PAN RIGHT	Move the joystick to right limit and press ENT
Tilt up		TILT UP	Move the joystick to upper limit and press ENT
Tilt down		TILT DOWN	Move the joystick to lower limit and press ENT
Zoom tele		ZOOM TELE	Twist the joystick clockwise to the limit and press ENT
Zoom wide		ZOOM WIDE	Twist the joystick anti clockwise to the limit and press ENT
Free state		FREE STATE	Need not any operation, press ENT

Save		<SAVE> CANCEL	Move the joystick left/right to choose, and press ENT to confirm.
Key Custom		KEY CUSTOM ►	It is used to custom keys to realize special functions requested.
Speed setting		SPEED SETTING ►	Set control speed of the joystick HIGH MIDDLE LOW
Default Setting		DEFAULT SETTING ►	Restore the keyboard setting to factory default
Information Display		INFORMATION ►	It displays firmware version number

Set/Call Preset Position

Operation	Button	Screen	Comment
Set Camera in desired position	Short press 	SET PRESET: 1	Current position set to preset 1
Call Preset 1	Short press 	CALL PRESET: 1	Camera moves to preset position 1

Delete Preset Position

Operation	Button	Screen	Comment
Call Preset 1	Press 	CALL PRESET: 1	Current position moves to preset 1
Delete Preset 1	Long Press on Set 	CLR PRESET: 1	Preset 1 is now empty.

What to do if the admin pin is lost

By default the admin pin is set to 111111. If this pin is changed and is lost, use the following code to regain access to the con-100: **778896**