

MOBILE LG MONITORING VIEW USER MANUAL



Model PLGMVW100 iOS Tablet Version

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SAFETY INSTRUCTIONS

The instructions below must be followed to prevent product malfunction, property damage, injury or death to the user or other people. Incorrect operation due to ignoring any instructions will cause harm or damage. The level of seriousness is classified by the symbols below.

TABLE OF SYMBOLS

	This symbol indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	This symbol indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	This symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
Note:	This symbol indicates situations that may result in equipment or property damage accidents only.
\bigcirc	This symbol indicates an action that should not be performed.

Input power to the outdoor unit remains connected and on during procedures in this manual. () Do not touch any exposed outdoor unit wiring, terminals, or other electrical components with tools or exposed skin. Only qualified technicians should install, use or remove this unit.

Improper installation or use may result in fire, explosion, electric shock, physical injury and/or death.

On't use or store flammable gas or combustibles near an outdoor or indoor unit. There is risk of fire, explosion, and physical injury or death.

The information in this manual is intended for use by a trained technician familiar with the U.S. National Electric Code (NEC) who is equipped with the proper tools and test instruments.

Failure to carefully read and follow all instructions in this manual may result in personal injury and/or death.

• Do not install the Mobile LGMV unit if it will be exposed to rain or other precipitation. Do not install the unit in a location exposed to open flame or extreme heat. Do not touch the unit with wet hands or if it has been submerged in any liquid.

There is risk of fire, electric shock, physical injury and/or death.

For replacement of an installed outdoor or indoor unit, always contact an LG trained service provider.

There is risk of fire, electric shock, explosion, and physical injury or death.

Do not run the compressor with the service valves closed. *There is risk of explosion, physical injury, or death.*

Replace all control box and panel covers.

If cover panels are not installed securely, dust, water and animals may enter the unit, causing fire, electric shock, and physical injury or death.

Always check for system refrigerant leaks after an outdoor or indoor unit has been installed or serviced.

Exposure to high concentration levels of refrigerant gas may lead to *illness or death.*

Wear protective gloves when handling equipment. Sharp edges may cause personal injury.

Dispose of any packing materials safely.

- Packing materials, such as nails and other metal or wooden parts may cause puncture wounds or other injuries.
- Tear apart and throw away plastic packaging bags so that children may not play with them and risk suffocation and death.

\bigcirc Do not install the unit in any location exposed to open flame or extreme heat.

There is risk of fire, electric shock, explosion, and physical injury or death.

○ Do not change the settings of the protection devices.

If the pressure switch, thermal switch, or other protection device is shorted and forced to operate improperly, or parts other than those specified by LG are used, there is risk of fire, electric shock, explosion, and physical injury or death.

If the air conditioner is installed in a small space, take measures to prevent the refrigerant concentration from exceeding safety limits in the event of a refrigerant leak.

Consult the latest edition of ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers) Standard 15. If the refrigerant leaks and safety limits are exceeded, it could result in personal injuries or death from oxygen depletion.

○ Do not change or extend the cable.

There is risk of fire, electric shock, physical injury and/or death.

SAFETY INSTRUCTIONS

Note:

The information in this manual is intended for use by a trained technician familiar with the U.S. National Electric Code (NEC) who is equipped with the proper tools and test instruments.

Failure to carefully read and follow all instructions in this manual may result in equipment malfunction or property damage.

Always remove the Mobile LGMV wifi module when troubleshooting is concluded.

- Random radio frequency signals could cause unintended system commands to be generated.
- · Unauthorized system access is possible.

Mobile LGMV is for use with select LG commercial air conditioning systems only. \bigcirc Do not attempt to use Mobile LGMV with any other type of system. Refer to the compatible equipment list in this manual.

There is risk of equipment damage or degraded performance.

○ Do not cut, lengthen or shorten the cable between the Mobile LGMV unit and the outdoor unit. Do not install the Mobile LGMV unit in a location where the cable cannot be safely and easily connected between the two units. Do not allow strain on this cable.

There is risk of equipment damage.

O Do not impart force to the product.

There is risk of equipment damage or degraded performance.

Clean up the site after all procedures are finished, and check that no metal scraps, screws, or bits of wiring have been left inside or surrounding the outdoor or indoor units.

Provide power to the outdoor unit compressor crankcase heaters at least six (6) hours before operation begins.

Starting operation with a cold compressor sump(s) may result in severe bearing damage to the compressor(s). Keep the power switch on during the operational season.



Unit may malfunction.

Securely attach the electrical cover to the indoor unit. Nonsecured covers can result in fire due to dust or water in the service panel.

() Do not allow water, dirt, or animals to enter the unit.

There is risk of unit failure or degraded performance.

O not spill water or other liquid on the inside of the outdoor unit, especially on electrical components. Do not drop the Mobile LGMV unit into water. If the unit is immersed in water or other liquid, contact your local authorized LG distributor for support.

There is risk of unit failure or degraded performance.



Mobile LGMV Terms and Conditions

In using Mobile LGMV hardware and iOS tablet application you agree to the Mobile LGMV terms and conditions.

- Mobile LGMV hardware and iOS tablet application are to be used only with LG Electronics USA, Inc. air conditioner products.
- · Mobile LGMV hardware and iOS tablet application cannot be sold/transferred/rented to any other parties.
- All data generated by Mobile LGMV hardware and iOS tablet application cannot be sold/transferred/rented to any other parties.
- Mobile LGMV terms and conditions is listed on the bottom of the Mobile LGMV iOS tablet login page. To download the iPad application, see https://itunes.apple.com/us/app/mobile-lgmv/id935085618?mt=8.





INTRODUCTION

Mobile LG Monitoring View

This manual describes how to install and use Mobile LG Monitoring View (LGMV) for iOS tablets to troubleshoot LG commercial air conditioning equipment.

Mobile LGMV consists of:

- A wifi module with connecting cable (Figure 1), Model PLGMVW100
- An app running on an iOS tablet (Figure 2)

Compatible Equipment

Mobile LGMV (iOS) is compatible with these LG outdoor units:

- Multi V IV Air Heat Pump
- Multi V IV Air Heat Recovery
- Multi V Water IV Heat Pump
- · Multi V Water IV Heat Recovery
- Multi V S
- Multi V III Air Heat Pump
- Multi V III Air Heat Recovery
- Multi V S
- Multi F/Multi F MAX

Safety

Safety of personnel is the primary concern during all procedures. Read and understand the safety summary at the front of this manual. Use the appropriate tools and accessories during troubleshooting. \bigcirc Do not work alone, if possible. Know how to obtain emergency medical and fire fighting assistance.

Installation Personnel

This product is intended for use by personnel trained in the required construction, mechanical, electrical, and/or other disciplines.

Applicable Codes

Personnel must be familiar with and follow the applicable national, state, and/or local codes.

Troubleshooting work must be performed by trained personnel and in accordance with national wiring standards and all local or other applicable codes. Improper troubleshooting and repair/replacement of equipment can result in fire, electric shock, physical injury, or death.

Note:

Improper troubleshooting and repair/replacement of equipment can result in damaged equipment or degraded operation.

Figure 1: LGMV Wifi Module



Figure 2: LGMV App on an iOS Tablet





INTRODUCTION

System Configuration

Using LGMV

Mobile LGMV consists of a hardware wifi module, an interface cable, and a free application (app) for iOS tablets. The user must supply the iOS tablet. Before using Mobile LGMV, you must download and install the latest version of the free app from Apple's iTunes[®] website listed in this manual.

*iTunes[®] is a trademark of Apple Inc.

The wifi module and the iOS tablet app together provide monitoring and troubleshooting capability for LG air conditioning systems. Mobile LGMV functions only with LG products.

Mobile LGMV can display and graph operational data for the air conditioner system including the indoor units and the outdoor unit. Mobile LGMV also displays error codes and a troubleshooting guide (if previously downloaded). Indoor unit operating mode can be set through Mobile LGMV.

To use Mobile LGMV, you must be a trained HVAC service technician familiar with variable refrigerant flow (VRF) systems in general and with LG's products. You should understand the inverter air conditioning operation cycle, the meaning of the data displayed by Mobile LGMV, and how to use the data to troubleshoot the system.

Figure 3 shows the LGMV app and wifi module in a typical troubleshooting application. The Mobile LGMV wifi module connects to an LG outdoor unit via the supplied cable. Table 1 lists Mobile LGMV iPad tablet requirements.

Note:

- Some functions may not operate or the screen display may be degraded depending on the iOS tablet used.
- · Mobile LGMV will not function normally if the operating environment does not meet the minimum specifications.

	Smartphone/Tablet Specifications		Effective Communication Distance
Minimum Specification	Recommended Specification	Exceptions	• Effective distance: 32.8 ft
 iOS 8.0 CPU: 1 GHz RAM 1 GB 	 iOS 8.0 or higher CPU: 1 GHz dual core, or higher RAM 1 GB or higher 2048 x 1536 resolution (optimized) 	 iPhone[®] not supported 	 (open area) Effective distance may be reduced by the com- munication environment

Table 1: Mobile LGMV iOS Tablet Specifications.

*iPhone[®] is a trademark of Apple Inc.



INTRODUCTION System Configuration



Figure 3: Typical Mobile LGMV Troubleshooting Configuration.

Mobile LGMV Operating Considerations

- Mobile LGMV processes data in real time. If other functions of the iOS tablet are used at the same time as Mobile LGMV (browser, game, etc.), iOS tablet resources may be insufficient for Mobile LGMV to process data (data transmission/saving/monitoring) or the Mobile LGMV connection may be disconnected. Please use the product with this in mind. Always use an iOS tablet with at least the minimum recommended specifications.
- · The Mobile LGMV application may unexpectedly end due to insufficient system resources.
- Transmission/reception data volume may increase according to the number of indoor and outdoor units. Mobile LGMV response speed may be slower for some iOS tablet specifications.
- Wireless transmission/reception distance may be reduced, or communication may be disconnected due to the operational environment (weather, electromagnetic interference or physical obstacles).
- Mobile LGMV may not work correctly with routed iOS tablets.
- As communication distance between the Mobile LGMV wifi module and the iOS tablet increases, the iOS tablet wifi output may increase, causing greater drain on the iOS tablet battery. During use, keep the iOS tablet as close as safely possible to the Mobile LGMV wifi module.
- · Disconnect the Mobile LGMV wifi module from the outdoor unit when troubleshooting is complete.

INTRODUCTION

App User Interface

Mobile LGMV uses typical iOS tablet control gestures to select and display items on screen (see below).

Operation	Action	Description	Result
Tap (Press)	CPE -	Briefly press the indicated area of the screen and then release	 Press: Applicable object is selected or focused Release: Run event
Pinching (Tap and Drag)	Jun Jun	Operation of pressing two points on the screen and moving while keeping pressed	 Press: Applicable object is selected or focused Move: Response including moving object/scrolling etc. Release: Stop response or run event
Flicking	- Vhy	Quickly moving from one point to another on the screen and then releasing	 Press: No response (Or mark pressed) Quick move & release: Run event



installed the app, it may be more convenient to do so before arriving at the job site.

Installation Sequence

Download and Install App

To use Mobile LGMV, you must download and install the app on an iOS tablet.

1. Open a web browser on your iOS tablet and go to the App Store (tap the App Store icon on the tablet screen) (Figure 4).

To use Mobile LGMV, you must install the app on an iOS tablet and you must connect the wifi module to the outdoor unit. If you have not yet

- Type "Mobile LGMV" in the search window to find the app. The app can be found in the United States App Store in the iPad[®] only section (Figure 5).
 **iPad[®] is a trademark of Apple Inc.*
- 3. Tap the "Free" button. If necessary, type your Apple ID and password to continue to your account. If you do not have an account, create a new account (Figure 6).
- 4. Tap the "Install" button on the Mobile LGMV screen (Figure 7).

Note:

- Download function is only possible when the iOS tablet is connected to the internet.
- · Disconnect the Wi-Fi module before downloading the app.

PME

LGMV

Figure 5: Finding the LGMV App in the App Store.







App

Figure 4: Access App Store on iOS Tablet.



INSTALLATION

Application Installation



INSTALLATION

Application Installation

Auto Updates

Update function is only possible when the iOS tablet is connected to the internet.

Note:

Disconnect the Wi-Fi module before updating the app.

- 1. If an app update is available, a badge icon appears in the app store icon (Figure 8).
- To initialize the update, tap the App store icon, and then tap the "Updates" section. Mobile LGMV will be shown on the "Available Updates" list (Figure 9).
- 3. To download, tap the "Update" button (Figure 10).

Figure 9: Checking for Available Updates.



Figure 8: LGMV App Update Available.



Figure 10: Downloading the LGMV App Update.



INSTALLATION Hardware Installation

Hardware Description

Mobile LGMV hardware consists of a wifi module and a two-piece cable (Figure 11).

The wifi module sends and receives wifi signals to/from the iOS tablet. The cable connects the wifi module to the outdoor unit. The cable has two sections because there are two types of outdoor unit connectors, one for Multi V products and one for Multi F products. When testing Multi V products, leave the Multi V extension connected. When testing Multi F products, temporarily remove the Multi V extension.

Input power to the outdoor unit remains connected and on during this procedure. Do not touch any exposed outdoor unit wiring, terminals, or other electrical components with tools or exposed skin. Only trained technicians should install, use, or remove this equipment.

Improper installation or use may result in fire, explosion, electric shock, physical injury and/or death.

Multi V Extension Cable

Note:

Disconnect the Mobile LGMV wifi module from the outdoor unit when troubleshooting is complete.

Connect Wifi Module

Follow this procedure to connect the Mobile LGMV wifi module to a Multi V or Multi F outdoor unit.

- 1. Ensure the latest version of the Mobile LGMV app is installed on your iOS tablet.
- 2. Locate the Mobile LGMV hardware (Figure 11).
- 3. Connect the wifi module to the USB connector of the cable.
- 4. If connecting to a Multi V outdoor unit, ensure the Multi V extension cable is connected.
- 5. If connecting to a Multi F outdoor unit, ensure the Multi V extension cable is not connected. Be sure to retain the Multi V extension cable.
- 6. Remove the service panel(s) to gain access to the interior of the outdoor unit.
- 7. Locate the Mobile LGMV connector. For Multi V outdoor unit, refer to Figure 12. For Multi F outdoor units, refer to Figure 13.
- 8. Carefully connect the Mobile LGMV cable to the appropriate outdoor unit connector.
- 9. Place the wifi module and cable in a safe position where it will not become entangled in other outdoor unit wiring. Be sure there is clear line of sight between the wifi module and the iOS tablet.



Figure 11: Mobile LGMV Wifi Module and Cable



INSTALLATION

Hardware Installation

Figure 12: Multi V Outdoor Unit Connector for Mobile LGMV Cable









CN-JIG Connector



Figure 13: Multi F MAX Outdoor Unit Connector for Mobile LGMV Cable

Initial Start Up

Starting Mobile LGMV

Follow these steps to start the app and connect to the wifi module.

- 1. Ensure the Mobile LGMV wifi module is correctly connected to the outdoor unit.
- 2. Tap the Settings icon on the iOS tablet to start the app (Figure 14).
- 3. Tap the Wi-Fi icon to select wifi (Figure 15).
- 4. Select the device that is indicated at LGE_MV. A blue check mark will appear on the left side (Wi-Fi icon does not appear on the status bar) (Figure 16).

Note:

Note the SSID (Wi-Fi address) code and mark it on the back of the LGMV module.

Figure 14: Tap the Settings icon on the iOS Tablet



Figure 15: Select Wi-Fi.



Figure 16: Select LGE_MV.





Initial Start Up

Logging Into Mobile LGMV

- 1. Tap the Terms of Service button (Figure 17).
- 2. Read the Terms of Service, and then tap the Agree button. User can't use this app if Disagree is chosen (Figure 18).
- 3. When the Login button is enabled, enter the username and password, and click the Login button (Figure 19). Only "Dealer" and "LG Employee" accounts can use this app.

Note:

- Login is only possible when the iOS tablet is connected to the internet
- Login is required at the initial run.
- After updates, login may be required.







Figure 19: Click the Login Button.



Create An Account

To log in Mobile LGMV, you need an account with the LGE Global Commercial Air Conditioner site (GCAC). If you don't already have an account, you must create it.

- 1. Access the LGE Global Commercial Air Conditioner site, http:// kic.lgeaircon.com, and click on Registration (Figure 20).
- 2. Click on the Dealer Member Join or LG Employee Join (Figure 21).
- 3. Read and agree to the Terms of Use (Figure 22).
- Input the required information to complete the registration (Figure 23). It takes approximately one (1) to two (2) working days to approve.

Note:

- App doesn't support the registration service.
- Sign up at the internal website listed via the internet browser.
- · For registration related inquiries, use the "Contact Us" feature on the internal website.

Figure 21: Click on Dealer Member or LG Employee Join.



Figure 23: Fill Out Registration Form.



Figure 20: Access LGE Global Commercial Air Conditioner Site.



Figure 22: Click on Dealer Member or LG Employee Join.



Initial Start Up/Main Sections

Closing the App

- 1. After LGMV is finished with the diagnosis process, quickly press the Home button two times (Figure 24). Small previews of recently used apps with appear.
- 2. Swipe up on the app's preview to close it (Figure 25).

Figure 24: Press Home Button.



Data Monitoring

- 1. After successful login, the Home screen will appear (Figure 26). Click the Data Monitoring button (Main Screen; only the iOS tablet and the wifi module are connected) (Figure 27).
- 2. Select the model, product combination, and number of indoor units. Put all the information in the local site, and then press the Done button.

Note:

An automatically set model is one that can automatically recognize the information of the outdoor unit, product combination, number of indoor units connected to the Communications module. Automatically set models include Multi V IV Air Heat Pump, Multi V IV Air Heat Recovery, Multi V Water IV Heat Pump, Multi V S.

3. Main/Data Monitoring screen appears and LGMV begins the monitoring process (Figure 28).





Figure 25: Swipe Up On App.



for belender



Figure 28: Main/Data Monitoring Screen.



LG

OPERATION Main Sections

Main/Data Monitoring Screen Composition

When communication is established between the outdoor unit and the app, the Mobile LGMV main/data monitoring screen displays (Figure 29). This screen displays information about the air conditioning system to which it is connected. There are three main sections:

- Menu section: This section provides functions including saving air conditioner data, blackbox, ITR report, and defining abbreviations.
- Operation information section: This section displays operating mode; error, product, unit, and cycle information; etc. Cycle information is further classified into tabs.
- Tab section: Information is divided into tabs and provides additional functions from the monitoring screen. Select each tab to view data monitoring, indoor unit control, graph information, and settings.

Each of these sections/tabs is described on the following pages.



Figure 29: LGMV Main/Data Monitoring Screen.

Cycle information screens/tabs are shown below (Figures 30 through 33). Tap the desired section tap heading to display that section's data.

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Figure 32: Indoor Unit Control Tab.

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10 DU /	0	64	0	
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Figure 33: Setting Tab.

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Main/Data Monitoring Screen

Main/Data Monitoring Screen

After communication between the Mobile LGMV wifi module and the outdoor unit is established, the first screen that is revealed shows how LGMV monitors the outdoor and indoor unit information of the system air conditioner.

Data tab is mainly comprised of two (2) sections (Figure 34):

- Operation Information Section: Shows the operating mode, error information, product information, unit information, etc (Figure 35).
- Cycle Information Section: Each information is classified into tabs, and each tab shows basic information, valve operation, actuator information, sensor information, IDU Gr (Figure 36).

Figure 34: Two Sections of the Main/Data Monitoring Screen.



Main/Data Monitoring Screen - Operation Information Section

- Outdoor Unit Operating Mode: Shows the current operating mode of the outdoor unit. Displays cool/heat/fan/stop mode.
- Outdoor Unit Error Information: Displays latest error number generated from the outdoor unit.
- Model Number of Connected Outdoor Unit: Shows the model of outdoor unit connected to the Mobile LGMV wifi module.
- Version Information of Main Board: Shows the version and EEP information of the connected outdoor unit.

Figure 35: Operation Information Section Details.



· Data Receiving Status: Shows the user when data is received from the outdoor unit. Green light flashes when data is being received.

- · Data Saving Status Green light flashes to show the user that data is being saved.
- Mini Graph: Displays high pressure and low pressure trends.
- · Data Unit Information: Shows data units displayed on each screen. Default units are °F, psi, and kBtu/h.

Main/Data Monitoring Screen

Main/Data Monitoring Screen - Cycle Information Section

Figure 36: Cycle Information Section Details. Sensor and Electric Information Actuator Information **Basic Information** 58% mit-+ Pad 2:24 8 2 < Home Data Mo itoring Multi V IV HB ø E 2.3 Ver. Air Temp 174.7 INV1 Current 8.0 NV1 TGT/TRC 1/2 COUM н Erro 10-INV2 Current INV2 TGT/TRC 3/4 Suction Temp. 135.0 8.4 4-Way ٠ EEP 4.6 Bubble Temp. -54.2 INV1 Voltage 205 FAN1 Taroot 50 HEX Up Dew Temp -67.5 INV2 Voltage 215 FAN1 Trace 10 HEX Down HighPress Te 0.0 INV1 dis.Temp. 395.8 INV1 powerFrq 144 FAN2 Trace 70 ecolver IN Averaged IDU Te ... 150.1 INV2 dis Temp. Master 392.0 MAIN EEV ceiver OUT INV2 powerFrq 45 138 LowPress Trace 0.0 HEX Temp. 161.2 INV1 phase GT 9.6 SUB EEV 144 Euction WV ē 1.00 Compression ratio 159.2 Ó INV2 phase CT 10.0 152 NV1 heater Upper HEX SC EEV Valve Operation SH Trace 192.1 Lower HEX 157.3 FAN1 phase CT 5.2 EQ EEV 170 INV2 heater ۲ SC Trace -206.1 155.5 FAN2 phase CT 5.4 VI EEV1 160 HEX V/V 0 SC in Temp SCSH Trace 210.8 FAN DC link 275 SC out Temp. 153.7 VI EEV2 168 DIL LEVEL1 151.9 INV1 DC link IL LEVEL2 Liquid Temp. 280 INVI IPM Temp: 138.4 INV2 DC lick 285 low Deep INV2 IPM Temp 138.2 Fan Heatsink 28.4 Selection for CPN 140.8 140.8 139,4 195.0 EALL 44 34 10279 36 21 10038 39 10538 139,4 139.4 137.9 -1.4 DXC 37 2 45 ICU09 40 10793 138.0 137.9 136.6 -192.2 Hydro.M 38 30 46 39 **IDUMO** 41 11050 135.6 136.6 135.3 -1.3 Hydro.H 31 47 10043 45 11307 135.4 135.3 133.9 -189.5 40 32 48 1DU42 43 11564 134.1 133.9 132.7 -1.3 FAU 41 33 49 IDU Gr 1DU43 132.8 132.7 -186.9 DXC 44 11821 131.4 42 34 50 IDU44 45 12078 131,6 131.4 130.2 -1.2 Hydro.M 43 35 51 IDU45 46 12335 130.4 130.2 129.0 -184.4Hydro.H 44 36 52 **IDUMA** 47 12592 129.2 129.0 127.8 -12 45 37 53 IDU47 48 12849 128.0 127.8 128.8 -182.0 FAU 46 38 54 DXC ID048 49 13106 126.9 126.6 125.5 47 r\$ ٢

Cycle Information Section - Basic Information

Tap the **Basic Info** tab on the Cycle Information section to display its information including current high/low pressure weighted average indoor temperature, compression ratio, etc.) (Figure 37). Information displayed will change according to the connected outdoor unit.

Figure 37: Basic Information.

HighPress Trace	376.8
Averaged IDU Temp.	86.2
LowPress Trace	160.3
Compression ratio	2.24
SH Trace	32.6
SC Trace	47.9
SCSH Trace	18.4

Name	Description	Name	Description
HighPress Trace	Current High Pressure	Averaged IDU Temp.	Weighted Average Indoor temperature
LowPress Trace	Current Low Pressure	Compression Ratio	Compression Ratio
SH Trace	Current Degree of Super Heat	SC Trace	Current Degree of Subcooling
SCSH Trace	Current Degree of Subcooling and Super Heat	-	-



Main/Data Monitoring Screen

Cycle Information Section - Valve Information

Tap the **Valves** tab on the Cycle Information section to display information from several valves required in understanding Multi V cycles (Figure 38). When the valve is OFF it is displayed in gray; when the valve is ON it is displayed in red. Information displayed will change according to the connected outdoor unit.

Figure 38: Valve Information.

Name	Description	Name	Description
ACCUM.	Oil Return Valve	Suction V/V	Vapor Injection
4 WAY	4 WAY Valve	INV1 Heater	Inverter 1 Heater
HEX Up	Heat Exchanger Top Valve	INV2 Heater	Inverter 2 Heater
HEX Down	Heat Exchanger Bottom Valve	HEX V/V	Heat Exchanger Valve
Receiver IN	Normal Close Valve	OIL LEVEL1	Oil Level 1
Receiver OUT	Normal Open Valve	OIL LEVEL2	Oil Level 2

Table above is an example of what is displayed for Multi V IV.

Cycle Information Section - Actuator Information

The Actuator Info tab displays operating parameters of various devices (compressors, fans, EEVs, etc.) in each outdoor unit frame (Figure 39). The tab also displays oil supply EEV information based on the specific model. Information displayed will change according to the connected outdoor unit.

Figure 39: Actuator Information.

IN THE ADDRESS OF THE PARTY OF	1.10
INV1 TG1/TRC	1/2
INV2 TGT/TRC	3/4
FAN1 Target	50
FAN1 Trace	60
FAN2 Trace	70
MAIN EEV	136
SUB EEV	144
SC EEV	152
EQ EEV	176
VI EEV1	160
VI EEV2	168

Name	Description	Name	Description
INV1 TGT/TRC	Inverter 1 Target/Current Frequency	MAIN EEV	Main EEV
INV2 TGT/TRC	Inverter 2 Target/Current Frequency	SUB EEV	Sub EEV
FAN Target	FAN Target RPM	SC EEV	Subcooling EEV
FAN1 Trace	FAN1 Current RPM	EQ EEV	Oil Supply EEV
FAN2 Trace	FAN2 Current RPM	VI EEV1	Vapor Injection EEV1
		VI EEV2	Vapor Injection EEV2



Main/Data Monitoring Screen

Cycle Information Section - Sensor Information

Cycle Information Section has two subsections, Sensors and Electric, that display on the data tab. Tap Sensors at the top of the main screen to access this data (Figure 40). The screen displays the basic temperature sensor information including air temperature, discharge temperature, heat exchanger temperature, etc. Information displayed will change according to the connected outdoor unit.

Figure	40·	Sensor	Information
riguic	чυ.	0011001	mormation.

Air Su Bu De INV INV HE Up Los SC SC Liq INV INV

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		Name	Description	Name	Description
ensors			•		Pottom Hoat Exchanger Dine
Temp.	174.7	Air Temp.	Outdoor Air Temperature	Lower HEX	Temperature
ction Temp.	135.0				Temperature
bble Temp.	-54.2	Suction Temp.	Compressor Suction	SC In Temp.	Subcooling Inlet Temperature
w Temp.	-57.1		Temperature		
/1 dis.Temp.	395.6				
/2 dis.Temp.	392.0	Bubble Temp.	Condenser Temperature	SC Out Temp.	Subcooling Outlet Temperature
X Temp.	161.2				
per HEX	159.2	Dow Tomp	Evenerator Temperature	Liquid Tomp	Liquid Dino Tomporatura
wer HEX	157.3	Dew temp.	Evaporator remperature	Liquia temp.	Liquid Pipe Temperature
in Temp.	155.5				
out Temp.	153.7	INV1 Discharge Temp.	Inverter 1 Discharge	INV1 IPM Temp	Inverter 1 IPM Temperature
uid Temp.	151.9		Iemperature	- F	
/1 IPM Temp	136.4		Inverter 2 Discharge		
/2 IPM Temp	138.2	INV2 Discharge Temp.	Temperature	INV2 IPM Temp	Inverter 2 IPM Temperature
h Heatsink	28.4		Temperature		
		HEX Temp.	Heat Exchanger Pipe Temperature	FAN Heatsink	Outdoor Fan Heat Sink Temperature
		Upper HEX	Top Heat Exchanger Pipe		

Table above is an example of what is displayed for Multi V IV.

Cycle Information Section - Sensor Electric Information

Tap Electric at the top of the main screen (Figure 41) to access this data. Electric displays basic electric and electronic information including current, power, voltage etc. Information displayed will change according to the connected outdoor unit.

Informatio	on.	Name	Description	Name	Description
Electric		INIV1 Current	Inverter 1 Input Current	INV1 Phase CT	Inverter 1 Phase Current
INV1 Current	8.0	inter ourient	inverter i input ourrent	INVEL HOSE OF	inverter i i nase our ent
INV2 Current	8.4				
INV1 Voltage	205	INV2 Current	Inverter 2 Input Current	INV2 Phase C1	Inverter 2 Phase Current
INV2 Voltage	215				
INV1 powerFrq	44	INV1 Voltage	Inverter 1 Input Voltage	FAN1 Phase CT	Fan1 Phase Current
INV2 powerFrg	45	inver voltage	inverter i input voltage	1711111030 01	
INV1 phase CT	9.6				
INV2 phase CT	10.0	INV2 Voltage	Inverter 2 Input Voltage	FAN2 Phase CT	Fan 2 Phase Current
FAN1 phase CT	5.2				
FAN2 phase CT	5.4				
FAN DC link	275	INV I PowerFrq	Inverter I Power Frequency	FAN DC LINK	Fan DC LINK Voltage
INV1 DC link	280				
INV2 DC link	285	INV2 PowerFrq	Inverter 2 Power Frequency	INV1 DC Link	Inverter 1 DC LINK Voltage
				INV2 DC Link	Inverter 2 DC LINK Voltage



Main/Data Monitoring Screen

Cycle Information Section - Heat Recovery Unit (HRU) Information

The HRU tab displays the information of separated heat recovery units (Figure 42). This function is only for Multi V III and IV Heat Recovery systems.

	(pipe)	pipin?	pipe3	pipe4	EEV	Liquid	PPE W	EPE OUT	Add Info.	NUM TOU	bet Pipe	GR#1	GR
HAUT	COOL	OFF	COOL	COOL	544	109.5	108.6	107.7		3	2	0.0.0.0	0.0.0
HEU2	COOL	OFF	COOL	HEAT	552	108.6	107.7	106.8		4	3	0.0.0.0	0.0.0
HAUS	COOL	OFF	COOL	WIND	560	107.7	106.8	106.0		5	4	0.0.0.0	0.0.0
HRU4	COOL	OFF	HEAT	OFF	568	106.8	106.0	105.1		8	5	0.0.0.0	0.0.0
HRU5	COOL	OFF	HEAT	COOL	576	106.0	105.1	104,3		7	6	0.0.0.0	0.0.0
HRUS	COOL	OFF	HEAT	HEAT	584	105.1	104.3	103.4		в	7	0.0.0.0	0.0.0
HRU7	COOL	OFF	HEAT	WIND	592	104.3	103.4	102.6		9	8	0.0.0.0	0.0.0
HAUS	COOL	OFF	WIND	OFF	600	103.4	102.6	101.8		10	9	0.0.0.0	0.0.0
HRU9	COOL	OFF	WIND	COOL	608	102.6	101.8	101.0		11	10	0.0.0.0	0.0.0
HRU10	COOL	OFF	WIND	HEAT	616	101.8	101.0	100.2		12	11	0.0.0.0	0.0.0
HRU11	COOL	OFF .	WIND	WIND	624	101.0	100.2	99.4		13	12	0.0.0.0	0.0.0
HRU12	COOL	COOL	OFF	OFF	632	100.2	99.4	98.6		14	13	0.0.0.0	0.0.0

Figure 42: IDU Gr Information.

Name	Description	Name	Description
Pipe1	Pipe 1 Mode	Add Info.	Additional Information
Pipe2	Pipe 2 Mode	Num IDU	Number of Found Indoor Units
Pipe3	Pipe 3 Mode	setPipe	Number of Set Indoor Units
Pipe4	Pipe 4 Mode	GR#1	Indoor Unit Numbers Connected to Pipe1 for Zone Control
EEV	HRU EEV	GR#2	Indoor Unit Numbers Connected to Pipe2 for Zone Control
Liquid	HRU Liquid Pipe Temperature	GR#3	Indoor Unit Numbers Connected to Pipe3 for Zone Control
PIPE IN	HRU Pipe-in Temperature	GR#4	Indoor Unit Numbers Connected to Pipe4 for Zone Control
PIPE OUT	HRU Pipe-out Temperature	Search	Turn Pipe Searching On?
-		Enable	Availability of Pipe Searching

Table above is an example of what is displayed for Multi V IV Heat Recovery system.

Cycle Information Section - IDU Gr

The IDU Gr tab (Figure 43) has two screens, IDU Gr and HRU Info. Tap the IDU Gr tab at the top of the main screen and then tap the IDU Gr or HRU Info tab below it. The screen displays indoor unit capacity, operating mode, fan level, EEV, etc.

Figure 43: IDU Gr Information

	Cape 1	1 Made	- Fue	306		Part of	Parcos	
OUNT:	34	1		10278	140.8	140.8	123.4	
30038-	29			10136	129.4	138.4	127.8	
00039	-40		10.0	30793	138.0	137.8	155.8	
0040	-41			11000	101.8	136.8	135.3	
10041	42			\$6302	105.4	135.0	833.9	
10045	43			11064	354.3	1.23.8	132.7	
0041	44			11421	\$32.4	132.7	131.4	
10014	-45			10078	131.6	131.4	100.2	
CUIS	46		14	12224	180.4	130.2	101.0	
30018	47			12092	129.2	129.0	127.8	
101947	48			13643	\$28.0	127.0	878.6	
100181	40	0	Q.	10100	126.0	126.0	101.0	
				. 30	SH AR	ATV. C	CEN CEN	1.1
				-49	10.0 F	AU.	28 28	
				- 1	1.4 0	KC .	27 21	1.1.4

-490.0	- Pinta	28		
41.4	EHC .	37	2	(4)
-112.2	Hydro.M	-28	39	-46
+8.5	Hypers H	29	31	47
-199.5		40.	32	48
-1.5	FAU	41	33	49.
-188.7	DHC	42	34	80
-1.2	Hydro.M	40	25	81
-154.4	Hydro.H	64		82
+8.2		46	37	68
-182.0	EV/F	46	38	54
-1.1	ENC	47	38	

Name	Description	Name	Description
Сара	Indoor Unit Capacity	Pipe Out	Indoor Pipe Outlet Temperature
Mode	Node Indoor Unit Operating Mode		Degree of Subcooling/Super Heat
Flow	Indoor Unit Fan Level	Add Info.	Indoor Unit Type Information
EEV	Indoor Unit EEV	Comm	Communication Rate
Air	Indoor Air Temperature	CEN	Central Control Address
Pipe In	Indoor Pipe Inlet Temperature	Error	Indoor Unit Error Number



Main/Data Monitoring Screen

How to use HRU and IND Gr Info Tabs

The IDU Gr tab displays operating data for the indoor units connected to the monitored system. The steps below are an example of selecting screens and displaying data.

- 1. Press the IDU GR tab. Flick up and down through the IDU Gr list to find the necessary indoor unit information (Figure 44).
- 2. Additional, special indoor unit information may also be available through the IDU Gr tab (Figure 45). The information is displayed by indoor unit type. To access, press the applicable information to view the screen for the specific indoor unit, and then flick left and right to reveal any indoor unit information initially not shown on the screen.

The HRU tab displays operating information for separate heat recovery units. This function is only for Multi V III and IV Heat Recovery systems.

- 1. Press the HRU tab. Flick up and down to find information for a specific heat recovery unit.
- 2. Flick left and right to reveal any heat recovery unit information initially not shown on the screen (Figure 46).

Figure 44: Flicking Up and Down Through the IDU Gr List.

	Capa	Mode	Flow	EEV	Pair	Pipe lo	Pipe-Out	SC/SH	Add Info:	Comm	CEN	Error
IDU37	38		· · ·	10279	140.8	140.8	139.4	-195.0	FAU	36	2e	44
IDU38	39	0	0	10536	139,4	139.4	137.9	-1.4	DXC	37	21	45
IDU39	40			1072	- 138.0	137.9	136.6	-192.2	Hydro.M	38	30	46
IDU40	4.1	0	0	Fine	136.6	136,6	135.3	-1.3	Hydro.H	39	31	47
IDU41	42			1307	135.4	135.3	133.9	-189.5		40	32	48
IDU42	43	0	0	564	134.1	133.9	132.7	-1.3	FAU	41	33	49
IDU43	44			1821	132.8	132.7	131.4	-186.9	DXC	42	34	50
IDU44	.45	0	0	1978	131.6	131.4	130.2	-1.2	Hydro.M	43	35	51
IDU45	46		1.00	12 35	130,4	130.2	129.0	-184,4	Hydro.H	44	36	52
IDU46	47	0	0	1250E	-129.2	129.0	127.8	-1.2		45	37	53
(DU47	48		- 10-	12849	128.0	127.8	126,6	-182.0	FAU	46	38	54
1DU48	49	0	0	13106	126.9	126.6	125.5	-1.1	DXC	47	39	55

Figure 45: Accessing Special IDU Gr Information.

		Gapa	Mode	Flow	EEV	Air	Pipe-In	Pipe-Cut	SC/SH	Add Info	Comm	CEN	Error
ð	10137	38		100	10279	140.8	140.8	139.4	-195.0	FAU	36	2e	44
8	IDU38	39	0	0	10536	139.4	139.4	137.9	-1.4	DXC	37	21	45
	IDU39	40		10	10793	138.0	137.9	136.6	-192.2	Hydro.M	38	30	46
	101/40	-4.1	0	0	11050	136.6	136.6	135.3	-1.3	Hydro.H	39	31	47
i i	IDU41	42			11307	135.4	135.3	133.9	-189.5	CONTRACT OF	40	32	48
	IDU42	43	0	0	11564	134.1	133.9	132.7	-1.3	FAL	41	33	49
	10043	.4.4		-	11821	132.8	132.7	131,4	-186.9	DXO	42	34	50
_	IDU44	45	0	0	12078	131.6	131.4	130.2	-1.2	Hydro	43	35	51
	IDU45	46			12335	130.4	130.2	129.0	-184.4	Hydro,H	44	36	52
	IDU46	47	0	0	12592	129.2	129.0	127.8	-1.2		45	37	53
	IDU47	-48		40	12849	128.0	127.8	126.6	-182.0	FAU	46	38	54
	1DU48	49	0	0	13106	126.9	126.6	125,5	-1.1	DXC	47	-39	55

Figure 46: Flicking Left or Right.



	Capa	Mode	WORE
d IDU37	38		-
B IDU38	-39	0	0
IDU39	40		
IDU40	41	0	Q
E IDU41	42		14
DU42	43	0	0
IDU43	44		
DU44	45	0	0
IDU45	46		10
IDU46	47	0	0
IDU47	48		10
IDU48	49	0	0





Graph Tab

Graph Tab

The **Graph** screen displays the system's outdoor unit operation information so users can make trend analyses (Figure 47).

Graph tab includes four (4) sections:

- 1. Outdoor Unit Section: Displays the currently connected outdoor units. The Realtime Information Section and Graph Section's data are related to the selected outdoor unit in this section.
- 2. Graph Type Section: Indicates graph types— Pressure and Hertz (Hz) (Figure 48), Super Heating (Figure 49), SubCooling, and Electronics. The graph type currently being displayed is highlighted. Further information regarding the different graph types are listed below.
- 3. Realtime Information Section: Shows the selected outdoor unit's data value in real time.
- 4. Graph Section: Draws graphs using the data of selected outdoor unit.

Graph Type Section—Pressure and Hz Data

High/low pressure, fan values, and inverter values of the selected outdoor unit are displayed by color. Details displayed depends on the connected model (Figure 48).

Name	Description	Name	Description
HighPress Trace	Current High Pressure	INV1 TGT	Target Frequency of Inverter1
LowPress Trace	Current Low Pressure	INV2 TGT	Target Frequency of Inverter2
FAN1 Trace*	Current RPM of FAN1	INV1 TRC	Current Frequency of Inverter1
FAN2 Trace*	Current RPM of FAN2	INV2 TRC	Current Frequency of Inverter2

*FAN value is displayed in RPM/10.

Graph Type Section—Super Heating

Super heat value, main EEV, inverter discharge values, and suction temperature of selected outdoor unit are display by color. Details displayed depends on the connected model (Figure 49).

Name	Description	Name	Description
SH Trace	Current Degree of Super Heat	INV1 Dis. Temp.	Inverter 1 Discharge Temperature
MAIN EEV	Main EEV	NV2 Dis. Temp.	Inverter 2 Discharge Temperature
-	-	Suction Temp.	Compressor Suction Temperature

Table above is an example of what is displayed for Multi V IV.



Figure 47: Graph Tab Details.



Figure 49: Super Heating



Figure 48: Pressure and Hz Data.

Graph Tab

Graph Type Section—Subcooling

SCSH Trace, SC EEV, VI EEV1, VI EEV2 and Suction valve of the selected outdoor unit are displayed by color. Details displayed depends on the connected model (Figure 50).

Name	Description	Name	Description
SCSH Trace	Current Degree of SuperCooling/Heat	VI EEV1	Vapor Injection EEV1
SC EEV	Subcooling EEV	VI EEV2	Vapor Injection EEV2
-	-	Suction V/V	Vapor Injection

Table above is an example of what is displayed for Multi V IV.



Graph Type Section—Electronics

Inverter values of the selected outdoor unit are displayed by color. Details displayed depends on the connected model (Figure 51).

Name	Description	Name	Description
INV1 Current	Input Current of Inverter1	INV1 TGT	Target Frequency of Inverter1
INV2 Current	Input Current of Inverter2	INV2 TGT	Target Frequency of Inverter2
INV1 Phase CT	Phase Current of Inverter1	INV1 TRC	Current Frequency of Inverter1
INV2 Phase CT	Phase Current of Inverter2	INV2 TRC	Current Frequency of Inverter2







Indoor Unit Control Tab

Indoor Unit Control Tab

The Indoor Unit Control tab indicates current status of connected indoor units (Figure 52). User can also control flow/mode/temperature (operation mode) of each indoor unit. Select the indoor unit to control and set the operating mode, and run the operation control. The user can change the operating status of the indoor unit as desired. If there are more than twelve (12) indoor units, flick through the indoor unit information list up/down to find the necessary indoor unit.

Note:

Models supporting IDU Control: Multi V III, Multi V IV, Multi V III HR, Multi V IV HR, Water IV, Water IV HR, Multi V S.

The Indoor Unit Control Tab includes many sections.

- 1. Temperature Information: Displays target temperature.
- 2. "Select All" Button: When pressed, all indoor units are selected.
- Control Section: When each operating mode/flow/temperature button is selected, the currently selected indoor unit mode is set as the applicable mode/flow/temperature. When the confirm button is pressed, the actual control command is sent to the selected indoor unit.



Figure 52: Indoor Unit Control Tab.

Note:

Blow mode can be controllable under the Control Section, depending on outdoor unit model. Blow button will activate when the applicable outdoor unit model is connected.

- 4. Operation Control Button: When the confirm button is pressed, the control command based on the set condition is sent to the indoor unit.
- 5. Check Status: Select a specific indoor unit, and it is marked by a red check.
- 6. Flow Information: Current fan level is displayed when the screen first shows up. After user input, target fan level will be displayed.
- 7. Operating Mode Information: Current operating mode of indoor unit is displayed when the screen first shows up. After user input, target mode will be displayed.



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OPERATION Indoor Unit Control Tab

How to Use the Indoor Unit Control Tab

- 1. Set the operating mode/flow (Figure 53).
- 2. Select the specific indoor unit to control (Figure 54).
- 3. Flick up or down to control the temperature (Figure 55).
- 4. Press the Confirm button to run the indoor unit operation control (Figure 56).



Figure 55: Control the Temperature.



Figure 56: Press Confirm.



Figure 54: Select the Indoor Unit.

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Setting Tab

Setting Tab

Setting tab consists of two (2) sections (Figure 57):

- 1. Title Section: Contains function list.
 - Unit Conversion
 - Save Option
 - User Agreement
 - App Information
 - LGE Open Source Software Notice
- 2. Detail section: Details of each selection listed above.



Title Section

Setting Tab—Title Section, Unit Conversion

- 1. Access "Unit Conversion" on the left menu of the Setting Tab Title Section (Figure 58).
- 2. Select the desired outdoor unit from the Unit Conversion option screen (Figure 59). Press the Save button.
- 3. Current unit at the Data tab and the date units in all areas of the monitoring screen will change (Figure 60).

Note:

Mobile LGMV

The items supported in the Unit Conversion feature are:

- Temperature
- Pressure
- Unit Capacity

Figure 58: Press Unit Conversion.



Figure 59: Select the Outdoor Unit.

Know	140		
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ther Sporter	Press.or	0.6	63
Age of Annuality AGE Speed Strategy Deltaware Sociality	Capacity .	0.00	• @
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			43
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Figure 60: Data on the Screen Will Change.

Multi V IV HR	🗱 Ver.	2.3
	Error 10-1	psi kBtuff
 Master 	HighPress Trace Averaged IDU Te	0.0 150.1
Slave1	LowPress Trace Compression ratio	0.0
	SH Trace	192.1
	SG Trace	-206.1
	SCSH Trace	210.8

LG

Setting Tab

Setting Tab—Title Section, Save Option

1. Access "Save Option" on the left menu of the Setting Tab Title Section (Figure 61).

2. Flick up or down to choose the Save Time. Choose a Time Interval (Figure 62).

3. Press the Save button to save all settings (Figure 63).

Note:

Time interval can be unstable depending on the strength of the device's internet connection.

Default Setting for Save Option:

• Save Time: Sixty (60) minutes; can be set up to a maximum of 179 minutes.

• Time Interval: Two (2) seconds.

Figure 61: Press Save Option.

Figure 62: Choose Save Time and Time Interval.

Figure 63: Save All Settings.



Setting Tab—Title Section, User Agreement

- 1. Access the User Agreement on the left menu of the Setting Tab Title Section (Figure 64).
- 2. Flick through the user agreement list up/down to read all of the information (Figure 65).

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Figure 64: Access the User Agreement.

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Unit Conversion	An operation over to under for use the Spectral . This are usely expended to requirement the confidentially and secondly of an biological product the second strengthen second by not using an obvious biological second second second second by not using an obvious	or account and accounted medicines. No much
Save Option	passeneral catholectial and change it regularly. You should not resuld poor according to a second the second to be a second to	and information to anyone shar in size anyone much produces and any second second second sector of minimum, USE seconds the right to become
User Agreement	A fault of the large set of the large se	and if any conditional is experimentation
App Information	May part is part of the device of the d	en agen en la secon en la secon de la secon de la secon numbre de la secona de la seconda de la se
LUE Open Bource Software Notice	Advanced low severe any encoding severe and the first of the Derivation of the	any segretary or unitative made available for your sector of the sector of the sector of the sector of the vestor due to your segretarion, supervises or matchings and any other sector of the matchings matching and the sector of the initial sector of the sector of the sector of the sector of the sector of the sector of the sector and sector of the sector of the sector of the sector of the sector of the sector of the sector and sector of the sector of the sector of the sector of the sector of the sector of the sector and sector of the sector of the sector of the advancements with and instituted any page's sector of the sector of the sector of the sector advancements with any of the sector of the
	8. Enderweihander Thir Ber nammen insterr parentified for takes proceasers for inderveily, defined and easily take mananism defaulties, officers approx, particular and engine paren. Name ablorver's have and/ors? Eres a class or interveil and for any table for abover's have and/ors? Eres a class or interveil and for any table for any abover's have and/ors? Eres a class or interveil and for any table and any statement of this Apparential's (b) any breach of parts representations and in any takes, note or regulations.	table act, see solonitares, affliates, and literative interactions are been in balance, including execution or aviang table (2.1) year use of the Bernsen, 31 anastes, set bala factors, in (or year complex) of
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Figure 65: Read Through User Agreement.



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Indoor Unit Control Tab

Setting Tab—Title Section, App Information

- 1. Access the App Information on the left menu of the Setting Tab Title Section (Figure 66).
- 2. The current version of the app is displayed (Figure 67).

K Maria	setting	NOS. 200+	Aud Kitoria	Setting	105.00
Lint Conversion	Current Version	1.0.0	Land Conversion	Current Version	1.0.0
Save Option			Save Option		
User Agreement			User Agreement		
Sup Promotion			Spp information		
LOE Open Source Sol	08		LOE Open Source Software Notce		
	-				
	-				
	-				

Figure 66: Access the App Information.

Setting Tab—Title Section, LGE Open Source Software Notice

- 1. Access the LGE Open Source Software notice on the left menu of the Setting Tab Title Section (Figure 68).
- 2. The current open-source software in use is shown (Figure 69).

Figure 68: Access the Open Source Software Notice. 10:20 AM

Nord Sector	N9	- NOV. (100+	And C Harrie	North Ballion	99	305,000+
1.6	E Open Source	Software Notice	Unit Conversion	LG	E Open Source S	oftware Notice
Software Type	KD5 Application		Save Option	Software Type	KDS Application	
Suftware Name	Mobile LGMV for # 1883)	SGOS Application for LG System Asson(Multi V	User Agreement	Software Name	Mobile LGMV for iOS 1883)	605 Application for LG System Atton(Mult) V
These softwares identified by (*LGP*) contain the open score licenses (as are included follow	the Software Type and Sof rue software detailed below sing this mitice) for the ter	tware Name above from LG Electronics, Inc. . Please refer to the indicated open source ms and conditions of their use.	App Information	These softwares identified by (*LGP*) contain the open score licenses (as are included follow	the Software Type and Software System and Software detailed below. wing this notice? For the term	ware Name above from LG Electronics, Inc. Please refer to the indicated open source to and conditions of their use.
Plane be informal that LG El helose.	actronics self-same may o	rmain report source software listed to the tables	LGC Open Boorce Software Notice	Plane be informed that LG Eithelese.	octronics self-earce may con	naan open source software listed in the tables
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Figure 69: Open Source Software Notice Displayed.

Figure 67: App Version Displayed.

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Unit Conversion

Save Optor

Menu Section

Menu Section

The Menu section in the upper right hand corner of the Main/Data Monitoring screen features two subsections.

- 1. Save Menu (Save icon) includes (Figure 70):
 - Data Saving Start
 - View Test Report
 - Create Test Report
 - Black Box Saving
- 2. Help Menu (Question mark icon) has (Figure 71):
 - Abbreviations

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Figure 71: Help Menu.

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Menu Section-Data

Menu Section-Data, Starting Data Saving

Users can save the data that Mobile LGMV displays.

- 1. From the Menu Section, tap the Data icon to access "Data Saving Start" (Figure 72).
- A popup window appears that displays "Time to Save" and "Save Interval." User can change time and interval here. Also, users can specify the file name (Figure 73). If not specified, the file name is automatically stored as the current date and time (Default Data Save Folder is Mobile_LGMV/Documents/Data).
- 3. System will indicate the data is being saved by a flashing green light (Figure 74).

Note:

- Mobile LGMV for iOS tablets provides a data saving function, but to access the saved file, an additional application is required (because of Apple's closed file system policy). LG Electronics is not responsible for any secondary app use.
- Save interval can be unstable depending on the strength of the device's internet connection.
- Copy LGMV data to a computer; LGMV can use stored data from the computer.

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Figure 73: Specify File Name.



Figure 74: Saving Data. Multi V IV HR 0 2.3 Error 10-1 ٠ EEP. 4.5.6 Marrie 1 HighPress Trace 8.5 Master Averaged IDU Te 150.1 LowPress Trace 0.0 Sigve1 Compression rat 1.00 SH Trace 192.1 SC Trace -206.1 SCSH Trace 210.8

Menu Section-Data, Stop Data Saving

Saving data will terminate using the time specified by the user (user can stop saving the data by force). The user, however, can't create Black Box data nor an ITR report while data is being saved.

- 1. From the Menu Section, tap the Data icon to access and tap "Data Saving Stop" (Figure 75).
- 2. When saving stops, a grey light appears (Figure 76).
- 3. The "Create Test Report" and "Black Box Saving" menus are now enabled (Figure 77).





Compression ratio

SH Trace

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210.8

Figure 77: Black Box and Create Test Report Enabled



Cancel Ok

Menu Section-Data, Create Test Report

There is the option to create a test report. Outdoor units supporting this function are Multi V IV heat pump and heat recovery. The default folder for saved files is Mobile_LGMV/Documents/ITRData.

- Tap the DATA icon at the bottom of the screen. On the popup menu, tap Create test report (Figure 78).
 The Create test report saving window displays. A progress bar indicates the ITR data is
- Figure 78: Create Test Report.

 Image: Second Se

Menu Section-Data, View Test Report

There is the option to view a test report. Outdoor units supporting this function are Multi V IV heat pump and heat recovery. The default folder for saved test report files is Mobile_LGMV/Documents/ITRData.

 Tap the DATA button at the bottom of the screen. On the popup menu, tap View test report (Figure 80).

being saved (Figure 79).

- 2. The File open window displays showing all previously saved test reports. If necessary, flick up and down the list to display all report files. Tap the desired report file name (Figure 81).
- 3. The test report displays. Flick up, down, left, and/or right to display all areas of the report (Figure 82).
- After reviewing the data, press the ITR Report button to return the ITR list.



Figure 81: Finding a Specific Test Report.



Figure 82: Reading the Test Report.





Menu Section-Data, Black Box Data Saving

There is the option to perform Black box data saving. Outdoor unit models supporting this function are Multi V IV heat pump and heat recovery, Multi V Water IV heat pump and heat recovery, Multi V III heat pump and heat recovery, and Multi V S. The default folder for saved files is Mobile_LGMV/Documents/BlackBoxData.

- 1. Tap the DATA button at the bottom of the screen. On the popup menu, tap Black box saving (Figure 83).
- 2. The Black box saving window displays. A progress bar indicates the data is being saved (Figure 84).





Sharing Files

LGMV allows users to share files with others through email. An email account has to be added to the Mail app 🔤 and the internet has to be connected before this function can be used successfully.

- 1. Return to the LGMV Home Page. Find and press the Share button in the upper right hand corner (Figure 85).
- 2. The **File list** of all available files is then displayed (Email as Attachment) (Figure 86). Find and select the file that is to be shared.
- 3. An email form will open. Fill in the "To" email address, subject, email body, and press the send button (Figure 87). After the send button is pressed, double check to see if the email appears in the "Sent" folder in the "Mail" app. If the email is in the "Sent" folder, it was sent successfully. If, however, the email is still in the "Outbox" folder, the email has not been sent. Only when the tablet is connected to the internet will the email be sent.

Figure 85: Saving the Black Box Data.

Figure 86: Finding the Desired File.

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Figure 87: Sending the Shared File.





Mobile LGMV

Menu Section-Help, Information and Abbreviations

The HELP menu contains selections for Mobile LGMV abbreviations used on LGMV displays.

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- Go to the Main/Data Monitoring Screen to find the Menu section. Tap HELP on the upper right hand side, and the HELP popup menu displays.
- 2. Tap Abbreviations on the popup menu (Figure 88). The Abbreviations window displays. Flick up/ down this list to display all entries (Figure 89).
- 3. Tap Cancel when done.

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3/4	4-Way	P.O
50	HEX Up	0
60	HEX Down	0
70	Receiver IN	0
136	Receiver OUT	•
144	Suction V/V	0
152	INV1 heater	•

INV2 heater

Figure 88: Accessing the Abbreviations

Figure 89: Flick Up or Down to Read Through the Abbreviations.

encel	Abbreviations
[COMMON]	
ODU	Outpor Unit
IDU	InDuor Unit
HRU	Heat Recovery Unit
SIDU	Special Indoor Unit
м	Master Unit
S1	Savet Unit
52	Save2 Unit
S 3	Save5 Unit
INV	loverter
INVI	Inverter1
INV2	kiverter2
COMP	Compressor



Obtaining the Troubleshooting Guide

The troubleshooting guide can be accessed at and downloaded through the main LGMV home page.

Figure 90: Press the Troubleshooting Button

on the LGMV Home Page.

LGMV

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- 1. Ensure the Mobile LGMV app is installed on the iOS tablet, and that there is internet access.
- 2. Start the Mobile LGMV app. The main page is displayed.
- 3. Tap the **Troubleshooting Guide** button (Figure 90). The Troubleshooting Guide page is displayed (Figure 91).

There are three (3) parts to the Troubleshooting Guide page (Figure 92):

- Menu: Choose to download or view the troubleshooting guide
- · Model Selection: Display the models according to the selected menu.
 - View = Access the previously downloaded models
 - · Download: Access new models.
- · Button: Press to perform a function.
- 4. Users can choose to view or download the Troubleshooting Guide.

Viewing the Troubleshooting Guide

- 1. In the Model Selection area on the Troubleshooting Guide screen, flick up or down on the screen to scroll through the available models (Figure 93).
- 2. After selection, press the View button to read the troubleshooting information for that specific model (Figure 94).
- 3. Move to the various applicable pages to read troubleshooting tips (Figure 95). Details related to displayed error numbers include error detail, definition, key cause(s), checks, etc.





Figure 94: Viewing the Troubleshooting Information.











Figure 95: Accessing Troubleshooting Guide

Mobile LGMV

Troubleshooting

Downloading the Troubleshooting Guide

- 1. Select Download on the Troubleshooting Guide Page menu (Figure 96).
- 2. Flick up or down to select the model that requires troubleshooting (Figure 96).
- 3. After the selection is completed, press the Download button (Figure 97).
- 4. The troubleshooting guide will automatically start downloading. Press the Cancel button to stop downloading (Figure 97).
- 5. After download is complete, the alert window will appear (Figure 98).

Note:

Disconnect the Mobile LGMV wifi module from the outdoor unit before downloading the troubleshooting guide file from the internet.

Figure 97: Press Download button, Press Cancel button to stop.



Figure 96: Download Troubleshooting Guide and Select the Model.



Figure 98: Download Complete.





Troubleshooting

Login Failed



Troubleshooting





Troubleshooting





Troubleshooting



Part of iOS Tablet Screen not Visible or Looks Wider







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New Issue UM_MobileLGMV_iOS_Tablet_12_15