

MONITOUCH V9 Series
V9080 OPERATING INSTRUCTIONS

Thank you for selecting the MONITOUCH V9080 series. Make sure that the delivered unit conforms to your requirements and check for any missing or damaged parts.

Accessories

Table listing accessories: V9080 OPERATING INSTRUCTIONS (this manual): 1 copy; Fixtures: 4 pcs; Cable tie for securing USB cables: 1 pc.

Model

Model table with columns 1-7 and rows for Screen size, Touch switch specifications, Functional capabilities, Display specifications, Wireless LAN I/F, Extended LAN I/F, Power supply specifications.

Notes on Safe Usage

This document describes various precautions categorized under the following two levels with the signal words "Danger" and "Caution."

Table defining DANGER (Indicates an imminently hazardous situation) and CAUTION (Indicates a potentially hazardous situation).

Note that even items indicated with CAUTION may also result in a serious accident.

CAUTION

- Never use the output function of MONITOUCH for operations that may threaten human life or cause damage to the system, such as switches to be used in case of emergency.
Turn off the power supply when setting up the unit, connecting new cables, or performing maintenance or inspections.
Never touch any terminals while the power is on.
Always cover the terminals on the unit before turning the power on and operating the unit.

CAUTION

- Check the appearance of the unit after unpacking. Do not use the unit if any damage or deformation is found.
For use in a facility or as part of a system related to nuclear energy, aerospace, medical, traffic equipment, or mobile installations, please consult your local distributor.
Operate (or store) MONITOUCH under the conditions indicated in this document and related manuals.

- Avoid locations where there is a possibility that water, corrosive gas, flammable gas, solvents, grinding fluids, or cutting oil can come into contact with the unit.
Avoid high temperatures, high humidity, and outside weather conditions, such as wind, rain, or direct sunlight.
Avoid locations where excessive dust, salt, and metallic particles are present.
Equipment must be correctly mounted so that the main terminal of MONITOUCH will not be touched inadvertently.
Tighten the fixtures on MONITOUCH to an equal torque of 5.31 lbf-in (0.6 N·m).

- Do not press two or more positions on the screen at the same time. If two or more positions are pressed at the same time, the switch located between the pressed positions may be activated.

Notes on LCD

- Tiny spots (dark or luminescent) may appear on the display due to the liquid crystal characteristics. Please note that this is not a fault or malfunction of MONITOUCH.

UL/cUL Approval

The V9080iSD complies with the following standards.
Hardware Ver. a to e : UL508 (E313548), ANSI/ISA 12.12.01 (E315977)
Hardware Ver. f to z : UL61010-1/UL61010-2-201 (E313548), ANSI/ISA 12.12.01 (E315977)
The V9080iRSD, V9080iSLD and V9080iCD complies with the following standards.
Hardware Ver. a to e : UL508 (E313548)
Hardware Ver. f to z : UL61010-1/UL61010-2-201 (E313548)

ANSI/ISA 12.12.01 Compliance and Handling Cautions

- Power, input and output wiring must be in accordance with Class I, Division 2 wiring methods - Article 501 - 10(B) of the National Electrical Code, NFPA 70.
This product is certified for use in Class I, Division 2, Groups A, B, C or D hazardous location or non-hazardous locations.
WARNING: Explosion Hazard: Substitution of components may impair compliance to Class I, Division 2.

UL Listing Application for Systems Equipped with MONITOUCH

- The back panel of MONITOUCH is not an approved enclosure. For UL listing application, embed MONITOUCH in your system and configure an enclosure so that the entire system will be UL-approved.

Table with columns: Screw size, Tightening torque, Power cable. M3.5, 7.1 lbf-in (0.8 N-m), AWG16 to AWG14, Rated temperature 60 °C.

- Always use a Class 2 power supply for the 24 VDC power unit.

CE Marking (Except V9080iSRD)

- The V9080 series complies with the following EMC directives and RoHS directives. EN61000-6-2, EN61000-6-4, EN50581
The V9080 series is identified as a class-A product in industrial environments. In the case of use in a domestic environment, the unit is likely to cause electromagnetic interference.

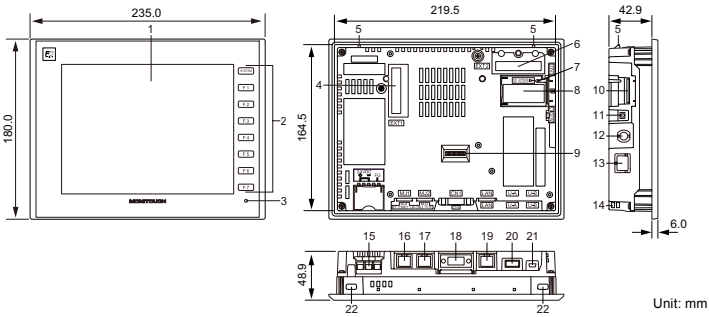
General Specifications

Main specifications table with columns: Item, V9080iSD, V9080iCD. Includes sections for Conformance Standards, Rated Voltage, Power Consumption, Environmental conditions, Vibration Resistance, Shock Resistance, etc.

\*1 Except V9080iSRD
\*2 Refer to "UL/cUL Approval".
\*3 V9080iSRD only
\*4 Use MONITOUCH in an environment with a wet-bulb temperature of 39 °C or less.
\*5 This indicates the distribution section to which the unit is intended to be connected.
\*6 This is an index that expresses the degree of conductive contamination in the environment where MONITOUCH is used.

- Even when the mounting panel thickness is within the specified range, the panel itself may warp depending on the material and size of the mounting panel.

Names of Components and Dimensions



- 1. Display
2. Function switches
3. Power lamp
4. Communication interface connector (EXT1)
5. Fall prevention tabs
6. Connector for optional unit (EXT2)
7. SD card access LED
8. Battery holder
9. DIP switches
10. SD card slot (SD)
11. Audio output connector (AUDIO)
12. Connector for dipole antenna with wireless LAN (WLAN)
13. Extended LAN connector (LAN2)
14. USB cable clamp hole
15. Power supply terminal block
16. Modular jack (MJ1)
17. Modular jack (MJ2)
18. D-sub 9-pin connector (CN1)
19. LAN connector (LAN)
20. USB-A port (U-A)
21. USB mini-B port (U-B)
22. Mounting holes

\*1 Except V9080iCD
\*2 V9080iSRD only
\*3 V9080iSLD only

D-sub 9-pin connector (CN1)

The CN1 connector is used for serial communication (RS-232C/RS-422/RS-485) with an external device.

Table for CN1 connector with columns: Pin No., Signal, RS-232C, Description, RS-422/RS-485, Description. Includes a diagram of the connector and FG: Frame ground.

- Select the signal level (RS-232C or RS-422/RS-485) using the screen configuration software or local mode on the V9 series unit.
This is used when RS-422/RS-485 is selected.

Modular Jacks (MJ1/MJ2)

The MJ1 and MJ2 connectors are used for serial communication (RS-232C/RS-485) with an external device.

Table for MJ1/MJ2 connectors with columns: Pin No., Signal, Description. Includes a diagram of the connector and FG: Frame ground.

\*1 For MJ1 and MJ2, the maximum allowable current is 150 mA in total.

LAN Connector (LAN) / Extended LAN Connector (LAN2) V9080iSLD only

The LAN connector is used for Ethernet communication (100BASE-TX, 10BASE-T). Specification: IEEE802.3 (u)-compliant, UDP/IP and TCP/IP support, Auto-MDIX and Auto-Negotiation function support

Table with a CAUTION row: MJ1/2 and LAN connector are 8-pin modular jacks. Check the connector names on the unit and insert cables into the correct connectors.

For more information on the LAN connectors and cables, refer to the separate V9 Series Hardware Specifications manual.

Connector for Dipole Antenna with Wireless LAN (WLAN) V9080iSRD only

This connector is used for external dipole antenna with wireless LAN, "V9-ANT" (optional). Specification: Reverse SMA jack

For more information on using wireless LAN, refer to the separate V9 Series Hardware Specifications manual.

USB Ports (U-A/U-B)

These ports are used for connecting USB devices and a printer or transferring screen programs (USB mini-B only). Specification: Compliant with USB version 2.0

For more information on using USB ports and securing cables, refer to the separate V9 Series Hardware Specifications manual.

Audio Output Connector (AUDIO) Except V9080iCD

This terminal is used for audio output. Specification: φ3.5 stereo mini jack

For more information on the specifications for audio playback, refer to the separate V9 Series Hardware Specifications manual.

DIP Switches

The dip switch settings are as follows. (The following figure shows the DIP switch settings upon delivery.) Turn the power off before changing any DIP switch settings.

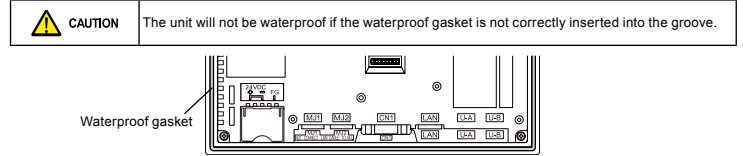
Table showing DIP switch settings (Enlarged view) with columns: No., Description, No., Description. Includes 'ON' indicator and switch positions.

For more information, refer to the separate V9 Series Hardware Specifications manual.

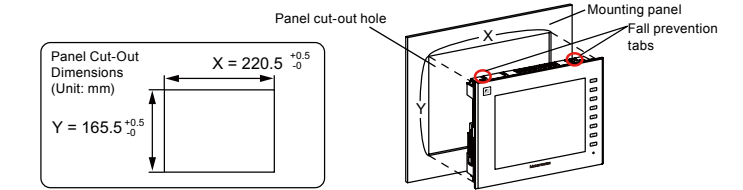
Mounting Procedure

Mounting Procedure

- Place the V9 series unit on a flat surface with the display facing down and insert the provided waterproof gasket into the groove around the unit.



- Mount the V9 series unit into the mounting panel (maximum thickness of 4.0 mm) while paying attention to the fall prevention tabs.
The V9 series unit can be mounted in upright, 90° left, and 90° right orientations.



- Insert two of the provided fixtures into the mounting holes at the top and bottom of the V9 series unit and tighten them with the tightening screws to secure the unit in place. (Tightening torque: 5.31 lbf-in (0.6 N·m))
Ground the mounting panel to prevent any buildup of static electricity.

Mounting Angle

Install the unit within the angle range of 15 to 135 degrees. Note that mounting angle will differ depending on the mounting orientation and whether power is supplied externally to the modular jacks (MJ1/MJ2) or USB-A port.

Electrical Wiring and Grounding

Table with a DANGER row: Electrical shock hazard! Shut off the power before connecting the power supply cable.

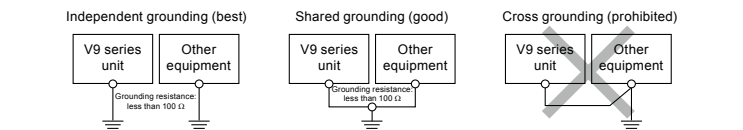
Power Supply Cable Connection

- Connect the power supply cable to the terminal on the backside of the unit.
When connecting the power supply cable, tighten the terminal screws to the following torque.
The power supply must be used within allowable range of voltage fluctuation.
Use a power supply with low noise between cables and between the ground and cables.
Use the thickest power supply cable possible to minimize drops in voltage.
Keep power supply cables away from high-voltage, large-current carrying cables.

Grounding

Table with a CAUTION row: Be sure to establish a ground for MONITOUCH. (The level of grounding resistance should be less than 100 Ω.)

- An independent grounding must be used for the unit.
Use a grounding cable with a nominal cross section of more than 2mm².
Set the grounding point near the unit to reduce the length of grounding cables.



Notes on Usage of Lithium Battery

The battery provides backup power to the user memory area in SRAM (non-volatile memory SL and SLD, logging/alarm data storage etc.) as well as the built-in clock.

Table with a CAUTION row: A battery is already installed upon delivery. This equipment is an open-type device meant to be installed in an enclosure suitable for the environment and is only accessible with the use of a tool.

Replace battery with V9-BT made by Hakko Electronics Co., Ltd. only. Use of another battery may present a risk of fire or explosion. Replacement of Battery shall be done by an expert only.

Note on the Directive 2006/66/EC

- The symbol mark on the right is valid for countries in the European Union only.
The symbol mark on the right is according to the Directive 2006/66/EC Article 20 Information for end-users and Annex II.
The symbol mark on the right means that battery, at the end-of-life, should be disposed of separately from your household waste.
If a chemical symbol is printed beneath the symbol on the right, this chemical symbol means that the battery contains a heavy metal at a certain concentration.
This will be indicated as follows:
Hg: mercury (0.0005 %), Cd: cadmium (0.002 %), Pb: lead (0.004 %)
In the European Union, there are separate collection systems for used batteries. Please dispose of batteries correctly at your local community waste collection/recycling center.



Hakko Electronics Co., Ltd.
890-1, Kamikashiwano-machi, Hakusan-shi, Ishikawa, 924-0035 Japan
TEL: +81-76-274-2144 FAX: +81-76-274-5136
URL: www.monitouch.com
Importer in Europe: Fuji Electric Europe GmbH, Goethering 58, 63067 Offenbach / Main, Germany



