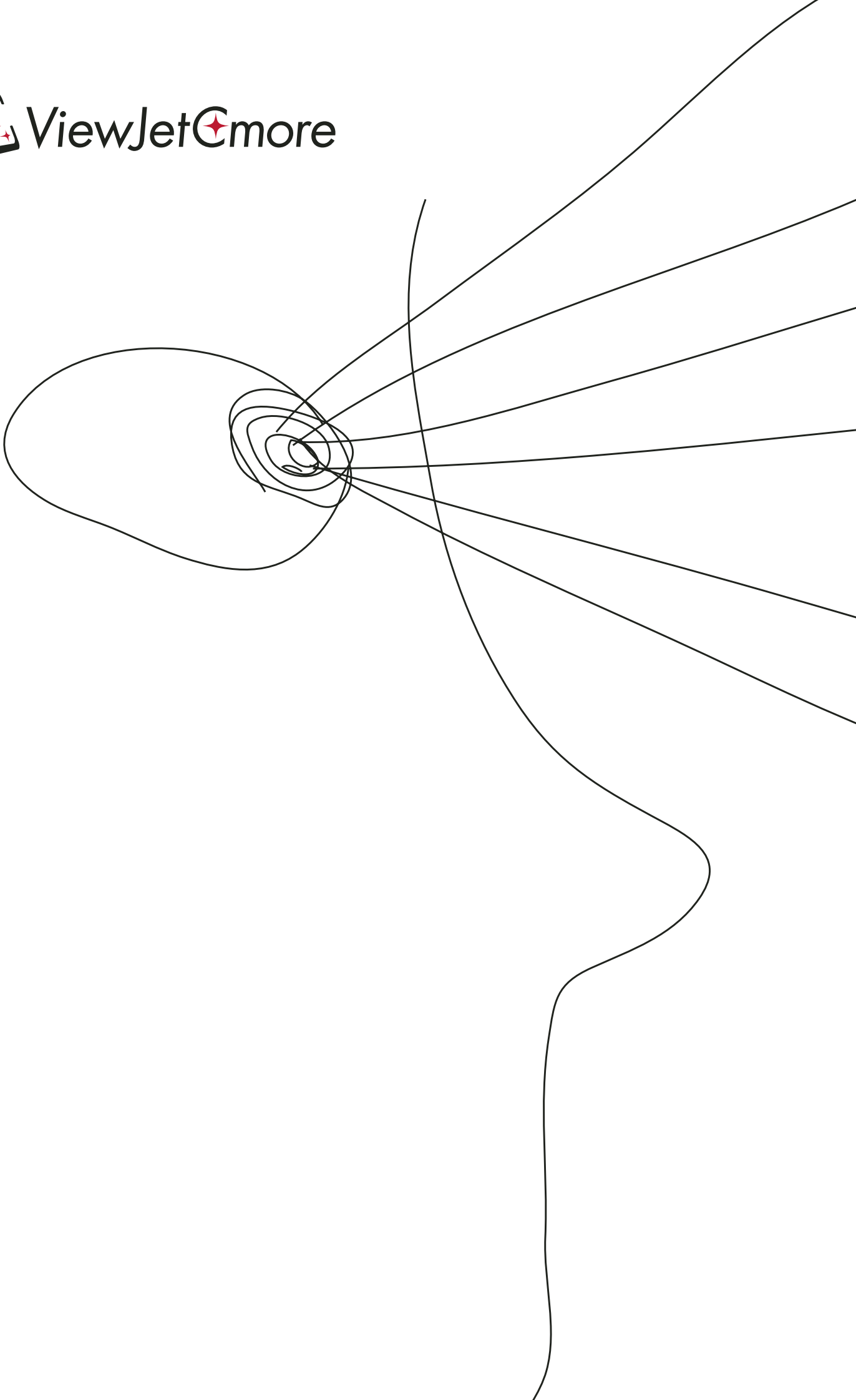


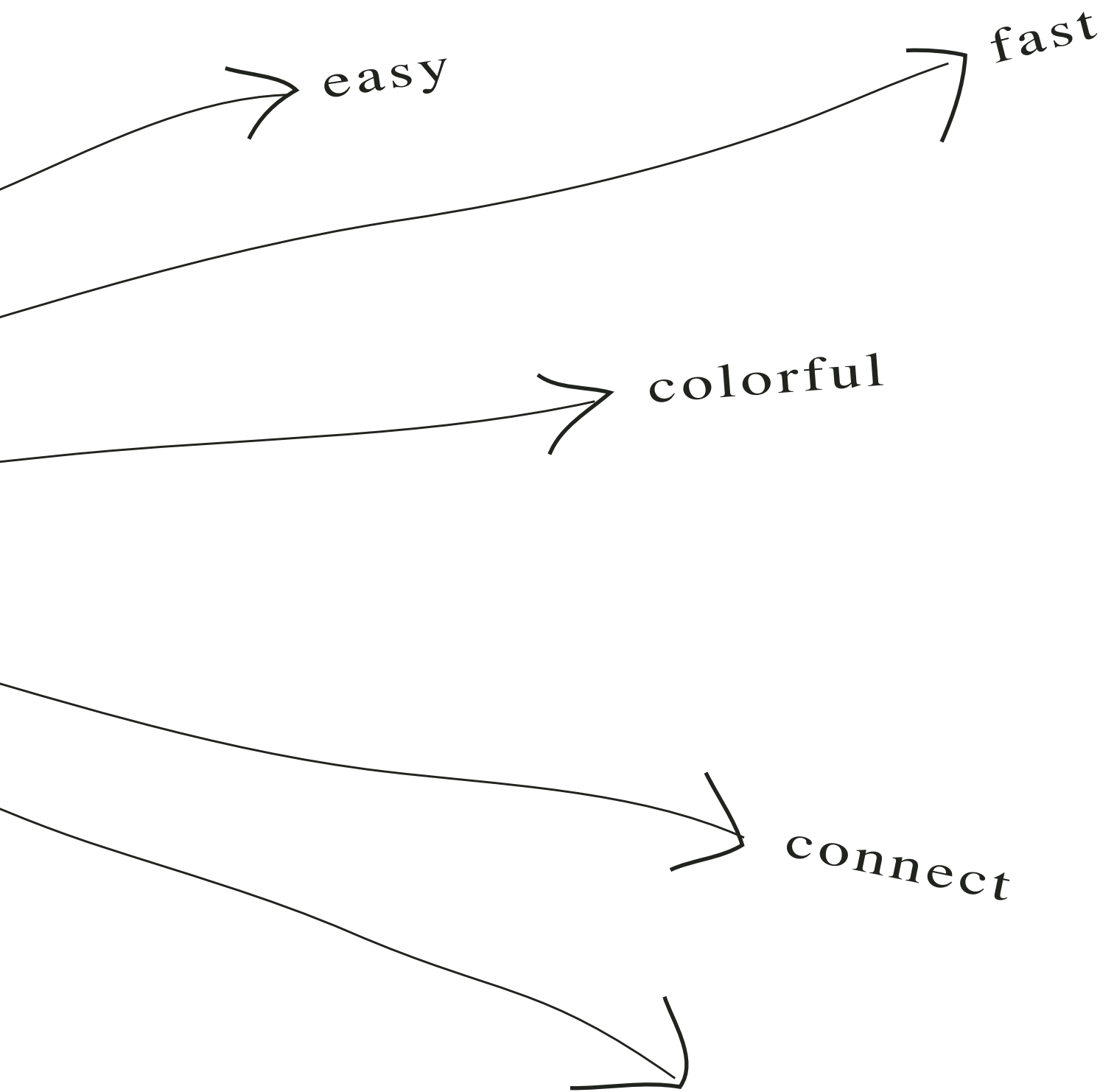
**Koyo**<sup>®</sup>

It's totally new!



**ViewJetCmore**



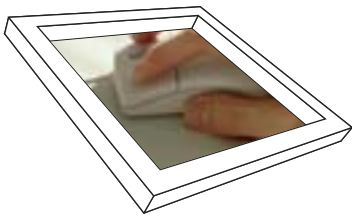


you can see more  
with our new touchpanel

ViewJet Cmore

# Four Great Features

easy



**Configuration software designed for ease of use**

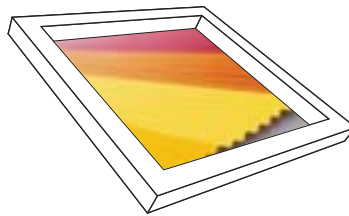
Pursuing the simplicity of operation, we have created the comfort that allows the parts allocation and settings to be operated by mouse click. It enables the beginners to operate with their sense.



**Suitable model selections**

You can choose the products that best suits your need from wide variety of lineup including 9 types from 5.7 inch to 15 inch.

colorful



**Expression of 65,536 colors**

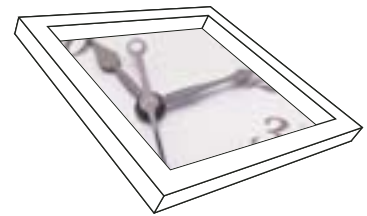
It displays clearly on detailed area that was liable to be neglected. Pictures and illustrations can be presented in detail and real. All sizes from 5.7 to 15 offers the beauty of images.



**Expression in 15 inch**

Novel high-resolution of 1024 to 768 dots large screen displays more information and more detailed data. Experience the screen with presence even from distance.

fast



**Application of Ethernet, USB**

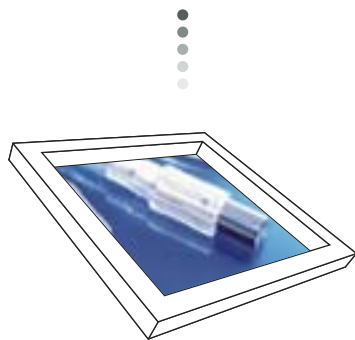
Implementing Ethernet and USB port as standard features, it shortened the transfer time of connection to each equipment and image data



**Increased image processing speed**

High speed response that does not irritate the user is featured. It offers you the quick display switching and comfort operation.

# connectivity



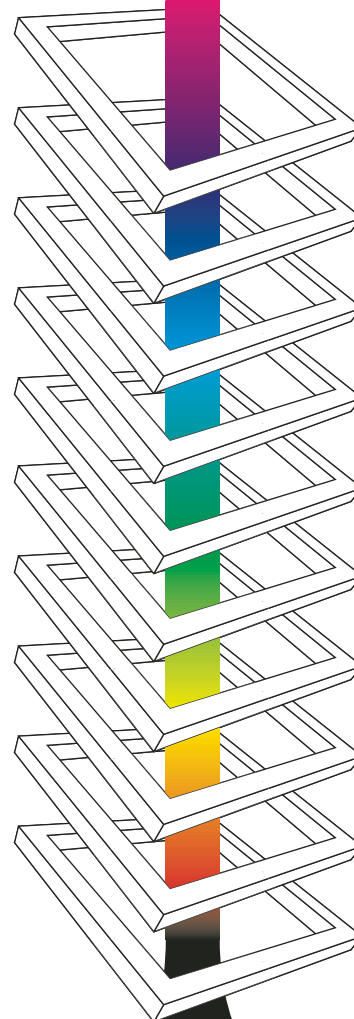
## Various Interfaces

Offers the widened application with LAN port, serial port, USB port and CF card slot sound output. It gives you the opportunity to various networks and to use your CF cards to collect or exchange data in various situations.



## Multilanguage compliant

Supports 9 languages. Language can be switched while you are driving and it displays the language for each user and assures you to use in overseas.



# Lineup & Accessory

## Lineup Accessory

<b>STN mono</b>	STN monochrome LCD 15 gray-shade	<b>USB</b>	USB 1.1 port A x 1 USB 1.1 port B x 1: for transferring screen data	<b>sound</b>	Audio output, stereo pin-jack x 1 Audio input, monophonic pin-jack x 1
<b>STN color</b>	STN color LCD 256 colors	<b>LAN</b>	Ethernet 10BASE-T/100BASE-TX (RJ-45) x 1	<b>CF1</b>	Compact flash Type I/II x 1
<b>TFT color</b>	TFT color LCD 65,536 colors	<b>serial</b>	Bit synchronous RS-232C/422/485 (2 or 4 wires) D-SUB 15P (female) x 1	<b>CF2</b>	Compact flash Type I/II x 1 (Optional)
				<b>EXP</b>	Expansion I/O card (Optional)

## 5.7 INCH

Best suites for work site with basic performance.  
Adoption promotional type with low cost.



**EA7-S6M-RS**



DIMENSION: 191×152×43.1 (W×H×D)



**EA7-S6C-RS**



DIMENSION: 191×152×43.1 (W×H×D)

Multipurpose and space-saving. Selectable for many purposes.



**EA7-S6M-S**



DIMENSION: 191×152×43.1 (W×H×D)



**EA7-S6C-S**



DIMENSION: 191×152×43.1 (W×H×D)



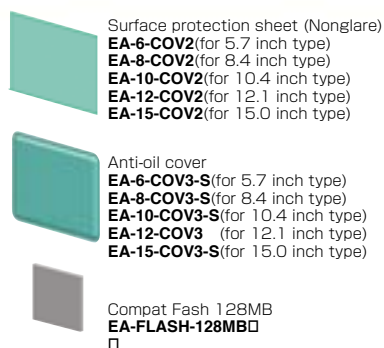
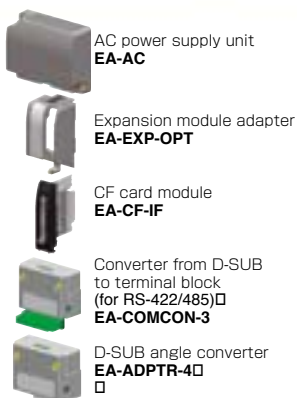
**EA7-T6C-S**



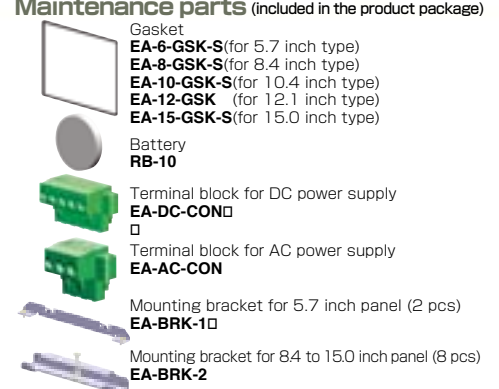
DIMENSION: 191×152×43.1 (W×H×D)

## Accessories

### Option



### Maintenance parts (included in the product package)



All models  
 ● Touch Panel Analog resistive type  
 ● UL/CE marking



## 8.4 INCH

Easy-to-use middle size.



**EA7-T8C-S**

TFT color USB LAN serial sound CF1 CF2 EXP

DIMENSION: 258.5×203.4×52.1 (W×H×D)

## 10.4 INCH

Applicable for much purpose with midsize body.



**EA7-T10C-S**

TFT color USB LAN serial sound CF1 CF2 EXP

DIMENSION: 310.6×253.6×52.9 (W×H×D)

## 12.1 INCH

Easily-viewable and excellent operability.



**EA7-T12C-S**

TFT color USB LAN serial sound CF1 CF2 EXP

DIMENSION: 339.5×280×52.7 (W×H×D)

## 15.0 INCH

Outstanding capability of display of information! For new usage.



Maximum size in industry.

**EA7-T15C-S**

TFT color USB LAN serial sound CF1 CF2 EXP

DIMENSION: 396.8×310.8×52 (W×H×D)

### Connecting cable

Part number	
EA-2CBL	Modular 6P for DL-05/06/205, SZ and PZ series CPU module
EA-2CBL-1	High density D-SUB 15P for DL06/250-1/260, SZ and PZ3 series CPU module
EA-4CBL-1	D-SUB 15P for programming port on DL405 and SU series CPU module
EA-4CBL-2	D-SUB 25P for general purpose port on DL405 and SU series CPU module
EA-MITSU-CBL	D-SUB 25P for Mitsubishi communication module
EA-MITSU-CBL-1	Mini. DIN for Mitsubishi PLC
EA-MITSU-CBL-2	D-SUB 9P for Mitsubishi communication module
EA-OMRON-CBL-1	D-SUB 9P for Omron

Cable length : 3m

### The DO series modules that you can install onto the EA-EXP-OPT

Attached to extended module adapter EA-EXP-OPT.

Part number		Part number	
D0-10ND3	DC input 10 pts.	F0-04AD-1	Analog input 4 pts. (Current)
D0-10TD1	DC output 10 pts. (Sink)	F0-04AD-2	Analog input 4 pts. (Voltage)
D0-10ND3F	Fast response DC input 10 pts.	F0-2AD2DA-2	Analog input 2 pts./Analog output 2 pts. (Voltage)
F0-08NA-1	AC input 8 pts.	F0-4AD2DA-1	Analog input 4 pts./Analog output 2 pts. (Current)
D0-10TD2	DC output 10 pts. (Source)	F0-4AD2DA-2	Analog input 4 pts./Analog output 2 pts. (Voltage)
D0-08CDD1	DC input 4 pts./DC output 4 pts.	F0-04RTD	RTD input 4 pts.
D0-07CDR	DC input 4 pts./Relay output 3 pts.	F0-04THM	Thermocouple/Voltage input 4 pts.
D0-08TR	Relay output 8 pts.	D0-HSIO	Cunet interface module
F0-04TRS	Relay output 4 pts. (Isolated)	D0-DEVNETS	DeviceNet slave module
D0-16ND3	DC input 16 pts.		
D0-16TD1	DC output 16 pts. (Sink)		
D0-16TD2	DC output 16 pts. (Source)		

Expansion card to be available in 2006.

# Application Examples

## Application Example: FA factory

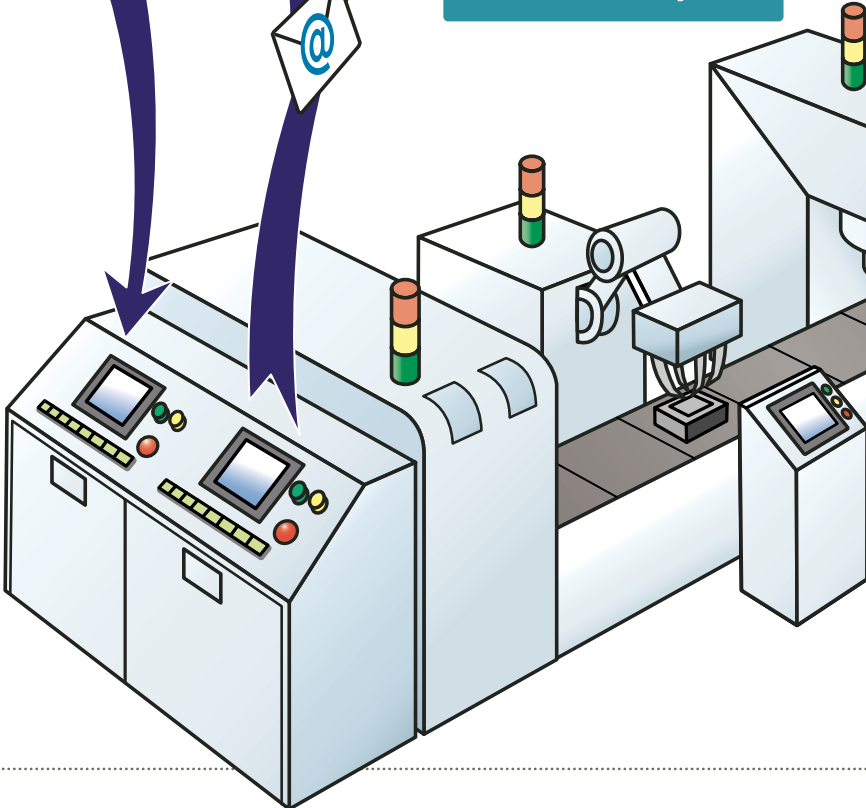


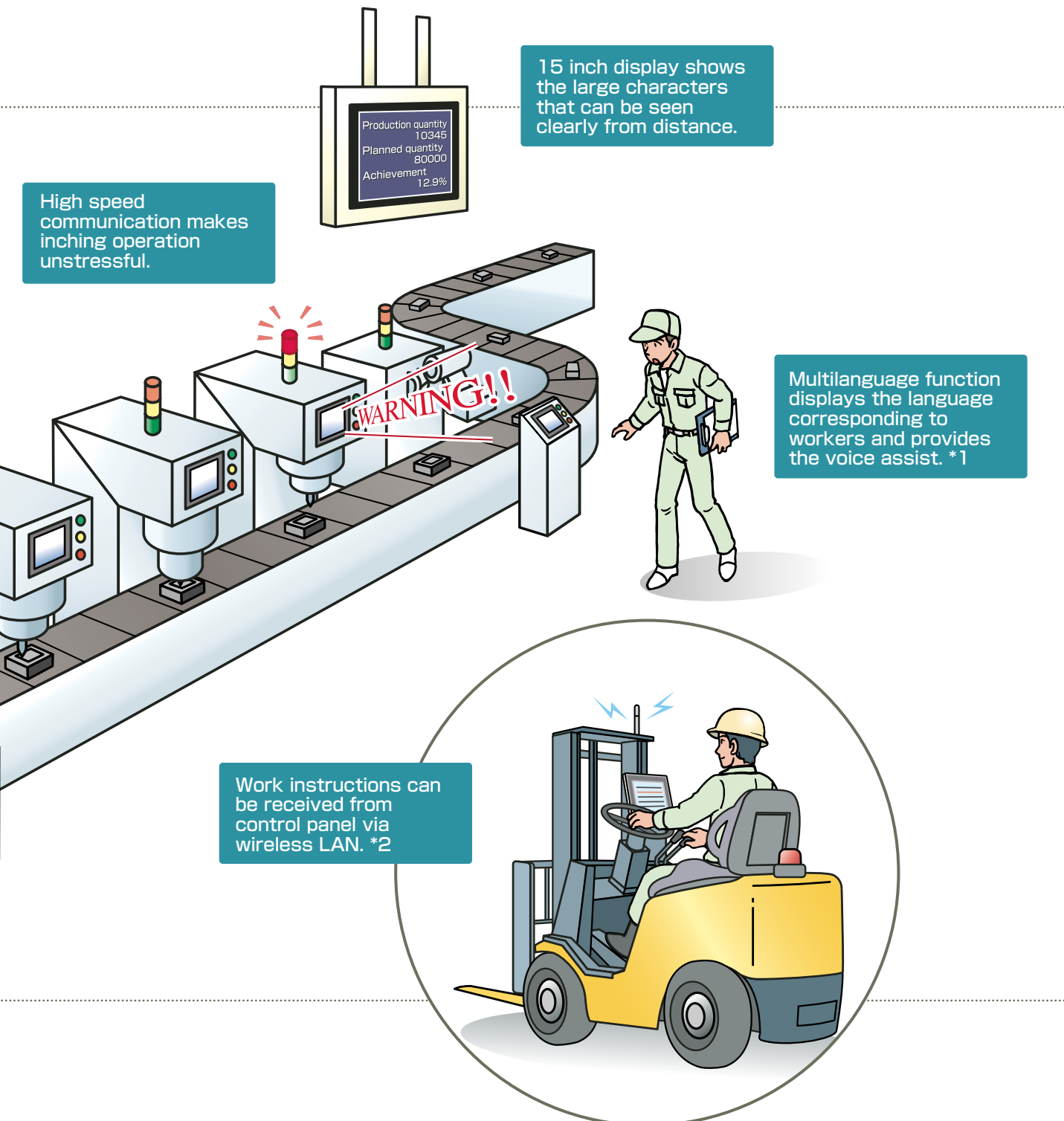
Upload and download display project via intranet and display monitoring in a browser. There will be no need to visit the field site for maintenance.

Detects the system failure and provides the e-mail delivery. You can get grip on the situation remotely.

Logging and storage function of the electric consumption.

Storing the operational pattern data enables to quickly set the product change of the equipment.





\*1 Speaker with amplifier is required.

\*2 Wireless LAN card is required (to be available in 2006).

# Application Examples

## Application Example: General Case

Perform effectively in various situations as information device.

### ● Vending machine with commercial message function

Displays the advertising images on vending machines set up in various places for purchaser and passer. By offering the advertisement of neighborhood shops, advertising revenue can be gained. Advertising data can be updated via internet while stock and sales management can also controlled. This can be a help of local revitalization.

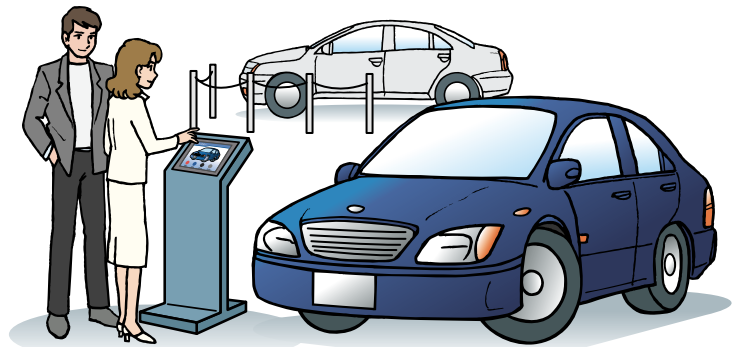
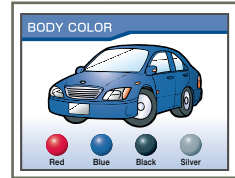
Screen Sample



### ● Product description at exhibitions

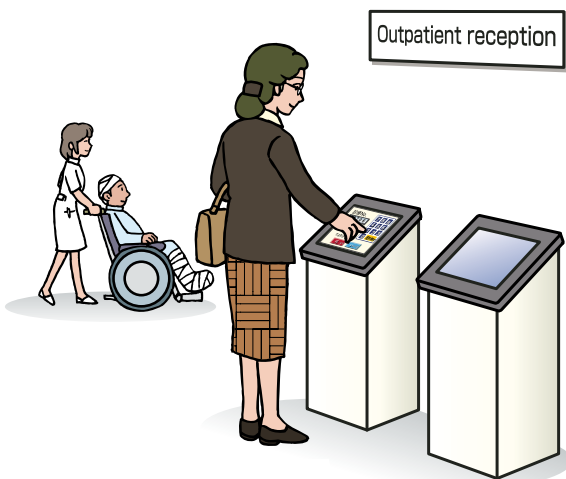
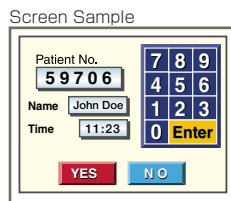
Displays the slideshows of product description. By using the voice assistance, product promotion can be carried out without explainer. Expressing motion and sound the conventional catalog did not have offers the comprehensible explanation of the exhibit.

Screen Sample



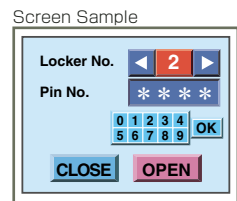
### Hospital reception system

15 inch display provides the screen everyone can use. Large screen and easy-to-operate buttons are applicable at hospital reception. Brief direction for use can be displayed for users.



### Residence delivery locker

Locker system used for receiving delivery packages in the apartments. Package authentication and delivery record can be registered for use of receiving packages during the receiver's absence or at the secured entrance of the apartment. Information of the delivered package can be sent to the individual by e-mail which can be utilized for unattended delivery.



# Software

## Software

Four Great Features of the Software

**Simple**

straightforward

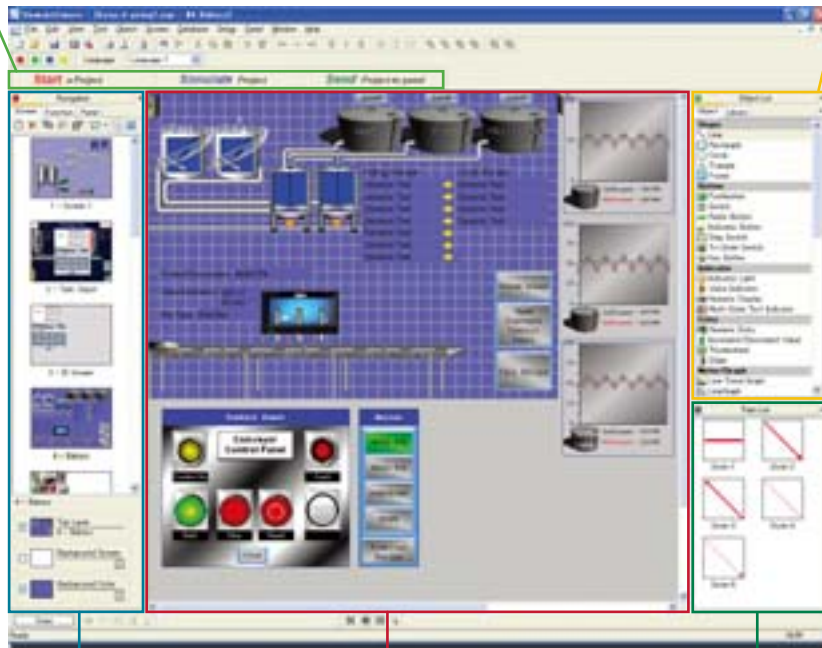
**Beautiful**  
and clear image

**High speed**  
without waste of time

**Expansible**

### 3 step bar

Step1 Start  
Step2 Simulation  
Step3 Send  
Actions such as starting project and implementing to the display can be selected with single button.



### List Window

Wide variety of object can be viewed and selected in this window. You can create the images by dragging the selected item into the configuration window.



### Navigation Window

Shows the popular menu of ViewJetCmore software, the detail of the screen.



### Configuration Window

Parts can be overlapped. Enjoy the free space. Selection can be made with single button.

### Parts list Window

Part drawing patterns corresponding to the object list are shown in this window.



## SYSTEM REQUIREMENTS

Computer and processor : Personal computer with an Intel Pentium II 333-MHz or faster processor □  
 Operating system : □ Japanese/English Microsoft Windows 2000 with Service Pack 4 (SP4) or Windows XP (Home Edition/Professional Edition) □  
 Display : □ XGA (1024 x 768) or a higher-resolution monitor □  
 Hard disk : □ 300 MB of available hard-disk space (600 MB or greater recommended) □  
 Memory : □ 128 MB of RAM or greater (512 MB or greater recommended) □  
 Drive : □ CD-ROM drive □  
 Network : □ TCP/IP network service is required

\*Computer must support USB or Ethernet

Four Great Features of the Software

Simple straightforward  
**Beautiful** and clear image  
 High speed without waste of time  
 Expansible

**Freely expressible by image fonts**

Windows fonts are applicable. \*1  
 Character size can be changed freely and you can customize the design.\*2

ABCDE abcde

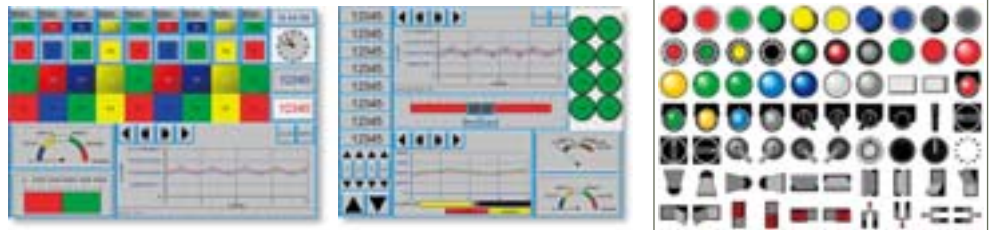
ABCDE abcde

ABCDE abcde

**ABCDE abcde**

**Wide variety of objects**

Various objects can be expressed in graphical forms.



**Utilizing various type of files**

Various types of files such as Image files (bmp) and sound files (wav) can be used. Images can be drawn more realistic.



\*1 Additional CF card required for use of fonts.  
 \*2 Compliant in Bitmap text.

# Software

## Software

Four Great Features of the Software

**Simple**  
straightforward

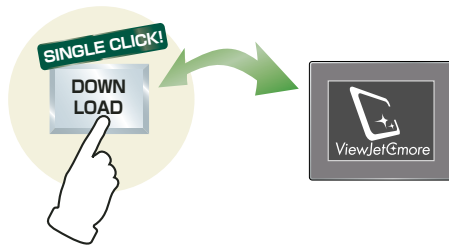
**Beautiful**  
and clear image

**High speed**  
without waste of time

**Expansible**

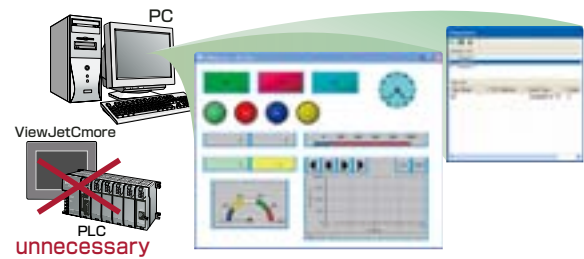
### Easy to upload and download

Upload and download can be done with single button selection without useless settings. Connection via USB and Ethernet makes transfer time unstressful.



### Simulation on computers

Screen operating check can be tested on PC without actual equipments. No need to worry about the preparation of actual equipment or connection.



### Object alignment

To align the object, all you need to do is select and drag into the configuration window. Color and shape can be changed in the property window.



You can align the objects by simply selecting the Line Alignment Menu.



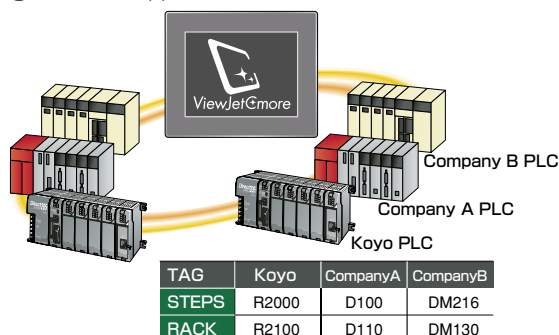
### Settings for connected equipments

Connection condition of ViewJetCmore and PLC can be visually confirmed and set. Settings for connected equipments can be made easily without having any doubts.



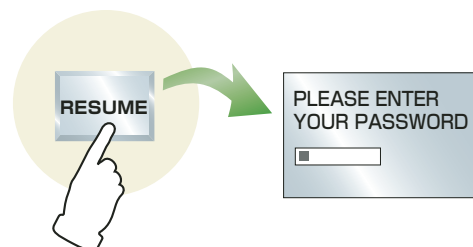
### Tag registration

Tag registration files can be edited and the same images can be applied to PLC of various manufacturers.



### Password settings

Password settings in various patterns can be made in one screen. Password can be set in 8 levels which allow you to create the screen only supervisor can control.

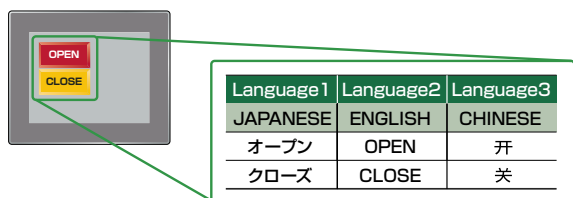


Four Great Features of the Software

**Simple** straightforward  
**Beautiful** and clear image  
**High speed** without waste of time  
**Expansible**

● Utilizing multi-language

Up to 9 languages are applicable.\*1 Characters displayed on top of the window can be switched depending on the pattern. Changing the characters on the same screen can minimize the number of screen.



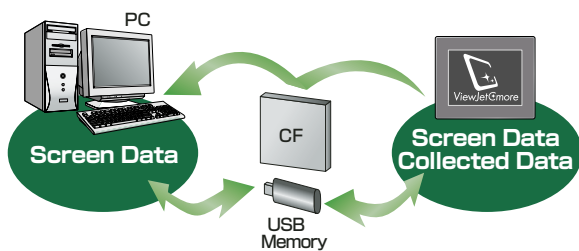
● Utilizing CSV files

Data controlled by ViewJetCmore (tag, message, alarm, and language) can be stored and edited in CSV form which allows you to handle in favorite environment.



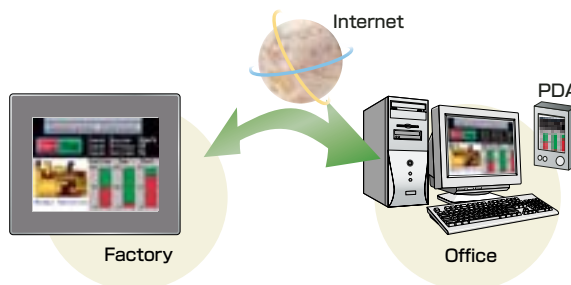
● Utilizing Memory cards

Data can be sent and received by memory cards which allows the workers to work without PC and reduce their workload.



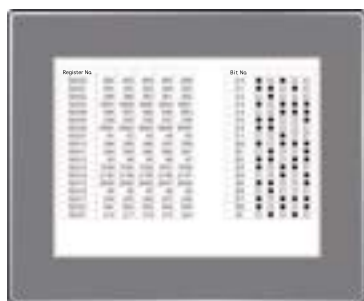
● Browsing images on the screen

Images on display can be browsed remotely on PC or PDA. Reverse images other than the images currently displayed can be browsed as well.



● Browsing register data/bit data

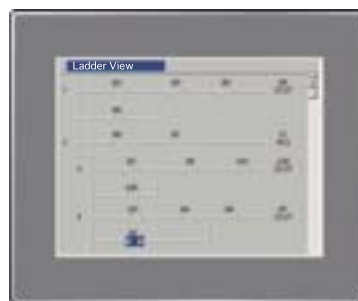
Data list of working PLC can be browsed. It can be used to grasp the situation during maintenance. (To be available in 2006).



Screen Image

● Browsing Koyo PLC ladder diagram

When connected to Koyo PLC, the diagram of the ladder built in PLC can be browsed. PLC program can be checked when operation failure occurs. (To be available in 2006).



Screen Image

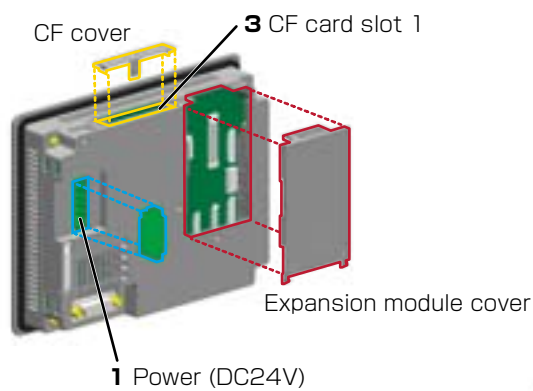
\*1 Additional CF card is required for use of mixed language (example: Japanese and Chinese)

# Interface

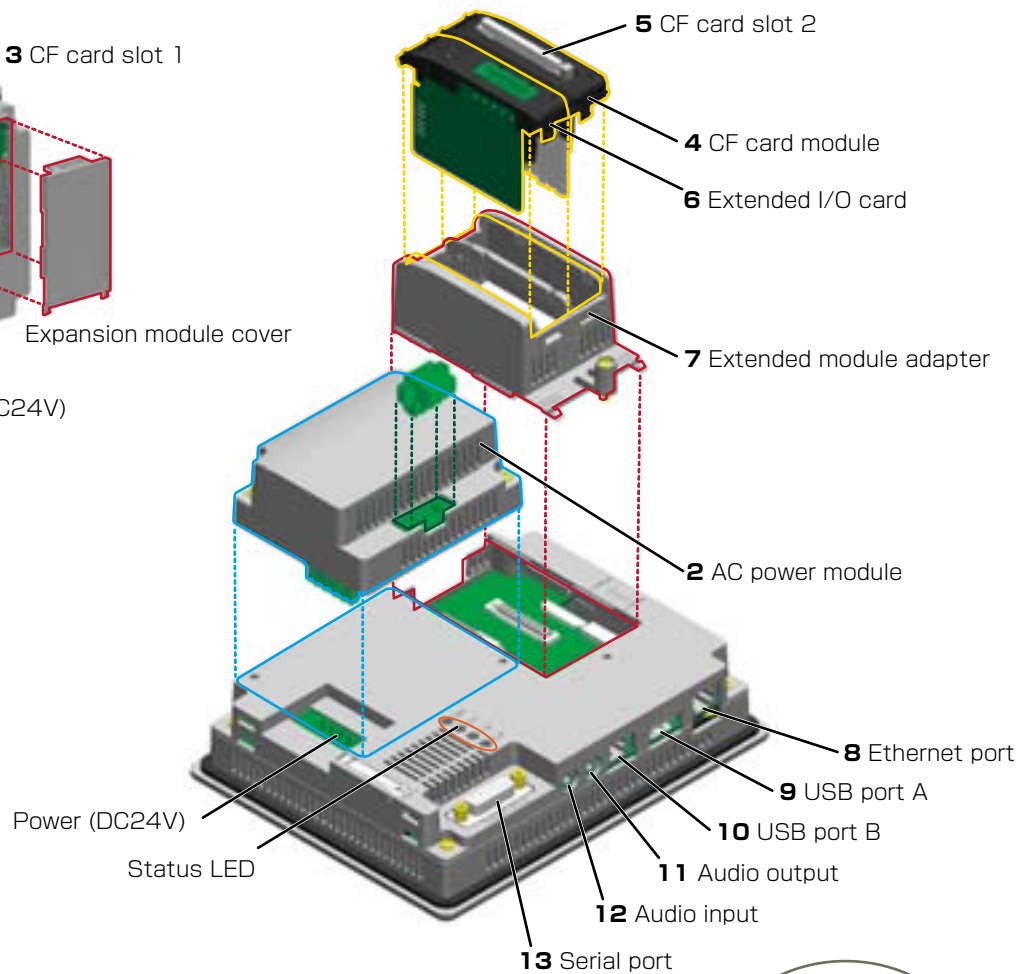
## Interface

Please confirm the mounting image of main unit and optional unit.

### <Standard>



### <Extended with optional units>



## Names and descriptions of each part

1. Power (DC24V): Drives with slim body.
2. AC power module: Drives adaptively to the environment. Applicable in anywhere in the world.
3. CF card slot 1: Upload and download the image data and store the measuring data.
4. CF card module: Storage for larger data (optional).
5. CF card slot 2: Storage for measuring data
6. Extended I/O card: Various applications are available by attaching the each module (optional).
7. Extended module adapter: Extended adapter for 4 CF cards module and 6 extended I/O cards.
8. Ethernet port: High speed upload and download of the image data, upload of measuring data, and connection with PLC.
9. USB port A: Applicable to store the measuring data to handy USB memory device.
10. USB port B: Offers the high speed and comfort upload and download of image data.
11. Audio output: Informs you the alarm not only on the screen but by sound.
12. Audio input: Voice data can be recorded for leaving messages to workers of next shift, etc. (not available in Oct. 2005).
13. Serial port: Connection with PLC.

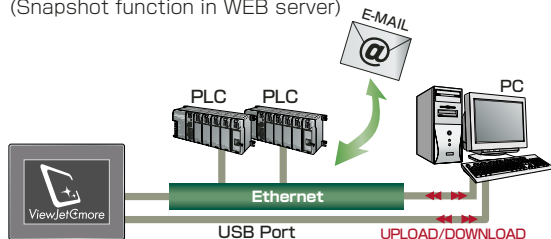
## Example of the utility

- |                   |   |
|-------------------|---|
| 3. CF card slot 1 | [Example of applicable data] image data, logging data |
| 5. CF card slot 2 | [Example of applicable data] logging data             |
| 9. USB port A     | [Example of applicable data] logging data             |

### Example of the utility Interface

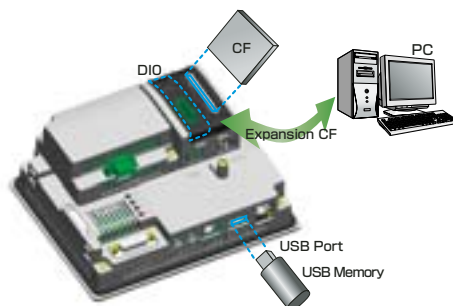
#### Using Ethernet port...

Data can be uploaded and downloaded remotely.  
 Alarm message sent by e-mail.  
 Data file can be read/write via FTP.  
 (CF card / recipe within USB memory / log data)  
 Image currently showed in display can be browsed.  
 (Snapshot function in WEB server)



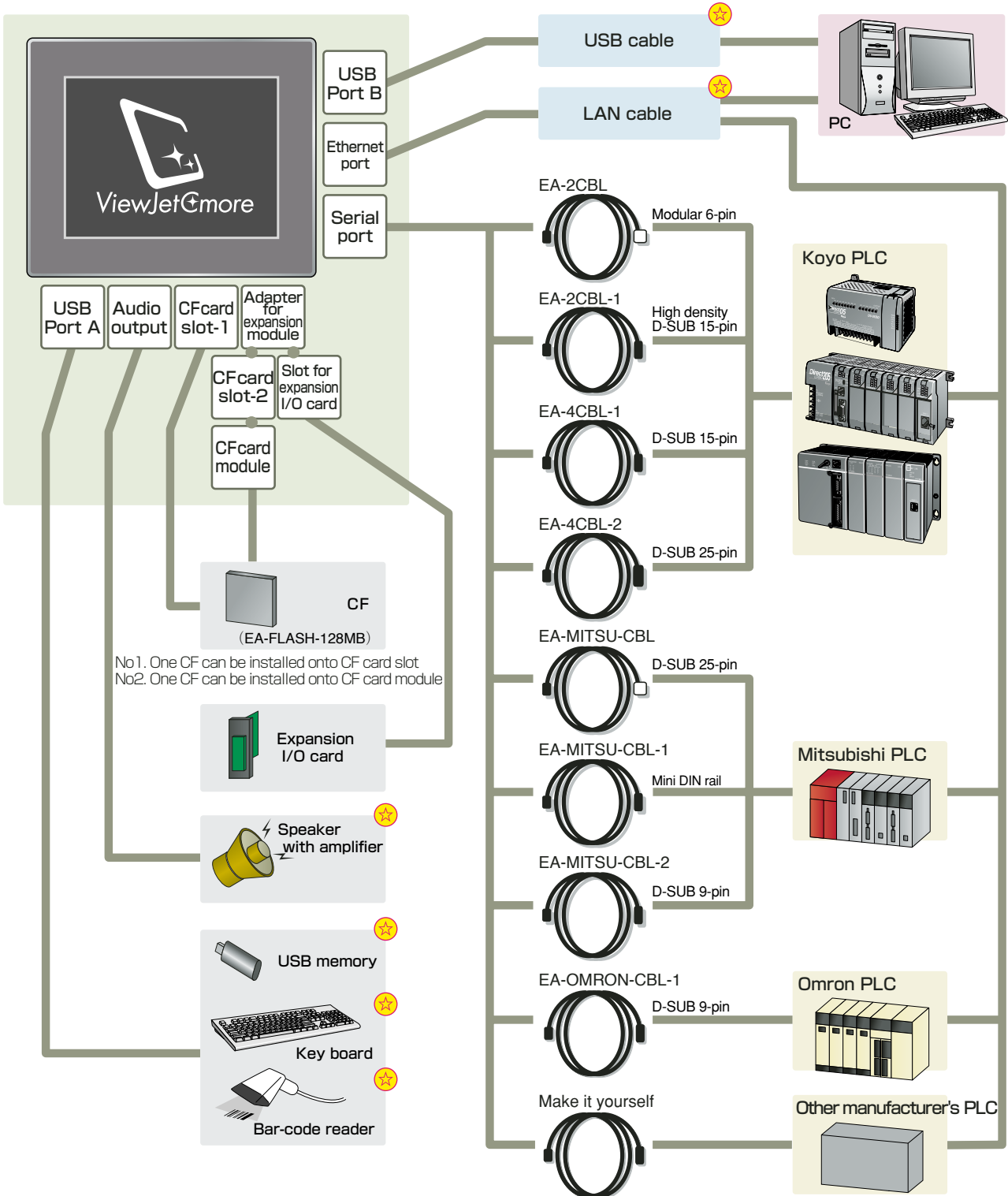
#### Using CF card and USB memory...

Logging data can be collected.  
 Image data can be downloaded.



# System Composition

## System configuration



☆: Can be purchased in local market.

## PLC connection

You can connect ViewJetCmore with the most of PLC from the other manufactures.

### List of PLC connection

Manufacturer	PLC Series	Serial	Ethernet
Koyo	Direct LOGIC DL Series,KOSTAC S Series,20 Series	○	○
Mitsubishi	A Series,QnA Series,Q Series FX Series	○ ○	○ —
Omron	C Series,CV Series,CS Series,SYSMAC $\alpha$ Series,CJ Series	○	○
Matsushita	FP Series	○	○
Yokogawa	FA-M3 Series	○	○
Keyence	KZ,KV Series	○	○
JTEKT(Toyoda Machinery)	PC2 Series,PC3 Series	○	—
Sharp	JW-20 Series,JW-30 Series,JW50/70/100 Series	○	○
Toshiba	T Series	○	○
Yaskawa	GL Series,MP Series,CP Series	○	○
AB	DF1 Series,DH Series,SLC Series	○	○
Entivity (Think & Do)	Modbus Series,WinPLC(DL205/405 Series)	○	○
GE	90/30 Series	○	○
Modicon	Modbus Series	○	○
Siemens	S7 Series	○	—

※Please ask to "osd@koyoele.co.jp" for more details.

### BAR-CODE READER

Applicable specification of bar-code is limited to the models recognized as keyboard in USB type. Tested models are as follows.

Manufacturer	Model Number
Symbol Technology	LS2208

### CF CARD SLOT

Ethernet NE2000 compatible LAN card (to be available in 2006).

# Specifications

## Product specification

Please confirm the detailed specification of the main unit and AC power module.

### Main unit specification

Part number		EA7-S6M-RS	EA7-S6C-RS	EA7-S6M-S	EA7-S6C-S	EA7-T6C-S
Display	Device size	5.7 inch				
	Device type	STN monochrome	STN color	STN monochrome	STN color	TFT color
	Color scale	15 grey shades	256 colors	15 grey shades	256 colors	65,536 colors
	Number of dot	320 x 240 dot (QVGA)				
	Viewing area	115.2(W) x 86.4(H)				
	Brightness alignment	User configurable in the configuration screen				
Backlight	Backlight	Cold cathode tube (Average life time : over 50,000 hours in continuous use) *1				
	User replaceable	No				
	Auto turn off	User configurable in the configuration screen				
Touch panel	Touch panel	Analog type (1024 x 1024)				
External Interface	PLC Interface	Serial	Bit synchronous RS-232C, RS-422/485 (2 or 4 wires) D-SUB 15P (female) x 1 *2			
		Ethernet	No	Ethernet 10BASE-T/100BASE-TX (RJ-45, category 5) x 1 *3		
	Screen data transfer	USB	USB port B 1.1 x 1			
		Ethernet	No	Ethernet 10BASE-T/100BASE-TX (RJ-45, category 5) x 1 *3		
	Printer interface	No				
	CF card slot-1	No	Compact FLASH TYPE I/II x 1			
	CF card slot-2	No	Compact FLASH TYPE I/II x 1(Optional)			
	Ethernet	No	Ethernet 10BASE-T/100BASE-TX (RJ-45, category 5) x 1 *3			
	USB	USB port A 1.1 x 1 *4				
	Audio line output	No	Stereo output pin-jack x 1			
	Audio mic input *5	No	Monophonic input pin-jack x 1			
	External I/O	No	External I/O card slot x 1 (Optional : Koyo DL-05/06 optional card) *5			
General specs.	Rated power voltage	24Vdc ( Optional 100/200 Vac power supply, EA-AC is available)				
	Operating power voltage	19.2 to 28.8Vdc				
	Allowable loss of power	Less than 5 m sec.				
	Power consumption	Less than 9W	Less than 10W	Less than 10W	Less than 11W	Less than 13W
	Operating temperature	0 to 50 degree C				
	Storage temperature	-20 to 60 degree C				
	Operating humidity	10 to 85 % (Non condensing)				
	Storage humidity	10 to 85 % (Non condensing)				
	Noise immunity	Noise voltage AC1000Vp-p 1us pulse width, raise time 1ns (with noise simulator)				
	Hi pot	1000Vac 1 min. (between DC and FG)				
	Insulation resistance	More than 500Vdc 20M ohms (between DC and FG)				
	Vibration	Comply with IEC61131-2, 10-57Hz 0.075mm 57-150Hz 9.8m/s <sup>2</sup> (10 times each for X,Y & Z axis direction)				
	Shock	Maximum 147m/s <sup>2</sup> 11ms (2 times each for X,Y & Z axis direction)				
	Static discharge	Comply with IEC61000-4-2, contact: 4Kv In Air : 8Kv				
	Corrosive gasses	None corrosive gases permitted				
	Grounding	D-class				
	IP rating	Equivalent to IP65 (only surface)				
	Dimensions (mm)	191.0(W)x152.0(H)x43.1(D)				
	Weight(g)	630	600	650	620	650
	Panel-cut (mm) *5	179.0(W)x140.0(H)				
Cooling method	Air cooling					

\*1 25°C, 24 hour continuous lighting

\*2 RS-232C or 422 or 485

\*3 sharing

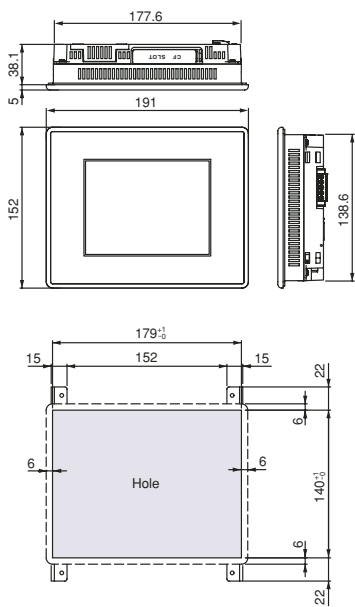


# Dimensions

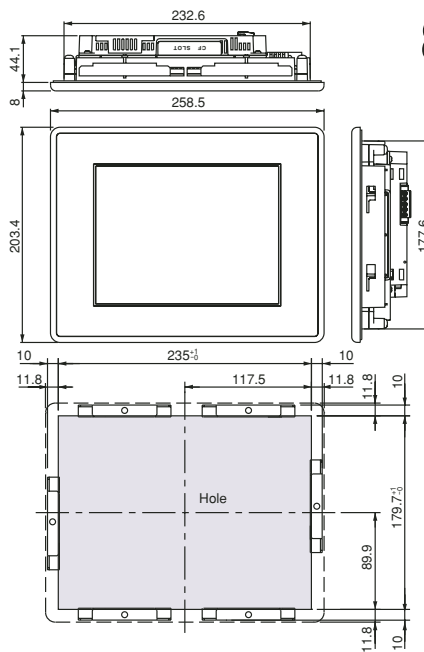
## Outline diagram

5 figures are available for every purpose. Please select the dimension that suits the installation location.

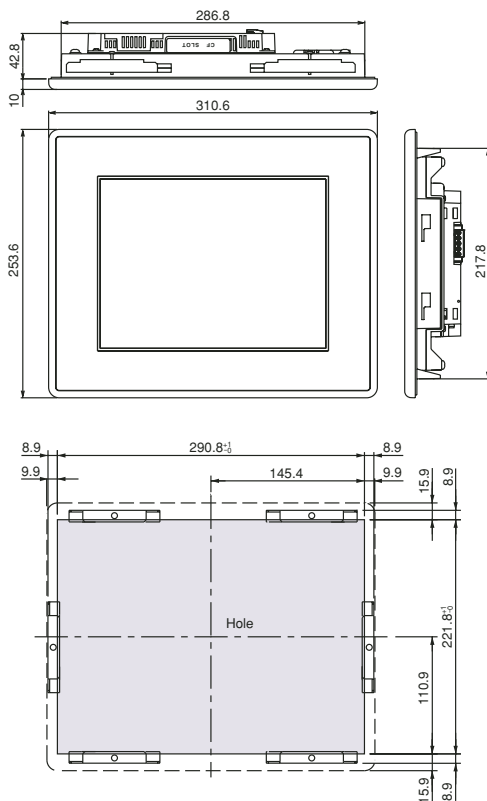
**5.7**  
INCH



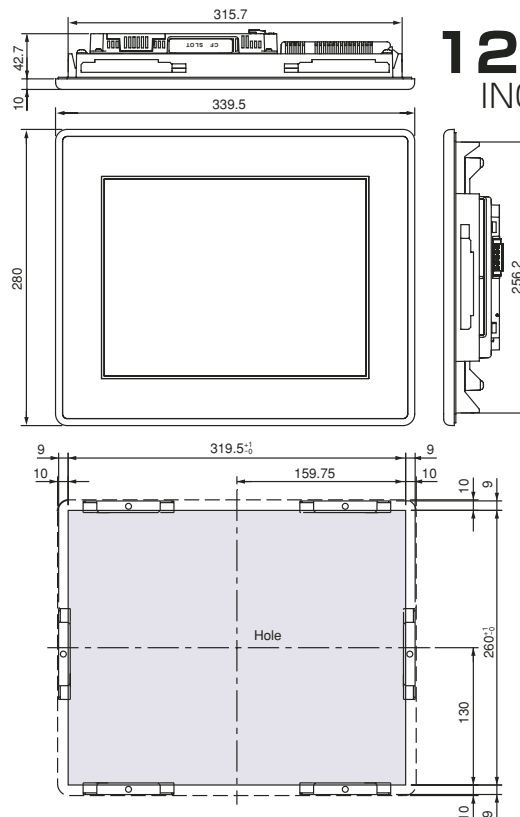
**8.4**  
INCH



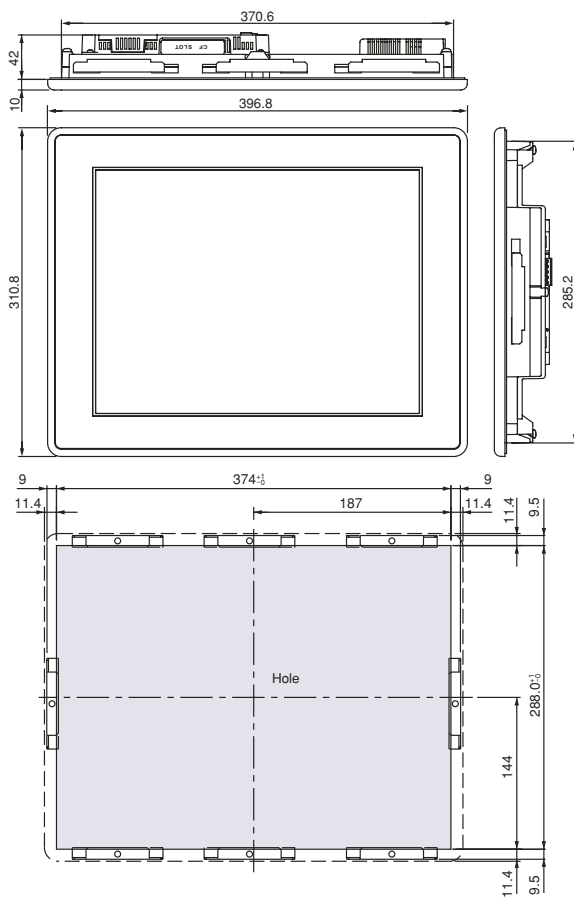
**10.4**  
INCH



**12.1**  
INCH



15.0  
INCH



(Unit : mm)

### Instruction for use

Koyo products are designed to be used as general electronic devices.  
 Please do not apply to where involve human lives or requires high reliability.  
 When considering applying to the units related to transport machine control and safety (trains, cars etc.), traffic control signals, accident/crime prevention or where use environment/condition differs from general electronic device specification, please contact our Sales department in advance.



ViewJet<sup>+</sup>more

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