**Fe**
*e-Front runners*

# MONITOUCH

# V8
series



**F1**  **F2**  **F3**  **F4**  **F5**  **F6**  **F7**

# Expanding the Possibilities of the Future

## Hakko Electronics Co., Ltd.
### www.monitouch.com

# MONITOUCH V8 series

For optimal performance, connectivity and usability
The MONITOUCH V8 series has expanded the potential of
programmable operator interface panels.

# Realize the Ideal

## High Performance

The new MONITOUCH series has realized the best possible performance with a newly developed high-speed algorithm and a high level of visibility for efficient operation.

## Connectivity

8-way communication with up to eight kinds of devices and two USB channels ensure high compatibility and expandability of your system.

## Usability

User-friendly component parts and functional switches enable simple and speedy display configuration.

# Our wide range of products allows you to sele

| | | 15.0 inches | 12.1 inches | 10.4 |
|---|---|---|---|---|
| **NEW** **V8** series | High-performance model | **V815iX**  TFT XGA 64K Color | **V812iS/V812S**  TFT SVGA 64K Color | **V810iS/V810S**  TFT SVGA 64K Color |
| Revolutionary features for production sites: 8-way communication and 16-million colors high-resolution video display. As well as V8 series have the same panel cutouts as V7 series, the V7 screen program can be utilized in V8 series. A multi-feature model with the ultimate operator interface panel. | Standard model | | | |
| **V7** series | High-performance model | **V715X**  TFT XGA 32K Color | **V712iS/V712S**  TFT SVGA 32K Color | **V710iS/V710S**  TFT SVGA 32K Color |
| Comes in a variety of models including large-size (15-inch XGA) and small-size (5.7-inch). A versatile and high-ranking series that can be widely used ranging from the net working to stand-alone. | Standard model | | | |
| **V6** series | Standard model | | | |
| Has all of the basic functions. Entry-level models that will satisfy your needs in superior usability and cost-effectiveness. | | | | |

4

# ect the one that best fits your needs.

| inches | 8.4 inches | 7.7 inches | 5.7 inches | | |
|---|---|---|---|---|---|
| **V810iT/V810T**  TFT VGA 64K Color | **V808iSD/ V808SD**  TFT SVGA 64K Color | | | | |
| **V810iC/V810C**  TFT VGA 64K Color | **V808iCD/ V808CD**  TFT VGA 64K Color | **V808iCH/ V808CH**  TFT VGA 64K Color | **V806iTD/ V806TD**  TFT QVGA 64K Color | **V806iCD/ V806CD**  STN QVGA 64K Color | **V806iMD/ V806MD**  STN QVGA MONO |
| **V710iT/V710T**  TFT VGA 32K Color | **V708iSD/ V708SD**  TFT SVGA 32K Color | | | | |
| **V710C**  TFT VGA 128 Color | | **V708CD**  STN VGA 128 Color | **V706TD**  TFT QVGA 32K Color | **V706CD**  STN QVGA 32K Color | **V706MD**  STN QVGA MONO |
| | | **V608CH**  STN VGA 128 Color | **V606eC**  STN QVGA 16 Color | **V606eM**  STN QVGA MONO | |

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty

# V815 series

**All information at the production site is displayed on the XGA wide screen! Flagship model in V8 series.**

15-inch model  CE cULus *3

## Flagship model XGA 65,536 colors



X

| 15 inches | TFT | XGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | A·B USB | Analog | Ether |

### V815iX  (camera option / RGB option / sound option / AC power)
### V815iXD  (camera option / RGB option / sound option / DC power)

## V815 models

V815iX ☐—[Power supply specifications] N/A: AC100-240V specifications  D: DC24V (CE/UL/cUL approved)
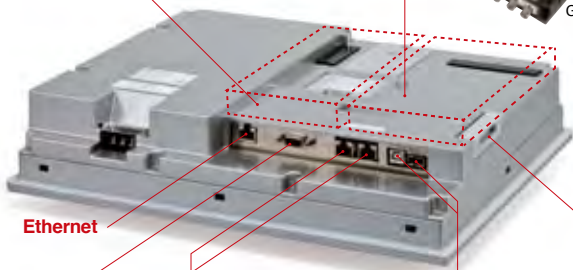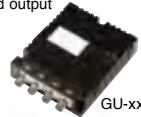
### Communication units
· OPCN-1
· T-Link
· CC-Link
· Ethernet
· PROFIBUS-DP
· DeviceNet *1
· FL-net
· SX Bus

CU-xx

### Optional units
· Video input + RGB input
· RGB input (2ch)
· Video input + sound output
· RGB input + sound output
· RGB output + sound output
· Sound output

GU-xx

**Ethernet**

**USB-A
USB-B** ▶P16

**CF Card**

### Serial connection
**D-Sub 9-pin** ▶P14
· PLC
· Temperature controller/ Inverter
· General PC
· Bar code reader

### Serial connection
**Modular 8-pin** ▶P14
· PLC
· Temperature controller/ Inverter
· Card recorder (CREC)
· Bar code reader
· V-I/O

· V-Link
· PLC ladder transfer
· Modbus slave
· Printer (serial)

| | Model | V815iX |
|---|---|---|
| Basic specification | Display size | 15 inches |
| | Display device | TFT color LCD |
| | Resolution | 1,024×768 dots |
| | Display colors | 65,536 colors(without blinks)/32,768 colors(with blinks) |
| | Display memory | FROM (12.5MB) |
| | Backup memory | SRAM (512KB) |
| Interface | D-Sub 9-pin CN1 | RS-232C, RS-422/485, Asynchronous Data length: 7 bits, 8 bits,  Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200, 187500*2bps |
| | Modular 8-pin MJ1/MJ2 | RS-232C・RS-422/485(2-wire), Asynchronous Data length: 7 bits, 8 bits  Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps |
| | Ethernet | 100BASE-TX /10BASE-T Built-in |
| | Communication I/F | Equipped |
| | Extend I/F | Equipped |
| | CF card I/F | Equipped |
| | USB I/F | Type A and B(Ver1.1) |
| Options | Video (4ch) | GU-00 |
| | RGB input | GU-01 |
| | RGB output | GU-02 |
| | Video (2ch)+RGB input | GU-10 |
| | RGB input (2ch) | GU-11 |
| | Sound output | GU-00 ~ 03 |
| | Communication unit | CU-00 ~ 08 |
| | I/O unit | V-I/O |
| Compatibility | CE Marking*3 | EN61000-6-2, EN61000-6-4 |
| | UL/cUL*3 | UL508 |
| | RoHS directive | Complied |

*1  Under development
*2  When connected with SIEMENS MPI
*3  Only with 24V DC models

### Legend of icons

| 12.1 inches Display size (inches) | TFT STN Display device | SVGA Display resolution | 64K color Display colors | 12.5M FROM FROM capacity | 512K SRAM SRAM (byte) | 3ch serial Serial port | Ether Ethernet 100BASE-TX/10BASE-T |

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service Product Warranty

# V812 series

## High visibility and stability of SVGA. Offers you high performance.

12.1-inch model CE c(UL)us *3

### High-performance model SVGA 65,536 colors

S

| 12.1 inches | TFT | SVGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB |

With Ethernet port
### V812iS  Ether | option / RGB option / option

Without Ethernet port
### V812S  Ether option

## V812 models

V812 □ S □□ ——[Power supply specifications] N/A: AC100-240V specifications  D: DC24V (CE/UL/cUL approved)

[Touch switch specifications] N/A: Analog resistive switch  M: Matrix resistive switch

[Functional specifications] N/A: Without built-in LAN port, without optional unit port
i: With built-in LAN port, with optional unit port

**Communication units**
· OPCN-1
· T-Link
· CC-Link
· Ethernet
· PROFIBUS-DP
· DeviceNet *1
· FL-net
· SX Bus

CU-xx

**Optional units**
· Video input + RGB input
· RGB input (2ch)
· Video input + sound output
· RGB input + sound output
· RGB output + sound output
· Sound output

GU-xx

**Serial connection**
**Modular 8-pin** ▶P14
· PLC
· Temperature controller/
  Inverter
· Card recorder (CREC)
· Bar code reader
· V-I/O

· V-Link
· Touch switch
· PLC ladder transfer
· Modbus slave
· Printer (serial)

**Ethernet**

**Serial connection**
**D-Sub 9-pin** ▶P14
· PLC
· Temperature controller/
  Inverter
· General PC
· Bar code reader

**USB-A
USB-B** ▶P16

**CF Card**

| | Model | V812iS | V812S |
|---|---|---|---|
| **Basic specification** | Display size | 12.1 inches | |
| | Display device | TFT color LCD | |
| | Resolution | 800×600 dots | |
| | Display colors | 65,536 colors(without blinks)/32,768 colors(with blinks) | |
| | Display memory | FROM (12.5MB) | |
| | Backup memory | SRAM (512KB) | |
| **Interface** | D-Sub 9-pin CN1 | RS-232C, RS-422/485, Asynchronous Data length: 7 bits, 8 bits,  Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200, 187500*2bps | |
| | Modular 8-pin MJ1/MJ2 | RS-232C · RS-422/485(2-wire), Asynchronous Data length: 7 bits, 8 bits  Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps | |
| | Ethernet | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) |
| | Communication I/F | Equipped | |
| | Extend I/F | Equipped | – |
| | CF card I/F | Equipped | |
| | USB I/F | Type A and B(Ver1.1) | |
| **Options** | Video (4ch) | GU-00 | – |
| | RGB input | GU-01 | – |
| | RGB output | GU-02 | – |
| | Video (2ch)+RGB input | GU-10 | – |
| | RGB input (2ch) | GU-11 | – |
| | Sound output | GU-00 ~ 03 | – |
| | Communication unit | CU-00 ~ 08 | |
| | I/O unit | V-I/O | |
| **Compatibility** | CE Marking*3 | EN61000-6-2, EN61000-6-4 | |
| | UL/cUL*3 | UL508/UL1604*4 | |
| | RoHS directive | Complied | |

*1  Under development    *2  When connected with SIEMENS MPI
*3  Only with 24V DC models
*4  Contact us if UL1604 needs to be supported.

| COM I/F | Communication unit I/F | CF | CF card I/F | A·B USB | USB I/F | AC power | Power Supply | Analog Matrix | Analog switch / Matrix switch | option | Video input | RGB option | RGB input/output | option | Sound output | option | Option |

# V810 series

**High-performance panels in 65,536 colors**
**Three grades of models from standard to high-performance**

**10.4**-inch model CE c(UL)us LISTED *5

| High-performance model SVGA | Highly-functional model VGA | Standard model VGA |
|---|---|---|
| S | T | C |

**With Ethernet port**
**V810iS** Ether | □ option | RGB option | ◄)) option

**Without Ethernet port**
**V810S** Ether option

10.4 inches | TFT | SVGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB

**With Ethernet port**
**V810iT** Ether | □ option | RGB option | ◄)) option

**Without Ethernet port**
**V810T** Ether option

10.4 inches | TFT | VGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB

**With Ethernet port**
**V810iC** Ether

**Without Ethernet port**
**V810C** *1 Ether option

10.4 inches | TFT | VGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB

## V810 models

V810 ☐☐☐☐
— [Power supply specifications] N/A: AC100-240V specifications  D: DC24V (CE/UL/cUL approved)
— [Touch switch specifications] N/A: Analog resistive switch  M: Matrix resistive switch
— [Device specifications] S: TFT color LCD (SVGA)  T: TFT color LCD (VGA)  C: TFT color LCD (VGA)
— [Functional specifications] N/A: Without built-in LAN port, without optional unit port
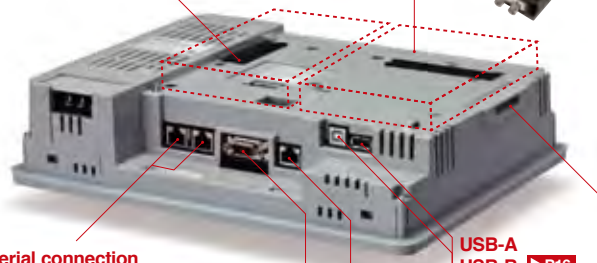i: With built-in LAN port, with optional unit port *2

**Communication units**
· OPCN-1
· T-Link
· CC-Link
· Ethernet
· PROFIBUS-DP
· DeviceNet *3
· FL-net
· SX Bus

CU-xx

**Optional units**
· Video input + RGB input
· RGB input (2ch)
· Video input + sound output
· RGB input + sound output
· RGB output + sound output
· Sound output

GU-xx

**Serial connection**
**Modular 8-pin** ▶P14
· PLC
· Temperature controller/ Inverter
· Card recorder (CREC)
· Bar code reader
· V-I/O
· V-Link
· Touch switch
· PLC ladder transfer
· Modbus slave
· Printer (serial)

**Ethernet**

**Serial connection**
**D-Sub 9-pin** ▶P14
· PLC
· Temperature controller/ Inverter
· General PC
· Bar code reader

**USB-A**
**USB-B** ▶P16

**CF Card**

*1  FROM 4.5Mbytes · SRAM 128Kbytes
*2  Optional ports are not available in V810iC

| | Model | V810iS | V810S | V810iT | V810T | V810iC | V810C |
|---|---|---|---|---|---|---|---|
| Basic specification | Display size | 10.4 inches | | | | | |
| | Display device | TFT color LCD | | | | | |
| | Resolution | 800×600 dots | | 640×480 dots | | | |
| | Display colors | 65,536 colors(without blinks)/32,768 colors(with blinks) | | | | | |
| | Display memory | FROM (12.5MB) | | | | FROM (4.5MB) | |
| | Backup memory | SRAM (512KB) | | | | SRAM (128MB) | |
| Interface | D-Sub 9-pin CN1 | RS-232C, RS-422/485, Asynchronous Data length: 7 bits, 8 bits,  Parity: even, odd, none Stop bit: 1 bit, 2 bits, Baud rate: 4800, 9600, 19200, 38400,57600, 76800, 115200, 187500*4bps | | | | | |
| | Modular 8-pin MJ1/MJ2 | RS-232C · RS-422/485(2-wire), Asynchronous Data length: 7 bits, 8 bits  Parity: even, odd, none Stop bit: 1 bit, 2 bits, Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps | | | | | |
| | Ethernet | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) |
| | Communication I/F | Equipped | | | | | |
| | Extend I/F | Equipped | – | Equipped | – | – | – |
| | CF card I/F | Equipped | | | | | |
| | USB I/F | Type A and B(Ver1.1) | | | | | |
| Options | Video (4ch) | GU-00 | – | GU-00 | – | – | – |
| | RGB input | GU-01 | – | GU-01 | – | – | – |
| | RGB output | GU-02 | – | GU-02 | – | – | – |
| | Video (2ch)+RGB input | GU-10 | – | GU-10 | – | – | – |
| | RGB input (2ch) | GU-11 | – | GU-11 | – | – | – |
| | Sound output | GU-00 ~ 03 | – | GU-00 ~ 03 | – | – | – |
| | Communication unit | CU-00 ~ 08 | | | | | |
| | I/O unit | V-I/O | | | | | |
| Compatibility | CE Marking*5 | EN61000-6-2, EN61000-6-4 | | | | | |
| | UL/cUL*5 | UL508/UL1604*6 | | | | | |
| | RoHS directive | Complied | | | | | |

*3  Under development    *4  When connected with SIEMENS MPI
*5  Only with 24V DC models
*6  Contact us if UL1604 needs to be supported.

**Legend of icons**

| 12.1 inches | Display size (inches) | TFT STN | Display device | SVGA | Display resolution | 64K color | Display colors | 12.5M FROM | FROM capacity | 512K SRAM | SRAM (byte) | 3ch serial | Serial port | Ether | Ethernet 100BASE-TX/10BASE-T |

# V808series

## Compact yet functional panels in 65,536 colors. SVGA models are also available.

### 8.4-inch model ℅ CE cULus LISTED

Display/Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service/Product Warranty

| High-performance model SVGA | Standard model VGA |
|---|---|

**S**

**C**

| 8.4 inches | TFT | SVGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB | DC power | Analog |

With Ethernet port
### V808iSD  Ether | Video option | RGB option | Sound option
Without Ethernet port
### V808SD  Ether option

| 8.4 inches | TFT | VGA | 64K color | 12.5M FROM | 512K SRAM | 3ch serial | COM I/F | CF | A·B USB | DC power | Analog |

With Ethernet port
### V808iCD  Ether
Without Ethernet port
### V808CD *1  Ether option

### V808 models

V808 ☐ ☐ D

[Device specifications] S: TFT color LCD (SVGA)  C: TFT color LCD (VGA)

[Functional specifications] N/A: Without built-in LAN port, without optional unit port
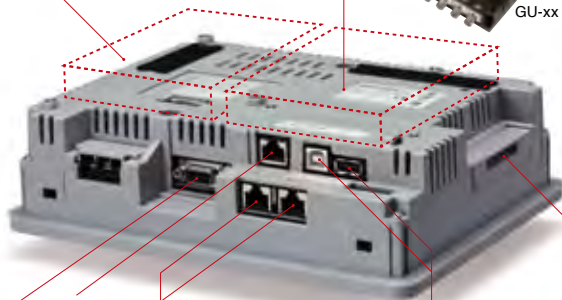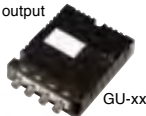i: With built-in LAN port, with optional unit port *2

### Communication units
- OPCN-1
- T-Link
- CC-Link
- Ethernet
- PROFIBUS-DP
- DeviceNet *3
- FL-net
- SX Bus

CU-xx

### Optional units
- Video input + RGB input
- RGB input (2ch)
- Video input + sound output
- RGB input + sound output
- RGB output + sound output
- Sound output

GU-xx

### Ethernet

### Serial connection
**D-sub 9-pin** ▶P14
- PLC
- Temperature controller/Inverter
- General PC
- Bar code reader

### Serial connection
**Modular 8-pin** ▶P14
- PLC
- Temperature controller/Inverter
- Card recorder (CREC)
- Bar code reader
- V-I/O
- V-Link
- Touch switch
- PLC ladder transfer
- Modbus slave
- Printer (serial)

### USB-A USB-B ▶P16

### CF Card

*1  FROM 4.5Mbytes · SRAM 128Kbytes
*2  Optional ports are not available in V808iC

| | Model | V808iSD | V808SD | V808iCD | V808CD |
|---|---|---|---|---|---|
| Basic specification | Display size | 8.4 inches | | | |
| | Display device | TFT color LCD | | | |
| | Resolution | 800×600 dots | | 640×480 dots | |
| | Display colors | 65,536 colors(without blinks)/32,768 colors(with blinks) | | | |
| | Display memory | FROM (12.5MB) | | | FROM (4.5MB) |
| | Backup memory | SRAM (512KB) | | | SRAM (128MB) |
| Interface | D-Sub 9-pin CN1 | RS-232C, RS-422/485, Asynchronous Data length: 7 bits, 8 bits, Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400,57600, 76800, 115200, 187500*4bps | | | |
| | Modular 8-pin MJ1/MJ2 | RS-232C · RS-422/485(2-wire), Asynchronous Data length: 7 bits, 8 bits  Parity: even, odd, none Stop bit: 1 bit, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps | | | |
| | Ethernet | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) |
| | Communication I/F | Equipped | | | |
| | Extend I/F | Equipped | – | – | – |
| | CF card I/F | Equipped | | | |
| | USB I/F | Type A and B(Ver1.1) | | | |
| Options | Video (4ch) | GU-00 | – | – | – |
| | RGB input | GU-01 | – | – | – |
| | RGB output | GU-02 | – | – | – |
| | Video (2ch)+RGB input | GU-10 | – | – | – |
| | RGB input (2ch) | GU-11 | – | – | – |
| | Sound output | GU-00 ~ 03 | – | – | – |
| | Communication unit | CU-00 ~ 08 | | | |
| | I/O unit | V-I/O | | | |
| Compatibility | CE Marking | EN61000-6-2, EN61000-6-4 | | | |
| | UL/cUL | UL508/UL1604*5 | | | |
| | RoHS directive | Complied | | | |

*3  Under development    *4  When connected with SIEMENS MPI
*5  Contact us if UL1604 needs to be supported.

| COM I/F | Communication unit I/F | CF | CF card I/F | A·B USB | USB I/F | AC power | Power Supply | Analog Matrix | Analog switch / Matrix switch | Video option | Video input | RGB option | RGB input/output | Sound option | Sound output | option | Option |

# V806 series

**High-performance compact models**

5.7-inch model  CE c(UL)us LISTED

| Standard model QVGA 65,536 colors | | Standard model QVGA (16 grayscale) |
|---|---|---|
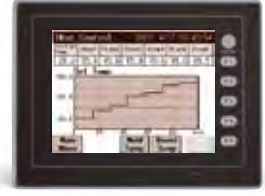
**T**
5.7 inches | TFT | QVGA | 64K color | 4.5M FROM | 512K SRAM | 2ch serial | COM I/F | A·B USB
DC power | Analog

With Ethernet port
**V806iTD**  Ether | CF option
Without Ethernet port
**V806TD** *1  Ether option | CF option *2

**V806 models**
V806 ☐ ☐ D
[Device specifications] T: TFT color LCD (QVGA)  C: STN color LCD (QVGA)  M: STN monochrome LCD (QVGA)
[Functional specifications] N/A: Without built-in LAN port    i: With built-in LAN port

**C**
5.7 inches | STN | QVGA | 64K color | 4.5M FROM | 512K SRAM | 2ch serial | COM I/F | A·B USB
DC power | Analog

With Ethernet port
**V806iCD**  Ether | CF option
Without Ethernet port
**V806CD** *1  Ether option | CF option *2

**M**
5.7 inches | STN | QVGA | MONO | 4.5M FROM | 512K SRAM | 2ch serial | COM I/F | A·B USB
DC power | Analog

With Ethernet port
**V806iMD**  Ether | CF option
Without Ethernet port
**V806MD** *1  Ether option | CF option *2

*1  SRAM 128Kbytes
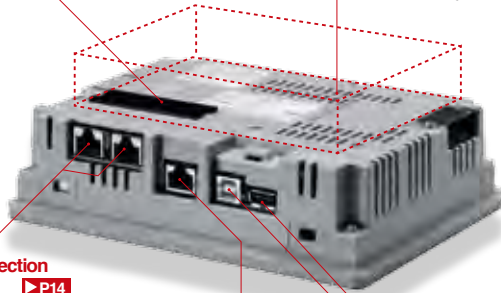*2  Concurrent use of Ethernet and CF card is not available

**Communication units**
· OPCN-1
· T-Link
· CC-Link
· Ethernet
· PROFIBUS-DP
· DeviceNet *3
· FL-net
· SX Bus

CU-xx

**Optional units**
· D-Sub 9-pin + CF Card I/F

DU-10

**Serial connection**
**Modular 8-pin**  ▶P14
· PLC
· Temperature controller/ Inverter
· Card recorder (CREC)
· Bar code reader
· V-I/O
· V-Link
· PLC ladder transfer
· Modbus slave
· Printer (serial)

**USB-A**
**USB-B**  ▶P16

**Ethernet**

| | Model | V806iTD | V806TD | V806iCD | V806CD | V806iMD | V806MD |
|---|---|---|---|---|---|---|---|
| Basic specification | Display size | 5.7 inches | | | | | |
| | Display device | TFT color LCD | | STN color LCD | | STN monochrome LCD | |
| | Resolution | 320×240 dots | | | | | |
| | Display colors | 65,536 colors (without blinks) 32,768 colors (with blinks) | | | | 16 grayscale (with blinks) | |
| | Display memory | FROM (4.5MB) | | | | | |
| | Backup memory | SRAM (512KB) | SRAM (128KB) | SRAM (512KB) | SRAM (128KB) | SRAM (512KB) | SRAM (128KB) |
| Interface | D-Sub 9-pin CN1 *4 | RS-232C · RS-422/485(2-wire), Asynchronous  Data length: 7 bits, 8 bits  Parity: even, odd, none  Stop bit: 1 bit, 2 bits  Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps | | | | | |
| | Modular 8-pin MJ1/MJ2 *5 | RS-232C, RS-422/485, Asynchronous  Data length: 7 bits, 8 bits,  Parity: even, odd, none  Stop bit: 1 bit, 2 bits  Baud rate: 4800, 9600, 19200, 38400,57600, 76800, 115200, 187500 *6 bps | | | | | |
| | Ethernet | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) | 100BASE-TX /10BASE-T Built-in | Option (CU-03-3) |
| | Communication I/F | Equipped | | | | | |
| | CF card I/F | Equipped *4 | | | | | |
| | USB I/F | Type A and B(Ver1.1) | | | | | |
| Options | Communication unit | CU-00 ~ 08 | | | | | |
| | I/O unit | V-I/O | | | | | |
| Compatibility | CE Marking | EN61000-6-2, EN61000-6-4 | | | | | |
| | UL/cUL | UL508/UL1604 | | | | | |
| | RoHS directive | Complied | | | | | |

*3  Under development
*4  Available only when equipped with DU-10 (option)
*5  MJ2 is connectable with RS-422 (4-wire)
*6  Available only when connected with SIEMENS MPI (MJ2 only). Not compatible with D-Sub 9-pin (option)

**Legend of icons**

| | | | | |
|---|---|---|---|---|
| 12.1 inches Display size (inches) | TFT STN Display device | SVGA Display resolution | 64K color Display colors | 12.5M FROM FROM capacity |
| 512K SRAM SRAM (byte) | 3ch serial Serial port | Ether Ethernet 100BASE-TX/10BASE-T | | |

# V808CH series

**Pendant type model in V8 series**

## 7.5-inch model  CE cULus LISTED

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service Product Warranty

## Handy type model supporting Ethernet



7.5 inches | TFT | VGA | 64K color | 2ch serial | CF | B USB | DC power | Analog

**With Ethernet port**

### V808iCH  Ether | 12.5M FROM | 512K SRAM

**Without Ethernet port**

### V808CH  4.5M FROM | 128K SRAM

## V808CH models
V808 □ CH □

|   | Key switch | Deadman switch | |
|---|---|---|---|
|   |   | Switch type | External output |
| 0 | Unequipped | Momentary | Unequipped |
| 1 | Equipped | Momentary | Unequipped |
| 2 | Unequipped | 3-position | 1 contact |
| 3 | Equipped | 3-position | 1 contact |
| 4 | Unequipped | 3-position | 2 contacts |

[Functional specifications]
N/A: Without built-in LAN port    i: With built-in LAN port

**CF Card I/F**
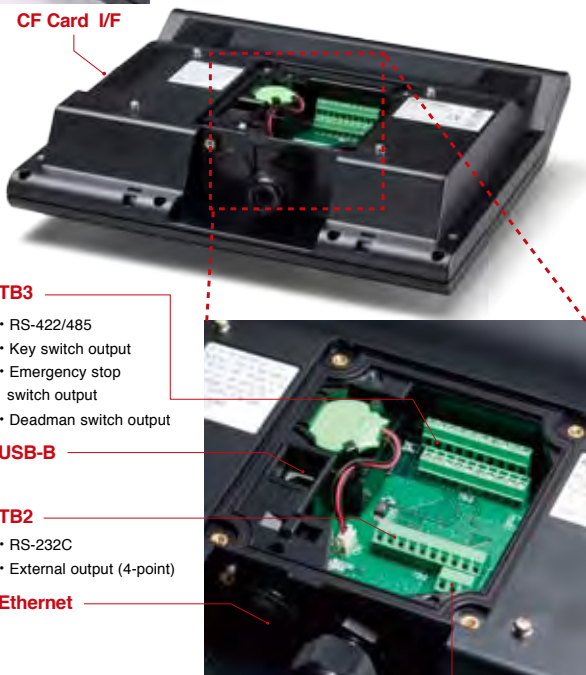


**TB3**
· RS-422/485
· Key switch output
· Emergency stop switch output
· Deadman switch output

**USB-B**

**TB2**
· RS-232C
· External output (4-point)

**Ethernet**



**TB1**
power supply
(DC24V)

| Model | V808iCHx | V808CHx |
|---|---|---|
| Display size | 7.5 inches | |
| Display device | TFT color LCD | |
| Resolution | 640×480 dots | |
| Display colors | 65,536 colors(without blinks) / 32,768 colors(with blinks) | |
| Display memory | FROM (12.5MB) | FROM (4.5MB) |
| Backup memory | SRAM (512KB) | SRAM (128KB) |
| Clock | Equipped | |
| Ethernet | 100BASE-TX /10BASE-T Built-in | Unequipped |
| CF card I/F | Equipped | |
| USB I/F | Type B (Ver1.1) | |
| Function switch specifications — Number of function switches | 12 switches (4: External output) | |
| Function switch specifications — Switch type | Membrane switch | |
| Function switch specifications — Mechanical life | 1 million times or more | |
| Emergency stop switch specifications — Switch type | Push lock type (b-contact point, 2 circuits) | |
| Emergency stop switch specifications — Mechanical life | More than 100,000 times | |
| Emergency stop switch specifications — Rated voltage | DC24V | |
| Emergency stop switch specifications — Rated current | 1A (load resistance) | |
| Key switch specifications — Contact point | a-contact point, 1 circuit | |
| Key switch specifications — Mechanical life | More than 250,000 times | |
| Key switch specifications — Electrical life | More than 100,000 times (switching frequency 1,200 times/h) | |
| Deadman switch specifications — 3-position — Switch type | 3-position output (a-contact point, 2 circuit*1) | |
| Deadman switch specifications — 3-position — Mechanical life | Off → On 1 million times or more  Off → On → Off (direct open-circuit)  more than 100,000 times | |
| Deadman switch specifications — 3-position — Rated voltage | DC24V | |
| Deadman switch specifications — 3-position — Rated current | 1A (load resistance) | |
| Deadman switch specifications — Momentary — Switch type | Momentary | |
| Deadman switch specifications — Momentary — Mechanical life | 1 million times or more | |
| External I/F — TB2 | RS-232C, Asynchronous  Data length: 7 bits, 8 bits  Parity: even, odd, none  Stop bit: 1 bit, 2 bits, Baud rate: 4800, 9600, 19200, 38400, 76800, 115200bps | |
| External I/F — TB3 | RS-422/485, Asynchronous  Data length: 7 bits, 8 bits,  Parity: even, odd, none  Stop bit: 1 bit, 2 bits, Baud rate: 4800, 9600, 19200, 38400, 76800, 115200, 187500*2bps | |
| Compatibility — CE Marking | EN61000-6-2, EN61000-6-4 | |
| Compatibility — UL/cUL | UL508 | |
| Compatibility — RoHS directive | Complied | |

*1  a-contact point and 2 circuits are available only in V808(i)CH4. Only one circuit is available in V808(i)CH2 and V808(i)CH3.
*2  When connected with SIEMENS MPI

| COM I/F | Communication unit I/F | CF | CF card I/F | A·B USB | USB I/F | AC power | Power Supply | Analog Matrix | Analog switch / Matrix switch | option | Video input | RGB option | RGB input/output | option | Sound output | option | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Display Features

### Improved visibility for operator interface panels

Great power of the visibility facilitates the operation by high-resolution and high-speed video display.

---

## High-resolution Display

The image shown below is not an actual display image.

### 65,536 colors[*1]
(32,768 colors with blinks)

High-resolution display of 65,536 colors without blinks and 32,768 colors with blinks enables clear display of JPG and BMP images. Realistic appearance of photos, illustrations and 3D parts improves visibility and makes it easy for operators to quickly grasp the conditions.

*1    Except V806iMD/V806MD

---

## High-level images are displayed in real time without missing any information

### Display of 30 fps video images in 16 million colors[*2]

First in Industry

High-speed displaying of 30 frames per second is possible. Even displays for production of a short tact time can be made without any delay.

V7 (SVGA)

V8 (SVGA)
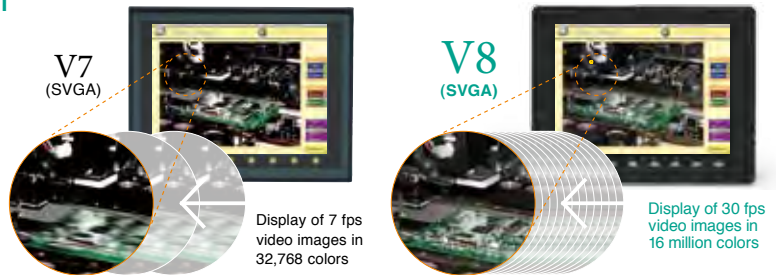
Display of 7 fps video images in 32,768 colors

Display of 30 fps video images in 16 million colors

### Monochrome display with 256 gradations[*2]

Monochrome images that are often used by image processor can be displayed more clearly. The reproduction capacity for gradation and pattern-indented surfaces has been drastically improved.

Can be utilized to monitor a production line running at high speed.

Detailed shaded drawings are displayed clearly.

*2  For V808iS, 260,000-color displays and 64-gradation monochrome displays are possible.

---

## Clear and smooth letters

### The stroke font can be displayed to appear smooth even for magnified characters.

The stroke font is defined by lines. Since it does not depend on the resolution of the device, which is different from the bitmap font, fonts can be magnified or shrunk freely.
Unicode enables you to edit the project in various languages.

| Language | | Japanese | English/ European | Traditional Chinese | Simplified Chinese | Korean | Central European | Cyrillic | Greek | Turkish | Unicode(UTF-8) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bitmap font | Non-gothic | ● Japanese/Japanese32 | ● Gothic (Mincho) | ● | ● | ● | ● | ● | ● | ● | ● |
| | Gothic | ● Gothic/Gothic (IBM extension) | ● Gothic (Mincho) | × | × | × | × | × | × | × | × |
| Stroke font | | ● | ● | ● | ● | ● | ● | ● | ● | ● | |

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

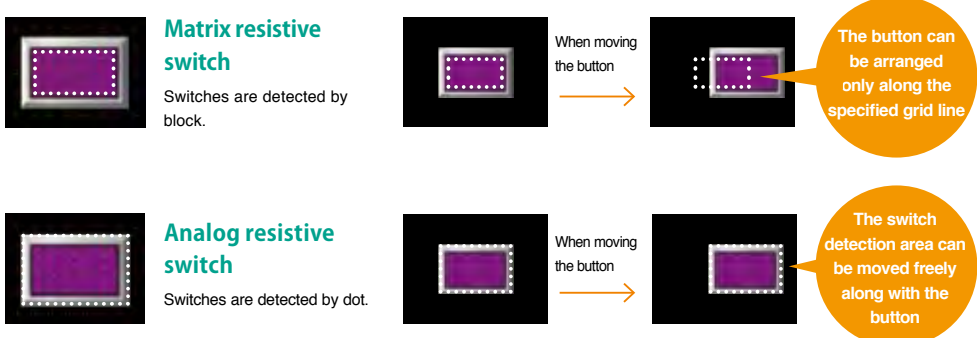Customer Service Product Warranty

# Operation Features

### "User-oriented operationality" by high-speed and smooth display

High-speed accelerator and algorithm ensure stress-free operation.

## Free switch layout with analog resistive switches

## Analog resistive switch

Analog resistive switches are used for MONITOUCH. Freer switch layout facilitates screen designing while more intensive operation display can be produced.

**Matrix resistive switch**

Switches are detected by block.

When moving the button

**The button can be arranged only along the specified grid line**

**Analog resistive switch**

Switches are detected by dot.

When moving the button

**The switch detection area can be moved freely along with the button**

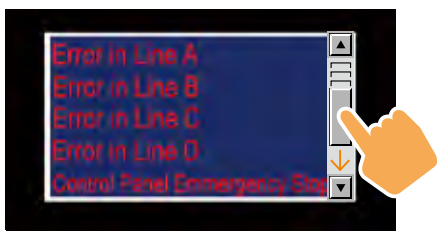*The area outside the dotted lines is not detected.

## Slider switch

Slider switches enable data entry without inputting data using the numeral key pad. Values can be modified easily and quickly, even for a fine adjustment.
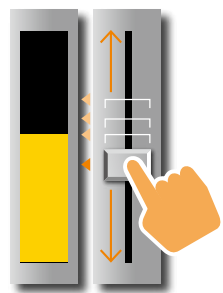
## Scroll bar

Messages and JPEG files out of the display area can be seen by scrolling the area.

Error in Line A
Error in Line B
Error in Line C
Error in Line D
Control Panel Emmergency Stop

*Scrolling direction varies depending on functions

## Memo pad function

Analog resistive switches allow you to use MONITOUCH as a memo pad for hand writing. You can draw a picture or write a message on the display for use as a message board at production sites.

Memo pad

It can be used as a message board.

## High-speed accelerator and algorithm ensure speedy, high-quality displays as well as higher usability in panel operation.

V8 series has drastically improved the processing capacity for drawing, calculation and communication in terms of smooth drawing and quick response.

### Speedy drawing
V8 is equipped with a high-speed graphic accelerator, which improves speed for drawing graphics and characters.

### High-speed communication
High-speed communication with PLCs is possible. By improving communication efficiency, the cycle speed can be shortened even when linked with more than two PLCs.

### Quick response
Switch response speed has been shortened by efficient data processing and task assignment.

# Communication Features

## Multi-communication using the gateway function

Is capable of the connection with up to eight devices by combining Ethernet and serial communication. More advanced and expanded network can be now realized.

### Connectable with up to eight different kinds of devices and different manufacturers' PLCs

## 8-way communication

A combination of Ethernet (eight protocols) and serial communication (three protocols) allows the 8-way communication, which enables connection among a V8 and up to eight kinds of devices consisting of PLCs and peripherals of different manufacturers.
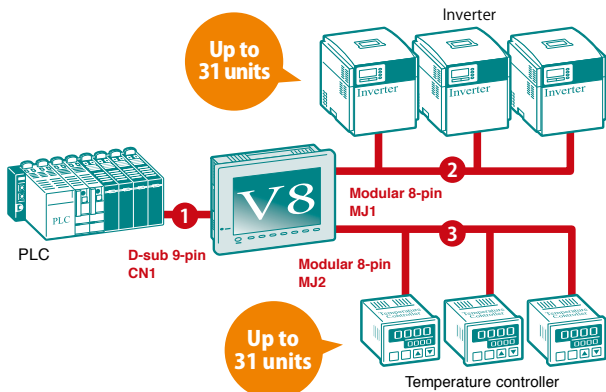
- Simultaneous communication and data transfer with eight kinds of devices
- Simultaneous monitoring and operation of multiple PLCs and peripherals
- Linkage between a V8 and various devices on the LAN network using the gateway function

### Network Examples

### Example 1 Serial connection (three ports)

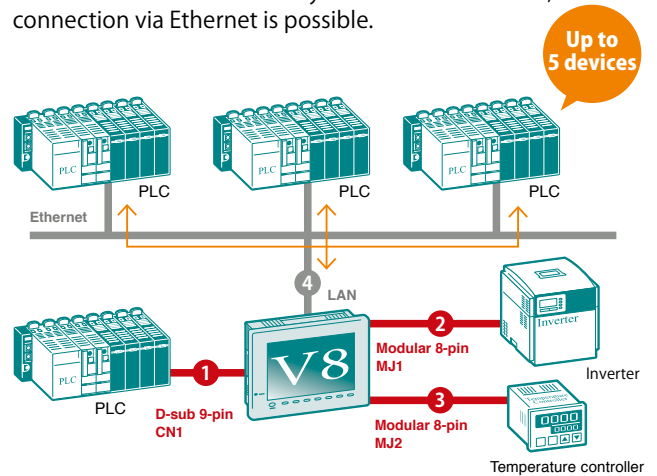**Making a network linked with various automation devices**

PLCs and peripherals of up to three kinds of units can be connected by serial connection. Even though two or more types of temperature controllers and inverters are used, they can be connected with one V8.



Inverter

Up to 31 units

V8

Modular 8-pin MJ1

PLC

D-sub 9-pin CN1

Modular 8-pin MJ2

Up to 31 units

Temperature controller

### Example 2 Serial connection and Ethernet

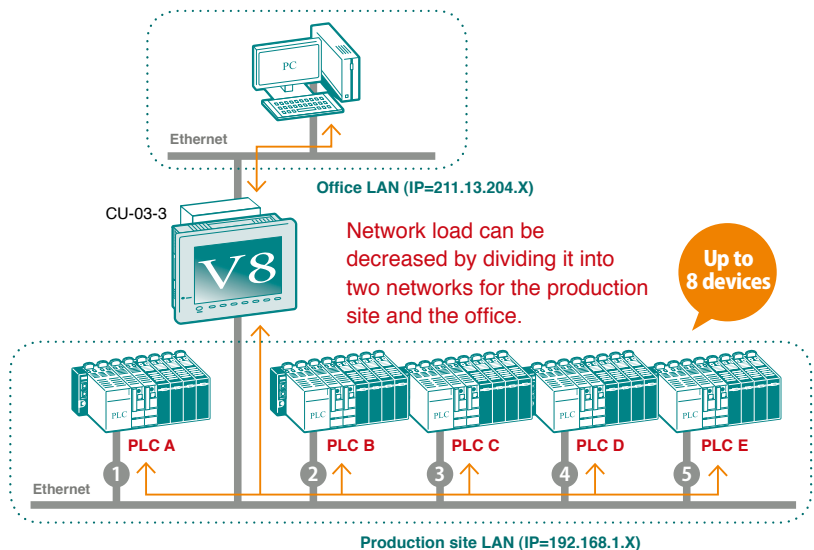**Integrated management of up to eight kinds of devices**

In addition to conventional connection with temperature controllers and PLCs via 2-way serial communication, connection via Ethernet is possible.
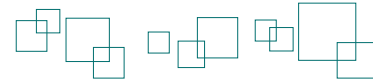


Up to 5 devices

PLC      PLC      PLC

Ethernet

LAN

PLC

D-sub 9-pin CN1

V8

Modular 8-pin MJ1

Inverter

Modular 8-pin MJ2

Temperature controller

### Example 3 Ethernet   First in Industry

**Used as a gateway for different types of networks**

V8 can connect with eight kinds of PLCs via Ethernet. In addition, it can be used as a gateway with another network by adding an Ethernet port using the optional unit (CU-03-3).
For example, data can be transferred between a production site and the office freely by using a V8. V8 works as the gateway of multiple networks of the production site and the office without increasing data load on the networks.



PC

Ethernet

Office LAN (IP=211.13.204.X)

CU-03-3

V8

Network load can be decreased by dividing it into two networks for the production site and the office.

Up to 8 devices

PLC A      PLC B      PLC C      PLC D      PLC E

Ethernet

Production site LAN (IP=192.168.1.X)

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty

## A variety of ingenious uses

# 8-way communication offers various functions and boosts your convenience

### case 1  Analysis of trouble

#### Integrated management of different manufacturers' PLCs

A production line that contains various manufacturers' equipment has various types of PLCs. By using 8-way communication, you can monitor the condition of all the PLCs through a V8 and analyze trouble at a remote place without visiting the site.

**Information on the machines is collected into one V8**

V8

PLC A     PLC B     PLC C     PLC D     Ethernet

### case 2  Reading of production conditions and set data

#### Connectable with various kinds of equipment

Even when the system consists of various kinds of equipment, it is easy to read and write the data of the individual units via 8-way communication. By using a V8 as a gateway, it is possible to connect with the office host system.

**Reading/Writing of the data of multiple units can be conducted by one V8**

PC

Database

Ethernet

Office LAN

CU-03-3

V8

PLC A     PLC B     PLC C     PLC D     Ethernet

Production site LAN

### case 3  Real-time indication of information

#### High-speed data sampling

A V8 is connected to a PLC via two communication lines: one for operation/monitoring, and the other for sampling, a setup that enables high-speed and stable sampling.

**For sampling**

V8

**For operation/monitoring**

D-sub
9-pin
CN1

Modular
8-pin
MJ1

1   2

**Trend Graph**
High-speed and stable sampling regardless of the indication speed of a screen image

# Expandability (USB master/slave)

## High compatibility with peripherals makes for more user-friendliness

All models are equipped with two types of USB interfaces fitted as standard feature.

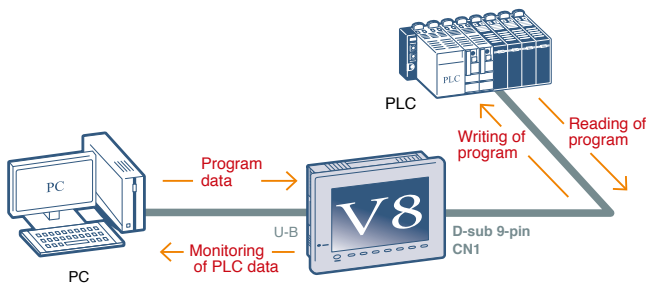## High-speed transfer of large-volume data and easy connection to printers

### Slave (USB-B)

#### PLC Ladder Program Transfer

PLC ladder programs can be written or monitored with your PC through the USB port of V8. High-speed ladder transfer is possible.
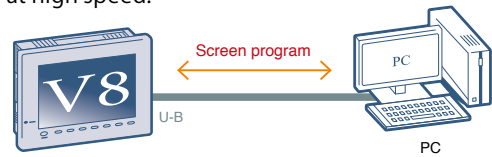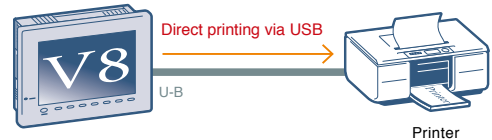
Slave   Master

#### High-speed Transfer of Screen Program

Large-volume screen program edited by "V-SFT" configuration software can be downloaded and uploaded at high speed.

Screen program

U-B

PC

#### Compatible with PictBridge Printers

V8 is compatible with PictBridge printers. With PictBridge-compatible printers, production data such as daily and monthly reports can be printed out easily.

Direct printing via USB

U-B

Printer

PLC

Writing of program

Reading of program

Program data

U-B

Monitoring of PLC data

D-sub 9-pin CN1

PC

## Compatible with PC peripherals including a USB keyboard and a USB mouse

### Master (USB-A)

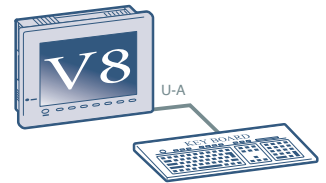#### Card Reader/Writer

Connection with our "USB-CFREC" or commercial CF card readers/writers increases the versatility.

U-A

CF card reader/writer

CF card
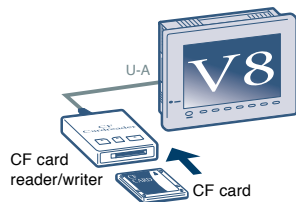
#### Compatible with USB Keyboard

In addition to conventional software keyboards, a USB keyboard can be connected, which facilitates the entry of long product numbers and code numbers.
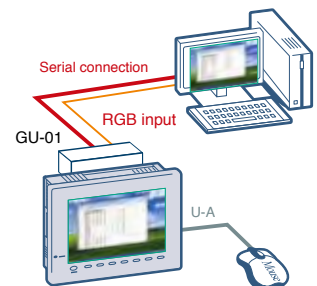
U-A

#### USB Interfaces Fitted on the Front

Optional interfaces "UA-FR" and "UB-FR" enable USB ports to be fitted on the front of the display for easy access.

U-A

CF card reader/writer

CF card
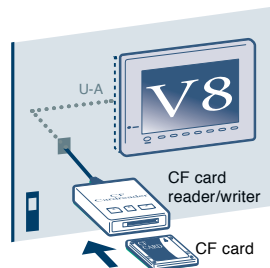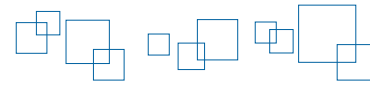
#### Compatible with USB Mouse

##### PC operation

By installing an optional RGB input unit "GU-01", "GU-10" or "GU-11", PC screen can be displayed on V8. You can operate the PC screen using a USB mouse.

##### Output on Large Displays

By installing the optional RGB output unit "GU-02", V8 screen program can be displayed on a large screen and it can be operated using a USB mouse.

Serial connection

RGB input

GU-01

U-A

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service Product Warranty
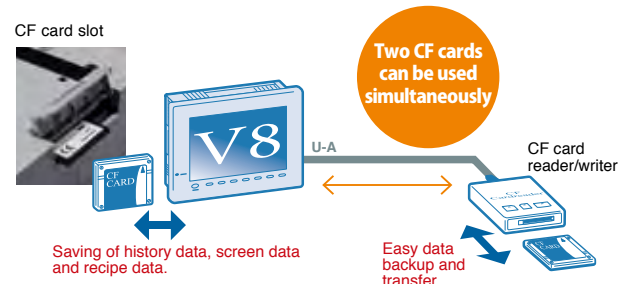
# Expandability (CF Card)

## For superior information management

Two-drive system for versatile uses of CF cards

## CF card interface and USB reader/writer

### Equipped with Two Drives

In addition to the built-in CF card interface, MONITOUCH is equipped with a USB interface for a CF card reader/writer, which can be used simultaneously. Since CF card data can be copied to another card while V8 is being used, the V8 performance will not be inhibited. These functions expand the versatility of MONITOUCH.

CF card slot

**Two CF cards can be used simultaneously**

U-A

CF card reader/writer

Saving of history data, screen data and recipe data.

Easy data backup and transfer

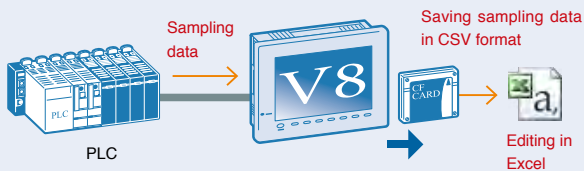### Built-in Drive for Constant Use

**case 1** Recipe Data

Production conditions can be saved in a CF card in CSV format. For preparation of production, data can be read out from a CF card and written in the PLC. It is also possible to read out data from PLC.

Sending CSV data in a CF card to V8

Reading/Writing of recipe data for PLC from/on V8

PLC

**case 2** Sampling

Production data and alarm history can be sampled and saved. Since the data is saved in CSV format, it can be easily edited in Excel.

Sampling data

Saving sampling data in CSV format

PLC

Editing in Excel

### USB Drive for Easy Data Delivery

**case 3** Screen Program Transfer

Because screen data can be saved on a CF card and read into V8 at a production site by means of a CF card reader/writer, there is no need to bring your PC.

CF card reader/writer

Transfer of screen program

U-A

**case 4** Data Transfer

While using a CF card as a built-in drive, the card data can be copied to another CF card via the USB interface. Sampling data and recipe data can be backed up easily while keeping the CF card in the slot.

Reading/Writing of sampling or recipe data

U-A

CF card reader/writer

**Data can be backed up easily**

**No need to remove CF card**
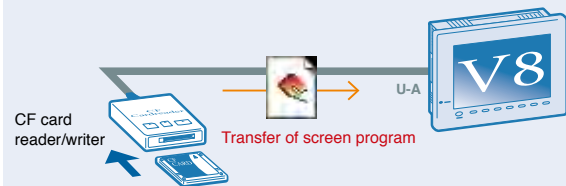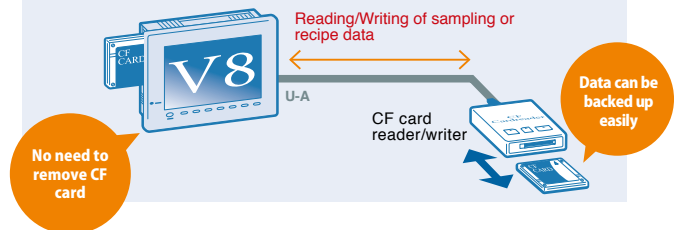
## PC-friendliness

### Compatible with FAT32

FAT has some limitations. For example, a file name cannot exceed eight characters in length, and extensions must be within three characters. FAT32 allows a data file to have a longer file name, which improves compatibility with PCs.

## Impressive Screen

### Screen program capacity can be increased by means of a CF card

A CF card can be used as an extension unit for editing the screen. You can design an impressive screen freely without having to worry about data capacity.

## Easy Configuration 1

### Highly functional switches

Switches with various functions are standardized. No macro or PLC ladder programming is required.

---

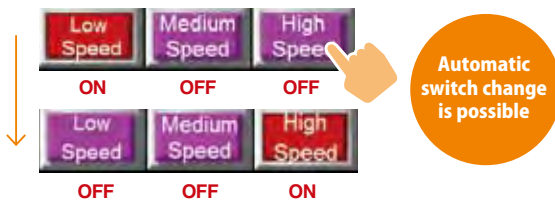## Various switches that meet the individual needs

## Multi-output

In order to meet diversified needs, switches with various functions are installed.

### Multi-output memory
### Output up to 16 positions

Switches have a multi-output function. Turning on just one switch makes the other switches turn off. It is also possible to output bit signals up to 16 positions.

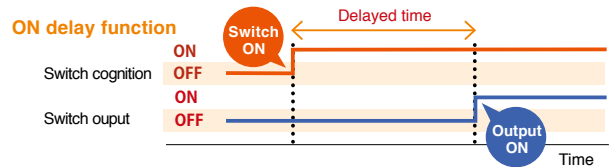For example, when you turn on one switch, the others turn off simultaneously.



| Low Speed | Medium Speed | High Speed |
|---|---|---|
| **ON** | **OFF** | **OFF** |
| **OFF** | **OFF** | **ON** |

**Automatic switch change is possible**

### Indication depends on the value

In addition to the bit ON/OFF status, it is possible to set various switch conditions according to the value.
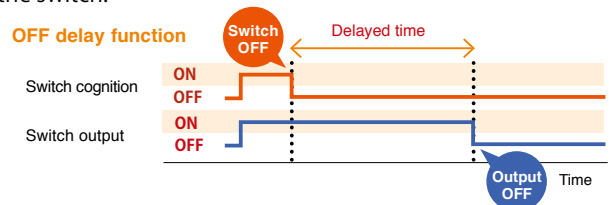


**N=0**     **N=1**     **N=2**     **N=3**

### Setting the switch timing freely
### ON delay

It is possible to set switch functions such as requiring holding down the button for a certain time. This function prevents a false operation of the switch.

**ON delay function**



Switch cognition — ON / OFF
Switch ouput — ON / OFF
Switch ON   Delayed time   Output ON   Time

### Setting the switch timing freely
### OFF delay

Switch output is retained for a certain time after reset of the switch.

**OFF delay function**



Switch cognition — ON / OFF
Switch output — ON / OFF
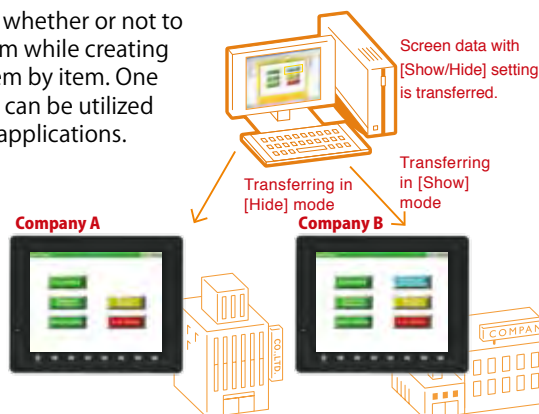Switch OFF   Delayed time   Output OFF   Time

---

## Indication according to individual production sites needs

## Conditional Visibility

### Static conditional visibility

You can set whether or not to show an item while creating a screen, item by item. One screen data can be utilized for differnt applications.

Screen data with [Show/Hide] setting is transferred.

Transferring in [Hide] mode

Transferring in [Show] mode

**Company A**          **Company B**



### Conditional visibility according to the security level

The display can be arranged according to security level. The security level is controlled by passwords. For example, different displays are shown for a maintenance engineer and an operator.

**Display for maintenance engineers**   **Display for operators**

**Different indication according to the security level**



### Dyanamic conditional visibility

Whether items are indicated or not is automatically determined according to the memory condition.

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service Product Warranty
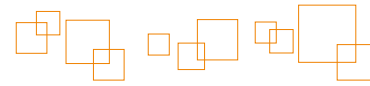
# Easy Configuration 2

## Convenient functions to meet users' demands

Flash ROM, a large capacity of SRAM and many other functions for more user friendliness

---

## High-capacity memory facilitates screen design

### 12.5MB[1] Flash ROM

V8 has 12.5MB[1] Flash ROM as standard — twice[2] the capacity of our previous model. In addition, by saving data in a CF card, you can design the screen without caring memory capacity.

*1 SRAM capacity differs depending on the models. See Performance Specifications (P29) for details
*2 Comparison with V7

Memory expansion with a CF card

V7    5MB

V8    12.5MB    Expansion memory

---
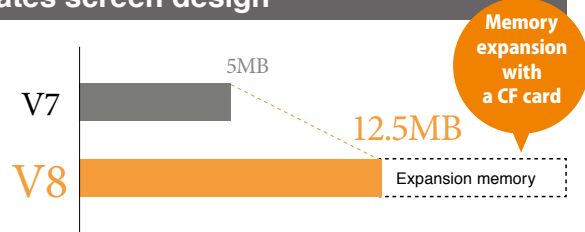
## For saving large-volume event history data

### 512KB[1] SRAM as Standard

The built-in SRAM capacity has been expanded to 512KB[1] — eight times larger than that of our previous model. The capacity for backup of sampling data, operation information, alarm information, etc. has been greatly increased to comply with the ISO standard for information management. The large memory capacity enables quick data processing.

*1 SRAM capacity differs depending on the models. See Performance Specifications (P29) for details

V7    64KB

V8    512KB

Can be also used as user memory

---
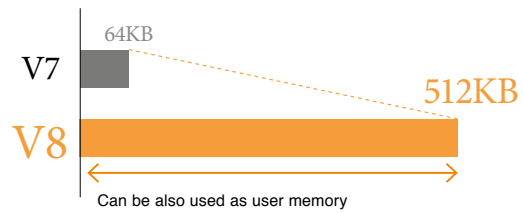
## Extended screen number

### Enhanced configuration function

The upper limit of the number of configurable screens is extended to 9,999. Up to 4,000 screens can be stored in a V8. Additionally they can be saved in CF card, which means you do not need to care about screen data capacity.

Past    1,024 screens

Approx. fourfold increase

New    4,000 screens

---
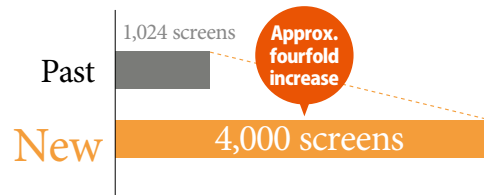
## Easy-to-make pop-up message

### Pop-up Window

Pop-up window is standardised. No programming or individual message edit is required for making a dialog such as an alert.

To display an alert for each switch

Displaying a pop-up window

Message can be switched using the same dialog box from the library.

Switches are operative only when "OK" is pressed

---

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service

Product Warranty

## Easy Configuration 3 — Enhanced interface led by the most connections in the industry

---

### Alarm enhancement

Both a message and a parameter are loaded and displayed on the screen when any alarm happens. For example, if the water temperature gets more than 100°F, not only "caution" alarm but temperature data like "100°F! Caution" can be displayed on the screen. It is facilitated to analyze causes of failure by more detailed information.

## Setting image

### Parameter table

Up to 8 parameters can be registered and associated with each alarm.

| No. | Memory | Type |
|---|---|---|
| 0 | D4 | Message No. |
| 1 | M0 | Bit |
| 2 | D5 | Numerical value (one word) |
| 3 | D6 | Characters (8 characters) |
| . | . | . |
| . | . | . |
| . | . | . |

A parameter is loaded and a message that is corresponding to the situation is displayed when an alarm happens.

CSV file output

### Message editing

Describe a parameter number that is registered when you edit a message. Then the memory that is set in the parameter is loaded and displayed when this message is displayed.

Parameter0  Parameter1  Parameter2  Parameter3
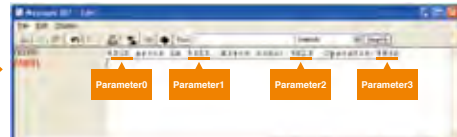
Displayed content can be saved in CF card as CSV formatted file, which makes it easier to analyze causes of failure.

---

### Operation log

Operations such as pushing buttons on the screen and entering numbers are recorded in chronological order. By combining it with the password function, you can view "Who, When, What, & How" history to analyze causes of failure.

| Items | Timing to save |
|---|---|
| Start | When turning on power |
| Transfer | During the transfer time of screen data or I/F driver |
| Mode switching | When switching between RUN screen and Main Menu screen |
| Screen switching | When switching screens |
| Language switching | When switching languages |
| Switch operation | When pushing on the switch |
| Data display updating* | When changing Number display/String display depending upon input modes |
| Log discarding | When clearing SRAM data and save a new log |

*Tabla Data Display is not supported.

Refer to log data

Compact Flash

Operation history is saved as a binary file. You do not have to be worried about falsification of data.

By easy installation of checking "registration of operation log viewer", all functions of the viewer can be used.
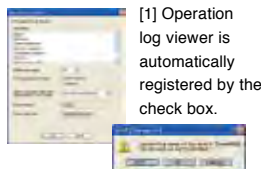
[1] Operation log viewer is automatically registered by the check box.
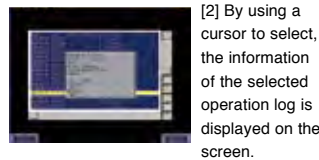
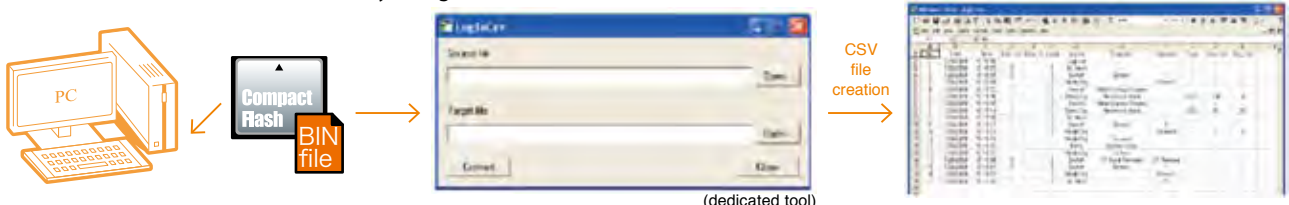[2] By using a cursor to select, the information of the selected operation log is displayed on the screen.
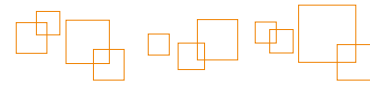
[3] Setting such as Display/Hide of items and number of characters can be customized as you like.

### CSV conversion

The binary file of operation history which was saved in a CF card can be converted to a CSV file by using a dedicated tool.

PC

Compact Flash BIN file

(dedicated tool)

CSV file creation

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty

# Easy Configuration 4

## Multi-link 2 Ethernet function

## Conditional visibility of trend sampling data

You can select a waveform of trend sampling and display/hide it.

Screen sharing is achieved as the waveform that is appropriate for the machine specifications can be selected.

## Supporting portrait orientation

You can edit V806 series screen as a longitudinal type image.

This function is the most appropriate for the machine without enough horizontal spaces.

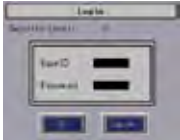Note) Not available with monochrome type.

## Function security

Security levels from 0 to 15 can be set per screen. By setting function limit appropriate for each user, highly secured environment can be established.

On the moving to Screen 5

Users higher than Screen 5

Screen 2 (Level 3)

Password input screen is automatically displayed.

Screen 5 (Level 5)

### Interlock of the switch

Security levels can be set in the switches as well.
Only those who login with an appropriate levels can use the switches.

## Multi-link 2 via Ethernet

Multi-link 2 connection via Ethernet is supported. When connecting multiple V8s to one PLC, much faster transferring can be achieved comparing to existing multi-link.

Ethernet

Master

Slave

Slave

Ethernet/
Serial

Supported PLC
Modbus RTU only

Slave
Up to 31
units

PLC

PLC
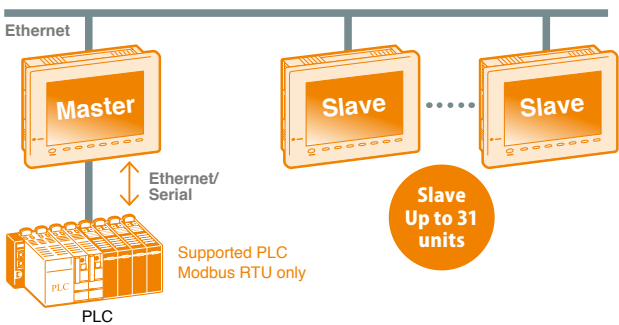
## Added macros

### Mathematics/trigonometric function macros

Commands regarding to trigonometric function such as sine (SIN), cosine (COS) and tangent (TAN), absolute value and sign inversion are added.

### CF card (sampling) macros

You can save a sampling data of buffering area in any file name as a CSV file.

### Control statement macros

"IF ～ ELSE" statement is supported. You can write shortly and easily condition comparison macros.

### CF card (hard copy) macros

You can save an image on the screen in any file name.

21

## Configuration Software [V-SFT]

### New V-SFT for easy screen configuration
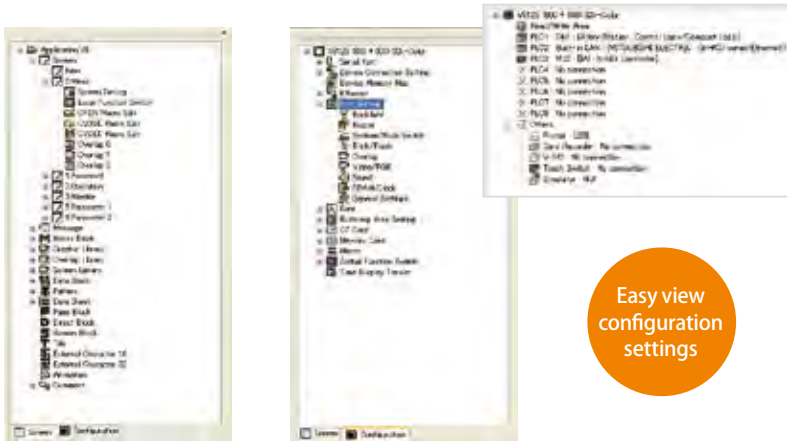
Multiple windows provides immediate access to all application data.

---

### Overall View of All the Devices

#### Project View (1)

- System tree diagrams show the configuration of files and screens in the entire system.
- Easy viewing and modification of the contents and configuration of each block.



**Easy view configuration settings**

[Screen] and [Configuration] windows are easily switched by clicking tabs.



---

### Quick Debugging on Your PC

#### Emulation function for Easy Debugging

With the emulator of V-SFT Ver.5, data debugging is possible on your PC without V8 or PLC.



Emulator

Simulator

---
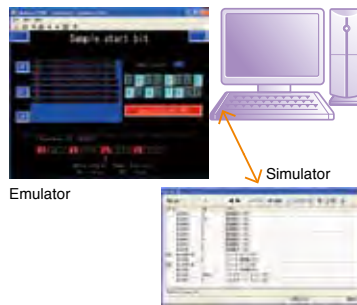
### Quick Arrangement with Component Parts

#### Parts View (2)

- Various parts are listed for each item.
- Select a part, and drag & drop it on the configuration window.



**Drag & Drop**
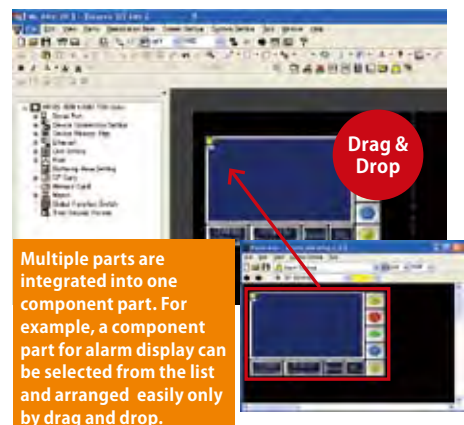
Multiple parts are integrated into one component part. For example, a component part for alarm display can be selected from the list and arranged easily only by drag and drop.

---

## MONITOUCH
# V-SFT Ver. 5

■ V-SFT Requirements

| | |
|---|---|
| PC | PC/AT compatible machine with Windows |
| OS | Windows 98/ Me/ NT Version 4.0/ 2000/ XP/ XP 64 edition/ Vista 32bit* |
| CPU | Pentium III 800 MHz or higher (Pentium IV 2.0 GHz or higher is recommended.) |
| Memory | 512 MB or more |
| Hard disk | For installation: 850 MB or more available space |
| CD-ROM Disk drive | 24 times or faster |
| Display | Resolution of 1,024 × 800 (XGA) or higher |
| Color indication | High color (16 bit) or higher |

* When installing in Windows NT Ver.4/ 2000/ XP/ XP 64 edition/ Vista 32bit, administrator authority is required.

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty
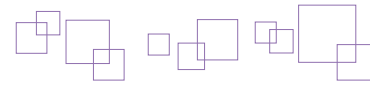
## Easy and Speedy Display Configuration

### Auto Size Change

When using screen data from a panel with different screen resolution, screen size is automatically adjusted to your selected model.



Size Change

| VGA (640×480 pixels) | → | Switched to V812iS SVGA (800×600 pixels) |

Since the screen size is automatically adjusted, no modification for arrangement is required.
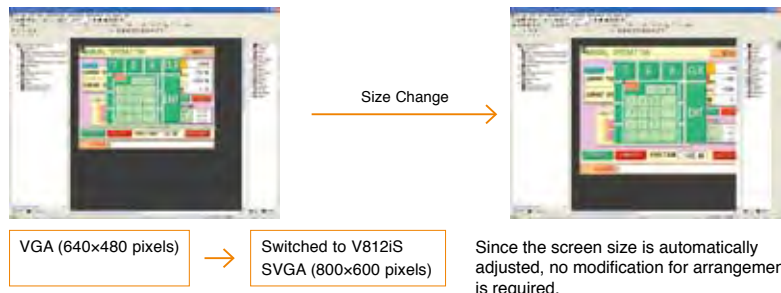
### Convenient Item View (❸)

#### Direct editing

Memory condition, coordinates, switch names can be entered in the item view.
Memory address, position, and text can be directly entered in the item list.
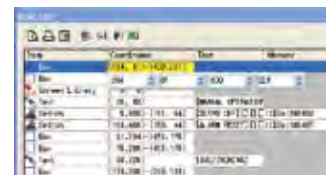
Easy editing by selecting items



#### Coordinate items view

Utilize [Display setting] in the item list to minimize or maximize item properties in the windows. This system facilitates efficient management of information.

### Enhanced Batch Change Functions

#### Additional items for batch change

More items can be changed simultaneously by batch change.

Select items to change, and select [Batch change] with a right click of the mouse.
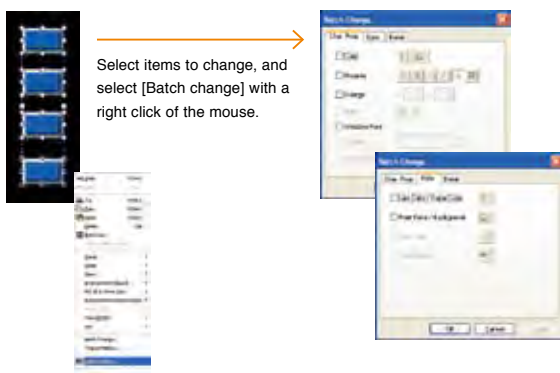
#### Batch change with the item view (❹)

Multiple items can be selected to change the setting simultaneously on the item view window.

<Available items>

Switches, lamps, values, characters, messages, bar/circle graphs, panel meters, closed-area/statistical graphs
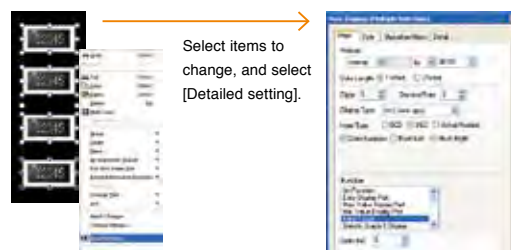
Select items to change, and select [Detailed setting].

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service

Product Warranty

# Component Parts

## "Component Parts" facilitate screen configuration.

Convenient tool assists you in creating functional screens instantly.

## Quick screen configuration using integrated "Component Parts"

### Component Parts    First in Industry

In "Component Parts," various functions and macros have been arranged according to purpose. You can create a functional screen instantly by simply selecting a "Component Parts" from the parts list and placing it on the screen.



Select an item to set.

Select a part file from the parts list.

Easy & Convenient

Selected parts placed on the screen can be used with no or minimum additional setting.
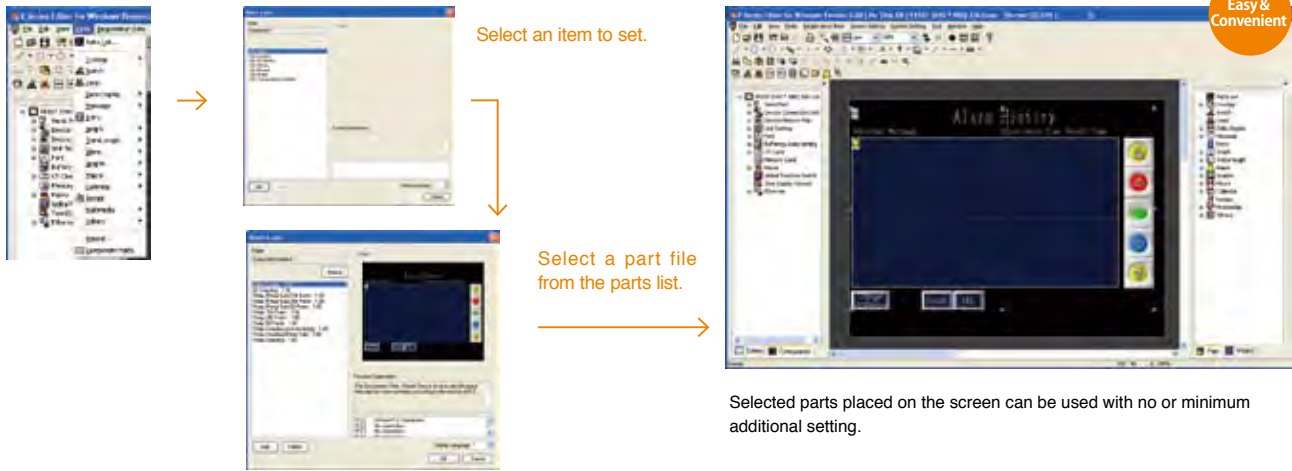
### Point 1 Easy Screen Configuration

You can create multifunctional screens using integrated "Component Parts." When arranging on a screen that contains other messages or setting windows, a "Component Part" can be used regardless of overlapping of settings or windows.

"Component Part" for temperature controllers



+

Parameter setting screen        Trend screen        Alarm screen



These screens can be used simply by placing a component part.
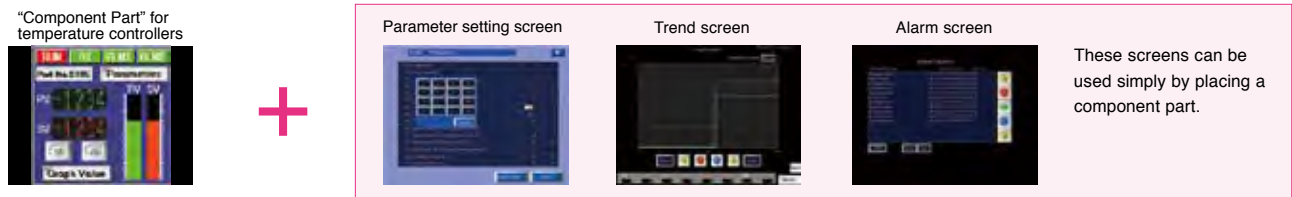
### Point 2 Easy Utilization of Resource

"Component Parts" contain all necessary settings for operation, so they don't need any additional settings when used on other displays. They can be reused simply by copying and pasting.
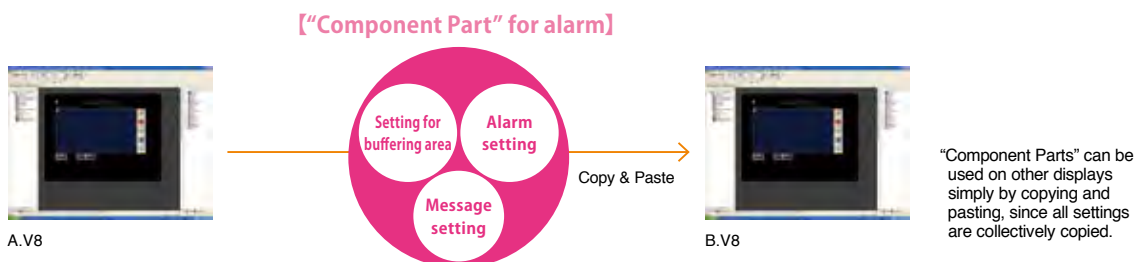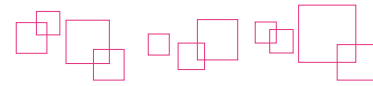
【"Component Part" for alarm】



A.V8

Setting for buffering area   Alarm setting

Message setting

Copy & Paste

B.V8

"Component Parts" can be used on other displays simply by copying and pasting, since all settings are collectively copied.

24

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service Product Warranty

**Point 3** **Simple Setting View**

After placing "Component Parts," they can be easily used simply by setting addresses and texts.

**Example of Setting View** **("Component Part" for alarm history)**

Example of Setting View ("Component Part" for alarm history)
Set an address for alarm monitoring.

Memory setting

Set a text for each alarm message.
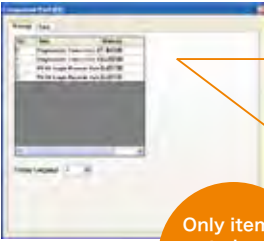
Text setting

**Easy and simple**

All settings for alarm history can be edited in one menu.

**Point 4** **Batch Change of Addresses/Texts**

When the same address or text is used for multiple screens, all the settings can be changed simultaneously on the setting view simply by registering it in the address/text table of a "Component Part."

【Memory setting】

Only items to be changed are listed.

Screen 1

Screen 2

**Point 5** **Authorization by Passwords**

Setting a password for a "Component Part" prevents the settings for the part from being changed by unauthorized persons. Customers can use a "Component Part" without having to worry about tampering of the setting.

**No worry about tampering**

**Point 6** **Various "Component Parts"**

"Component Parts" with various functions are available. They can be selected from the parts list according to your purpose to configure displays promptly.

**Examples of "Component Parts"**

**Temperature controller**

Displays for monitoring and parameter setting of temperature controllers can be made easily.

**Inverter**
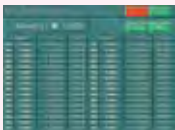
Displays for monitoring and parameter setting of inverters can be made easily.

**Robot controller**

Displays for monitoring and operation setting of robots can be made easily.

**I/O monitor**

Displays for I/O monitoring of PLCs can be made easily.

**Date setting**

Displays for date setting can be made easily.

## Ethernet expansion | Advanced feature based on Ethernet

## Efficient line monitoring by network cameras

## Network camera

Displays images from cameras connected to Ethernet on a V8 screen. You can efficiently achieve monitoring of a remote location and a whole line.

**Ethernet**

**Supported on all V8 products (Ethernet supported models only)**

| Supported models | V8i series |
|---|---|
| Connection-supported cameras | Made by AXIS |

**Production site**

Line No.1    Line No.2    Line No.n
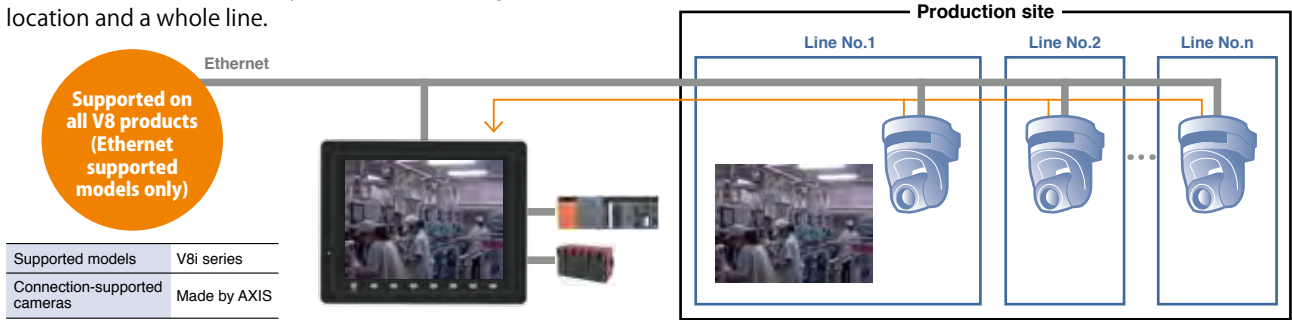
### Cameras that support spinning and zooming functions can receive a command from MONITOUCH.

#### [1] Spinning of a camera (supported cameras only)

You can change the direction of a network camera from a remote location.

**Ethernet**

#### [2] Zooming of a camera (supported cameras only)

You can zoom in and out an image from a remote location.

---

Application software that connects your office with your production site at low cost.

## TELLUS and V-Server

**"Ability of Factory" is enhanced by the remote function and the data collection function.**

In the environment with a V-Server installed PC, you can monitor and control your production site from a remote location, even if you are in a foreign country.

**[TELLUS and V-Server]**

Features such as data collection and data management functions are available for collecting information on the production site in real time to manage it with Excel/CSV files. Additionally, you can monitor and control TELLUS-HMI and MONITOUCH from a remote location.

(Example)Industrial PC

## Expanded possibilities by working together with Windows applications.

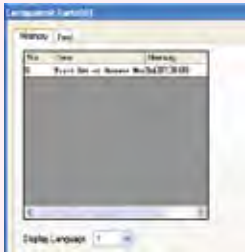| **1 Working with VB programs** | **2 Working with optional units** | **3 Working with database** | **4 Working with MONITOUCH** |
|---|---|---|---|
| By creating VB programs using TELLUS access function, you can access TELLUS. Complicated arithmetic processing are done by VB programs and the result is displayed on TELLUS. | It can be smoothly connected to a Windows printer. You can easily print out daily reports, monthly reports, information on lines and machines operation. Additionally, you can use high-capacity storage and memory. | By using TELLUS and V-Server, you can work together with database such as SQL Sever. Tabulation of production achievement and storing of data on the number of defected products and causes of failure can easily be done. | You can monitor multiple MONITOUCH installed on the machines from a remote location. And you can also collect production data and change machine settings by the recipe function. |

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option
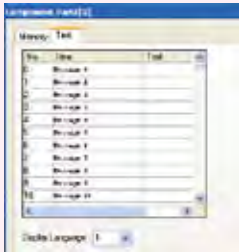
Option List

Customer Service Product Warranty

## Ethernet expansion

## Use Remote Desktop to make use of Windows applications

### Enhanced maintenance capacity led by Windows applications

## Remote Desktop

By connecting to Ethernet, the server PC's screen is displayed on the V8 screen. At a production site where no PC can be set, you can operate the functions of PC from V8.

| Supported models | V815iX,V812iS,V810iS,V810iT,V808iS,V810iC, V808iC,V808iCH,V806iT,V806iC |
| --- | --- |

**By Ethernet connection, no optional unit is needed. Remote Desktop can be used easily at low cost.**

Ethernet

Remote control

VNC Server software

PC

MONITOUCH
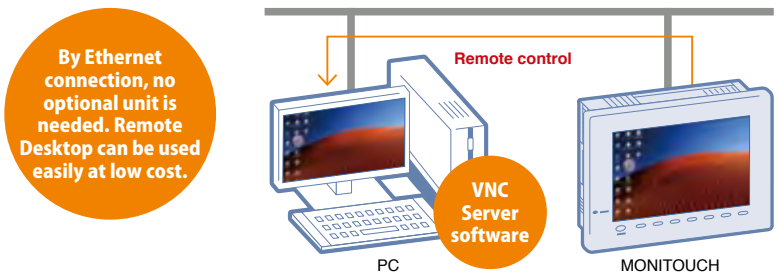
**Application 1** **Viewing operating instructions and manuals**

By remote-controlling a PC connected via Ethernet from a V8 series, you can view operating instructions and manuals stored on the PC.

**Application 2** **Ladder monitoring/ ladder editing**

By starting a ladder software installed in the PC that is connected via Ethernet and activating the ladder transfer function, you can monitor/ edit the ladder program of the connected PLC on V8.

Mouse and keyboard information

Ethernet

PC image information

MONITOUCH V8 series

Operating instructions, error code tables, etc.

PC

**Assembling process 1**

Ladder monitoring/ ladder editing

Performance information

Ethernet

PLC

In the line operating

PC

Data Base

Server

- Traceability
- Lot management
- Production performance data etc.

In the maintenance

Ladder transfer

You can monitor/ edit ladder programs of PLC via V8 series.

PC for maintenance

**Assembling process 2**

PLC

**Visual inspection process**

PLC

**Shipping inspection**

PLC

**Point 1** **PLC Ladder program transfer via Ethernet**

You can monitor/edit ladder programs on all machines that are connected via Ethernet.

| Supported PLCs | Mitsubishi Electric | QnH(Q)series CPU, Q00J/00/01 CPU, QnUseries CPU, QnH(Q)series CPU(Multi CPU) |
| --- | --- | --- |
| | Fuji Electric | MICREX-SX SPH/SPB CPU |

**Point 2** **USB keyboard supported** **Useful**

Ladder editing is also possible by USB keyboard.

USB HUB

USB mouse

USB keyboard
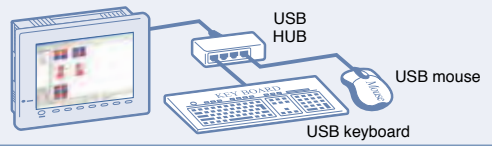
Easy to modify circuits and edit comments on V8.

## MES*

## Supporting the construction of advanced MES

V8 networking promotes the integration of sales, production management and manufacturing at low cost.

## Reinforcing your production management through connection to the database

### MES* interface function

Data for production records, defect quantity, error causes and various kinds of information can be sent to the MES database server via V-Server in SQL. Communication with the database is possible without a gateway PC or complicated programming.

### No Programming Required

Data can be saved in the database server by simple setting on V-SFT — no programming is required.

### Preventing data loss

All data transffered to the database is saved with the error log so that it is completely secure.

### Decreasing system load

Data can be transferred to the database server when conditions are fulfilled. The server does not need to keep monitoring production, so the load on the system can be decreased.

* [MES]: The "Manufacturing Execution System" is for optimizing product quality, product quantity, delivery date, cost, etc. in the management/ control of production sites.

### V-Server

The V-Server realizes production data collection and production control via LAN. One V-Server can control multiple V8 units without adding optional functions to V8.



MES database server

PC

Transmitting the data sent from V8 in SQL

Sending a production instruction request or production result

Ethernet

Connected without optional units

Serial connection

Ethernet

PLC     PLC     PLC     PLC

## Easy MES setting!



❶
❷
❸
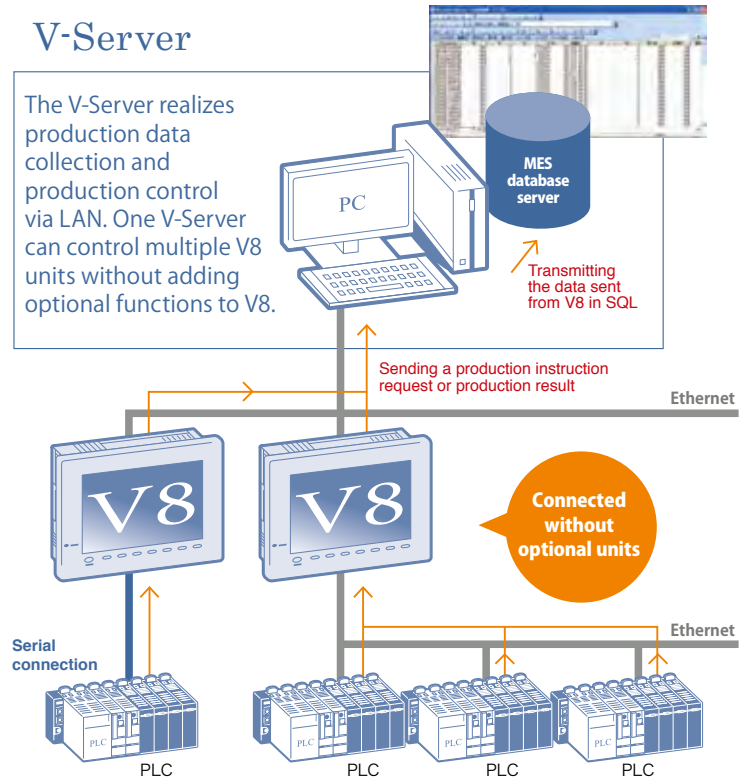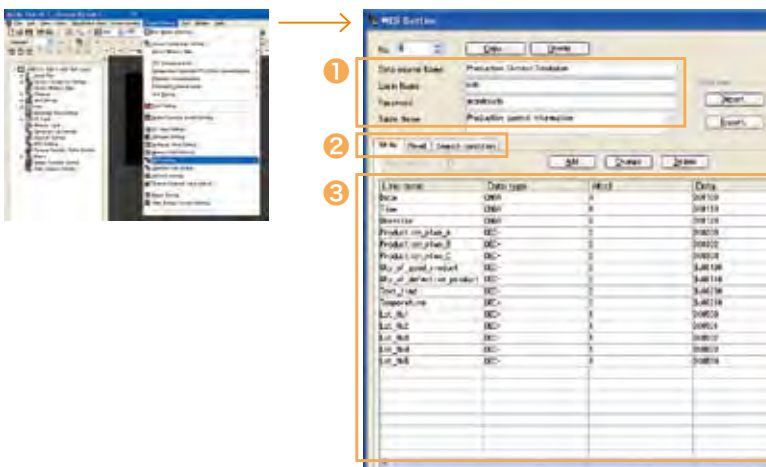
### Setting to access ODBC(❶)

● Set a data source name, login name and password of the database.

### Setting of operation to access the database(❷)

● Three types (Writing, Loading, and Loading with search criteria) are supported:
[Writing]
Set contents to write to the database.
[Loading]
Set contents to load from the database.
[Loading with search criteria]
Set this when loading from the database with search criteria.

### Setting of items to access ODBC (❸)

● Set column names and data format to access the database.

**You can set PLC register or MONITOUCH internal memory as a data to write to or to load from as well.**

【ODBC】 Open DataBase Connectivity
Standard specifications of software to access database, which is being advocated by Microsoft.

# Specifications

## High-end specifications open up new possibilities.

## General Specifications

| Item | Model | V815 | | V812 | |
| --- | --- | --- | --- | --- | --- |
| | | V815iX | V815iXD | V812xS | V812xSD |
| Power supply | Rated voltage | AC100 ~ 240V | DC24V | AC100 ~ 240V | DC24V |
| | Permissible range of voltage | AC100 ~ 240V±10% | DC24V±10% | AC100 ~ 240V±10% | DC24V±10% |
| | Permissible momentary power failure | Within 20ms | Within 1ms | Within 20ms | Within 1ms |
| | Demand (maximum rating) | 90VA or less | 40W or less | 70VA or less | 30W or less |
| | Inrush current | 20A,10ms(AC100V) / 40A,10ms(AC200V) | 30A,1ms(DC24V) | 20A,10ms(AC100V) / 40A,10ms(AC200V) | 30A,1ms *3 |
| Insulation resistance | | DC500V  10MΩ or more | | | |
| Physical environment | Ambient temperature | 0℃ ~ +40℃ *1 | | 0℃ ~ +50℃ *1 | |
| | Storage temperature | -10℃ ~ +50℃ *1 | | -10℃ ~ +60℃ | |
| | Ambient humidity | 85%RH or less(without dew condensation, Max. wet bulb temperature: 39℃ or lower) *1 | | | |
| | Resistance to solvent | No attachment of cutting oil or organic solvent | | | |
| | Atmosphere | Not exposed to corrosive gas or conductive dust | | | |
| | Operation altitude | 2,000 meter or lower | | | |
| | Contamination level *2 | Level 2 | | | |
| Mechanical operating conditions | Resistance to oscillation | Vibration frequency: 10~150Hz, acceleration: $9.8m/s^2$(1.0G) pulsating width: 0.075mm, X,Y,Z: 3 directions 1 hour each way | | | |
| | Resistance to shock | Pulse shape: half-sine, peak acceleration: $147m/s^2$(15G), X,Y,Z: 3 directions, six times each way | | | |
| Electric operating conditions | Noise proof | 1500Vp-p (pulse width 1$\mu$s, pulse rise time : 1ns) | 1000Vp-p (pulse width 1$\mu$s, pulse rise time : 1ns) | 1500Vp-p (pulse width 1$\mu$s, pulse rise time : 1ns) | |
| | Static discharge | Complies with IEC61000-4-2, contact: 6kV, air: 8kV | | | |
| Installation conditions | Grounding | Grounding resistance : Less than 100Ω , FG/SG separation | | | |
| | Structure | Protect structure: Front panel: Compatible with IP65 (when water-proof gasket is used.) Rear cover: Compatible with IP20    Form: Single unit    Installation method: Panel mounting | | | |
| | Cooling system | Natural air cooling | | | |
| | Weight | Approx.5.5kg | Approx.5.3kg | Approx.2.9kg | |
| | Dimensions W×H×D(mm) | 382.8×312.8×81.1 | | 326.4×259.6×69.0 | |
| | Panel cutout (mm) | 369.4×299.4(+0.5/-0) | | 313.0×246.2(+0.5/-0) | |
| Case color | | – | | Gray | |
| Material | | Aluminium | | PC/ABS | |

*1  Keep wet bulb temperature under 39℃ to avoid an accident.
*2  Contamination level is an index that shows the incidence rate of conductive substance. At Level 2, only nonconductive substance is produced, but a temporary conductive state may occur due to dew concentration.
*3  Hardware version: j or later

## Performance Specifications

| Item | Model | V815iX | V815iXD | V812iS | V812S |
| --- | --- | --- | --- | --- | --- |
| Display specifications | Screen memory | 12.5MB | | | |
| | Display device | TFT color LCD | | | |
| | Resolution W:H(dots) | 1024×768 | | 800×600 | |
| | Display size | 15 inches | | 12.1 inches | |
| | Colors | 65,536 colors (without blinks) / 32,768 colors (with blinks) | | | |
| | Backlight | CCFL | | | |
| | Backlight life *5 | About 60,000 hours | | About 50,000 hours | |
| | Backlight Auto OFF | Lit in normal (Set by the user) | | | |
| | Power lamp | Lit in normal condition, blinks in alarm condition such as blowout of backlight bulbs | | | |
| | Contrast adjustment | Fixed | | | |
| | Brilliance control | 3 levels (Adjusted into 128 grades by macro command) | | | |
| Number of characters | 1/2-byte | 127 columns × 96 lines | | 100 columns × 75 lines | |
| | 1-byte | 127 columns × 48 lines | | 100 columns × 37 lines | |
| | 2-byte | 64 columns × 48 lines | | 50 columns × 37 lines | |
| Enlargement of characters | | X: 1 ~ 8 times    Y: 1 ~ 8 times | | | |
| Touch switch | Switch resolution | Analog: 1,024×1,024 | | Analog: 1,024×1,024 / Matrix: 50×30 | Analog: 1,024×1,024 |
| | Mechanical life | 1 million times or more | | | |
| | Surface treatment | Hard coating, Non glare finish 5% | | | |
| Function switch | Number of function switches | 8 switches | | | |
| External interface | D-Sub 9-pin (CN1) | RS-232C, RS-422/485, Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200,187500 *6 bps | | | |
| | Modular 8-pin (MJ1/ MJ2) | RS-232C, RS-422/485 (two-wire system), Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200 bps | | | |
| | CF card interface | Compatible with CompactFlash™ | | | |
| | Ethernet *4 | Complies with IEEE802.3, Baud rate: 100Mbps, 10Mbps Cable: 100Ω Unsealed twist pair, Category 5, Max length: 100m | | | |
| | USB | Type A, Type B (Ver1.1) | | | |
| Clock & Back up memory | Battery | Coin-type lithium primary battery | | | |
| | Back up memory (SRAM) | 512KB | | | |
| | Back up period | 5 years (Ambient temperature 25℃) | | | |
| | Calendar accuracy | Gap±90 sec. per month (Ambient temperature 25℃) | | | |

* 4  Standard equipment only for V8i series
* 5  When the panel surface luminance drops to 50% of the initial value at normal temperature (25°C)
* 6  Available only when connected with SIEMENS MPI.

# Specifications

## General Specifications

| Item | Model | V810 | | | | V808 | |
|---|---|---|---|---|---|---|---|
| | | V810xS / V810xT | V810xC | V810xSD / V810xTD | V810xCD | V808xSD | V808xCD |
| Power supply | Rated voltage | AC100 ~ 240V | | DC24V | | DC24V | |
| | Permissible range of voltage | AC100 ~ 240V±10% | | DC24V±10% | | DC24V±10% | |
| | Permissible momentary power failure | Within 20ms | | Within 1ms | | Within 1ms | |
| | Demand (maximum rating) | 70VA or less | 60VA or less | 25W or less | 20W or less | 23W or less | 20W or less |
| | Inrush current | 20A,10ms(AC100V) 40A,10ms(AC200V) | 16A,6ms(AC100V) 32A,7ms(AC200V) | 30A,1ms (DC24V) *3 | 20A,1ms (DC24V) | 30A,1ms(DC24V) *3 | 20A,1ms(DC24V) |
| Insulation resistance | | DC500V  10MΩ or more | | | | | |
| Physical environment | Ambient temperature | 0℃ ~ +50℃ *1 | | | | | |
| | Storage temperature | -10℃ ~ +60℃ | | | | | |
| | Ambient humidity | 85%RH or less(without dew condensation, Max. wet bulb temperature: 39□ or lower) *1 | | | | | |
| | Resistance to solvent | No attachment of cutting oil or organic solvent | | | | | |
| | Atmosphere | Not exposed to corrosive gas or conductive dust | | | | | |
| | Operation altitude | 2,000 meter or lower | | | | | |
| | Contamination level *2 | Level 2 | | | | | |
| Mechanical operating conditions | Resistance to oscillation | Vibration frequency: 10~150Hz, acceleration: 9.8m/s²(1.0G) pulsating width: 0.075mm, X,Y,Z: 3 directions 1 hour each way | | | | | |
| | Resistance to shock | Pulse shape: half-sine, peak acceleration: 147m/s²(15G), X,Y,Z: 3 directions, six times each way | | | | | |
| Electric operating conditions | Noise proof | 1500Vp-p (pulse width 1μs, pulse rise time : 1ns) | | | | | |
| | Static discharge | Complies with IEC61000-4-2, contact: 6kV, air: 8kV | | | | | |
| Installation conditions | Grounding | Grounding resistance : Less than 100Ω , FG/SG separation | | | | | |
| | Structure | Protect structure: Front panel: Compatible with IP65 (when water-proof gasket is used.) Rear cover: Compatible with IP20    Form: Single unit    Installation method: Panel mounting | | | | | |
| | Cooling system | Natural air cooling | | | | | |
| | Weight | Approx.2.5kg | | | | Approx.1.5kg | |
| | Dimensions W×H×D(mm) | 303.8×231.0×69.0 | | | | 233.0×178.0×65.8 | |
| | Panel cutout (mm) | 289.0×216.2(+0.5/-0) | | | | 220.5×165.5(+0.5/-0) | |
| Case color | | Gray | | | | | |
| Material | | PC/ABS | | | | | |

*1  Keep wet bulb temperature under 39℃ to avoid an accident.
*2  Contamination level is an index that shows the incidence rate of conductive substance. At Level 2, only nonconductive substance is produced, but a temporary conductive state may occur due to dew concentration.
*3  Hardware version: j or later.

## Performance Specifications

| Item | Model | V810iS | V810S | V810iT | V810T | V810iC | V810C | V808iS | V808S | V808iC | V808C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Display specifications | Screen memory | 12.5MB | | | | 4.5MB | | 12.5MB | | 4.5MB | |
| | Display device | TFT color LCD | | | | | | | | | |
| | Resolution W:H(dots) | 800×600 | | 640×480 | | | | 800×600 | | 640×480 | |
| | Display size | 10.4 inches | | | | | | 8.4 inches | | | |
| | Colors | 65,536 colors (without blinks) / 32,768 colors (with blinks) | | | | | | | | | |
| | Backlight | CCFL | | | | | | | | | |
| | Backlight life *5 | About 50,000 hours | | | | | | | | | |
| | Backlight Auto OFF | Lit in normal (Set by the user) | | | | | | | | | |
| | Power lamp | Lit in normal condition, blinks in alarm condition such as blowout of backlight bulbs | | | | | | | | | |
| | Contrast adjustment | Fixed | | | | | | | | | |
| | Brilliance control | 3 levels (Adjusted into 128 grades by macro command) | | | | | | | | | |
| Number of characters | 1/2-byte | 100 columns × 75 lines | | 80 columns × 60 lines | | | | 100 columns × 75 lines | | 80 columns × 60 lines | |
| | 1-byte | 100 columns × 37 lines | | 80 columns × 30 lines | | | | 100 columns × 37 lines | | 80 columns × 30 lines | |
| | 2-byte | 50 columns × 37 lines | | 40 columns × 30 lines | | | | 50 columns × 37 lines | | 40 columns × 30 lines | |
| Enlargement of characters | | X: 1 ~ 8 times   Y: 1 ~ 8 times | | | | | | | | | |
| Touch switch | Switch resolution | Analog: 1,024×1,024 | | Analog: 1,024×1,024 / Matrix: 40×24 | | | | Analog: 1,024×1,024 | | | |
| | Mechanical life | 1 million times or more | | | | | | | | | |
| | Surface treatment | Hard coating, Non glare finish 5% | | | | | | | | | |
| Function switch | Number of function switches | 8 switches | | | | | | | | | |
| External interface | D-Sub 9-pin (CN1) *6 | RS-232C, RS-422/485, Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200,187500 *6 bps | | | | | | | | | |
| | Modular 8-pin (MJ1/ MJ2) | RS-232C, RS-422/485 (two-wire system), Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200 bps | | | | | | | | | |
| | CF card interface | Compatible with CompactFlash™ | | | | | | | | | |
| | Ethernet *4 | Complies with IEEE802.3   Baud rate: 100Mbps, 10Mbps, Cable: 100Ω Unsealed twist pair, Category 5, Max length: 100m | | | | | | | | | |
| | USB | Type A, Type B (Ver1.1) | | | | | | | | | |
| Clock & Back up memory | Battery | Coin-type lithium primary battery | | | | | | | | | |
| | Back up memory (SRAM) | 512KB | | | | 128KB | | 512KB | | 128KB | |
| | Back up period | 5 years (Ambient temperature 25℃ ) | | | | | | | | | |
| | Calendar accuracy | Gap±90 sec. per month (Ambient temperature 25℃ ) | | | | | | | | | |

* 4  Standard equipment only for V8i series
* 5  When the panel surface luminance drops to 50% of the initial value at normal temperature (25°C)
* 6  Available only when connected with SIEMENS MPI.

Products
Display/ Operation Features
Communication Features
Expandability
Usability
Configuration Software (V-SFT)
Component Parts
Expandability with MES/ Ethernet
Specifications
Dimensions and Part Names
System Configuration
Option
Option List
Customer Service
Product Warranty

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty

## General Specifications

| Item | Model | V806 | V808CH | |
|---|---|---|---|---|
| | | | V808iCHx | V808CHx |
| Power supply | Rated voltage | DC24V | | |
| | Permissible range of voltage | DC24V±10% | | |
| | Permissible momentary power failure | Within 1ms | | |
| | Demand (maximum rating) | 15W or less | 10W or less | |
| | Inrush current | 17A,2ms(DC24V) | 15A,1.5ms(DC24V) | |
| Insulation resistance | | DC500V 10MΩ or more | | |
| Physical environment | Ambient temperature | 0℃ ~ +50℃ *1 | 0℃ ~ +40℃ *1 | |
| | Storage temperature | -10℃ ~ +60℃ *1 | | |
| | Ambient humidity | 85%RH or less(without dew condensation, Max. wet bulb temperature: 39℃ or lower) *1 | | |
| | Resistance to solvent | No attachment of cutting oil or organic solvent | | |
| | Atmosphere | Not exposed to corrosive gas or conductive dust | | |
| | Operation altitude | 2,000 meter or lower | | |
| | Contamination level *2 | Level 2 | | |
| Mechanical operating conditions | Resistance to oscillation | Vibration frequency: 10~150Hz, acceleration: 9.8m/s²(1.0G) pulsating width: 0.075mm, X,Y,Z: 3 directions 1 hour each way | | |
| | Resistance to shock | Pulse shape: half-sine, peak acceleration: 147m/s²(15G), X,Y,Z: 3 directions, six times each way | | |
| Electric operating conditions | Noise proof | 1500Vp-p (pulse width 1μs, pulse rise time : 1ns) | 1000Vp-p (pulse width 1μs, pulse rise time : 1ns) | |
| | Static discharge | Complies with IEC61000-4-2, contact: 6kV, air: 8kV | | |
| Installation conditions | Grounding | Grounding resistance : Less than 100Ω , FG/SG separation | | |
| | Structure | Protect structure: Front panel: Compatible with IP65 (when water-proof gasket is used.) Rear cover: Compatible with IP20  Form: Single unit  Installation method: Panel mounting | IP65-compliant (when I/F cover, CF cover and LAN cover are used) | |
| | Cooling system | Natural air cooling | | |
| | Weight | Approx.740g | Approx.1.2kg | |
| | Dimensions W×H×D(mm) | 182.5×138.8×50.8 | 259.0×232.0×55.0 (Excluding the emergency stop switch) | |
| | Panel cutout (mm) | 174×131(+0.5/-0) | | |
| Case color | | Gray | Black | |
| Material | | PC/ABS | | |

*1  Keep wet bulb temperature under 39℃ to avoid an accident.
*2  Contamination level is an index that shows the incidence rate of conductive substance. At Level 2, only nonconductive substance is produced, but a temporary conductive state may occur due to dew concentration.

## Performance Specifications

| Item | Model | V806iT | V806T | V806iC | V806C | V806iM | V806M | V808iCHx | V808CHx |
|---|---|---|---|---|---|---|---|---|---|
| Display specifications | Screen memory | 4.5MB | | | | | | 12.5MB | 4.5MB |
| | Display device | TFT color LCD | | STN color LCD | | STN monochrome LCD | | TFT color LCD | |
| | Resolution W:H(dots) | 320×240 | | | | | | 640×480 | |
| | Display size | 5.7 inches | | | | | | 7.5 inches | |
| | Colors | 65,536 colors (without blinks) / 32,768 colors (with blinks) | | | | 16 grayscale (with blinks) | | 65,536 colors (without blinks) / 32,768 colors (with blinks) | |
| | Backlight | CCFL | | | | | | | |
| | Backlight life *4 | About 50,000 hours | | About 75,000 hours | | About 58,000 hours | | About 50,000 hours | |
| | Backlight Auto OFF | Lit in normal (Set by the user) | | | | | | | |
| | Power lamp | Lit in normal condition, blinks in alarm condition such as blowout of backlight bulbs | | | | | | | |
| | Contrast adjustment | Fixed | | Adjustable (Function switch or macro switch) | | | | Fixed | |
| | Brilliance control | 3 levels (Adjusted into 128 grades by macro command) | | Fixed | | | | | |
| Number of characters | 1/2-byte | 40 columns × 30 lines | | | | | | 80 columns × 60 lines | |
| | 1-byte | 40 columns × 15 lines | | | | | | 80 columns × 30 lines | |
| | 2-byte | 20 columns × 15 lines | | | | | | 40 columns × 30 lines | |
| Enlargement of characters | | X: 1 ~ 8 times   Y: 1 ~ 8 times | | | | | | | |
| Touch switch | Switch resolution | Analog: 1,024×1,024 | | | | | | | |
| | Mechanical life | 1 million times or more | | | | | | | |
| | Surface treatment | Hard coating, Non glare finish 5% | | | | | | | |
| Function switch | Number of function switches | 6 switches | | | | | | 12 switches (4 switches: external output) | |
| External interface | D-Sub 9-pin (CN1) *6 TB3 for V808iCHx/ V808CHx | RS-232C, RS-422/485 (two-wire system), Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200 bps | | | | | | RS-232C, Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200 bps | |
| | Modular 8-pin (MJ1/ MJ2) TB2 for V808iCHx/ V808CHx | RS-232C, RS-422/485, Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200,187500 *5 bps | | | | | | RS-422/485, Asynchronous type, Data length : 7,8 bits, Parity : even, odd, none, Stop bit : 1,2 bits, Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200,187500 *5 bps | |
| | CF card interface | Optional unit DU-10 | | | | | | Compatible with CompactFlash™ | |
| | Ethernet *3 | Complies with IEEE802.3   Baud rate: 100Mbps, 10Mbps Cable: 100Ω Unsealed twist pair, Category 5, Max length: 100m | | | | | | Complies with IEEE802.3 | Not available |
| | USB | Type A, Type B (Ver1.1) | | | | | | Type B (Ver1.1) | |
| Clock & Back up memory | Battery | Coin-type lithium primary battery | | | | | | | |
| | Back up memory (SRAM) | 512KB | 128KB | 512KB | 128KB | 512KB | 128KB | 512KB | 128KB |
| | Back up period | 5 years (Ambient temperature 25℃ ) | | | | | | | |
| | Calendar accuracy | Gap±90 sec. per month (Ambient temperature 25℃ ) | | | | | | | |

* 3  Standard equipment only for V8i series
* 4  When the panel surface luminance drops to 50% of the initial value at normal temperature (25°C)
* 5  Available only when connected with SIEMENS MPI.

* 6  Available only when an option unit [DU-10] is used for V806

## Dimensions and Part Names
### Provided with plentiful kinds of interfaces

(mm)

## V815iX / V815iXD

Side view | Front view | Rear view | Bottom view

81.1 | 382.8 | 368.4 | 81.1

312.8 | 298.4 | 43.4

8.3

Panel cutout

369.4 $^{+0.5}_{-0}$

299.4 $^{+0.5}_{-0}$

(mm)

## V812iS / V812S

Side view | Front view | Rear view | Bottom view | Panel cutout

69 | 326.4 | 312 | | 313 $^{+0.5}_{-0}$

259.6 | 245.2 | 40 | 246.2 $^{+0.5}_{-0}$

7 | 61.2

(mm)

## V810iS / V810S / V810iT / V810T / V810iC / V810C

Side view | Front view | Rear view (V810S / V810T) | Rear view (V810C) | Bottom view

69 | 303.8 | 288 | 288 | 40 (46.3 for V810C)

231 | 215.2 | 215.2

7 | 34.4 | 35.2

Panel cutout

289 $^{+0.5}_{-0}$

216.2 $^{+0.5}_{-0}$

Products

Display/
Operation
Features

Communication
Features

Expandability

Usability

Configuration
Software (V-SFT)

Component
Parts

Expandability
with MES/
Ethernet

Specifications

Dimensions and
Part Names

System
Configuration

Option

Option List

Customer Service

Product Warranty

(mm)

# V808iS / V808S / V808iC / V808C

Side view    Front view    Rear view (V808S)    Rear view (V808C)    Bottom view



Panel cutout

(mm)

# V806iT / V806T / V806iC / V806C / V806iM / V806M

Side view    Front view    Rear view    Bottom view    Panel cutout



(mm)

# V808iCH / V808CH

Side view    Front view    Rear view    Bottom view    Top view



## Part Names

| | | | |
|---|---|---|---|
| ❶ Display | ❽ DIP switch | ⓯ USB-A (master) | ㉑ OPERATION lamp |
| ❷ Power lamp | ❾ Power supply(TB1) | ⓰ Screw hole for fixing USB cable lock | ㉒ External output switch |
| ❸ Function switch | ❿ Modular 8-pin for serial port (MJ1) | ⓱ Inlet port for fixing USB cable | ㉓ Emergency stop switch |
| ❹ Connector for communication unit (CN5) | ⓫ Modular 8-pin for serial port (MJ2) | ⓲ Slide switch | ㉔ Cable insertion slot |
| ❺ Connector for optional unit (CN7) | ⓬ D-Sub 9-pin for serial port (CN1) | ⓳ Deadman switch | ㉕ Battery |
| ❻ Battery holder | ⓭ 100BASE-TX/10BASE-T port (LAN) | ⓴ Key switch | ㉖ Terminal block (TB2) |
| ❼ CF card slot (CF) | ⓮ USB-B (slave) | | ㉗ Terminal block (TB3) |

## System Configuration

**Flexible system configuration meets diversified requirements**

### V8i series / V8iC series



PC
PC
V8i
PLC

Ethernet

Printer (PictBridge)

LAN

PC
USB-B
V8i
CN1  Communication cable
PLC

Screen program editing
V-CP  MJ1

V-SFT-5

MJ1/MJ2
USB-A

Temperature controller / Inverter

Temperature controller / Inverter

V6-TMP

Bar code reader

PLC

V6-BCD

Bar code reader

USB-CFREC

V-I/O

Printer

CREC card recorder

Bar code reader

*1

Speaker (Sound output)

Mouse

Keyboard

Video camera (Video input)

PC (RGB input)

Display (RGB output)

— Ethernet
— USB
— Serial communication
— Optional units

*1 V8i series only.
Optional unit (GU-xx) is required.

### V8 series / V8C series



PC
V-CP  MJ1
V8
CN1  Communication cable
PLC

Screen program editing
USB-B

V-SFT-5

MJ1/MJ2
USB-A

Temperature controller / Inverter

Printer (PictBridge)

Temperature controller / Inverter

V6-TMP

Bar code reader

PLC

USB-CFREC

V6-BCD

Printer

Bar code reader

Bar code reader

V-I/O

Mouse

CREC card recorder

Keyboard

— USB
— Serial communication

## V806 + DU-10

PC
PC
V8i
PLC
Ethernet *1

Printer (PictBridge)
PC
Screen program editing
V-SFT-5
LAN
USB-B
V-CP
MJ1
V806 +DU-10
CN1
Communication cable
PLC
Temperature controller / Inverter
Bar code reader
MJ1/MJ2
USB-A
Temperature controller / Inverter
V6-TMP
PLC
USB-CFREC
Printer
Bar code reader
V6-BCD
Bar code reader
Mouse
V-I/O
CREC card recorder
Keyboard (Japanese input is not supported)

Ethernet
USB
Serial communication

*1 Optional unit (CU-03-3) is required. (Using with DU-10 is not supported)

## V806i

PC
PC
V8i
PLC
Ethernet *1

Printer (PictBridge)
PC
Screen program editing
V-SFT-5
LAN
USB-B
V-CP
MJ1
V806i
CN1
Temperature controller / Inverter
V6-TMP
PLC
Bar code reader
V6-BCD
MJ1/MJ2
USB-A
USB-CFREC
Printer
Bar code reader
Mouse
V-I/O
CREC card recorder
Keyboard (Japanese input is not supported)

Ethernet
USB
Serial communication

*1 V806i series only

## V808CH

PC
PC
V808iCH
PLC
Ethernet *1

Printer (PictBridge)
PC
Screen program editing
V-SFT-5
LAN
USB-B
V808iCH
TB3
Communication cable
PLC
Temperature controller / Inverter
TB2
Temperature controller / Inverter
V6-TMP
PLC
Bar code reader
V6-BCD

Ethernet
USB
Serial communication

*1 V808iCH series only

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service

Product Warranty

# MONITOUCH V8 series

Products

Display/Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/Ethernet

Specifications

Dimensions and Part Names

System Configuration

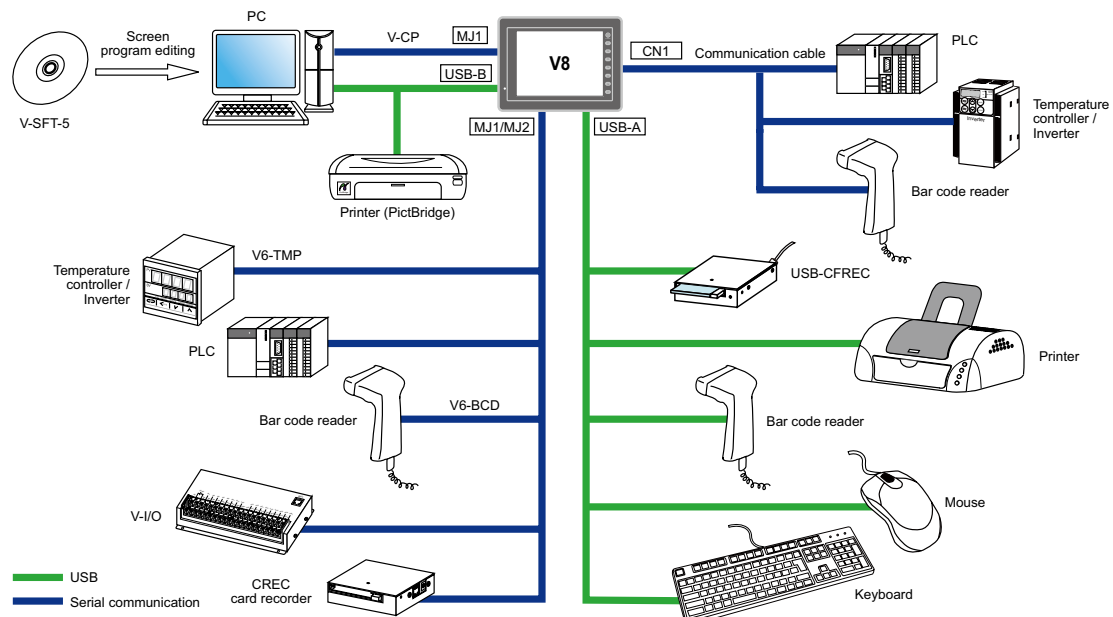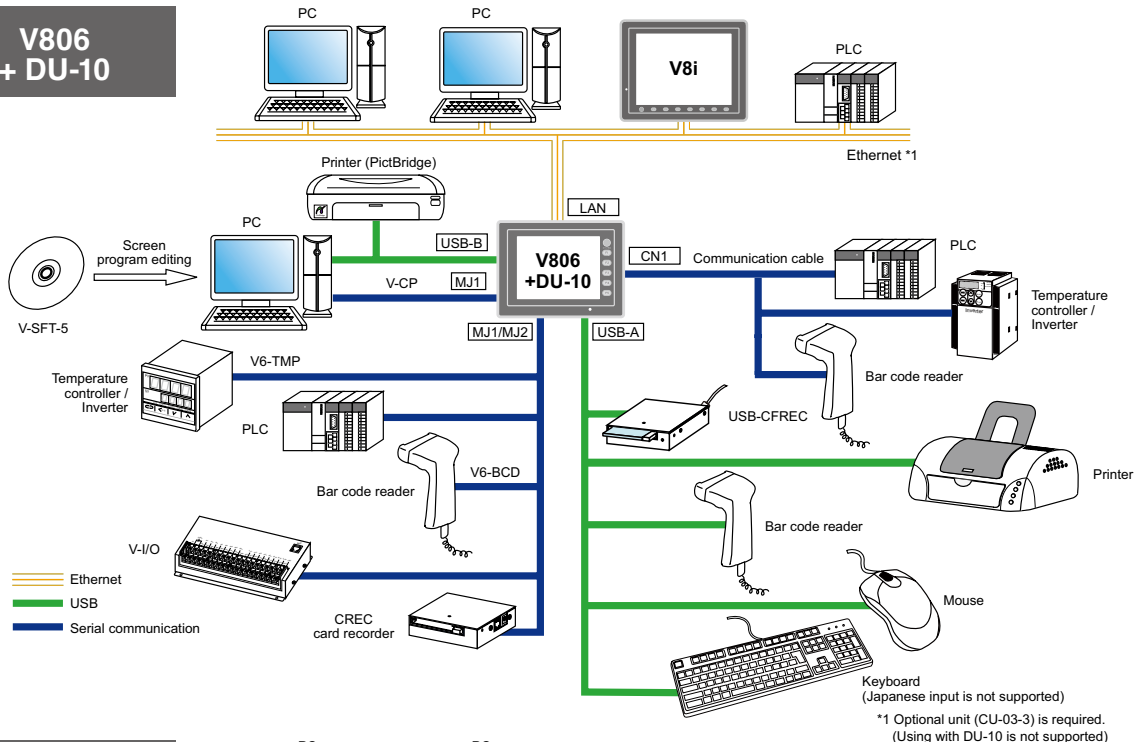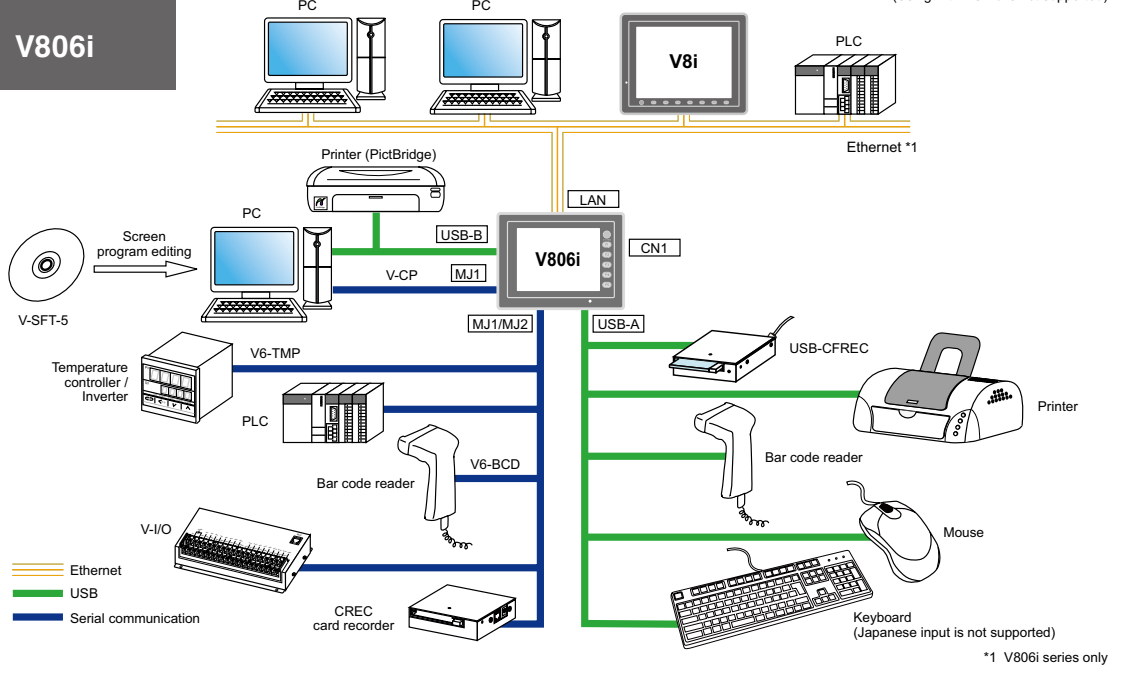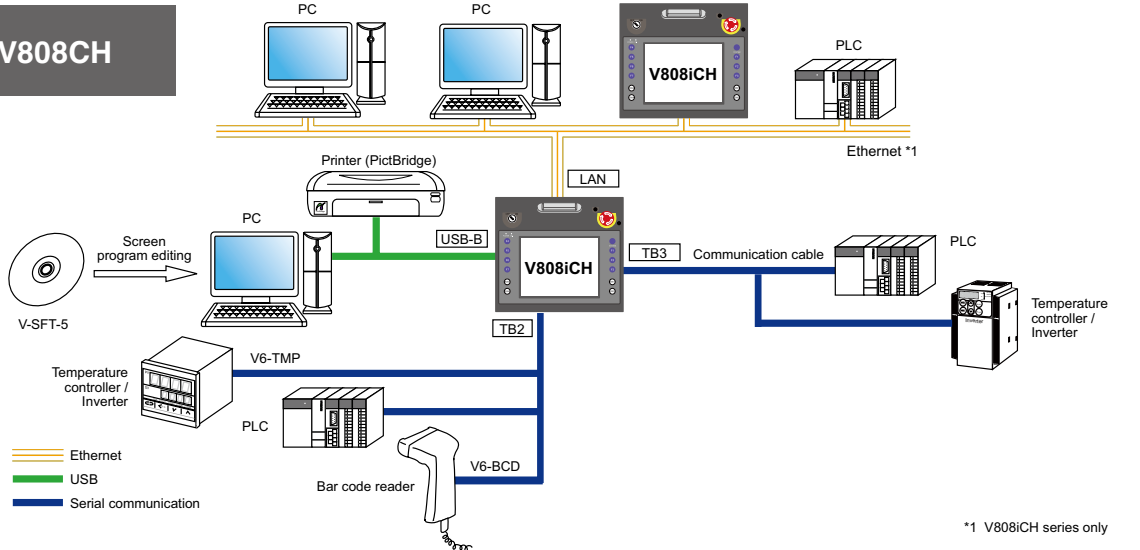Option

Option List

Customer Service

Product Warranty

## Option Units

### Optional units that expand V8's performance

---

## Various units for greater expandability and usability

## Expansion/ Communication Units

### ● Expansion units

**GU-00(Video input + sound output unit)**
Displays images from a video camera on V8 and outputs sound files through external speakers.

**GU-01(RGB input + sound output unit)**
Displays PC images on V8 and outputs sound files through external speakers.

**GU-02(RGB output + sound output unit)**
Displays images of V8 on PC display and outputs sound files through external speakers.

**GU-03(Sound output unit)**
Outputs sound files through external speakers.

**GU-10(Video input(2ch) + RGB input)**
Displays images from video cameras and PC images on V8 simultaneously.

**GU-11(RGB input(2ch))**
Displays RGB images such as PC images through two channels on V8 simultaneously.

**DU-10(V806)**
Compatible with a D-Sub9-pin/CF card.

### ● Communication units

| XX | Compatible network | XX | Compatible network |
|----|--------------------|----|--------------------|
| 00 | OPCN-1 | 04 | PROFIBUS-DP |
| 01 | T-Link | 06 | SX bus |
| 02 | CC-Link | 07 | DeviceNet *1 |
| 03-3 | Ethernet | 08 | FL-net |

Connected to various networks. Multiple V8 panels can be connected to one PLC. Other devices can be linked to the network, improving system's cost-effectiveness.

*1 Under development

## Optional units

**USB-CFREC**
**(USB ports for CF card recorder)**
Used for recording or reading data onto or from a CF card. Fitted on the front of the panel.

**TC-D9 (Terminal converter)**
Connects V8 with other units via RS-422/485 terminal.

**CREC (Card recorder)**
Used for recording data onto a card for back-up. Also used for recording data by memory manager or data logging functions.
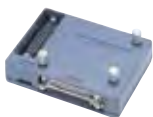
**V-MDD (ACPU/QnACPU/FXCPU dual port interface)**
Used to double the port of the connector for programmer units. Useful when connecting to ACPU/QnACPU/FXCPU(MITSUBISHI) directly.

## Application Software

### ● Configuration software

**V-SFT-5(Ver.5)**
For Windows98/Me/NT Version4.0/2000/XP/XP 64 Edition/Vista 32bit

## Cables

| Type | Configuration | Connected to |
|------|---------------|--------------|
| V-CP | RS-232C — Modular 8-pin / D-Sub 9-pin — Length: 3 m | PC |
| V6-BCD | RS-232C — Modular 8-pin — Length: 3 m | Bar code reader |
| V6-MLT | RS-422 — Modular 8-pin — Length: 3 m | MONITOUCH V8/V7/V6 series |
| V6-TMP | RS-232C/485 — Modular 8-pin — Length: 3, 5 or 10 m | Temperature controller and inverter etc. |
| UA-FR | 1000±50 — Length: 1 m | USB-CFREC Card reader/writer |
| UB-FR | 1000±50 — Length: 1 m | PC PictBridge Printer |

**V7-BT (Battery)**
Lithium battery for V8 series

**V8xx-GS/V8xx-GSN10**
Protection sheet for panels: 5 sheets per set.
N10 is a non-glare type sheet.
See P37 for details.

**V8xxx-FL**
Backlight for V8
See P37 for details.

**Panel Adapter**
Used when fitting V8 into V4/GD-80/GD-65/GD-64 panel cutout.

# Option List

## Optional units that expand V8's performance

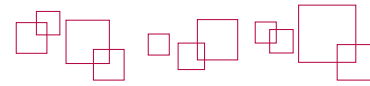| Model | Description | V815 | V812 | | V810 | | | | | | V808 | | | | | | V806 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | iX | iS | S | iS | S | iT | T | iC | C | iS | S | iC | C | iCH | CH | iT | T | iC | C | iM | M |
| **Configuration software** | | | | | | | | | | | | | | | | | | | | | | |
| V-SFT-5 | Configuration software for V series (CD+Japanese manual set) ver.5 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| V-SFT-5(CD) | Configuration software for V series (Installation CD) ver.5 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Communication units** | | | | | | | | | | | | | | | | | | | | | | |
| CU-00 | OPCN-1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-01 | T-Link | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-02 | CC-Link | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-03-3 | Ethernet | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-04 | PROFIBUS-DP | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-06 | SX Bus | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| CU-08 | FL-net Ver.2(OPCN-2) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| **Optional units** | | | | | | | | | | | | | | | | | | | | | | |
| GU-00 | VIDEO 4ch input, audio output | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| GU-01 | RGB 1ch input, audio output | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| GU-02 | RGB 1ch output, audio output | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| GU-03 | audio output | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| GU-10 | VIDEO 2ch input, RGB 1ch input | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| GU-11 | RGB 2ch input | ○ | ○ | | ○ | | ○ | | | | ○ | | | | | | | | | | | |
| DU-10 | Optional unit dedicated to V806 (Dsub9+CF card) | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| **Cable** | | | | | | | | | | | | | | | | | | | | | | |
| V-CP | Screen program transfer cable (3M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| UA-FR | USB-A panel surface fixing cable (1M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| UB-FR | USB-B panel surface fixing cable (1M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| V6-MLT | Multi-link 2 master cable (3M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| V6-TMP | Temperature controller connecting cable (3M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| MJ-D25 | MJ-Dsub25 conversion cable | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| MJ2-PLC | MJ-Dsub25 conversion cable for V806 and V706 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| D9-MB-CPUQ | Mitsubishi Electric A series/QnA series CPU RS-422 (2,3,5,10,15M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| D9-QCPU2 | Mitsubishi Electric Q series CPU RS-232C(2,3,5,10,15M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| D9-MI2-09 | Mitsubishi Electric link unit RS-232C(2,3,5,10,15M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| D9-MI4-FX | Mitsubishi Electric FX series CPU RS-422(2,3,5,10,15M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| D9-FU-SPHCPU | Fuji Electric SPH CPU RS-485(4-wire) (2,3,5M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| D9-FU-SPBCPU | Fuji Electric SPB CPU RS-485(4-wire) (2,3,5M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| V706-ACPU | Mitsubishi Electric A series/QnA series CPU RS-422(2,3,5,10,15M) | | | | | | | | | | | | | | | | ○*2 | ○*2 | ○*2 | ○*2 | ○*2 | ○*2 |
| MJ2-MI4FX | Mitsubishi Electric FX series CPU RS-422(2,3,5M) | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| MJ2-FU-SPHCPU | Fuji Electric SPH CPU RS-485(4-wire) (2,3,5M) | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| MJ2-FU-SPBHCPU | Fuji Electric SPB CPU RS-485(4-wire) (2,3,5M) | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| V8H-C | External connection cable for V808CH (3,5,15,20M) | | | | | | | | | | | | | | ○ | ○ | | | | | | |
| D9-D25 | Dsub9-Dsub25 conversion cable (0.3M) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| **Communication terminal block** | | | | | | | | | | | | | | | | | | | | | | |
| TC-D9 | Terminal converter for V8 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 | ○*1 |
| **Card recorder** | | | | | | | | | | | | | | | | | | | | | | |
| USB-CFREC | USB CF card recorder | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| **Dual port interface** | | | | | | | | | | | | | | | | | | | | | | |
| V-MDD | Mitsubishi ACPU/QnACPU/FXCPU port interface | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | |
| **I/O unit** | | | | | | | | | | | | | | | | | | | | | | |
| V-I/O | Expanded serial I/O unit | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | ○ |
| **Battery** | | | | | | | | | | | | | | | | | | | | | | |
| V7-BT | Battery for V8, V7 and V606e | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Switch guard cover** | | | | | | | | | | | | | | | | | | | | | | |
| V8H-SWG | Switch guard | | | | | | | | | | | | | | ○ | ○ | | | | | | |
| **Wall-hanging clasp** | | | | | | | | | | | | | | | | | | | | | | |
| V6H-WF | Wall-hanging clasp set (For V808CH/V608CH) | | | | | | | | | | | | | | ○ | ○ | | | | | | |
| V6H-WF1 | Wall-hanging bracket (wall side) (For V808CH/V608CH) | | | | | | | | | | | | | | ○ | ○ | | | | | | |
| V8H-WFV | Fitting for V808CH (VESA-compliant) | | | | | | | | | | | | | | ○ | ○ | | | | | | |
| **Protection sheet** | | | | | | | | | | | | | | | | | | | | | | |
| V806-GS | Surface protection sheet for V806 | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| V806-GSN10 | Surface protection sheet for V806 (nonglare) | | | | | | | | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| V808-GS | Surface protection sheet for V808 | | | | | | | | | | | ○ | ○ | ○ | ○ | | | | | | | |
| V808-GSN10 | Surface protection sheet for V808 (nonglare) | | | | | | | | | | | ○ | ○ | ○ | ○ | | | | | | | |
| V810-GS | Surface protection sheet for V810 | | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | |
| V810-GSN10 | Surface protection sheet for V810 (nonglare) | | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | |
| V812-GS | Surface protection sheet for V812 | | ○ | ○ | | | | | | | | | | | | | | | | | | |
| V812-GSN10 | Surface protection sheet for V812 (nonglare) | | ○ | ○ | | | | | | | | | | | | | | | | | | |
| V715-GS | Surface protection sheet for V815/V715 | ○ | | | | | | | | | | | | | | | | | | | | |
| V715-GSN10 | Surface protection sheet for V815/V715 (nonglare) | ○ | | | | | | | | | | | | | | | | | | | | |
| **Backlight** | | | | | | | | | | | | | | | | | | | | | | |
| V808C-FL | Backlight for V808C series | | | | | | | | | | | | | ○ | ○ | | | | | | | |
| V808S-FL | Backlight for V808S series | | | | | | | | | | | ○ | ○ | | | | | | | | | |
| V810-FL | Backlight for V810S/T series | | | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | |
| V812-FL | Backlight for V812S series | | ○ | ○ | | | | | | | | | | | | | | | | | | |
| V715-FL | Backlight for V815iX series | ○ | | | | | | | | | | | | | | | | | | | | |

*1 The optional unit: DU-10 is required.
*2 Used both MJ1/MJ2 ports.

Side navigation tabs:
Products | Display/Operation Features | Communication Features | Expandability | Usability | Configuration Software (V-SFT) | Component Parts | Expandability with MES/Ethernet | Specifications | Dimensions and Part Names | System Configuration | Option | Option List | **Customer Service** | Product Warranty

# Customer Service

## Global service network

Please contact our customer service department for information and advice.

| TEL |
|---|
| **Tel +81-76-274-2144** |

| FAX |
|---|
| **Fax +81-76-274-5208** |

| E-mail |
|---|
| **sales@hakko-elec.co.jp** |

| Website |
|---|

### http://www.monitouch.com

Includes FAQs for troubleshooting, instruction manuals, sample screens, and information for upgrading of configuration software.
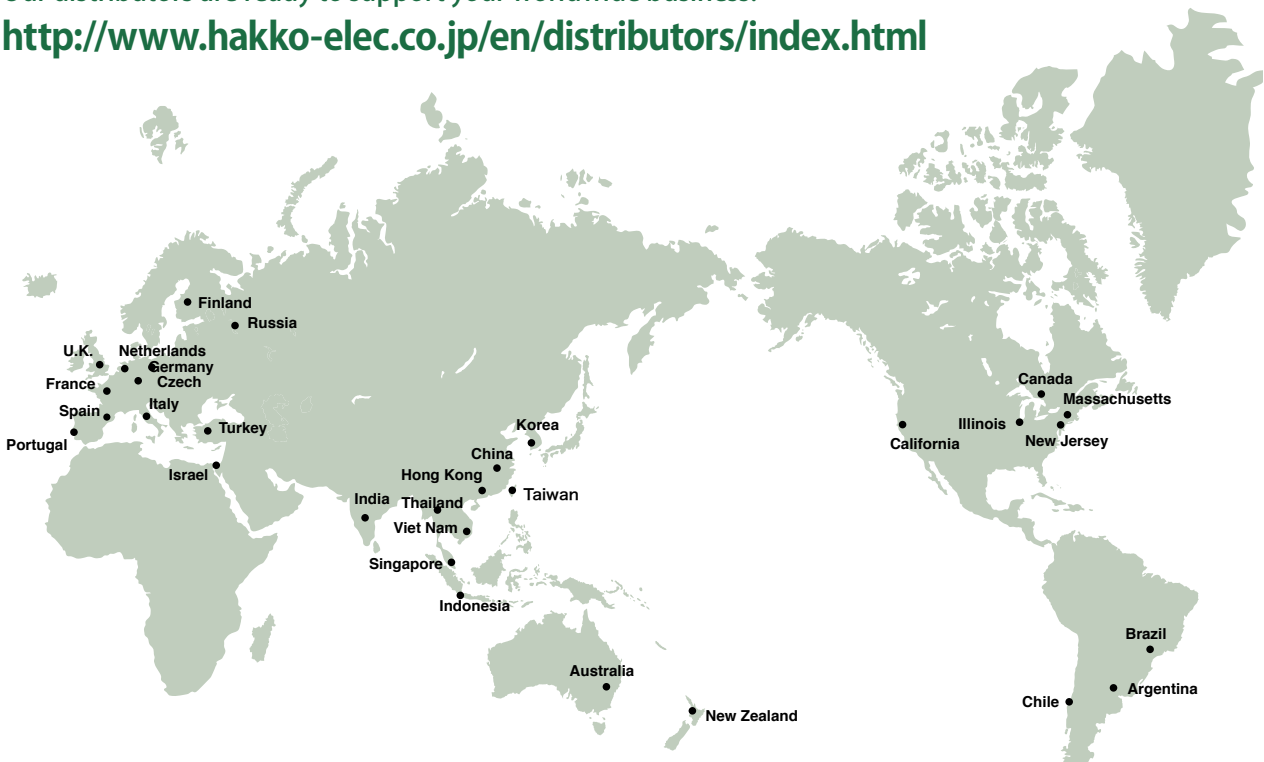
### http://www.monitouchv8.com

**MONITOUCH** V8 series

Visit our website for MONITOUCH V8 Series.

| Global Sales Network |
|---|

Our distributors are ready to support your worldwide business.

### http://www.hakko-elec.co.jp/en/distributors/index.html

Map labels: Finland, Russia, U.K., Netherlands, Germany, Czech, France, Italy, Spain, Portugal, Israel, Turkey, Korea, China, Hong Kong, India, Thailand, Taiwan, Viet Nam, Singapore, Indonesia, Australia, New Zealand, Canada, Massachusetts, Illinois, California, New Jersey, Brazil, Chile, Argentina

# Product Warranty

## To the purchasers of Hakko Electronics products:

The warranty of this product is as follows, unless there are special instructions that state otherwise in the quote, contract, catalog, or specifications at the time of the quote or order.

The purpose or area of use may be limited, and a routine checkup may be required depending on the product. Please contact the distributor from which you purchased the product, or Hakko Electronics for further information.

Please conduct inspection of the product promptly upon purchase or delivery. Also, please give sufficient consideration to management and maintenance of the product prior to accepting it.

### 1. Period and Coverage of the Warranty

1-1 Period

(1) The period of the warranty is effective until twenty-four (24) months from the date of manufacture printed on the plate.

(2) The above period may not be applicable if the particular environment, conditions or frequency of use affects the lifetime of the product.

(3) The warranty for the parts repaired by Hakko Electronics' service department is effective for six (6) months from the date of repair.

1-2 Coverage

(1) If malfunction occurs during the period of warranty due to negligence on the part of Hakko Electronics, the malfunctioning parts are exchanged or repaired free of charge at the point of purchase or delivery. However, the warranty does not apply to the following cases:

1) The malfunction occurs due to inappropriate conditions, environment, handling or usage that is not specified in the catalog, instruction book or users' manual.

2) The malfunction is caused by factors that do not originate in the purchased or delivered product.

3) The malfunction is caused by another device or software design that does not originate in a Hakko Electronics product.

4) The malfunction occurs due to an alteration or repair that was not performed by Hakko Electronics.

5) The malfunction occurs because the expendable parts listed in the instruction book or catalog were not maintained or replaced in an appropriate manner.

6) The malfunction occurs due to factors that were not foreseeable by the practical application of science and technology at the time of purchase or delivery.

7) The malfunction occurs because the product is used for a purpose other than that for which it is intended.

8) The malfunction occurs due to a disaster or natural disaster that Hakko Electronics is not responsible for.

(2) The warranty is only applicable to the single purchased and delivered product.

(3) The warranty is only valid for the conditions stated in (1) above. Any damage induced by the malfunction of the purchased or delivered product, including damage or loss to a device or machine and passive damage, is not covered by the warranty.

1-3 Malfunction Diagnosis

The initial diagnosis of malfunction is to be made by the purchaser. The diagnosis can be conducted by Hakko Electronics or its delegated service provider with due charge upon the request of the purchaser. The charge is to be paid by the purchaser at the rate stipulated in the rate schedule of Hakko Electronics.

### 2. Liability for Opportunity Loss

Regardless of the time of occurrence, Hakko Electronics is not liable for damage caused by factors that Hakko Electronics is not responsible for, opportunity loss on the part of the purchaser caused by the malfunction of a Hakko Electronics product, passive damage, damage due to a special situation regardless of whether it was foreseeable or not, or secondary damage, accident compensation, damage to products that were not manufactured by Hakko Electronics, or compensation towards other operations.

### 3. Period for Repair and Provision of Spare Parts after Production is Discontinued (Maintenance Period)

Discontinued models (products) can be repaired for seven (7) years from the date of discontinuation. Also, most spare parts used for repair are provided for seven (7) years from the date of discontinuation. However, some electric parts may not be available due to their short life cycle. In this case, it may be difficult to repair or provide the parts during the seven-year period. Please contact Hakko Electronics or its service providers for further information.

### 4. Delivery

Standard products that do not entail application setting or adjustment are regarded as received by the purchaser upon delivery. Hakko Electronics is not responsible for local adjustments and test runs.

### 5. Service

The price of the delivered or purchased products does not include the service fee for the technician. Please contact Hakko Electronics or its service providers for further information.

### 6. Scope of Application

The above contents shall be assumed to apply to transactions and product use in the country where a Hakko Electronics product is purchased. Please consult your local supplier or Hakko Electronics for details.

Products

Display/ Operation Features

Communication Features

Expandability

Usability

Configuration Software (V-SFT)

Component Parts

Expandability with MES/ Ethernet

Specifications

Dimensions and Part Names

System Configuration

Option

Option List

Customer Service

Product Warranty

## ⚠ Safety Considerations

● For safe operation, read the instruction manual or user manual that comes with the product carefully or consult the distributor from which you purchased the product, before using the product.

● Products introduced in this catalog have not been designed or manufactured for such applications in a system or equipment that will affect human bodies or lives.

● Customers, who want to use the products introduced in this catalog for special systems or devices such as for atomic-energy control, aerospace use, medical use, passenger vehicle, and traffic control, are requested to consult the Hakko Overseas Sales Section.

● Customers are requested to prepare safety measures when they apply the products introduced in this catalog to such systems or facilities that will affect human lives or cause severe damage to property if the products become faulty.

● For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

## Notes to consider before purchasing

● Appearance and specifications are subject to modification without prior notice due to technical improvements.

● Colors in the catalog may differ from the actual colors due to printing inaccuracies.

● Consult your distributor or us for further information about products in this catalog.

# www.monitouch.com

**Hakko Electronics Co., Ltd.**

Overseas Sales Department
890-1 Kamikashiwano-machi,
Hakusan, Ishikawa 924-0035, Japan

● Tel
  +81-76-274-2144

● Fax
  +81-76-274-5208

● E-mail
  sales@hakko-elec.co.jp

Distributor