Outdoor Pan/tilt Decoder (DC Driver)
BN-800D

User Manual

Bernee production

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1. Introduction

Decoder is widely used in CCTV system. Various protocols are put into controller by using communication, and then the command turns into PWL (control power level) so as to control pan/tilt and lens. This decoder can apply for indoor & outdoor as well as vehicles surveillance work. Moreover it often appears in road, Public Square, wild field, mountaintop and island. So this is an all-weather decoder, matching with BN-PT10T（DC12V）pan/tilt.

2. Features

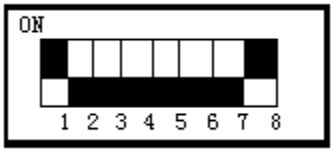
1) Adopting RS-485 communication mode with strong compatibility.
2) It is smart and easy to install, supporting pan/tilt control and lens control functions supported by other same type products.
3) Such shell has good sealing quality, ensuring decoder work normal in poor environments.
4) The inner part adopts spring strip socket which is more convenient than traditional mode to connect wire.

3. Outgoing line diagram

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
12vin	**GND**	**12vout**	**+**	**-**	**+**	**-**	**C**	**Z**	**F**	**I**	**B**	**A**	**K1**		**K2**	
DC12V Power input	**Power ground**	**DC12V Power output**	**Pan**		**Tilt**		**Lens control**				**RS485 Communication**		**Auxiliary contact 1**		**Auxiliary contact 2**	

4. Decoder address setting

There is an 8-digit dialup switcher on decoder, showed below:



1) The last two digits,7th and 8th,is the position for selecting baud rate.
2) The first six digits, from 1th to 6th, is the position for selecting address.

Chart of Decoder Address Setting

Decoder address	K1-1	K1-2	K1-3	K1-4	K1-5	K1-6
0	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF

5	ON	OFF	ON	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF
17	ON	OFF	OFF	OFF	ON	OFF
18	OFF	ON	OFF	OFF	ON	OFF
19	ON	ON	OFF	OFF	ON	OFF
20	OFF	OFF	ON	OFF	ON	OFF
21	ON	OFF	ON	OFF	ON	OFF
22	OFF	ON	ON	OFF	ON	OFF
23	ON	ON	ON	OFF	ON	OFF
24	OFF	OFF	OFF	ON	ON	OFF
25	ON	OFF	OFF	ON	ON	OFF
26	OFF	ON	OFF	ON	ON	OFF
27	ON	ON	OFF	OFF	ON	OFF
28	OFF	OFF	ON	ON	ON	OFF
29	ON	OFF	ON	ON	ON	OFF
30	OFF	ON	ON	ON	ON	OFF
31	ON	ON	ON	ON	ON	OFF
32	OFF	OFF	OFF	OFF	OFF	ON
33	ON	OFF	OFF	OFF	OFF	ON
34	OFF	ON	OFF	OFF	OFF	ON
35	ON	ON	OFF	OFF	OFF	ON
36	OFF	OFF	ON	OFF	OFF	ON
37	ON	OFF	ON	OFF	OFF	ON
38	OFF	ON	ON	OFF	OFF	ON
39	ON	ON	ON	OFF	OFF	ON
40	OFF	OFF	OFF	ON	OFF	ON

41	ON	OFF	OFF	ON	OFF	ON
42	OFF	ON	OFF	ON	OFF	ON
43	ON	ON	OFF	ON	OFF	ON
44	OFF	OFF	ON	ON	OFF	ON
45	ON	OFF	ON	ON	OFF	ON
46	OFF	ON	ON	ON	OFF	ON
47	ON	ON	ON	ON	OFF	ON
48	OFF	OFF	OFF	OFF	ON	ON
49	ON	OFF	OFF	OFF	ON	ON
50	OFF	ON	OFF	OFF	ON	ON
51	ON	ON	OFF	OFF	ON	ON
52	OFF	OFF	ON	OFF	ON	ON
53	ON	OFF	ON	OFF	ON	ON
54	OFF	ON	ON	OFF	ON	ON
55	ON	ON	ON	OFF	ON	ON
56	OFF	OFF	OFF	ON	ON	ON
57	ON	OFF	OFF	ON	ON	ON
58	OFF	ON	OFF	ON	ON	ON
59	ON	ON	OFF	ON	ON	ON
60	OFF	OFF	ON	ON	ON	ON
61	ON	OFF	ON	ON	ON	ON
62	OFF	ON	ON	ON	ON	ON
63	ON	ON	ON	ON	ON	ON

5. Baud rate setting

Baud rate: 2400bit/s,4800bit/s,9600bit/s optional.

Chart of Baud Rate Setting:

Baud rate	**K1-7**	**K1-8**
2400bit/s	ON	ON
4800bit/s	OFF	ON
9600bit/s	ON	OFF

6. Operation method

1) Unscrew nut on cover board of decoder, connect cable into decoder from waterproof port. Diagram shows on cover board.
2) When wiring, hold pressing the button of wire holder, insert peeler into connection hole, loose

button and clamp wire automatically.

3) When wiring, we must accord with diagram to connect wire, using different color wires in order to identify and ensure decoder & external devices work normal when powered.
4) Connect keyboard wire, camera, pan/tilt power and control line. Carefully check wire connection. After confirming correct, fasten the cover board.
5) Fasten the cover board, screw waterproof connector, fix cover board and decoder shell, screw nut in order to prevent liquid flowing in and erode circuit.
6) Affirm the above items correct, and then connect to power supply.

7. Specifications

Model	**BN-800D**
Power Supply	DC 12V
Drive Pan/Tilt Consumption	20W
Lens voltage	DC12V
Power Output(DC)	DC12V, 800mA
Power Output(AC)	Without
Communication	RS-485, 2400/4800/9600Bit/s
Protocol	Pelco-D, Pelco-P
Pan/tilt	Up/Down/Left/Right
Lens	IRIS/Zoom/Focus
Assistant Control	2 relay
Use Environment	Outdoor
Dimension	220×90×47mm (L×W×H)
Operating Temperature	-30°C-50°C
Weight	300g