

1 Installation and Startup Guide

This document covers the installation of cMT-iV6 HMI, for the detailed specifications and operation, please refer to Datasheet, Brochure and EasyBuilder Pro User Manual. Please read all warnings, precautions, and instructions on the device carefully before use.

Install Environment:

NEMA Rating	The HMI product is NEMA 4X rated.
Electrical Environment	The HMI product has been tested to conform to European CE requirements. This means that the circuitry is designed to resist the effects of electrical noise. This does not guarantee noise immunity in severe cases. Proper wire routing and grounding will insure proper operation.
Environmental Considerations	<ol style="list-style-type: none"> (1) Make sure that the displays are installed correctly and that the operating limits are followed. Avoid installing units in environments where severe mechanical vibration or shocks are present. (2) Do not operate the unit in areas subject to explosion hazards due to flammable gases, vapors or dusts. (3) Do not install the unit where acid gas, such as SO₂ exists. (4) This device should be mounted in the vertical position and for use on the flat surface enclosure. (5) Conform to UL 61010-2-201 safety requirement for use in Pollution Degree 2 Environment. (6) Relative Humidity: 10% ~ 90% (non-condensing)
Cleaning Considerations	Clean the device using dry cloths. Do not use liquid or spray detergents for cleaning.
IP rating	IP 65
 Warning	Protection impairment if used in a manner not specified by the manufacturer. Déficit de protection si utilisé d'une manière non spécifiée par le fabricant.

2 Unpacking the Unit

Unpack and check the delivery. If damage is found, please contact the supplier.

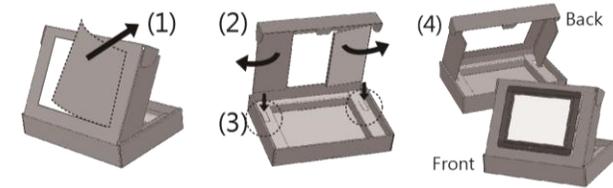
NOTE: Place the operator panel on a stable surface during installation. Dropping it or letting it fall may cause damage.

The package includes:

- (1) Installation Instruction, 2-sided A4 *1
- (2) Human Machine Interface *1
- (3) Power Connector *1
- (4) Brackets & Screws *1 pack
- (5) Fuse 1.25A/250V 5*20mm *1

The packing box can be transformed into an HMI stand. Please follow the steps to make the stand.

1. Remove the center of the box cover along the perforated line.
2. Pull the two inner flaps.
3. Press down along the perforated line inside the box.
4. Complete the stand as shown.



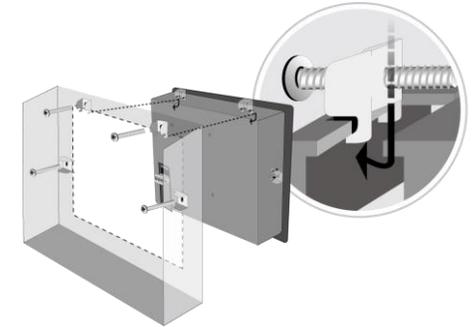
3 Installation Instructions

Use a control box that provides enough stiffness. Cutout Dimension: 250 mm x 192 mm. Secure the operator panel in position, using all the fastening holes and the provided brackets and screws. Screw Torque: 2.6 ~ 3.9 lbf.in. (For reaching waterproof effect and preventing the panel from being deformed.)

Plan for adequate space around the unit and inside the enclosure, for ventilation and cables. Consider the heat from other devices inside the enclosure. The ambient temperature around the unit must be 0 ~ 50°C

Minimum required clearances (along the overlay): Top / Bottom / Sides 15 mm

Maximum panel thickness: 4.5 mm



4 Power Connections

Power Connector Specifications:

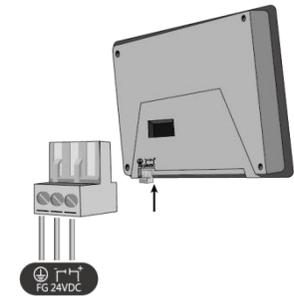
Wire AWG: 28~12

Operating Temperature: -40°C ~105°C

Screw Torque: 3.47 lbf-in (max.)

NOTE:

1. Connect positive DC line to the '+' terminal and the DC ground to the '-' terminal.



5 System Settings

Connect cMT-SVR, router, and cMT-iV6 via RJ-45 Ethernet cable. Launch cMT Viewer on cMT-iV6, find the cMT-SVR and use the default password "111111" to log in and configure.

cMT-SVR Ethernet Ports:

Ethernet 1: DHCP

Ethernet 2: 192.168.100.1



6 Information

Tap Setting > Information to view the Machine type, HMI name, IP address, Subnet mask, Gateway, Mac address, App. version, and OS. version.

7 General & Language

Tap Setting > General to adjust screen brightness and audio volume by dragging the scrollbars.

Tap the key icon  to change the password.

Tap the screen orientation icon  to change screen orientation.

Using screensaver and backlight saver is recommended in order to avoid image persistence caused by displaying the same image on HMI for a long time.

Tap Language to select an interface language.

Tap Input Method to add international keyboards.

8 Time/Date & Network

Tap the lock icon , enter the password and click OK, the Time/Date and Network setting tabs will be enabled.

In Network tab, enable [Obtain an IP address automatically] or manually enter IP address, Subnet mask, Gateway, and DNS.

9 Touchscreen Calibration and Battery Replacement

Touchscreen Calibration: Press and hold anywhere on the screen for more than 2 seconds when HMI starts to enter touchscreen calibration mode.

Battery replacement shall be performed by qualified personnel only and care must be taken when handling lithium batteries.

Settings		
Information	Machine type	cMT-IV6
General	HMI name	cMT-2D36
Language	IP address	192.168.0.211
Input Method	Subnet mask	255.255.255.0
	Gateway	192.168.0.1
	Mac address	00:0c:26:17:2d:36
	App. version	2.9.11
	OS. version	20190115

Settings		
Information	HMI name	cMT-2D36
General	Change password	
Language	Restore previous connections	on 
Input Method	Direction	
Time/Date	Display datettime bar	on 
Network	Brightness	
Password Protection	Audio volume	
OS Upgrade	Touch sounds	 off
	Backlight saver	 off

Settings		
Information	Obtain an IP address automatically	 off
General	IP address	192.168.0.211
Language	Subnet mask	255.255.255.0
Input Method	Gateway	192.168.0.1
Time/Date	DNS	1.8.8.8
Network		
Password Protection		
OS Upgrade		

CAUTION

NOTE: Make sure that all local and national electrical standards are met when installing the unit. Contact your local authorities to determine which codes apply.



Power

Use power output that meets SELV (Safety Extra-Low Voltage) requirements. The unit can be powered by DC power only, voltage range: 24±20%, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.



Fusing Requirements

Fuse min. rating: 1.25A/250V. Use the fuse only in DC circuit. If the display does not come on within 5 seconds of power up, remove power. An internal fuse will prevent damage if the polarity of the DC power is incorrect. Check wiring for proper connections and try to power up again. Replacing fuse shall be performed by qualified personnel only. For more information, see:



High Voltage

An Internal fuse will prevent damage for overcurrent condition however it isn't guaranteed. DC voltage sources should provide proper isolation from main AC power and similar hazards.



Emergency Stop

A Hard-wired EMERGENCY STOP should be fitted in any system using an HMI to comply with ICS Safety Recommendations.



Supply Voltage Condition

Do not power the unit and inductive DC loads, or input circuitry to the controller, with the same power supply. Note: The 24 VDC output from some controllers may not have enough current to power the unit.



Wire Routing

- Power wire length should be minimized (Max: 500m shielded, 300m unshielded).
- Please use twisted pair cables for power wire and signal wire and conform to the impedance matching.
- If wiring is to be exposed to lightning or surges, use appropriate surge suppression devices.
- Keep AC, high energy, and rapidly switching DC power wiring separated from signal wires.
- Add a resistor and capacitor in the parallel connection between the ungrounded DC power supply and the frame ground. This provides a path for static and high frequency dissipation. Typical values to use are 1M Ohm and 4700pF.

DANGER

The system designer should be aware that devices in Controller systems could fail and thereby create an unsafe condition. Furthermore, electrical interference in an operator interface can lead to equipment start-up, which could result in property damage and/or physical injury to the operator.



Hardware Considerations

If you use any programmable control systems that require an operator, be aware that this potential safety hazard exists and take appropriate precautions. Although the specific design steps depend on your particular application, the following precautions generally apply to installation of solid-state programmable control devices, and conform to the guidelines for installation of Controllers recommended in NEMA ICS 3-304 Control Standards.



Programming Considerations

To conform to ICS Safety Recommendations, checks should be placed in the controller to ensure that all writable registers that control critical parts of plant or machinery have limit checks built into the program, with an out-of-limit safe shut down procedure to ensure safety of personnel.

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Limited Warranty

A copy of the Warranty and Limitation of Liability is contained in the product box. It can also be found on the Maple Systems website.

