PTZDECO241
Pan/Tilt/Zoom RS-485 receiver

Please read this manual carefully before use product!

Introduction

The PTZDECO241 receivers are used with keyboard controller and matrix systems to control pan/tilt/zoom/focus and auxiliary functions in surveillance systems. This receiver supporting RS485, and is compatible with multi-protocol.

Features

- Built in watch dog function, multi-protocol setting
- Two auxiliary relays for light/wiper and camera power controlling
- Fully optical isolation, auto reset function in strong reference environment
- Baud rate options, 0-64 ID setting
- Static resistant, high voltage and thunder proof design
- Optional power source provided AC220V/AC24V/DC12V voltage optional for pan/tilt unit (the factory default setting is AC24V)
- Adjustable lens voltage from 6V to 12V for speed adjusting (the factory default setting is 8V)

Technical parameter

- Power supply AC220V / 50HZ
- Power consumption: 28-50W
- Pan/Tilt voltage: AC220V, AC 24V optional
- Pan/Tilt drive power consumption: AC220V/2A or AC24V/800mA
- Lens voltage: 5-12V options
- Provided power source: AC220V/2A, AC24V/500mA, DC12V/600mA
- AUX relay: 2 NO auxiliary (AUX1 and AUX2). Max. load is AC 220V/5A
- Connection mode of communication: RS485, MANCHESTER
- Protocol: Multi-protocol setting
- Environment: Indoor (-10~70), when used outdoor casing (-40~85 st.C)
- Transmission distance: 1200-1500m
- ID settings:0-63

Pan/Tilt setting

The receiver can control the up/down/left/right movements and auto function. There are two kinds of voltage optional, AC220V and AC24V. (Warning: higher voltage will lead to the fact that Pan/Tilt machine can be damaged when wrongly connected).

Lens setting

It can control the iris/focus and zoom of the lens. The lens output voltage can be varied from 6-12VDC with a potentiometer. The operator can adjust the speed of lens power, the voltage is higher then the speed is faster.

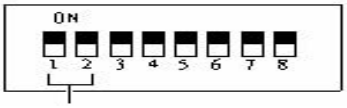
Auxiliary control

There are 2 auxiliary relays, normally open (AUX1 & AUX2)

Setting the protocol (4 –bit switch)

No.	**Protocol**	**Switch position**				**Baud rate**
		1	**2**	**3**	**4**	
0	PELCO-D	OFF	OFF	OFF	OFF	2400
1	PELCO-P	OFF	OFF	OFF	ON	9600
2	SAMSUNG	OFF	OFF	ON	OFF	9600
3	500/DongYang	OFF	OFF	ON	ON	9600
4	1000	OFF	ON	OFF	OFF	2400
5	100/CCR20G	OFF	ON	OFF	ON	4800
6	Kodicom KRE-301	OFF	ON	ON	OFF	9600
7	VICON Surveyor99	OFF	ON	ON	ON	4800
8	VICON V1422	ON	OFF	OFF	OFF	4800
9	SANTACHI-450 9600 baud KALATEL KDT348 4800baud	ON	OFF	OFF	ON	9600 4800
10	VICANYX V1200	ON	OFF	ON	OFF	9600
11	PIH1016	ON	OFF	ON	ON	2400
12		ON	ON	OFF	OFF	
13		ON	ON	OFF	ON	
14		ON	ON	ON	OFF	
15		ON	ON	ON	ON	

Setting the baud rate (switches 1. and 2. of 8-bit switch)

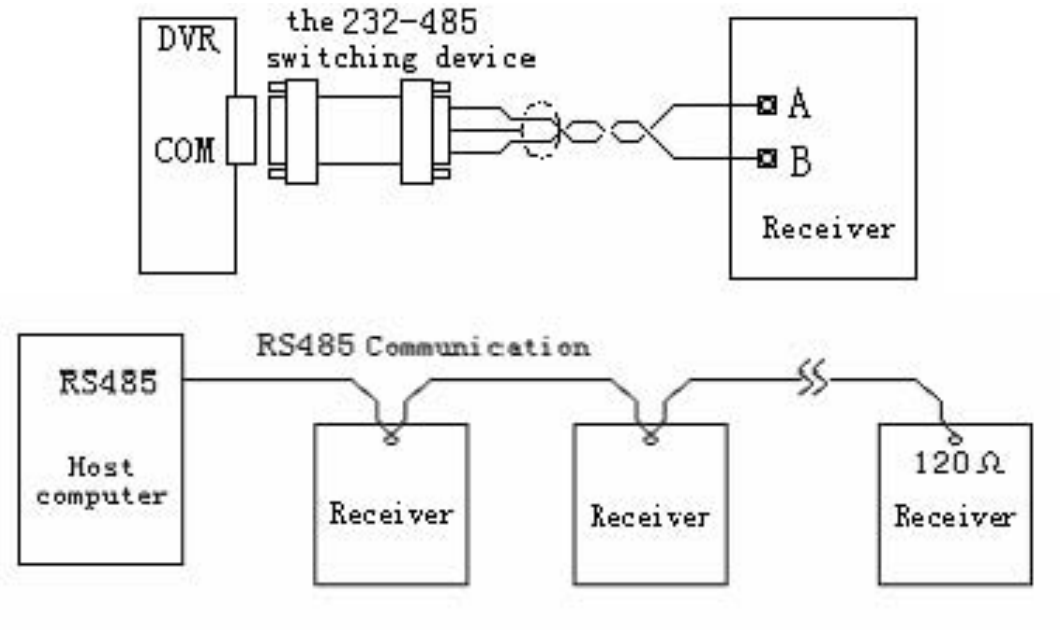


No.	Baud rate	Switch position		Note
		1	2	
0	19200	OFF	OFF	According to different protocol, it can select the correct speed automaticaly.
1	2400	OFF	ON	
2	4800	ON	OFF	
3	9600	ON	ON	

ID Address setting (3.~8. of 8–bit switch)

Camera ID	Switch position					
	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	OFF	ON	ON
4	OFF	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	OFF	ON	OFF	ON
6	OFF	OFF	OFF	ON	ON	OFF
7	OFF	OFF	OFF	ON	ON	ON
8	OFF	OFF	ON	OFF	OFF	OFF
9	OFF	OFF	ON	OFF	OFF	ON
10	OFF	OFF	ON	OFF	ON	OFF
…..						
59	ON	ON	ON	OFF	ON	ON
60	ON	ON	ON	ON	OFF	OFF
61	ON	ON	ON	ON	OFF	ON
62	ON	ON	ON	ON	ON	OFF
63	ON	ON	ON	ON	ON	ON

System connections

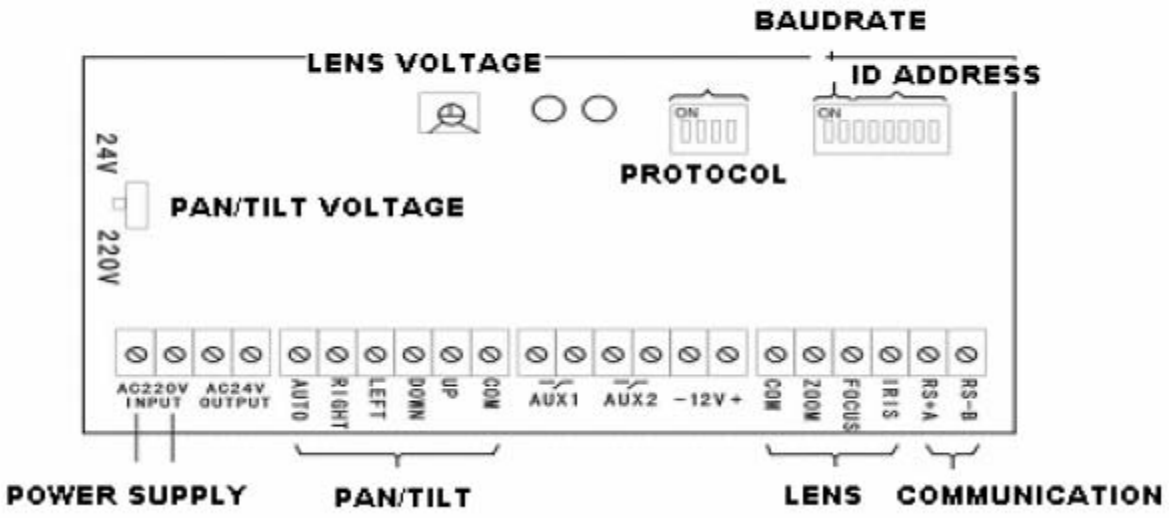


1. Use twist pair cable for correct connection per RS485 communication standard, otherwise the communication distance will be shorten significantly if using parallel cable.
2. The receiver is designed for “star” and “daisy chain” connection, the terminals marked A and B are RS485 signal output ports which is to connect RS485 devices, wrong connection is not allowed.
3. When a lot of receivers need to connect together, a 120 resistor must be connected in parallel between the terminal A and B on the last piece of equipment on the line.

Notes to application of RS485 equipment

1. The matrix switch connects to the receiver directly. The computer can using RS232-485 converter to connect to the receiver.
2. When communication distance exceeds 1200M or the circuit interfere greatly. Range could be increased by a RS-485 repeater.

Connection diagram



Trouble shooting

Trouble	Analysis and solution
LED does not illuminate after powered up	Check the power supply to see if it is connected, or confirm if it is AC220V . Check to see if the fuse is damaged. Check to see if the power supply has been cut off.
The pan/tilt &lens are uncontrollable	The control cables are connected wrongly on the connection is not good in contact. Check to see if the camera DIP switch setting is correct. Check to see if the communication distance over 1200M,and a RS485 repeater or equivalent to extend.

Appendix I-Iris control settings for KODICOM RX & KRE-301RX Protocol

Since the PICASO &KODICOM digital video recorder software has no iris control function, the receiver provides the detail iris control setting.

Operation procedures:

For KODICOM digital video recorder

Select KRE-301RX protocol
b) Switch the wiper on
c) Use focus button to conduct iris control
d) Switch the wiper off

For PICASO digital video recorder
a) Select KODICOM RX protocol
b) The operation procedure as same as above KODICOM DVR.

Appendix II ID address setting for KODICOM

Camera ID	**Switch position**					
	3	**4**	**5**	**6**	**7**	**8**
0	OFF	OFF	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	OFF	ON	ON
4	OFF	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	OFF	ON	OFF	ON
6	OFF	OFF	OFF	ON	ON	OFF
7	OFF	OFF	OFF	ON	ON	ON
8	OFF	OFF	ON	OFF	OFF	OFF
9	OFF	OFF	ON	OFF	OFF	ON
10	OFF	ON	OFF	OFF	OFF	OFF
11	OFF	ON	OFF	OFF	OFF	ON
12	OFF	ON	OFF	OFF	ON	OFF
13	OFF	ON	OFF	OFF	ON	ON
14	OFF	ON	OFF	ON	OFF	OFF
15	OFF	ON	OFF	ON	OFF	ON
16	OFF	ON	OFF	ON	ON	OFF