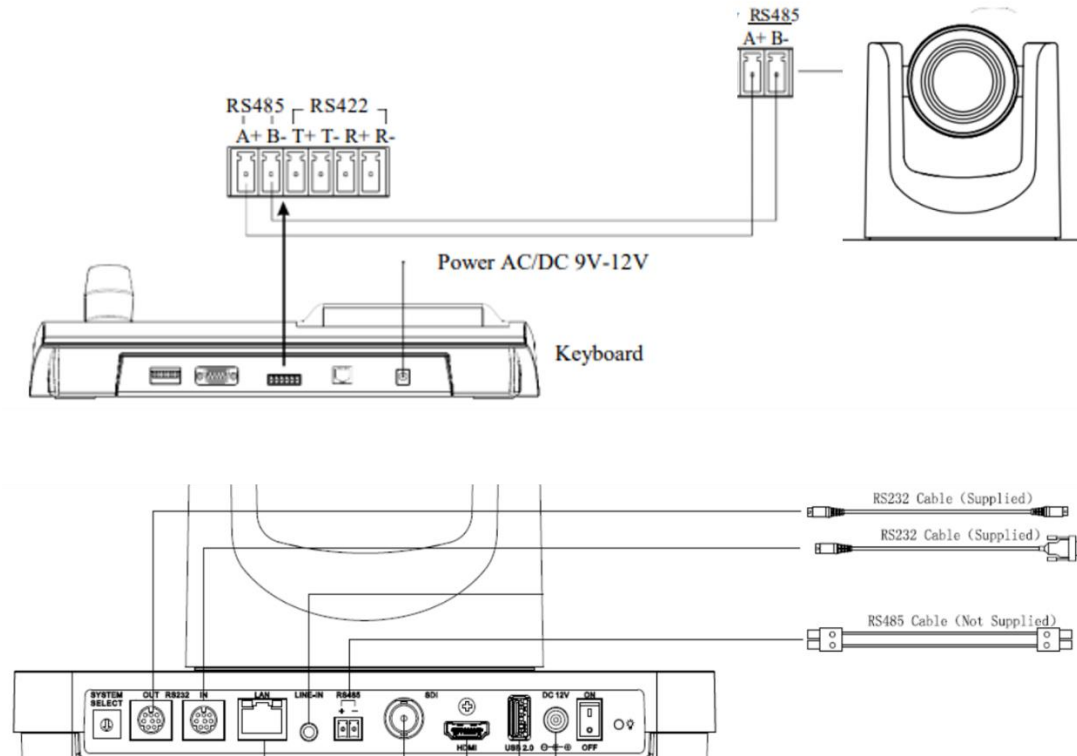# How to connect PTZ camera with a keyboard controller

Please make sure that both the camera and the keyboard are powered, and they are connected with either a RS-485 or RS-232/ RS-232 IN cable.

To properly set up the connection, you need to make sure that the camera and the keyboard are using the same protocol and baud rate. In order to do so:

- ## CAMERA:

Go to Camera menu (use IR remote): press "**MENU**" -> "**SETUP**" -> select 1) the protocol, i.e. "**Pelco-D**"; 2) Pelco-D (Pelco-P/VISCA) Address (camera address), i.e. "**2**"; 3) Baudrate, i.e. "**9600**" -> press "MENU" to go back and exit the camera menu. All settings will be saved automatically.

- ## KEYBOARD:

Go to Keyboard menu:

   AV-3102: press and **hold "Set"** -> "**Keyboard setup**" -> "**Set KB Parameter**" -> "**Set Baudrate**" -> i.e. "**9600bps**"; Move the joystick to the left to go back to the **main menu**, "**Protocol Select**" -> "**Dome**" -> i.e. "**Pelco-D**".

AV-3104: **press and hold** "SETUP" (psw: 8888) -> "**PTZ SETUP**" -> <mark>P</mark> (stands for protocol), i.e. "**PelcoD**"; <mark>BR</mark> (stands for baudrate), i.e."**096**" (stand for 9600).

*To turn off the keyboard sound: **press and hold** "SETUP" (psw: 8888) -> "SYS SETUP" -> "SOUND SETUP".*

AV-3106: press and **hold "Set"** -> "**Keyboard Setup**" -> "**set <mark>Baudrate</mark>**" -> i.e. "**9600**"; Move the joystick to the left to go back to the **main menu**, "<mark>**Protocol** </mark>Select" -> "**Dome**" -> i.e. "**Pelco-D**".

Exit menu, according to the camera address (set to "2" in this example), press "**2**"+"**Cam**" to select the connected camera. At this point, you can control the camera with the keyboard.