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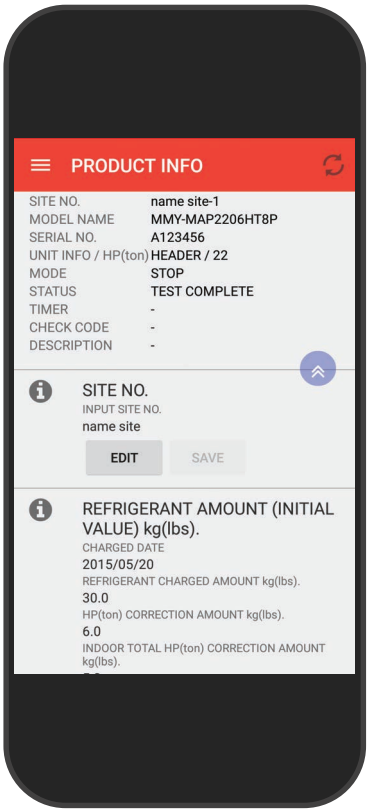
Operating Manual
SMMS WAVE TOOL FOR SMARTPHONE

SMMS WAVE TOOL



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1 TERMS OF USE

About Application

- This “SMMS wave tool” is an application software for the Android OS smartphone to assist installation and maintenance of the compatible air conditioning equipment.
- This application enables checks of some of the system and data and test operations of the compatible air conditioning equipment.
- For use of this application, the NFC (Near Field Communication) function of smartphone is necessary.
- Please check the information about the compatible air conditioning equipment in the Applicable Model and smartphone in the Compatible Terminal in the next page. In this regard, however, Toshiba Carrier Corporation does not warrant that this application works properly in all terminals even if the terminal is designated as the compatible smartphone.

Notice

- You should decide whether to make use of the test operation function of this application at its own responsibility and obtain prior approval of the owner or administrator of the building as necessary. If you want to disable the function of the test operation, perform the operations as described in this Service Manual.
- When you perform the test operation, be sure to confirm the situation of the building and the people inside beforehand and pay serious attention to the situation so that any accident or injury would never happen.
- When you know that there are people inside the building, be sure to let them know that you will operate the air conditioning equipment with this application in advance.
- When you perform the communication between this application and the air conditioning equipment, be sure to confirm that the smartphone has sufficient battery power.
- When you only move the smartphone closer to the NFC Tag Device of the outdoor unit, the communication between this application and the air conditioning equipment may not work well. In such case, check the location of IC reading of the outdoor unit and move the smartphone closer parallel to the NFC Tag Device. (NFC Tag Device: Referring to P7)
- When you perform the communication between this application and the air conditioning equipment, check that the power is supplied to the air conditioning equipment.
  ✻Some functions of this application are able to operate even when the power is not supplied to the air conditioning equipment.
- Depending on the system combination of the air conditioning equipment and other usage environment, some time lag of information and data display in this application may take place.
- When you use this application, activating the function to prevent the malfunction such as the Auto-Lock function of the smartphone is recommended to prevent the incorrect operation if your smartphone has such function.
- If the application version is not the latest version, the display may not be done properly.
- The display of the application may differ depending on your smartphone.
- You may not be able to use this application if you update the version of OS of your smartphone.
- The pictures on this manual are reference images.

Disclaimer

- This application is provided “as is” without any warranty of any kind, either express or implied, including, but not limited to, the implied warranty of merchantability and the fitness for a particular purpose. Toshiba Carrier Corporation hereby disclaims any warranties relating to quality, performance and non-infringement of the third party rights of this application.
- In no event shall Toshiba Carrier Corporation be responsible for any conflicts between you and any third party (ies) including your customer caused by or in connection with this application.
- In no event shall Toshiba Carrier Corporation be responsible for the loss, divulgation and any other incident of the information and data within this application.
- In no event shall Toshiba Carrier Corporation be responsible for the conflicts or the damage caused by or in connection with the use of third party services such as the e-mail service by you.

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- Windows® is either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iOS is either registered trademarks or trademarks of Apple Computer, Inc. in the United States and/or other countries.
- QR code is the trademark and the registered product of DENSO WAVE Inc.
- The name and logo’s displayed within this manual maybe used as a trademark or be a registered trademark by other companies.

2 BEFORE THE USE

2-1. APPLICABLE MODEL

For the applicable model (Air conditioning equipment equipped with NFC Tag Device), check it from the SMMS wave tool website below. (NFC Tag Device: Referring to P7)

2-2. COMPATIBLE TERMINAL

For compatible terminal information, check it from the SMMS wave tool website below.

✻This application is for Android OS only and you cannot use this application with the iOS, Windows OS or other OS.

✻You cannot use this application with the terminal that is not equipped with the NFC function.

2-3. PRIOR SETTINGS

Firstly, for the NFC operation, follow the manual for your smartphone.
Set up the below with your smartphone, before start up the application.

1 In [Setting] ► [More] ► [NFC], check if the setting is ON.

2 In [Setting] ► [About phone] ► [Android version], check if the version of the Android OS is 5.0 or later version.

3 In [Setting] ► [Security] ► [Unknown sources], check if the setting is ON.

✻In NEXUS5, the setting screen is automatically displayed when the NFC is off.

✻If installation is completed, please return security setting to the beginning.

2-4. HOW TO OBTAIN THE APPLICATION

The application can be downloaded from the SMMS wave tool website below.

2-5. HOW TO UPDATE THE APPLICATION

(1) The update version of the application (if any) will be uploaded in the same website below.

(2) When you update this application, please uninstall the old version of the application.

✻The wrong information may be displayed if the application is not for the new model.

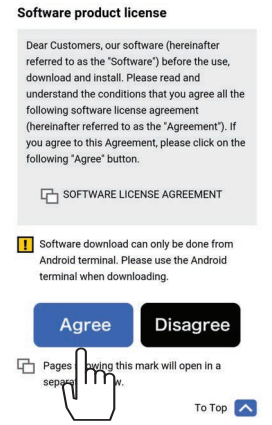
SMMS wave tool website

You can also access to website page by this QR code

- Application download can only be done with Android terminal.

URL : http://www.toshiba-carrier.co.jp/global/appli/smms_wave_tool/

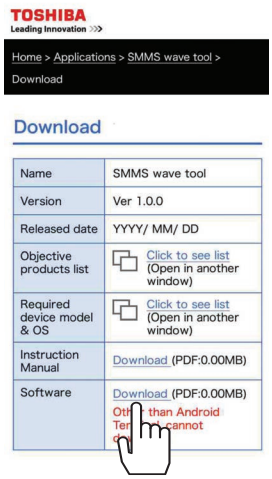
2-6. HOW TO INSTALL THE APPLICATION



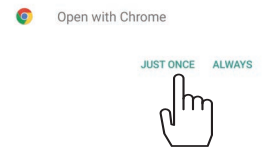
1 Move to "SMMS wave tool" applications top screen from the website on the previous page.
Check Applicable model and Required device model & OS (Compatible terminal).

2 Read software license agreement.

3 Move to Download page, after acquiring the latest version of the application, and agree to the license agreement.



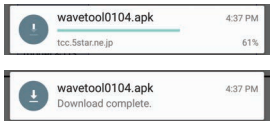
4 Download the smartphone application and Operation Manual.



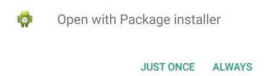
5 "Open with Chrome." pop-up is displayed.
Tap either "JUST ONCE" or "ALWAYS"

6 Tap the "OK" button.

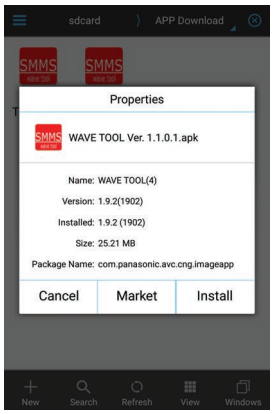
7 Download starting.



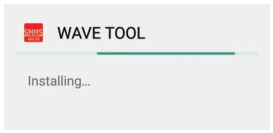
8 Check download status.
✻Please refer to the owner's manual for the smartphone if you would like to check download status.

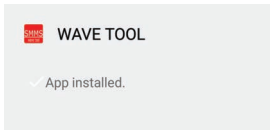


9 Open with the package installer. Tap either "JUST ONCE" or "ALWAYS".



10 Execute the install after the download is completed.



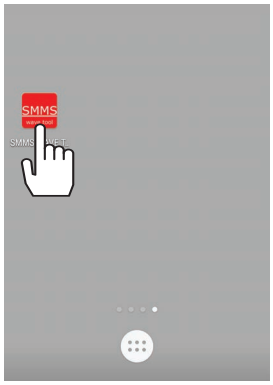


11 The display will show the completion screen upon the successful installation of the application.

NOTE

There is possibility of communication charges from your service provider you download the application, even when the application cost itself is free. Please confirm with your local provider if in any doubt.

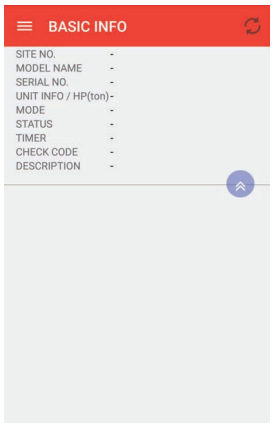
2-7. HOW TO START THE APPLICATION



1 After the install is completed, "SMMS wave tool" icon is displayed on the Menu screen.

2 Tap the "SMMS wave tool" icon and start up the application.

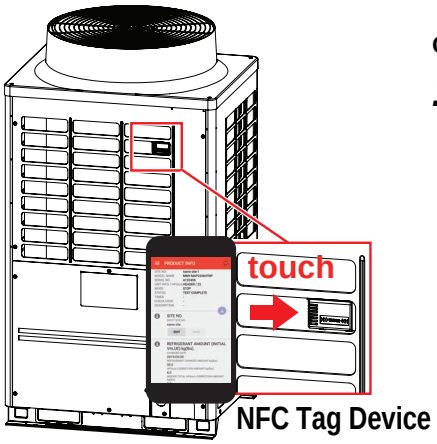
✻The icon is displayed on the Menu screen of the smartphone. Please refer to the owner's manual for the smartphone if you wish to place the icon in a different location.



3 The Top screen on the left is displayed after starting up the application. Complete the following operation methods, and proceed with the operations.

3 BASIC USE

3-1. HOW TO OPERATE



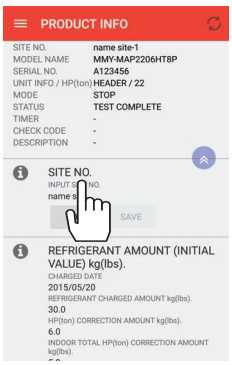
The basic operation method, and the operation name.

Operation of the smartphone

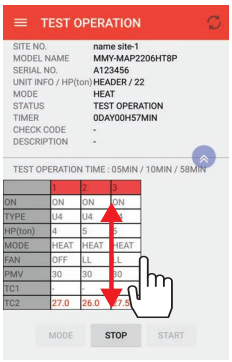
1 Touch — Touch the smartphone onto the NFC Tag Device, located on the outdoor unit. It may be necessary to move the smartphone around until you hear a “pip” sound emitted from the phone. This “pip” sound indicates connection.

✻It may take between 1 and 3 seconds for the data to be displayed, depending on the chosen function. If the NFC connection is lost during this time an error message will be displayed. If this error occurs follow the pop up screen and touch the NFC Tag Device onto the outdoor unit again.
✻Please do not fix smartphone on NFC Tag Device. When holding devices in contact continuously, there is a possibility that trouble could occur.

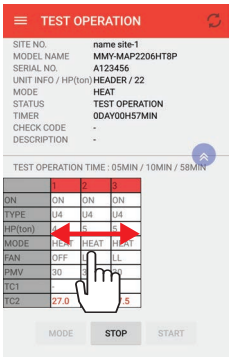
Operation of the Screen



1 Tap (Press) — Tap (Press) the screen with your finger one time.



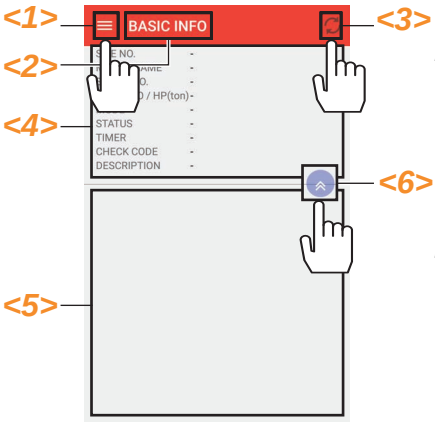
2 Vertical Swipe — Touch the screen and slide your finger up and down. Then the screen moves up and down.
✻It is written as [Swipe] in this manual.

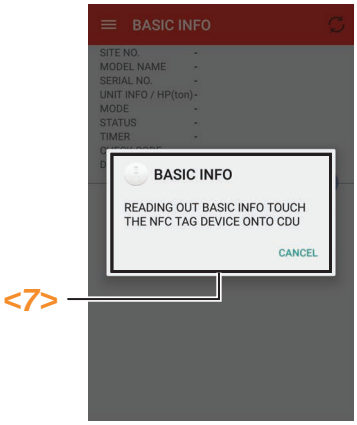


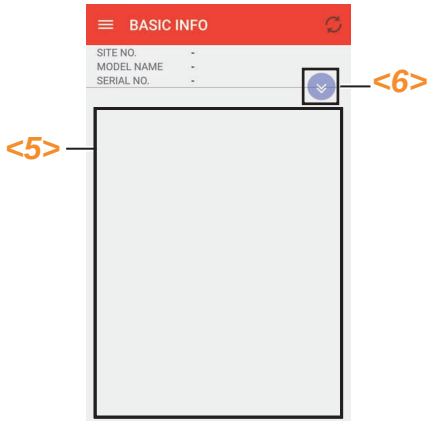
3 Horizontal Swipe — Touch the screen and slide with your finger horizontally. Then the screen moves horizontally.
✻It is written as [Swipe] in this manual.

3-2. THE NAME AND THE FUNCTIONS OF THE TOP SCREEN

[Top screen]







Display contents on the Top screen

1 Menu button
When you tap it, the menu calls for each function will be displayed.

2 <2> [BASIC INFO.] Title Menu Display
The title menu of the screen shown at the time is displayed.

3 Update button
When you tap it, "TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up will be displayed. <7> Follow the pop-up instruction and touch the smartphone on the NFC Tag Device of the outdoor unit. The contents on the display are updated.

4 Basic information area
It displays the status and the basic information of the product used in each function in common.
After changing the screen from the <1> Menu button to each function, touch the NFC Tag Device of the outdoor unit, then the information is displayed.
Also, the basic information of the outdoor unit updated with the <3> Update button on the above is displayed.

Display contents list

SITE NO.	It shows the Site No. and the System Address No. which user can record optionally.
MODEL	It shows the model name.
SERIAL NO.	It shows the serial no.
UNIT INFO MODE	It shows the Header unit or Follower unit. It shows MODE (Heat•Cool•Stop).
STATUS.	It shows the execution status of Auto-Address Setup, Test Operation, and Timer Save. *It is displayed only when the above functions are executed.
TIMER.	It shows the time to the finish when the above is executed.
CHECK CODE	It shows the latest Check code.
DESCRIPTION	It explains the above Check code.

5 Display for each function and the operation area
The screen for operating and displaying each function selected on the <1> Menu button is displayed.

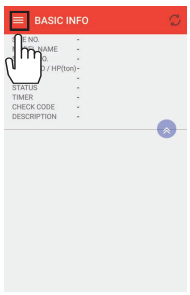
6 BASIC INFO. area pull up (down) button
Tap the <6> pull up button , <4> Basic Info. display area is pulled up, and <5> Display area for each function and the operation area is expanded.

7 Pop-up guidance.
There are some guidance pop-up guidance.
Please operate with pop-up guidance.

4 HOW TO OPERATE

4-1. HOW TO INTERPRET THE FUNCTION SCREEN AND ITS VARIOUS OPERATIONS

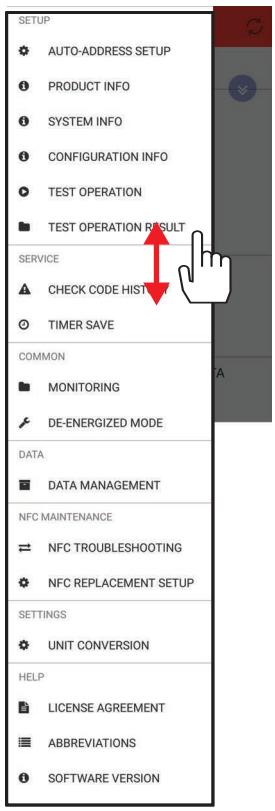
[Top screen]



How to change each function screen

1 Top screen menu display
Top screen tap the <1> Menu button

[Top screen] menu



2 Select the function from menu tab you want to operate. A drop down menu will appear, showing the various functions available. Select the one you wish to operate by tapping it. The options that are not displayed on the screen can be seen by swipe.
Select and tap the item you wish to execute after the menu is displayed.
*The example detailed in the next page is for the Auto-Address Setup function.

Menu List

SETUP	The function useful for the installation.
AUTO-ADDRESS SETUP	It can set the Auto-Address Setup after turning on the power to the indoor and the outdoor unit.
PRODUCT INFO.	It can check the Product Information of the outdoor unit. Also, manually you can record the information of the refrigerant enclosed amount.
SYSTEM INFO.	It can check the system construction of the indoor and the outdoor unit.
CONFIGURATION INFO.	It can check the switching setup information of the outdoor unit, as well as jumper setting of I/F CDU board.
TEST OPERATION	It can execute the test operation.
TEST OPERATION RESULT	It can check the result of the test operation.
SERVICE	The function useful for the service.
CHECK CODE HISTORY	It can check the check code history. Also it can check the detailed data of recent errors.
TIMER SAVE	It can record the instant refrigerant cycle after the intended time.
COMMON	The function correctly used for both the service and the installation on the above.
MONITORING	It can check the present status of the cycle.
DE-ENERGIZED MODE	It can check the Product Information recorded in the NFC and the detailed data of the last error generated when the outdoor unit is not energized.
DATA	Save data check
DATA MANAGEMENT	It can check the information called from the NFC before.
NFC MAINTENANCE	NFC setting
NFC TROUBLESHOOTING	It displays the troubleshooting when the NFC connection is malfunction.
NFC REPLACEMENT SETUP	Setting mode when the NFC PC board is replaced.
SETTING	
UNIT CONVERSION	It can change measurement unit from SI to British unit.
HELP	
LICENSE AGREEMENT	It can check the License Agreement.
ABBREVIATIONS	It shows the descriptions of the abbreviations.
SOFT VERSION	It shows the Software Version. of the application.

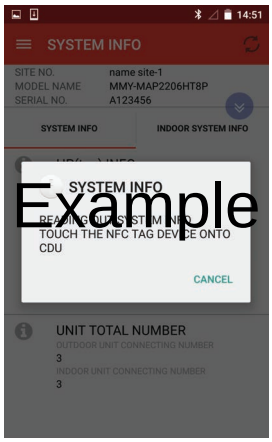
✻Each function can be executed by touching the smartphone There are some pop-up guidance. equipped with this application to the NFC Tag Device of the outdoor unit.

NOTE

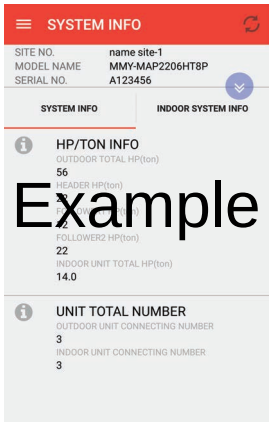
Remote control is not possible.

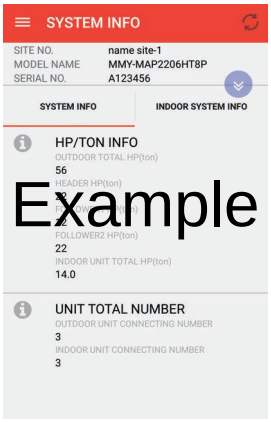
Pop up screen is displayed

for each function



[********** screen]





3 Pop up display is shown for the menu selected. If display shows "TOUCH THE NFC TAG DEVICE ONTO CDU", touch the NFC Tag Device of the outdoor unit. The screen will update and show the required information for that menu choice.

✻In addition, the display, the display guiding the operation method may pop up during each screen change, in that case, proceed with the operation with the pop-up displays.

4 The display for each function screen.
The function screen you want to execute is displayed.

5 The display for other function screens
When you want to display the other function screens, tap the <1> ☰ Menu button on the upper left of the screen and display the menu again, then select the item.

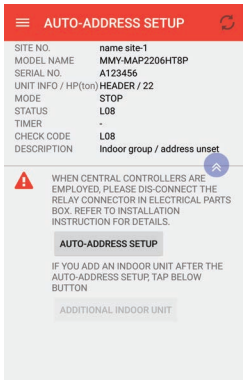
✻The rest of the operation is the same as 1 - 4.

4-2. FUNCTION USEFUL FOR THE INSTALLATION

4-2-1. HOW TO AUTO-ADDRESS SETUP

It can execute the Auto-Address Setup.

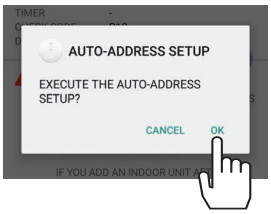
[Auto-address setup screen]



(1) After tapping “AUTO ADDRESS SETUP” in the menu, touch the NFC Tag Device of the outdoor unit, and Auto-Address Setup screen is displayed.

(2) After confirming that “L08” is displayed in STATUS, tap the “AUTO-ADDRESS SETUP” button.
If you add an indoor unit after the Auto-Address Setup, tap the “ADDITIONAL INDOOR UNIT” button.

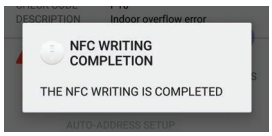
✻This function is only available when there is no central controller connected to the system. If there is a central controller connected, please remove, as per the instructions supplied with the controller or as detailed within the service booklet.
✻The Auto-Address Setup function cannot be used while the Dyna kit is connected.



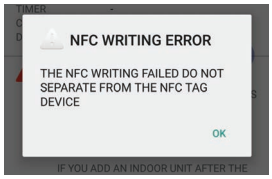
(3) “EXECUTE THE AUTO-ADDRESS SETUP?” pop-up is displayed. When you execute, tap “OK” and touch it to the NFC Tag Device of the outdoor unit.

(4) “WRITE THE AUTO-ADDRESS SETUP. TOUCH THE NFC TAG DEVICE ONTO CDU” pop-up is displayed. Touch the NFC Tag Device of the outdoor unit. Please operate with pop-up guidance.

✻“WRITING THE NFC. DO NOT SEPARATE FROM THE NFC TAG DEVICE” pop-up is displayed.

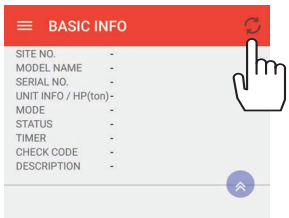


✻After the transmission is completed, “THE NFC WRITING IS COMPLETED” pop-up is displayed.



✻If the transmission of the setting signal failed, “THE NFC WRITING FAILED. DO NOT SEPARATE FROM THE NFC TAG DEVICE” pop-up is displayed. Tap “OK”, and touch the NFC Tag Device of the outdoor unit again.

✻If the connection does not work after several tries, check the communication on “NFC TROUBLESHOOTING” in the menu.



(5) Tap the Update button, and touch the NFC Tag Device of the outdoor unit, you can check the status of the Auto-Address Setup on STATUS.

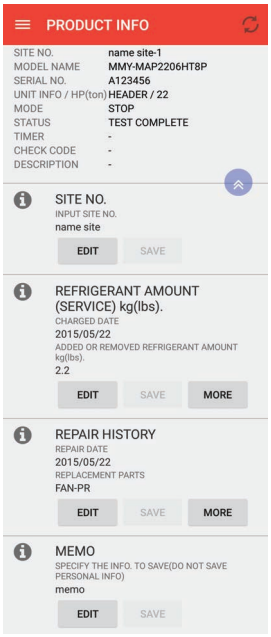
Status display contents

“AUTO1” • “AUTO9”	Setting Auto-Address Setup • •
“-------” or other display	Auto-Address Setup is completed.

4-2-2. HOW TO CHECK THE PRODUCT INFO.

Either at time of installation or during the service / maintenance. You can record the information.

[Product Info. screen]



1 Tap "PRODUCT INFO." in the menu and touch the NFC Tag Device of the outdoor unit, then the Product Info. screen is displayed. Items off the screen can be seen by swipe.

Display contents list

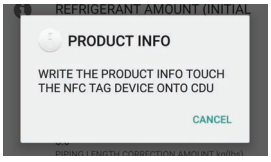
SITE No.	Manually you can input the location of system optionally. ✻If you don't input it, the line address is displayed.
REFRIGERANT AMOUNT. (INITIAL VALUE)	You can input the refrigerant enclosed amount of the first system manually.
REFRIGERANT AMOUNT. (SERVICE)	You can input the refrigerant amount added or reduced during the service manually. When reducing, write " - ".
REPAIR HISTORY	You can input the repair history manually.
MEMO	You can input all other information manually into this screen.

2-1 SITE NO.

(1) 4-2-2. 1 Tap the "EDIT" button. on the SITE NO., and "INPUT SITE NO." pop-up is displayed.

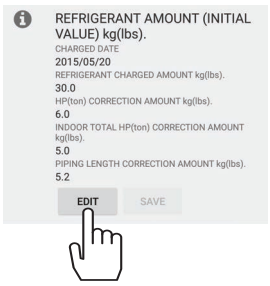
(2) Input the Site No. and tap "DONE"

(3) Screen will return back to the product info. screen. Tap the "SAVE" button.



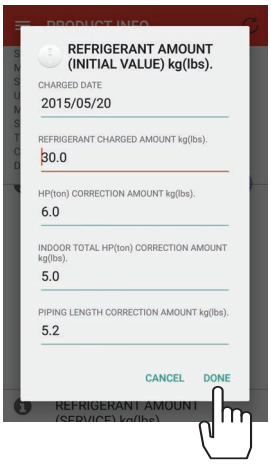
(4) "WRITE THE PRODUCT INFO. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed.
Touch the NFC Tag Device of the outdoor unit. Information is written in the NFC Tag Device.
✻Please operate with pop-up guidance.

[Product info. screen]



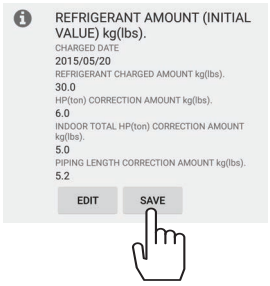
2-2 Refrigerant Amount kg(lbs) (INSTALLATION)

(1) Tap the "EDIT" button in 4-2-2. 1 REFRIGERANT AMOUNT kg(lbs) (INSTALLATION), and the pop-up screen for the input is displayed.

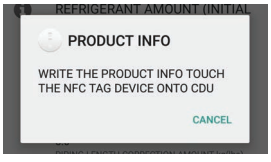


(2) Tap each item below and input the appropriate information, then tap "DONE"

- "CHARGED DATE"
- "REFRIGERANT ENCLOSED AMOUNT kg(lbs)"
- "HP(ton) CORRECTION"
- "INDOOR TOTAL HP(ton) CORRECTION AMOUNT kg(lbs)"
- "PIPING LENGTH CORRECTION AMOUNT kg(lbs)"

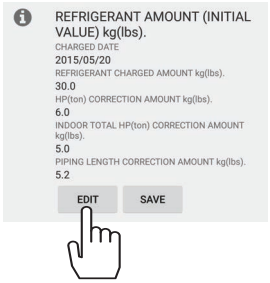


(3) Screen will return back to the 4-2-2. 1 "PRODUCT INFO." screen. Tap the "SAVE" button.



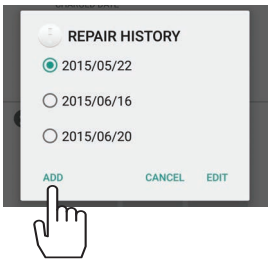
(4) "WRITE THE PRODUCT INFO. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed.
Touch the NFC Tag Device of the outdoor unit. Refrigerant amount kg(lbs) is written in the NFC.
✻Please operate with pop-up guidance.

[Product info. screen]

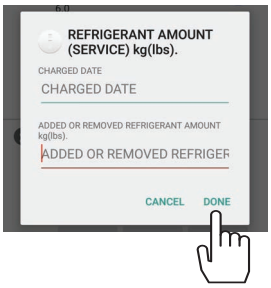


2-3 Refrigerant Amount kg(lbs) (SERVICE)

(1) Tap the "EDIT" button in 4-2-2. 1 REFRIGERANT AMOUNT kg(lbs) (SERVICE).Confirmation pop-up for adding an item is displayed.

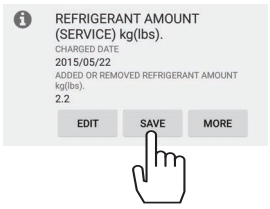


(2) Tap "ADD" for adding an item. Pop-up screen for the input is displayed.

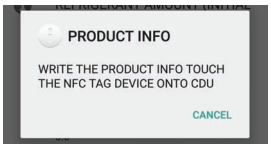


(3) Tap each item below and input the appropriate information, then tap "DONE".

- "CHARGED DATE"
- "ADD OR REMOVE REFRIGERANTAMOUNT kg(lbs)"



(4) Screen will return back to the 4-2-2. 1 "PRODUCT INFO." screen. Tap the "SAVE" button.

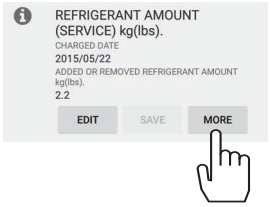


(5) "WRITE THE PRODUCT INFO. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit.
The information is written in the NFC.

✻When changing the information, tap the "EDIT" button then you can edit the contents.

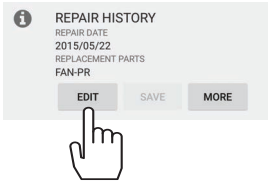
✻For adding the information, tap "ADD" as like 4-2-2. 2-3. (2) then you can add the contents. You can save the information up to 10 services.

✻Please operate with pop-up guidance.



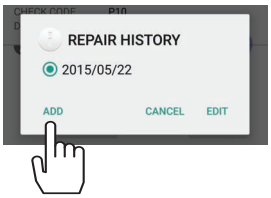
(6) Tap "MORE" on 4-2-2. 1 REFRIGERANT AMOUNT kg(lbs) (service), all the contents added on the above are displayed.

[Product info. screen]

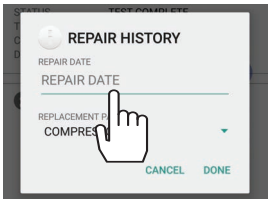


2-4 Repair history

(1) Tap "EDIT" button in 4-2-2. 1 REPAIR HISTORY confirmation pop-up for adding an item is displayed.

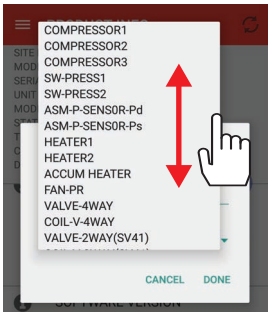


(2) Tap "ADD" for adding an item.
Pop-up screen for the input is displayed.



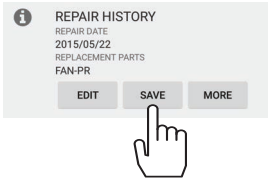
(3) Tap each item below and input the appropriate information.

- "REPAIR DATE"

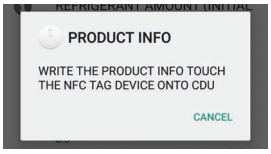


(4) Tap each item below and select the appropriate information.

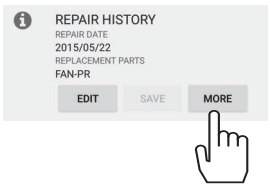
- "REPAIR PARTS"



(5) Screen will return back to the 4-2-2. 1 "PRODUCT INFO." screen.
Tap the "SAVE" button.



(6) "WRITE THE PRODUCT INFO. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed.
Touch the NFC Tag Device of the outdoor unit. The information is written in the NFC Tag Device.
✻Please operate with pop-up guidance.

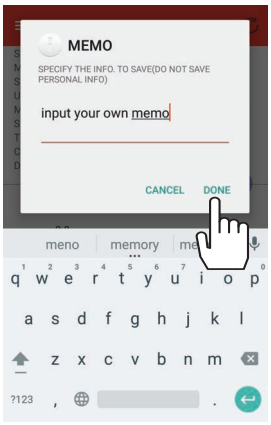


(7) Tap the "MORE" button in 4-2-2. 1 REPAIR HISTORY. All the contents added on the above are displayed.

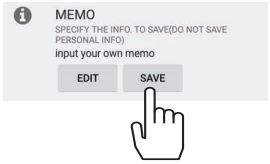
[Product info. screen]

2-5 Memo

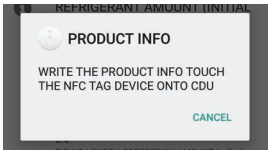
(1) Tap the "EDIT" button in 4-2-2. 1 MEMO pop-up screen for the input is displayed.



(2) Input any information user would like to note down. Then tap "DONE".



(3) Screen will return back to the product info. screen 4-2-2. 1 Tap the "SAVE" button.

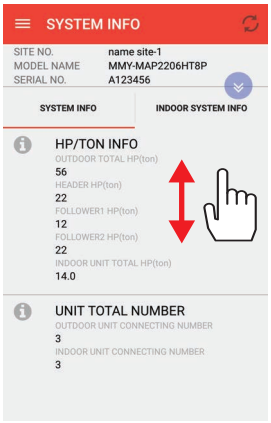


(4) "WRITE THE PRODUCT INFO. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit. The information is written in the NFC Tag Device.
✻Please operate with pop-up guidance.

4-2-3. HOW TO CHECK THE SYSTEM INFO.

It can confirm the system configuration of the outdoor and indoor unit.

[System info. screen]



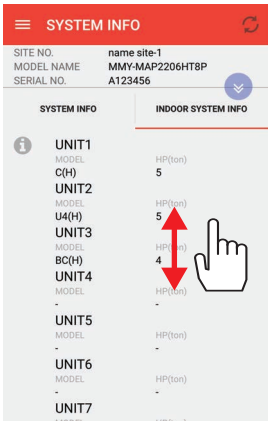
Indoor unit and outdoor unit System info.

Tap "SYSTEM INFO." in the menu and touch the NFC Tag Device of the outdoor unit, then the System info. screen is displayed.

1 Tap the "SYSTEM INFO." Tab, system info. screen is displayed. Items off the screen can be seen by swipe.

Display contents list (System info. of the indoor unit.)

HP/TON INFO.	Performance (HP/TON) INFO.
OUTDOOR TOTAL (HP/TON)	Outdoor unit total capacity (HP/ton)
HEADER (HP/TON)	Header outdoor unit capacity (HP/ton)
FOLLOWER1 (HP/TON)	Follower outdoor unit1 capacity (HP/ton)
FOLLOWER2 (HP/TON)	Follower outdoor unit2 capacity (HP/ton)
INDOOR UNIT TOTAL (HP/TON)	Total capacity (HP/ton) of the indoor unit
UNIT TOTAL NUMBER	Info. of the number of connected unit
OUTDOOR UNIT CONNECTING NUMBER	The number of connected outdoor unit
INDOOR UNIT CONNECTING NUMBER	The number of connected indoor unit



Indoor unit info. detail

2 Tap the "INDOOR SYSTEM INFO." tab and the indoor info. display screen is displayed. Items off the screen can be seen by swipe.

Display contents list (Indoor detailed information)

It displays the model and HP (ton) of the indoor unit No. 1-64.

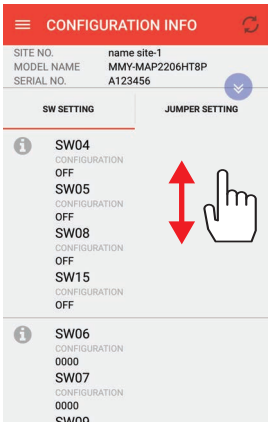
4-2-4. HOW TO CHECK THE CONFIGURATION INFO.

It can check the configuration setting of the outdoor unit.

[Configuration info. screen]

Tap "CONFIGURATION INFO." in the menu and touch the NFC Tag Device of the outdoor unit, then the configuration info. screen is displayed.

1 Tap the "SWITCH SETTING" Tab, and the switch SETTING screen is displayed. Items off the screen can be seen by swipe.

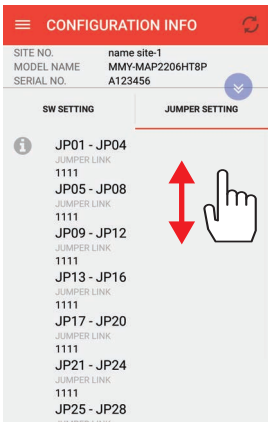


Switch setup

Display contents list (Switch setup)

SW04	SW04	OFF or ON
SW05	SW05	OFF or ON
SW08	SW08	OFF or ON
SW15	SW15	OFF or ON
SW06	SW06 of bit1～4	0：OFF, 1：ON
SW07	SW07 of bit1～4	0：OFF, 1：ON
•	•	
•	•	
•	•	
SW16	SW16 of bit1～4	0：OFF, 1：ON
SW17	SW17 of bit1～4	0：OFF, 1：ON

2 Tap the "JUMPER SETTING" Tab, and the jumper setup display screen is displayed. Items off the screen can be seen by swipe.



Jumper setup

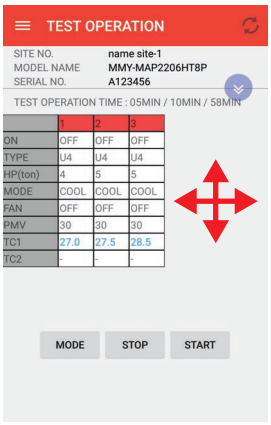
Display contents list (Jumper setup)

JP01 - 04	JP01 - 04	0：OFF, 1：ON
JP05 - 08	JP05 - 08	0：OFF, 1：ON
JP09 - 12	JP09 - 12	0：OFF, 2：ON
JP13 - 16	JP13 - 16	0：OFF, 3：ON
JP17 - 20	JP17 - 20	0：OFF, 4：ON
JP21 - 24	JP21 - 24	0：OFF, 5：ON
JP25 - 28	JP25 - 28	0：OFF, 6：ON
JP29	JP29	0：OFF, 7：ON

4-2-5. HOW TO EXECUTE THE TEST OPERATION

You can execute the test operation from the NFC.

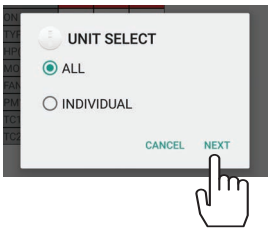
[Test operation screen]



1 Tap “TEST OPERATION” in the menu and touch the NFC Tag Device of the outdoor unit, and the test operation screen is displayed.

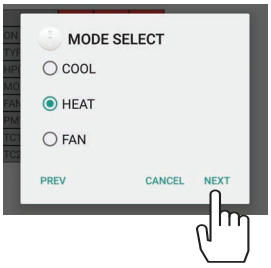
✻The test operation function cannot be used while the Dyna kit is connected.

(1) Tap the “MODE” button in test operation then the pop-up screen for the confirmation of the test operation requirements is displayed.

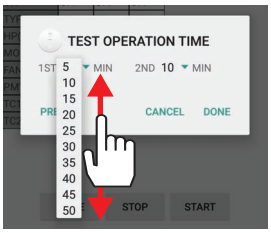


(2) Select “ALL” when executing the test operations for all. Tap “NEXT” and the next selection pop-up screen is displayed.

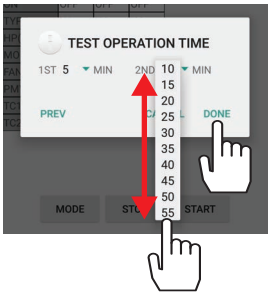
✻When individual operation is executed, you can select the one indoor unit you want.



(3) Select the mode from “COOL” “HEAT” “FAN”.



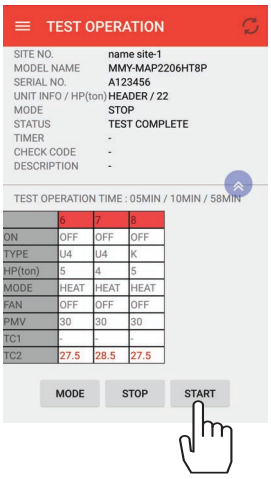
(4) It can save a maximum of 3 data points from the 58 minute test operation. The times (X axis) can be selected via the drop down menu.



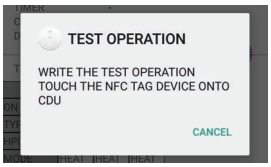
(5) Select the value for the Y axis, as in section (4) above. After the selection is completed, tap “DONE”.

✻Tap “PREV” when you want to revise the requirements.

[Test operation screen]

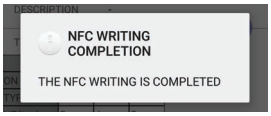


(6) Tap the "START" button in test operation screen.



(7) "WRITE THE TEST OPERATION. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit.

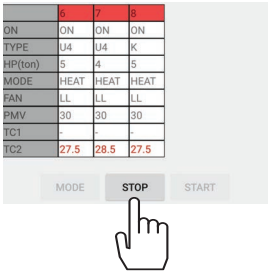
(8) "WRITING THE NFC. DO NOT SEPARATE FROM THE NFC TAG DEVICE" pop-up is displayed.

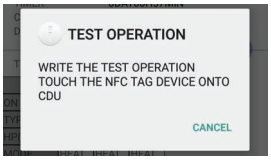


(9) After the transmission is completed, "THE NFC WRITING IS COMPLETED" pop-up is displayed. The test operation is started.

2 Tap the "STOP" button you can stop test operation.

(1) Tap the "STOP" button in test operation screen when you want to stop the test operation.





(2) "WRITE THE TEST OPERATION. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit. The test operation is stopped

- The data at the point of the stop is saved.
- During the test operation, timer save cannot be operated.

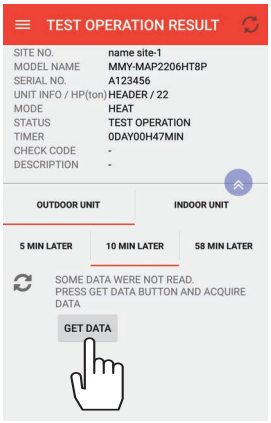
(3) "WRITING THE NFC. DO NOT SEPARATE FROM THE NFC TAG DEVICE" pop-up is displayed.

(4) After the transmission is completed, "THE NFC WRITING IS COMPLETED" pop-up is displayed. The test operation is stopped.

4-2-6. HOW TO CHECK THE RESULT OF THE TEST OPERATION

It can check the result of the test operation the refrigerant cycle data of X min, Y min, 58 min.

[The result of the test operation screen]

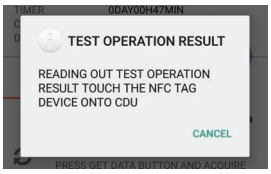


The data is unread.

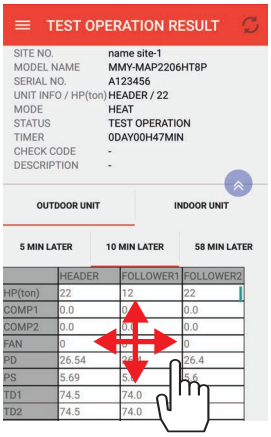
1 Tap [TEST OPERATION RESULT] in the menu and touch the NFC Tag Device of the outdoor unit, then the result of the test operation screen is displayed.

(1) Tap the tag of the X min, Y min, 58 min, and select the data you want to read.
✻If there is no data saved, "SOME DATA WERE NOT READ. PRESS GET DATA BUTTON TO ACQUIRE" is displayed.

(2) Tap the "GET DATA" button, and touch the NFC Tag Device of the outdoor unit, then the result of the test operation is displayed.

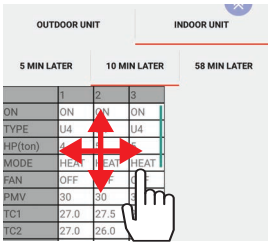


(3) Follow the guidance of "READING OUT TEST OPERATION RESULTS. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up, touch the NFC TAG DEVICE of the outdoor unit.
✻Please operate with pop-up guidance.



The result of the outdoor unit display

(4) Tap the "OUTDOOR UNIT" Tab and, the result of the test operation for the outdoor unit is displayed.



The result of the indoor unit display

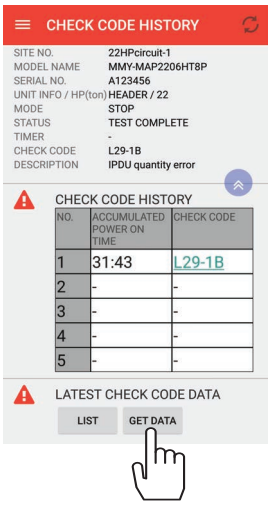
(5) Tap the "INDOOR UNIT" Tab, and the test operation for the indoor unit is displayed.

4-3. FUNCTION USEFUL FOR THE SERVICE MAINTENANCE

4-3-1. HOW TO CHECK THE ERROR DATA AND CHECK CODE HISTORY

It can check the check code history and check the last instant refrigerant cycle data generated.

[Check code history screen]

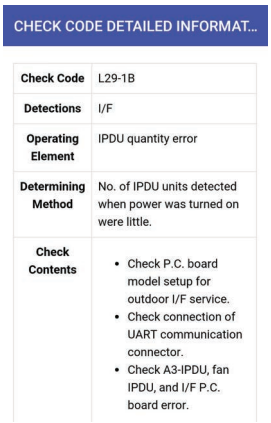


1 Tap [CHECK CODE HISTORY] in the menu and touch the NFC Tag Device of the outdoor unit, then the check code history screen is displayed.

(1) It shows the past 5 information below.
✻E19 error is not recorded due to it may overwrite the error saved data.
E19: Error in number of outdoor header units
It is generated when the power to the outdoor unit is turned on, whilst the power to the indoor units is off.
✻In application it will display sub-code "-00" with "-E0"

Display contents list

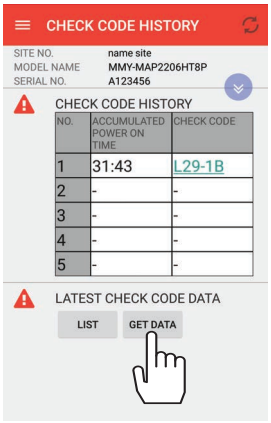
ACCUMELATED POWER ON TIME	There is no clock function in the outdoor unit. Therefore the error display is based on an estimated time period based on the overall energized time.
CHECK CODE	Check code generated in the past.



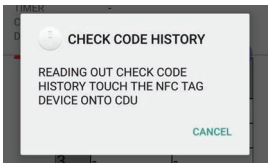
Check code detailed information pop-up display

(2) Tap the check code displayed, and the check code detailed information is shown.
✻There is possibility of check code detailed information which cannot display.

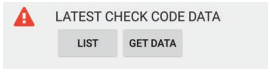
[Check code history screen]

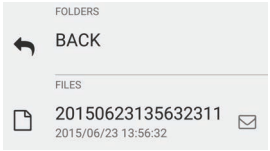


2 Tap [CHECK CODE HISTORY] in the menu, and touch the NFC Tag Device of the outdoor unit , then the error data screen is displayed.

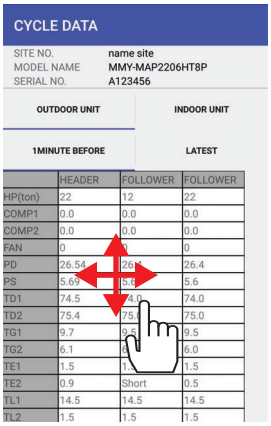


(1) Tap the "GET DATA" button, and "READING OUT THE CHECK CODE HISTORY. TOUCH THE NFC TAG DEVICE ONTO CDU." pop-up is displayed.
Touch the NFC Tag Device of the outdoor unit.
✻Please operate with pop-up guidance.

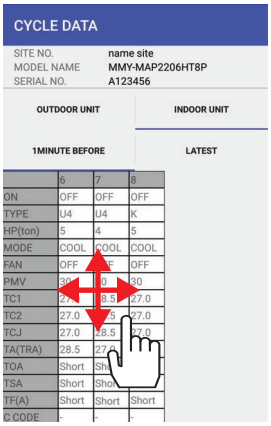




(2) After the data reading is completed, tap the "LIST" button, The screen changes to the File Manager screen, and the data is displayed.
The error data can then be viewed by taping the displayed data. The error data is then displayed.



(3) Tap the "OUTDOOR UNIT" Tab, and the error data of the outdoor unit is displayed.
✻2 point of data are saved.
1) 1 MINUTE BEFORE: The data about 1 minute before the check code is generated.
2) LATEST: The data right after the check code is generated.
✻Sometimes saved error data does not include the check code.
Please check from monitoring function. (C - code: Check code)

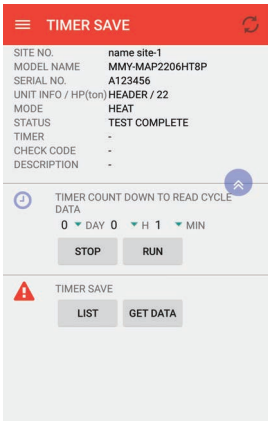


(4) Tap the "INDOOR UNIT" Tab, and the error data of the indoor unit is displayed.

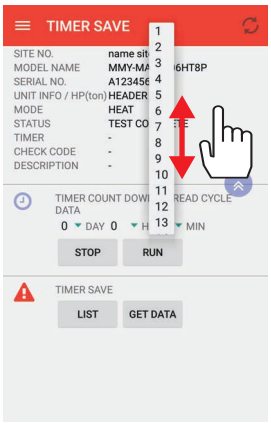
4-3-2. HOW TO REFRIGERANT CYCLE DATA TIMER SAVE

It can save the instant refrigerant cycle data after the specified time.

[Timer save screen]

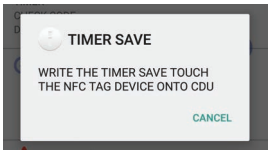


1 Tap [TIMER SAVE] in the menu and touch the NFC Tag Device of the outdoor unit, and the save screen is displayed.



(1) Set the specified time to save the data. Tap the date and the time, and set the time, then tap the "RUN" button.

✻Save data is instant data. (about 2 Kbyte)



(2) "WRITING THE TIMER SAVE, TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit.

(3) "WRITING THE NFC. DO NOT SEPARATE FROM THE NFC." pop-up is displayed.

(4) After the transmission is completed, "THE NFC WRITING IS COMPLETED" pop-up is displayed.

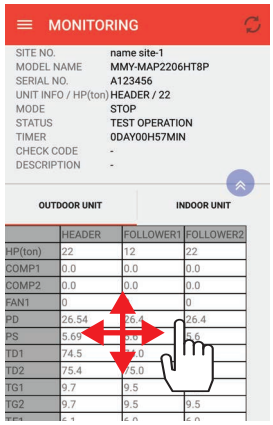
✻System cannot operate timer save and test operation at HEADER unit at the same time. If users execute timer save before the test operation ends, "THE EXECUTION IS PROHIBITED" pop-up will be displayed.
✻If the transmission of the set up signal failed, "NFC WRITING FAILED" pop-up will be displayed. Tap "OK", and touch the NFC Tag Device of the outdoor unit again.
✻If the connection does not work after several tries, check the connection on "NFC TROUBLESHOOTING" in the menu.

4-4. FUNCTIONS USEFUL FOR COMMON FUNCTION

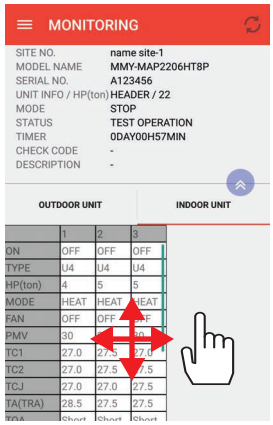
4-4-1. HOW TO REFRIGERANT CYCLE DATA MONITORING

It can check the refrigerant cycle data at the present.

[Refrigerant cycle data monitoring screen]



Outdoor unit



Indoor unit

1 Tap [MONITORING] in the menu and touch the NFC Tag Device of the outdoor unit and the refrigerant cycle data is displayed.

(1) Tap the Update button, "READ OUT THE MONITORING. TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Follow the pop-up instruction and touch the NFC TAG DEVICE of the outdoor unit. The contents displayed are updated.

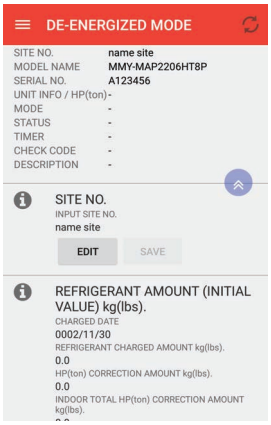
(2) Tap the "OUTDOOR UNIT" Tag and the result of the refrigerant cycle data is displayed.

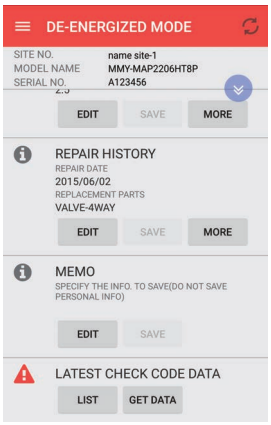
(3) Tap the "INDOOR UNIT" Tag and the result of the refrigerant cycle data of the indoor unit is displayed.

4-4-2. HOW TO DE-ENERGIZED MODE

It can check the error data of the Product info. when the power is not supplied to the outdoor unit.

[De-energized mode. screen]





1 When the power is not supplied to the outdoor unit.

De-energized mode screen
Tap [DE-ENERGIZED MODE] on the menu and touch the NFC Tag Device of the outdoor unit, and the Product Info. screen and part of Check Code history Screen are displayed from memory. Items off the screen can be seen by swipe.

Display contents list.
Refer to the page 12 ”HOW TO CHECK THE PRODUCT INFO.” and page 22 ”HOW TO CHECK THE ERROR DATA AND CHECK CODE HISTORY”

SITE No.	Manually you can input the ID name optionally. ✻If you don't input it, the line address is displayed.
REFRIGERANT AMOUNT. (INITIAL VALUE)	You can input the refrigerant enclosed amount of the first system manually.
REFRIGERANT AMOUNT. (SERVICE)	You can input the refrigerant amount added or reduced during the service manually. When you reduce it, write “ - ”.
REPAIR HISTORY	You can input the repair history manually.
MEMO	You can input the any information manually.
CHECK CODE DATA	You can check the latest check code data.

4-5. FUNCTIONS USEFUL FOR DATA MANAGEMENT

4-5-1. HOW TO PROCESS THE PAST DATA MANAGEMENT

It can check and transmit the data acquired in the past.

[FILE MANAGER screen]

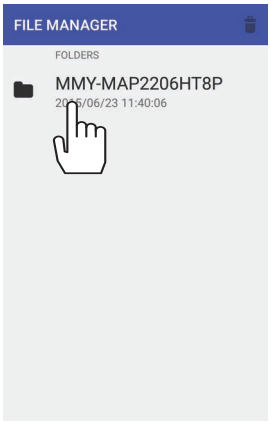
1 Tap "DATA MANAGEMENT" in the menu, and the FILE MANAGER screen is displayed.

The save data is categorized in the folder as below:

MODEL NAME⟶SERIAL No. ⟶TEST ⟶TEST OPERATION data
⟶MONITORING ⟶MONITORING data
⟶CHECK ⟶CHECK CODE data
⟶TIMER ⟶TIMER SAVE data

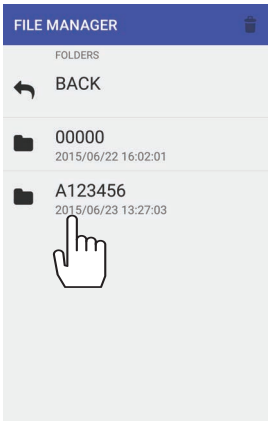
2-1 How to check cycle data

(1) Tap the model name folder and it moves to the sub-folder. (serial no. folder.)



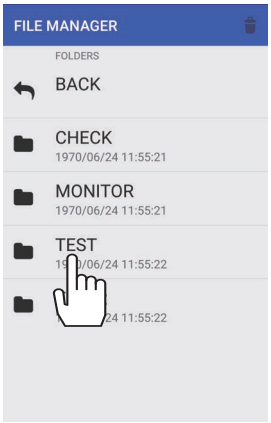
model name folder

(2) Tap the serial no. folder and it moves to the sub-folder. (save type folder.)



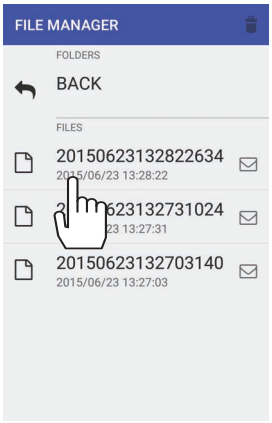
serial no. folder

(3) Tap the Save Type folder and it moves to the sub-folder. (data folder.)



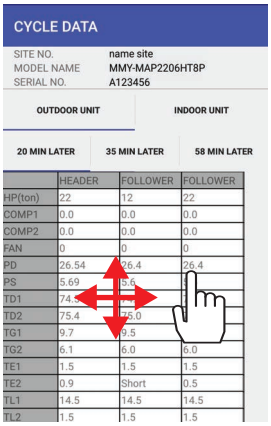
save type folder

[FILE MANAGER screen]

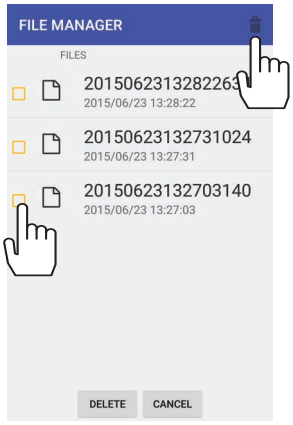


data folder

(4) Tap the data and it moves to Cycle data screen.



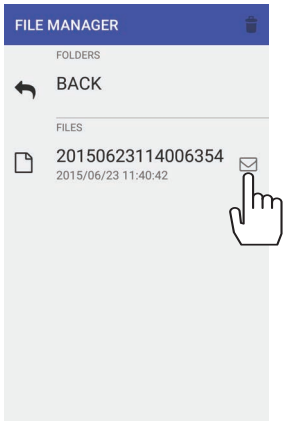
(5) The data can be checked.



2-2 How to delete cycle data

(1) Tap the (trash) button on the upper right and it moves to the delete file select screen. Select the file to delete (or folder), and tap the "DELETE" button, the data is deleted.

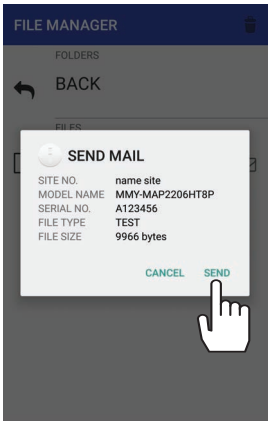
[FILE MANAGER screen]



2-3 How to send the data by email

You can send data from ✉ mail button.

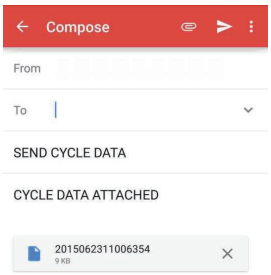
(1) Tap the ✉ (mail) button on the right side of the file and it moves to "SEND MAIL" pop-up.



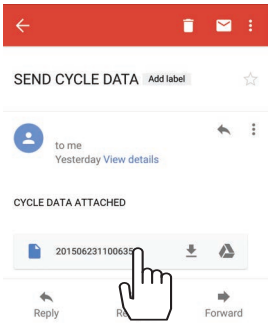
(2) Tap "SEND", then the data is attached to the mail.

NOTE

- The mail transmission function provided by this application is based on a standard data attachment file, which attaches into the smartphones standard mailing functionality.
- For the setting details of the mail, check the manual for the mail application of your smartphone.



(3) Screen is displayed in mail application. After input receivers' email address, press send and the mail will be sent to your destination(s).

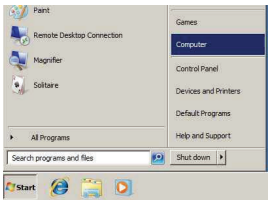


2-4 How to see the received data

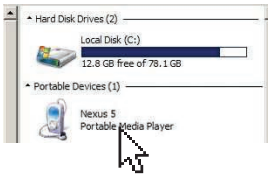
For the data received by email, the other smartphone installed "SMMS wave tool" smartphone can display the data by saving the data to the folder below.
[jp.co.toshibacarrier.smms] » [data]

How to save the data in the [jp.co.toshibacarrier.smms] » [data] folder with PC.
(Recommendation)

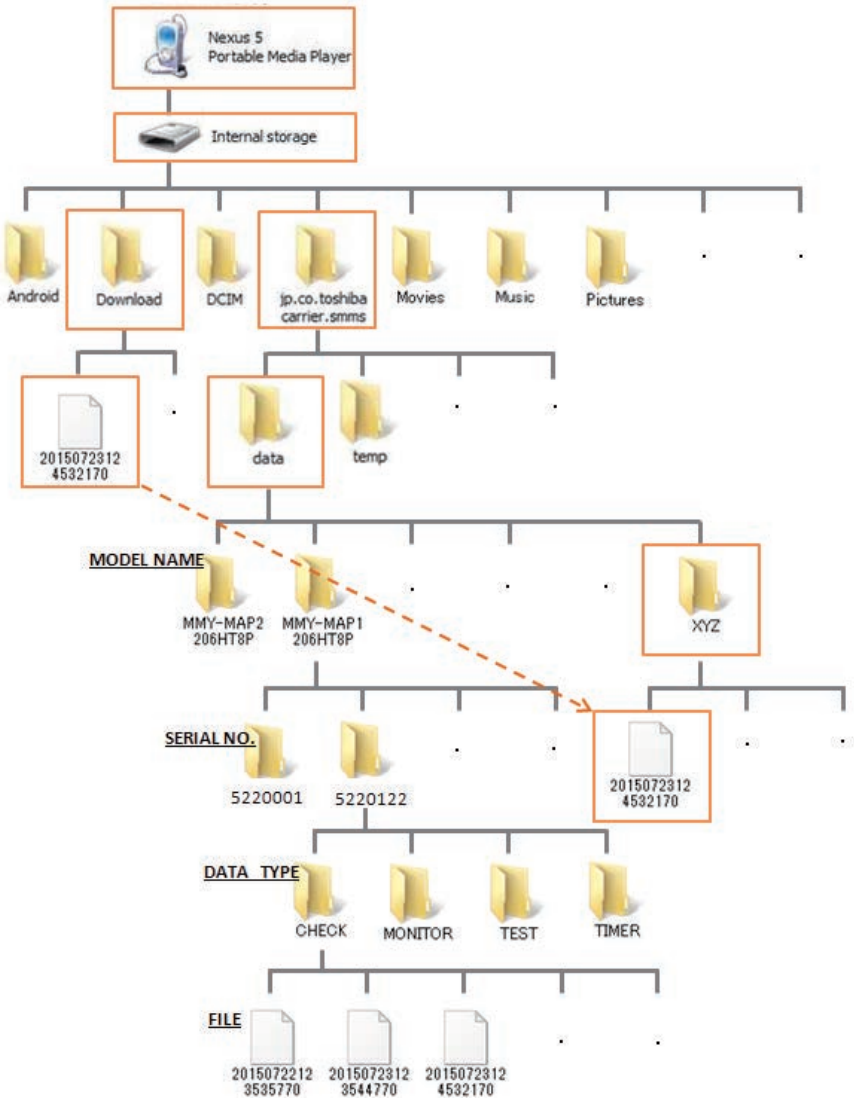
(1) Connect the PC and the smartphone using the USB cable.
(2) Wait for the completion of driver installation.
✻If the driver is not installed, install the USB Driver.
✻For USB Driver, refer to the owner's manual of each smartphone.
(3) After the completion of driver installation, download the data received by email.
✻Please see the example image on the left.



(4) Open the [My Computer] in the [Menu] of the PC.
✻The example on the left is from Nexus5 connected with WindowsPC.



(5) Open the [Nexus5 Portable Media Player].
✻Please refer to figure below for the folder's structure diagram.
✻Name of Portable Device might be different by the connected smartphone.

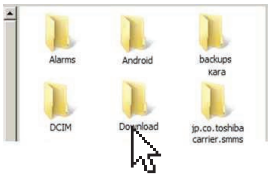


folder's structure diagram

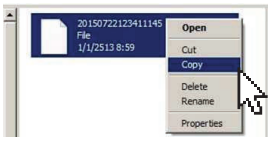
NOTE

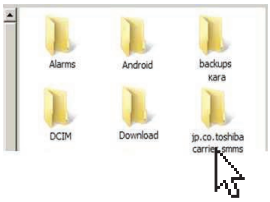
- Folder's name of following data folder is just an example.
- Folder is automatically created at the time data reading/recording by the smartphone.

(6) Open the [Internal storage] .

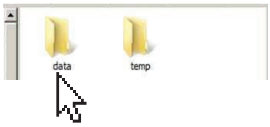


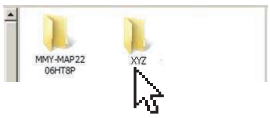
(7) Open the [download] folder on the connected smartphone and copy the downloaded file.



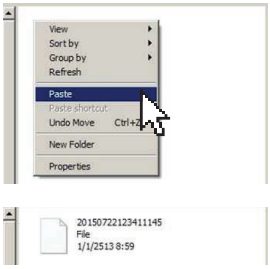


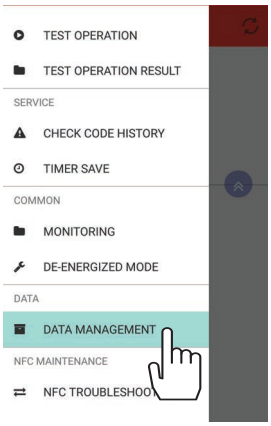
(8) Open the [Internal storage] » [jp.co.toshibacarrier.smms] » [data] folder on the connected smartphone.



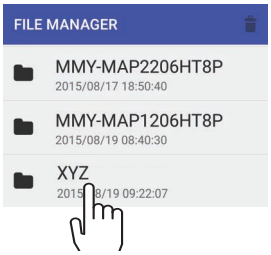


(9) Create the new folder [XYZ] in the [data] folder, and paste the data in this folder copied on (7).
✻Folder name can be created freely.
✻New folder MUST be created inside [data] folder.

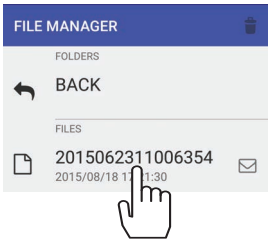




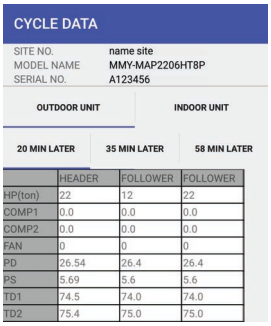
(10)Start up the "SMMS wave tool", and open the saved data from the "DATA MANAGEMENT" of the menu.



(11)Open the [XYZ] folder.



(12)Open the file.
The data can be checked.



How to save the data in the [jp.co.toshibacarrier.smms] » [data] folder with smartphone.

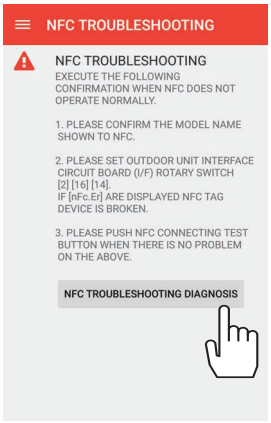
- ✻When moving the file on the smartphone, the file management software is needed.
- ✻For the file management software, install the one equipped standard with the smartphone or the software acquired separately.
- ✻For Nexus5, it is not initially equipped with the file management software, you need to get the software separately and install.
- ✻For how to install and operate the file management software, follow the owner's manual of the software to install.
- ✻For the installation of the file management software, it is your own risk and we held no responsibility at any cases.

4-6. FUNCTIONS USEFUL FOR NFC MAINTENANCE

4-6-1. HOW TO NFC TROUBLESHOOTING

It investigates the cause of the communication error of the NFC parts.

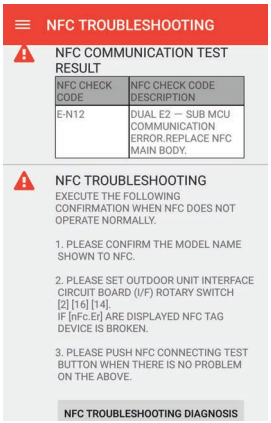
[NFC troubleshooting screen]



1 Tap [NFC TROUBLESHOOTING] in the menu, and the NFC troubleshooting mode screen is displayed.

(1) Check the contents specified on the screen, and if there is no applicable items, tap the "NFC TROUBLESHOOTING DIAGNOSIS" button and execute the NFC simple operation check.

(2) "NFC COMMUNICATION TEST" pop-up is displayed. It takes 10 seconds to check. And keep touching the smartphone on the NFC Tag Device.
The NFC check code and the error contents are displayed. Follow the on screen instructions.

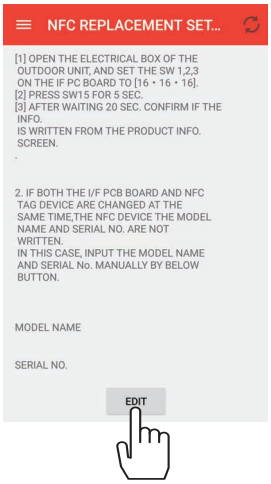


(3) Check code and the check contents are indicated.

4-6-2. HOW TO NFC REPLACEMENT SETUP

It investigates the cause of the communication error of the NFC parts.

[NFC replacement setup screen]

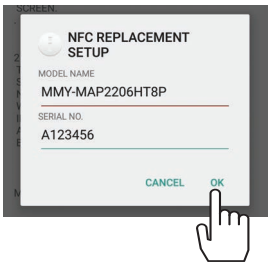


1 Tap [NFC REPLACEMENT SETUP] in the menu and touch the NFC Tag Device of the outdoor unit, and the NFC Replacement setup screen is displayed.

(1) Record each model name, serial no. and software version by copying the data onto the NFC Tag Device from the I/F board. Follow the instructions below for details.

1.Open the electrical box of the outdoor unit, and set the SW 1, 2, 3 on the I/F board to [16•16•16].
2.Press SW 15 for 5 sec.
3.After waiting 20 sec. confirm if the info. is written from the product info. screen.

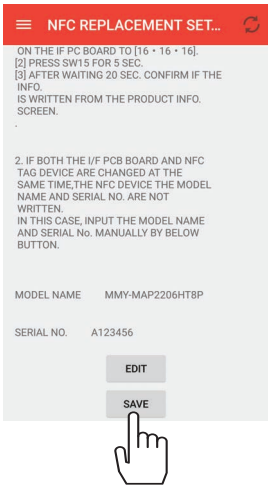
(2) If both the I/F board and NFC Tag Device are changed at the same time, the NFC Tag Device the "MODEL NAME" and "SERIAL NO." are not written. In this case, input the model name and serial no. manually by "EDIT" button.



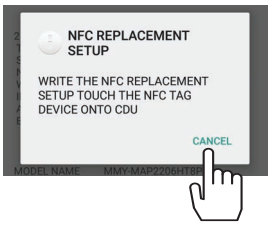
(3) "The pop-up screen for the input is displayed. Tap each item below and input the appropriate information, then tap "OK".

- "MODEL NAME"
- "SERIAL NO."

✻For the "MODEL NAME", input the information on the NAME PLATE of the OUTDOOR UNIT correctly.
The data will not display correctly if the input model name is wrong.



(4) It will automatically return to NFC replacement setup screen in (1), tap the "SAVE" button.



(5) "WRITE THE CHANGE OF THE NFC REPLACEMENT SETUP TOUCH THE NFC TAG DEVICE ONTO CDU" pop-up is displayed. Touch the NFC Tag Device of the outdoor unit.

✻Please operate with pop-up guidance.

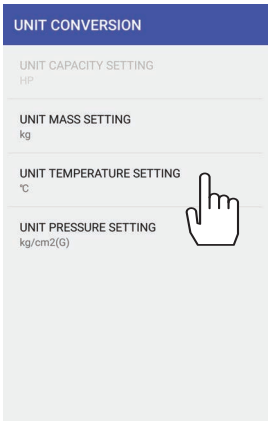
(6) The information will be written into the NFC.

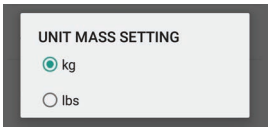
4-7. FUNCTIONS USEFUL FOR SETTING

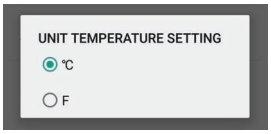
4-7-1. HOW TO UNIT CONVERSION SETUP

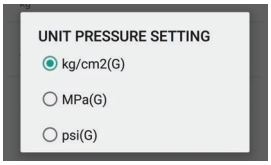
Unit conversion setup

[Unit conversion screen]









1 Tap "UNIT CONVERSION" in the menu, and the unit conversion screen is displayed.

(1) Select the item to convert and select the unit.

Unit conversion list

Per Unit Capacity Setting	• HP • ton selection
Per Unit Weight Setting	• kg • lbs selection
Per Unit Temperature Setting	• °C • F selection
Per Unit Pressure Setting	• $kg/cm^2(G)$ • MPa(G) • psi(G) selection

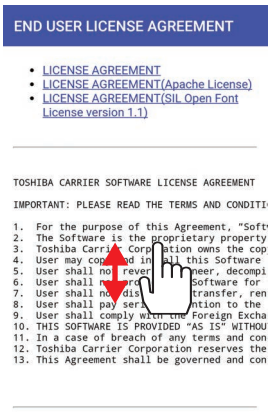
✻(G) stands for gage pressure

✻Per Unit Capacity Setting is UL (North America) model function.

4-8. HELP

4-8-1. LICENSE AGREEMENT

The License agreement is displayed.



1 Tap ["LICENSE AGREEMENT"] in the menu, and the License agreement screen is displayed.

SOFTWARE LICENSE AGREEMENT

IMPORTANT: PLEASE READ THE TERMS AND CONDITIONS OF THIS AGREEMENT (HEREINAFTER CALLED AS THE "AGREEMENT") CAREFULLY BEFORE USING "SMMS WAVE TOOL" (HEREINAFTER CALLED AS THE "SOFTWARE") AND IF YOU (HEREINAFTER CALLED AS "USER") AGREE PLEASE SELECT "AGREE". IF USER DO NOT AGREE TO THESE TERMS AND CONDITIONS, PLEASE SELECT "DISAGREE" AND DO NOT DOWNLOAD, INSTALL OR USE THE SOFTWARE.
BY DOWNLOADING, INSTALLING, OR USING THE WHOLE OR A PART OF THIS SOFTWARE, YOU ARE DEEMED TO HAVE AGREED ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT.

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(2) User shall be prepared for the compatible device at its own cost and responsibility and be responsible for any internet provider fees, telecommunications fees, connection fees, or other fees required for download, install and use the Software.

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(4) User shall not use the Software for a criminal act or an act that is, or is likely, in violation of laws and ordinances.
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(2) In no event shall Toshiba Carrier Corporation be responsible for any conflicts between User and any third party (ies) including customer of User caused by or in connection with this Software.
(3) In no event shall Toshiba Carrier Corporation be responsible for the loss, divulgation and any other incident of the information and data within this Software.

6. Limitation of Liability

TO THE MAXIMUM EXTENT NOT PROHIBITED BY APPLICABLE LAW, TOSHIBA CARRIER CORPORATION SHALL NOT BE LIABLE FOR ANY DAMAGES, LOSSES, EXPENSES OR COSTS, IF ANY, INCURRED BY USER IN CONNECTION WITH OR AS A RESULT OF THE USE OF THE SOFTWARE.

7. Discontinuation of Use

(1) In a case of breach of any terms and conditions of this Agreement by User, User shall immediately uninstall and delete the Software and any Data.
(2) Toshiba Carrier Corporation reserves the right to request User to stop using the Software at any time upon notice to User.

8. Changes of the Software and the Agreement

(1) Toshiba Carrier Corporation may make a change, modification or improvement to the Software at any time without prior notice to User.
(2) Toshiba Carrier Corporation may make a change or modification to the terms and conditions of this Agreement at any time without prior notice to User. If User uses the Software after such change or modification of the Agreement, User shall be deemed agreed to the changed or modified Agreement.
(3) Toshiba Carrier Corporation may discontinue to distributing the Software including the update and the upgrade version thereof at any time without prior notice to User.

9. Export Control Compliance

User shall comply with the any applicable export laws and regulations including, but not limited to, the Foreign Exchange and Foreign Trade Law of Japan and the U.S. Export Control Law and its Administration Regulations.

10.Governing Law

This Agreement shall be governed and construed by the laws of Japan (excluding its rule of choice of laws).

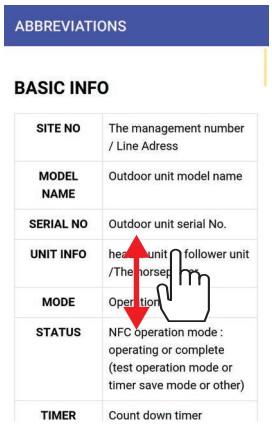
11.Severability

If any provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.

4-8-2. ABBREVIATIONS

It describes the abbreviations.

[Abbreviations screen]



1 Tap [ABBREVIATIONS] in the menu, and the abbreviations screen is displayed.

4-8-3. SOFTWARE VERSION.

It displays the version of the application.

[Software VERSION. screen]

1 Tap [SOFTWARE VERSION] in the menu, and the application version. screen is displayed.

EH99951301