

Mobile Tools

RemoteTP
User's Guide

ver.1.3.1

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1. Outline

This manual provides instruction on how to use the application to operate some of teach pendant functions on the Tablet (RemoteTP).

RemoteTP is an application that recreates teach pendant on the PC screen. It is easy to use as its buttons and touch panel operations are exactly the same as teach pendant.

When used with the mini pendant, RemoteTP provides great convenience as it can perform the operations that are not possible by mini pendant, such as making various settings, monitoring, creating programs.

Note: You cannot move robots (e.g. teaching) with RemoteTP.

1.1. Conditions for Use

System requirement

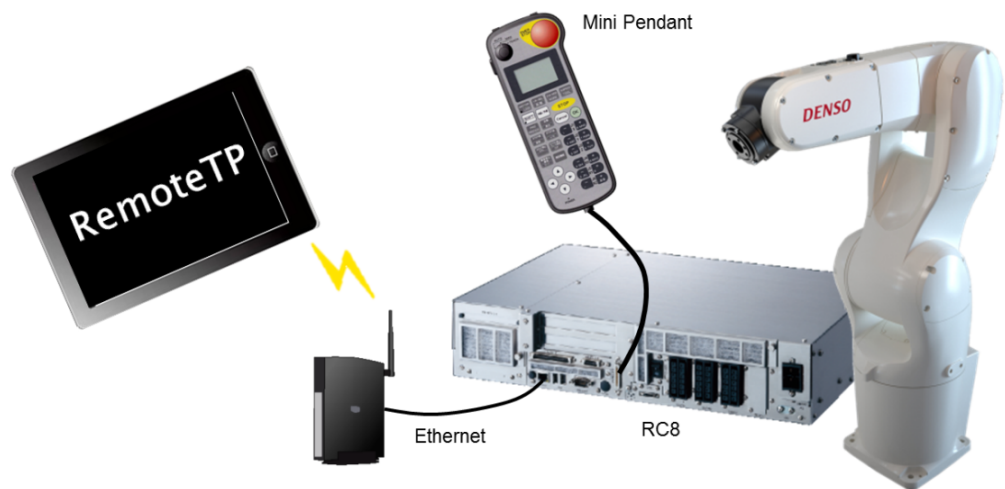
Tablet

OS	Android 5.0 ~ 8.0
Screen size	8 inches or larger

Robot Controller

RC8	Ver.1.10.3 or later
COBOTTA	Ver.2.4.0 or later

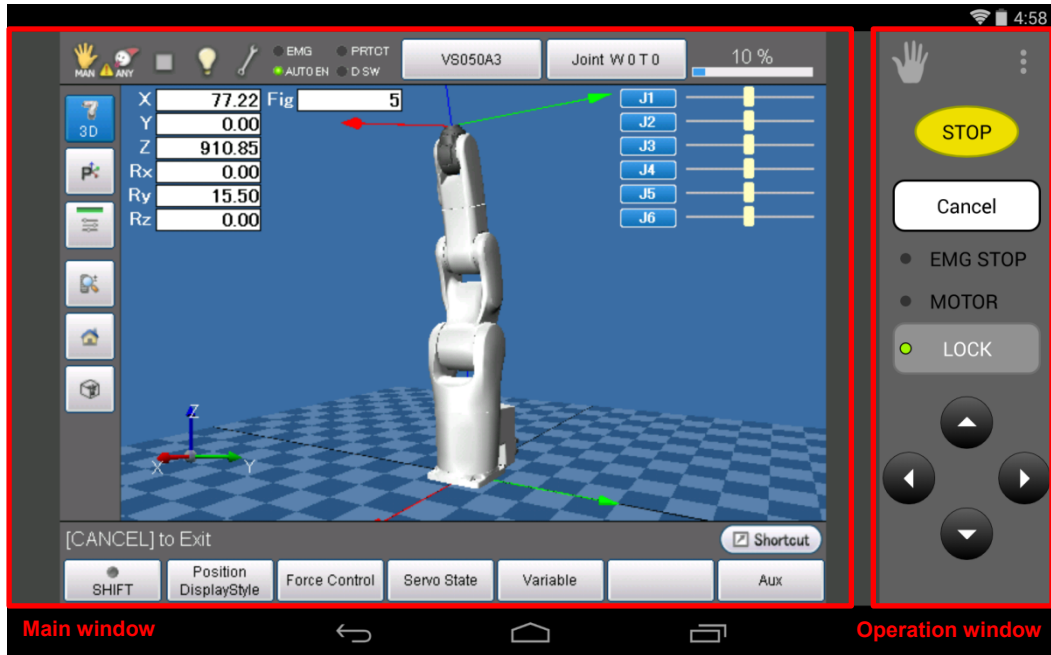
[Constitution example]



2. Part Names(RC8)

2.1. Main Window




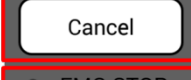
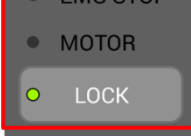
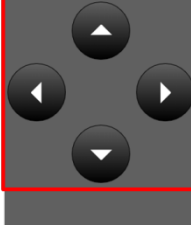

When the connection destination is RC8, RemoteTP uses the following general screen layout.



You can operate buttons and windows by touching screen directly.

2.2. Operation window

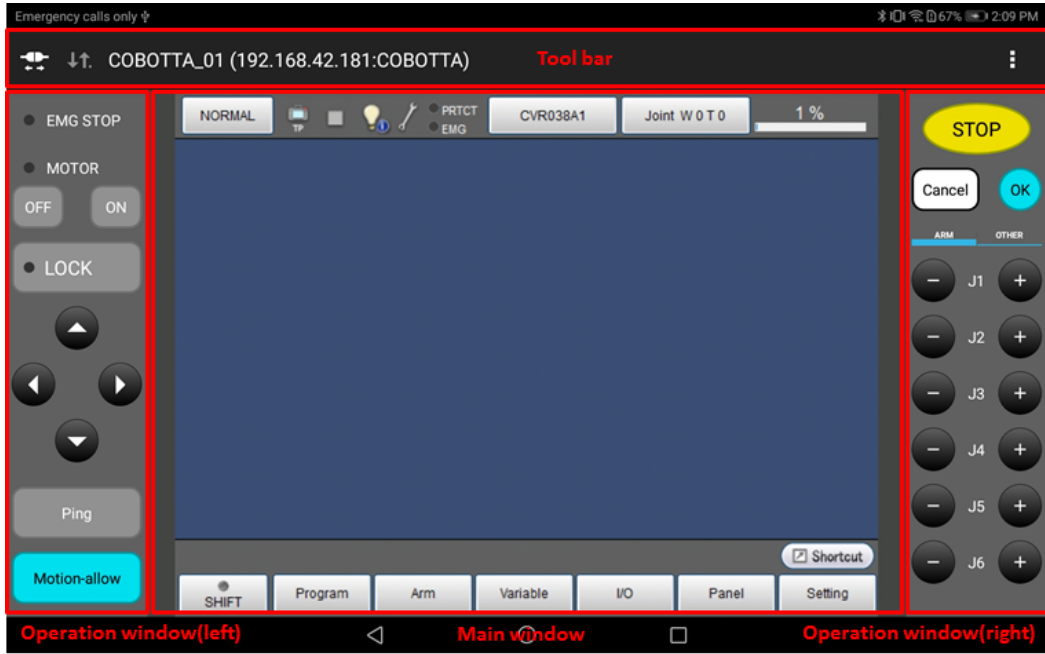
The following describes the menu and buttons.

<p>A</p>  <p>B</p>  <p>C</p>  <p>D</p>  <p>E</p>  <p>F</p> 	<p>A : Connection indicator Display the connection condition: Full operation, Display only.</p> <p>B : Menu Enlarge/minimize the main window, save the image files, and execute disconnection.</p>  <p>C : Stop key Execute “Stop”.</p> <p>D : Cancel key Execute “Cancel”.</p> <p>E : Robot indicator Display the status of the Emergency stop, Motor, and Machine lock. The indicator lamp lights up when the signal is ON. You can turn ON/OFF the machine lock state.</p> <p>F : Cursor key Move the cursor on display or on the input window.</p>
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3. Part Names(COBOTTA)

3.1. Main Window

When the connection destination is COBOTTA, RemoteTP uses the following general screen layout.



You can operate buttons and windows by touching screen directly.

3.2. Tool bar

The following describes the tool bar.



A : Connection indicator

Disconnect communication with COBOTTA.

B : Communication status display

While connecting, the lamp at the lower right of the icon blinks.

C : Communication status display

While connecting, the lamp at the lower right of the icon blinks.

D : Menu

Display terms of use, version information, copyright information, MAC address.

3.3. Operation window(left)

The following describes the menu and buttons.



A : Robot status indicator

Displays the status of emergency stop, motor, and machine lock, and the lamp lights up when it is ON.

B : Cursor key

Move the cursor on display or on the input window.

C : Confirm connection

Check the connected COBOTTA.

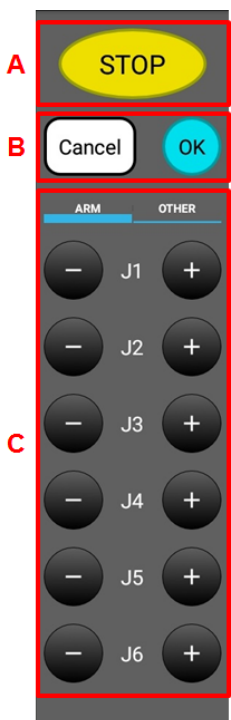
When you press the button, the COBOTTA LED flashes green.

D : Motion-Allow

Press for activating robot such as variable move.

3.4. Operation window(right)

The following describes the menu and buttons.



A : STOP key

Execute “STOP”.

B : Cancel, OK key

Execute “Cancel”, “OK”.

C : Each axis operation key

Move the corresponding axis.

You need to press the Motion-Allow button..

4. Connecting to Robot Controller(RC8)

To connect RemoteTP to the controller, follow the instructions below.

- 1 Make necessary settings on the robot controller.
- 1 Connect the PC to the robot controller via Ethernet.
- 2 Make connection settings for RemoteTP.

4.1. Preparation for Robot Controller

The connection between a tablet and a robot controller is established by Ethernet via wireless LAN.

The robot controller requires making the following settings.

- Configure Ethernet connection settings
- Extension [RemoteTP]

4.1.1. Configure Ethernet Connection Settings

Set/check the IP address of the “Communications permission settings” of the robot controller.

Check that the following three devices use different IP address ; a tablet that starts RemoteTP; wireless LAN access point (such as, wireless router, bridge) ; a robot controller.

For detailed information about checking/setting procedure, see “Mobile Toole Setup Guide 2. Configuring”.

4.1.2. Configure Enabling Extensions Settings

With a robot controller, enable the extension [RemoteTP] so that the RemoteTP can connect to the robot controller.

For detailed information about checking/setting procedure, see “Mobile Toole Setup Guide 2. Configuring”.

Note-----
 You need to purchase an RC8 paid license [Remote TP], separately. By registering this license, you can enable the extension [RemoteTP]. If the extension [RemoteTP] is invalid, the trial version of RemoteTP will run for 30 seconds.

4.2. Connecting Tablet to Robot Controller

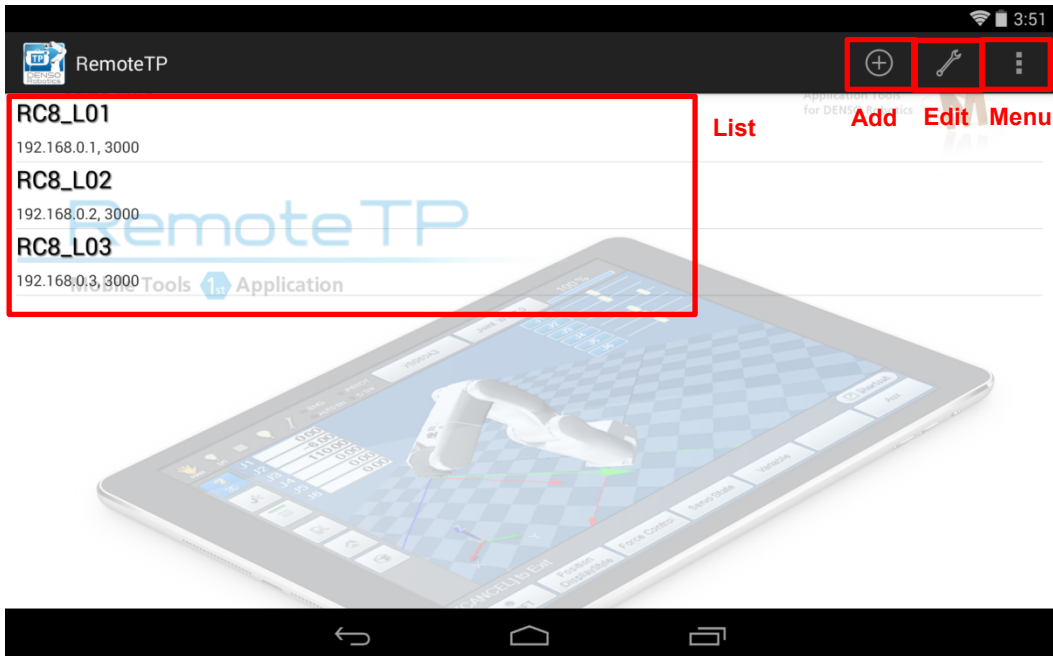
Establish a connection between a tablet and a robot controller via a wireless LAN access point or a router.

Note-----
 For network construction, please prepare necessary devices, software, and communication methods in customer side, and install and operate them properly.

4.3. Connection Settings for RemoteTP

With a Remote TP, select a robot controller to connect.

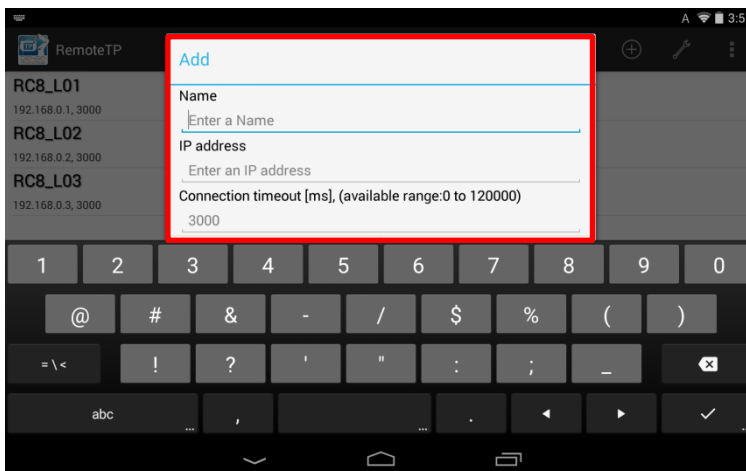
When you establish a connection for the first time, add a robot controller information from [Add].



When the connection is established, the Remote TP will display an image that is the same as the actual Teach Pendant window.

4.3.1. Addition of connection controller

Pressing [Add] will display the input window. Enter a name, IP address, and the communication time-out. When all information are entered, the contents will be registered in [List]. Up to 10 controllers can be registered.



4.3.2. List of connection controller

To establish a connection, select a robot controller from the list.



Note-----

Note that the connection will fail if the selected robot controller's IP address is incorrect. Also, if the connection is made immediately after the change of the robot controller's IP address, an error may occur and the connection may fail.


4.3.3. Editing of connection controller

Pressing [Edit] will display buttons on the rightmost of the [List]. By pressing a button of desired controller, you can edit the controller information or delete it from the [List].



4.3.4. Application information

Pressing [Menu] will enable you to check the [Rules and regulations for use] and [Version information].


 **Rules and regulations**

Terms of use for RemoteTP Android Application

Product Name: RemoteTP (Mobile Tools)
Please read this document carefully before using RemoteTP.

NOTICE TO USER:
The License Agreement is a contract. This software product of "RemoteTP", including any document related thereto, is protected by copyright laws and international treaties. You must agree to all of the terms and conditions of the License Agreement before installing or using any part or all of this software. By installing or using any part or all of this software, it is construed that you agree to be bound by all of the terms and conditions of the License Agreement.
If you do not agree to any of the terms and conditions of the License Agreement, do not install or use any part or all of this software. In this case, please destroy or discard this software

OK

 **Version information**

Version 1.1.1

Available robot controller
RC8: Ver.1.10.3 or higher

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OK

5. Connecting to Robot Controller(COBOTTA)

To connect RemoteTP to the COBOTTA, follow the instructions below.

- 1 Prepare COBOTTA.
- 2 Connect the tablet and COBOTTA with a USB cable.
Or, connect the tablet and COBOTTA Wi-Fi. (COBOTTA Ver.2.7.1 or later)
- 3 Configure RemoteTP connection settings.

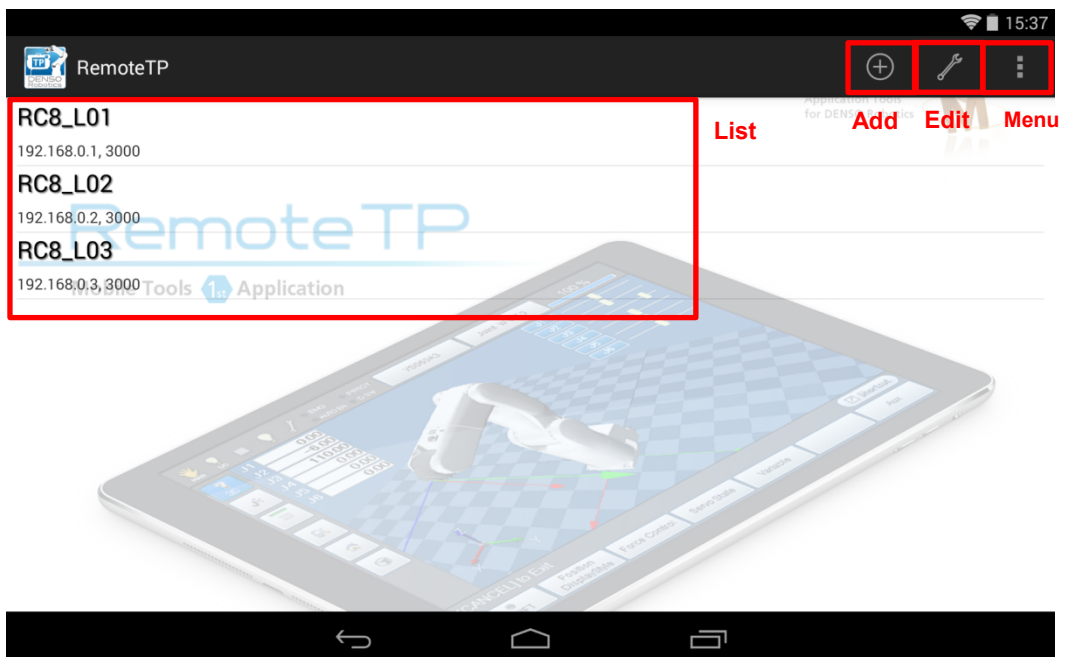
5.1. Preparation for COBOTTA

The connection between tablet and COBOTTA is USB connection via USB cable or Wi-Fi connection.

5.2. RemoteTP connecting setting

In RemoteTP, specify the COBOTTA to connect from the “list”.

When connecting for the first time, please add COBOTTA information from “Add”.

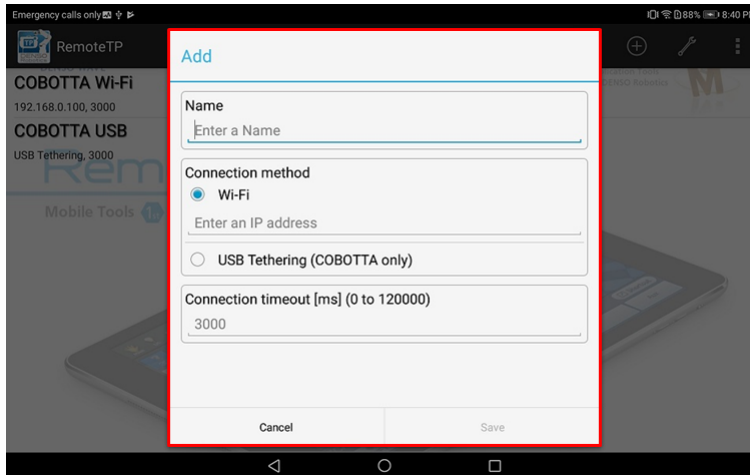


When connected, the same image as TeachPendant is displayed in the RemoteTP screen.

5.2.1. Add list

Press “Add” to display the input screen, enter the name, connection method, connection timeout. When input is completed, it is registered in “List”. Up to 10 entries can be registered.

Wi-Fi connection is available in COBOTTA Ver.2.7.1 or later.



5.2.2. Edit list

Press “Edit” to display the button in “List”. You can edit selected items or delete them from “List”.

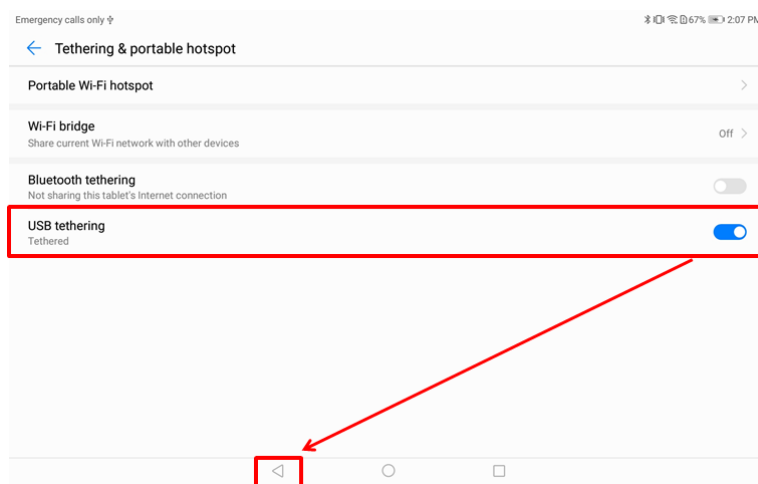


5.2.3. Connect RemoteTP

Select the COBOTTA you want to connect from “List”.



Activate AAA and press the back button. (USB tethering connection only)



The login screen will be displayed.

Please select the user level to login and enter the password.

When connecting to COBOTTA, the following screen will be displayed. Please select user level and input a password.

Set the mode lock password of mode lock if necessary (Display from COBOTTA Ver 2.8.0 or later). Refer to “COBOTTA User Manuals” ID:7878 for more information on mode lock.

Confirmation

Do you want to connect to the following robot?
 IP Address : 192.168.0.100
 Serial No.: 01C8044R

User Level: Operator ▼

Password: 🗖

Mode Lock Password:

When you do not change the mode, mode lock password is input-free.
 Input of [3-7 columns of digit values] needs the mode lock password.

Cancel
OK

* The initial password of COBOTTA is as follows.


[Operator]	5593551
[Programmer]	5596045
[Maintainer]	5596060

6. Disconnecting to Robot Controller(COBOTTA)

You can reset the mode lock password and the direct preparation when disconnecting Remote TP in COBOTTA's Ver 2.8.0 or later. When you press the Remote TP disconnect button, the screen below is displayed. Enter mode lock password and check the items you want to execute. Refer to "COBOTTA User Manuals" ID:7878 for more information on mode lock.

Disconnected.

Are you sure you want to disconnect communication with the robot?
After disconnection, the running program and robot motion will continue.

Mode Lock Password: 

Reset password
 Reset direct preparation

*Even if the password switches it off, it is maintained.
When you do not reset it, please learn a password.

*Even if the direct setup state switches it off, it is maintained.
A teaching pendant is necessary to remove on startup,
a direct setup state on the next time.








Cancel OK

7. Operation that can be Performed with RemoteTP

Though RemoteTP is an application that recreates teach pendant on the Tablet screen, its functions are limited for safety reasons.

RemoteTP cannot operate the hardware-wired switches, i.e., Enabling switch (Dead-man switch), Emergency stop button, and Mode selection switch.

For safety reasons, you can operate RemoteTP only in manual mode. When the target controller is set to Automatic mode or Teach Check mode, RemoteTP cannot be connected.

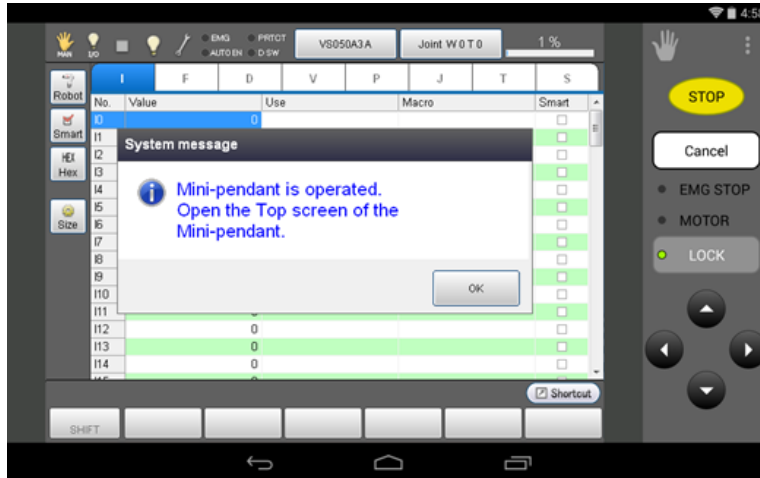
Operation Mode		Connected Pendant		
		Teach Pendant	Mini Pendant	Pendant-less mode
Automatic Mode	Executable Token Ethernet , I/O	Disconnected	 Full Operation *2 *3	 Full Operation
	Executable Token Any , TP	Disconnected	 Display Only	 Display Only
Manual Mode		 Full Operation *1	 Full Operation *1 *2	—
Teach Check Mode		Disconnected	 Display Only	—

*1 If the Dead-man switch is pressed, this will be “Display Only” state.

Also, you cannot operate a robot from RemoteTP, even in the Manual mode.

In this state, you can operate the Main window and Operation window of the RemoteTP only.

*2 If you operate both a Mini-pendant and VirtualTP, the following message may be displayed.



*3 If RC8 is less than Ver.2.1.0, this will be “Display Only” state.

Note-----

- The speed and variables can be changed when the status of RemoteTP is [Full Operation] in the Automatic mode. Pay great attention not to expose workers and other devices to hazardous conditions if you change the settings.
 - It might have an effect on cycle time to connect RemoteTP when the robot is in motion.
-

7.1. Function that RemoteTP can Use

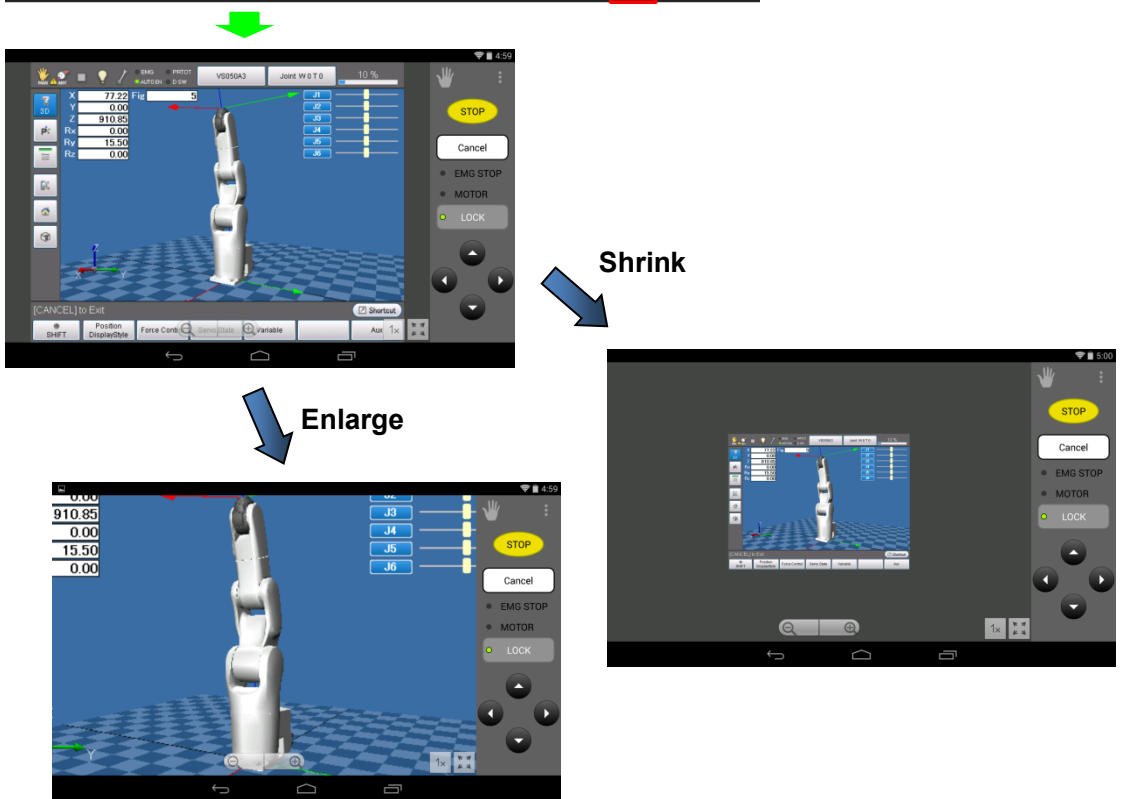
7.1.1. Snapshot function

Saves displayed screen images as PNG files.



7.1.2. Zoom function

Enlarge and shrink the main window by changing the window size.



Revision History

Date	Version	Description
03/12/2015	1.0.0	First edition
05/14/2015	1.1.0	Support English
11/11/2016	1.1.1	Change connection condition about Mini Pendant
12/18/2018	1.2.5	Add function about COBOTTA
02/11/2019	1.3.0	Support COBOTTA's Wi-Fi connection
05/22/2019	1.3.1	Support COBOTTA Ver.2.8.0

The purpose of this manual is to provide accurate information in the handling and operating of the robot. Please feel free to send your comments regarding any errors or omissions you may have found, or any suggestions you may have for generally improving the manual.

In no event will DENSO WAVE INCORPORATED be liable for any direct or indirect damages resulting from the application of the information in this manual.