

# **INSTALLATION & WIRING DIAGRAM**

## **HYUNDAI Home Automation System**

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# INSTALLATION MANUAL

**Model No. HAC-700H**



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to the user.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

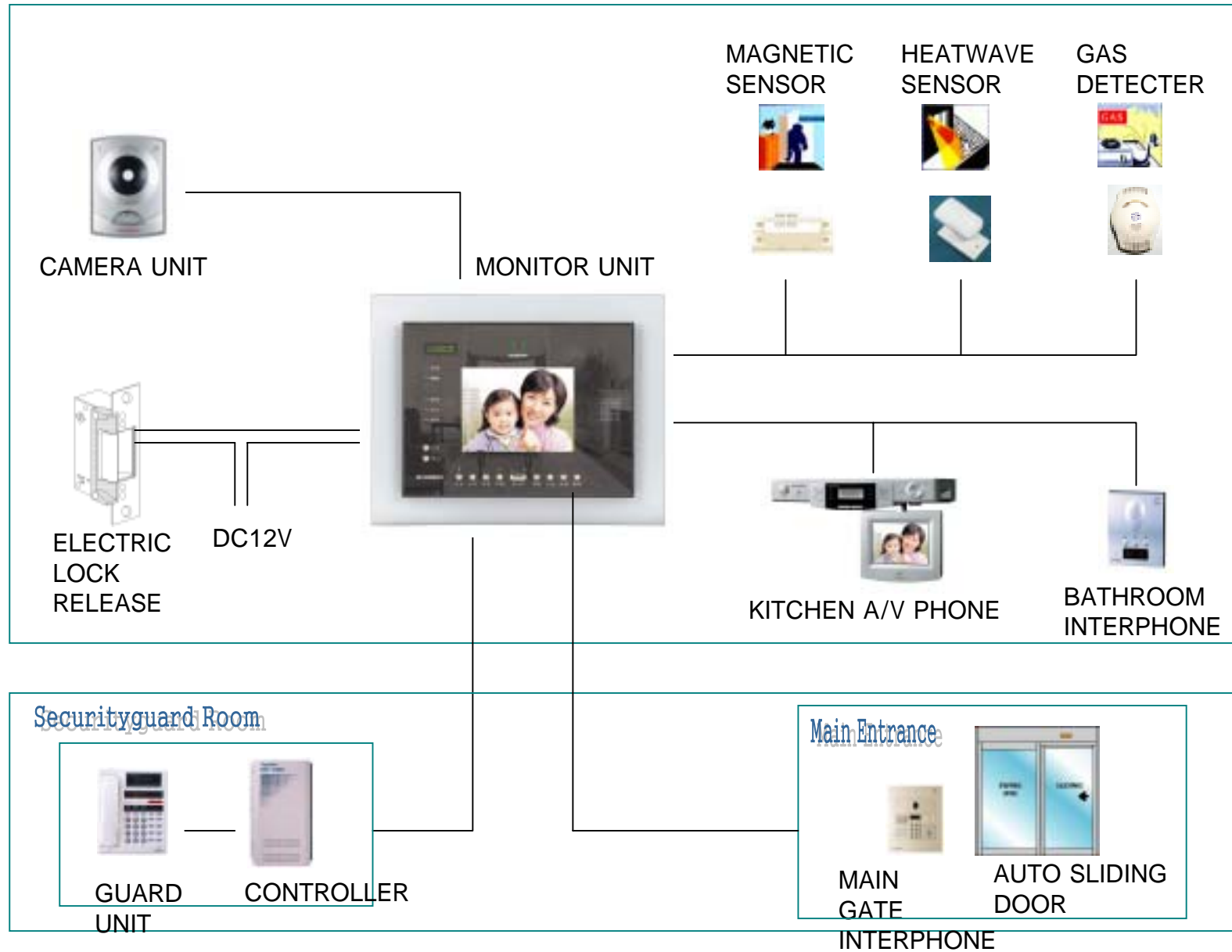
## IMPORTANT SAFEGUARD

- Installation of this unit should be done according to instructions of manufacturer and by qualified service personnel
- Use only with a mounting accessory and wire recommended by the manufacturer or sold with the unit.
- Inside the monitor, high voltage is present, do not open case of monitor, as electric shock could result.
- Do not put objects of any kind into this unit. It may cause fire or electric
- Do not spill liquid of any kind on the unit.
- Do not plug or unplug with wet hands. Electric shock could result.
- Do not install this unit in any of following places
  - excessive dust or constant vibration.
  - under direct sunlight or rain
  - humidity/steam (Bathroom, etc) or extreme cold temperature
  - places subject to chemicals, salt or oil

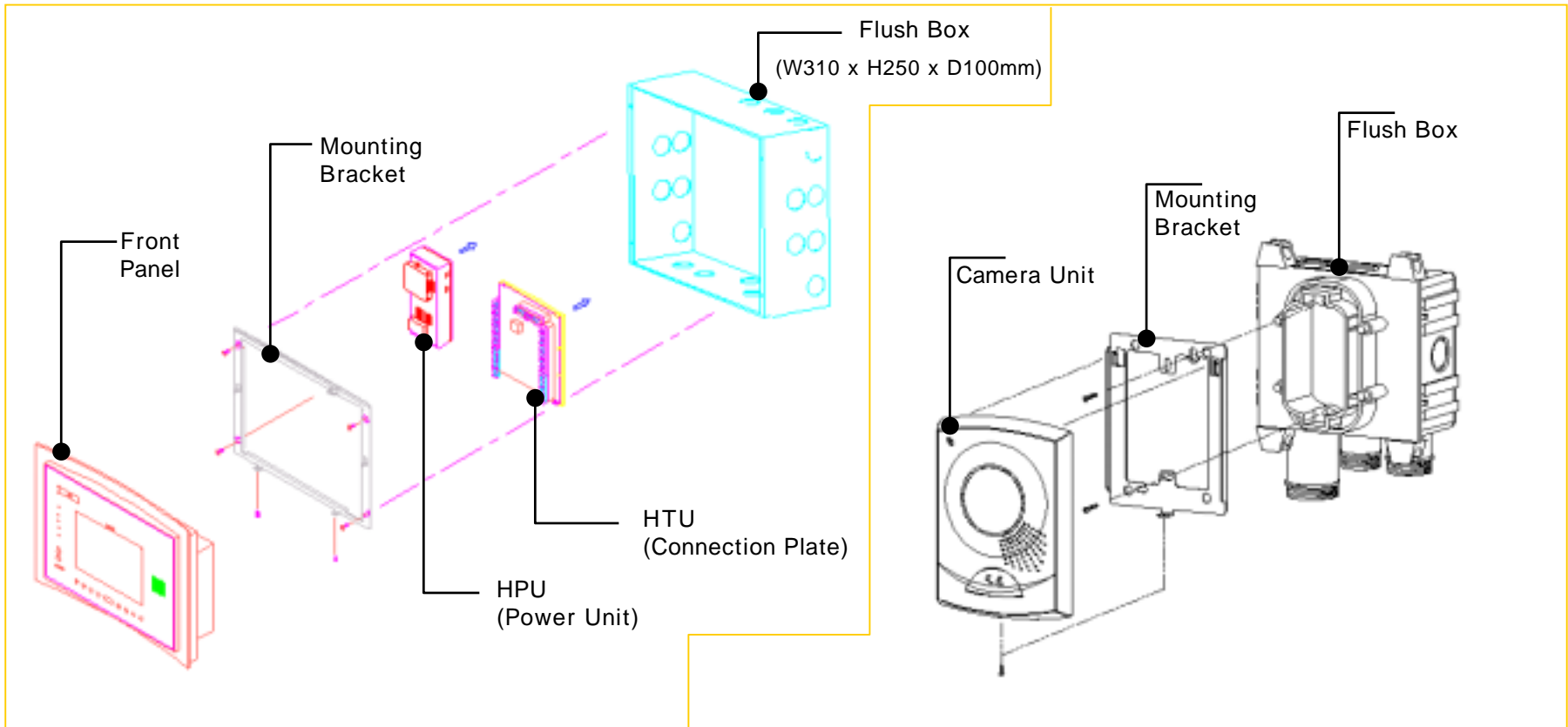
## GENERAL NOTICE

- HAC-161 monitor is designed for indoor use only. Do not install outdoors
- Door camera employs a CCD camera, and its performance may be affected by direct sunlight or gate/porch light
- Due to low temperature, after rain, etc. Inside camera lens may fog up and cause a blurry picture. But it is not malfunction and normal operation will be restored when moisture evaporates
- A white dot or portion steadily lit on the TFT panel may occur, But the TFT Color LCD, manufactured with very high precision, inevitably has very small of portion that are either steadily lit or not lit at all, which is not considered a unit malfunction.

# SYSTEM OVERVIEW



# MOUNTING



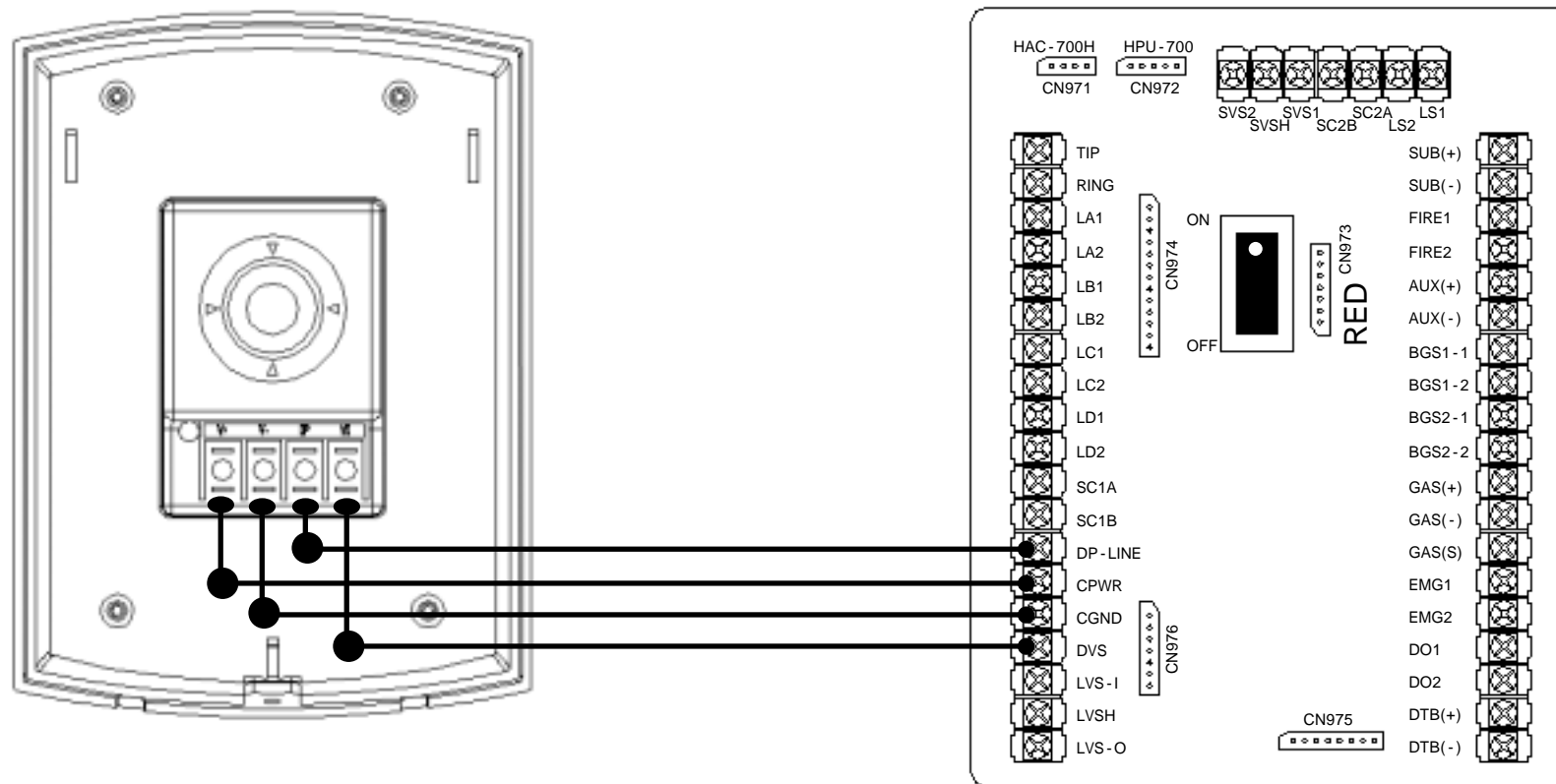
## Monitor Unit

- Mount the flush box to the wall (make sure if the flush box is firmly installed).
- Place the HTU and the HPU inside of the flush box.
- Run wires from the wall and connect them to the HTU.
- Connect the ribbon cables from the front panel to the HTU.
- Tighten the mounting bracket on the flush box with four screws provided.
- Attach the front panel on the mounting bracket with two screws provided.

## Camera Unit

- Mount the flush box to the wall
- Run wires to the inside of mounting bracket and connect them to the back of camera unit.
- Tighten the mounting bracket on the flush box with two screws provided
- Attach the camera unit on the mounting bracket with one screw provided

# WIRING DIAGRAM<sub>(HTU to the Camera Unit)</sub>



CAMERA  
UNIT

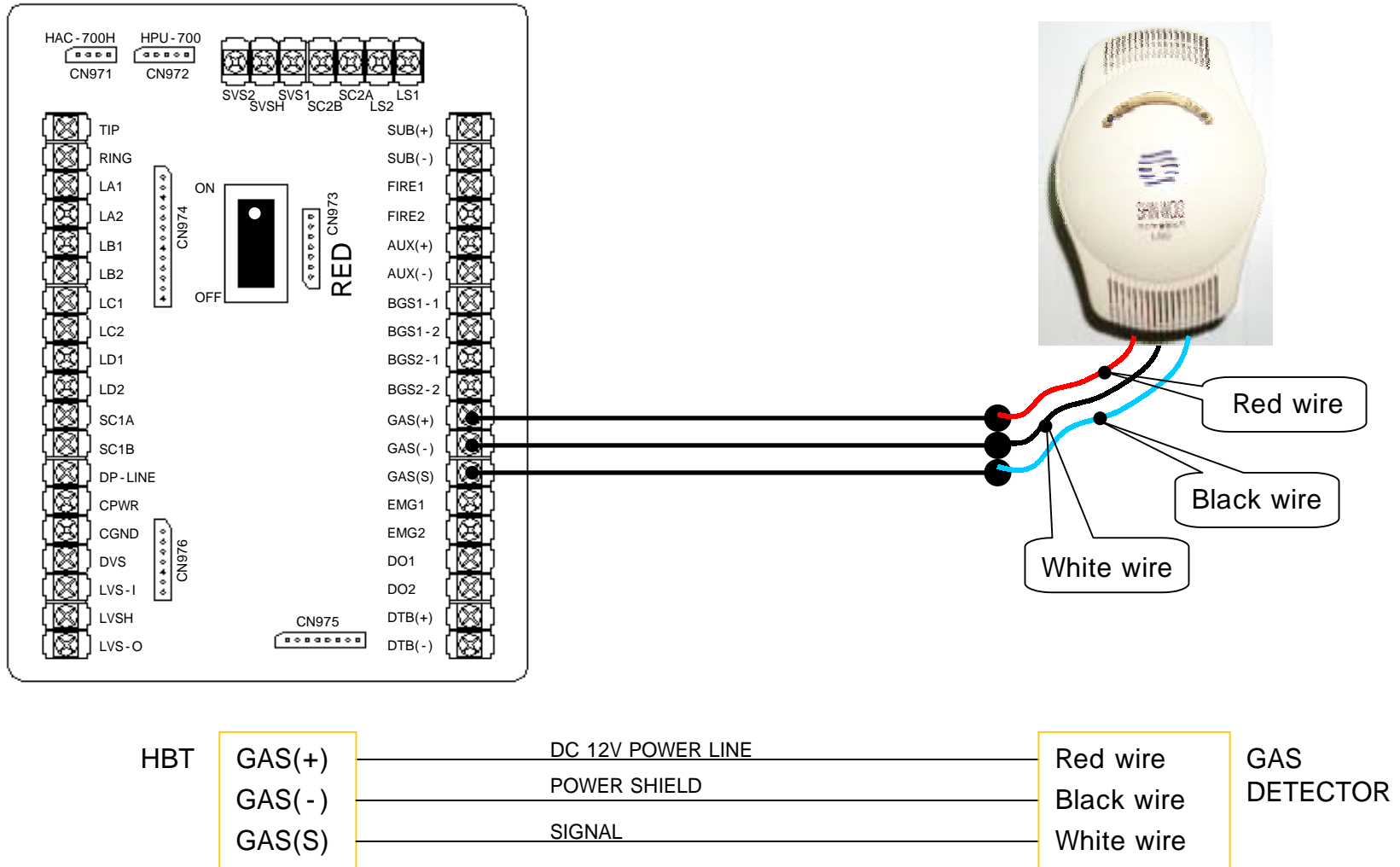
DP - LINE  
CGND  
CPWR  
DVS

VOICE SIGNAL  
POWER & VIDEO SHIELD  
DC 12V POWER LINE  
DOOR VIDEO SIGNAL

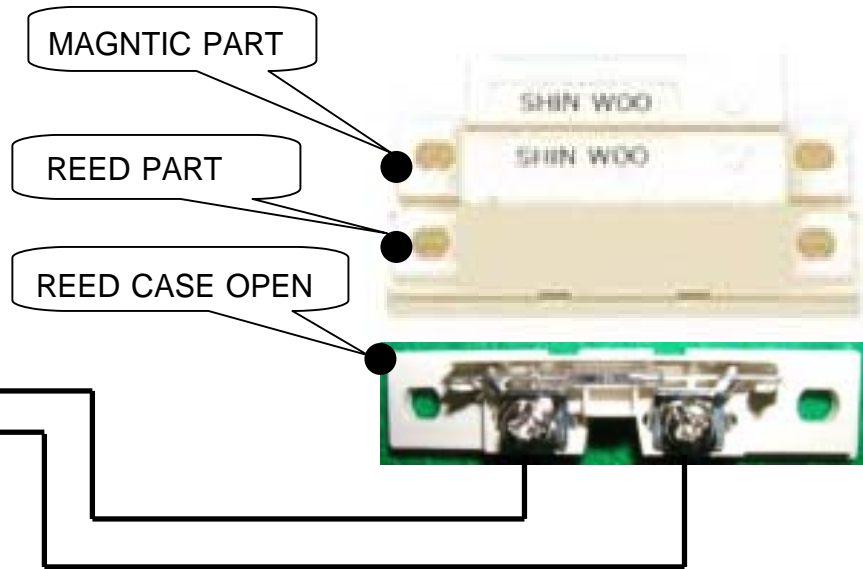
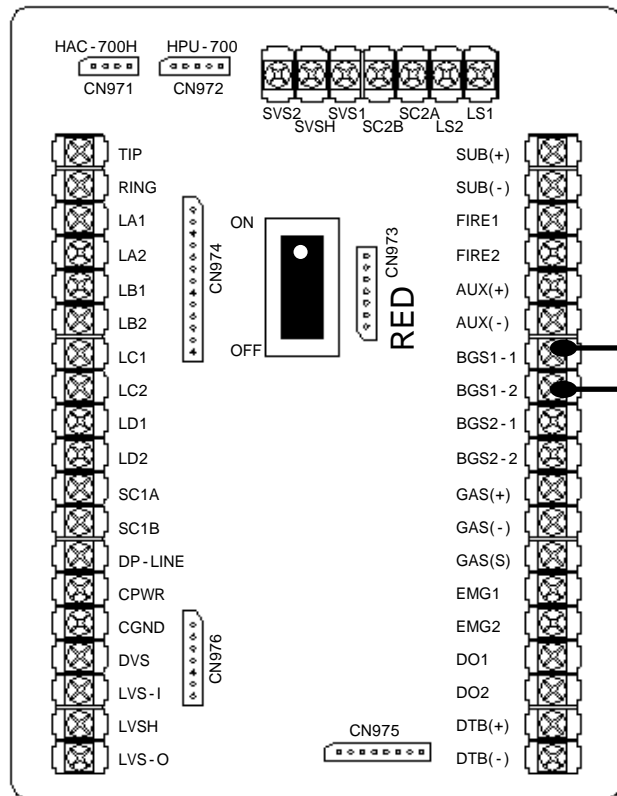
DP  
V -  
V +  
VO

HBT

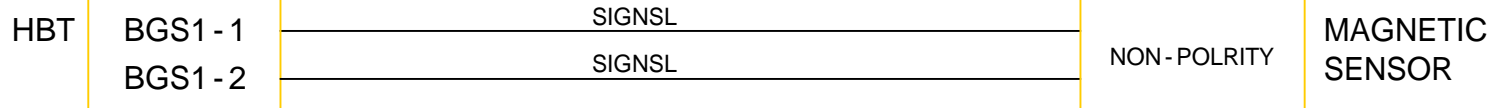
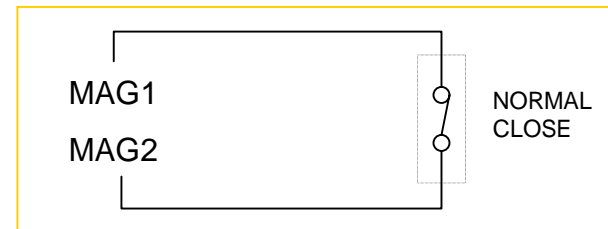
## WIRING DIAGRAM<sub>(HTU to the Gas Detector)</sub>



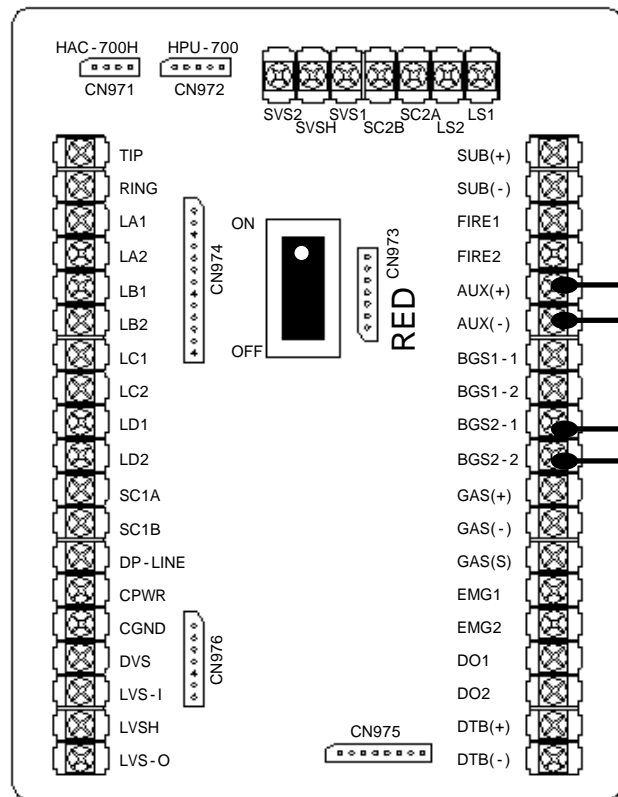
# WIRING DIAGRAM (HTU to the Magnetic Sensor)



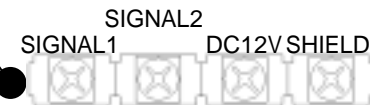
CIRCUIT DIAGRAM



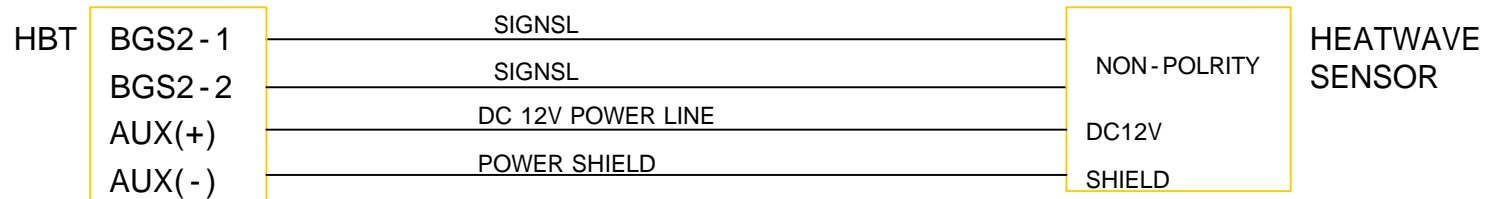
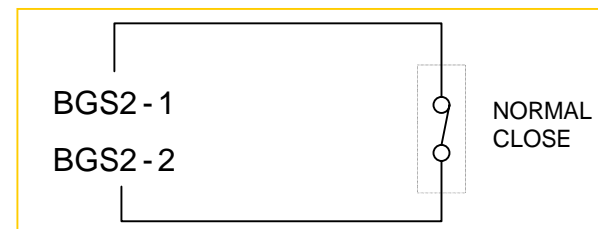
# WIRING DIAGRAM (HTU to the Heatwave Sensor)



REAR VIEW TERMINAL

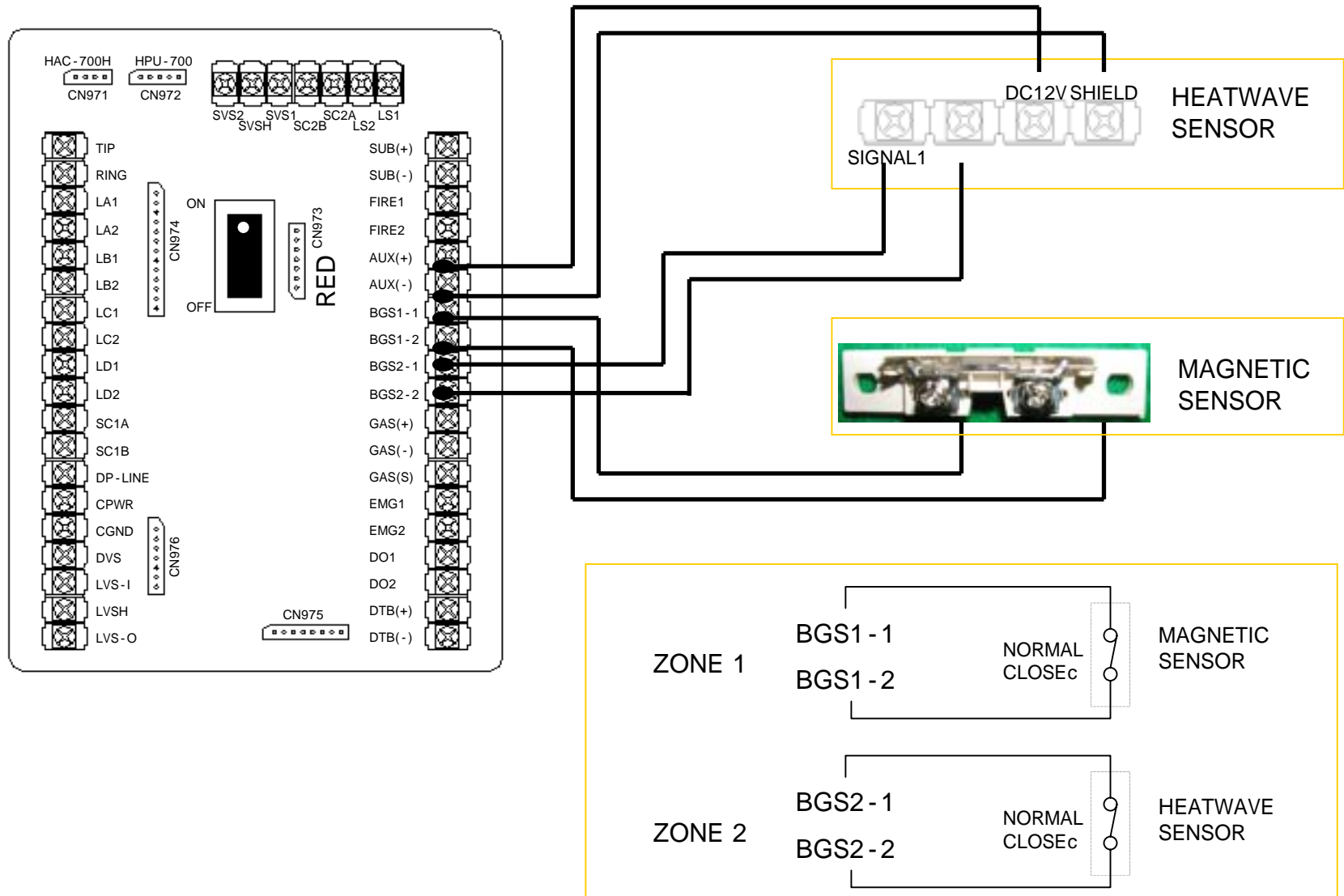


SIGNAL CIRCUIT DIAGRAM

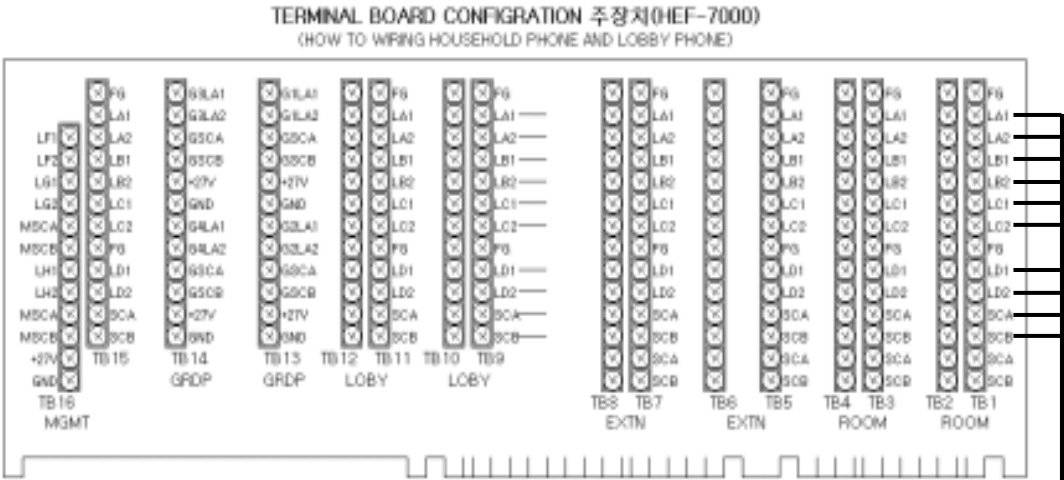
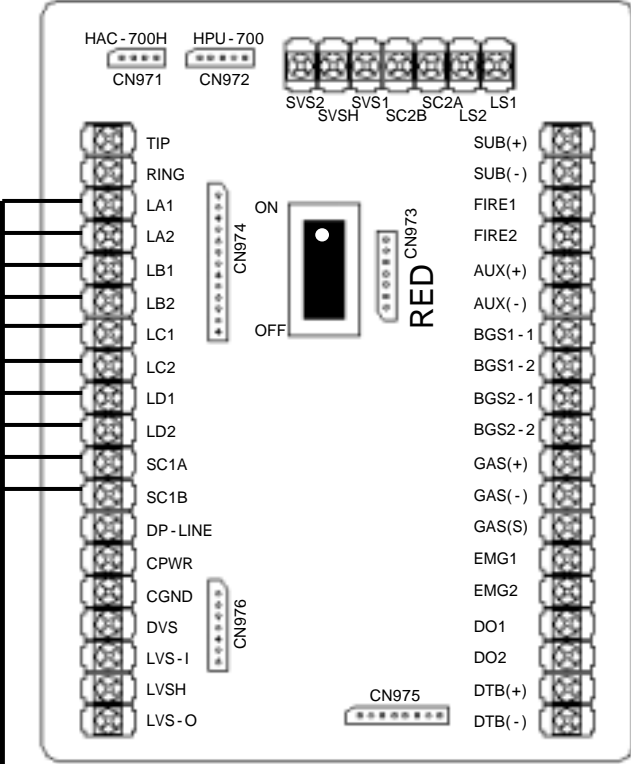




# WIRING DIAGRAM<sub>(HTU to the Magnetic & Heatwave Sensor)</sub>



# WIRING DIAGRAM(HTU to the Controller)



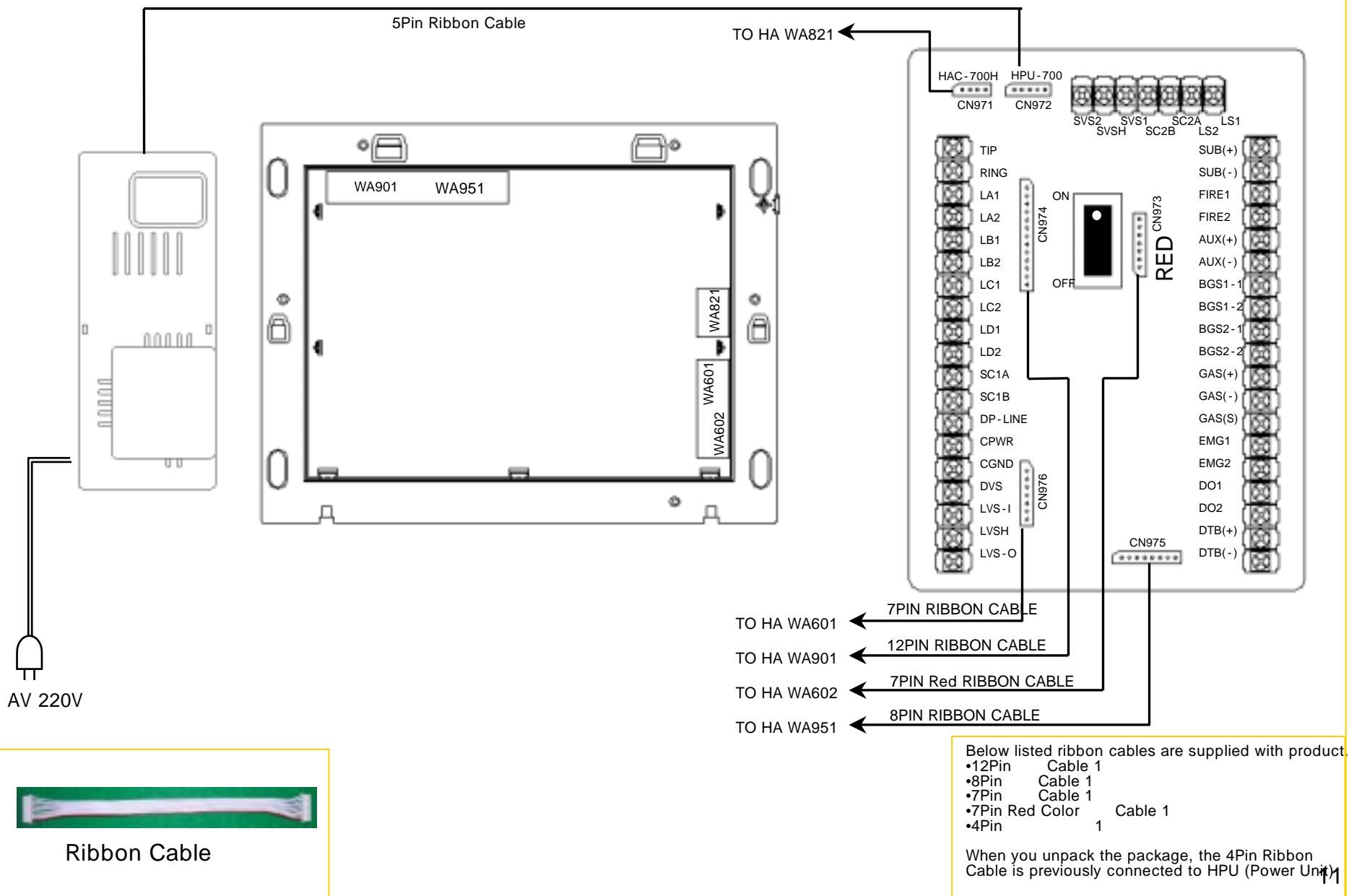
HBT

LA1  
LA2  
LB1  
LB2  
LC1  
LC2  
LD1  
LD2  
SCA(+)  
SCB(-)

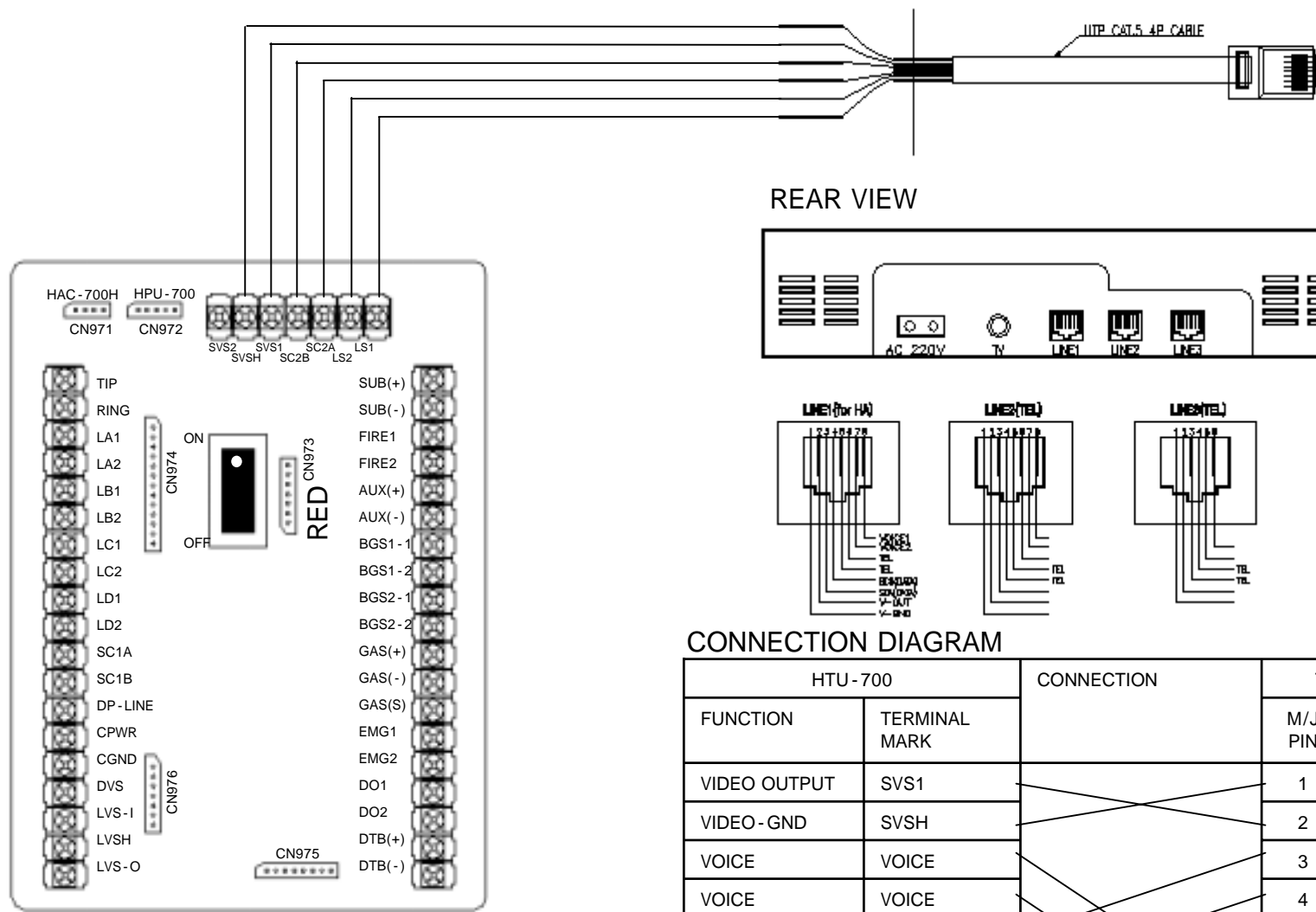
VOICE CHANNEL 1  
VOICE CHANNEL 1  
VOICE CHANNEL 2  
VOICE CHANNEL 2  
VOICE CHANNEL 3  
VOICE CHANNEL 3  
VOICE CHANNEL 4  
VOICE CHANNEL 4  
DATA A  
DATA B

LA1 NON-POLRITY  
LA2 NON-POLRITY  
LB1 NON-POLRITY  
LB2 NON-POLRITY  
LC1 NON-POLRITY  
LC2 NON-POLRITY  
LD1 NON-POLRITY  
LD2 NON-POLRITY  
SCA(+) POSITIVE  
SCB(-) NEGATIVE

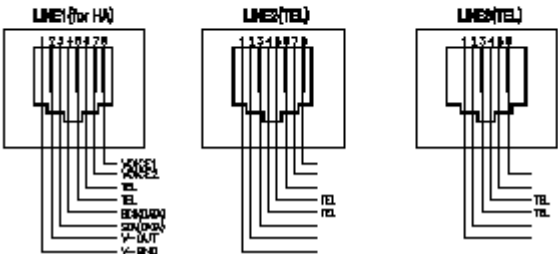
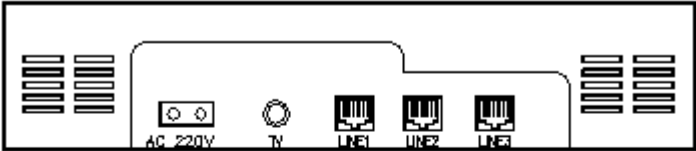
# WIRING DIAGRAM<sub>(HTU to the Ribbon Cables)</sub>



# WIRING DIAGRAM(HTU to the Kitchen A/V Phone)



REAR VIEW



CONNECTION DIAGRAM

HTU - 700		CONNECTION	TV 8PIN M/J(RJ45)	
FUNCTION	TERMINAL MARK		M/J PIN	FUNCTION
VIDEO OUTPUT	SVS1		1	VIDEO - GND
VIDEO - GND	SVSH		2	INPUT VIDEO SIGNAL
VOICE	VOICE		3	DATA(+)
VOICE	VOICE		4	DATA(-)
DATA(+)	SC2A		5	TEL(TIP)
DATA(-)	SC2B		6	TEL(RING)
			7	VOICE
			8	VOICE

HTU - 700

# INSTALLATION MANUAL

**Model No. HAC-161H**



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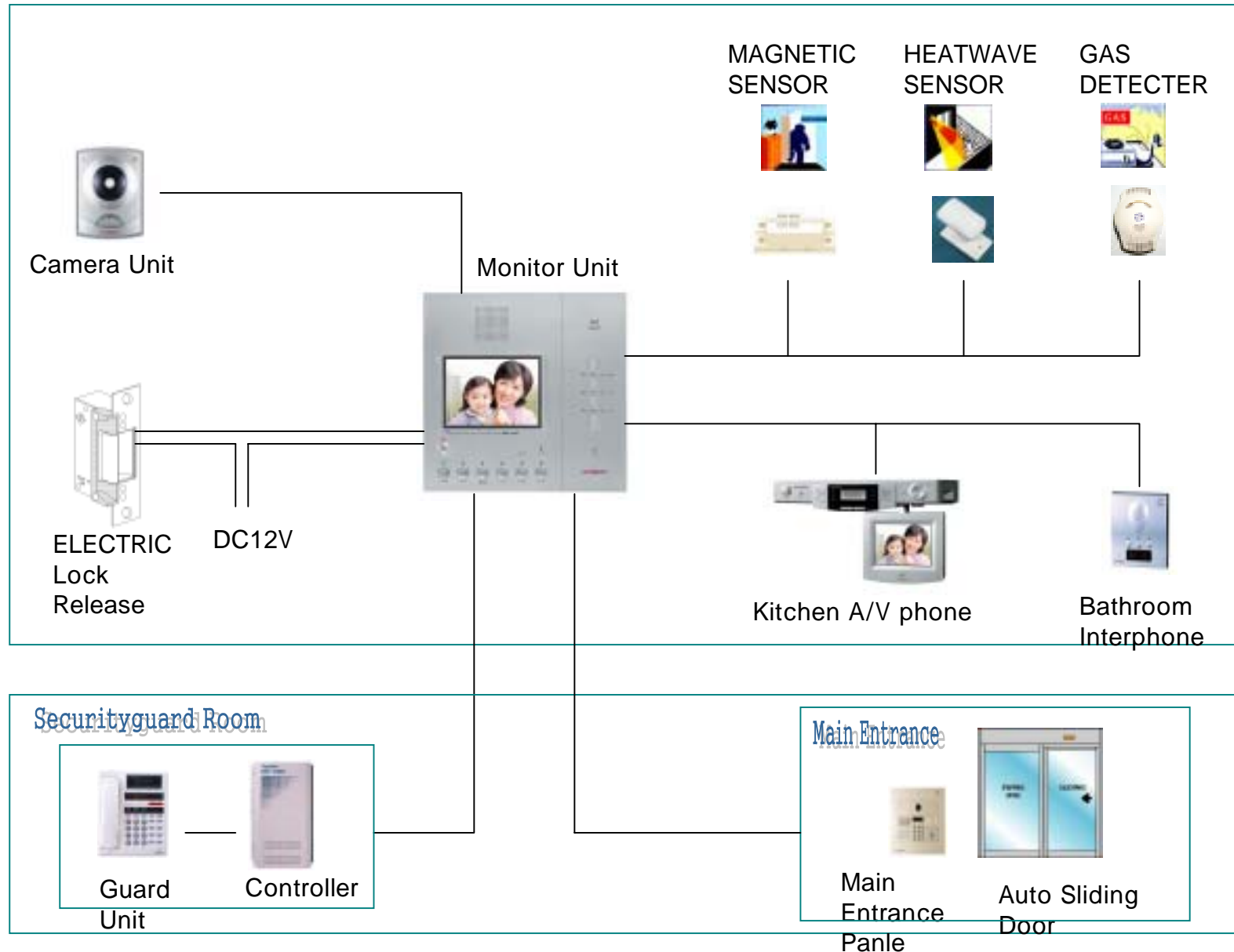
## IMPORTANT SAFEGUARD

- Installation of this unit should be done according to instructions of manufacturer and by qualified service personnel
- Use only with a mounting accessory and wire recommended by the manufacturer or sold with the unit.
- Inside the monitor, high voltage is present, do not open case of monitor, as electric shock could result.
- Do not put objects of any kind into this unit. It may cause fire or electric
- Do not spill liquid of any kind on the unit.
- Do not plug or unplug with wet hands. Electric shock could result.
- Do not install this unit in any of following places
  - excessive dust or constant vibration.
  - under direct sunlight or rain
  - humidity/steam (Bathroom, etc) or extreme cold temperature
  - places subject to chemicals, salt or oil

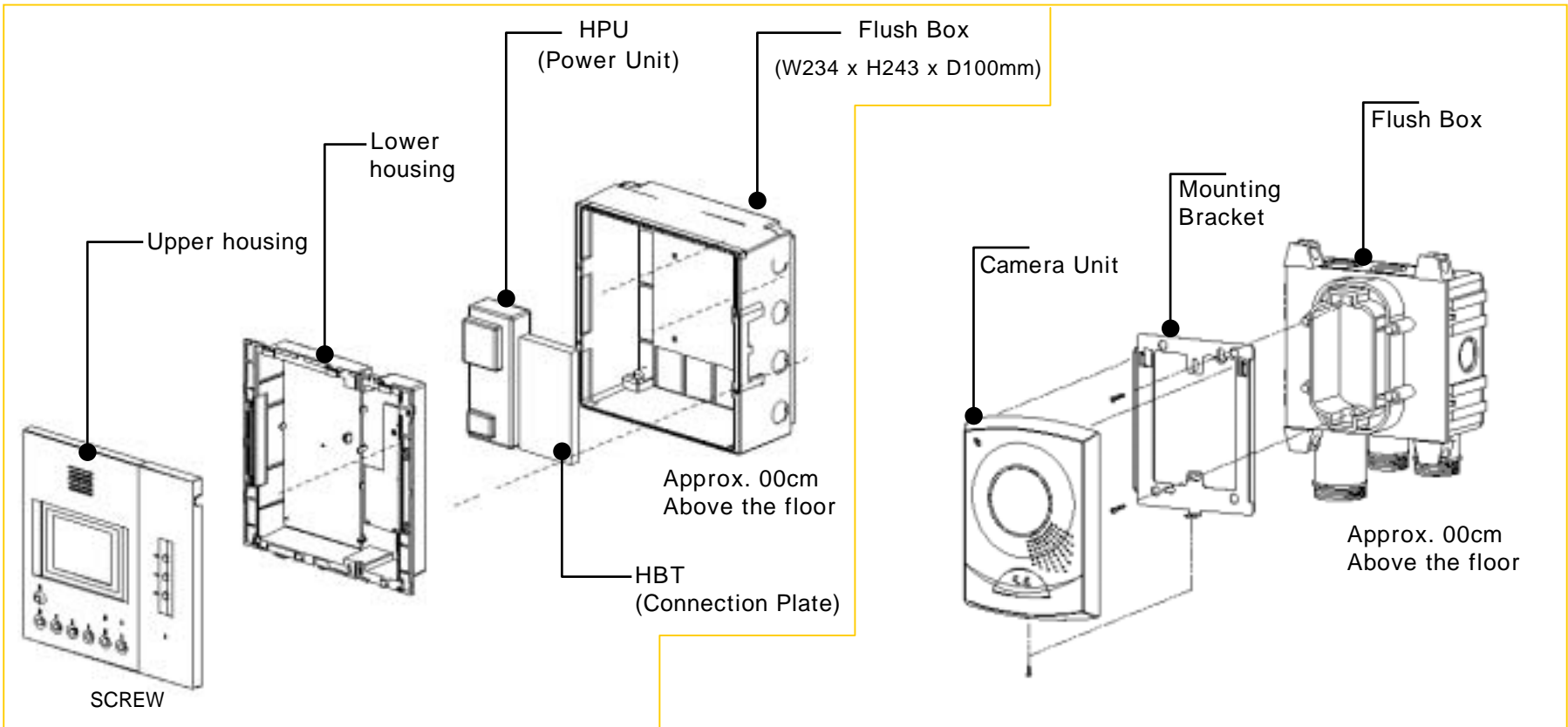
## GENERAL NOTICE

- HAC-161 monitor is designed for indoor use only. Do not install outdoors
- Door camera employs a CCD camera, and its performance may be affected by direct sunlight or gate/porch light
- Due to low temperature, after rain, etc. Inside camera lens may fog up and cause a blurry picture. But it is not malfunction and normal operation will be restored when moisture evaporates
- A white dot or portion steadily lit on the TFT panel may occur, But the TFT Color LCD, manufactured with very high precision, inevitably has very small of portion that are either steadily lit or not lit at all, which is not considered a unit malfunction.

# SYSTEM OVERVIEW



# MOUNTING



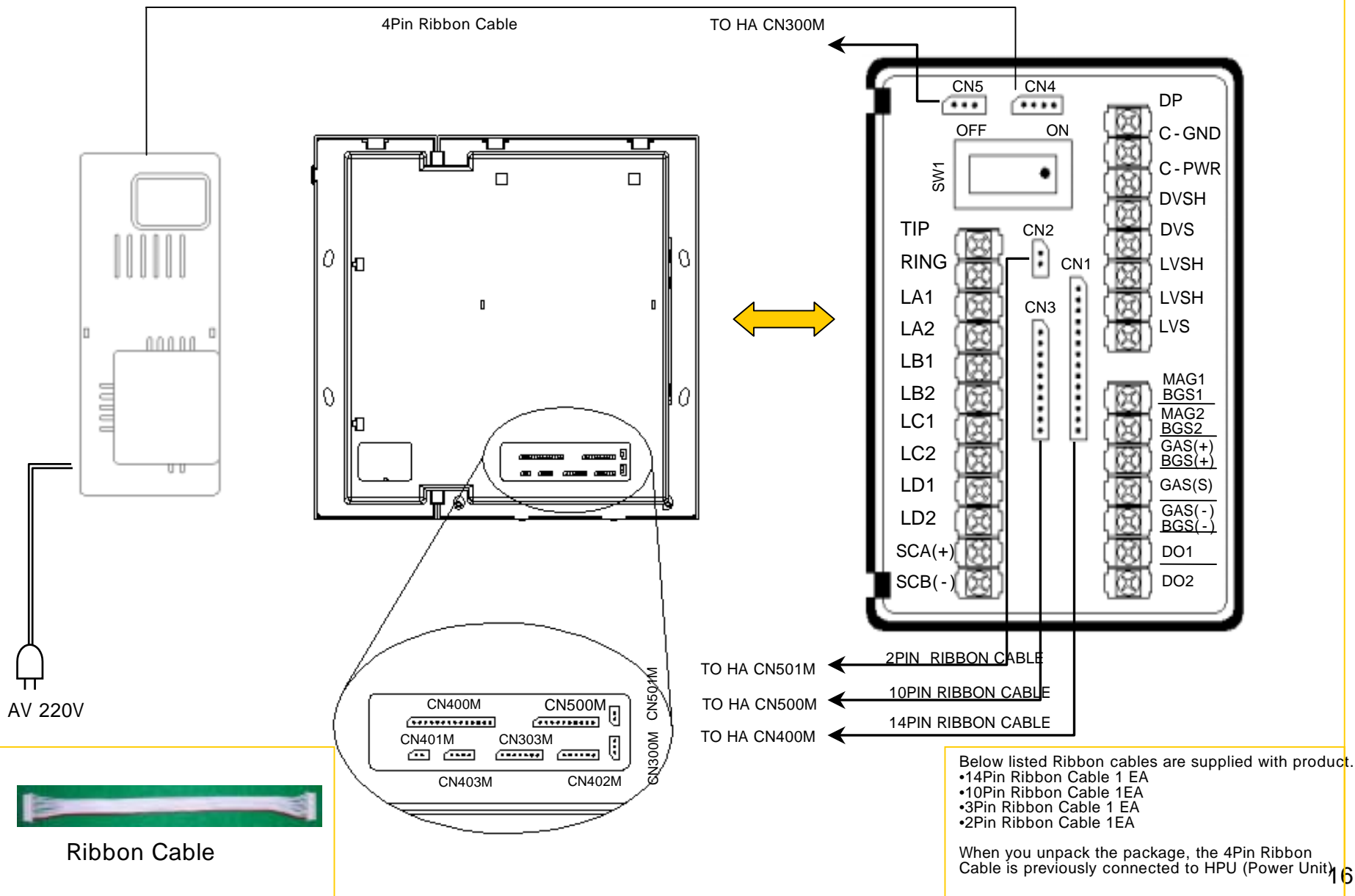
## MONITOR UNIT

- Mount the flush box to the wall (make sure if the flush box is firmly mounted).
- Place the HBT and the HPU inside of flush box.
- Run wires from the wall and connect them to the HBT.
- Connect the ribbon cables from lower housing to HBT
- Mount the lower housing on the flush box with four screws provided.
- Attach the upper housing on the lower housing with two screws provided.

## Camera Unit

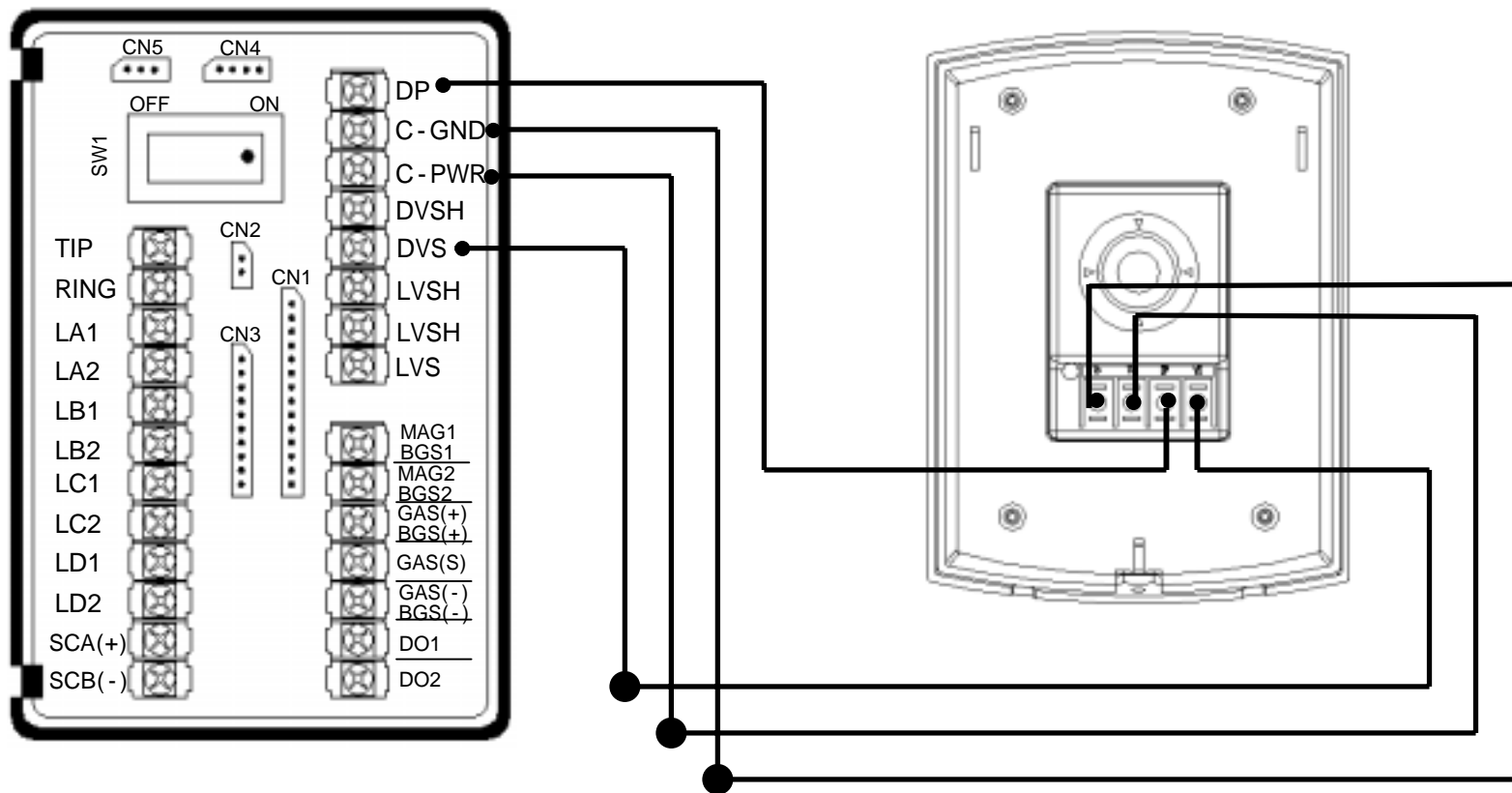
- Mount the flush box to the wall
- Run wires to the inside of mounting bracket and connect them to the back of camera unit.
- Tighten the mounting bracket on the flush box with two screws provided
- Attach the camera unit on the mounting bracket with one screw provided

# WIRING DIAGRAM(HBT to the Ribbon Cables)





# WIRING DIAGRAM(HBT to the Camera Unit)



HBT

DP  
C - GND  
C - PWR  
DVS

VOICE SIGNAL

POWER & VIDEO SHIELD

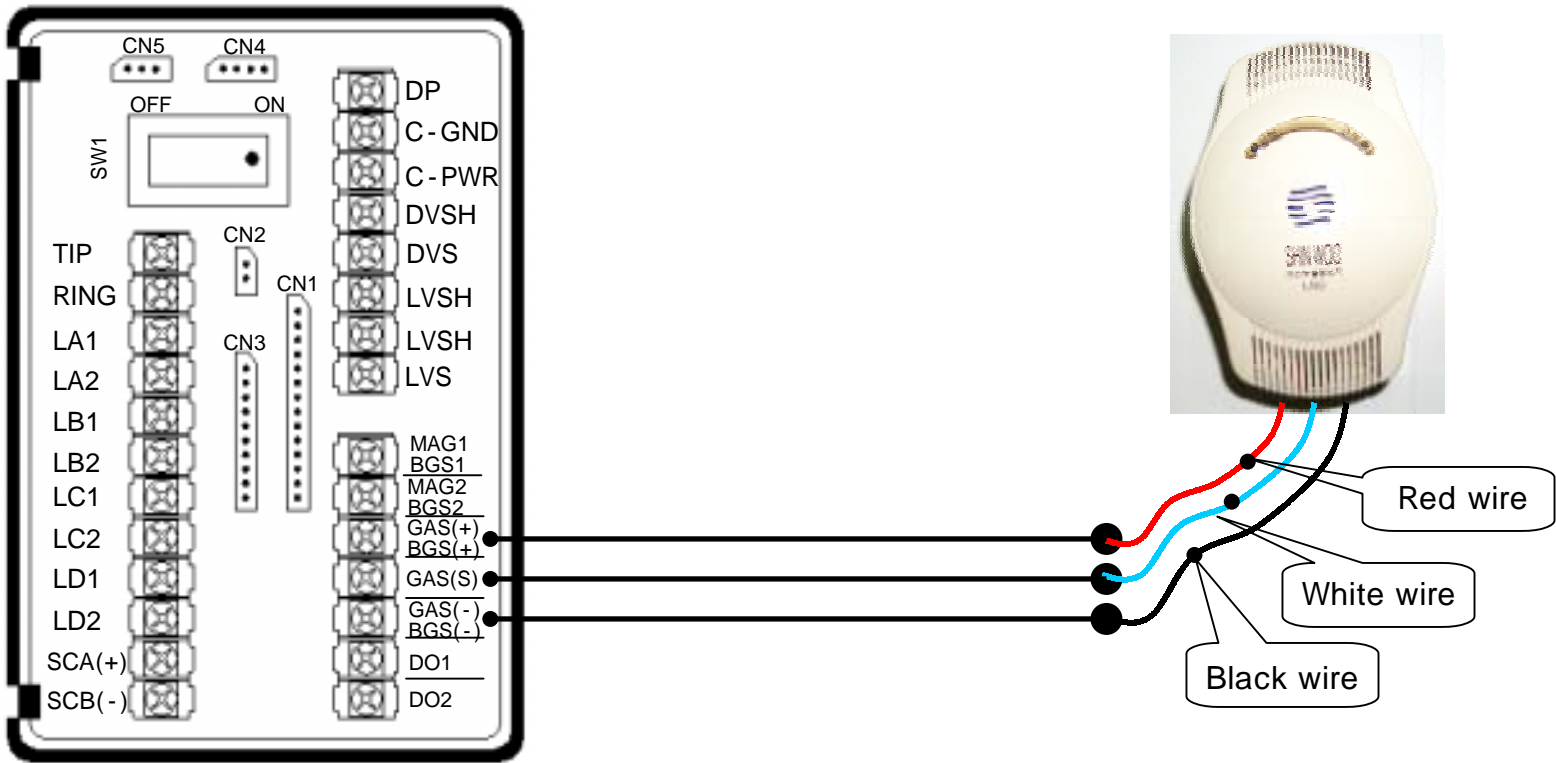
DC 12V POWER LINE

DOOR VIDEO SIGNAL

DP1  
V-  
V+  
VO

CAMERA  
UNIT

# WIRING DIAGRAM(HBT to the GAS Detector)



HBT

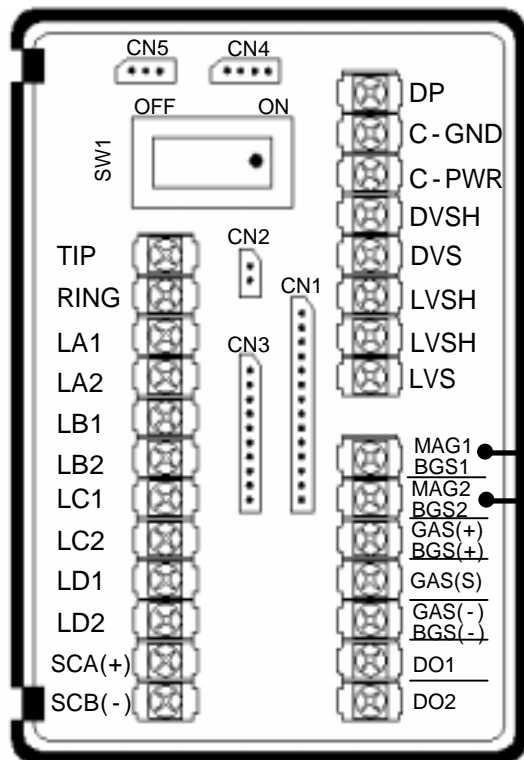
GAS(+)  
GAS(-)  
GAS(S)

DC 12V POWER LINE  
POWER SHIELD  
SIGNAL

Red wire  
Black wire  
White wire

GAS  
DETECTOR

# WIRING DIAGRAM(HBT to the Magnetic Sensor)



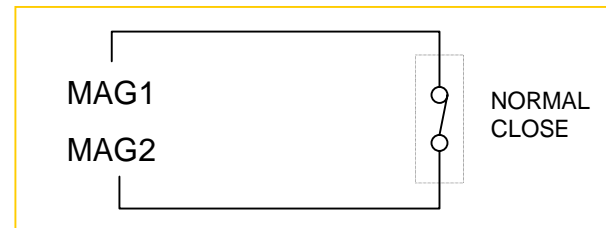
MAGNETIC PART

REED PART

REED CASE OPEN



CIRCUIT DIAGRAM



HBT

MAG1  
MAG2

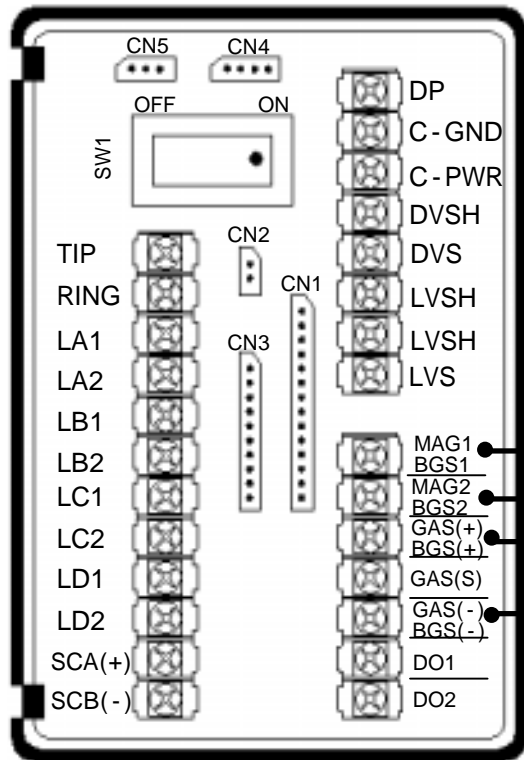
SIGNSL

SIGNSL

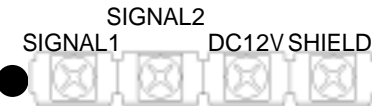
NON - POLRITY

MAGNETIC  
SENSOR

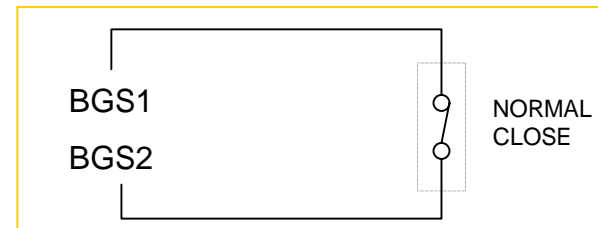
# WIRING DIAGRAM(HBT to the Heatwave Sensor)



REAR VIEW TERMINAL



SIGNAL CIRCUIT DIAGRAM



HBT

BGS1  
BGS2  
BGS(+)  
BGS(-)

SIGNSL

SIGNSL

DC 12V POWER LINE

POWER SHIELD

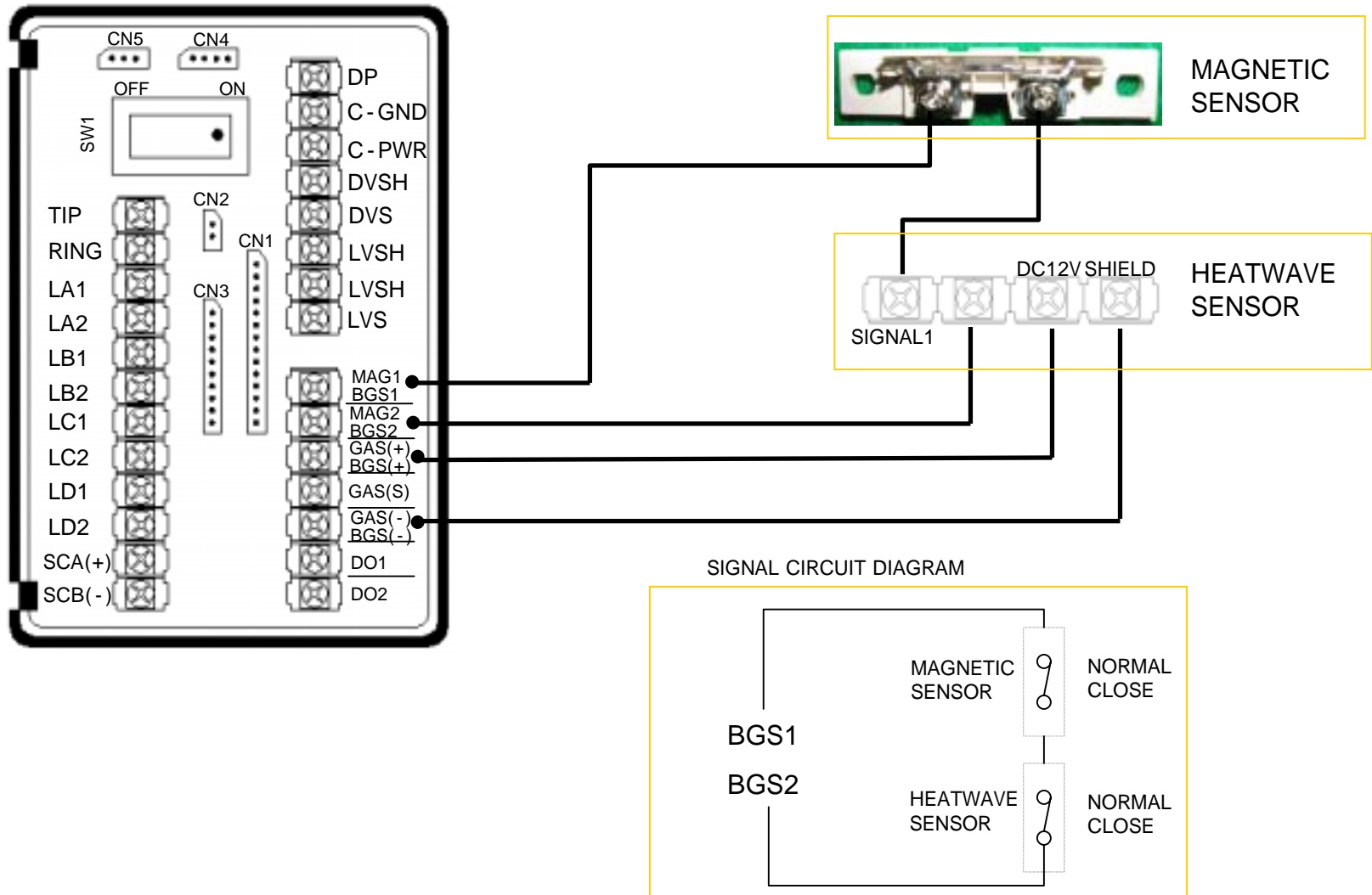
NON - POLRITY

DC12V

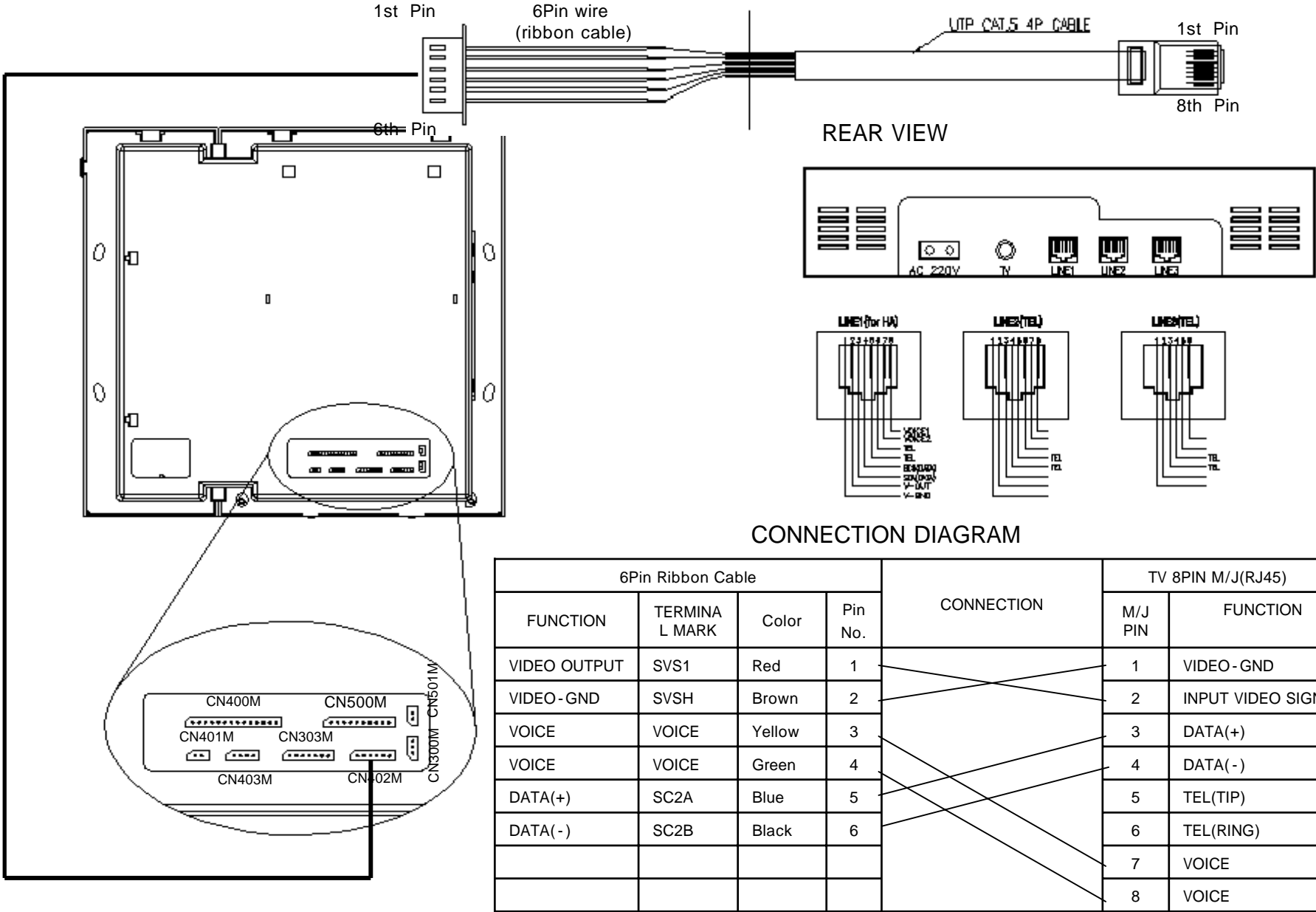
SHIELD

HEATWAVE  
SENSOR

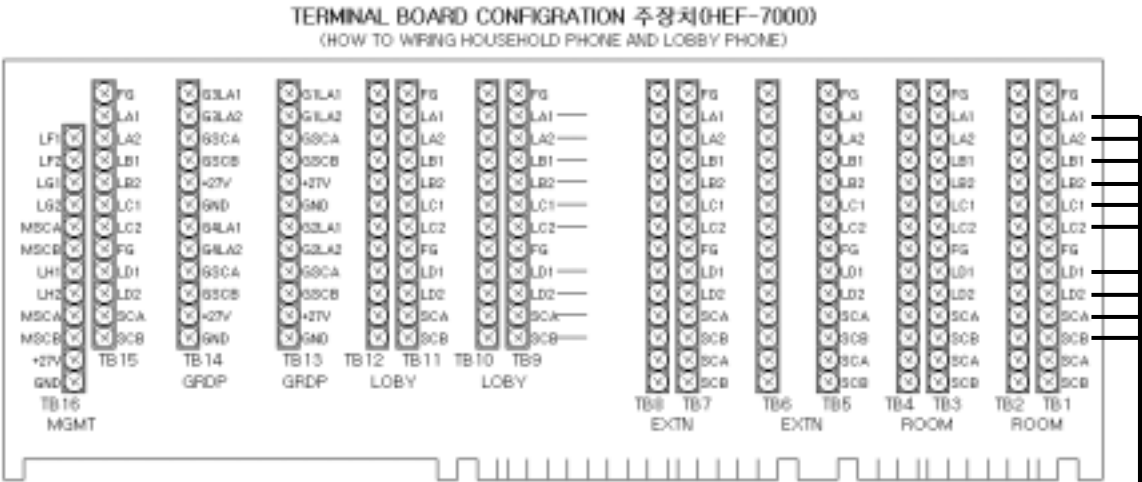
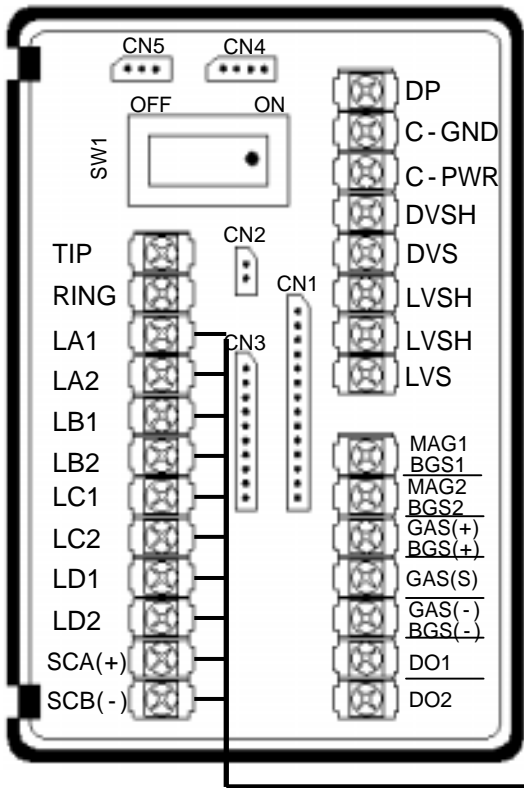
# WIRING DIAGRAM(HBT to the Magnetic & Heatwave Sensor)



# WIRING DIAGRAM(Monitor to the Kitchen A/V Phone)



# WIRING DIAGRAM(HBT to the Controller)



HBT	LA1	VOICE CHANNEL 1	LA1	NON-POLRITY
	LA2	VOICE CHANNEL 1	LA2	NON-POLRITY
	LB1	VOICE CHANNEL 2	LB1	NON-POLRITY
	LB2	VOICE CHANNEL 2	LB2	NON-POLRITY
	LC1	VOICE CHANNEL 3	LC1	NON-POLRITY
	LC2	VOICE CHANNEL 3	LC2	NON-POLRITY
	LD1	VOICE CHANNEL 4	LD1	NON-POLRITY
	LD2	VOICE CHANNEL 4	LD2	NON-POLRITY
	SCA(+)	DATA A	SCA(+)	POSITIVE
	SCB(-)	DATA B	SCB(-)	NEGATIVE

# INSTALLATION MANUAL

**Model No. HAC-500H**



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to the user.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

## IMPORTANT SAFEGUARD

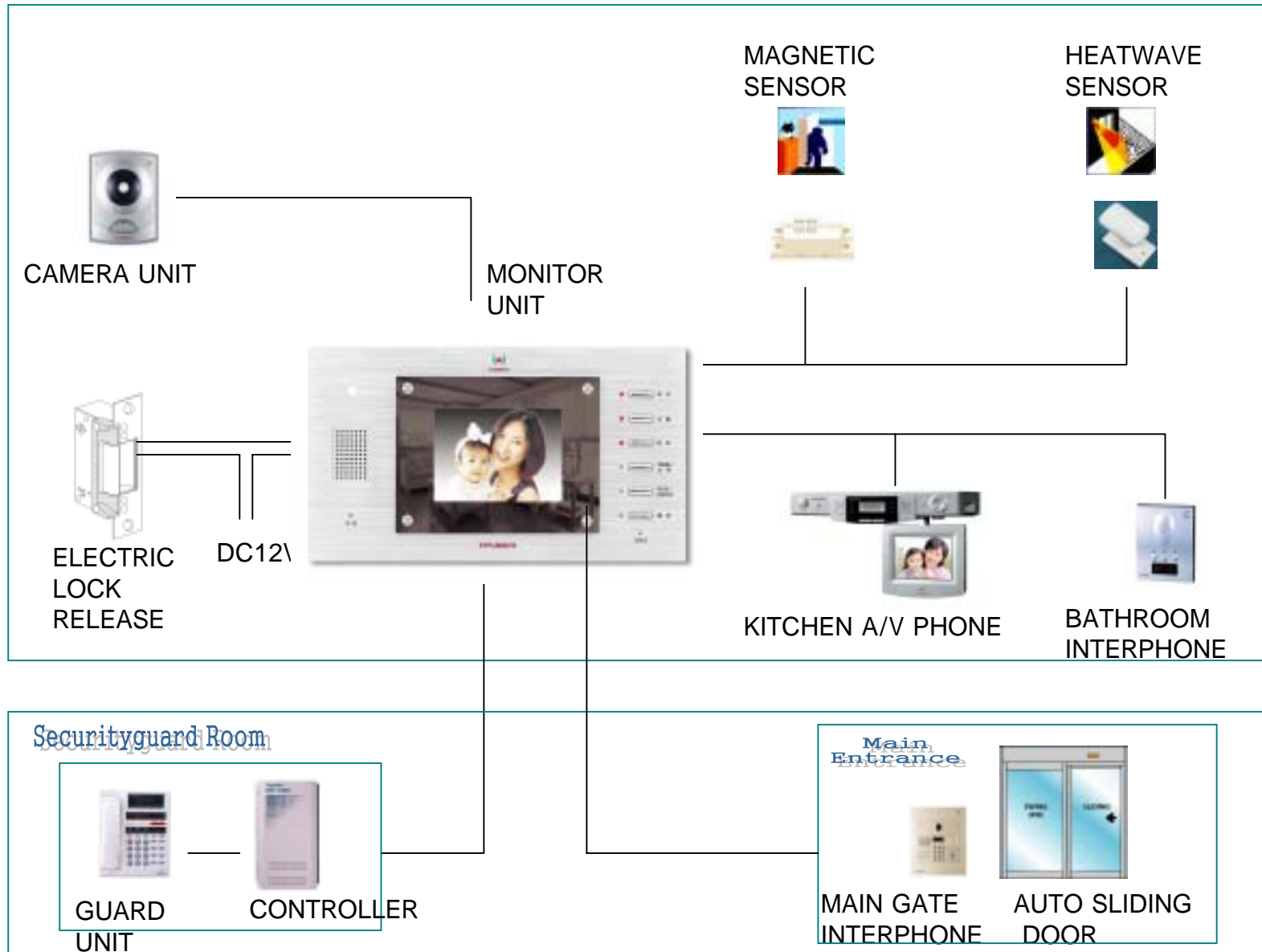
- Installation of this unit should be done according to instructions of manufacturer and by qualified service personnel
- Use only with a mounting accessory and wire recommended by the manufacturer or sold with the unit.
- Inside the monitor, high voltage is present, do not open case of monitor, as electric shock could result.
- Do not put objects of any kind into this unit. It may cause fire or electric
- Do not spill liquid of any kind on the unit.
- Do not plug or unplug with wet hands. Electric shock could result.
- Do not install this unit in any of following places
  - excessive dust or constant vibration.
  - under direct sunlight or rain
  - humidity/steam (Bathroom, etc) or extreme cold temperature
  - places subject to chemicals, salt or oil

## GENERAL NOTICE

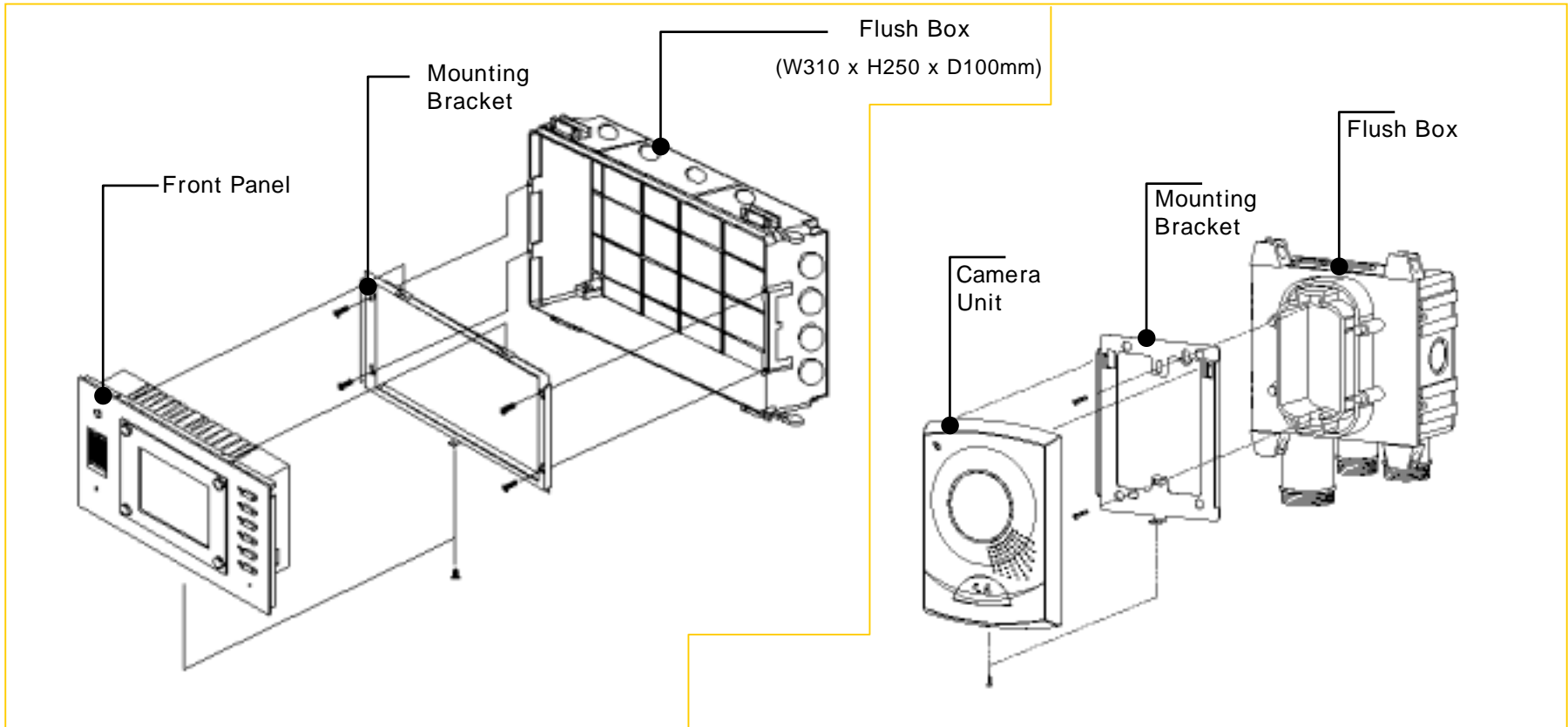
- HAC-161 monitor is designed for indoor use only. Do not install outdoors
- Door camera employs a CCD camera, and its performance may be affected by direct sunlight or gate/porch light
- Due to low temperature, after rain, etc. Inside camera lens may fog up and cause a blurry picture. But it is not malfunction and normal operation will be restored when moisture evaporates
- A white dot or portion steadily lit on the TFT panel may occur, But the TFT Color LCD, manufactured with very high precision, inevitably has very small of portion that are either steadily lit or not lit at all, which is not considered a unit malfunction.



# SYSTEM OVERVIEW



# MOUNTING



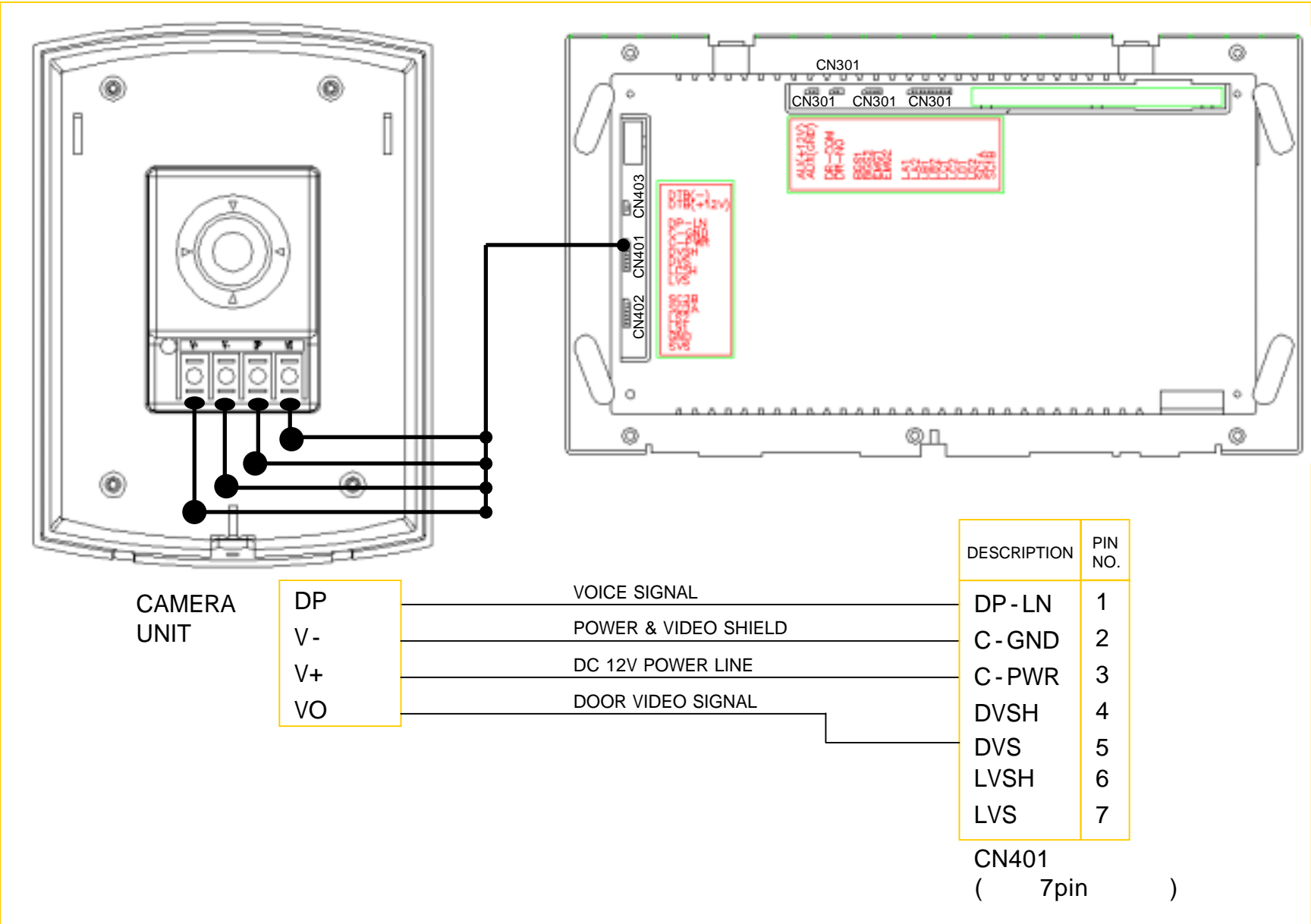
## MONITOR UNIT

- Mount the flush box to the wall (make sure if the flush box is firmly installed).
- Connect the wires from the wall to the back of front panel.
- Tighten the mounting bracket on the flush box with four screws provided.
- Attach the front panel on the mounting bracket with one screw provided.

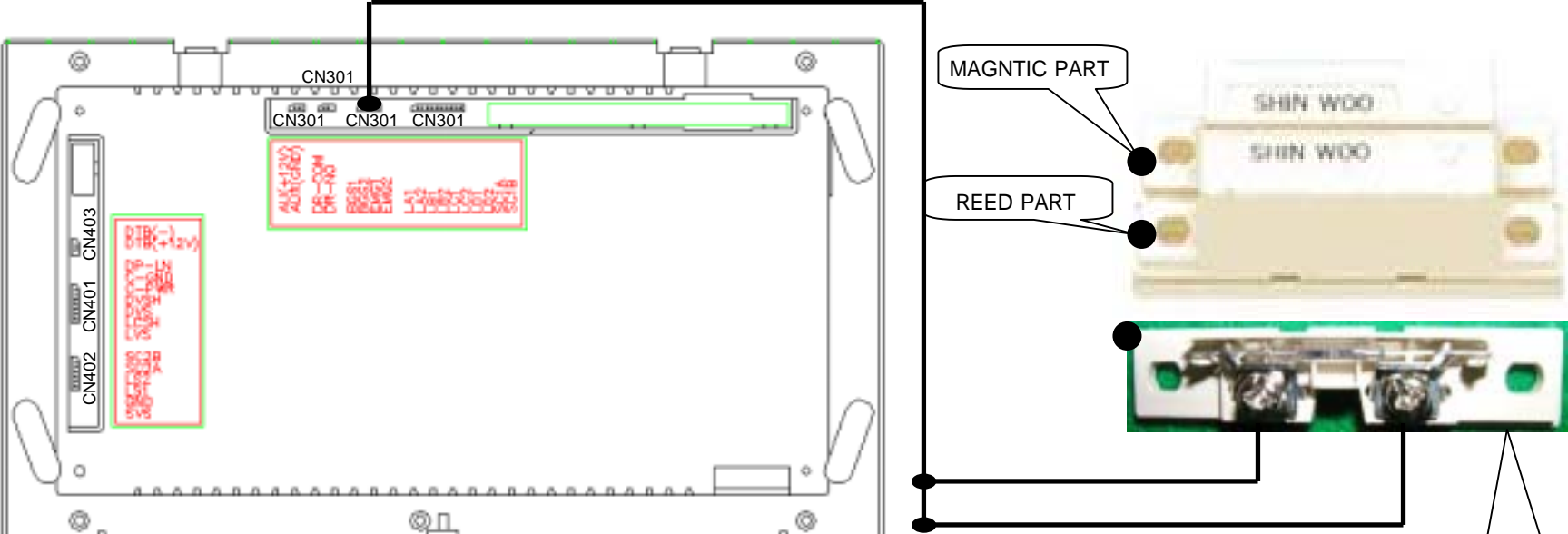
## Camera Unit

- Mount the flush box to the wall
- Run wires to the inside of mounting bracket and connect them to the back of camera unit.
- Tighten the mounting bracket on the flush box with two screws provided
- Attach the camera unit on the mounting bracket with one screw provided

# WIRING DIAGRAM(Monitor to the Camera)



# WIRING DIAGRAM(Monitor to the Magnetic Sensor)

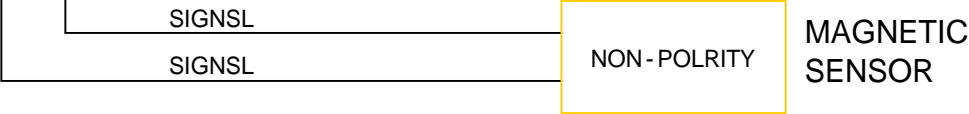


CIRCUIT DIAGRAM

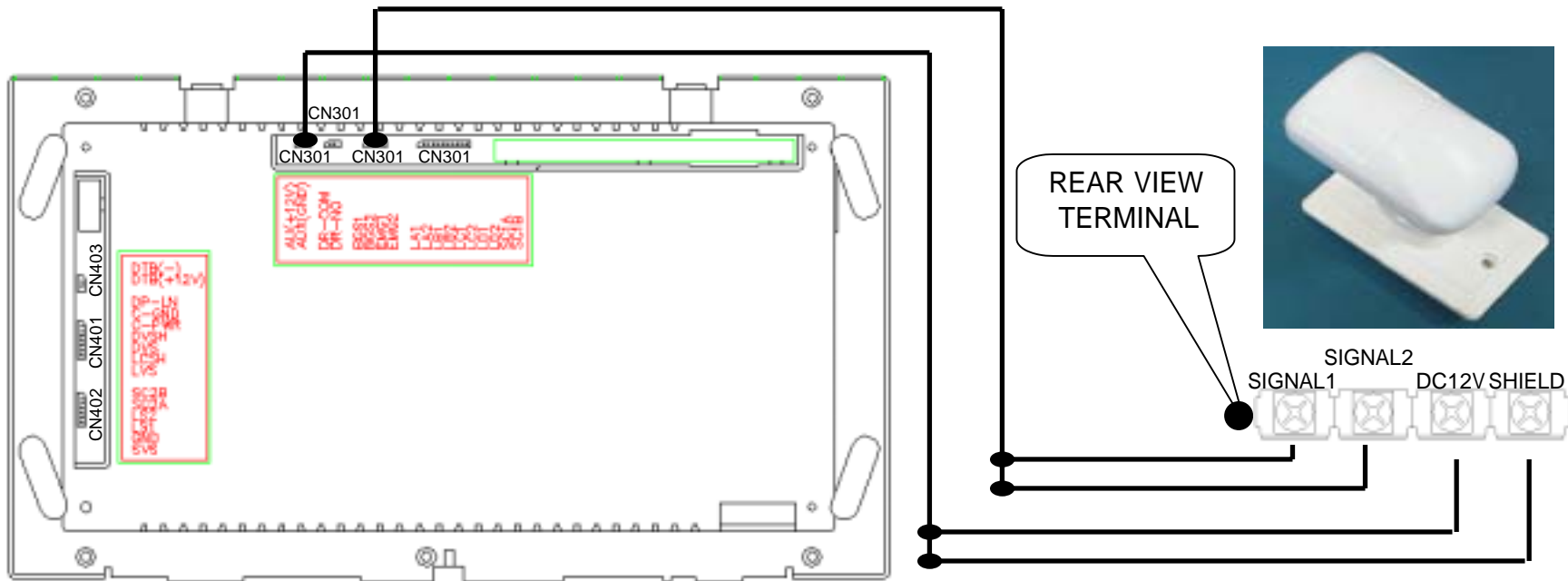


DESCRIPTION	PIN NO.
BGS1	1
BGS2	2
EMG1	3
EMG2	4

CN401  
( 4pin )



# WIRING DIAGRAM(Monitor to the Magnetic Sensor)



CN401

( 2pin )

DESCRIPTION	PIN NO.
AUX(+12V)	1
AUX(GND)	2

CN401

( 4pin )

DESCRIPTION	PIN NO.
BGS1	1
BGS2	2
EMG1	3
EMG2	4

CIRCUIT DIAGRAM



SIGNSL

SIGNSL

NON - POLRITY

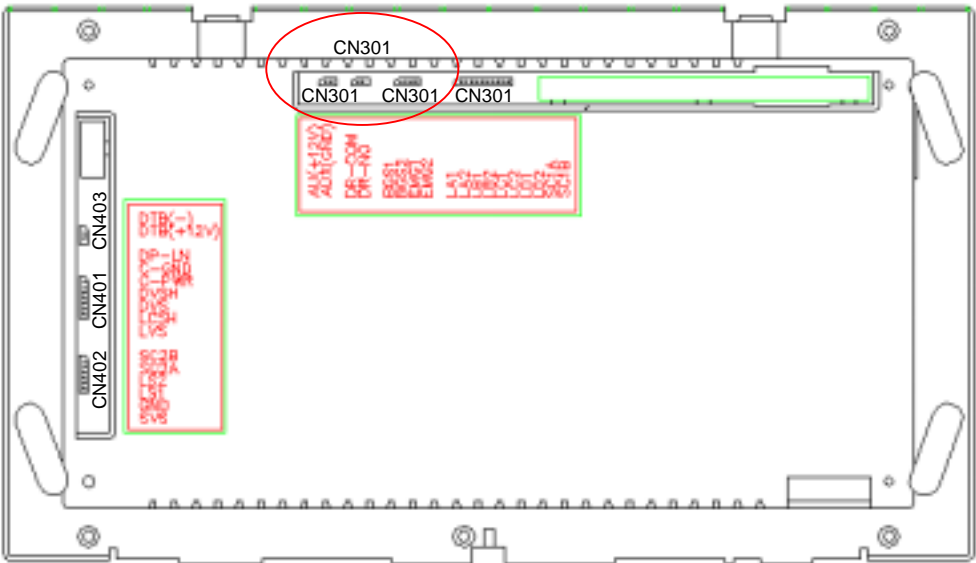
DC12V

SHIELD

HEATWAVE  
SENSOR

# WIRING DIAGRAM(Monitor to the Heatwave & Magnetic Sensors)

## BURGLAR SENSOR (2 )



### CN401 ( 2pin )

DESCRIPTION	PIN NO.
AUX(+12V)	1
AUX(GND)	2

### CN401 ( 4pin )

DESCRIPTION	PIN NO.
BGS1	1
BGS2	2
EMG1	3
EMG2	4

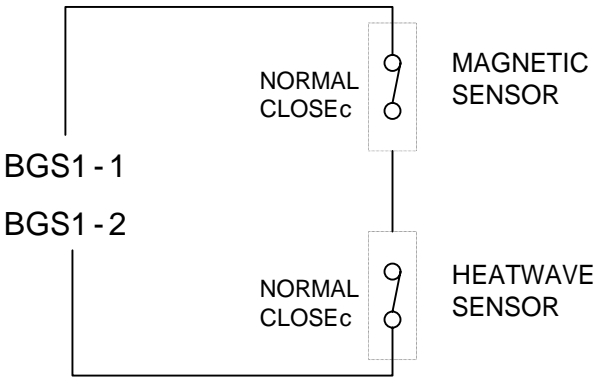


HEATWAVE  
SENSOR



MAGNETIC  
SENSOR

## SIGNAL CIRCUIT DIAGRAM



SIGNSL

SIGNSL

NON - POLRITY

NON - POLRITY

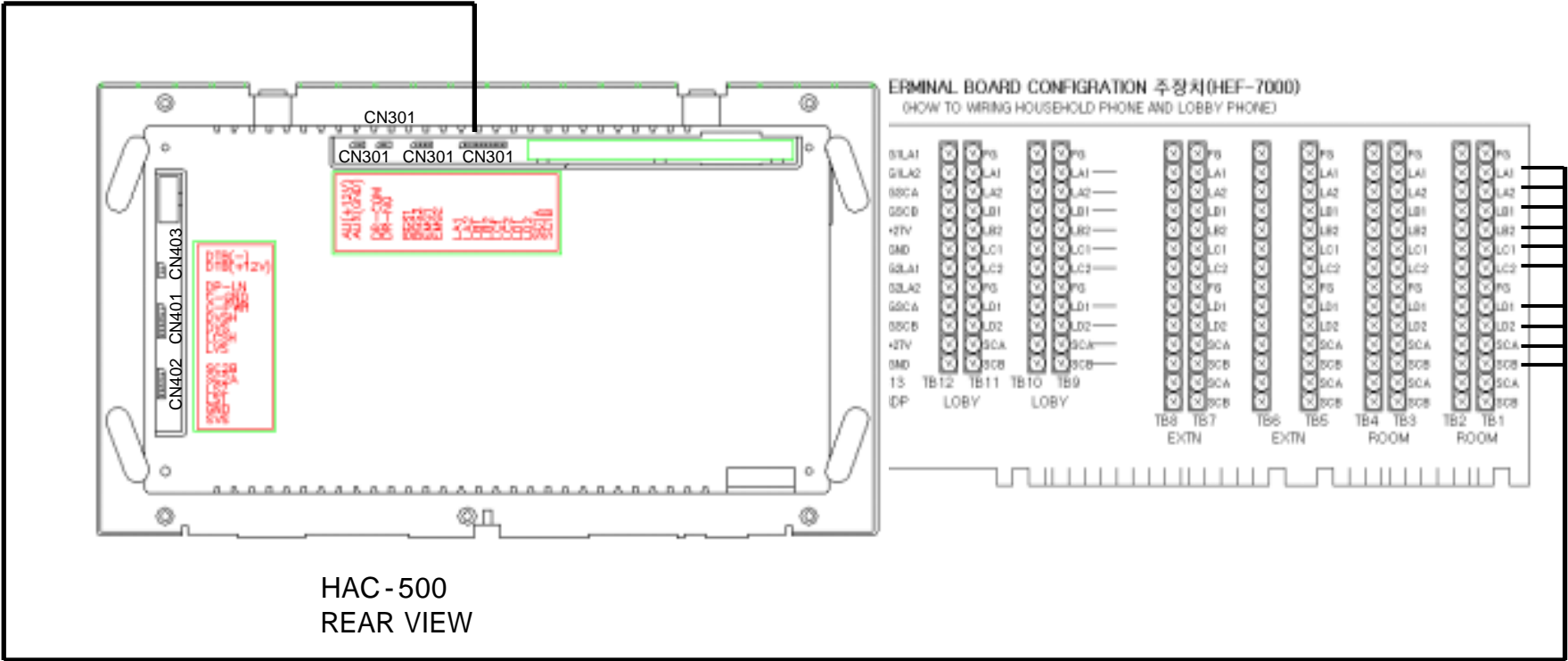
DC12V

SHIELD

MAGNETIC  
SENSOR

HEATWAVE  
SENSOR

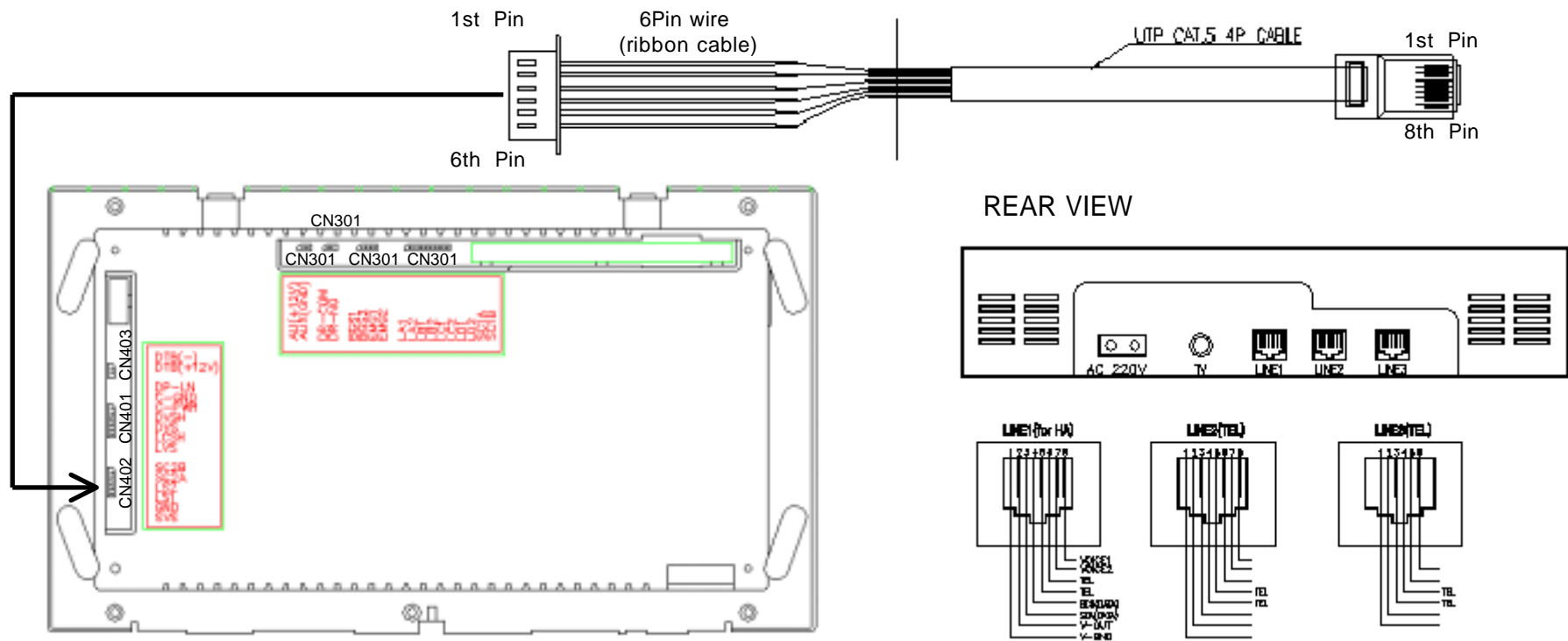
# WIRING DIAGRAM(Monitor to the Controller)



HAC - 500  
REAR VIEW

CN401 ( 10pin )	LA1	VOICE CHANNEL 1	LA1	NON - POLRITY
	LA2	VOICE CHANNEL 1	LA2	NON - POLRITY
	LB1	VOICE CHANNEL 2	LB1	NON - POLRITY
	LB2	VOICE CHANNEL 2	LB2	NON - POLRITY
	LC1	VOICE CHANNEL 3	LC1	NON - POLRITY
	LC2	VOICE CHANNEL 3	LC2	NON - POLRITY
	LD1	VOICE CHANNEL 4	LD1	NON - POLRITY
	LD2	VOICE CHANNEL 4	LD2	NON - POLRITY
	SC1A	DATA A(+)	SCA(+)	POSITIVE
	SC1B	DATA B(-)	SCB(-)	NEGATIVE

# WIRING DIAGRAM(Monitor to the Kitchen A/V Phone)



CONNECTION DIAGRAM

6Pin Ribbon Cable				CONNECTION	TV 8PIN M/J(RJ45)	
FUNCTION	TERMINAL MARK	Color	Pin No.		M/J PIN	FUNCTION
VIDEO OUTPUT	SVS1	Red	1		1	VIDEO - GND
VIDEO - GND	SVSH	Brown	2		2	INPUT VIDEO SIGNAL
VOICE	VOICE	Yellow	3		3	DATA(+)
VOICE	VOICE	Green	4		4	DATA(-)
DATA(+)	SC2A	Blue	5		5	TEL(TIP)
DATA(-)	SC2B	Black	6		6	TEL(RING)
					7	VOICE
					8	VOICE