

MITSUBISHI Electric Corporation

MELSERVO MR-J2 Series

Support	OS	Over V4.0
version	XDesignerPlus	Over 4.0.0.0

CONTENTS

Thank you for using "Touch Operation Panel (M2I TOP) Series" of M2I Co. head office. Please read this manual, and be familiar with the ways and procedures of connecting the "TOP-external devices".

1. System configuration

Page 2

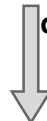


Explains the necessary appliances, setting of each appliance, cables, available system to access.
Select the suitable system referring to this article.

2. Selecting TOP model and external

devices

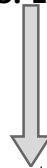
Page 3



Select a TOP model and external devices.

3. Example of system settings

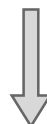
Page 4



Explains an example of settings for communication interface between the devices and the relevant external terminal.
Select an example according to the system you chose in "1. System configuration".

4. Details of communication settings

Page 10



Explains the way of setting TOP communication.
If external setting is changed, make sure to have the identical settings of TOP with the external device referring to this chapter.

5. Cable table



Explains cable specifications required for access.
Select proper cable specifications according to the system you chose in "1. System configuration".

6. Support address

Page 16

Check available addresses to communicate with external devices referring to this chapter.

1. System configuration

System configuration of TOP and "MITSUBISHI Electric Corporation – MELSERVO MR-J2 Series " is as follows..

Series	CPU	Link I/F	Communication method	System settings	Cable
MELSERVO MR-J2-Super	MR-J2S-□A MR-J2S-□CP MR-J2S-□CL	CN3 Port on CPU unit	RS-232C	3.1 Setting Example 1 (Page 4)	5.1 Cable table 1 (Page 13)
			RS-422	3.2 Setting Example 2 (Page 7)	5.2 Cable table 2 (Page 14)
MELSERVO MR-J2M	MR-J2M-P8 MR-J2M-□DU	CN3 Port on CPU unit	RS-232C	3.1 Setting Example 1 (Page 4)	5.1 Cable table 1 (Page 13)
			RS-422	3.2 Setting Example 2 (Page 7)	5.2 Cable table 2 (Page 14)
		"I/F module" or "Drive module"	RS-232C	3.1 Setting Example 1 (Page 4)	5.1 Cable table 1 (Page 13)
			RS-422	3.2 Setting Example 2 (Page 7)	5.2 Cable table 2 (Page 14)

■ Connection configuration

- 1 : 1(1 TOP vs 1 external device) connection – It is available in RS232C/422/485 communication.

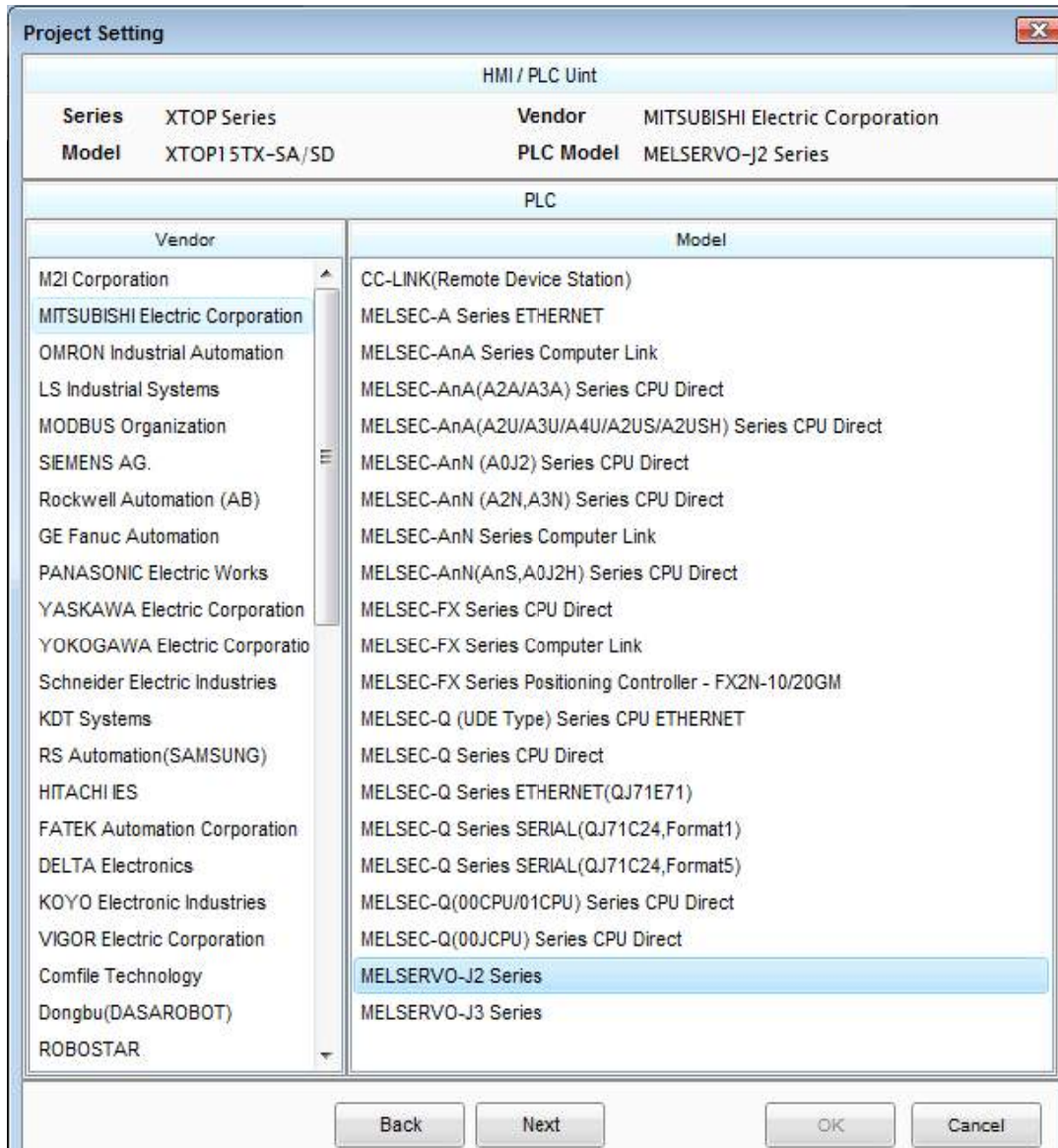


- 1 : N(1 TOP vs a couple of external devices) connection – It is available in RS422/485 communication.



2. Selecting TOP model and external devices

Select the external devices to connect to TOP.



Settings details		Contents				
TOP	Series	Select the name of a TOP series that is to be connected to PLC.. Before downloading the settings, install the OS version specified in the table below according to the TOP series.. <table border="1" data-bbox="512 1581 1150 1671"> <thead> <tr> <th>Series</th> <th>version name</th> </tr> </thead> <tbody> <tr> <td>XTOP / HTOP</td> <td>V4.0</td> </tr> </tbody> </table>	Series	version name	XTOP / HTOP	V4.0
	Series	version name				
XTOP / HTOP	V4.0					
Name	Select the model name of TOP product.					
External device	Vendor	Select the vendor of external devices to be connected to TOP. Select "MITSUBISHI Electric Corporation".				
	PLC	Select the model series of external devices to be connected to TOP. Select "MELSERVO MR-J2 Series". Please check if the relevant external device is available to set a system configuration in the "1. System configuration.				

3. Example of system settings

Settings of communication interface in TOP and "MELSERVO MR-J2 Series" are recommended as shown below

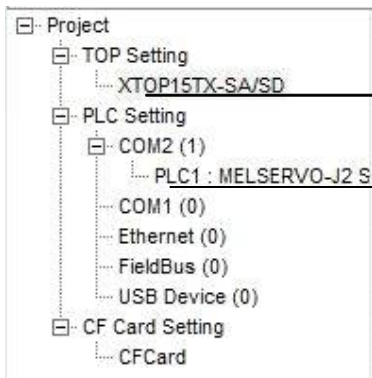
3.1 Example of settings 1

The system is set as below.

Details	TOP	External device	Remarks
Serial level (port/channel)	RS-232C (COM2)	RS-232C	User settings
Station Number(PLC Address)	—	0	User settings
Serial baud rate [BPS]	38400		User settings
Serial data bit [Bit]	8		User settings
Serial stop bit [Bit]	1		User settings
Serial parity bit [Bit]	Even		User settings

(1) XDesignerPlus settings

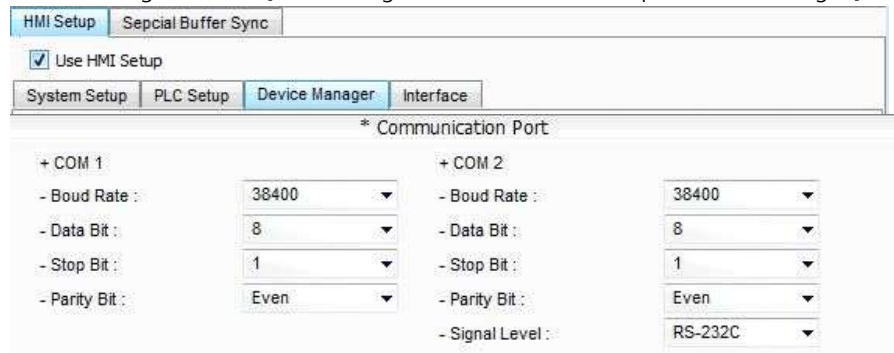
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool..



■ [Project > Project property > Project > Settings > TOP Name]

Set a communication interface of TOP tool.

- On the right window, [HMI settings > Check "Use HMI Setup" > Device manager]



■ External device settings

Set options of communication driver for MELSERVO-J2.



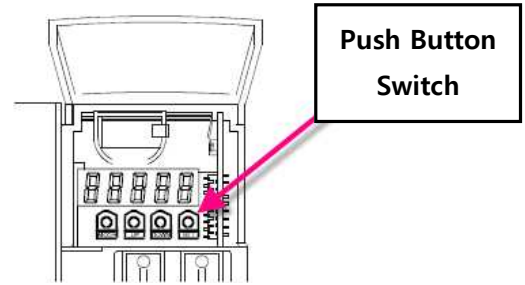
-PLC Station Number(PLC) : The Station Number set for external devices

-Decimal point: Set according to the magnification settings of the transmission length of basic parameter No. 1 in the external device.

(NOTICE) The options for decimal point settings are valid only for MR-J2S-□CP type.

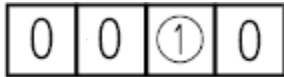
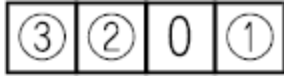
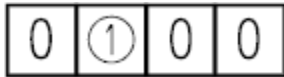
(2) External device settings

- Set the serial communication parameter of "MELSERVO MR-J2 Series" with the "Push button switch " in the main controller of the servo amp.
- After setting it, reboot the power of the External device.



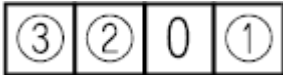
Please refer to the User's Manual of external devices for more detailed settings.

■ Settings of the parameters of MELSERVO-J2-Super series communication

Items	Parameter	Descriptions																														
Magnification settings of transmission length	Basic parameter No. 1 : 0020	Set 4 digits of basic parameter No. 1 as follows.  <table border="1" data-bbox="1023 703 1437 954"> <thead> <tr> <th colspan="3">① Magnification of transmission length</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1 time</td> <td>decimal place 3</td> </tr> <tr> <td>1</td> <td>10 times</td> <td>decimal place 2</td> </tr> <tr> <td>2</td> <td>100 times</td> <td>decimal place 1</td> </tr> <tr> <td>3</td> <td>1000</td> <td>decimal place 0</td> </tr> </tbody> </table>	① Magnification of transmission length			0	1 time	decimal place 3	1	10 times	decimal place 2	2	100 times	decimal place 1	3	1000	decimal place 0															
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0	1 time	decimal place 3																														
1	10 times	decimal place 2																														
2	100 times	decimal place 1																														
3	1000	decimal place 0																														
Station Number settings	Basic parameter No. 15	1																														
Selecting function of serial communication	Basic parameter No. 16 : 2000	Set 4 digits of basic parameter No. 16 as follows.  <table border="1" data-bbox="683 1167 1461 1424"> <thead> <tr> <th colspan="2">① Selecting the serial transmission speed</th> <th colspan="2">② Selecting Serial I/F</th> <th colspan="2">③ Selecting response delay time</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>9600 BPS</td> <td>0</td> <td>RS-232C</td> <td>0</td> <td>Invalid</td> </tr> <tr> <td>1</td> <td>19200 BPS</td> <td>1</td> <td>RS-422</td> <td>1</td> <td>Valid</td> </tr> <tr> <td>2</td> <td>38400 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>57600 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	① Selecting the serial transmission speed		② Selecting Serial I/F		③ Selecting response delay time		0	9600 BPS	0	RS-232C	0	Invalid	1	19200 BPS	1	RS-422	1	Valid	2	38400 BPS					3	57600 BPS				
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1	19200 BPS	1	RS-422	1	Valid																											
2	38400 BPS																															
3	57600 BPS																															
Selecting function 8	In case of MR-J2S- A : Extended parameter 2 No. 53 In case of MR-J2S-CP : Extended parameter 2 No. 57	Set 4 digits of basic parameter No. 53/57 as follows.  <table border="1" data-bbox="1023 1480 1315 1653"> <thead> <tr> <th colspan="2">① Selecting the Station Number of the protocol</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Station Number 0</td> </tr> <tr> <td>1</td> <td>Station Number X</td> </tr> </tbody> </table>	① Selecting the Station Number of the protocol		0	Station Number 0	1	Station Number X																								
① Selecting the Station Number of the protocol																																
0	Station Number 0																															
1	Station Number X																															

[➡ To the next page..](#)

■ Communication parameter settings of MELSERVO-J2-M series

Items	Parameter	Descriptions																										
Selecting the function of Serial communication	Basic IFUparameter No. 0 : 2000	Set 4 digits of basic parameter No. 16 as follows.  <table border="1" data-bbox="703 403 1461 698"> <thead> <tr> <th colspan="2">① Selecting the serial transmission speed</th> <th colspan="2">② Selecting Serial I/F</th> <th colspan="2">③ Selecting response delay time</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>9600 BPS</td> <td>0</td> <td>RS-232C</td> <td>0</td> <td>Invalid</td> </tr> <tr> <td>1</td> <td>19200 BPS</td> <td>1</td> <td>RS-422</td> <td>1</td> <td>Valid</td> </tr> <tr> <td>2</td> <td>38400 BPS</td> <td colspan="4" rowspan="2" style="text-align: center;">I</td> </tr> <tr> <td>3</td> <td>57600 BPS</td> </tr> </tbody> </table>	① Selecting the serial transmission speed		② Selecting Serial I/F		③ Selecting response delay time		0	9600 BPS	0	RS-232C	0	Invalid	1	19200 BPS	1	RS-422	1	Valid	2	38400 BPS	I				3	57600 BPS
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0	9600 BPS	0	RS-232C	0	Invalid																							
1	19200 BPS	1	RS-422	1	Valid																							
2	38400 BPS	I																										
3	57600 BPS																											
Station Number of interface module	IFU parameter No. 10	0 – 31 (Basic value: 0)																										
Station Number of No.1 slot	Basic IFUparameter No. 11	0 – 31 (Basic value: 1)																										
Station Number of No.2 slot	Basic IFUparameter No. 12	0 – 31 (Basic value: 2)																										
Station Number of No.3 slot	Basic IFUparameter No. 13	0 – 31 (Basic value: 3)																										
Station Number of No.4 slot	Basic IFUparameter No. 14	0 – 31 (Basic value: 4)																										
Station Number of No.5 slot	Basic IFUparameter No. 15	0 – 31 (Basic value: 5)																										
Station Number of No.6 slot	Basic IFUparameter No. 16	0 – 31 (Basic value: 6)																										
Station Number of No.7 slot	Basic IFUparameter No. 17	0 – 31 (Basic value: 7)																										
Station Number of No.8 slot	Basic IFUparameter No. 18	0 – 31 (Basic value: 8)																										

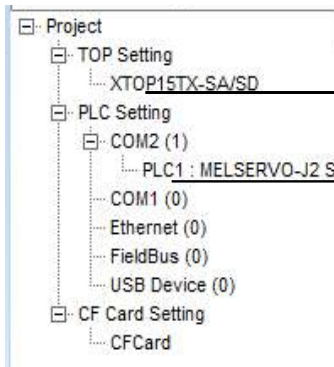
3.2 Example of settings 2

Set the system as follows.

Details	TOP	External device	Remarks
Serial level (port/channel)	RS-422	RS-422	User settings
Station Number(PLC Address)	—	0	User settings
Serial baud rate [BPS]	38400		User settings
Serial data bit [Bit]	8		User settings
Serial stop bit [Bit]	1		User settings
Serial parity bit [Bit]	Even		User settings

(1) XDesignerPlus settings

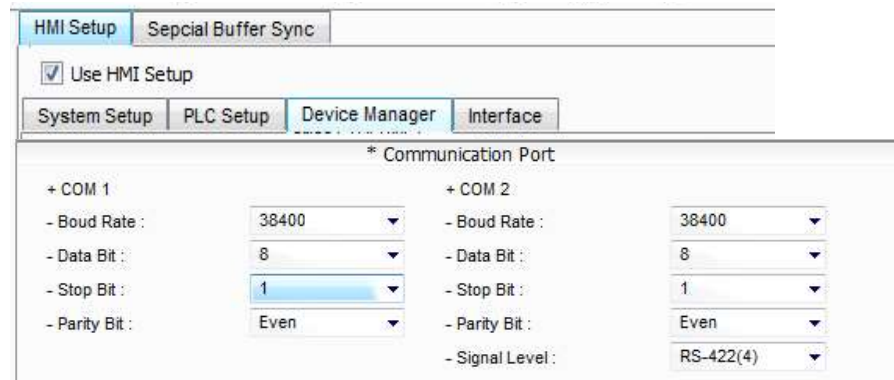
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



■ [Project > Project property > Project > TOP Settings > TOP Name]

Set a communication interface of TOP tool.

- On the right window, [HMI settings > Check "Use HMI Setup" > Device manager]



■ External device settings

Set options of communication driver for MELSERVO-J2.

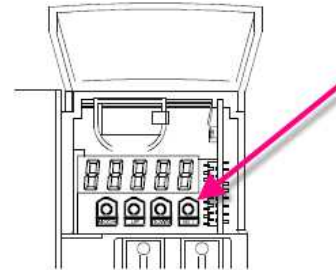


-PLC Station Number(PLC) : Station Number of the external device settings

-Set according to the magnification settings of the transmission length of basic parameter No. 1 in the external device.

(2) External device settings

- Set the serial communication parameter of "MELSERVO MR-J2 Series" with the "Push button switch " in the main controller of the servo amp.
- After setting it, reboot the power of the External device.



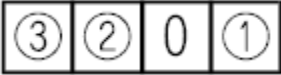
Please refer to the User's Manual of external devices for more detailed settings.

■ MELSERVO-J2-Super series의 communication parameter settings

Items	Parameter	Descriptions																																		
transmission length magnification settings	Basic parameter No. 1 : 0020	Set 4 digits of basic parameter No. 16 as follows. . <table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">0</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">0</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">①</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">0</td> </tr> </table> <table border="1" style="display: inline-table;"> <thead> <tr> <th colspan="3">①Magnification of transmission length</th> </tr> </thead> <tbody> <tr> <td style="width: 30px;">0</td> <td style="width: 30px;">1 time</td> <td style="width: 30px;">decimal place 3</td> </tr> <tr> <td>1</td> <td>10 times</td> <td>decimal place 2</td> </tr> <tr style="background-color: #e6f2ff;"> <td>2</td> <td>100 times</td> <td>decimal place 1</td> </tr> </tbody> </table>	0	0	①	0	①Magnification of transmission length			0	1 time	decimal place 3	1	10 times	decimal place 2	2	100 times	decimal place 1																		
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Station Number settings	Basic parameter No. 15	0 (Basic value : 0)																																		
Selecting function of serial communication	Basic parameter No. 16 : 2100	Set 4 digits of basic parameter No. 16 as follows. <table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">③</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">②</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">0</td> <td style="border: 1px solid black; width: 30px; height: 30px; text-align: center;">①</td> </tr> </table> <table border="1" style="display: inline-table;"> <thead> <tr> <th colspan="2">①Selecting the serial transmission speed</th> <th colspan="2">② Selecting Serial I/F</th> <th colspan="2">③ Selecting response delay time</th> </tr> </thead> <tbody> <tr> <td style="width: 30px;">0</td> <td style="width: 30px;">900 BPS</td> <td style="width: 30px;">0</td> <td style="width: 30px;">RS-232C</td> <td style="width: 30px;">0</td> <td style="width: 30px;">Invalid</td> </tr> <tr> <td>1</td> <td>19200 BPS</td> <td>1</td> <td>RS-422</td> <td>1</td> <td>Valid</td> </tr> <tr style="background-color: #e6f2ff;"> <td>2</td> <td>38400 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>57600 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	③	②	0	①	①Selecting the serial transmission speed		② Selecting Serial I/F		③ Selecting response delay time		0	900 BPS	0	RS-232C	0	Invalid	1	19200 BPS	1	RS-422	1	Valid	2	38400 BPS					3	57600 BPS				
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■ MELSERVO-J2-Super series의 communication parameter settings

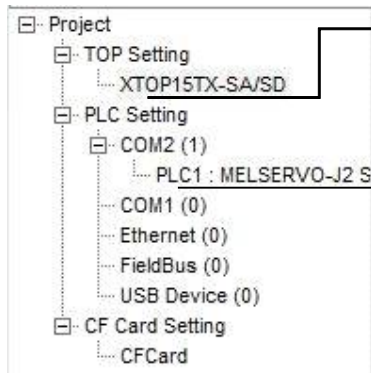
Items	Parameter	Descriptions																														
Selecting function of serial communication	Basic IFUpameter No. 0 : 2000	Set 4 digits of basic parameter No. 16 as follows. 																														
		<table border="1"> <thead> <tr> <th colspan="2">① Selecting the serial transmission speed</th> <th colspan="2">② Selecting Serial I/F</th> <th colspan="2">③ Selecting response delay time</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>9600 BPS</td> <td>0</td> <td>RS-232C</td> <td>0</td> <td>Invalid</td> </tr> <tr> <td>1</td> <td>19200 BPS</td> <td>1</td> <td>RS-422</td> <td>1</td> <td>Valid</td> </tr> <tr> <td>2</td> <td>38400 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>57600 BPS</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	① Selecting the serial transmission speed		② Selecting Serial I/F		③ Selecting response delay time		0	9600 BPS	0	RS-232C	0	Invalid	1	19200 BPS	1	RS-422	1	Valid	2	38400 BPS					3	57600 BPS				
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		1	19200 BPS	1	RS-422	1	Valid																									
2	38400 BPS																															
3	57600 BPS																															
Interface module Station Number	Basic IFUpameter No. 10	0 - 31 (Basic value: 0)																														
Station Number of No.1 slot	Basic IFUpameter No. 11	0 - 31 (Basic value: 1)																														
Station Number of No.2 slot	Basic IFUpameter No. 12	0 - 31 (Basic value: 2)																														
Station Number of No.3 slot	Basic IFUpameter No. 13	0 - 31 (Basic value: 3)																														
Station Number of No.4 slot	Basic IFUpameter No. 14	0 - 31 (Basic value: 4)																														
Station Number of No.5 slot	Basic IFUpameter No. 15	0 - 31 (Basic value: 5)																														
Station Number of No.6 slot	Basic IFUpameter No. 16	0 - 31 (Basic value: 6)																														
Station Number of No.7 slot	Basic IFUpameter No. 17	0 - 31 (Basic value: 7)																														
Station Number of No.8 slot	Basic IFUpameter No. 18	0 - 31 (Basic value: 8)																														

4. Communication settings Details

Communication settings are available at XDesignerPlus or TOP main menu. Communication settings are available at XDesignerPlus or TOP main menu.

4.1 XDesignerPlus settings Details

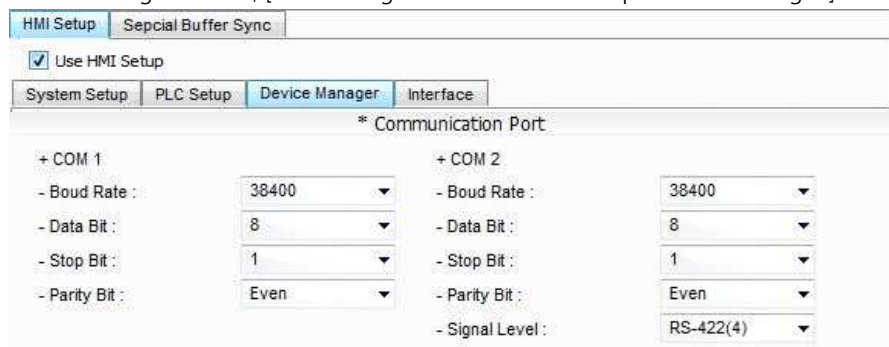
Select [Project > Project property] to show the below window.



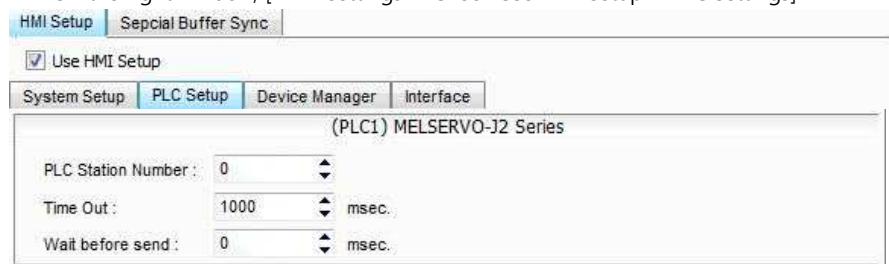
■ Select [Project > Project property] to show the below window

Set the communication interface of TOP tool.

- On the right window, [HMI settings > Check Use HMI setup > Device manager]



- On the right window, [HMI settings > Check Use HMI setup > PLC settings]



■ External device settings

Set options of communication driver for "MELSERVO MR-J2 Series".

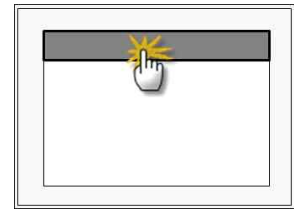


■ Communication interface settings

Details	Contents
Signal level	Select a serial communication method between TOP – External devices. (COM1 supplies RS-232C only)
Baud rate	Select a serial communication speed between TOP – External devices.
Data bit	Select a serial communication data bit between TOP – External devices.
Stop bit	Select a serial communication stop bit between TOP – External devices.
Parity bit	Select a method of checking serial communication parity bit between TOP – External devices.
Time-out [x100 mSec]	Set the TOP's wait time for response from external devices at [0 – 5000] x 1 mSec
Transmission delay time [x10 mSec] Transmission wait time [x10 mSec]	Set the TOP's wait time between receiving the response from external devices – transmitting the next command request at [0 - 5000] x 1 mSec.
PLC Station Number. [0~65535]	It is the Station Number of the other device. Select between [0 – 65535].

4.2 Setting details of TOP main menu

- When hearing the sound while resetting the power, touch 1 upper point on LCD to move to "TOP main management screen".
- Set the driver interface settings of TOP according to the contents; **Step1** → **Step2**.
(You can change the settings in **Step2**.if you click on "TOP COM 2/1 settings" in **Step 1**..)



Step 1. [PLC settings] – Set the driver interface.

PLC settings	
PLC Station Number : 00 Time-out: 1000 [mSec] Delay time before transmission: 0 [mSec] TOP COM 2/1 : RS - 232C , 38400 , 8 , 1 , EVEN TOP COM 2/1 settings Communication check	communication interface settings

Step 1-Reference.

Details	Contents
PLC Station Number [0~65535]	It is the Station Number of the other device. Select between [0 – 65535].
Time-out [x1 mSec]	Set the TOP's wait time for response from external devices at [0 – 5000] x 1 mSec.
Delay time before transmission [x1 mSec]	Set the TOP's wait time between receiving the response from external devices – transmitting the next command request at [0 - 5000] x 1 mSec.
TOP COM 2/1	It is the interface settings of TOP for external devices.

Step 2. [PLC settings] > [TOP COM2/COM1 settings] – Set the serial parameters of the relevant port.

port settings	
* Serial communication + COM-1 Port - Baud rate : 38400 [BPS] - Data bit : 8 [BIT] - Stop bit : 1 [BIT] - Parity bit: EVEN [BIT] - Signal level : RS – 232C	COM 1 port communication interface settings
+ COM-2 Port - Baud rate : 38400 [BPS] - Data bit : 8 [BIT] - Stop bit : 1 [BIT] - Parity bit: EVEN [BIT] - Signal level : RS 422	COM 2 port communication interface settings

Step 2-Reference.

Details	Contents
Baud rate	Select a serial communication speed between TOP – External devices
Data bit	Select a serial communication data bit between TOP – External devices.
Stop bit	Select a serial communication stop bit between TOP – External devices.
Parity bit	Select a method of checking serial communication parity bit between TOP – External devices.

Signal level

Select a serial communication method between TOP – External devices.

4.3 Communication check

- Check the interface settings between external devices - TOP.
 - Resetting the power of TOP, move to the menu screen by clicking on the top of the LCD window.
 - Check that the settings of the port [COM 2 or COM one] to use in [Communication settings] are the same with the settings of external devices.
- Check if there is an error in port communication
 - Click on the [start button](#) in "Check > PLC and [COM 2 or COM 1] communication check".
 - The diagnostics dialogue box will pop up on the screen, judge status of the check according to the contents shown in the box no.3.

OK! Normal communication settings

Time Out Error! Abnormal communication settings
 - It is an error in the settings of a TOP/external device and cable
(reference: communication check sheet).

- Communication check sheet
 - Please check the settings shown in the sheet below if there is an error in the communication connection with external terminals.

Details	Contents				check			
TOP	Version information	xDesignerPlus :		O.S :				
	Port (Activated)	COM 2		COM 1				
	Driver name					OK	NG	
	Other detailed settings					OK	NG	
	Station Number of the other device	Project settings					OK	NG
		Communication check					OK	NG
	Serial parameter	transmission speed	[BPS]		[BPS]		OK	NG
		Data bit	[BIT]		[BIT]		OK	NG
Stop bit		[BIT]		[BIT]		OK	NG	
Parity bit		[BIT]		[BIT]		OK	NG	
System configuration	System connection method	1:1	1:N	N:1	1:1 (RS-232C, fixed)	OK	NG	
	connection Cable name					OK	NG	
External device	CPU name					OK	NG	
	communication port name(module name)					OK	NG	
	Protocol(mode)					OK	NG	
	settings Station Number					OK	NG	
	Other detailed settings					OK	NG	
	Serial parameter	transmission speed	[BPS]		[BPS]		OK	NG
		Data bit	[BIT]		[BIT]		OK	NG
		Stop bit	[BIT]		[BIT]		OK	NG
Parity bit		[BIT]		[BIT]		OK	NG	
Checking the address range (extra data)					OK	NG		

5. Cable table

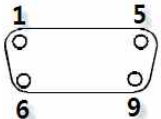
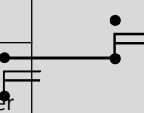
This Chapter introduces the cable diagram for normal communication between TOP and the relevant devices. (The cable diagram explained in this chapter can be different from the recommended details of "MITSUBISHI Electric Corporation")

5.1 Cable table 1

■ 1 : 1 connection

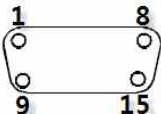
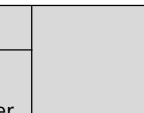
22

(A) XTOP COM 2 port(9 PIN)

XTOP COM2			Cable connection	MELSERVO MR-J2 Series		
PIN arrangement *Note1)	Signal name	Pin number		Pin number	Signal name	PIN arrangement *Note1)
 <p>Front View of D-SUB 9 Pin (male, convex)</p>	CD	1				Servo ampCN3 (20 PIN)
	RD			12	SD	
	SD	3		2	RD	
	DTR	4		1	LG	
	SG	5		11	LG	
	DSR	6				
	RTS	7				
	CTS	8				
		9				

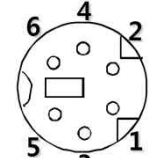
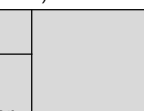
*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

(B) XTOP COM 2 port(15 PIN)

XTOP COM2			Cable connection	MELSERVO MR-J2 Series		
PIN arrangement *Note1)	Signal name	Pin number		Pin number	Signal name	PIN arrangement *Note1)
 <p>Front View of D-SUB 15 Pin (male)</p>	CD	1				Servo amp CN3 (20 PIN)
	RD			12	SD	
	SD	3		2	RD	
	DTR	4		1	LG	
	SG	5		11	LG	
	DSR	6				
	RTS	7				
	CTS	8				
		9				

*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

(C) XTOP/ATOP COM 1 port (6 PIN)

XTOP/ATOP COM 1 port			Cable connection	MELSERVO MR-J2 Series		
PIN arrangement *Note1)	Signal name	Pin number		Pin number	Signal name	PIN arrangement *Note1)
 <p>Front View of</p>		1				Servo amp CN3 (20 PIN)
	RD	2		12	SD	
	SG	3		2	RD	

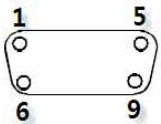
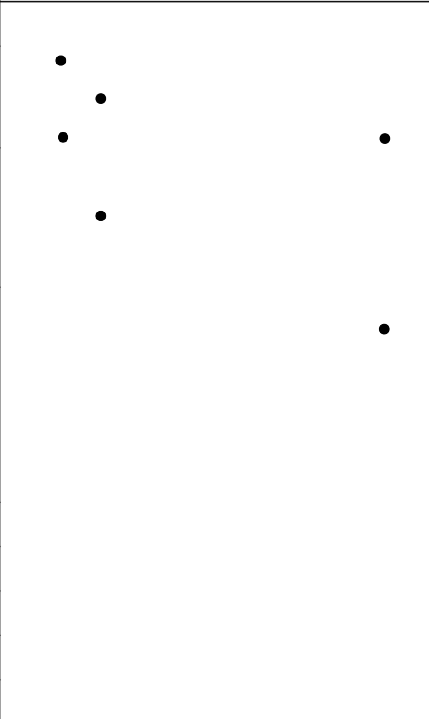
D-SUB 6 Pin (male, convex)		4		1	LG	
		5		11	LG	
	SD	6				

*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

5.2 Cable table 2

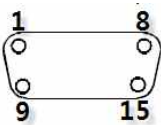
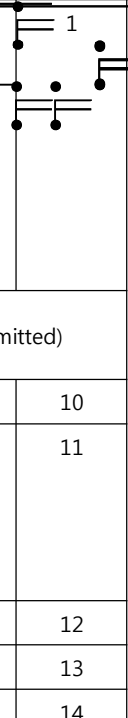
■ 1 : 1 connection

(A) XTOP COM 2 port(9 PIN)

XTOP COM2			Cable connection	MELSERVO MR-J2 Series			
PIN arrangement *Note1)	Signal name	Pin number		Pin number	Signal name	PIN arrangement *Note1)	
 <p>Front View of D-SUB 9 Pin (male, convex)</p>	RDA	1		9	SDA	Servo amp CN3 (20 PIN)	
				2	19		SDB
				3	5		RDA
		RDB		4	15		RDB
		SG		5	1		LG
		SDA		6	11		LG
				7			
				8			
		SDB		9			

*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

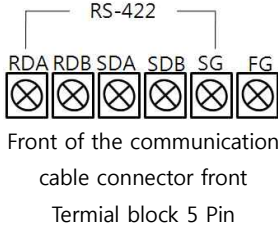
(B) XTOP COM 2 port(15 PIN)

XTOP COM2			Cable connection	MELSERVO MR-J2 Series			
PIN arrangement *Note1)	Signal name	Pin number		Pin number	Signal name	PIN arrangement *Note1)	
 <p>Front View of D-SUB 15 Pin (male, convex)</p>	-	1		9	SDA	Servo amp CN3 (20 PIN)	
		(Omitted)			19		SDB
					5		RDA
				10	15		RDB
		RDA		11	1		LG
		RDB		12	11		LG
		SDA		13			
		SDB		14			

	SG	15			
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*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

(C) ATOP COM 2 port (Terminal block 5 pin)

XTOP COM2		Cable connection	MELSERVO MR-J2 Series		
PIN arrangement *Note1)	Signal name		Pin number	Signal name	PIN arrangement *Note1)
 <p>Front of the communication cable connector front Terminal block 5 Pin</p>	RDA		9	SDA	Servo amp CN3 (20 PIN)
	RDB		19	SDB	
	SDA		5	RDA	
	SDB		15	RDB	
	SG		1	LG	
			11	LG	

*Note1) The PIN arrangement is seen at the connection area of cable connection connector.

■ 1 : N connection – Connect as shown below referring to 1:1connection.

TOP
Signal name
RDA
RDB
SDA
SDB
SG

Cable connection and signal direction

MELSERVO	
Signal name	
9	SDA
19	SDB
5	RDA
15	RDB
10	TRE
1	LG
11	LG

Cable connection and signal direction

MELSERVO	
Signal name	
9	SDA
19	SDB
5	RDA
15	RDB
10	TRE
1	LG
11	LG

6. Support address

The device which is available at TOP is as follows.

There can be a device range difference according to the module series/type of CPU. TOP series support the maximum address range that an external device series uses. Refer to the user manual of each CPU module and be careful not to be out of the address range that the relevant device supports.

Device		Word Address (The address is hexadecimal).		Remarks	Command	
		Read able	Write able			
Status	Status data	STS 80 – STS 90	—	* Note1)	01	–
Alarm History	Alarm No.	AMH 10 – AMH 15	—		33	
	Alarm start time	AMH 20 – AMH 25	—			
Alarm Present	Current alarm	AMP 00	—		02	–
Alarm Status	Display alarm status	AMS 80 – AMS 90	—	* Note1)	35	–
Status Clear	Clear status data	—	STSC 00		–	81
Alarm Clear	Erasing current alarm	—	AMC 00		–	82
	Erasing alarm history	—	AMC 20			
Prohibit/lift of input & output signal		—	EIXX 00 / EIXX 03 EIXX 10 / EIXX 13		–	90
Test drive mode		—	MODE 00		00	8B
Data for test drive mode			TEST 00 / TEST A0 TEST 10 / TEST 11 TEST 20 / TEST 21 TEST 40 / TEST 41		–	A0
External input & output	Status of input device	EXIN 00	—	* Note2)	12	92
	Status of input pin	EXIN 40	—			
	Input device ON/OFF	—	EXIN 60			
	Status of output device	EXIN 80	—			
	Status of output pin	EXIN C0	—			
	Output pin ON/OFF	—	EXIN A0			
Parameter group		PRMG 01	PRMG 01		04	85
Writing parameter(EEPROM)		PRAM 00 – PRAM FF	PRAM 00 – PRAM 5A		05	84
Writing parameter(RAM)		PRMR 00 – PRMR FF	PRMR 00 – PRMR 5A			
Writing point table location data (EEPROM)		PTB1 01 – PTB1 FF	PTB1 01 – PTB1 FF		40	C0
Writing point table location data (RAM)		PT1R 01 – PT1R FF	PT1R 01 – PT1R FF			
Writing point table speed data (EEPROM)		PT2B 01 – PTB2 FF	PTB2 01 – PTB2 FF		50	C6
Writing point table speed data (RAM)		PT2R 01 – PT2R FF	PT2R 01 – PT2R FF			
Writing point table acceleration corrective number (EEPROM)		PTB3 01 – PTB3 FF	PTB3 01 – PTB3 FF		54	C7
Writing point table acceleration corrective number (RAM)		PT3R 01 – PT3R FF	PT3R 01 – PT3R FF			
Writing point table reduction corrective number (EEPROM)		PTB4 01 – PTB4 FF	PTB4 01 – PTB4 FF		58	C8
Writing point table reduction corrective number (RAM)		PT4R 01 – PT4R FF	PT4R 01 – PT4R FF			
Writing point table dwell time (EEPROM)		PTB5 01 – PTB5 FF	PTB5 01 – PTB5 FF		60	CA
Writing point table dwell time (RAM)		PT5R 01 – PT5R FF	PT5R 01 – PT5R FF			
Writing point table auxiliary function (EEPROM)		PTB6 01 – PTB6 FF	PTB6 01 – PTB6 FF		64	CB

Writing point table auxiliary function (RAM)	PT6R 01 – PT6R FF	PT6R 01 – PT6R FF			
Absolute location of servo motor group pulse unit	ETC 90	—		02	-
Absolute location of command unit	ETC 91	—			

* Note1) 00 – 11 does not support the address range

* Note2) 32 BIT device