



HF COLOR VIDEO INTERCOM WITH RECORDING

HFX-700R KIT



OWNER'S MANUAL
INSTALLATION AND OPERATION

TABLE OF CONTENTS

Section 1: User Article

1.Introduction	1
2.HFX-700R KIT	2
2.1.HFX-700R KIT Parts Identification	2
2.1.1.HFX-700R Main monitor identification	2
2.1.2.HFX-700R or EX-700D door camera identification	3
2.2.HFX-700R KIT Operation	4
2.2.1.Attention	4
2.2.2.On screen menu icons	4
2.2.3.Setup menu	5
2.2.3.1.Adjust clock	5
2.2.3.2.Door open status indication	5
2.2.3.3.Video or photo recording	5
2.2.3.4.Video display option during door release operation	6
2.2.3.5.Format a new SD card	6
2.2.3.6.Exit setup menu	6
2.2.4.Intercom function operations	7
2.2.4.1.Push to talk function(similar to walky-talky)	7
2.2.4.2.Visitor calls from door camera	7
2.2.4.3.Zoom and pan/tilt function	8
2.2.4.4.Monitor doorbell cameras from main monitor	8
2.2.4.5.All page announcement and intercom among monitors	9
2.2.5.Privacy function	9
2.2.6.Video/Photo playback menu	9
2.2.6.1.Video or photo playback	9
2.2.6.2.Delete video/photo section(s)	10
3.Expansion video monitor (EX-700H)	11
3.1.EX-700H Identification	11
3.2.EX-700H Operation	12
3.2.1.Visitor calls from door camera	12
3.2.2.Audio and video monitoring	12
3.2.3.Broadcast and intercom function	12
4.Expansion audio monitor (EX-700A)	13
4.1.EX-700A Identification	13
4.2.EX-700A Operation	14
4.2.1.Broadcast and intercom function	14
5.Optional video input converter (EX-VIN)	15
5.1.EX-VIN Identification	15
5.2.EX-VIN Operation	15

Section 2: Installation Article

1. System layout	16
2. Read before installation	19
3. HFX-700R installation	20
3.1.Examine package contents	20
3.2.Install main monitor	20
3.3.Install door camera	21
3.4.HFX-700R wiring and setting	21
3.5.Jumper function on main monitor	22
3.5.1.JP1, external doorbell trigger options	22
3.6.Jumper function on door camera	23
3.6.1.JP1, door control options and CCD on/off during the output	23
3.6.2.JP2, light sensor options	23
4. Expansion video monitor(EX-700H) installation	24
4.1.Examine package contents	24
4.2.Install expansion video monitor	24
4.3.EX-700H wiring and setting	25
4.4.Jumper function on EX-700H	25
4.4.1.JP1, video display option during door release operation	25
4.4.2.JP2, door status report options	25
5. Expansion audio monitor(EX-700A) installation	26
5.1.Examine package contents	26
5.2.Install expansion audio monitor	26
5.3.EX-700A wiring and setting	27
5.4.Jumper function on EX-700A	27
5.4.1.JP2, door status report options	27
6. Expansion door camera (EX-700D) installation	28
6.1.Examine package contents	28
6.2.Install expansion door camera	28
6.3.EX-700D wiring and setting	28
7. Metal door camera housing (EX-700V) installation	29
7.1.Examine package contents	29
7.2.Assembly procedure	30
8. Optional video input converter (EX-VIN) installation	31
8.1.Install video input converter	31
8.2.EX-VIN wiring and setting	31
9. Technical specifications	32
10.Trouble shooting	34

Section 3: Appendix

Section 1:User Article

1. Introduction

Thank you for purchasing this Video Intercom System. This advanced system not only allows you to identify and communicate with visitors at the door and allows for remote door strike release, it can also record the video intercom communication on a micro SD card for later playback. This system has an interactive on screen menu for easy operation by touch sensitive buttons located on the two sides of the screen. Please read thru this manual for all detailed functions.

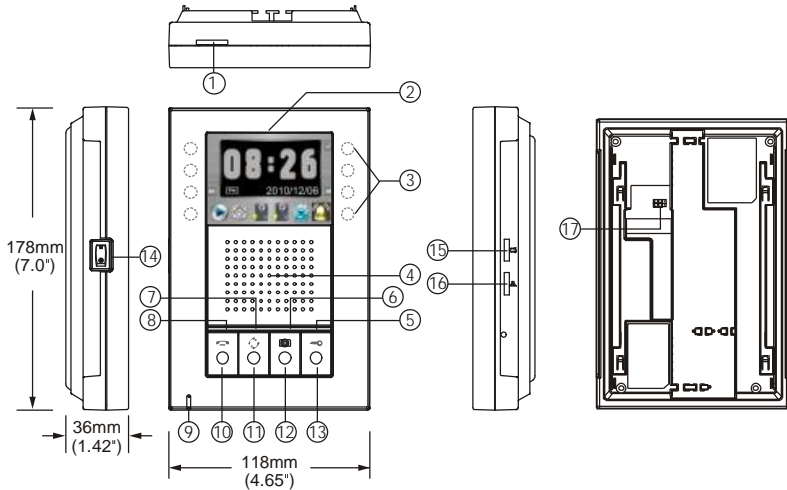
This package consists of a main monitor and a doorbell camera unit and a power supply.

This intercom system is capable of expanding up to a maximum of 4 indoor monitors and 2 doorbell cameras in a standard system. With additional EX-HUB home-run expansion modules, the total number of monitors can be extended up to 8 total.

For more information regarding the complete line of our products, please visit www.comelitusa.com

2.HFX-700R KIT

2.1. HFX-700R KIT Parts Identification



2.1.1. HFX-700R Main monitor identification

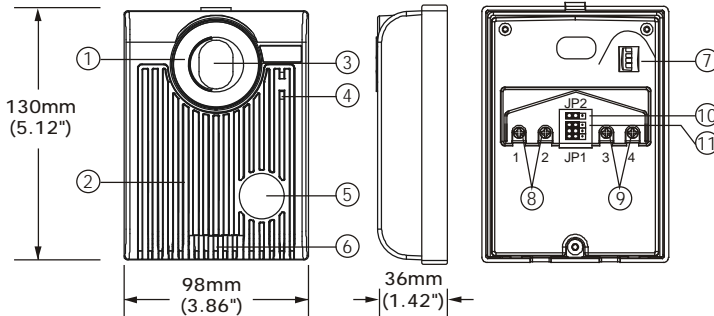
1. Micro SD card slot socket
2. 3.5" Color TFT Screen
3. Touch sensitive buttons (4 on each side, unmarked)
4. Speaker
5. In use LED
6. Monitor LED
7. Intercom LED
8. Communication LED
9. Microphone
10. Cut-off button(↶)
11. Intercom button(☎)
12. Monitoring button(📺)
13. Door release button(↶)
14. Power switch
15. Bell Volume tuner(🔊)
16. Speaker Volume tuner(🔊)
17. JP1, external doorbell trigger option
 - 🔲 N.O. dry contact (default) (allow bypass current of 24VDC/1A)
 - 🔲 12VDC150mA current output



◆ HFX-700R Main menu identification:



1. Confirm
2. Video and menu display area
3. Tab right
4. Tab left
5. Play
6. Setup
7. 1st doorbell camera
8. 2nd doorbell camera
9. Paging other monitor
10. Chime enable or disable

2.1.2. HFX-700R or EX-700D Door camera identification

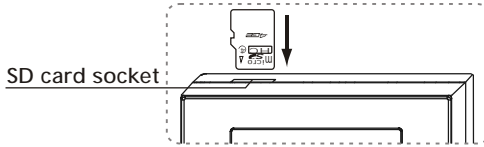


1. White LED Illumination
 2. Speaker
 3. 1/3" Color CCD
 4. Microphone
 5. Call button
 6. Screw cover
 7. CCD vertical view angle adjustment dial
(-6 degrees, 0 degrees, 8 degrees, 16 degrees)
 8. Wire to door strike
 9. Wire to main Monitor
 10. JP 2 (automatic LED light supplement option)
 11. JP1, lock control output option and CCD on/off during the output
-  N.O. dry contact output; CCD on. (default) (24VDC/1A bypass current)
-  12VDC/300mA current output; CCD off to. (to save power)

2.2. HFX-700R KIT Operation

2.2.1. Attention

- A. Micro SD card, SDHC(High Capacity SD card), is not included in this product package.
- B. Insert SD card properly. The SD card can be 2GB to 16GB memory size.





- C. The video quality is 720x480 pixels, every recording (20 sec. a section) takes about 15M memory size. Every photo takes about 130KB memory size (So for a 4 GB card, it can hold about 260 Videos or 25,000 pictures).
- D. If SD memory is full, new recording will overlay the oldest section. Backup SD card memory is necessary.
- E. Power on the machine, you will see main menu display on screen, blue LED of the call button at doorbell camera on.
- F. Menu display will turn off after 90 seconds of standing by.
- G. There is a power reserve for 12 hours for clock adjustments. after 12 hours of the unit being powered off, the time settings will revert back to default settings and the user will have to set the time again.

2.2.2. On screen menu icons






ICON	FUNCTION
	Play
	Setup
	1st doorbell camera
	2nd doorbell camera
	Paging other monitor
	Chime
	Chime disable
	Set clock
	Door status-BELL
	Door status-LED
	Video recording mode
	photo recording mode
	DR Release Video ON
	DR Release Video OFF
	Format SD card
	Escape to MAIN menu

ICON	FUNCTION
	Tab right
	Tab left
	Tab up
	Tab down
	Confirm
	Play
	Stop
	Pause
	Record
	Zoom in
	Zoom out
	Tilt view
	Video log
	Delete video
	Escape to MAIN menu
	Off
	SD card in place






2.2.3. Setup menu

- A. Move cursor to SETUP icon “” at main menu;
- B. Press “” can enter setup menu.

2.2.3.1. Adjust clock

- A. At setup menu, “” and “” can move the cursor; “” and “” can alter parameter (figure 1);
- B. “” can save your new setup.

2.2.3.2. Door open status indication

- A. There are PT1 and PT2 terminals on main monitor for connection of a magnetic switch to detect door open status.
(magnetic switch is not included in the package)
- B. At setup menu, “” and “” can move the cursor to the mode you like; “” can save your setup (figure 2).
- C. If select “”, when door is opening, the main monitor will make a chime indication; If select “”, when door is opening, the LED of the main monitor's door release button will turn ON.








(figure 1)



(figure 2)

2.2.3.3. Video or photo recording

- A. At setup menu, “” and “” can move the cursor to the mode you like; “” can save your setup.
- B. If select “”, enable automatic video recording mode, 20 seconds a section, when visitor calls from doorbell camera (figure 3).
- C. If select “”, enable automatic photo recording mode, 3 shots per action, when visitor calls from doorbell camera (figure 4).



(figure 3)



(figure 4)

2.2.3.4. Video display option during door release operation

- A. At setup menu, “←” and “→” can move the cursor to the mode you like; “✓” to confirm.
- B. If select “ON”, when door is opening, video display is ON (figure 5).
- C. If select “OFF”, when door is opening, video display is OFF (figure 6).



(figure 5)



(figure 6)

2.2.3.5. Format a new SD card

- A. At setup menu, “←” and “→” can move the cursor to SD card format option; “✓” to confirm (figure 7).
- B. Select “YES” to format your SD card, WARNING: Your previous memory saving on the SD card will be erased.
- C. Select “NO” to skip format execution.

2.2.3.6. Exit setup menu

- A. At setup menu, move “←” and “→” to EXIT option; “✓” to select. (figure 8)






(figure 7)






(figure 8)

2.2.4. Intercom function operations

2.2.4.1. Push to talk function(similar to walky-talky)

- A. Communication LED on means voice is free to go out from monitor to door camera.
- B. During the conversation, press the Monitor Button  for 2 seconds to switch to push-to-talk mode. In this mode, pressing the Monitor Button  (Communication LED will turn on) will activate the one-way voice communication to the door camera; releasing the Monitor Button  and (Communication LED turns off)allows for one-way voice communication to come in from the door camera to the monitor.
- C. This function can be useful when the environment at door camera side becomes too noisy.

2.2.4.2. Visitor calls from door camera

- A. Typical video intercom function, when call button is triggered, all monitors will chime and monitors will turn on.
- B. In 3 seconds time, the main monitor begins to record video of the door camera. In 20 seconds time if there is no answer from monitor, the system will time out. Visitor's video is recorded (figure 1).
- C. If tenant answers from main monitor (pressing the monitor button ) , video recording continues for 20 seconds, conversation time is limited to 90 seconds.
- D. If tenant answers visitor call from expansion monitor, main monitor will cutoff, video recording will stop pre maturely.
- E. Pressing the door release button  to control door strike; pressing the cutoff button  can end the intercom operation.

2.2.4.3. Zoom and pan/tilt function

- A. While talking to the doorbell camera from main monitor, tenant can at the same time operate the on-screen-menu to stop or resume video recording.
- B. To operate zoom and pan/tilt function has to stop recording first and resume afterward. (figure 9,10,11,12)



(figure 9:stop recording)



(figure 10 :resume recording)



(figure 11: zoom)




(figure 12: pan/tilt)

2.2.4.4. Monitor doorbell cameras from main monitor

- A. From the main monitor, tenant can operate hard button to monitor doorbell cameras or operate on-screen-menu for interactive functions as video recording, zoom and tilt viewing angles (figure 11).
- B. Monitoring doorbell camera is limited for 90 seconds before automatic cutoff.

2.2.4.5. All page announcement and intercom among monitors

- A. From any monitor, tenant can press intercom button  or select the function from the on-screen main monitor menu to page and make announcements to other monitors (figure 13, 14).
- B. Paging and announcements can last for 30 seconds time, if any other monitor press the intercom button to respond, the two monitors can then engage in intercom conversation for maximum of 90 seconds.






(figure 13)



(figure 14)









2.2.5. Privacy function

- A. Move and select the BELL icon  on the main menu.
- B.  means privacy off (chime on);  means privacy on and the chime is disabled.

2.2.6. Video/Photo playback menu

- A. Move and select PLAYBACK icon  from main menu can play the latest video/photo recorded.(figure 15).

2.2.6.1. Video or photo playback

- A. Select playback icon on main menu will firstly play the latest video/photo recorded.
- B. Video and photo are stored on the same file logs. Playback will show () or () on the up left corner.
- C. Select  to search all video /photo by picture frames of the date.
- D. Select  to search video FILES by date log(figure 16 and 17).
- E. Select  to playback;  to pause;  to stop(figure 18).
- F. Select  can return to main menu.



(figure 15)



(figure 16)





(figure 17)



(figure 18)

2.2.6.2. Delete video/photo section(s)

- A. Select “” to enter delete sub menu. (figure 19).
- B. Move and select delete by SINGLE video section or ALL video sections.
- C. Reconfirm “YES” or “NO” for the action (figure 20).
- D. Select EXIT to move to PLAYBACK menu; Select “” to return to main menu.



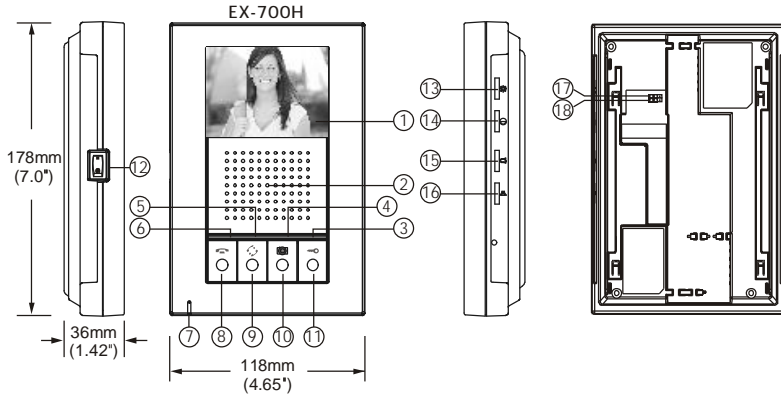
(figure 19)



(figure 20)

3. Expansion Video Monitor (EX-700H)

3.1. EX-700H Identification






◆ EX-700H identification:




1. 3.5" Color TFT Screen
2. Speaker
3. In use LED
4. Monitor LED
5. Intercom LED
6. Communication LED
7. Microphone
8. Cut-off button(↔)
9. Intercom button(☎)
10. Monitoring button(📺)
11. Door release button(→)
12. Power switch
13. Brightness tuner(✳)
14. Sharpness tuner(⊖)
15. Bell Volume tuner(🔊)
16. Speaker Volume tuner(🔊)
17. JP1, video display option during door release operation
 - ☐☐☐ Enable video display (JP1 left) (default)
 - ☐☐☐ Disable video display (JP1 right)
18. JP2, door status report option
 - ☐☐☐ Bell tone indication (JP2 left) (default)
 - ☐☐☐ LED light on Door Open Button (JP2 right)

3.2. EX-700H Operation



3.2.1. Visitor calls from door camera

- A. When the Call button on the camera is pressed, All monitors on the system will ring with a chime sound and all monitors will be activated.
- B. After the call, if nothing on the monitor is pressed, the system will time out after 30 seconds. If the monitor button  is pressed, the system will stay active for 90 seconds.
- C. You are able to terminate the activity on the monitor at any time by pressing the Cut-off button .
- D. Press door release button  from monitor can release remote door strike at door camera.

3.2.2. Audio and video monitoring

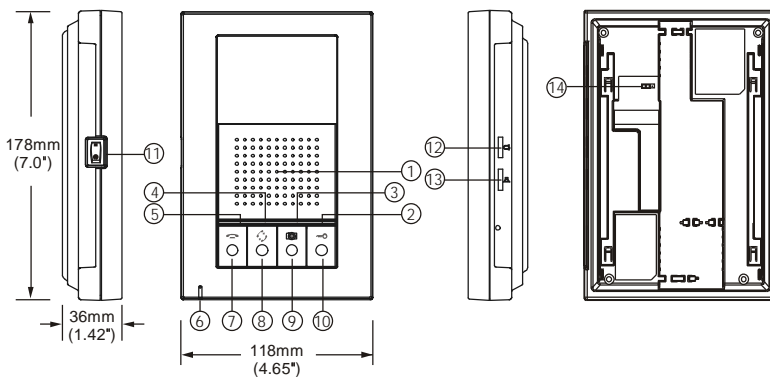
- A. Pressing the monitor button  will turn on the audio and video from door camera.
- B. If there is a second door camera on this system, pressing the Monitor button  again will scroll the image to the second expansion door camera.
- C. At anytime if you wish to terminate the monitoring, press the Cut-off button  to terminate the system.

3.2.3. Broadcast and intercom function

- A. When system consists of main monitor and expansion monitor and an outdoor doorbell/camera unit, the system can provide intercom function.
- B. Press the intercom button  from any monitor, all other monitors will react by making bell sound. At the same time, host can speak and broadcast voice message to all other monitors.
- C. The broadcast mode can last for 20 seconds. During the 20 seconds, any other monitor can answer the call by having the intercom button pressed in order to engage the intercom communication. Once the intercom communication has been established, talk time is for a maximum of 90 seconds. This function provides audio intercom communication only, monitors will not show any video.
- D. At anytime if you wish to terminate the monitoring, press the Cut-off button  to terminate the system.

4. Expansion Audio Monitor (EX-700A)

4.1. EX-700A Identification





◆ EX-700A identification:

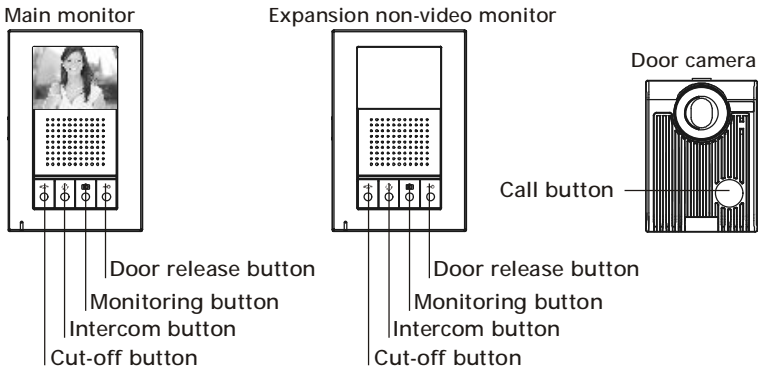
1. Speaker
2. In use LED
3. Monitor LED
4. Intercom LED
5. Communication LED
6. Microphone
7. Cut-off button(↔)
8. Intercom button(☎)
9. Monitoring button(📺)
10. Door release button(→)
11. Power switch
12. Bell Volume tuner(🔊)
13. Speaker Volume tuner(🔊)
14. JP2, door status report option
 - 🔊📺 Bell tone indication (JP2 left) (default)
 - 📺🔊 LED light on Door Open Button (JP2 right)

4.2. EX-700A Operation

- A. Operates the same as the main monitor unit (Refer to page 12).
- B. EX-700A only audio function, not video function.

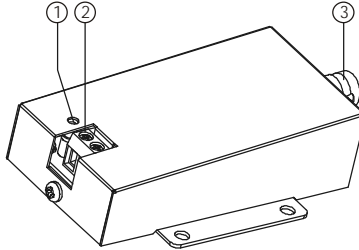
4.2.1. Broadcast and intercom function

- A. When system consists of main monitor and expansion audio monitor and an outdoor doorbell/camera unit, the system can provide intercom function.
- B. Press the intercom button  from any monitor, all other monitors will react by making bell sound. At the same time, host can speak and broadcast voice message to all other monitors.
- C. The broadcast mode can last for 20 seconds. During the 20 seconds, any other monitor can answer the call by having the intercom button pressed in order to engage the intercom communication. Once the intercom communication has been established, talk time is for a maximum of 90 seconds. This function provides audio intercom communication only, monitors will not show any video.
- D. At anytime if you wish to terminate the monitoring, press the Cut-off  button to terminate the system.





5. Optional video input converter (EX-VIN)

5.1. EX-VIN Identification



1. Power LED
2. The 2-wire terminals for connecting to the main monitor
3. BNC connector for external camera video input

5.2. EX-VIN Operation

- A. EX-VIN converts video signal on the 2-wire transmission format of the system.
 - B. Press the monitor button  from any monitor to see the camera from the main door camera, press it again to scroll to the external camera device connected to the EX-VIN.
 - C. Pressing the cut-off button  to exit the monitoring mode.
- * The EX-VIN does not provide power to the external CCTV Camera




Section 2: Installation Article

1. System layout



◆ System layout 1:

NOTE: the system is capable of expanding up to a total of 4 monitors (1 main video monitor + 3 expansion video monitors or 3 expansion audio monitors (any mix of video or audio) and 2 door cameras.

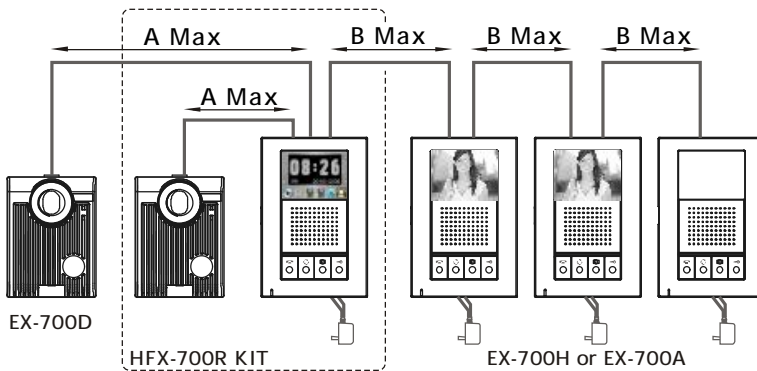
**Maximum wiring distance
(using dry contact lock control at doorbell camera)**

Wire type	Wire assignment	A Max	B Max
CAT-5 AWG#24	 Signal wires	100m (328 feet)	100m (328 feet)
AWG#22 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)
AWG#18 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)

**Maximum wiring distance
(using the 12VDC/300mA lock control at doorbell camera)**

Wire type	Wire assignment	A Max	B Max
AWG#22 parallel wires	 Signal wires	50m (164 feet)	50m (164 feet)
AWG#18 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)

NOTE : CAT-5 is not recommended for this type of installation.






◆ System layout 2:



NOTE 1: The wiring HUB can amplify and distribute the 2-wire signal among the main monitor and sub-monitors.

NOTE 2: the system is capable of expanding up to a total of 5 monitors with 1 EX-HUB or 8 total monitors with 2 EX-HUBs connected in one system.

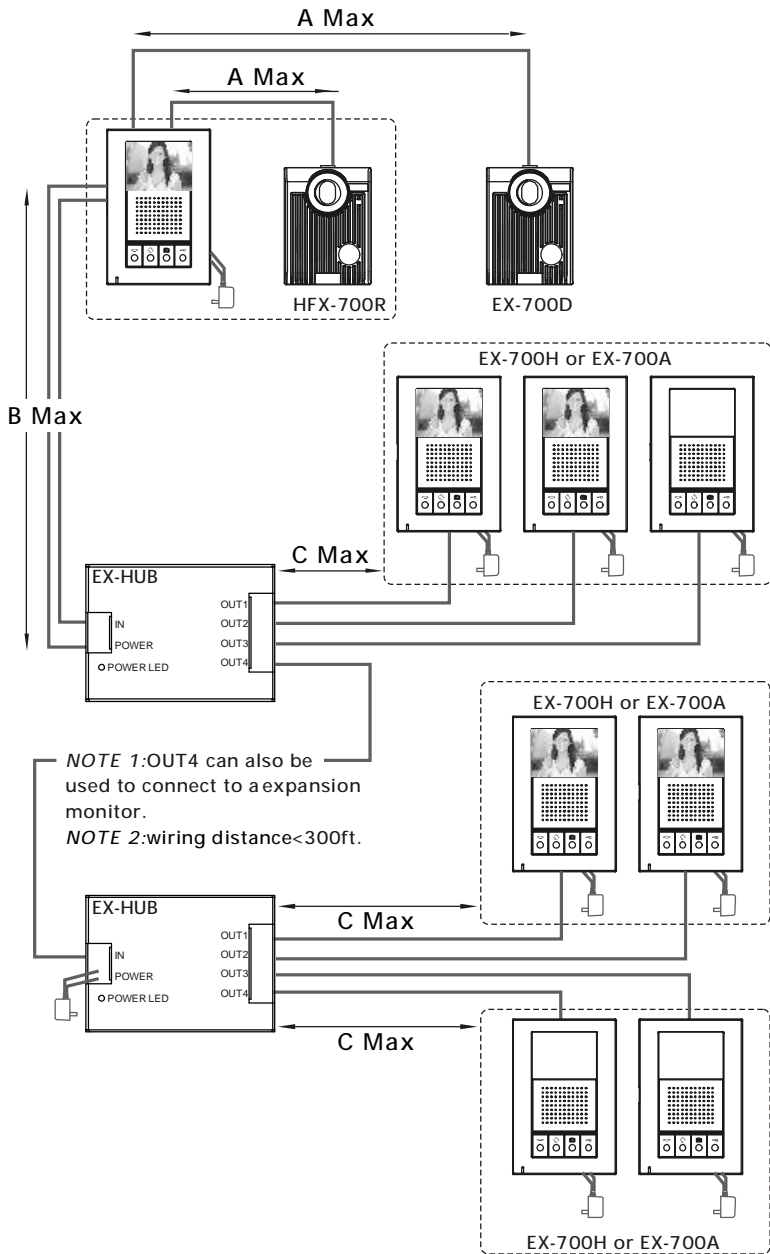
**Maximum wiring distance
(using dry contact lock control at doorbell camera)**

Wire type	Wire assignment	A Max	B Max	C Max
CAT-5 AWG#24	 Signal wires	100m (328 feet)	100m (328 feet)	100m (328 feet)
AWG#22 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)	100m (328 feet)
AWG#18 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)	100m (328 feet)

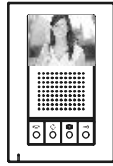
**Maximum wiring distance
(using the 12VDC/300mA lock control at doorbell camera)**

Wire type	Wire assignment	A Max	B Max	C Max
AWG#22 parallel wires	 Signal wires	50m (164 feet)	50m (164 feet)	100m (328 feet)
AWG#18 parallel wires	 Signal wires	100m (328 feet)	100m (328 feet)	100m (328 feet)

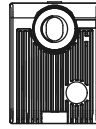
NOTE : CAT-5 is not recommended for this type of installation.



2. Read before installation

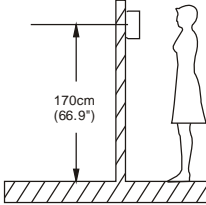


Main monitor

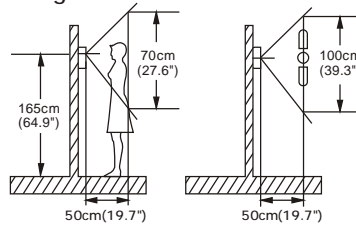


Door camera

Proper height:



View Angle:

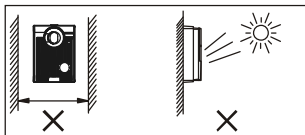


- ◆ The proper height of monitor or door camera is 160~170cm(63"-67") from the ground. This may vary on each installation. View range should be actively tested before complete.
- ◆ Viewing window of door camera is about 70cm up-n-down, and 100cm left-n-right.

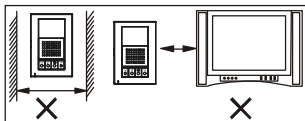
NOTE 1: Wiring distance

- ◆ From main monitor to door camera: Maximum of 164 feet with AWG22 normal 2-wire parallel wires. Maximum of 328 feet with AWG18 normal 2-wire parallel wires or CAT-5 cable.
- ◆ From monitor to monitor (every section): Maximum of 328 feet with AWG22normal 2-wire parallel wires or CAT-5 cable.

NOTE 2: the installation environment



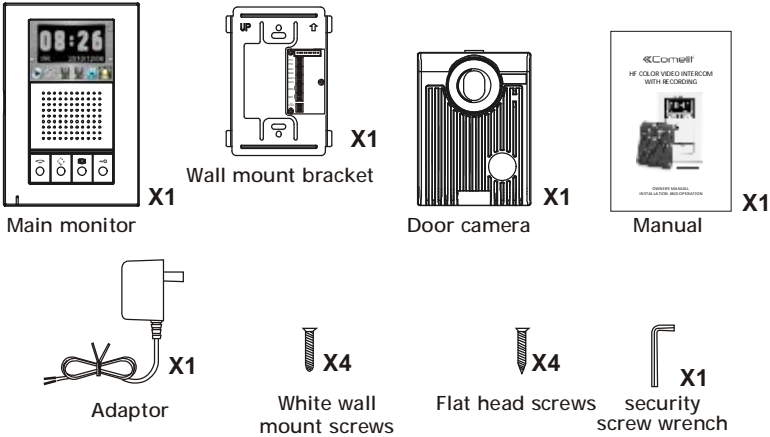
- ◆ Please avoid installation in an enclosed environment as this may cause feedback.
- ◆ Please avoid installation in direct sunlight as this can cause a blurry picture or dark shadows on subjects facing the camera.
- ◆ Please avoid wire installation near other power or signal lines and avoid placing units close to high power appliances as this may cause audio/video interference.



3. HFX-700R installation

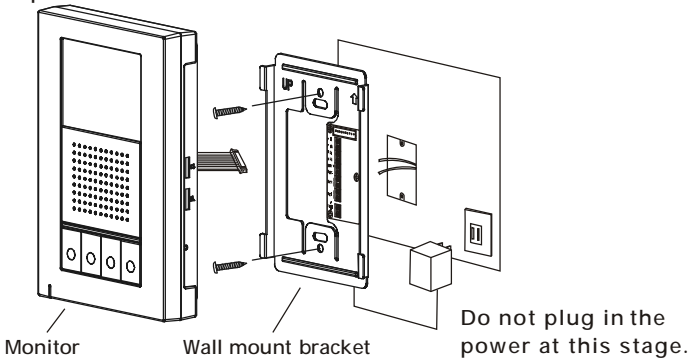
3.1. Examine package contents

NOTE: Examine the following contents of the package.



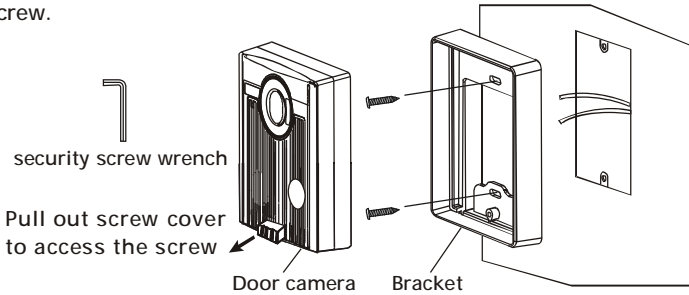
3.2. Install main monitor

- A. Fasten the wall mount bracket using the provided hardware.
- B. Fasten wires on terminals accordingly (Refer to 3.4).
- C. Select jumpers for desired function (Refer to 3.5).
- C. Plug-in pin wires and mount the monitor unit on bracket.



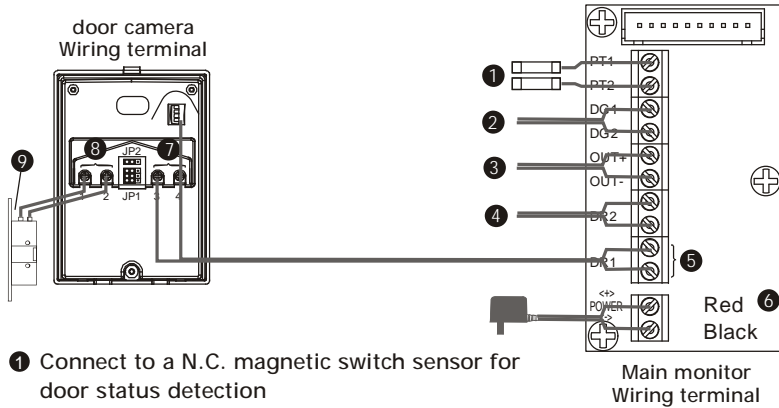
3.3. Install door camera

- A. Open the hidden latch, and unscrew to remove door camera unit from bracket.
- B. Fasten wall mount bracket to the surface where the unit will be installed.
- C. Fasten wires on terminals and select jumpers for desired function.
(Refer to 3.6)
- D. Mount door camera unit back on the bracket and secure the assembly screw.



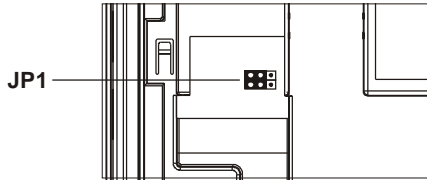
3.4. HFX-700R wiring and setting

- A. Wire the system from terminal to terminal accordingly.



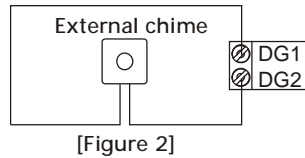
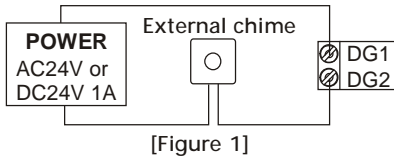
- 1 Connect to a N.C. magnetic switch sensor for door status detection
- 2 Trigger a N.O. external chime or strobe light which is synchronized with door bell trigger
- 3 Terminals for expansion monitor (w/polarity)
- 4 Terminals for the 2nd door camera (EX-700D) or EX-VIN (no polarity)
- 5 Terminals for the 1st door camera (EX-700D) or EX-VIN (no polarity)
- 6 Terminals for power adapter
- 7 Terminals to main monitor (no polarity)
- 8 Terminals for door strike
- 9 Electric Lock

3.5. Jumper function on main monitor



3.5.1. JP1, external doorbell trigger options

- A. DG1/DG2 trigger a N.O. device to synchronize with doorbell trigger and react as JP3 options. Wrong setting may cause damage to the equipment.
- B. DG1(+) and DG2(-) have polarity.
- C. JP3 on left (⚡) for N.O. dry contact (default) (allow bypass current of 24VDC/1A) (figure 1).
- D. JP3 on right (⚡) for 12VDC150mA current output (figure 2).




3.6. Jumper function on door camera

3.6.1. JP1, door control options and CCD on/off during the output


- ◆ Each Door Camera on the system is able to operate and release one electric lock. On a full system with 2 door cameras, the user is able to release up to two electric locks. The system can only release one electric lock at a time, depending on which door camera the call originated from. There are two door release wiring options that work with the Video Intercom System.
- ◆ The system can either provide a normally open dry contact (figure 1), or can be configured to give power (12V DC 300mA) straight to an electric lock that is within the power requirements (figure 2). If you are using power from the system (figure 2), It is necessary to use an electric lock that requires less than 300mA of power to engage the strike.

Figure 1: Door Release Option 1 (Additional power supply)

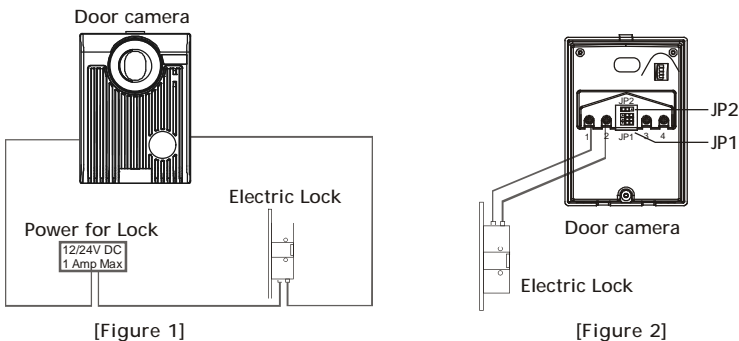
NOTE 1: When jumper setting is on the left (), the DOOR RELEASE terminals provide as N.O. dry contact, with no polarity allowing maximum by-pass current of AC24V or DC24V 1A.

NOTE 2: This option will keep the video on during the release of the strike.



Figure 2: Door Release Option 2 (Using power from the system)

NOTE 1: When jumper setting is on the right (), the DOOR RELEASE terminals provide current output of maximum 12VDC/300mA.

NOTE 2: This option will cut CCD power during the operation and there will be a momentary loss of video upon release of the strike.



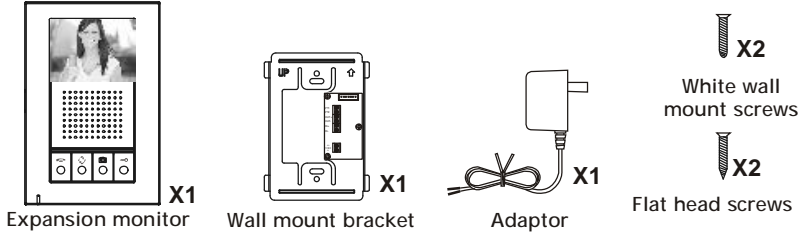
3.6.2. JP2, light sensor options

- Factory setting is left () which enables automatic LED illumination at in low lighting conditions.
- Select and plug JP2 to its right () to disable LED illumination of the doorbell camera at all times.

4. Expansion video monitor(EX-700H) Installation

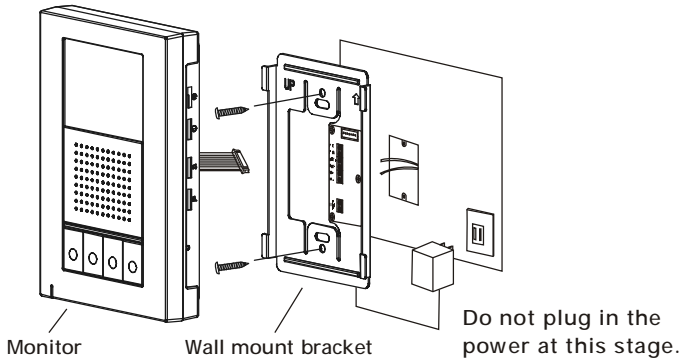
4.1. Examine package contents

NOTE: Examine the following contents of the package.



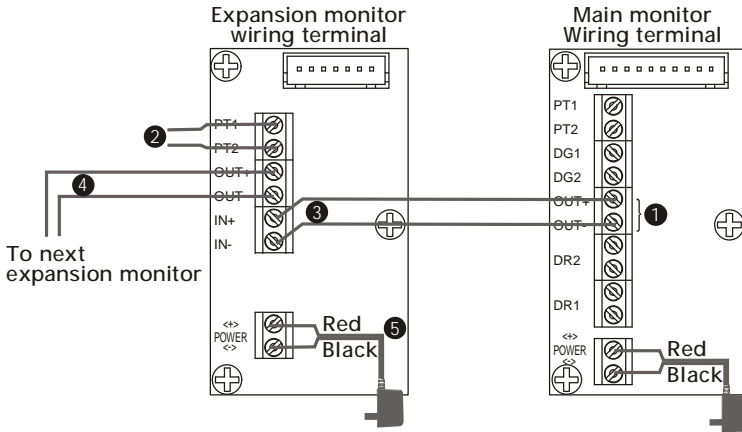
4.2. Install expansion video monitor

- Fasten the wall mount bracket using the provided hardware.
- Fasten wires on terminals accordingly (Refer to 4.3).
- Select jumpers for desired function (Refer to 4.4).
- Plug-in pin wires and mount the monitor unit on bracket.



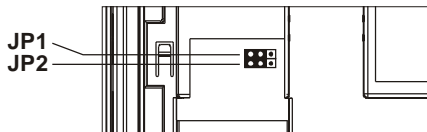
4.3. EX-700H wiring and setting

A. Wire the system from terminal to terminal accordingly.





- ❶ Terminals for expansion monitor (w/polarity)
- ❷ Connect to a N.C. magnetic switch sensor for door status detection
- ❸ Terminals from previous monitor (w/polarity)
- ❹ Terminals for next monitor (w/polarity)
- ❺ Terminals for power adapter



4.4. Jumper function for EX-700H



4.4.1. JP1, video display option during door release operation

- A. Enable video display (JP1 left ) (default) if door release is dry contact output.
- B. Disable video display (JP1 right ) if door release is 12VDC/300mA direct current output

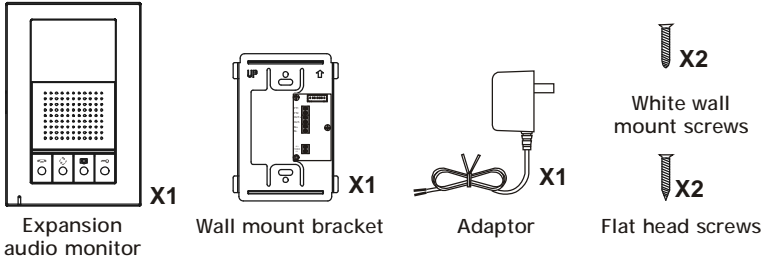
4.4.2. JP2, door status report options

- A. PT1/PT2 connect a N.C. switch sensor to detect door status and react as JP2 options
- B. Bell tone indication (JP2 left ) (default)
- C. LED light on Door Open Button (JP2 right )

5. Expansion audio monitor(EX-700A) Installation

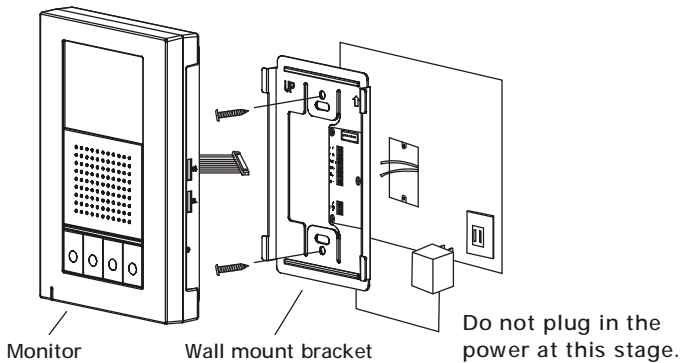
5.1. Examine package contents

NOTE: Examine the following contents of the package.



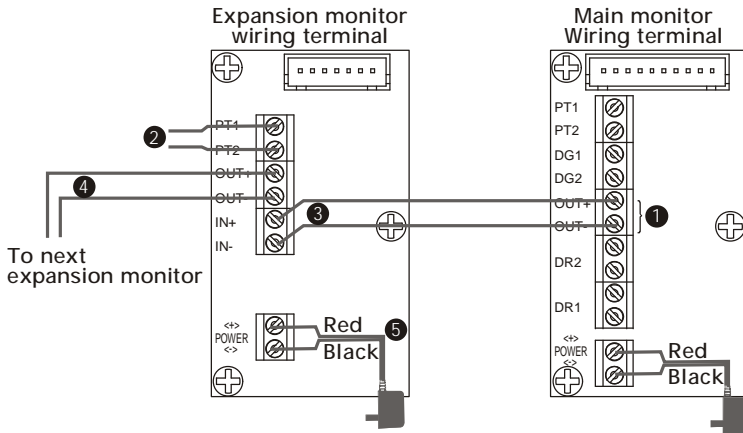
5.2. Install expansion non-video monitor

- Fasten the wall mount bracket using the provided hardware.
- Fasten wires on terminals accordingly (Refer to 5.3).
- Select jumpers for desired function (Refer to 5.4).
- Plug-in pin wires and mount the monitor unit on bracket.



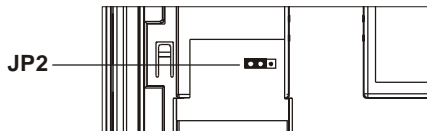
5.3. EX-700A wiring and setting

A. Wire the system from terminal to terminal accordingly.





- ❶ Terminals for expansion monitor (w/polarity)
- ❷ Connect to a N.C. magnetic switch sensor for door status detection
- ❸ Terminals from previous monitor (w/polarity)
- ❹ Terminals for next monitor (w/polarity)
- ❺ Terminals for power adapter

5.4. Jumper function for EX-700A



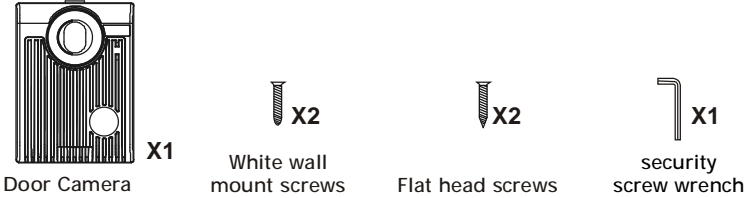
5.4.1. JP2, door status report options

- A. PT1/PT2 connect a N.C. switch sensor to detect door status and react as JP2 options
- B. Bell tone indication (JP2 left ) (default)
- C. LED light on Door Open Button (JP2 right )

6. Expansion door Camera (EX-700D) Installation

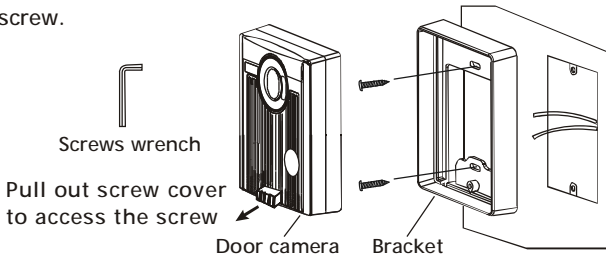
6.1. Examine package contents

NOTE: Examine the following contents of the package.

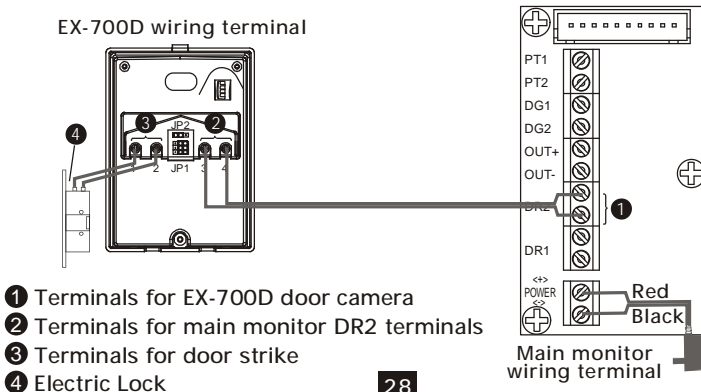


6.2. Install expansion door camera

- Open the hidden latch, and unscrew to remove door camera unit from bracket.
- Fasten wall mount bracket to the surface where the unit will be installed.
- Fasten wires on terminals and select jumpers for desired function. (Page 23)
- Mount door camera unit back on the bracket and secure the assembly screw.



6.3. EX-700D wiring and setting

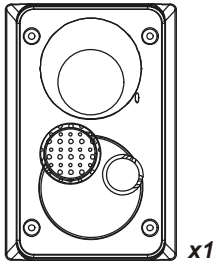


7. Metal Door Camera Housing (EX-700V) Installation

7.1. Examine package contents

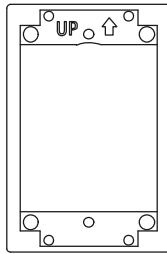
- Examine the following contents of the package.
- EX-700V is an optional housing assembly kit to enclose EX-700D to become flush mount metal doorbell camera.
- Depending on different wall materials, please be careful to cut the hole according to the measurements below to fit the flush mount bracket for the EX-700V.

Measurements	Unit:mm	Unit:inch
Wooden wall (cut open size)	100x150x41	3.94"x5.91"x1.62"
Cement or brick wall (cut open size)	114x165x49	4.49"x6.50"x1.93"
Front panel (outlook)	120x180x7	4.72"x7.08"x0.28"



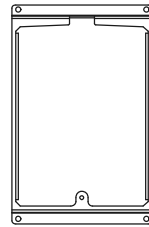
Front panel

x1



Rubber seal

x1



Bracket 1

x1



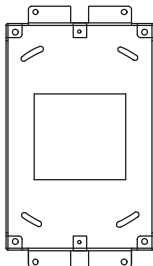
x4

4.5 \varnothing x10mm Screw



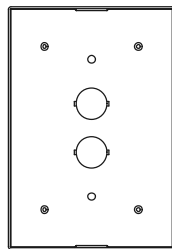
x6

3.0 \varnothing x6mm Screw



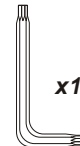
Bracket 2

x1



Embed box

x1



x1

Screw wrench

7.2. Assembly Procedure

STEP 1-1 :

- A. If on wooden wall, cut open space is 100x150x41mm.
- B. Embed box may not necessary. Go to Step 2.

STEP 1-2 :

- A. If on cement or brick wall, cut open a hole size of 114x165x49mm.
- B. Make sure the stamp wire outlet on embed box been pried open.
- C. Insert and secure embed box inside the hole.

STEP 2 :

- A. Install bracket 2 on top of the embed box.
- B. If without embed box, fasten bracket 2 directly on the wooden wall.

STEP 3 :

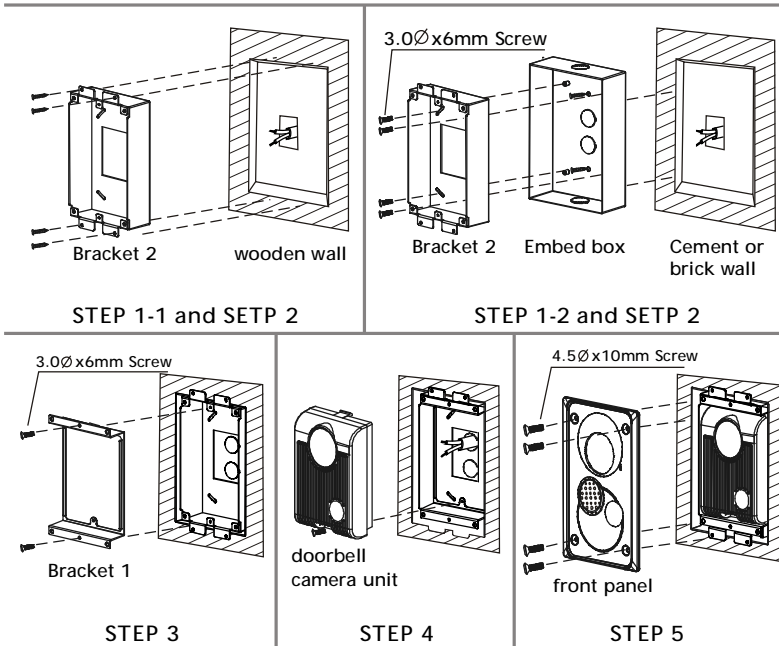
- A. Install bracket 1 on top of bracket 2.

STEP 4 :

- A. Remove doorbell camera unit from its plastic wall mount bracket.
- B. Install the doorbell camera unit on top of bracket 1.

STEP 5 :

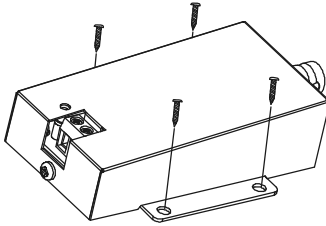
- A. Place rubber seal and speaker cover on position of the front panel.
- B. Fasten safety screws by using the attached wrench.



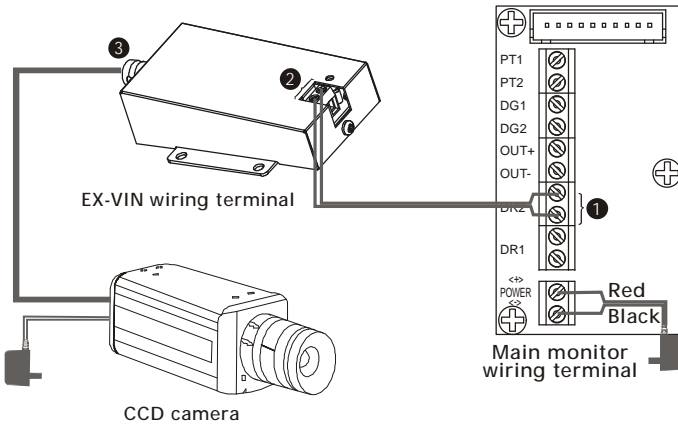
8. Optional video input converter (EX-VIN) Installation

8.1. Install video input converter

- A. Package contains no accessories.
- B. Wire EX-VIN to the video distribution box of the camera
- C. Plug in BNC, no setting is necessary



8.2. EX-VIN wiring and setting



- ❶ 2-wire terminals on EX-VIN
- ❷ DR1 or DR2 terminals on main monitor
- ❸ BNC for camera video

9. Technical Specifications

9.1. HFX-700R (main monitor) specification



Display:	3.5" digital TFT-LCD
Resolution:	320 x 240 pixels
Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	30 seconds time out; 90 seconds for conversation
Operating Temperature:	14°F ~ 140°F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 3.5W, operating 11.0W (maximum)

9.2. HFX-700R or EX-700D(door camera) specification

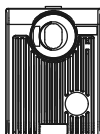
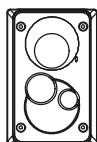


Image Sensor:	1/3" Sharp CCD
Resolution:	250,000 pixels (NTSC)
Camera Lens:	F/NO: 2.0 (120 degree)
View Angle:	-6°,0°,8°,16° manually adjustable
Auto Light Sensor:	enable/disable selectable (JP1)
Operating Temperature:	-13°F ~ 140°F, outdoor
Dimensions (w/ bracket):	3.86"(L) x 5.12"(W) x 1.42"(D)
Power consumption:	powered by main monitor
Remote Control:	for maximum by pass current of 24V/1A
Remote Control:	maximum of DC12V/300mA (direct current output)

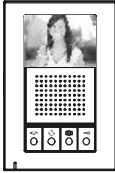
9.3. EX-700V(Metal Door Camera Housing) specification

NOTE: EX-700V is an optional housing assembly kit to enclose EX-700D to become flush mount metal doorbell camera.



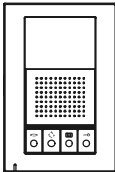
Wooden wall (cut open size) :	3.94"x5.91"x1.62"
Cement or brick wall (cut open size):	4.49"x6.50"x1.93"
Front panel (outlook):	4.72"x7.08"x0.28"
Housing :	Aluminum

9.4. EX-700H(optional expansion monitor) specification



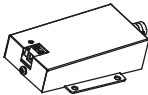
Display:	3.5" digital TFT-LCD
Resolution:	320 x 240 pixels
Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	30 seconds time out; 90 seconds for conversation
Operating Temperature:	14°F ~ 140°F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 1.4W, operating 3.0W (maximum)

9.5. EX-700A(optional non-video monitor) specification



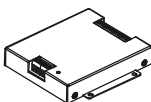
Auto Timer (visitor call):	30 seconds time out; 90 seconds for conversation
Auto Timer (intercom):	30 seconds time out; 90 seconds for conversation
Operating Temperature:	14°F ~ 140°F, indoor
Dimensions (w/ bracket):	4.65"(L) x 7.0"(W) x 1.42"(D)
Power adaptor:	input 100~240VAC 50/60Hz; output 23VDC/1A(24W), external
Power consumption:	standby 1.4W, operating 3.0W (maximum)

9.6. EX-VIN (video converter) specification



Operating Temperature:	-4°F ~ 140°F, outdoor
Dimensions (w/ bracket):	3.8"(L) x 2.5"(W) x 0.97"(D)
Power consumption:	powered by main monitor

9.7. EX-HUB (Home Run Configuration HUB) specification



Power Input :	DC23V ~ DC24V
Power consumption :	Standby 1.8W; Operating 2W
Operating Temperature:	-4°F ~ 140°F
Storage temperature :	-13°F ~ 158°F
Weight :	0.5 lbs
Dimensions :	3.90"x3.19"x0.71"
Housing :	Metal

10. Trouble Shooting

Before requesting service, check the troubleshooting guide to solve the problem.

Problem	Solution
No power (no picture on monitor)	Make sure AC plug is firmly inserted into the AC outlet. Make sure the power terminal is firmly connected into the monitor unit. Check to ensure polarity is correct. (Red=positive, Black=negative).
System is on but no picture on the monitor	Make sure the cable is connected securely between the master monitor and the camera. Adjust the brightness and sharpness controls.
Sound is too low	Adjust the volume control.
Picture is too dark or too white	Adjust the brightness and sharpness controls.
Video recording NOT functioning	Check if SD card is in place and SD card icon appears on up left screen menu.

NOTE: Be sure to use this product with the AC adapter supplied by the manufacturer.

Section 3:Appendix

APPENDIX 1: WARNING

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE MONITOR OR POWER ADAPTER TO WATER OR MOISTURE.

CAUTION: DO NOT OPEN. RISK OF ELECTRICAL SHOCK.

CAUTION! TO REDUCE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER OR BACK, NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

OTHER WARNINGS

- ◆ Monitor is designed for indoor use only. Do not install outdoors.
- ◆ Keep the equipment dry. If water should get in, wipe off immediately. Water contains minerals that can erode electronic circuits.
- ◆ Intercom system is not operational during a power failure .
- ◆ Intercom system may be affected by radio frequency interference or EMI(electrical magnetic interference) in areas where broadcasting station antennas are close by.
- ◆ Keep all wiring at least 1 foot away from fluorescent lighting, dimmer switches and AC power.

EXPLANATION OF TWO SYMBOLS



The lighting flash with arrowhead symbol, within an equilateral triangle, 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 risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

APPENDIX 2: IMPORTANT SAFETY INSTRUCTIONS

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE MONITOR OR POWER ADAPTER TO WATER OR MOISTURE.

- ◆ Read Instructions -All the safety and operating instructions should be read before operating this equipment. These instructions should be retained for future reference.
- ◆ Heed Warnings - All warnings on the equipment and in the operating instructions should be adhered to. All instructions regarding care and operation of this equipment should be followed.
- ◆ Power Sources - Equipment should only be connected to the power supply specified in the operating instructions or as marked on the equipment.
- ◆ Power Cord Protection-Keep cable cords and plugs clear off other objects, particularly at the point where they exit the equipment.
- ◆ Cleaning - Clean the equipment by wiping with a soft cloth (do not use any abrasive agents or water).
- ◆ Non-use Periods - Power cords should be unplugged from the outlet when left unused for a long period of time.
- ◆ Object and Liquid Entry - Take care not to drop objects or liquids on any part of the equipment.
- ◆ Damage Requiring Service -The unit should be serviced by a qualified service personnel when:
 - The power supply cord or the plug has been damaged or
 - Objects have fallen, or liquid has been spilled onto the equipment or
 - The equipment has been exposed to rain or
 - The equipment does not appear to operate normally or exhibits a marked change in performance or
 - The equipment has been dropped and/or the enclosure has been damaged.
- ◆ Servicing - Do not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to as Qualified Distributor's Service Personnel.

APPENDIX 3:FCC CLASS B NOTICE

NOTE:

This equipment has been Certified and found to comply with the limits regulated by FCC, and CE. Therefore, it is designed to provide reasonable protection against interference and will not cause interference with other appliance usage. However, it is imperative that the user follows this manual's guidelines to avoid improper usage which may result in damage to the unit, electrical shock, and fire hazard or injury. In order to improve the feature functions and quality of the product, the specifications are subject to change without notice from time to time.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to connect the interference by one or more of the following measures:

- Reorient or relocate the monitor unit
- Increase the separation between the monitor and camera
- Connect the equipment on a separate outlet
- Consult the dealer or an experienced radio or television technician

APPENDIX 4:SERVICE AND WARRANTY

To receive after sales service, please provide the following information when contact.

- a. Name of the product
- b. Model and serial number of the product
- c. The store's name where you purchased
- d. Date purchased
- e. Idea and area of possible problems

Information Card

Product name	
Model and serial number	
The store's name	
Date purchased (receipt)	

The warranty statements

- a. This product is produced under strict internal quality control and inspection procedures.
- b. The warranty is good for one year from the date purchased.If the product reacts down under proper treatment during warranty,please contact our after sales connection for free-of -charge repairs.
- c. The following exceptional cases will be subject to charge,even during warranty period.
 - ▶ Breakdown caused by transport,or through careless treatment by customer.
 - ▶ Breakdown caused by unauthorized repair or modification.
 - ▶ Breakdown caused by natural disaster or electric power disorder.

[http:// www.comelitusa.com](http://www.comelitusa.com)
Info@comelitusa.com