

# GOT

## SUPPLEMENTARY MANUAL

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Manual revision : C

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## **Additional Functions of F940GOT and Handy GOT (V 4.10/5.00)**

This manual describes additional functions related to the hardware of the graphic operation terminal shown below.

For the setting and operating procedure of graphic operation terminals, refer to the F930GOT-E Operation Manual and the F940GOT-E Operation Manual offered separately.

Included in this manual are details regarding the F943GOT-SWD-E and F943GOT-LWD-E (RS-232C communication type) released additionally.

## **Additional Functions in F940GOT, ET-940 and Handy Graphic Operation Terminal (V6.00 Subsidiary Manual)**

This data explains functions added in version 6.00 and later. (Refer to p. 27 and later.)

### **1. Applicable Versions and Models**

<b>Model name</b>	<b>Version V 4.10</b>	<b>Version V 5.00</b>
F940GOT-SWD-E, F940GOT-LWD-E F943GOT-SWD-E, F943GOT-LWD-E F940GOT-SBD-H-E, F940GOT-LBD-H-E F943GOT-SBD-H-E, F943GOT-LBD-H-E F940GOT-SBD-RH-E, F940GOT-LBD-RH-E F943GOT-SBD-RH-E, F943GOT-LBD-RH-E	Produced in April, 2000 or later (Serial No.: 04**** or later)	Produced in June, 2000 or later (Serial No.: 06**** or later)

## 2. Additional Functions

The table below shows the additional functions.

Confirm also the version of screen creation software compatible with each function.

(✓ : Available, — : Not available)

Function	Applicable GOT version		Screen creation software version*1	
	V4.10	V5.00	GT Designer	DU/WIN
Connection to MELSEC-Q Series PLC Direct connection to CPU (RS-232C) and connection to serial communication unit (RS-422, RS-232C).	✓	✓	SW4 Version F *2	V2.40
Connection to Siemens S7-300/400 series PLC.	—	✓	To be supported in near future	V2.40
Connection to YASKAWA ELECTRIC CORP machine controller.	—	✓	SW4 Version F	To be supported in near future
Two or more GOT units can be connected when micro computer board is used.	—	✓	SW1 Version A	V2.00
Numeric value/ASCII code input display function.	—	✓	SW3 Version C	To be supported in near future

\*1 "GT Designer" stands for SW□D5C-GOTRE-PACK (V). "DU/WIN" stands for FX-PCS-DU/WIN-E.

\*2 The product "SW2 Version A, or later" can be connected to a Q Series PLC when "PLC TYPE" is set to "A, QnA".

### 3. Connection to MELSEC-Q Series PLC

- Connected PLC

Direct connection to CPU (RS-232C)

Serial communication unit (RS-422 or RS-232C) QJ71C24, QJ71C24-R2

Note:

In connection to the serial communication unit ("LINK PORT"), set "CONNECTION" to "CPU PORT".

Although the QJ71C24 and QJ71C24-R2 are equipped with two interfaces, only one GOT unit can be connected at any time.

- Target GOT

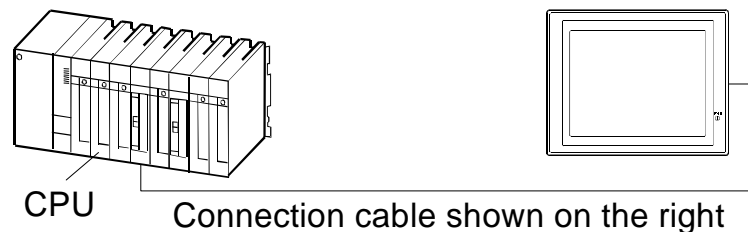
The table below shows the appropriate GOT unit in accordance with the connection type.

✓: Connectable ✗: Not connectable

GOT	Direct connection to CPU (RS-232C)	Serial communication unit (direct connection to CPU)	
		RS-232C	RS-422
F940GOT-SWD-E, F940GOT-LWD-E	✓ *1	✓ *1	✓
F943GOT-SWD-E, F943GOT-LWD-E	✓	✓	✗
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E	✗	✗	✓
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E	✓	✓	✗

\*1 The CPU can be connected to the RS-232C port. In this case however, the port is also used for screen data transfer. Accordingly, the cable should be exchanged for data transfer. It is recommended to use the F943GOT-E which has dedicated RS-232C communication.

<Direct connection to CPU> RS-232C



Connect the RS-232C port of the GOT.

Cable:

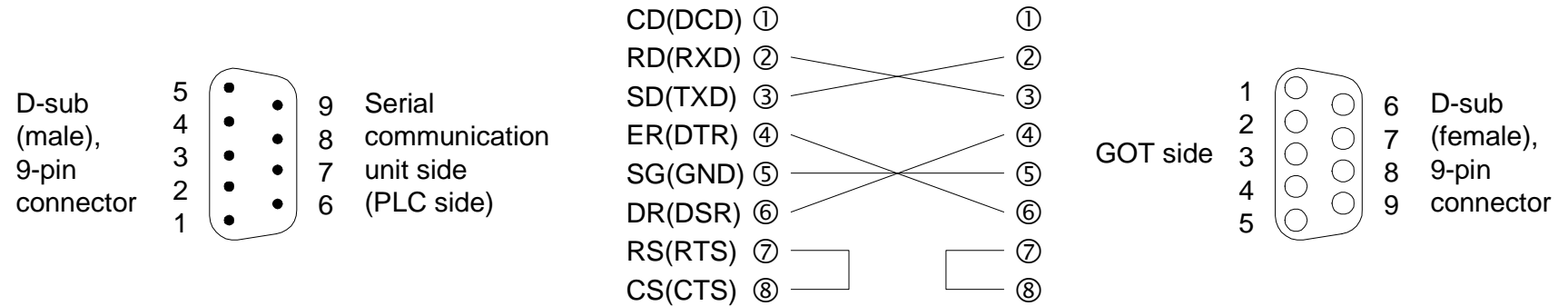
QC30R2 (3 m) in case of F940GOT-E, or  
F943GOT-E

If External connection cable  
(F9GT-HCAB5-150 (1.5m))

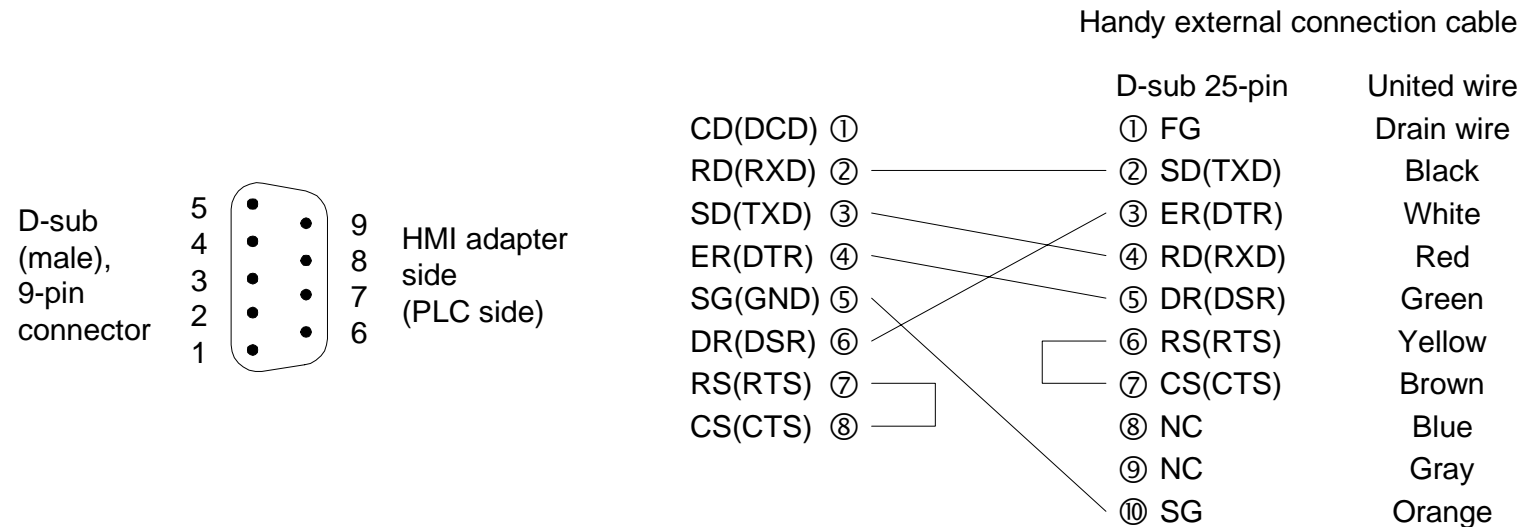
<Connection to serial communication unit>

**RS-232C connection**

- F940 and F943

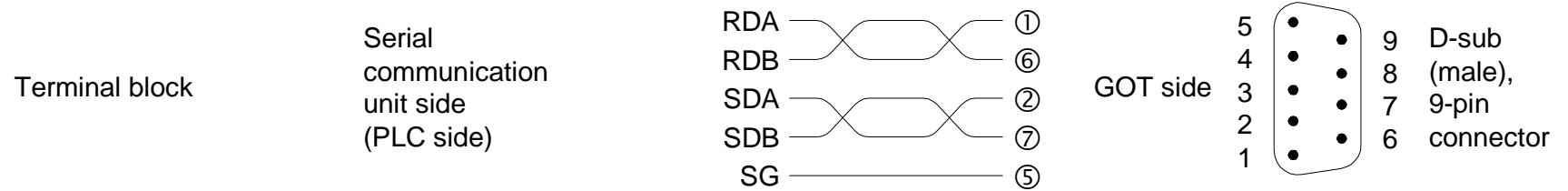


- F943 Handy

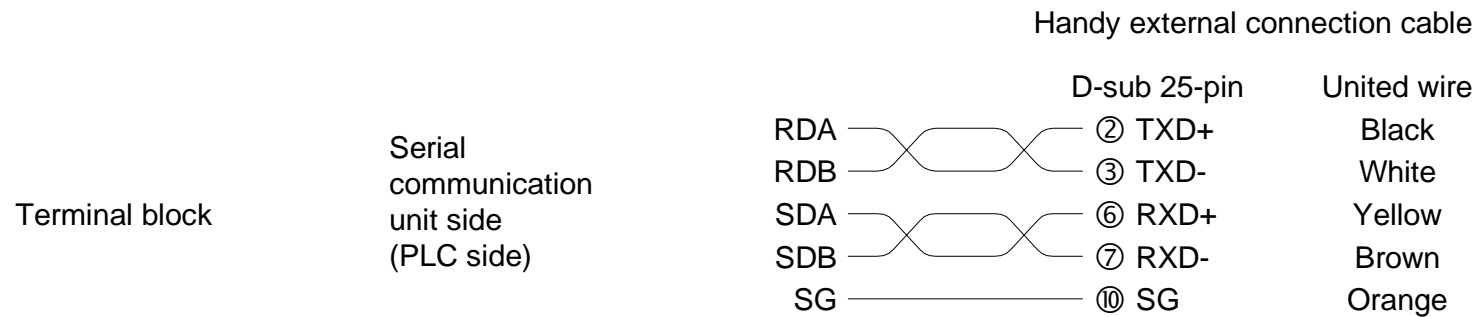


### RS-422 connection

- F940



- F940 Handy





## &lt;Connection of two or more GOT units&gt;

In either direct connection to CPU or connection to serial communication unit, up to four GOT units (except handy type) can be connected.

For wiring of the second and subsequent GOTs refer to the description on connection of two or more GOT units in the Hardware Manual supplied with the unit.

- Setting of serial communication unit.  
Set the serial communication unit as shown below.

**Table 3.1:**

Communication protocol	5H (binary mode)
Transmission speed	38,400 bps
Data length	8 bits
Stop bit	1 bit
Parity bit	Odd
Sum check	Provided
Write in RUN mode	Possible
Station No.	0 0

- Setting of screen creation software, GT Designer.  
[OK]  
: 2 or more, Version 00A: Set "PLC TYPE" to "A, QnA"  
4 or more, Version 50F: Set "PLC TYPE" to "QnA, Q"

## 4. Connection Siemens PLC

- Connected PLC.  
Direct connection to CPU (RS-232C)  
For connection, an HMI adapter is required. (Refer to the connection example shown on the next page.)

	Applicable CPU
S7-300 Series	312IFM, 313, 314IFM, 315, 315-2DP, 316
S7-400 Series	412-1, 413-1, 413-2DP, 414-1, 414-2DP, 416-2DP

However, 416-1 and 416-2DP do not support some devices.

For details, refer to the F940GOT-E Operation Manual offered separately.

- Target GOT.

✓: Connectable ✗: Not connectable

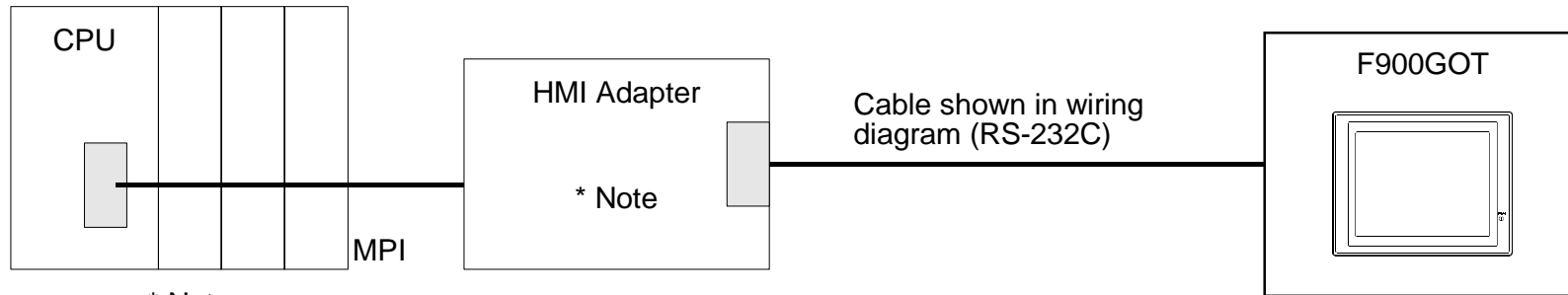
GOT	Direct connection to CPU (RS-232C)
F940GOT-SWD-E, F940GOT-LWD-E	✓ *1
F943GOT-SWD-E, F943GOT-LWD-E	✓
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E	✗
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E	✓

\*1 The CPU can be connected to the RS-232C port. In this case however, the connector is also used for screen data transfer. Accordingly, the cable should be exchanged for data transfer. It is recommended to use the F943GOT-E which has dedicated RS-232C communication.

<Direct connection to CPU>

**RS-232C**

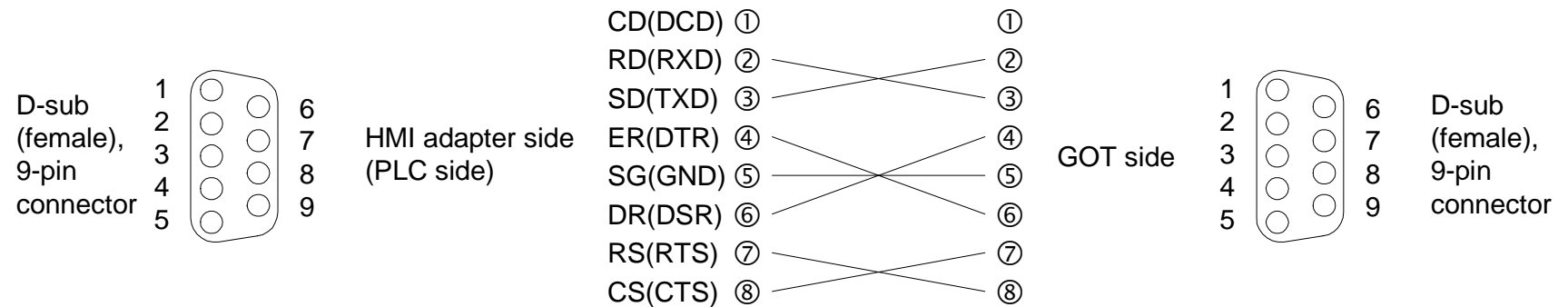
Siemens S7-300/400 Series PLC



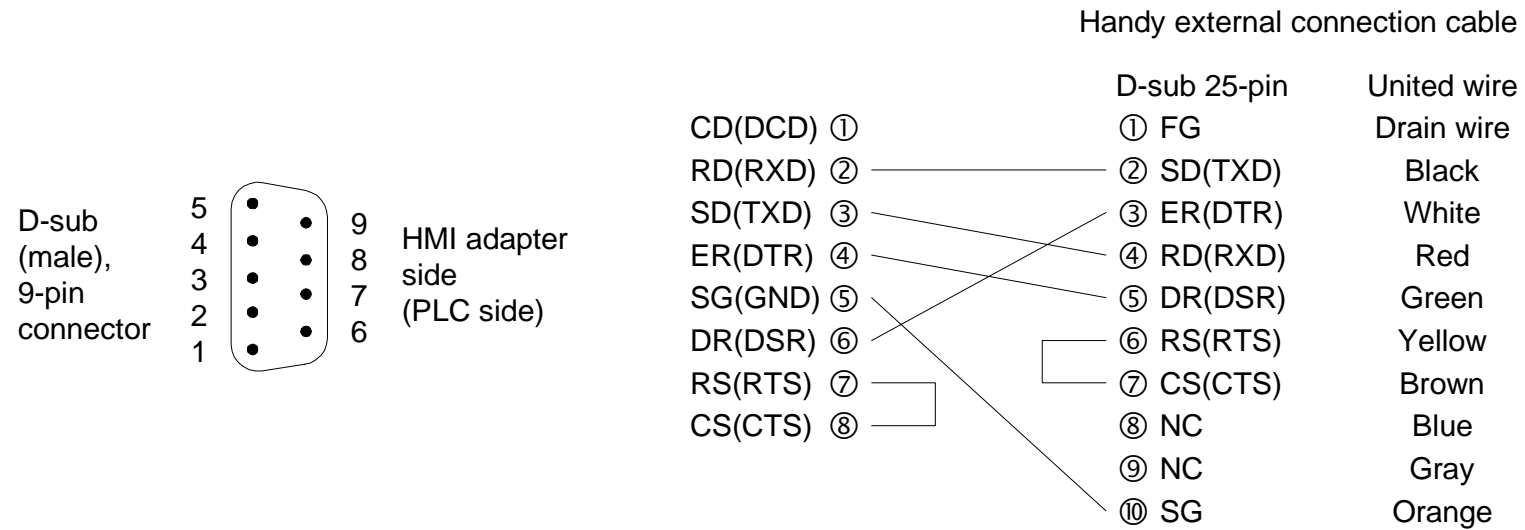
\* Note  
HMI adapter model name: 6ES7 972-0CA11-0XA0 (manufactured by Siemens)

- F940 and F943

The cable 6ES7901-1BF00-0XA0 manufactured by Siemens is also available.



- F943 Handy



<Number of connectable GOT units>

One GOT can be connected to a single Siemens PLC.

- Setting of PLC.

Set the MPI address of the PLC connected to the GOT.

For setting, use the programming software (STEP7) for the S7-300/400 Series PLC.

	MPI address
Personal computer (for programming)	0 (fixed in MPI network)
HMI adapter	1 (fixed)
PLC	2 to 31

The MPI address of the HMI adapter is fixed to "1", and the maximum MPI address is fixed to "31". Accordingly, make sure to set the MPI address of the PLC within the range from 2 to 31.

- Setting of GOT.

Set the connected PLC, the connection type and the station No. as shown below.

PLC TYPE	SIEMENS S7-300
CONNECTION	CPU PORT (RS232C)
STATION #	MPI address (2 to 31) set in PLC

Note: The station number of the GOT must be the same as the PLC MPI address.

## 5. Connection to Machine Controller Manufactured by Yaskawa Electric.

- Connected PLC.  
Direct connection to CPU (RS-232C or RS-422)

Applicable machine controller:

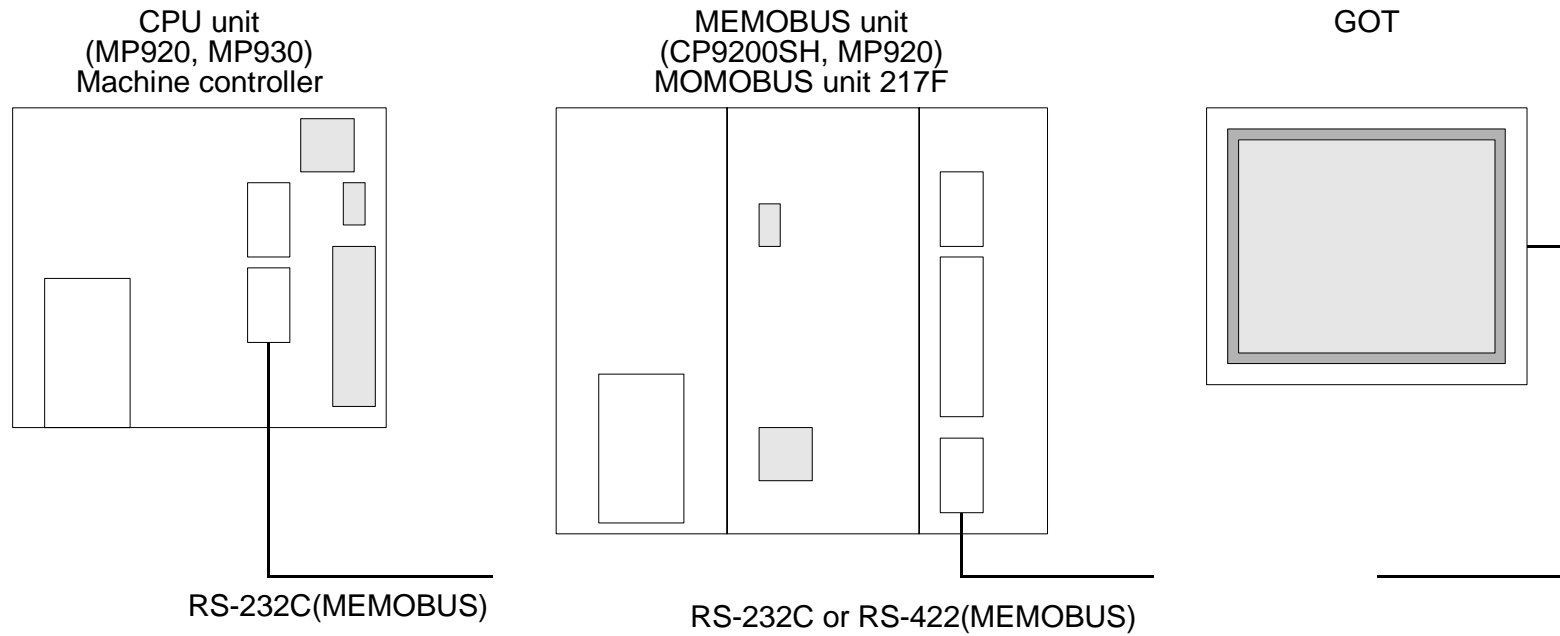
Model	Condition
CP9200SH	• CN1, CN2, CN3 of MEMOBUS unit 217F
MP920	• MEMOBUS port PORT1, PORT2 of CPU unit • CN1, CN2, CN3 of MEMOBUS unit 217F
MP930	• MEMOBUS port PORT1, PORT2 of CPU unit

- Target GOT.

GOT	Direct connection to CPU	
	RS-232C	RS-422
F940GOT-SWD-E, F940GOT-LWD-E	✓ *1	✓
F943GOT-SWD-E, F943GOT-LWD-E	✓	✗
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E	✓	✓
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E	✓	✗

\*1 The CPU can be connected to the RS-232C port. In this case, however, the port is also used for screen data transfer. Accordingly, the cable should be exchanged for data transfer. It is recommended to use the F943GOT-E which has dedicated RS-232C communication.

- System configuration



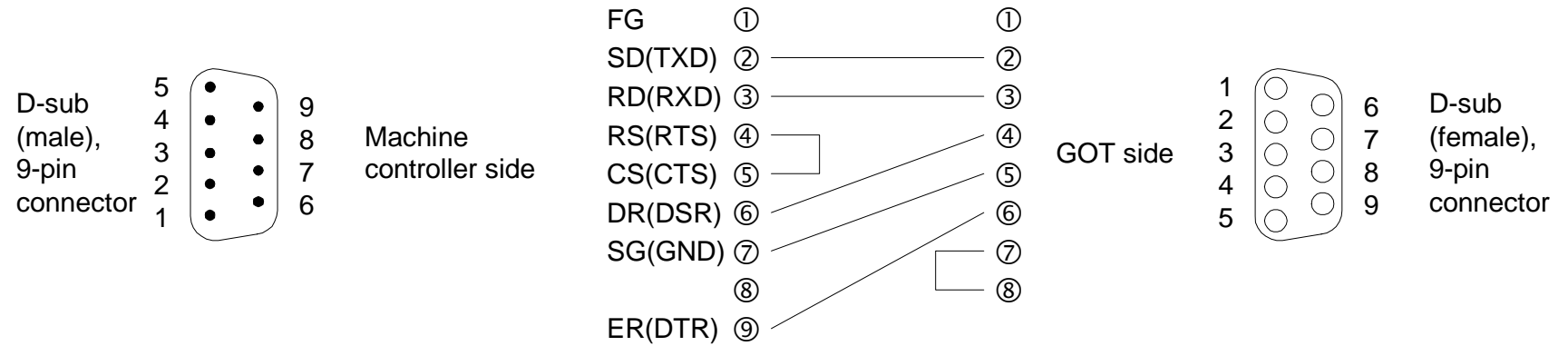
For connection to the GOT, refer to the following connection diagrams in accordance with the connection port.

Model	Unit	Connection port of machine controller		GOT		
				Standard type	Handy type (RS-232C type)	Handy type (RS-422 type)
CP9200SH	217IF	CN1	RS232C	Connection diagram 1	Connection diagram 4	—
		CN2	RS232C	Connection diagram 2	Connection diagram 5	—
		CN3	RS422	Connection diagram 3	—	Connection diagram 6
MP920	CPU	PORT1	RS232C	Connection diagram 1	Connection diagram 4	—
		PORT2	RS232C	Connection diagram 1	Connection diagram 4	—
	217IF	CN1	RS232C	Connection diagram 1	Connection diagram 4	—
		CN2	RS232C	Connection diagram 1	Connection diagram 4	—
		CN3	RS422	Connection diagram 3	—	Connection diagram 6
MP930	CPU	PORT1	RS232C	Connection diagram 1	Connection diagram 4	—
		PORT2	RS232C	Connection diagram 1	Connection diagram 4	—



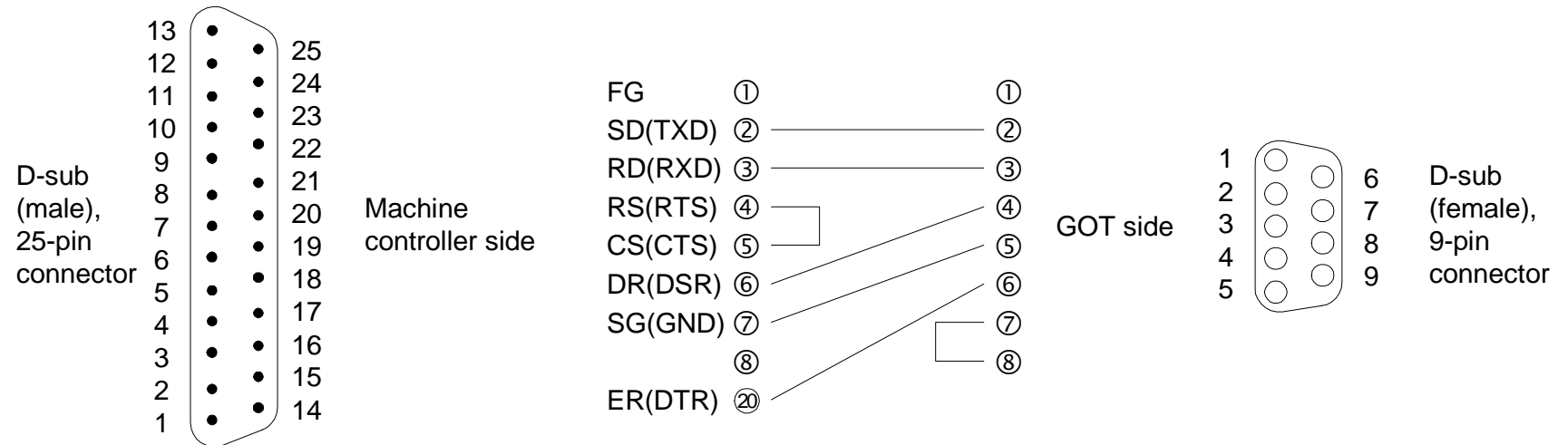
<Connection diagram 1>

When the MEMOBUS port is RS-232C (D-sub, 9-pin)



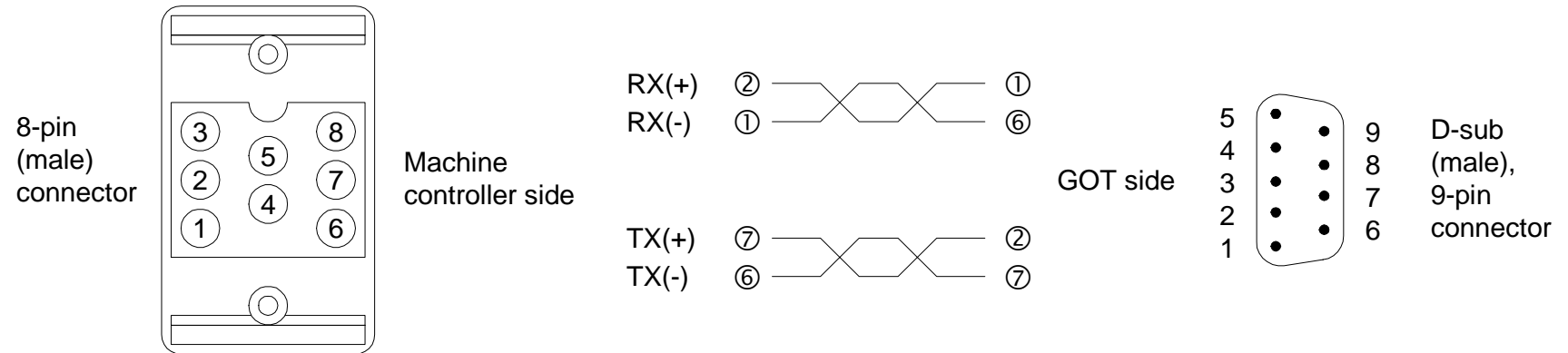
<Connection diagram 2>

When the MEMOBUS port is RS-232C (D-sub, 25-pin)



<Connection diagram 3>

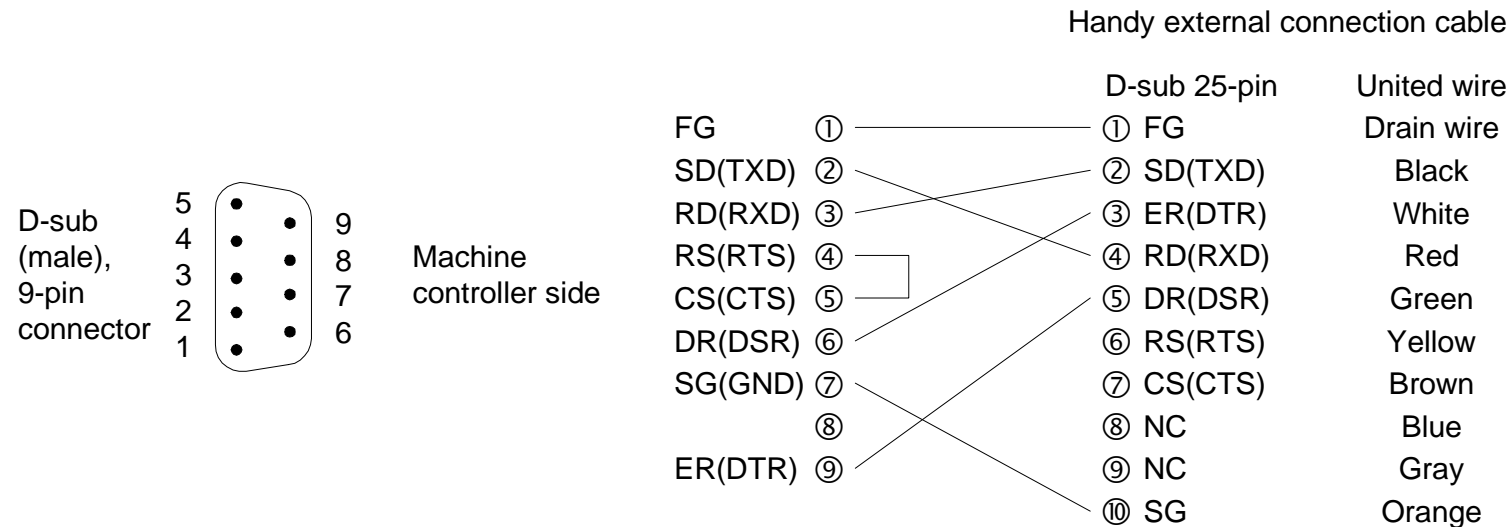
When the MEMOBUS port is RS-422 (8-pin)



<Connection diagram 4>

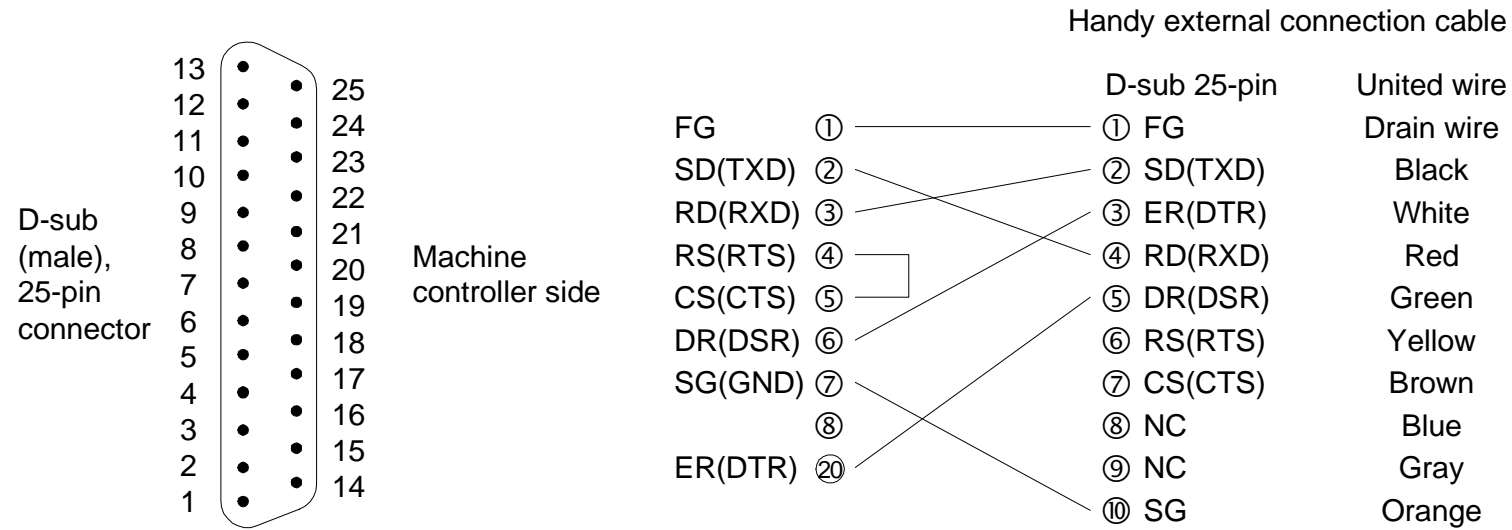
When the MEMOBUS port is RS-232C (D-sub, 9-pin)

- F943 Handy



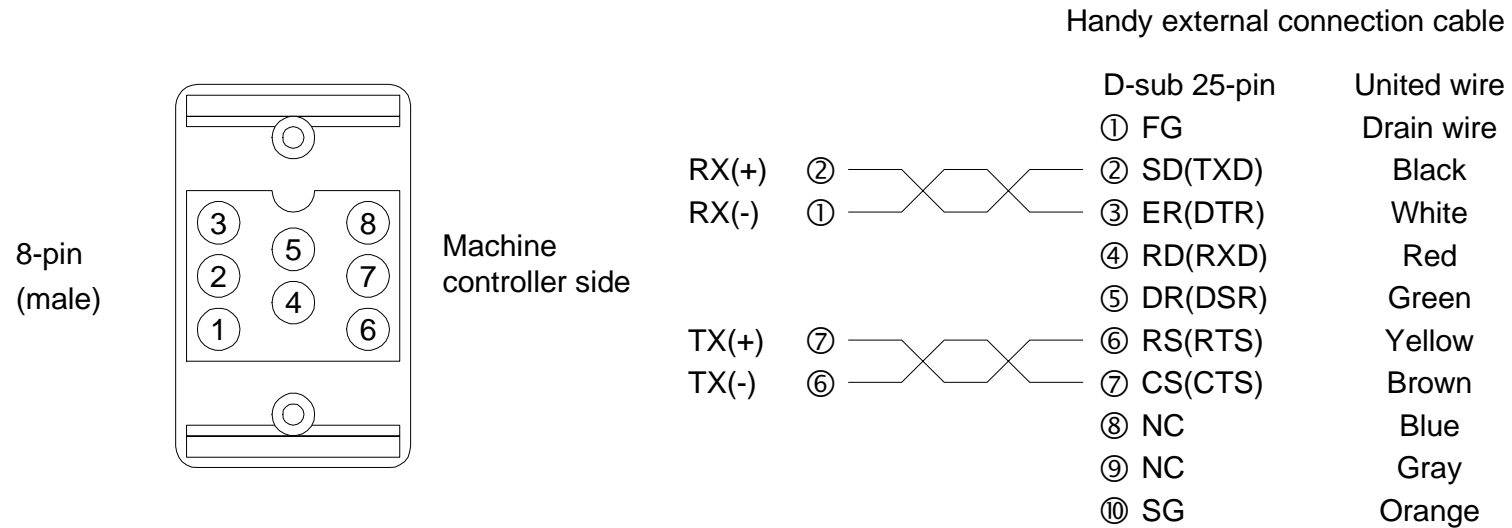
<Connection diagram 5>

When the MEMOBUS port is RS-232C (D-sub, 25-pin)



<Connection diagram 6>

When the MEMOBUS port is RS-422 (8-pin)



<Number of connectable GOT units>

One GOT can be connected to a single machine controller from YASKAWA Electric.

- Setting of machine controller.  
Set the machine controller as shown below.

Item	Set value
Protocol	MEMOBUS
Mode	RTU
Transmission speed	19200bps
Data length	8 bit
Stop bit length	1 bit
Parity	Even
Slave address	1 to 31 (in accordance with setting of GOT station No.)

- Setting of GOT.  
Set the connected PLC, the connection type and the station No. as shown below.

PLC TYPE	YASKAWA CP9200SH
CONNECTION	CPU PORT (RS-232C) or CPU PORT (RS-422)
STATION #	Make sure to set station No. within range from 1 to 31 in accordance with slave address on machine controller side. Have in mind that station No. "0" is treated as "1".

## 6. Connection of Two or More GOT Units When Micro Computer Board is Used

In general-purpose communication (RS-232C or RS-422), up to GOT units can be connected when the micro computer board is used.

- Target GOT.

✓: Connectable ✗: Not connectable

GOT	General-purpose communication	
	RS-232C	RS-422
F940GOT-SWD-E, F940GOT-LWD-E	✓	✓
F943GOT-SWD-E, F943GOT-LWD-E	✓ *1	✗
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E *2	✗	✓
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E *2	✓ *1	✗

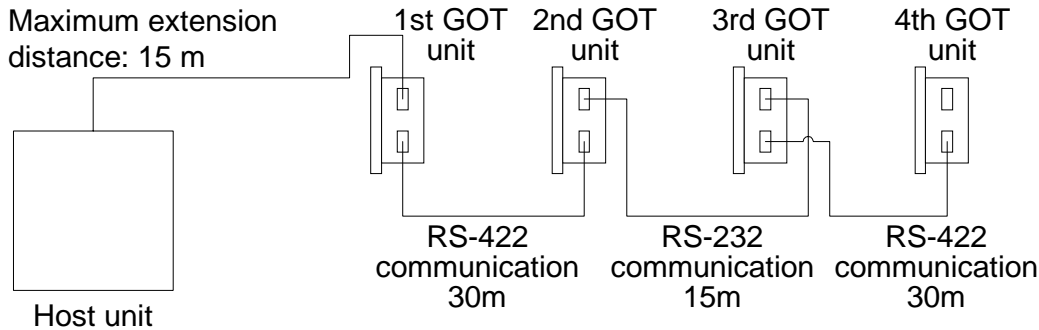
\*1 Connection of a subsequent GOT unit is impossible.

\*2 Connection is possible only at the end of the system.

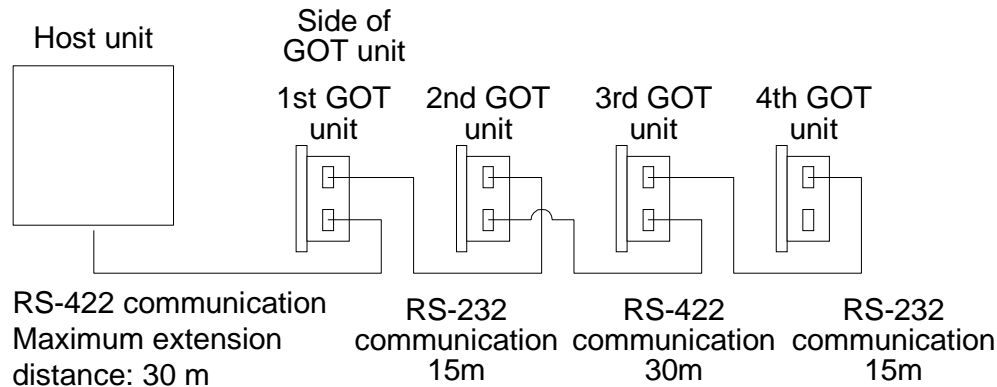
- System configuration

<When RS-232C communication is adopted between the host unit and the first GOT unit>

RS-232C communication  
Maximum extension distance: 15 m

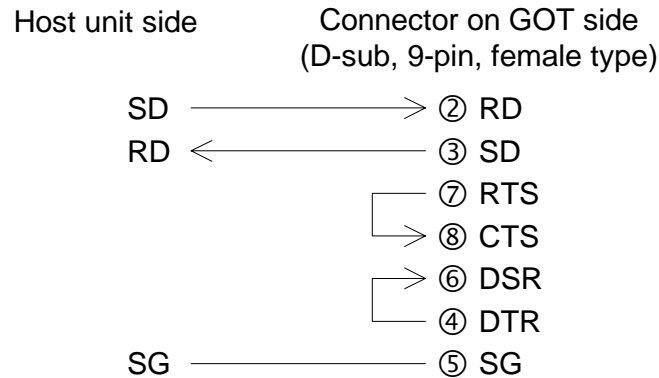


<When RS-422 communication is adopted between the host unit and the first GOT unit>

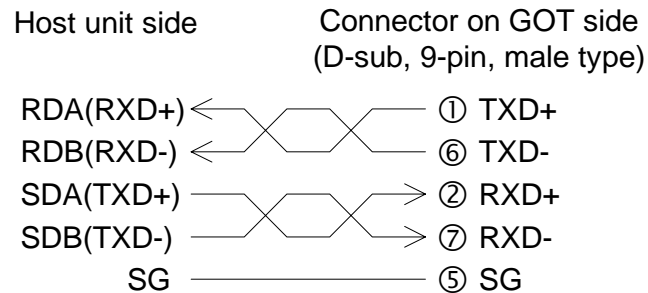


## &lt;Connection diagram&gt;

- Cable between host unit and GOT unit (RS-232C)  
Control lines RTS, CTS, DTR and DSR are not used.

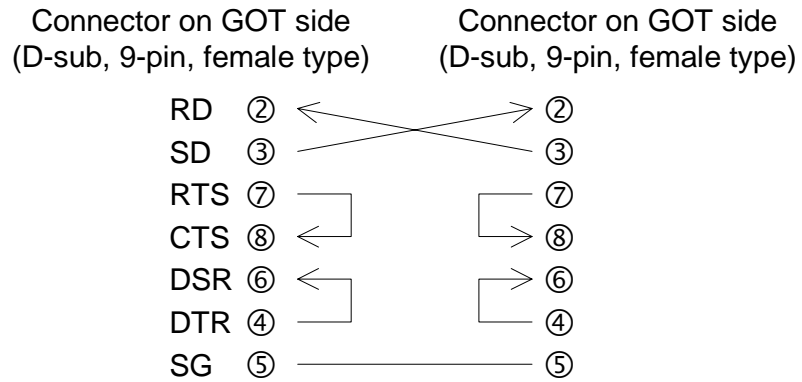


- Cable between host unit and GOT unit (RS-422)

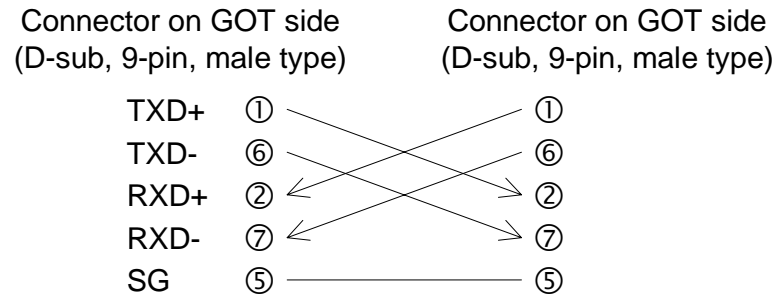




- Cable between GOT unit and GOT unit (RS-232C) (FX-232CAB-1)



- Cable between GOT unit and GOT unit (RS-422)



## 7. Numeric Value/ASCII Code Input Display Function

By addition of this function, the contents of data being set is displayed in a key window, called when data is changed through input of numeric values or ASCII codes.

In previous versions, the change target was sometimes hidden depending on the layout of an object for numeric value or ASCII code input when the key window was called.

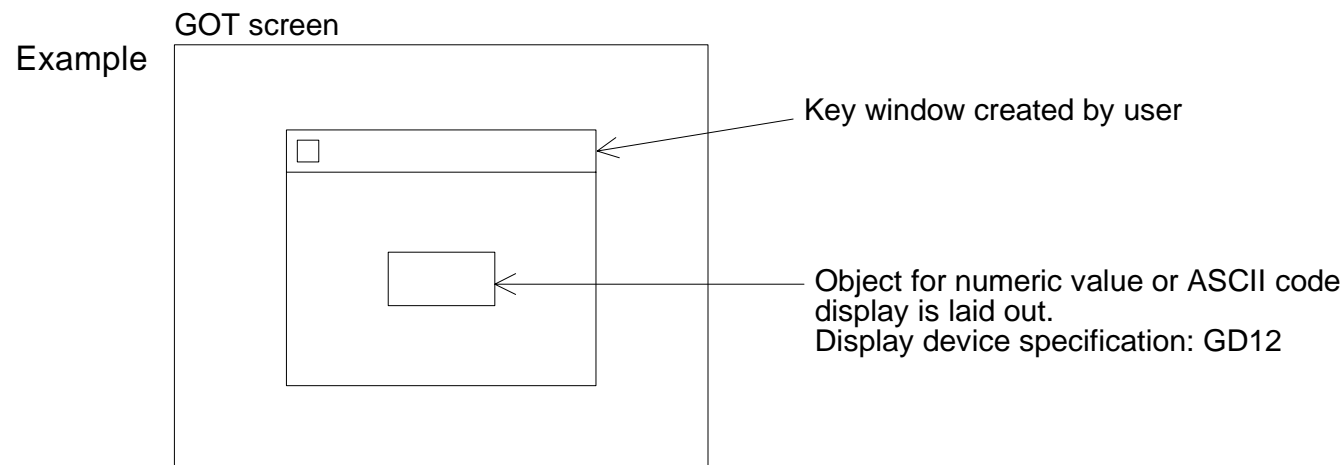
By addition of this function, the change target is always displayed so that data change is facilitated.

Only key windows created by the user can be displayed.

\* Key window creation function was added in V 3.10 and after.

For the details, refer to Paragraph 16.6 of the F940GOT-E Operation Manual.

When an object for numeric value or ASCII code display is laid out on a key window created by the user and "GD12" is specified as the display device, the data being changed is displayed.



## 8. Initial Display Screen No. Write Function (This function is valid only when the SW□D5C-GOTRE-PACK is used.)

In previous versions, the initial screen displayed on startup was screen 1.

In order to display screen No. 1, the GOT wrote "1" to the register for screen changeover (base screen) of the PLC set by the screen creation software when the power was turned on.

In the new version, the user can set whether the register for screen changeover is written to or not when the power is turned on.

By this addition, when the power is turned on, an arbitrary user screen specified by the user can be displayed.

- Setting procedure

- 1) Select "AUXILIARY SETTING" in "SET UP MODE" in "OTHER MODE".

- 2) Select "WRITE" or "DOES NOT WRITE". The initial value is "WRITE".

WRITE:

Writes "1" to the register for screen changeover when the power is turned on.

DOES NOT WRITE:

Does not write "1" to the register for screen changeover when the power is turned on. In this mode, if a value is set in advance in the register for screen changeover, screen No. 1 appears at first, then the screen corresponding to the current value of the register appears.

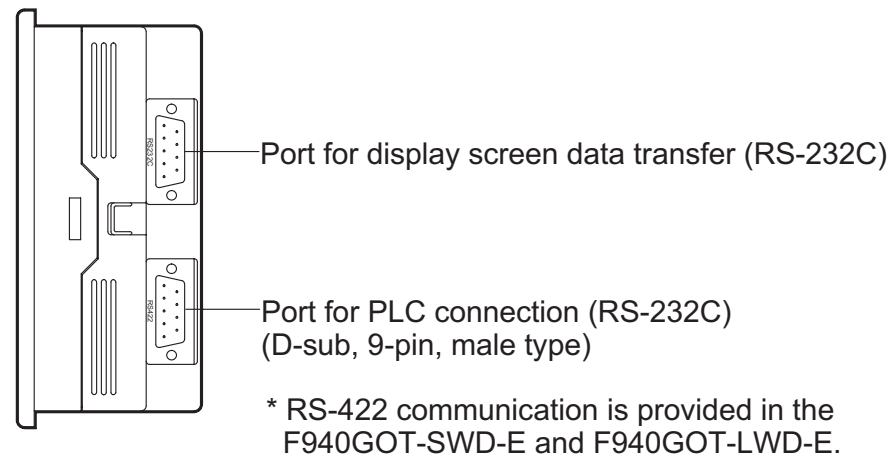
## 9. F940GOT-E for RS-232C Communication

The following models are equipped with an RS-232C interface for RS-232C communication.

- F943GOT-SWD-E (6-inch, 8-color type)
- F943GOT-LWD-E (6-inch, 2-color (black and white) type)

The display function specifications of the models above are equivalent to those of the F940GOT-SWD-E and the F940GOT-LWD-E respectively.

Refer to the F940GOT-E Hardware Manual supplied with the unit.



## 1. Applicable Versions and Models

Model name	Version V 6.00
F940GOT-SWD-E, F940GOT-LWD-E F943GOT-SWD-E, F943GOT-LWD-E F940GOT-SBD-H-E, F940GOT-LBD-H-E F943GOT-SBD-H-E, F943GOT-LBD-H-E F940GOT-SBD-RH-E, F940GOT-LBD-RH-E F943GOT-SBD-RH-E, F943GOT-LBD-RH-E	Produced in December, 2000 or later (Serial No.: 0Z**** or later)

## 2. Additional Functions

The table below shows additional functions. Confirm also the version of the screen creation software corresponding to each additional function. (✓ : Available, — : To be supported in near future)

Function	Applicable GOT version	Screen creation software version*1	
	V6.00	GT-Designer	DU/WIN
Improved security functions <ul style="list-style-type: none"> <li>• Error message display function during password input</li> <li>• Level device setting function</li> <li>• System screen security level setting function</li> <li>• Password input keyboard display function</li> </ul>	✓	V5.05F (SW5 F version)	—
Decimal point input function during numerical input	✓	SW1 Version A	—
Input delete function (BS key) during numerical input	✓	SW1 Version A	—
Input trigger device setting during numerical/ASCII input	✓	V5.05F (SW5 F version)	—
Information write function during data change	✓	SW1 Version A	—
Touch key input trigger device setting	✓	V5.05F (SW5 F version)	—
Additional touch keys and lamp figures	✓	V5.05F (SW5 F version)	—
Connection to CS1 Series PLC manufactured by Omron	✓	V5.05F (SW5 F version)	—
Connection to MicroLogix 1000/1200/1500 Series manufactured by Allen-Bradley	✓	V5.05F (SW5 F version)	—

### 3. Improved Security Functions

The following functions are added as security functions to improve the operability.

#### 1) Error message display function during password input

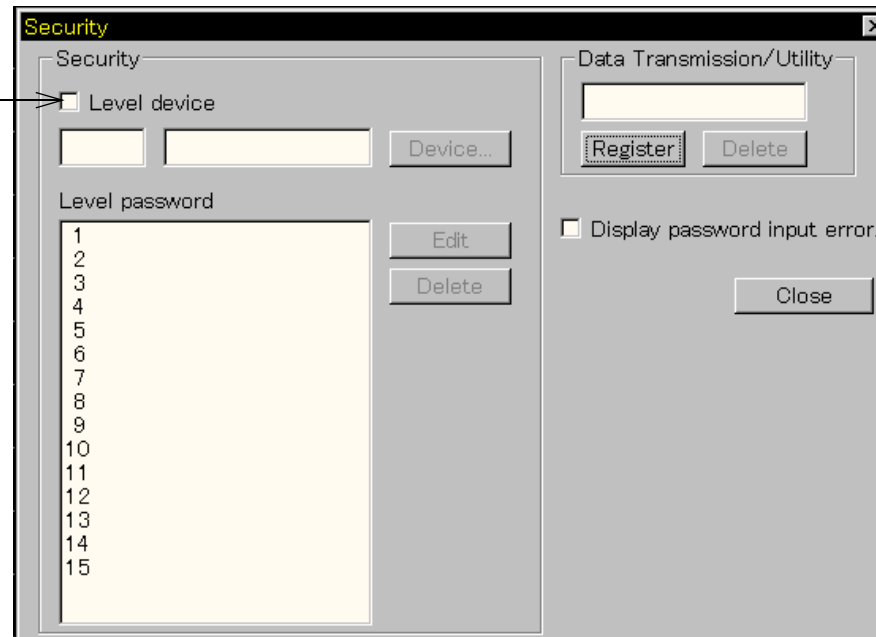
In previous versions, when a wrong password was input or when an attempt was made to change to a protected screen, an error message was not displayed.

In the new version, error messages can be displayed by the following setting.

- Setting in GT-Designer (SW5D5C-GOTRE-PACK)

a) When "Common" and "Password" are selected in this order, the window shown below appears.

When a check mark is input, the level device setting function is effective. (Refer to 2) in the next page.)



When a check mark is input, an error message is displayed when a password input error occurs.

- Description of error messages caused by password input

Error message	
Password is wrong.	The input password is wrong. (Input the correct password.)
This operation is not permitted.	An attempt was made to change to a screen with a higher security level. (The password is required.)

## 2) Level device setting function

By the following setting, the security level (0 to 15) currently set in the GOT can be checked on the PLC.

- Setting in GT-Designer (SW5D5C-GOTRE-PACK)
  - When "Common" and "Password" are selected in this order, the window shown in the previous page appears.
  - When a check mark is input to the "Level device" item, the device in which the security level is written can be set.

By checking the current value of the device set in "Level device", you can know the current security level.

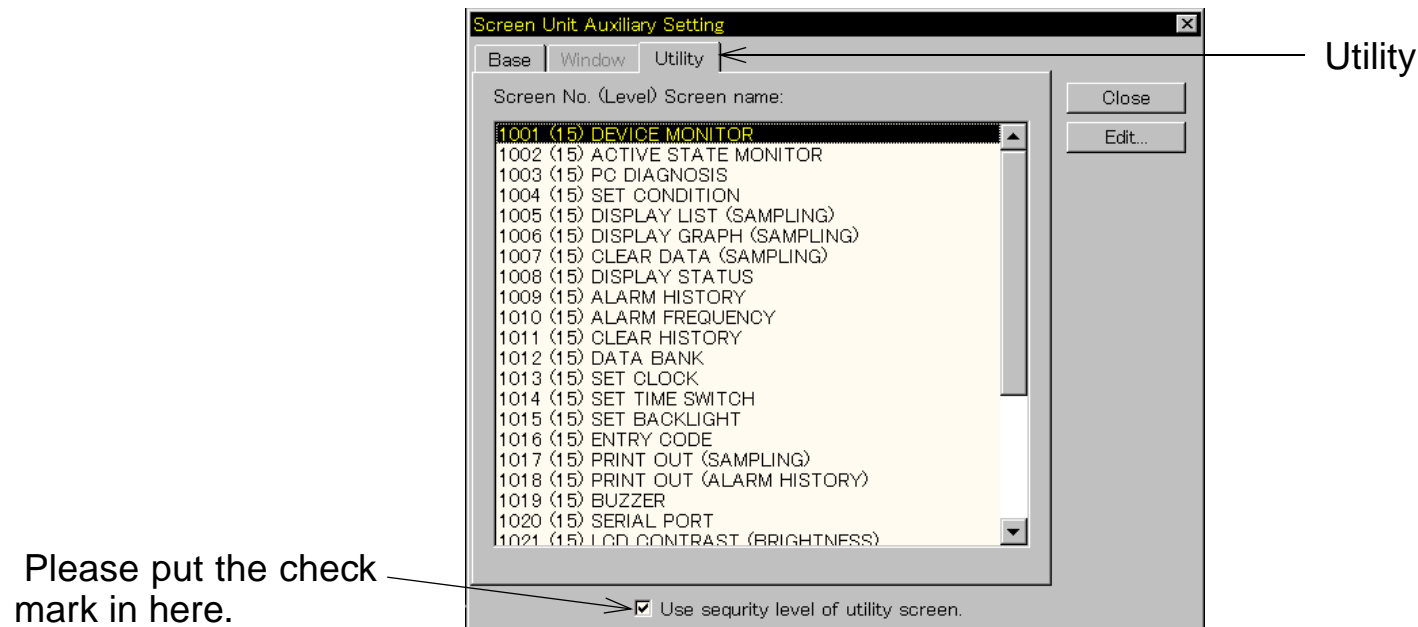


### 3) System screen security level setting function

In previous versions, the security level of the system screens (Nos. 1,000 to 1,030) was fixed to 15. In the new version, the security level can be set also to the system screens by the following setting.

- Setting in GT-Designer (SW5D5C-GOTRE-PACK)

a) When "Common", "Auxiliary Setting" and "Screen" are selected in this order, the window shown below appears.



b) When a check mark is input to "Use security level of utility screen" under the window, the "Utility" tag can be set.

c) When "Utility" is selected, the system screen list is displayed. In the list, select a screen No. to be changed, double-click it or click the Edit button, then set the security level.

\* If this setting is not performed or the screen data is all-cleared, the security level of the system screen returns to the initial value "15".

#### 4) Password input keyboard display function

In previous versions, in order to input the password, the touch key having a key code "FF68" had to be laid out in advance on the screen to display the keyboard for inputting the password.

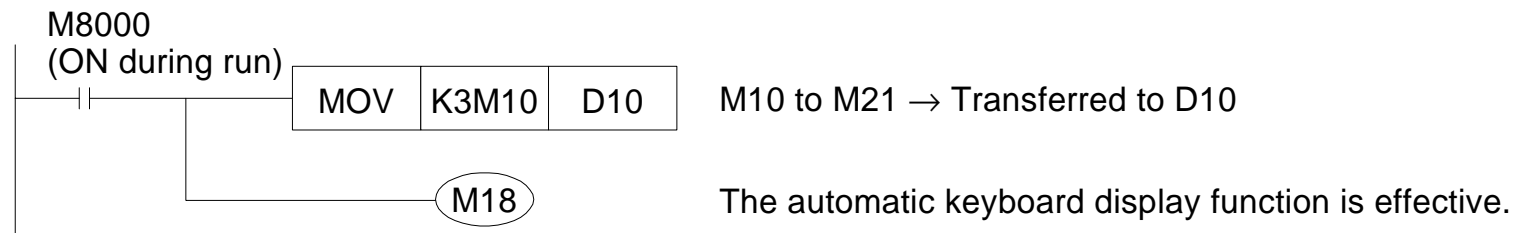
In the new version, by the following setting, a keyboard for inputting the password automatically appears when you try to change over to a screen at higher security level.

- When b8 of the system information read device ○ is ON, the automatic keyboard display function is effective.

○ : Head of specified word devices

\* For system information, refer to the Operation Manual (Paragraph 9.6.2) offered separately.

Example: When the system information read device is assigned to D10



## 4. Improved Functions related to Numerical Input and ASCII Input

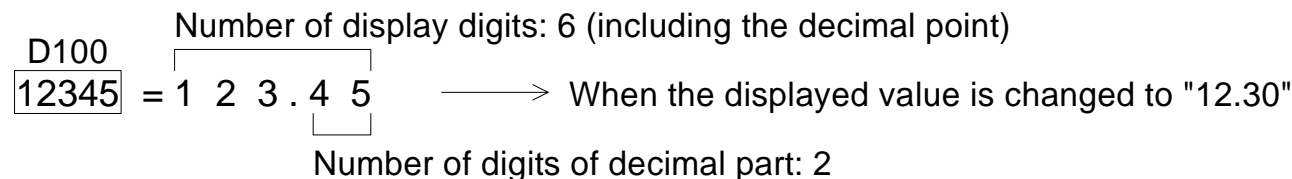
The following functions are added for numerical/ASCII input to improve the operability.

### 1) Decimal point input function during numerical input

If a touch key to which the decimal point key code (002E) is assigned is included during numerical input for data change, a decimal point can be input.

- \* The decimal point cannot be input on the key window displayed as standard. A key window allowing input of the decimal point should be created using the key window customize function (described in Paragraph 16.6 in the Operation Manual offered separately) or a keyboard allowing input of the decimal point should be displayed in advance on the screen.

- Example of numerical input display: Display device = D100, signed decimal



When there is a decimal point touch key:  
Input "1 2 . 3".

When there is not a decimal point touch key:  
Input "1 2 3 0".

- \* In the example above, "1230" is input to the PLC (D100) without regard to absence/presence of the decimal point.

Caution:

Input of a decimal point does not arbitrarily change the decimal point display position. The decimal point cannot be input beyond the specified number of display digits or digits of decimal part.

## 2) Input delete function (BS key) during numerical input

In the case of numerical input in the preceding paragraph, the value being input can be deleted by one digit at a time by pressing the BS (back space) key.

BS key: Key code = 0008

\* If input of the numeric value is finished by the ENT key (write completion) or when a numeric value has not get been input, the numeric value is not deleted.

## 3) Input trigger device setting during numerical/ASCII input

In previous versions, the data could be changed through numerical/ASCII input at any time. In the new version, a trigger can be set so that the data can be changed only when the device set as the operation condition is ON or OFF.

By this function, inputs can be permitted or prohibited in accordance with the status of the device in the PLC.

### - Operation condition (trigger type)

Specified device:

Always .... Always enables data change (no device specification).

ON ..... Enables data change only when the specified device is ON.

OFF ..... Enables data change only when the specified device is OFF.

#### 4) Information write function during data change

A report can be sent to the PLC when data is being changed through a numerical or ASCII input.

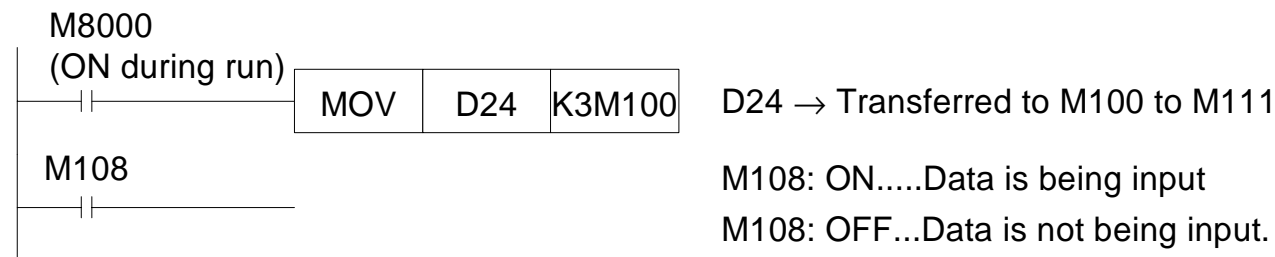
By this function, it can be prohibited to use the numerical or ASCII data as operation data in the PLC while the numerical or ASCII data is being changed.

- b8 of the system information write device DO+4

○ : Head of specified write devices

\* For system information, refer to the Operation Manual (Paragraph 9.6.2) offered separately.

Example: When the system information write device DO+4 is assigned to D20 ON during run



## 5. Touch Key Input Trigger Device Setting

In previous versions, the touch key input trigger device was able to be set only when the key code was FFFF.

In the new version, the input trigger device can be set to touch keys to which the special function is added (that is, whose key code are not FFFF).

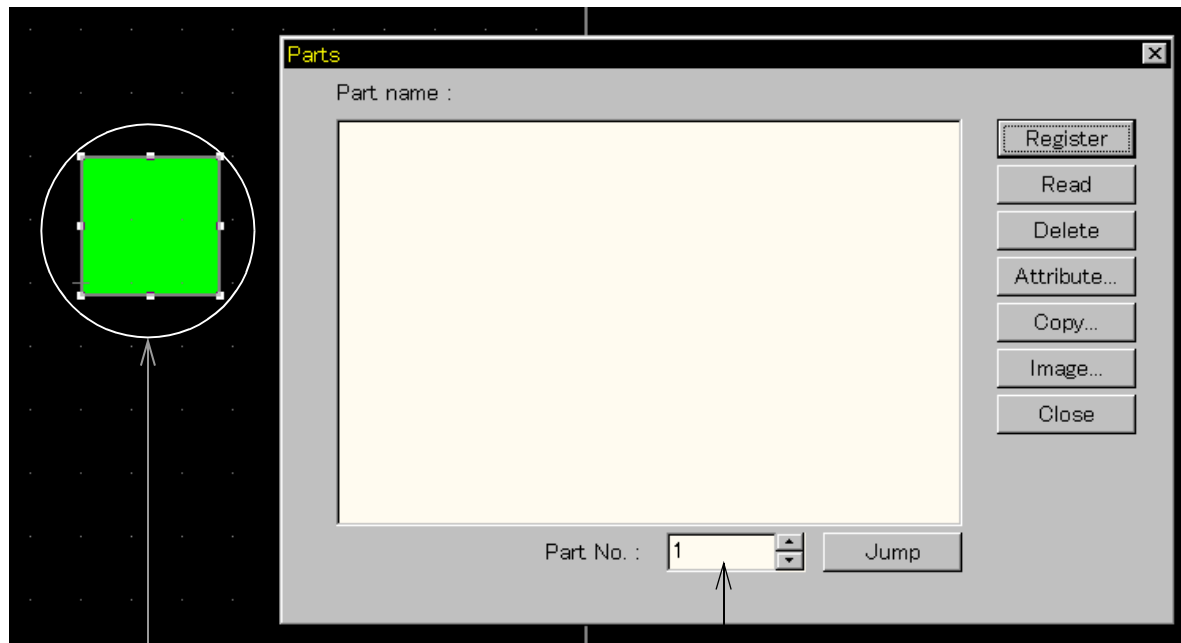
- Special functions with which the input trigger device can be set
  - For "Numerical Input" and "Ascii Input" parts:  
Character keys (including number and decimal point keys), ENT key, CLR key and BS key
  - For "Alarm History" and "Alarm List" parts:  
Upper and lower cursor control keys, cursor show/hide key, Detailed Information key, RESET key, OK key and DEL key

## 6. Additional Touch Keys and Lamp Figures

In touch keys and lamps, not only basic figures but also figures registered as parts can be used. By this function, bit map figures can be used for touch keys and lamp figures.

- Registration of parts in the screen creation software

GT-Designer

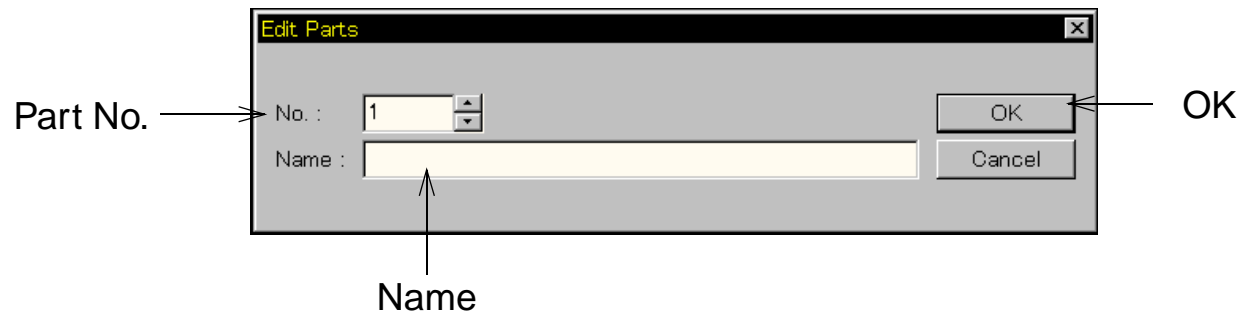


Part to be registered

Part registration window

- 1) Select "Draw" and "Part" in this order to open the part registration window.
- 2) Select a part to be registered on the displayed screen.

- 3) When the Register button is clicked in the part registration window, the "Edit parts" window is open as shown below.



- 4) Click the OK button to register the part. At this time, the registered part No. becomes available in touch keys and lamp figures. "Switch", "Switch Frame", "Lamp" and "Lamp Frame" are displayed in colors of the registered part.



## 7. Connection to CS1 Series PLC manufactured by Omron

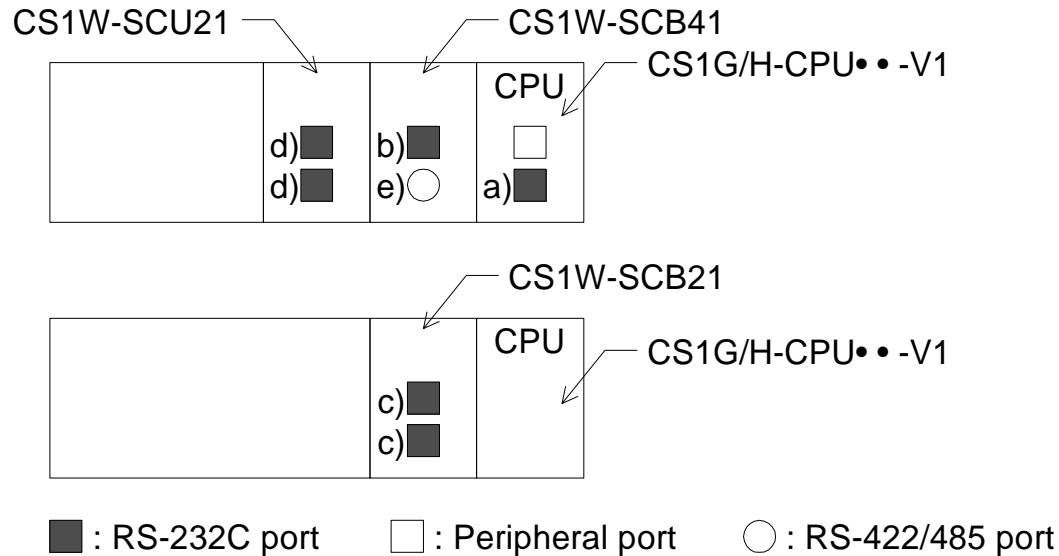
- Applicable PLC: CS1 Series (CS1G/H-CPU□□-V1)  
Serial communication board (CS1W-SCB21/41)  
Serial communication unit (CS1W-SCU21)
- Connection type: Link connection (RS-232C or RS-422)
- Target GOT. ✓: Connectable ✗: Not connectable

GOT	Link connection	
	RS-232C	RS-422
F940GOT-SWD-E, F940GOT-LWD-E	✓ *1	✓
F943GOT-SWD-E, F943GOT-LWD-E	✓	✗
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E	✓	✓
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E	✓	✗

\*1 The CPU can be connected to the RS-232C port. In this case, however, the port is also used for screen data transfer. Accordingly, the cable should be exchanged for data transfer. It is recommended to use the F943GOT-E which has dedicated RS-232C communication.

- System configuration

Some boards/units are equipped with two RS-232C/RS-422 channels. However, only one GOT unit can be connected at any time. (Using two channels at the same time is impossible.)

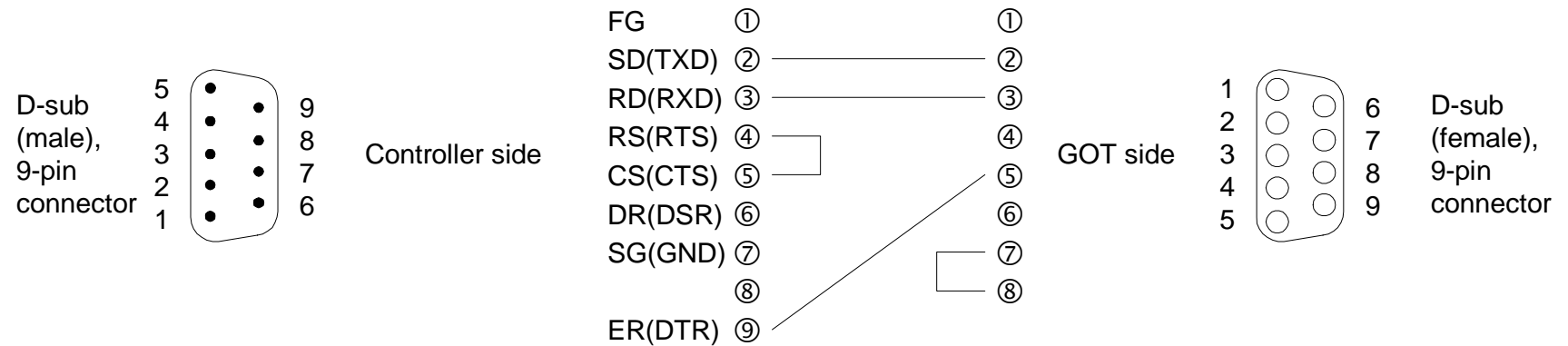


- In the case of RS-232C connection
  - a) RS-232C port built in the CPU
  - b) RS-232C port in the serial communication board (CS1W-SCB41)
  - c) RS-232C port in the serial communication board (CS1W-SCB21)
  - d) RS-232C port in the serial communication board (CS1W-SCU21)
- In the case of RS-422 connection
  - e) Serial communication unit (CS1W-SCB4)

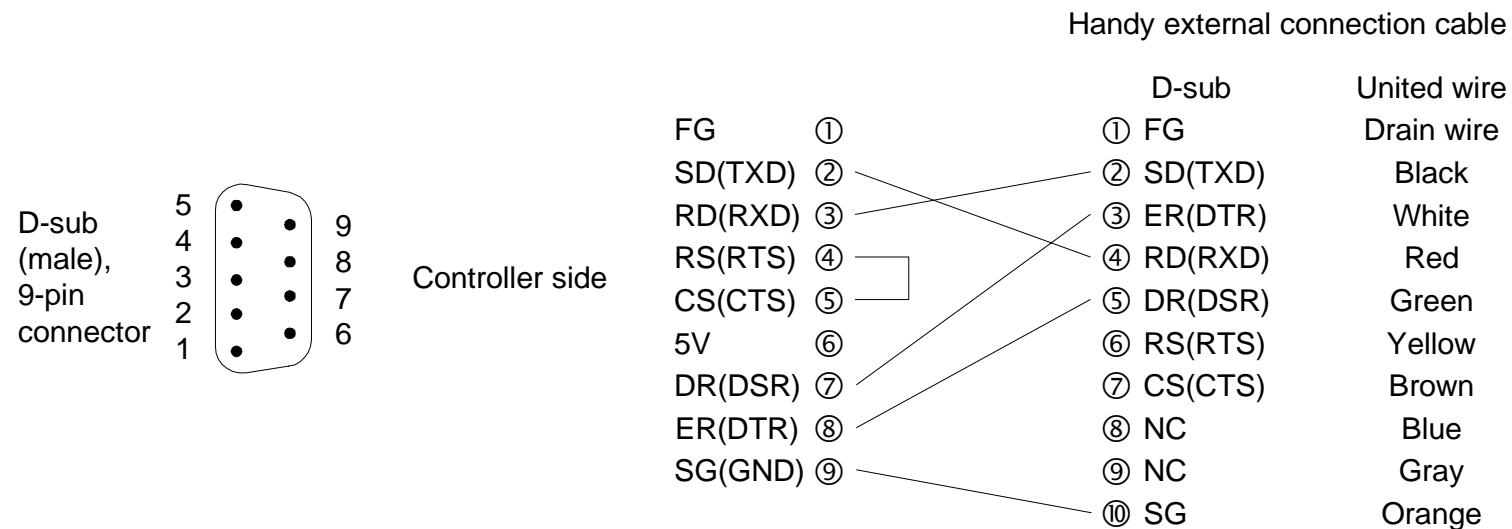
<Connection diagram>

In the case of RS-232C connection (port built in the CPU or communication board/unit)

- In any case other than the F943 handy GOT



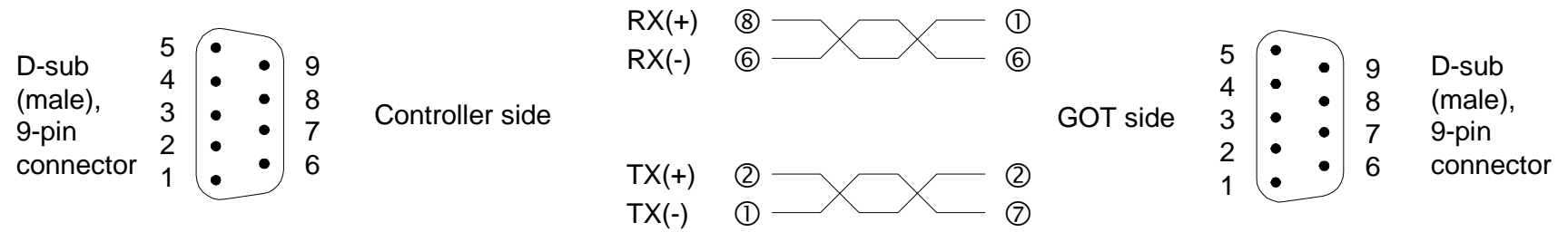
- In the case of F943 handy GOT



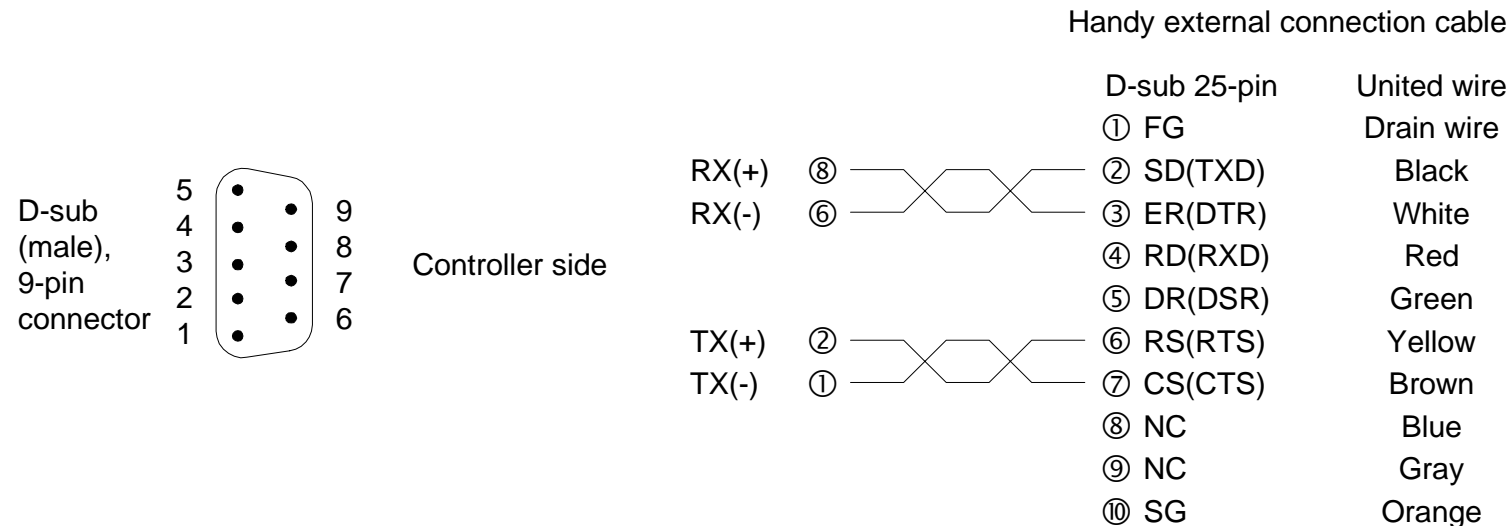
<Connection diagram>

In the case of RS-422 connection (communication board/unit)

- In any case other than the F940 handy GOT



- In the case of F940 handy GOT



## &lt;Setting in the PLC&gt;

- In the case of RS-232C port built in the CPU
  - a) Set the DIP switch SW5 in the CPU unit to OFF.
  - b) Perform the PLC system setting shown below.

Channel	Set value	Remarks
160	8000(H)	Arbitrary setting available, upward link mode, data length (7 bits), stop bit (2 bits), parity (even)
161	0007(H)	Baud rate: 19,200 bps
162	0000(H)	Send delay time
163	0000 to 001F(H)	CTS control not available, unit No. in upward link (00H to 1FH)

- In the case of communication board (CS1W-SCB21/41)  
Use port 1 (m = DM32000) and port 2 (m = DM32010).
  - a) Perform the setting shown below to each DM.

DM	Set value	Remarks
m	8000(H)	Arbitrary setting available, upward link mode, data length (7 bits), stop bit (2 bits), parity (even)
m+1	0007(H)	Baud rate: 19,200 bps
m+2	0000(H)	Send delay time
m+3	0000 to 001F(H)	CTS control not available, unit No. in upward link (00H to 1FH)

\* When connecting the GOT to port 2 (RS-422) in the CS1W-SCB41, make sure to use the four-wire type DIP switch (without terminal resistor).

- In the case of communication unit (CS1W-SCU21)  
 Port 1:  $m = \text{DM30000} + 100 \times \text{Unit No. (0 to 16)}$   
 Port 2:  $m = \text{DM30000} + 100 \times \text{Unit No. (0 to 16)} + 16$   
 Example: When the unit No. is "0",  
     Port 1:  $m = \text{DM30100}$   
     Port 2:  $m = \text{DM30110}$

a) Perform the setting shown below to each DM.

DM	Set value	Remarks
m	8000(H)	Arbitrary setting available, upward link mode, data length (7 bits), stop bit (2 bits), parity (even)
m+1	0007(H)	Baud rate: 19,200 bps
m+2	0000(H)	Send delay time
m+3	0000 to 001F(H)	CTS control not available, unit No. in upward link (00H to 1FH)

- Setting in the GOT  
 Set the PLC type, the connection type and station No. as shown below.

PLC type	C Series
Connection type	Link connection (RS-232C) or link connection (RS-422)
Station No.	Set the unit No. in the upward link set in the PLC.

## 8. Connection to MicroLogix 1000/1200/1500 Series manufactured by Allen-Bradley

- Applicable PLC: MicroLogix 1000 analog/1200/1500 Series (MicroLogix 1000 Series D or later)
- Connection type: Link connection (RS-232C)
- Target GOT.

✓: Connectable ✗: Not connectable

GOT	Direct connection to CPU
	RS-232C
F940GOT-SWD-E, F940GOT-LWD-E	✓ *1
F943GOT-SWD-E, F943GOT-LWD-E	✓
F940GOT-SBD-(R)H-E, F940GOT-LBD-(R)H-E	✓
F943GOT-SBD-(R)H-E, F943GOT-LBD-(R)H-E	✓

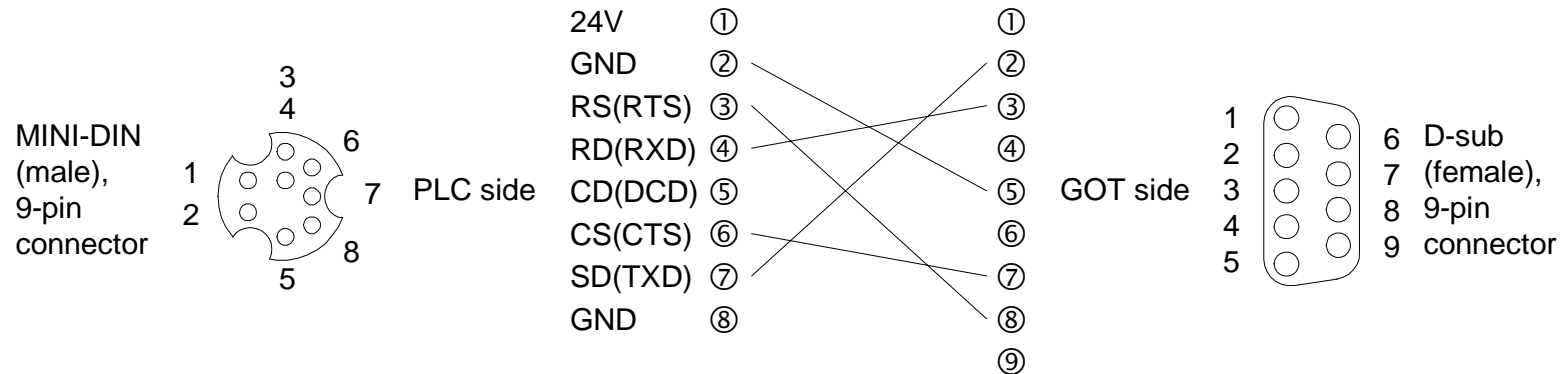
\*1 The CPU can be connected to the RS-232C port. In this case, however, the port is also used for screen data transfer. Accordingly, the cable should be exchanged for data transfer. It is recommended to use the F943GOT-E which has dedicated RS-232C communication.

- System configuration



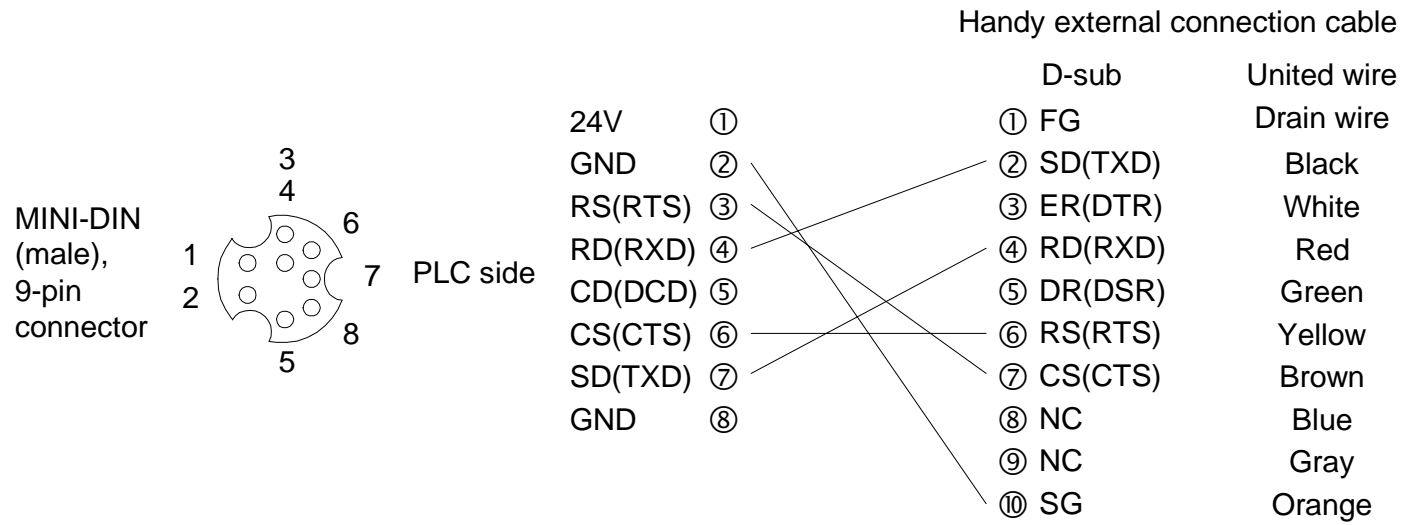
<Connection diagram>

- In any case other than the F943 handy GOT  
Cables (1761-CBL-PM02 [Series C or later]) manufactured by Allen-Bradley are also available.





- In the case of F943 handy GOT



## &lt;Setting in the PLC&gt;

Set the communication parameters as shown below in advance using the programming software (RSLogix500) manufactured by Allen-Bradley.

- Communication method: DF1 half-duplex slave

Parameter	Set value
Baud Rate	9600bps
Node Address	0 to 31
Error Detection	CRC
Control Line	No Hand-shaking
Duplicate Packet Detection	Enable
RTS Off Delay	0
RTS Send Delay	0
Poll Timeout	3000
Pre-send Time Delay	0
Message Retries	3
EOT Suppression	No

Supplement:

- 1) The stop bit is fixed to "1" in the CPU.
- 2) The hatched area indicates default values in the PLC.

- Setting in the GOT  
Set the PLC type, connection type and station No. as shown below.

PLC type	AB MicroLogix
Connection type	Link connection (RS-232C)
Station No.	Set the note address (0 to 31) set in the CPU.

# MEMO