

CS-series High-speed Data Storage Unit (SPU Unit) CS1W-SPU01-V2/02-V2

CSM_CS1W-SPU01-V2/02-V2_DS_E_6_2

High-speed Collection of System Data

The CPU Unit can collect large amounts of process data, operation data, inspection data, and other controlled system data quickly and automatically save the data in external storage media as CSV files.

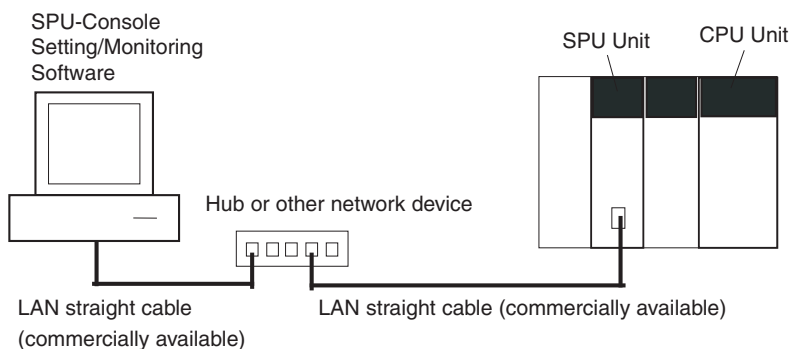


CS1W-SPU02-V2

Features

- There is no need to write ladder programming to collect data. Even with an existing system, just mount an SPU Unit and add it to the I/O tables to start data collection.
- The total size of variables that can be specified to collect data is 7,776 words.
- Use specified times or events as triggers to record the contents of specified words in I/O memory in the CPU Unit.
- In Data Storage Mode, up to 65 data collection patterns are possible with one basic collection pattern and data collection patterns 1 to 64. Combine the collection patterns with events to simultaneously collect many different types of data.
- Collected data can be stored in PC cards or in a computer connected via Ethernet. Data Management Middleware can be used to make a few simple settings to store the data in a host computer.
- Recipes can be used to batch-write numeric or text string data, such as production parameters, in the memory areas of the CPU Unit. Recipe data can be saved in a Memory Card in the SPU Unit to easily enable process switchovers.
- SPU Units with a unit version of 2.1 or later also provide an FTP client. This enables sending files of collected data to an FTP server on a host computer, eliminating the need to write programming to store data in the host computer.

System Configuration



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Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

SPU Unit (High-speed Data Storage Unit)

| Unit type | Product name | Specifications | | No. of unit numbers allocated | Current consumption (A) | | Model | Standards |
|------------------|--|---|-------------------------|-------------------------------|-------------------------|-----|---------------|-----------|
| | | PC Card slot | Ethernet (LAN) port | | 5V | 26V | | |
| CS1 CPU Bus Unit | SPU Unit (High-speed Data Storage Unit)  | 1 PC Card Type II slot Insert an OMRON HMC-EF□□□□ to use the Memory Card. | 1 port (10/100BASE-TX) | 1 | 0.56 | — | CS1W-SPU01-V2 | UC1, CE |
| | | | 2 ports (10/100BASE-TX) | | 0.70 | — | CS1W-SPU02-V2 | |


Support Software

| Product name | Specifications | Model | Standards |
|------------------------------|---|---------------|-----------|
| SPU-Console Support Software | Functions: Unit settings, sampling settings, etc., for High-speed Data Collection Units (required for making settings for this Unit) OS : Windows 2000, XP, or Vista | WS02-SPTC1-V2 | — |

Option

| Product name | Specifications | Model | Standards |
|--------------------------------|---|--|-----------|
| SPU Data Management Middleware | Function: Data files collected by SPU Data Management Middleware are automatically acquired at the personal computer, and can be registered in a database. OS : Windows 2000, XP, or Vista | 1 license | — |
| | | 5 licenses | |
| Memory Cards | Flash memory, 128MB | Note: Memory Card is required for data collection. | HMC-EF183 |
| | Flash memory, 256MB | | HMC-EF283 |
| | Flash memory, 512MB | | HMC-EF583 |
| | Memory Card Adapter (for a computer's PCMCIA slot) | | HMC-AP001 |
| | | | N, L, CE |
| | | | CE |

Industrial Switching Hubs

| Product name | Appearance | Specifications | | | Current consumption (A) | Model | Standards |
|---------------------------|---|--|--------------|-------------------|-------------------------|----------|-----------|
| | | Functions | No. of ports | Failure detection | | | |
| Industrial Switching Hubs |  | Quality of Service (QoS): EtherNet/IP control data priority Failure detection: Broadcast storm and LSI error detection 10/100BASE-TX, Auto-Negotiation | 3 | No | 0.22 | W4S1-03B | UC, CE |
| | | | 5 | No | 0.22 | W4S1-05B | |
| | | | 5 | Yes | 0.22 | W4S1-05C | CE |

Accessories

| Model | Accessories | Specifications |
|--------------------------------|------------------------------|--|
| CS1W-SPU01-V2 CS1W-SPU02-V2 | PF-IN connector (premounted) | Connector for uninterruptible power supply PF-IN connection: MC1.5/2-STF-3.81, manufactured by Phoenix Contact |

Mountable Racks

| Model | CS1 System | | | | | CS1D System | | | | | |
|--------------------------------|---------------------------|-----|---|-----|---------------------------------------|---|---------------------------|-----|------|------------------------|--|
| | CPU Rack | | Expansion Backplane (including Longdistance Expansion Rack) | | SYSBUS Remote I/O Slave Rack | C200HX/ HG/HE Expansion I/O Rack | CPU Rack | | | Expansion Backplane | |
| | CS1W-BC | | CS1W-BI | | | | CS1D-BC | | | CS1D-BI | |
| | □□3 | □□2 | □□3 | □□2 | 052 | 042D | 082S | 092 | 082D | | |
| CS1W-SPU01-V2 CS1W-SPU02-V2 | 16 Units (per CPU Unit) * | | | | Not supported | Not supported | 16 Units (per CPU Unit) * | | | | |

* The number of Units that can be mounted depends on the power supply capacity.
 C200HW-PA204□: 4 Units max.
 C200HW-PA209R: 10 Units max.

Functional and Performance Specifications

| Item | | Specifications |
|-------------------------------|----------------------------------|---|
| Unit model number | | CS1W-SPU01/02-V2 |
| Applicable CPU Units | | CS Series |
| Unit classification | | CPU Bus Unit |
| Unit number | | 0 to F |
| Mounting location | | CPU Backplane or CS-series Expansion Backplane (Cannot be mounted to C200H Expansion I/O Rack or SYSMAC BUS Remote I/O Slave Rack.) |
| No. of Units per PLC | | 16 Unit max. |
| Interfaces | PC card slot | PC card Type II, 1 slot (Conforms to PC Card Standard Release 8.0.) Used by mounting Memory Card and HMC-AP001 Memory Card Adapter. * |
| | COMM port | For future expansion |
| | Ethernet (LAN) ports | CS1W-SPU01-V2: One port (10/100Base-TX, RJ45 Modular Connector) CS1W-SPU02-V2: Two ports (10/100Base-TX, RJ45 Modular Connectors) |
| | UPS power failure input | 24 VDC (+10%/-15%) input Connect the power failure signal output line from the UPS. |
| Settings and operation | Unit number switch (UNIT) | Rotary switch: Sets the unit number of the Unit as a CPU Bus Unit. |
| | Select switch (SELECT) | Toggle switch: Sets the number of the command to execute. |
| | Enter button (ENTER) | Pushbutton switch: Confirms and starts execution of the command number set using the select switch. |
| | DIP switch (DIPSW) | DIP switch: System settings |
| | Card button | Pressed to release the Memory Card inserted in the PC card slot. The Memory Card can then be removed. |
| Indications | LED indicators | RUN, ERC, ERH, COMM, LAN1, LAN2, CARD, and PF-IN |
| | 7-segment display | <ul style="list-style-type: none"> • Displays error information and operating status of the SPU Unit. • Displays the command number set on the select switch. • Displays the IP address. • Display other information. |
| Functions | | <ul style="list-style-type: none"> • Sampling • Saving files • Network communications • Recipe function |
| Operating modes | | Data Storage Mode and Sampling Mode (Either mode can be selected with the Change Operating Mode command.) |
| Current consumption | | CS1W-SPU01-V2: 5 VDC, 560 mA max. (SPU Unit only) Other: Memory Card (HMC-EF□□□): 120 mA max. (Supplied from Power Supply Unit.) |
| | | CS1W-SPU02-V2: 5 VDC, 700 mA max. (SPU Unit only) Other: Memory Card (HMC-EF□□□): 120 mA max. (Supplied from Power Supply Unit.) |
| Dimensions | | CS1W-SPU01/SPU02-V2: 35 × 130 × 101 mm (W × H × D) |
| Weight | | CS1W-SPU01-V2: 280 g max. (including enclosed connector) |
| | | CS1W-SPU02-V2: 290 g max. (including enclosed connector) |

* Use the HMC-EF□□□ Memory Card from OMRON. Normal operation may not be possible with any other compact flash cards.

General Specifications: Specifications conform to the general specifications of the CS-series CPU Units.

Detailed Specifications

| Item | | Specifications | | |
|--|---|---|---|--|
| Sampling | Sampling Mode | Sampling patterns | Realtime sampling: 1 pattern Normal sampling : Up to 3 patterns | |
| | | Starting methods | Any one of the following methods can be used: <ul style="list-style-type: none"> Start automatically when SPU Unit is started. Start with an SPU-Console operation. Start with the SPU Unit's front-panel command buttons. (Specify the command number.) Start from the CPU Unit's ladder program. | |
| | | Interval | User-specified intervals: *1 Realtime sampling: 5 ms min. Normal sampling : 100 ms min. | |
| | Data Storage Mode (Unit Ver. 1.2 or later) | Data Collection Patterns | Basic Collection Pattern : 1 pattern (required) Data Collection Patterns : Up to 64 patterns | |
| | | Starting methods | Basic Collection Pattern (required) | Any one of the following methods can be used: <ul style="list-style-type: none"> Start when a specified event occurs. (Use a memory event or scheduled event. For details, see the description of Data Collection Patterns 1 to 64 below.) Start automatically when SPU Unit is started. Start with an SPU-Console operation. Start with the SPU Unit's front-panel command buttons. (Specify the command number.) Start from the CPU Unit's ladder program. |
| | | | Data Collection Patterns 1 to 64 | Either of the following methods can be used to start when an event occurs: <ul style="list-style-type: none"> Memory events: Start when a CPU Unit bit or word value matches a specified condition. Up to 500 memory events can be specified. Scheduled events: Start at a specified time or time interval. Up to 16 scheduled events can be specified. |
| | | Interval | User-specified intervals: *2 *3 Basic Collection Pattern: 5 ms min. Data Collection Patterns: 100 ms min. | |
| | Data Storage Mode (Unit Ver. 2.0 or later) | Copy option | Basic Collection Pattern: Cannot be set. Data Collection Patterns: Up to 10 patterns. | |
| | Shared Sampling Mode and Data Storage Mode settings | Applicable CPU Unit I/O memory areas | CIO Area, WR Area, HR Area, AR Area, DM Area, and EM Area banks 0 to C | |
| | | Specifying I/O memory areas | Specify the desired CPU Unit I/O memory area (data area) with a variable. The data type can be specified with the variable. The variables can be managed in groups. | |
| | | | Variable data types | BOOL, INT, UINT, DINT, UDINT, REAL, LREAL, STRING, CHANNEL, UINT BCD, UDINT BCD, WORD, DWORD, CHANNEL BLOCK |
| | | Maximum number of variables | 7,776 words total for all variables | |
| | | Record Condition setting | Set whether or not to use a record condition. If a record condition is used, sampling data is stored within the SPU Unit only when the record condition is met. For example, sampling data can be recorded only while a specified bit is ON or a specified word contains a particular value (comparison). | |
| | | Data exchange with the CPU Unit | CPU Bus Unit Area <ul style="list-style-type: none"> CPU Unit to SPU Unit: Command execution (such as starting/stopping sampling, clearing a sampling file, or saving a sampling file). SPU Unit to CPU Unit: SPU Unit status information | |
| | Saving files | Collected data file format | CSV files | Indices (record number), time stamps (hh:mm:ss:ms), ns, sampling indices (serial numbers starting at 0 when sampling is started), data for each symbol delimited with comma, records delimited with carriage returns |
| Record contents | | | | |
| Number of sampling result records stored in one file | | Any one of the following methods can be used. <ul style="list-style-type: none"> The number of records can be specified. A time period can be specified. (The number of records is calculated automatically from the time period and interval between samples.) With a version 1.2 or later SPU Unit, the number of records can be left unspecified. (In this case, data is added to the file until data collection is stopped. Records are added to one file from the start of data collection until the end.) | | |
| Scaling | | Instead of directly storing the values collected from the CPU Unit's I/O memory, the collected values can be scaled with a linear equation or upper/lower limit range before storage (unit version 1.2 or later). | | |
| File size | | 2 GB per file | | |
| Record size | | Specified by user. | | |
| Number of records | | Specified by user or calculated automatically. | | |
| Saving method | | Data can be saved to a single file or multiple files (up to 1,200 files). | | |
| Network communications | | Windows network shared folders | Files in the Memory Card inserted in the PC card slot in the SPU Unit can be shared with a Windows 2000/XP/Vista personal computer. | |
| | | FTP | FTP server/client provided. | |
| Network communications | FINS communications | <ul style="list-style-type: none"> FINS server to execute FINS command Routing to transfer FINS messages | | |

| Item | | Specifications | |
|-----------------|---|---------------------------|---|
| Recipe function | Data Storage Mode (Unit Ver. 2.0 or later) | Number of fields | 10,000 |
| | | Recipe files | File format: CSV The file size is restricted by the size of file that can be stored in the recipe folder. Records : Specified by the user. |
| | | Number of records | No limit, but restricted by the file size that can be stored in the recipe folder. |
| | | Writing method | Conversion method: Each field is written to the specified address in the specified data type. Continuous region method: Data written to continuous memory addresses. |
| | | Searching for recipe keys | Searching within files: The text string that was passed as the key is searched for in the target search columns in the recipe files and the rows for any matches that are found are extracted as recipe data. Searching for file names: The text string that was passed as the key is searched for in the recipe file names (i.e., a search is made for key.csv), and the files with matching file names are used as recipe files just like previous versions. Key list search: A search is made for recipe keys with the method used for unit version 2.0. |

- *1. In both cases, the sampling cannot be performed faster than the CPU Unit's cycle time. The actual sampling interval will always be longer than the CPU Unit's cycle time even if the sampling interval is set shorter than the cycle time.
 - *2. The Data Collection Patterns use the data collected by the Basic Collection Pattern, so the data will be collected at the Basic Collection Pattern's interval even if the Data Collection Pattern's interval is set shorter than the Basic Collection Pattern's interval.
 - *3. The actual Basic Collection Pattern interval will always be longer than the CPU Unit's cycle time even if the sampling interval is set shorter than the cycle time.
- Note:** For details, refer to "CS1W-SPU01/SPU02-V2, CJ1W-SPU01-V2 SPU Units Operation Manual"(Cat. No. V236).

SPU-Console (Setting/Monitoring Software) Specifications

The SPU-Console is a software product used for OMRON's Storage and Processing Unit (called the SPU Unit) to set and operate the SPU Unit, monitor operating status/errors, display trend graphs, and perform other operations from a personal computer.

SPU-Console Specifications

| Item | | Specifications |
|---------------------------------------|---------------------------------|--|
| Model number | | WS02-SPTC1-V2 (SPU-Console Ver. 2.1) |
| System requirements | Computer hardware | Computer that meets the system requirements for Microsoft Windows XP Professional |
| | CD-ROM drive | Required for installation. |
| | Display | Super VGA (800 × 600) or better high-resolution video adapter and monitor |
| | Mouse | Must conform to the models supported by the applicable OS. |
| | Network card | A separate Ethernet network card is required for computers that do not have a LAN port. |
| | OS | Microsoft Windows 2000 Professional Microsoft Windows XP Home Edition Microsoft Windows XP Professional Microsoft Windows Vista |
| | Application platform | Microsoft.NET Framework Version 1.1 Microsoft.NET Framework Version 2.0 |
| Communications platform | | FinsGateway Version 2003 |
| Functions | | Unit information, Unit setup, variable settings, collection pattern settings, event settings, recipe settings, trend graphs, and reports |
| Unit information | Monitor | SPU Unit operating status and error information are displayed. |
| | Operation | Operations, such as starting sampling |
| Unit setup | | IP network settings FINS network settings |
| Variable settings | | Setting items to sample (by specifying I/O memory addresses using variables) |
| Collection pattern settings | | Collection pattern settings (period, file designations for saving, etc.) |
| Recipe settings (Data Storage Mode) | | Recipe settings (recipe file, write destination, key, etc.) |
| Event settings (in Data Storage Mode) | Memory event settings | Settings for conditions according to changes in memory (e.g., bits turning ON) |
| | Scheduler settings | Settings for schedules (e.g., specific times, time intervals) |
| Trend graphs | Historical trends | CSV files are read and displayed. |
| | Realtime trends (Sampling Mode) | Current sampling data is read and displayed in trend graphics in real time. |

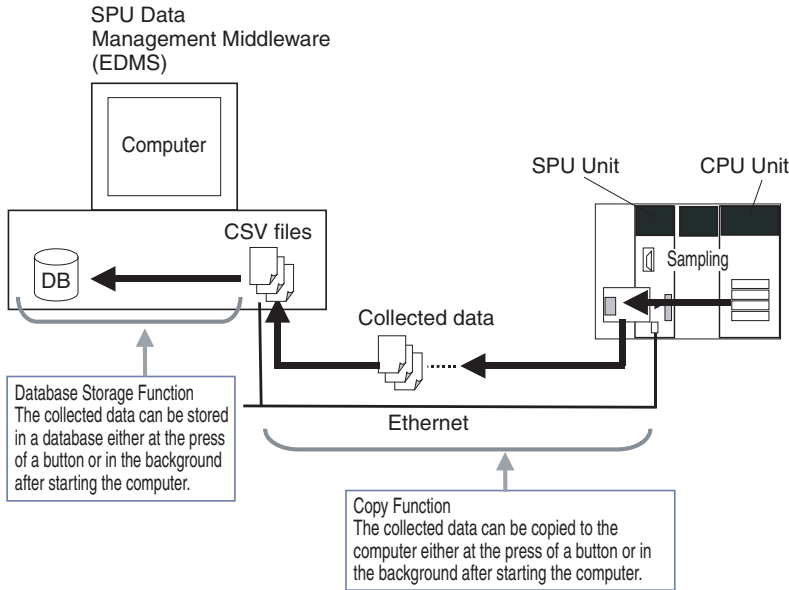
Software Package Contents

The WS02-SPTC1-V2 contains the following software and data.

- SPU-Console Execution Program**
 The program that performs SPU Unit settings and operations.
- Microsoft .NET Framework Version 1.1 Redistribution Package**
 Microsoft .NET Framework Version 1.1 is required to run the SPU-Console. The Microsoft .NET Framework Version 1.1 Redistribution Package provided in the package can be used to install Microsoft .NET Framework in the computer.
- SPU Unit System Data**
 This system data is transferred to the SPU Unit.
- FinsGateway Version 2003**
 This communications middleware is required to run the SPU-Console.
- Manual Data**
 The manual data includes the SYSMAC SPU Unit Operation Manual (Cat. No. V236), the SYSMAC SPU-Console Operation Manual (Cat. No. V230), the SYSMAC SPU-Console Version 1.3 Operation Manual (Cat. No. V231), and the SYSMAC SPU-Console Version 2.1 Operation Manual (Cat. No. V237) in PDF (portable document format).

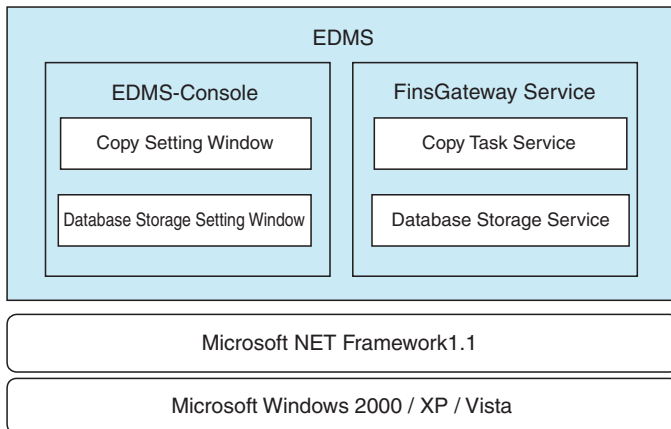
SPU Data Management Middleware (EDMS)

The SPU Data Management Middleware (hereafter the EDMS) is software that reads CSV-format files from an SPU Unit and copies the files to a specified folder on a computer hard disk over an Ethernet network. With version 2.0 or higher, the collected data can be stored in a database.



EDMS Structure

The EDMS consists of the following programs.



- Copy Task Service**
 The Copy Task Service copies files from an SPU Unit and saves them to a computer hard disk on the same network. The service operates in the background and is used to monitor SPU Units.
- Database Storage Service**
 The Database Storage Service stores the files that are copied to the computer into a database. The service operates in the background.
- EDMS-Console**
 The EDMS-Console is a user-interface program that provides access to the setting windows. It accesses the Copy Setting Window, for example, to allow the user to input Copy Task Service settings, specify operations, and monitor operating conditions. The program displays the files that have been copied to the computer in a list that can be used for data management. The Database Storage Windows enable setting the database storage service, controlling the storage operation, and monitoring operating status.

EDMS Specifications

| Item | Description | |
|----------------------------|---------------------|--|
| Model | WS02-EDMC1-V2 | |
| System requirements | Processor | Intel Pentium, Celeron, or compatible processor |
| | CD-ROM drive | Required for installation |
| | Display | Super VGA (800 × 600) or better high-resolution video adaptor and monitor |
| | Mouse | Mouse supported by the applicable OS. |
| | Network card | Computers without a LAN port require an Ethernet network card (sold separately). |

| Item | | Description |
|--------------------------------------|---|--|
| System requirements | OS | Microsoft Windows 8 (32bit/64bit) Microsoft Windows 7 (32bit/64bit) Microsoft Windows Vista Microsoft Windows XP Professional Microsoft Windows XP Home Edition Microsoft Windows Server 2012 Microsoft Windows Server 2008 Microsoft Windows Server 2003 |
| | Application platform (execution environment) | Microsoft .NET Framework version 1.1 Microsoft Data Access Component 2.6 or later |
| Communications platform | | FinsGateway version 2003 |
| Other software requirements | | SPU-Console (sold separately) required to input SPU Unit settings. |
| Registration of applicable SPU Units | | SPU Units can be registered by specifying the IP address and name of the Unit (same for the SPU-Console). |
| Copy function | Copies files from the Memory Card in a registered SPU Unit to a specified folder on a computer hard disk. The function is enabled only when two or more is set in the Number of files Field from the SPU-Console. | |
| | Settable number of copies | 256 max. |
| | Copy start conditions | Start Button or automatically on computer startup. |
| | Copy timing | Files will be saved to the computer hard disk over the network automatically when copying is enabled (data collection has stopped or files have been transferred). |
| | Storage location | Any specified folder |
| | Saved file name | File names can be created automatically using one or any combination of the following objects: Any text string, the name of the copy, the name of the source SPU Unit, the time or date (month, day, year) the file was copied, consecutive file numbers, the date or time of the start record, and the date or time of the last record. |
| | Copy monitoring cycle | Settable cycle for monitoring when copying is enabled. Default: 10 s |
| | Status indicators | Used to check starting, started (monitoring copying), copying, stopped, and error status conditions. |
| Log display | Press the Display of log Button to display the operating status or an error log list that shows the month/day/year, time, event ID, and description. | |
| Database storage function | Data files that are copied to a specified folder on a computer hard disk are stored in a database. The function is enabled only when three or more is set in the Number of files Field from the SPU-Console. | |
| | Settable number of data base storage services | 65 max. |
| | Database storage start conditions | Start Button or automatically on computer startup. |
| | Storage timing | Files will be automatically stored in the database as soon as storable files are detected. |
| | Applicable databases | Microsoft Access 2000, 2002, 2003 Microsoft SQL Server 2000, 2005 Oracle Database 10g2 |
| | Copy folder monitoring cycle | Settable cycle for monitoring when there are storable files. Default: 10 s |
| | Status indicators | Used to check whether storage is in progress (monitoring for storable files) or stopped. |
| Log display | Press the Display of log Button to display the operating status or an error log list that shows the month/day/year, time, and description. | |
| SPU clock synchronization function | | The SPU Unit (version 1.2 or later only) and CPU Unit clocks are periodically synchronized with the computer clock. |

Software Package Contents

The WS02-EDMC1-V2 software package contains the following items.

- EDMS Installation Program**
 The EDMS installation program is used to install the Copy Task Service and EDMS-Console on a computer.
- Microsoft .NET Framework Version 1.1 Redistributable Package**
 Microsoft .NET Framework Version 1.1 is required to run the SPU-Console. The Redistributable Package provided in the software package can be used to install .NET Framework on the computer.
- FinsGateway Version 2003**
 The FinsGateway version 2003 communications middleware is required to run the SPU-Console.
- Operation Manual**
 The SPU Data Management Middleware User's Manual (Cat. No. V232) is included in PDF format in the software package.

Functions Supported by SPU Units According to Unit Versions

| Unit version of SPU Unit | Unit ver. 2.0 | Unit ver. 2.1 | Unit ver. 2.2 |
|--|----------------------|---------------|------------------|
| Function | | | |
| Recipe function | Supported | | |
| Expanded recipe function | Not supported | Supported | |
| Copy option | Supported | | |
| CHANNEL_BLOCK data type | Supported | | |
| FTP communications | Not supported | Supported | |
| Record counter and file copy flag | Not supported | | Supported |

SPU-Console Compatibility with Unit Versions of SPU Units

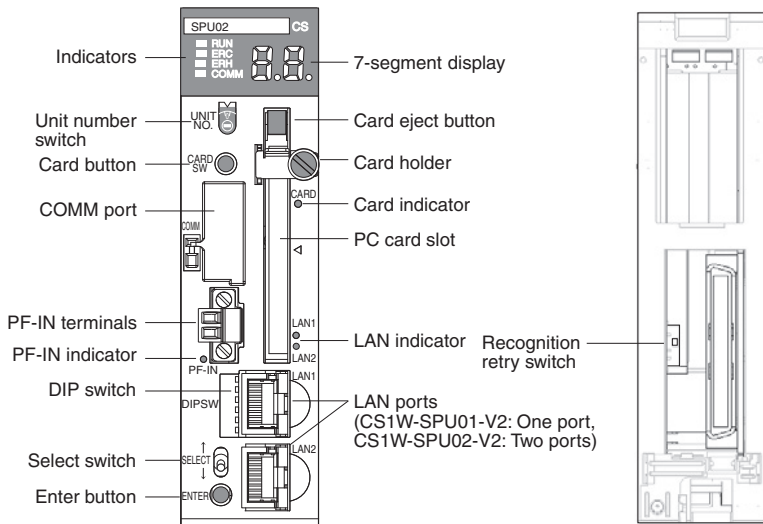
| Unit version of SPU Unit | Unit ver. 2.0 | Unit ver. 2.1 | Unit ver. 2.2 |
|--------------------------------|---|---|---|
| SPU-Console SPU Basic Software | | | |
| SPU-Console version 1.X | Cannot be connected. | Cannot be connected. | Cannot be connected. |
| SPU-Console version 2.0 | Can be connected. | Can be connected. (Initial Setting Wizard cannot be used.) | Can be connected. (Initial Setting Wizard cannot be used.) |
| SPU-Console version 2.1 | Can be connected. (Initial Setting Wizard cannot be used.) | Can be connected. | Can be connected. (Initial Setting Wizard cannot be used.) |
| SPU-Console version 2.2 | Can be connected. (Initial Setting Wizard cannot be used.) | Can be connected. (Initial Setting Wizard cannot be used.) | Can be connected. |

- Note:**
1. SPU-Console versions lower than version 2.0 cannot connect to SPU Units with a unit version of 2.0 or higher.
 2. SPU-Console version 2.X can connect to SPU Units with a unit version of lower than version 2.0. However, if you use the Initial Setting Wizard on the wrong version of the SPU-Console for the unit version of the SPU Unit, correct operation will not be possible. Either use the Initial Setting Wizard in the version of the SPU-Console for the unit version of the SPU Unit, or perform the initial settings with the CPU Bus Unit settings of the CX-Programmer.
 3. SPU-Console version 2.2 can connect to SPU Units with a unit version of 2.0 or 2.1. In this case, the SPU-Console will operate in the version that corresponds to the unit version of the SPU Unit.
 4. You can install SPU-Console version 2.1 and version 2.2 on the same computer at the same time.

External Interface

CS1W-SPU01/SPU02-V2

Here, the CS1W-SPU02-V2, which has two LAN ports, is taken as an example. The CS1W-SPU01-V2 has only one LAN port.

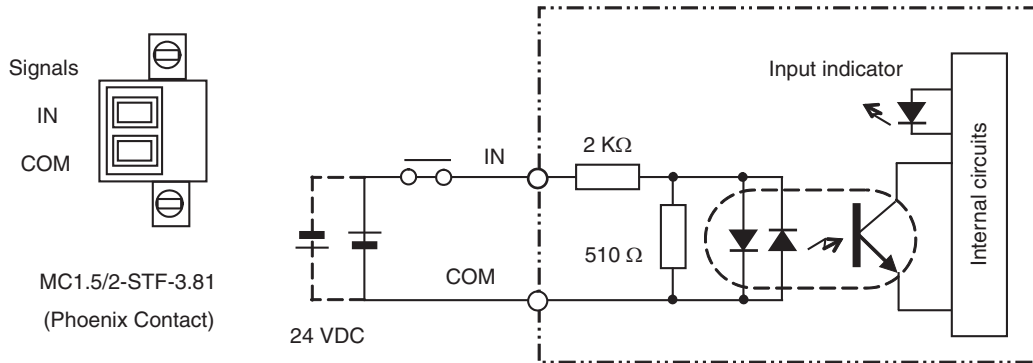


| Name | Function |
|--------------------------------|--|
| Unit number switch (UNIT NO.) | Sets the unit number of the SPU Unit as a one-digit hexadecimal value. Do not set the same unit number for more than one CPU Bus Unit under the same CPU Unit. |
| DIP switch (DIP SW) | Used for system settings. |
| Card button (CARD SW) | Press this button to allow the Memory Card inserted in the PC card slot to be removed. |
| Card eject button | Press to remove the PC card. |
| Card holder | Holds the PC card. |
| Select switch | Sets the command to be executed. The command number will be displayed on the seven-segment display. |
| Enter button | Executes the command set using the select switch. |
| Indicators | The following indicators show the operating status of the Unit: RUN, ERC, ERH, and COMM. |
| Seven-segment display | Displays error information and the operating status of the SPU Unit. Displays the command number when the select switch is operated. Displays the IP address and other results of command execution. |
| LAN indicator | Indicates the operating status of the LAN port. |
| Card indicator | Indicates the operating status of the PC card. |
| PF-IN indicator | Lights when the power failure input is received from a UPS or other device. |
| PC card slot | A slot used to insert a card conforming to PC Card Type II. |
| Communications ports LAN1/LAN2 | LAN communications ports. Connect to 10Base-T/100Base-TX cables. |
| COMM port | For future expansion. |
| PF-IN terminals | Connected to the power failure input from a UPS or other device. |
| Recognition retry switch | Refer to the SPU Units Operation Manual (Cat. No. 236), Starting CPU Unit Operation Immediately upon Power Application. |

Connecting the Power Failure Signal

CS1W-SPU01/SPU02-V2

Connect the power failure signal output line from a UPS or other device to the power failure input terminals on the SPU Unit.



Note: Tighten the cable screws to a torque of 0.3 N·m.

Signal Input Specifications

| Item | Specification |
|---------------------|----------------------|
| Rated input voltage | 24 VDC (+10% / -15%) |
| Input impedance | 2 kΩ |
| Input current | 10 mA (typical) |
| ON voltage | 17.4 V min. |
| OFF voltage | 5 V max. |

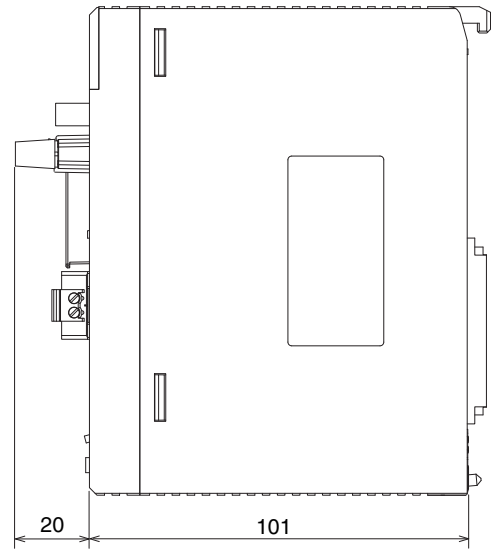
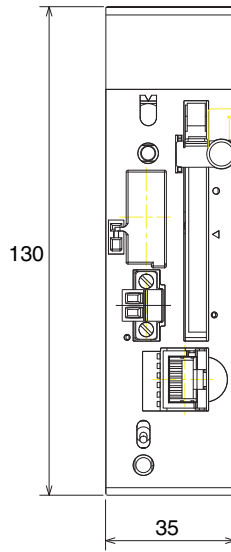
Uninterruptive Power Supply for Checking Operation

- BU70XS (OMRON) operating temperature range: 0 to 40°C
- BU606F (OMRON) operating temperature range: 0 to 55°C

Dimensions

(Unit: mm)

CS1W-SPU01-V2 / CS1W-SPU02-V2



Note: The appearance varies with the model.

Related Manuals

| Name | Cat. No. | Contents |
|--|----------|--|
| CS1W-SPU01-V2/SPU02-V2 CJ1W-SPU01-V2 SYSMAC SPU Units Operation Manual | V236 | Describes the installation and operation of the SPU Units. |
| WS02-SPTC1-V2 SPU-Console Ver. 2.1 Operation Manual | V237 | Describes the installation and operation of the SPU-Console Ver. 2.1. |
| WS02-EDMC1-V2 SYSMAC SPU Data Management Middleware User's Manual | V232 | Describes the installation and operation of the SPU Data Management Middleware (EDMS). |

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