

# ELMO

## User's Manual

INDOOR / OUTDOOR  
HOUSING

ENGLISH



**STANDARD**

Version 1.0

Before attempting to connect or operate this product, please read these instructions completely.

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## PREFACE

The housing is designed for dome camera installation. There are two kinds of installation types for this product. One is indoor environment use, the other is outdoor environment use.

It supports AC24V and DC12V power input. Fan and heater built in for temperature control. Sun shield is used to outdoor environment.

## FEATURES

### **Housing Features**

1. Clear Optical Cover.
2. Support AC24V and DC12V power input.
3. Fan and Heater built in.

### **Pendent Features**

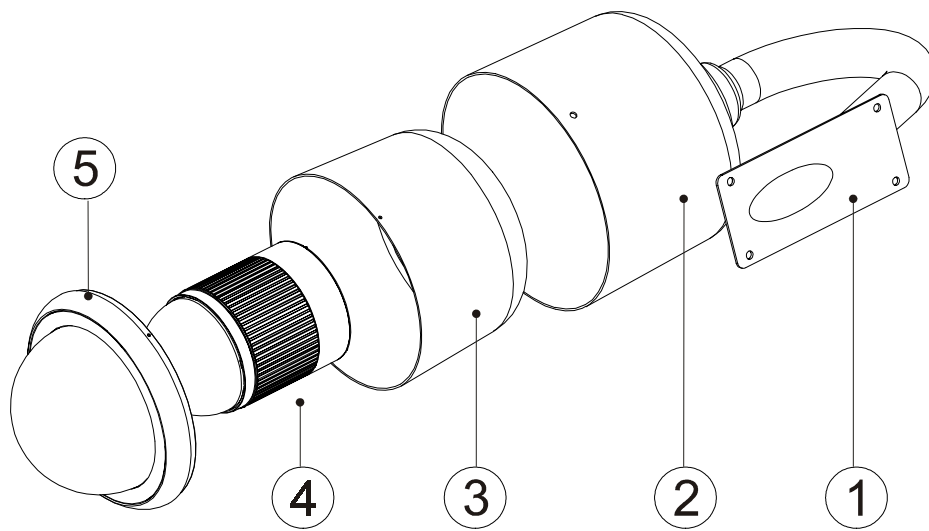
1. Straight ,Goose Neck Profile.

## PRECAUTIONS

### **1. Handle the Optical Cover Carefully**

Do not damage the optical cover. Deep scratches will interfere with the auto-focus function.

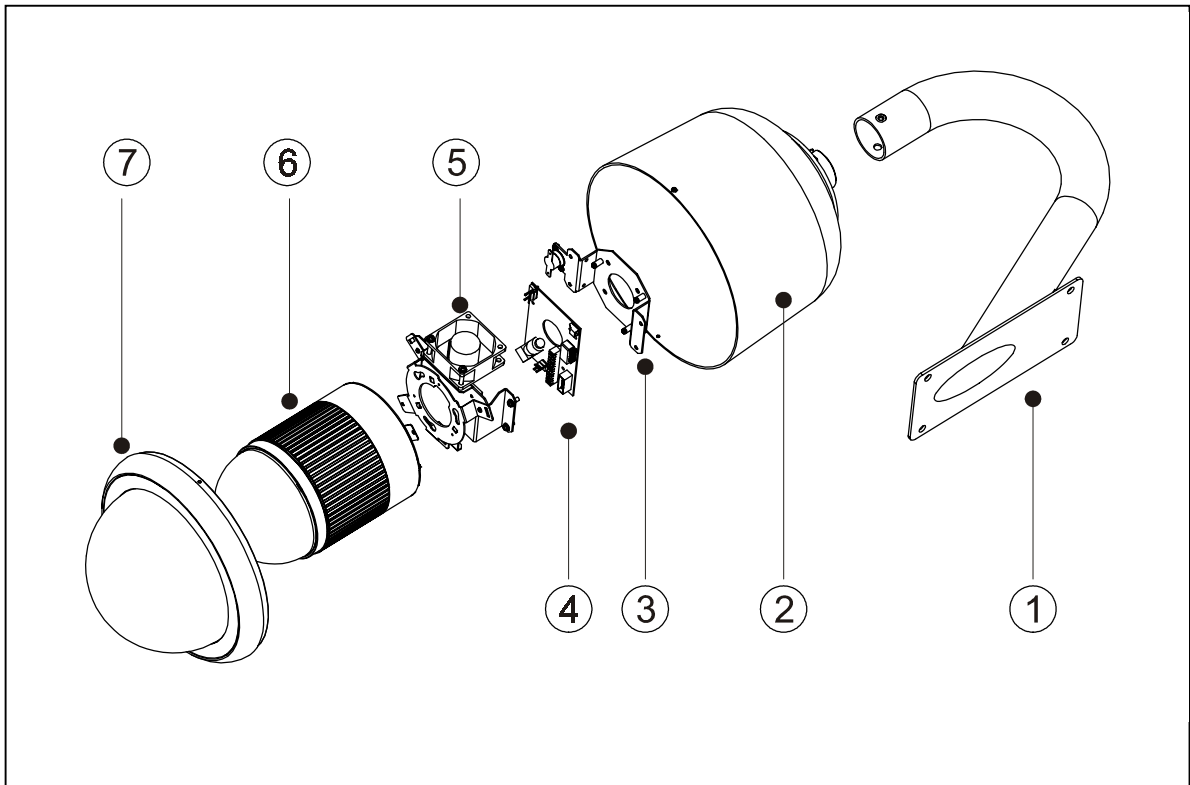
# CONSTRUCTION



- 1. Pendant**
- 2. Sun Shield**
- 3. Main Housing**
- 4. Dome Camera**
- 5. Dome Cover**

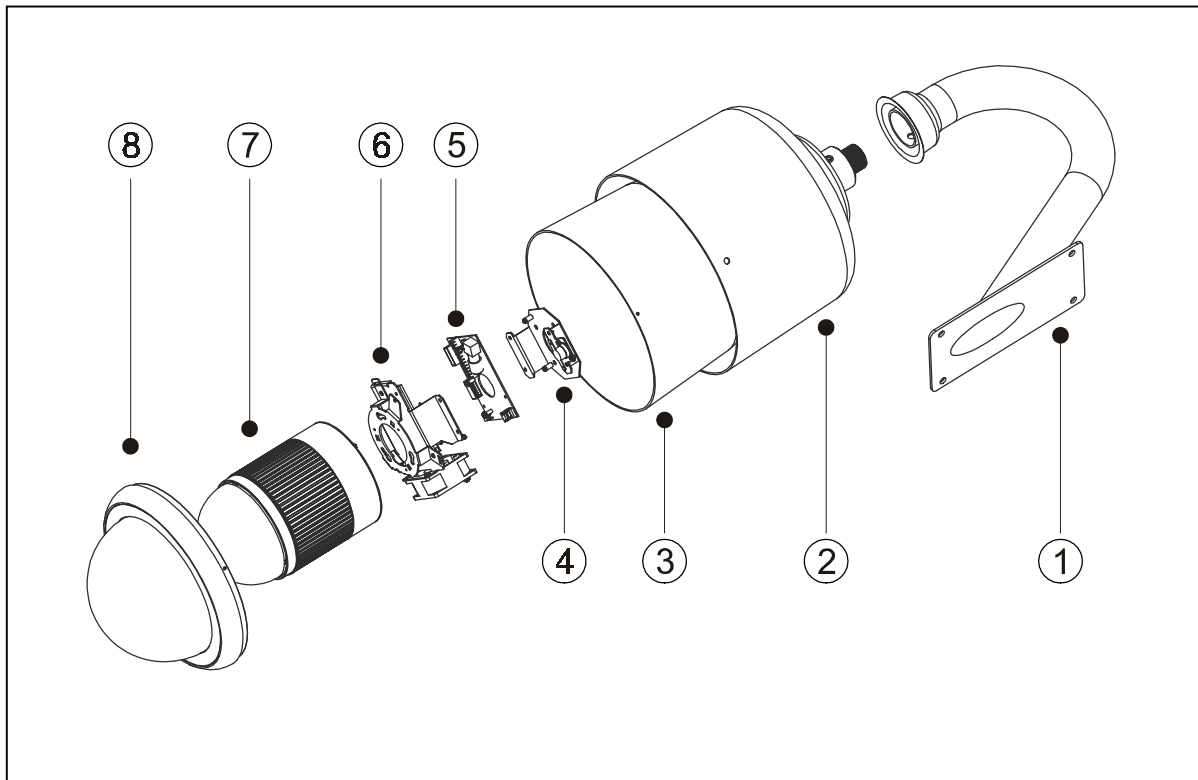
# INSTALLATION

## INSTALLATION FOR INDOOR ENVIRONMENT



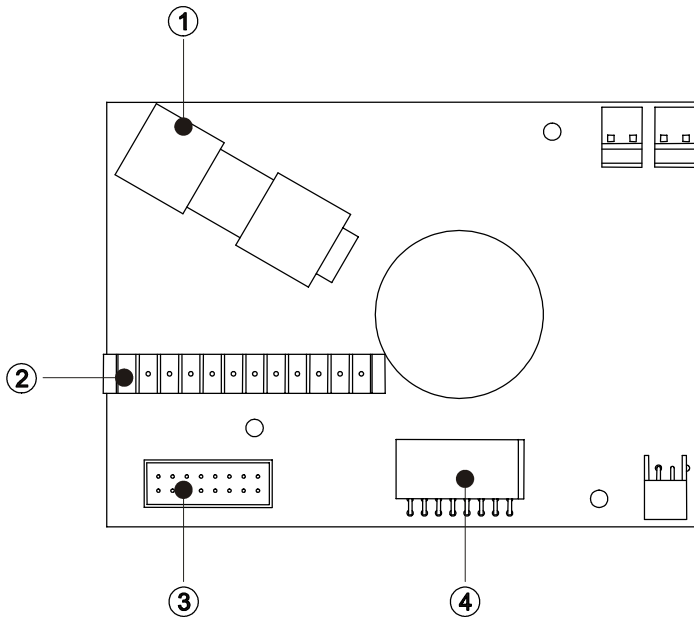
- 1. Pendant**
- 2. Main Housing**
- 3. PCB Frame**
- 4. PCB**
- 5. Heater Frame**
- 6. Dome Camera**
- 7. Dome Cover**

## INSTALLATION FOR OUTDOOR ENVIRONMENT



- 1. Pendant**
- 2. Sun Shield**
- 3. Main Housing**
- 4. PCB Frame**
- 5. PCB**
- 6. Heater Frame**
- 7. Dome Camera**
- 8. Dome Cover**

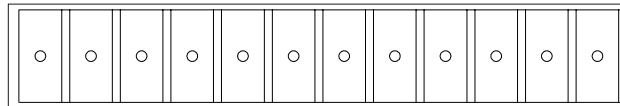
# PCB CONNECTION



- 1. BNC Video Output**  
You can connect video cable to monitor directly.
- 2. Terminal Block**  
Power, Control Signal and alarm inputs.
- 3. 16 Pin Connector**  
Connect cable to dome camera
- 4. 16 Pin Connector**  
Connect cable to external box ( Optional )

# TERMINAL BLOCK DEFINITION

**VG V\_IN 12V GND 1 2 3 4 D+ D- D+ D-**



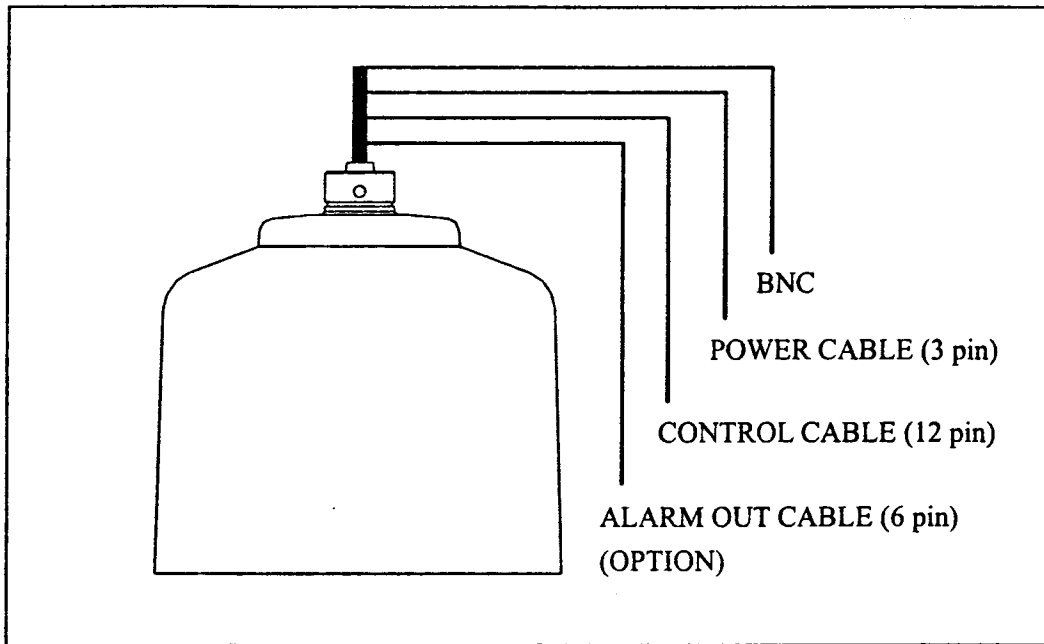
Pin Name	AC24V Set	DC12V Set
<b>VG</b>	AC24V in : line2	DC12V in : GND
<b>V_IN</b>	AC24V in : line1	DC12V in : +12V
<b>12V</b>	DC12V output : +12V ( For Keyboard ; Max.400mA )	
<b>GND</b>	DC12V output Ground and Alarm Ground.	
<b>1</b>	Alarm 1	
<b>2</b>	Alarm 2	
<b>3</b>	Alarm 3	
<b>4</b>	Alarm 4	
<b>D+</b>	RS-485 Differential Signal D+ ( Tx +)	
<b>D-</b>	RS-485 Differential Signal D- ( Tx -)	
<b>D+</b>	Additional RS-485 Differential Signal D+ ( Tx +)	
<b>D-</b>	Additional RS-485 Differential Signal D- ( Tx -)	

Remark :

1. Half-duplex mode is standard.
2. D+,D- are used to transmit and received commands. You need only two wires to transmit and receive commands under half-duplex mode.

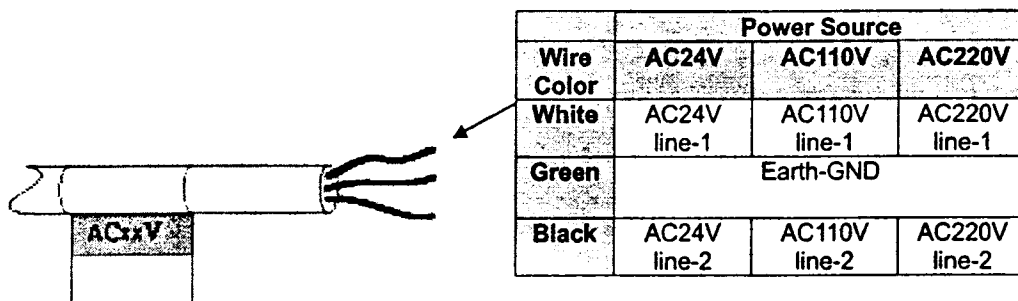
# CABLE DEFINITION

## CABLE CONNECTION



(1).BNC : Video output.

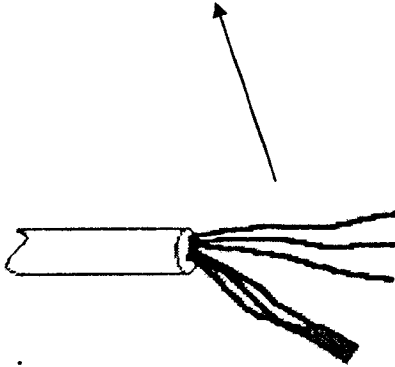
(2).POWER CABLE(3 pin)



**Power Source Suggestion :**  
 AC24V: 4A (with heater 2A)  
 AC110V: 1.2A  
 AC220V: 0.6A

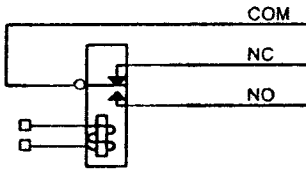
(3) CONTROL CABLE (12 pin)

Brown = RS-485 (D+)  
 Orange = RS-485 (D-)  
 Black = DC GND



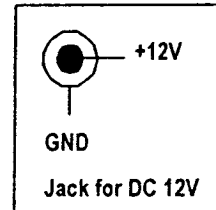
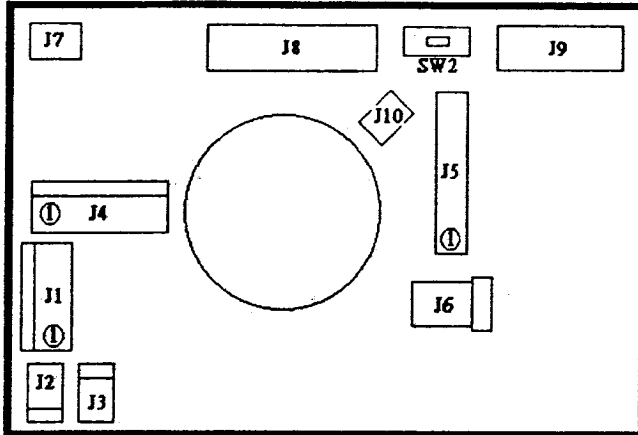
PIN	Wire color	Half-duplex	Full-duplex
RA	Brown	D+	RX+
RB	Orange	D-	RX-
TA	Yellow	D+	TX+
TB	Green	D-	TX-
GND	Black	DC_GND	
IR	Blue	Reserve	
A1	Purple	Alarm1_IN	
A2	Gray	Alarm2_IN	
A3	White	Alarm3_IN	
A4	Pink	Alarm4_IN	
GND	Light green	DC_GND	
12V	Red	12V_OUT(400mA)	

(4)ALARM CABLE (6 pin ) (OPTIONAL)



Color	Definition
Green	NO of Alarm-out 2
Yellow	COM of Alarm-out 2
Orange	NC of Alarm-out 2
Red	NO of Alarm-out 1
Brown	COM of Alarm-out 1
Black	NC of Alarm-out 1

# PCB DEFINITION



**J1 : Power**

Pin	Color	Definition
1	Black	AC line1 (IN)
2	Green	Earth GND
3	White	AC line2 (IN)

**J4 : Alarm Out**

Pin	Color	Definition
1	Green	NO of Alarm Out 2
2	Yellow	COM of Alarm Out 2
3	Orange	NC of Alarm Out 2
4	Red	NO of Alarm Out 1
5	Brown	COM of Alarm Out 1
6	Black	NC of Alarm Out 1

**J5 : RS-485 and Alarm In**

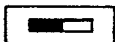
PIN	Color	Half Duplex	Full Duplex
R+	Brown	D+	RX+
R-	Orange	D-	RX-
T+	Yellow	D+	TX+
T-	Green	D-	TX-
GND	Black	Power GND	
IR	Blue	Reserved	
A1	Purple	Alarm In 1	
A2	Gray	Alarm In 2	
A3	White	Alarm In 3	
A4	Pink	Alarm In 4	
GND	Light Green	Power GND	
12V	Red	DC12V OUT	

- J1 : Power
- J2 : Heater
- J3 : Thermostat
- J4 : Alarm Out
- J5 : RS-485 and Alarm In
- J6 : Additional Power Jack
- J7 : Fan
- J8 : D7721 Blindmate Dome Connector
- J9 : D7720 Standard Dome Connector
- J10 : BNC
- SW2 : RS-485 Mode Switch ( Half / Full duplex ) Default(Half duplex )

## SWITCH SETTING

**SW2 ( RS-485 communication mode)**

Full-duplex      Half-duplex



Full-duplex      Half-duplex



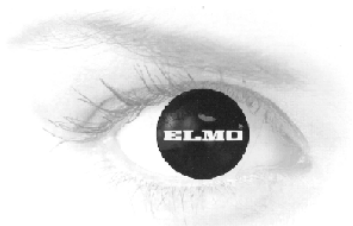
RS-485 is Communication is Full duplex  
(Available only for D7721 )

RS-485 Half duplex mode

# APPENDIX

## **ACCESSORIES**

Pendent .....	1 pcs.
Operation Manual .....	1 pcs.



**ELMO**

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