

Device Synchronized Time Transfer Program  
**World Clock**  
**USER MANUAL**



World Clock



# Preface

Thank you for purchasing an Autonics product.

Please familiarize yourself with the information contained in the Safety Precautions section before using this product.

This user manual contains information about the product and its proper use, and should be kept in a place where it will be easy to access.

# User Manual Guide

- Please familiarize yourself with the information in this manual before using the product.
- This manual provides detailed information on the product's features. It does not offer any guarantee concerning matters beyond the scope of this manual.
- This manual may not be edited or reproduced in either part or whole without permission.
- A user manual is not provided as part of the product package.  
Visit our web site ([www.autonics.com](http://www.autonics.com)) to download a copy.
- The manual's content may vary depending on changes to the product's software and other unforeseen developments within Autonics, and is subject to change without prior notice.  
Upgrade notice is provided through out homepage.
- We contrived to describe this manual more easily and correctly. However, if there are any corrections or questions, please notify us these on our homepage.

# User Manual Symbols

Symbol	Description
 <b>Note</b>	Supplementary information for a particular feature.
 <b>Warning</b>	Failure to follow instructions can result in serious injury or death.
 <b>Caution</b>	Failure to follow instructions can lead to a minor injury or product damage.
 <b>Ex.</b>	An example of the concerned feature's use.
※1	Annotation mark.

# Safety Precaution

- Following these safety precautions will ensure the safe and proper use of the product and help prevent accidents, as well as minimizing possible hazards.
- Safety precautions are categorized as Warnings and Cautions, as defined below:

 <b>Warning</b>	<b>Warning</b>	Failure to follow the instructions may lead to a serious injury or accident.
--------------------------------------------------------------------------------------------------	----------------	------------------------------------------------------------------------------

 <b>Caution</b>	<b>Caution</b>	Failure to follow the instructions may lead to a minor injury or accident.
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## Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)  
Failure to follow this instruction may result in personal injury, fire, or economic loss.
- Do not disassemble or modify the unit. Please contact us if necessary.  
Failure to follow this instruction may result in fire.

## Caution

- Do not use the unit outdoors.  
Failure to follow this instruction may result in shortening the life cycle of the unit or product malfunction.
- Use the unit within the rated specifications.  
Failure to follow this instruction may result in shortening the life cycle of the unit.
- Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.  
Failure to follow this instruction may result in fire.
- Do not use the unit where flammable or explosive gas, humidity, direct sunlight, radiant heat, vibration, or impact may be present.  
Failure to follow this instruction may result in fire or explosion.
- Keep dust and wire residue from flowing into the unit.  
Failure to follow this instruction may result in fire or product damage.

# Caution During Use

These handling precautions address issues that can potentially cause the product to malfunction.

- This unit must be mounted on the Panel.
- This is non-insulated product. Use insulated power for power supply.
- Input signal line
  - Shorten the cable distance between the external device and this product.
  - Use shield cable when input wiring is long.
  - Wire the input signal line separately from the power line.
- Dielectric or insulation resistance test when this unit is installed in the control panel.
  - Separate the unit from the control panel.
  - Short circuit all terminals of the unit.
- Do not use this unit at below places.
  - Place where there are severe vibration or impact.
  - Place where strong alkalis or acids are used.
  - Place where there are direct ray of the sun.
  - Place where strong magnetic field or electric noise are generated.
- Installation environment
  - It shall be used indoor
  - Altitude max. 2,000m
  - Pollution degree 2
  - Installation category I

The above specifications are subject to change and some models may be discontinued without notice.

# Table of Contents

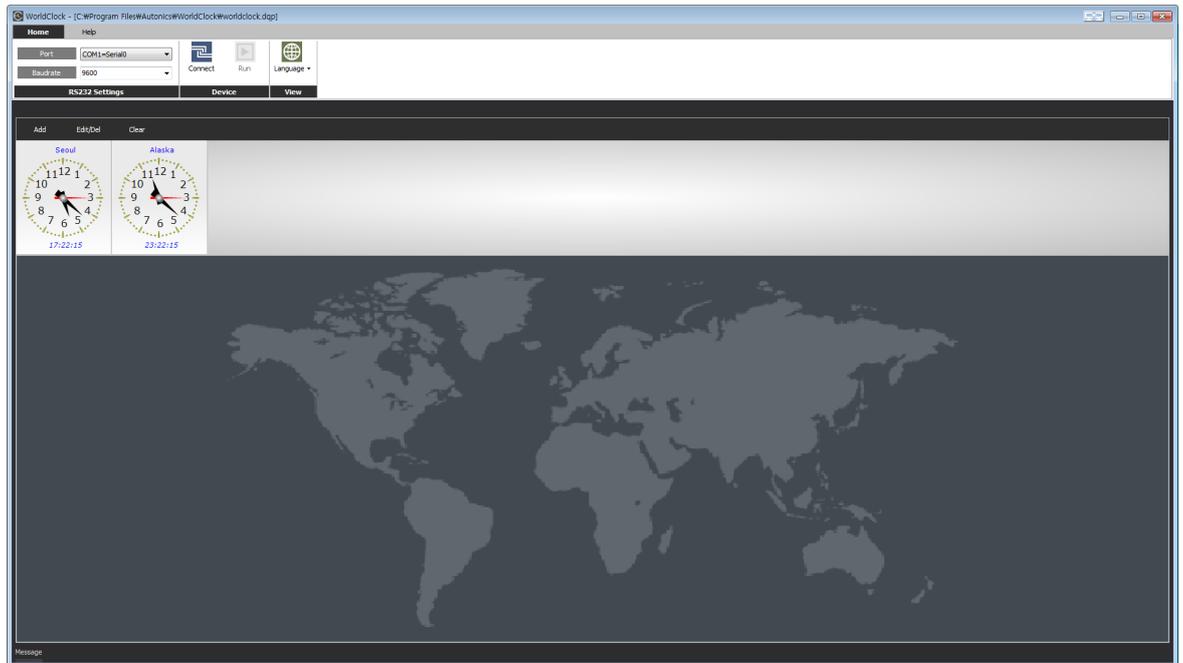
Preface .....	iii
User Manual Guide .....	iv
User Manual Symbols .....	v
Safety Precaution .....	vi
Caution During Use .....	vii
Table of Contents .....	viii
<b>1 Introduction of World Clock .....</b>	<b>9</b>
1.1 Outline.....	9
1.2 Features.....	10
<b>2 Installing the Program .....</b>	<b>11</b>
2.1 System requirement.....	11
2.2 Preparations.....	11
<b>2.2.1</b> Uninstalling the program .....	14
2.3 Run and exit.....	14
<b>2.3.1</b> Run.....	14
<b>2.3.2</b> Exit.....	14
2.4 World clock screen layout.....	15
<b>2.4.1</b> Menu.....	16
<b>2.4.2</b> Clock space.....	16
<b>3 Getting Started .....</b>	<b>17</b>
3.1 RS232 communication setting.....	17
3.2 Clock Space Setting.....	18
<b>4 Changing Program Language .....</b>	<b>21</b>
4.1 Change language .....	21

# 1 Introduction of World Clock

## 1.1 Outline

World Clock is device synchronized time transfer program for DS-C Series, intelligent display unit for time display.

You can check world times and set the summer time.



## 1.2 Features

World Clock has the following features:

### (1) Time synchrnoization

- You can check and monitoring the current time of the set location of display unit (DS-C Series).
- Multiple RS232 ports are available via Modbus RTU communication.

### (2) Summer time setting

You can set the summer time at the set time zone. ( $\pm 30$  min,  $\pm 1$  hour)

### (3) Multilingual supporting

It supports Korean, English, Japanese, Simplified Chinese.

### (4) Auto run the program

When setting Auto Run, the program starts automatically when booting the computer.

## 2 Installing the Program

### 2.1 System requirement

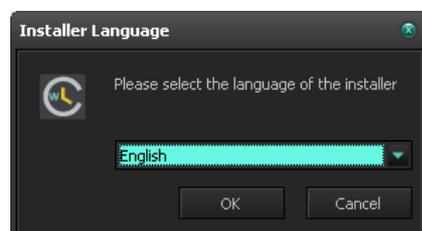
Item	Minimum specifications
System	IBM PC compatible computer with Pentium III or above
Operations	Microsoft Windows 98 / NT / XP / Vista / 7 / 8 / 10
Memory	256MB +
Hard disk	1GB+ of available hard disk space
VGA	Resolution: 1024×768 or higher
Others	RS232C serial port (9-pin), USB port

### 2.2 Preparations

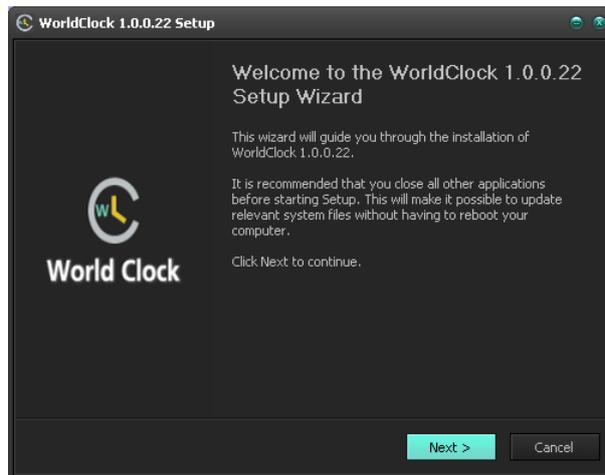
1st Download World Clock program at Autonics' web page([www.autonics.com](http://www.autonics.com)).

2nd Close all programs before you start World Clock installation. Double-click World Clock\_Setup.exe to start installation.

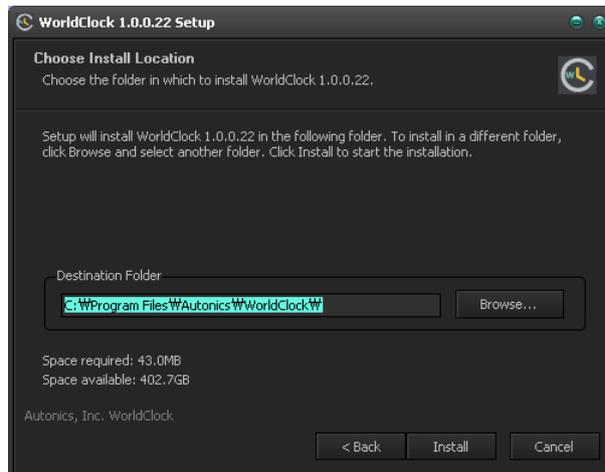
3rd Installer Language window appears. Select the language and click OK button. World Clock supports English, Japanese, Korean and Simplified Chinese.



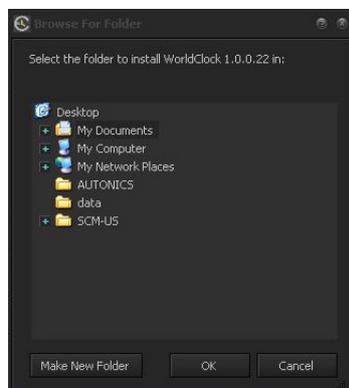
4th Click Next in the installation welcome window.



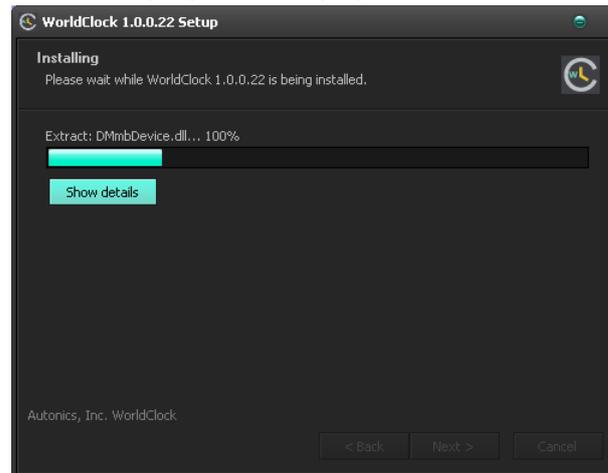
5th Choose Install Location window appears. Default installation path is C:\Program Files\Autonics\WorldClock.



6th Click Install button to choose the default path for installation. Click Browse button to change the installation path. In the Browse Folder window, select the desired destination folder and then click OK to start installation.



7th Installation progress is displayed in the status window as follows.

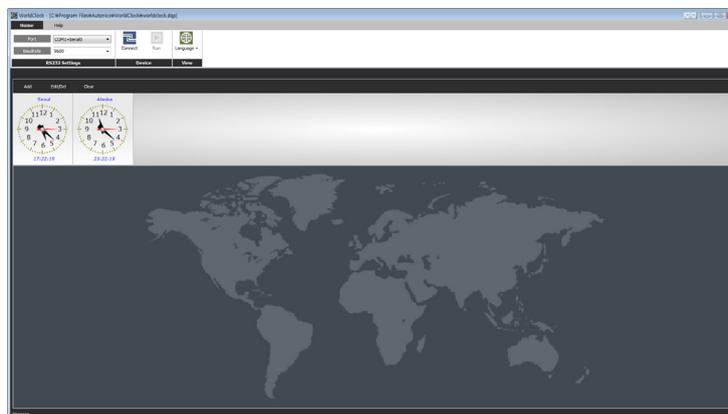


8th Installation Complete window appears after installation is completed.

If the check box in the Installation Complete window is checked, World Clock runs upon completion of installation. You can now run World Clock by double-clicking the World Clock icon on the desktop.



When running the program for the first time, the initial screen displays the following.



### 2.2.1 Uninstalling the program

There are procedures to uninstall World Clock. Select Start > Program > World Clock > Uninstall or Start > Setting > Control Panel > Add/Remove a Program > World Clock. If you select Remove, a confirmation window will appear. Click Yes to remove World Clock from the computer.

## 2.3 Run and exit

### 2.3.1 Run

Double-click World Clock on the desktop or select Start > Program > World Clock to run World Clock.

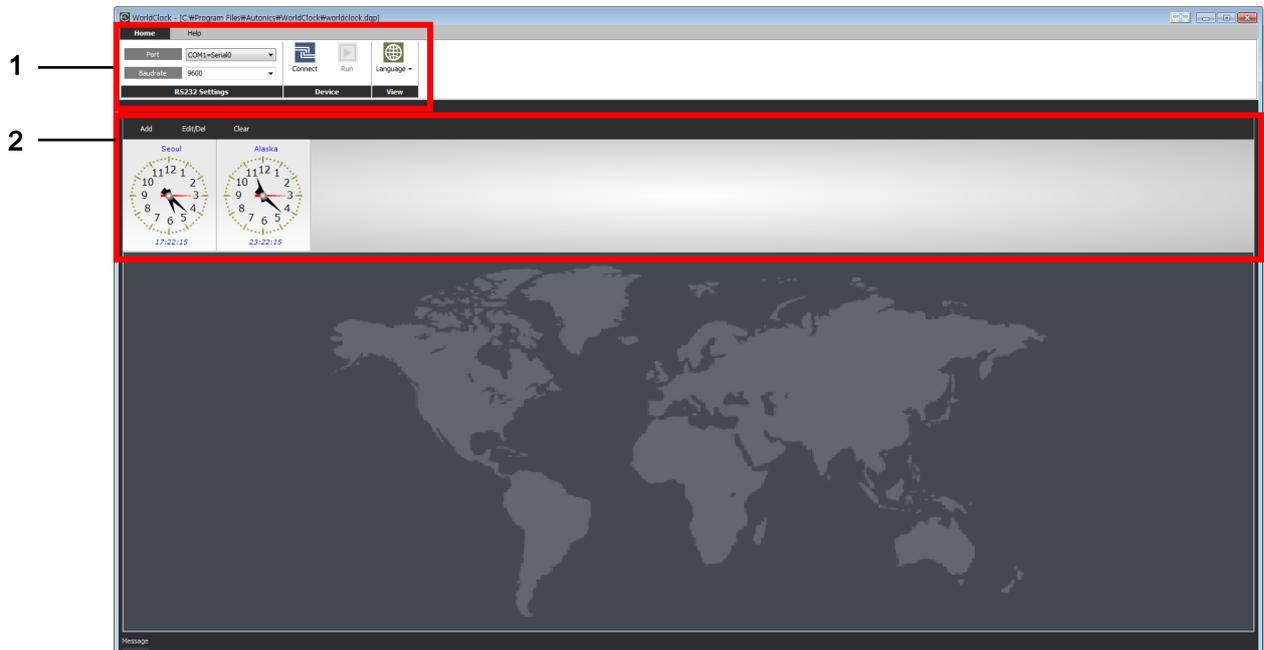
For running World Clock automatically when booting computer, right-click the icon of World Clock at Windows task bar and check 'Auto Run'.



### 2.3.2 Exit

Click X button on the top right corner of the screen, or select File > Exit on the menu bar to end the program. Projects are saved automatically.

## 2.4 World clock screen layout



The program screen is divided into sections as shown in the preceding screenshot and each section is composed of the following items.

No.	Item	Description
1	Menu	Displays World Clock menus by category. If you select a menu, submenus appear.
2	Clock Space	You can check and monitoring the current time of the set location of display unit (DS-C Series). You can set the summer time.

## 2.4.1 Menu

### (1) Home



- 1) RS232 Settings
  - Port: Sets communication port.
  - Baudrate: Sets baudrate.
- 2) Device
  - Connect/Disconnect: Connects/Disconnects communication with display unit (DS-C Series).
  - Run/Stop: Transmits current time of the set location and summer time setting data to the connected display unit (DS-C Series).
- 3) View
  - Language: Changes the program language.

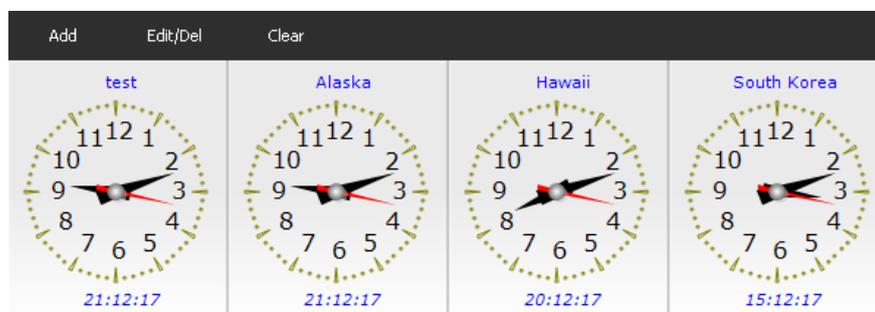
### (2) Help



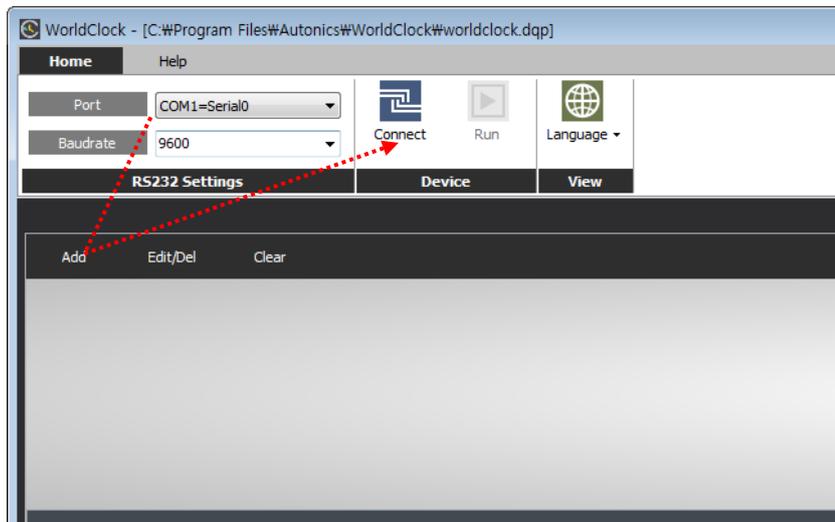
- Help: Starts the help file.
- Information: Checks the program version.

## 2.4.2 Clock space

You can check and monitoring the current time of the set location of display unit (DS-C Series) by adding the clocks.



## 3 Getting Started



The basic work order is as follows:

- 1st Select the RS232 port at the top left of the program.
- 2nd Set the baudrate same as the set baudrate of the display unit (DS-C Series).
- 3rd Add or Edit clocks of the desired location and time zone.
- 4th Click 'Connect'.
- 5th Click 'Run'.

### 3.1 RS232 communication setting

Set the RS232 for communication.

Setting items are as follows.

Item	Description
Port	It displays the connectable COM ports. Set the connected COM port.
Baudrate	Setting range: 4800, 9600, 19200, 38400bps Set the baudrate same as the set baudrate of the display unit (DS-C Series).

## 3.2 Clock Space Setting

Setting items are as belows.



### (1) Add

The 'Add Clock' dialog box contains the following fields and controls:

- Input Display Name:** A text input field.
- Select Standard Time:** A dropdown menu.
- SummerTime:** A dropdown menu.
- SummerTime Start:** Two dropdown menus for 'Month' and 'Day'.
- SummerTime End:** Two dropdown menus for 'Month' and 'Day'.
- Buttons:** 'Ok' and 'Cancel' buttons at the bottom right.

- **Input Display Name:** Set the clock name to display.
- **Select Standard Time:** Select the time zone based on the coordinated universal time (UTC). Select the set time zone of display unit (DS-C Series).
- **Summer Time:** Select the summer time (+0:30, +1:00, -1:00, -0:30) to apply. If not applying summer time, select 'Not Apply'.
- **Summer Time Start(End) Month/Day:** Set the summer time period. Summer time starts from the set start month/day to the set end month/day.



Ex.

Summer time starts August 1st and ends August 31st, Summer time applied from 00 hour 00 min, August 1st to 24 hour 00 min, August 31st. Next day, 00 hour 00 min, September 1st, summer time is not applied automatically.



**(2) Add/Delete**

The screenshot shows a dialog box titled "Edit/Del" with a close button in the top right corner. The dialog is divided into several sections:

- Select Clock:** A dropdown menu.
- Radio Buttons:** Two radio buttons labeled "Delete" (which is selected) and "Edit".
- Detail Setting Data:** A section containing:
  - Input Display Name:** A text input field.
  - Select Standard Time:** A dropdown menu.
  - SummerTime:** A dropdown menu.
  - SummerTime Start:** Two dropdown menus for "Month" and "Day".
  - SummerTime End:** Two dropdown menus for "Month" and "Day".
- Buttons:** "Ok" and "Cancel" buttons at the bottom right.

- Select Clock: Select the added clock to edit or delete.
- Detail Setting Data: Edit the clock as same method with adding clock.

**(3) Clear**

Clear (delete) all added clocks of the Clock space.



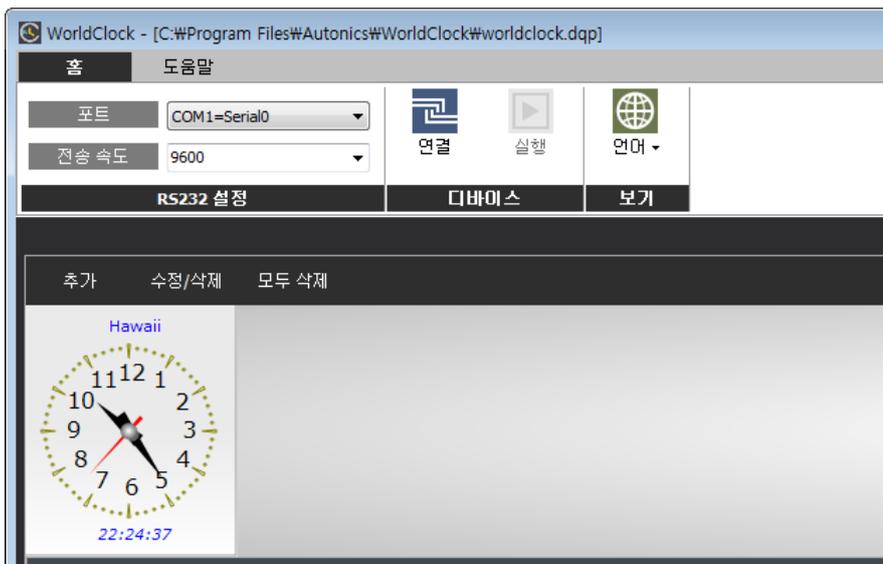
## 4 Changing Program Language

### 4.1 Change language

Changes the program language. Language is set based on the language selected at program installation.



Select Tools > Language > from the main menu. It is applied immediately and changes to the selected language.



# Autonics

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- Graphic/Logic Panels • Field Network Devices • Laser Marking System(Fiber, CO, Nd:YAG)
- Laser Welding/Cutting System

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