OPERATION MANUAL

M-DT Operation Manual

Thank you very much for purchasing our product. Before using your product, please read this manual carefully and keep it for future reference.

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the M-DT please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.

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Packing List





User manual x 1

Dongle x 1

Statement:

Along with upgrades in the product, the information in this document is subject to change without notice.

I. M-DT RUNTIME ENVIRONMENT AND INSTALLATION

1.1 M-DT Runtime Environment

Operating system: Windows 7, Windows 10 Screen resolution: 1366 x 768 and higher Computer settings: Set the computer DPI to 100% to ensure that the M-DT can display properly.

1.2 Installation and Uninstallation

1.2.1 Before Installation

Before you install the M-DT in Windows 7, you may need to install the "Microsoft.NET Framework 4.0" (it is usually included in Windows 10).



Double click Motions to install the program. You will receive a prompt if "Microsoft.NET Framework 4.0" is missing. Click "Install" to automatically go to the Microsoft's official website to download and install "Microsoft.NET Framework 4.0". Please ensure that the computer is connected to the Internet at all times. You can also go to Microsoft's official website to download and install the "Microsoft.NET Framework 4.0".

	Least sector and the sector of
Status	Requirement
Pending	Microsoft .NET Framework 4.0 Full
	Instal Cancel

1.2.2 Installation



Double click ^{M-DT-Setup.ex} e to install the program.



Wait until the following window appears, and click "Next".



Select I could be the terms in the license agreement, and click "Next".

😸 Midea Diagnosis Tool - InstallShield Wizard	
License Agreement Please read the following license agreement carefully.	
To add your own license text to this dialog, specify your license agreement file in the Dialog editor. 1. Navigate to the User Interface view. 2. Select the LicenseAgreement dialog. 3. Choose to edit the dialog layout . 4. Once in the Dialog editor, select the Memo ScrollableText control. 5. Set FileName to the name of your license agreement RTF file. After you build your release, your license text will be displayed in the License Agreement dialog.	-
I accept the terms in the license agreement Print InstallShield < Back	

Click "Next".

늻 Midea Diagnosis Tool - InstallShield Wizard
Customer Information Please enter your information.
User Name:
Organization:

Click "Change..." in the orange box to change the installation path. After that, click "Next".

劇 Midea Diagnosis Tool - InstallShield Wizard	×
Destination Folder Click Next to install to this folder, or click Change to install to a differen	t folder.
Install Midea Diagnosis Tool to: C:\Program Files (x86)\M-DT\	<u>Q</u> hange
InstallShield	Cancel

Confirm the installation path and then click "Next".

Note: To ensure normal running of the M-DT, you must install the M-DT to a non-system disk. Otherwise, you may encounter errors like M-DT exceptions due to system permissions. You need administrator privileges to install and run the M-DT.

闄 Midea I	Diagnosis Tool - InstallShield Wizard
Destinat Click Ne	t ion Folder ext to install to this folder, or click Change to install to a different folder.
	Install Midea Diagnosis Tool to: D:\Program Files (x86)\M-DT\
InstallShield	< <u>B</u> ack Next > Cancel

4

Click "Install".

澍 Midea Diagnosis Tool - InstallShield Wizard
Ready to Install the Program The wizard is ready to begin installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. Current Settings:
Setup Type:
Typical
Destination Folder:
D:\Program Files (x86)\M-DT\
User Information:
Name: q
Company: q
InstallShield
< <u>Back</u> Instal Cancel

Wait until the M-DT is installed.

闄 Midea D	iagnosis Tool - InstallShield Wizard	J
Installing The prog	Midea Diagnosis Tool ram features you selected are being installed.	
17	Please wait while the InstallShield Wizard installs Midea Diagnosis Tool. This may take several minutes.	
	Status: Copying new files	
InstallShield —	< Back Next > Cancel	-
InstallShield —	<pre> </pre> Cancel	

😸 Midea Diagnosis Tool - Ins	tallShield Wizard	x
	InstallShield Wizard Completed	
	The InstallShield Wizard has successfully installed Midea Diagnosis Tool. Click Finish to exit the wizard.	
	< Back Finish Cano	cel

Click "Finish" when the following window appears.

1.2.3 Uninstallation

Choose "Control Panel" > "Programs" > "Midea Diagnosis Tool" > "Uninstall".



Wait until the program has been uninstalled.

Midea Diagnosis Tool	
Please wait while Windows configures Midea Diagnosis T	Tool
	Cancel

Once the M-DT program has been uninstalled, delete the installation folder manually. If you need the data that has been used by the program, save the corresponding database file.

1.2.4 M-DT Connections



There are two connection methods: connection to non-V6 VRF unit, and connection to V6 VRF unit.

1. Connection to non-V6 VRF unit

Connection to non-V6 VRF unit requires a "conversion board", take V5X outdoor unit for example and the connections are as follows:



1)Connect the bigger cable (10-core) to the CN6 port of MCAC-DSCK.

2) Connect the smaller cable (3-core side) to the CN1 port of MCAC-DSCK.

3) Connect the bigger cable (10-cored) of MCAC-DSCK from CN25 port of the main PCB of V5X outdoor unit.

4) Connect the smaller cable (7-cored end) from the CN26 port of the main PCB of the V5X outdoor unit.

5) Connect the bigger cable (10-cored) to the Interface PCB of the V5X outdoor unit from CN6 port of MCAC-DSCK, as shown in the figure.

6)USB serial port converter connects to XYE port(CN7), X connects to RS485A, Y connects to RS485B, and E connects to GND.

*For more information, please check the installation guidance for the MCAC-DSCK. *Please contact Midea Technical Support for details on the specific models that are considered non-V6 VRF units.

*We continue to update the M-DT, but not all the models mentioned in this connection manual are supported. Refer to the actual software for details on the specific models supported.

*USB serial port converter refers to the serial port to convert USB to RS485. You need to purchase this separately.

2. Connection to V6 VRF unit

USB serial port converter connects to XYE ports, X connects to RS485A, Y connects to RS485B, and E connects to GND.

*Please contact Midea Technical Support for details on the specific models that are considered V6 VRF units.

*We continue to update the M-DT, but not all the models mentioned in this connection manual are supported. Refer to the actual software for details on the specific models supported.

*USB serial port converter refers to the serial port to convert USB to RS485. You need to purchase this separately.

II. USING THE M-DT

2.1 Running the M-DT



After the M-DT is installed, a shortcut **MPDTexe** is created on the desktop. You can also execute the corresponding "M-DT.exe" program directly from the installation path.

Note: M-DT does not support HRV and fresh air units. If an HRV or fresh air unit is connected to the system, the parameters of the indoor unit are the same as those of an ordinary indoor unit.

Note: M-DT starts to monitor the system parameters only when the system operation is stable. Otherwise, the equipment search may be incomplete or wrong. It is recommended that you start the M-DT fifteen minutes after the refrigerant system is powered on.

Note: Whenever there is a change in the state of the refrigerant system, such as powering on after a power failure or switching between refrigerant systems, turn off the M-DT first, and restart the M-DT only after the system is stable again.

2.2 M-DT Login Interface

		_ ×
Midea		
Diagnosis Software	Type V5x(8-12)↓	It's unnecessary to set Port and Type when using Data logs.
Advanced Setting: 👗	Monitor	1 Data logs

M-DT has three functional components in the login interface:

1. Monitor: Monitoring the operating data of the refrigerant system.

2. *Data logs:* Callback database that displays the data of the refrigerant system that has been monitored.

3. Advanced_Setting: Advanced settings that can be used to set the language and units.



Port refers to the serial port connecting the computer to the refrigerant system.

Туре	
V5x(8-12) V5x(14)	^

Note: 14HP refers to models at 14HP or higher, and not just the 14HP outdoor unit.

Note: If the user manually chooses a certain model which is different from the actual model connected to the computer, the M-DT will carry out the resolution based on the model selected manually by the user, and the parameters will be wrong.

Note: The supported models may change with subsequent M-DT upgrades. Refer to the actual M-DT interface display.

2.2.1 Advanced Setting

Advanced Setting		- ×
Data Setting		\bigcirc
Port	Type (VSx(8-12) System Address Auto	Parity Bit None • Data Bit
Stop Bit One	Baud Rate 4800	Unit Language Metric I English I

Port and *Type*, highlighted in the blue boxes above, are the same as the login interface. Do not change the *Parity Bit, Data Bit, Stop Bit,* and *Baud Rate*, highlighted in the red boxes; otherwise, the M-DT may not run normally.

Sample Rate: interval at which the M-DT interface refreshes the data (green box in the center-left of the above figure).

Unit: unit used in the M-DT internal parameters, and includes both metric and imperial systems (green box in the lower right corner of the above figure).

	Temperature
Metric	Celsius
Imperial	Fahrenheit

Language: M-DT interface languages which include Chinese, English, and Spanish (green box in the lower right corner of the above figure)

Note: After the M-DT is restarted, all the parameters except for *refresh* frequency, *unit* and *Language* will revert to the default settings. These are the first serial port for *Port*, Auto for Type and Auto for *System Address*.

2.2.2 Monitor

Note: All the data in this manual are simulated and are not actual data of any outdoor unit. The purpose of the simulated data is to illustrate how the M-DT can be used and how the parameters are shown. Refer to the actual data of the unit.

The following prompt appears when no equipment is found.

Searching		-	×
Searching may take a few minutes.	There is no system.	rtcut K d Control s help provide an easier pucker method of software programs.	

You will see the following window if there are more than one refrigerant system. M-DT only monitors information for one refrigerant system. "System 0" is selected in this instance.

Searchir	Monitor selection More than one system has been found, you can only select one at a time.	- x
Ę	System 0 System 1 System 2 System 3 System 4 System 5 System 6 System 7	ortcut vard Control keys help provide an easier uly quicker method of g commands in M-DT programs.
Searching may take a few	OK Cancel	

Once the system is selected, the program will pause at this interface for up to a few minutes.



Once the M-DT is operating normally, the program will stop at the main interface as shown below.

Midea				_ ×
Juidea		14:55:30		Advanced Setting 🔼
Monitor	Start Time	00:00:11	Diagnosis D S Data Process	
0				

The function menu is on the left. Refer to the following table for indications of the icons:

System Diagram	Refrigerant System Diagram	Refrigerant Cycle Diagram	Data Graph	List View
H	Ð		M	

After the M-DT is loaded and running, exit the M-DT (click \times in the upper right corner). The following prompt appears:



Click "OK" to exit the M-DT, or "Cancel" if you do not wish to exit the M-DT.

Note: It takes a few seconds for the M-DT to exit after you have clicked "OK". Do not click again as the M-DT may become unresponsive.

Note: For some outdoor units, the DIP switch may need to be set to auto addressing. Otherwise, the XYE port of the outdoor unit may provide invalid data, and all the parameters on the M-DT display will be abnormal, such as -25°C for ambient temperature.

2.2.2.1 System Diagram

System Diagram: An overview of the refrigerant system. It is divided into 3 main segments with the outdoor units (ODU) on the left, the indoor units (IDU) in the center, and the indoor unit controller on the right;



Note: For certain models, the error code shown on the M-DT may not be consistent with the error code on the unit. When this happens, refer to the error code on the unit itself.

2.2.2.1.1 System Parameters

System Diagram

System			
ODU Qty.	4	IDU Qty.	64
ODU ON Qty.	4	IDU ON Qty.	64

ODU Qty.	Total number of outdoor units
IDU Qty.	Total number of indoor units
ODU ON Qty.	Number of outdoor units that are on (the compressor must be turned on for the outdoor unit to be considered "ON")
IDU ON Qty.	Number of indoor units that are on

2.2.2.1.2 Parameters of Outdoor Unit



Туре	Unit type from the main interface
Mode	Mode Off Air Supply Cooling Heating Forced cooling: F_Cool Master cooling: M_Cool Master heating: M_Heat Forced heating: F_Heat
HP (Unit HP from the main interface)	HP
INV1 RPS	Compressor 1 Frequency
T7C1	Discharge 1
Error Code	Error Code

2.2.2.1.3 Parameters of Indoor Unit



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	Left	Middle	Right
Line 1	Mode	Fan speed: Low, L Mid, M High, H Auto, A Invalid fan speed, -	HP
Line 2	"Lock" when either the remote or wired controller is locked. Otherwise, it is "Unlock".	Blank	IDU Address
Line 3	Ambient Temperature		
Line 4	Set Temperature		
Line 5	Error Code		

Note: On the M-DT display, the error code is "I**" where "**" refers to the error code shown on the indoor unit, and "I" before the error code indicates this is an indoor unit.

Note: On the M-DT display, the error code is "I00" if the indoor unit is operating normally (error code "00").

The pictures for various indoor units are different. Below is a summary:

OLD Non V6 IDU	
4-WAY	
WALL	
M-DUCT	

L-DUCT	
AHU	
H-DUCT	
COMPACT	
C&F	
FS	
FAPU	
HRV	

To differentiate indoor units that are powered on, the border is black while the rest is grey.

Power on	Power off

The offline state picture is used for disconnected equipment, and the corresponding parameters will be marked as "--":



2.2.2.1.4 General Controls for Indoor Unit

Select the desired indoor unit to send the related control parameters to the indoor unit controller.

The selected options will turn blue when the selection is done. Click "CONFIRM" to send the command.



Note: When the M-DT sends the "Dry mode", the fan speed can be adjusted but the indoor unit may not respond to the fan speed, and the default response is low fan speed. Actual implementation in specific indoor unit is based on the program inherent in the unit itself.

Note: When the M-DT sends the "Fan mode", the set temperature can be adjusted but the indoor unit may not respond to the temperature setting. Actual implementation in specific indoor unit is based on the program inherent in the unit itself.

2.2.2.2 Refrigerant System Diagram



Each page will display 4 indoor units, and only the first 4 units will be shown if there are more than 4 indoor units.

Note: For certain models, the error code shown on the M-DT may not be consistent with the error code on the unit. When this happens, refer to the error code on the unit itself.

Note: Oil return and defrost for the non-V6 outdoor unit will be based on the basic heating diagram.

Note: The refrigerant system diagram does not show the specific parameters of the outdoor unit. It only shows the operating diagram of the outdoor unit. The refrigerant system diagram of the outdoor unit shows only the basic operating diagram, and does not show the actual state changes in the valves.

2.2.2.2.1 Outdoor Unit

The pictures for the outdoor unit in different states will vary according to the selected models: Those for the V5x8-12HP are as follows:



2.2.2.2.2 Indoor Unit



The M-DT divides the indoor units that are online into N groups with 4 units in each group, and the group selected is 01 in this example.

Auto Switch means that the group number will be automatically switched where one group is switched every 20 seconds. Click to change this to Hold Hold G.



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The variables with no parameter names in the above figure are:

 1	Line 1 is the error code (the first "I" is the abbreviation for IDU, and the rest is the error code for the IDU).
	Line 2 is the address.

Different indoor unit modes



2.2.2.3 Refrigerant Cycle Diagram



Note: For certain models, the error code shown on the M-DT may not be consistent with the error code on the unit. When this happens, refer to the error code on the unit itself.

Note: Oil return and defrost for the non-V6 outdoor unit will be based on the basic heating diagram.

2.2.2.3.1 Outdoor Unit

ODU		
COOL	ODU Qty.	4
	ODU ON Qty.	4

HEAT displays the operating mode of the refrigerant system.

ODU Qty. is the total number of outdoor units.

ODU ON Qty. is the number of outdoor units that are on.



Header indicates the outdoor unit that is being displayed currently. Use the drop-down box on the right to select the outdoor unit to be shown (*Header* is the master unit, *Follower1* and *Follower2* are slave unit 1 and slave unit 2 respectively).



INV1 RPS is the power-up frequency of compressor 1.

Check Code is the error code.

2.2.2.3.1.1 Outdoor unit

The corresponding refrigerant circulating diagram will be shown for different operating modes of the outdoor unit. The example here is V5x (8-12HP).



When there are state changes in the valves, the corresponding circuit will also change its color.

2.2.2.3.2 Indoor Unit

IDU					
IDU HP	64				
IDU Qty.	64				
IDU ON Qty.	64				

IDU HP is the total HP of indoor units.

IDU Qty. is the total number of indoor units.

IDU ON Qty. is the number of indoor units that are on.



0 is the group that is being displayed currently. Use "I" to select the group.



The variables with no parameter names in the above figure are:

100	Line 1 is the error code (the first "I" is the abbreviation for IDU, and the rest is the error code for the IDU).
	Line 2 is the address.

Different indoor unit modes

Off	COND / EVAP
Cooling	EVAP
Heating	

2.2.2.4 Data Graph



Double click on the graph display area to go to the window to select the parameter data:

Curves Se	tting					
	ODU/Head ODU/Head	 ▼ T4 ▼ T3 ▼ T3 ▼ 10 ♥ 10<!--</th--><th>• •</th><th>Temp(110,-20)</th><th></th><th>HI III</th>	• •	Temp(110,-20)		HI III
	Save		Cancel	1		v

Note: If the default color of the graph is blank, a random color will be assigned. The random color will be assigned each time you click to save the graph.

First check box indicates if a graph will be displayed for the parameter. If this is not selected, the parameter will not be displayed.

Column 2 is the color.

Columns 3 and 4 are the parameters.

Column 5 refers to the co-ordinates of the graph.

Column 6 indicates the thickness of the line, and the default is 1.

Single Cursor G - Single cursor

Data Graph				_ a ×
Hide Cursor G Double Curso G Calculate G	Large Graph G New Graph G	Zoom G Restore G	1	
			•	
m - 1				Color Nerse Y1 Time
200.0-				 ODUHeadT4 70 2017-08-03 09:41:13
95.0				 ODUNendT3 60 2017-05-03 09:41:13
90.0				 ODU/HeadT7C1 33 2017-08-03-09:41:13
05.0-				
-1.08				
75.0-				
0.0				
68.6				
92.0-				
50.0-				
45.0-				
40.0				
201				
2.1-				
28.0-				
15.0-				
10.0-				
5.0-				
-10.0-				
-15.0-				
-28.0				
-3.0-				
-30.0-				
-3.0				
0.2k0 0.2k0 0.2k0 0.5		00-05:00 00-04:00 00-04:00 00-00:00	N.S	ce:si: co co ce:so

A yellow cross will appear on the interface. Use the mouse to drag the cursor, and once the mouse is released, the right side will be refreshed to show the parameters at where the cursor is.



There are two cursors on the interface: yellow and ochre. Use the mouse to drag the cursor, and once the mouse is released, the right side will be refreshed to show the parameters at where the cursor is.

Calculate **G** - Calculate. With the double cursors, this will calculate the maximum, minimum and average values between the left and right cursors.



Large Graph G - Display the maximum range of the graph, such as all the data for 3 days when the M-DT has been operating for 3 days.

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In *Zoom* mode, you can drag the entire display in the graph display area with the mouse. You can move the cursor if it is available.

In *Select* mode, you can zoom in on the selected area in the graph display area with the mouse. Press and hold the left mouse cursor, move the mouse to form a selection window, and then release the mouse to scale the selected area immediately.



Note: When a coordinate axis is used, the coordinates of the axis will be scaled accordingly. Note: When you move the cursor to a specific position and the graph moves (under Zoom), the cursor display data will not automatically refresh. You need to manually move the cursor position once in order to get the latest data.

Restore G

Click *restore* to return to the initial display, with the Y axis being restored to a set state, and the X axis at about 70% of the latest data point.

Note: The error code shown on the M-DT may not be consistent with the error code on the unit. When this happens, refer to the error code on the unit itself.

Note: When the graph for a certain parameter is cancelled, you need to reselect the graph for the parameter, and redraw the graph from when the parameter is reselected.

Note: In the graph, there are only two states for the error information of the indoor and outdoor units: "0" if there is no error, and "1" if there is an error.

Note: For the fan speed in the indoor unit, 1, 3, 5, 7 corresponding to low speed, mid speed, high speed, and automatic fan respectively. In some models, the fan speed options may not use these numerical values. Refer to the actual drawing of the model.

Note: The M-DT will create the graph based on the actual corresponding values for information like mode and fan speed. As there are existing differences between the corresponding parameters of various models, such parametric curves have no real significance.

Note: In the graph, "1" means the valve is ON while "0" means the valve is OFF.

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Note: "0" means the selected parameter does not exist. For example, Ps1 does not exist in the MDC, and if Ps1 from the MDC is selected for the graph, the default is "0".

Note: The graph interface refreshes with every query interval, and this is not related to the refresh time at the advanced setting interface. The refresh time is longer when you have more equipment, and vice versa. A query interval is about 200*2*number of equipment.

Advanced Operations

Right-click on the Y axis to configure the related information for the Y axis.



1. Edit Y Axis - Edit Y axis attributes.

Y Axis Set		
Temp(110,-20)	▼ Name Temp(110	,-20)
	Display	
	Max	110
	Min	-20
	Start Dock	0
	Stop Dock	1
	Save	Cancel

1.1 Graph supports up to six Y axes. Name is the name of the graph axis.

1.2 Display indicates if this coordinate axis will be displayed.

1.3 *Max* is the maximum value of the coordinate axis, *Min* is the minimum value of the coordinate axis.

1.4 *Start Dock* is where the coordinate axis will start for the display area, *Stop Dock* is where the coordinate axis will end for the display area (the entire Y axis is 0^{-1}).

For example, if the *Start Dock* and *Stop Dock* of the coordinate axis are 0 and 0.5 respectively, this means that the coordinate axis will only occupy half the column. But if the *Start Dock* and *Stop Dock* of the coordinate axis are 0 and 1 respectively, this means that the coordinate axis will take up the entire column.



On the right, *Start Dock* and *Stop Dock* are 0 and 0.5. On the left, *Start Dock* and *Stop Dock* are 0 and 1.

When you enter a parameter that is outside $0\sim1$, you will be prompted to enter a value between $0\sim1$:



2. Other Y Axis Same Col means that one column co-exists with another column.

Note: If there is a configuration issue with the Start Dock and Stop Dock, you may end up with overlapping Y axes.

Note: When there are multiple coordinate axes, only the selected area is rescaled if zoom is selected. For example, only the lower half of the display area will be enlarged while the upper half of the Y axis remains the same, and the X axis will zoom in and out accordingly.

Note: In the detailed settings, an unexpected state may result if Y axes in the same column are selected. When column A is set up as column B, and column B is set up as column A, then column B will appear in the original location of column A (if the column is empty, column B will occupy the 0~1 position), and the display will look like columns A and B are different columns.

3. *Same* col *cancel* will cancel the same column attribute, and return the parameter back to its original column.

4. *Hide* is to hide the current coordinate axis, and corresponds to the *display* in the configured parameters.

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Note: The exit key in the upper right corner of the graph and the minimize key are the same, which is to minimize the window to the task bar so that you can see the graph you have selected earlier when you view the graphical display again.

Note: The graph configuration is not saved, and the parameters are blank each time the $M\mathchar`-DT$ is turned on.

Note: The Y axis of the graph will be saved after the information has been edited, and the next time the M-DT is turned on, the Y axis of the display is the same as the last modified information. Take note of the blank parameters in the partitions.

Note: A configuration window will pop up when you right click the mouse in the left area if all the Y axes are hidden.



2.2.2.5 List View

	Sta	irt Time				Diagnosis	D 🖸 Data Pr	ocess	
ystem Data									-
ODU	~								
ODU Data					IDU Data				
	Header	Follower1	Follower2	Follower3		0	1	2	3
Mode	COOL	COOL	COOL	COOL	Mode	OFF	COOL	COOL	COOL
т4	70	60	20	10	Fan	L	L	L	L
тз	60	60	60	60	T2B	40	40	40	40
INV1	55	55	55	55	T2	30	30	30	30
T7C1	0	0	0	0	T1	20	20	20	20
CUR1	10	10	10	10	Cotonint	10	10	10	10
EXVA	400	400	400	400					
SV2	OFF	OFF	OFF	OFF					
SV4	OFF	OFF	OFF	OFF					
SV5	ON	ON	ON	ON					
SV6	OFF	OFF	OFF	OFF					
ST1	OFF	OFF	OFF	OFF					
Error Code	00	00	00	00					
Demand	2	2	2	2					

Different equipment models have different parameters. The V5x (8-12HP) is an example.

Outdoor Unit	Indoor Unit		
ODU Operating Mode	Operating Mode		
Outdoor Ambient Temperature (T4)	Actual Fan Speed		
Condenser Temperature (T3)	T2B		
Compressor 1 Frequency (INV1)	T2		
Discharge 1 (T7C1)	Indoor Temperature (T1)		
Current 1 (CUR1)	Set Temperature		
Electronic Expansion Valve (EXVA)	EXV		
SV2	Error Code		
SV4	IDU Address		
SV5			
SV6			
ST1			
Error Code			
Operating Energy Demand			

2.2.2.6 Troubleshooting

Troubleshooting Manual

nitor		Start Time 00:16:37		Diagnosis 🖸 🔄 Data Process
Code List				-
EPROP COD	T.m.s	Deficition		Detailed Information
ODU OFFLINE	PC	ODU ED H1 E8	•	Description
60	PC.	001165		 Communication error between outdoor units.
un	PC	000.00		All units stop running.
nv				 Error code is only displayed on the slave unit with the error.
C7		obuler, any, or, roar i, no, ro		Possible causes
P2	PC	000/H5/2		Communication wires between outdoor units not connected properly.
P6	PC	ODU:xH4		 Loosened wiring within electric control box.
P7	PC	ODU xP7		 Damaged main PCB or electric control box communication terminals block.
PF	PC	ODU:H7.H8.H9.P9.PL.H5.H6.PP		Procedure
E0	000	Communication error between outdoor units.		
E1	000	Phase sequence error.		EO
E2	000	Communication error between indoor and master unit.		
E4	000	Indicates an outdoor ambient temperature sensor error.		ODU addresses on switch ENC1 are set
E5	000	Abnormal power supply voltage.		incorrectly ¹ Set th
E7	000	indicates a compressor top temperature sensor or discharge pipe tem		No
E8	000	Outdoor unit address error.		Enrura t
vE0	0011	150 indicates a compressor & EEPDOM mismatch 250 indicates a co		Communication wires between ODUs are Yes

Notes:

If the error type is PC, no corresponding content will be shown on the right.

A *PC* error means that the corresponding outdoor unit may display the error code for the error shown on the M-DT display.

An ODU error means that the outdoor unit may display the corresponding troubleshooting.

The error code is shown on the left, and the corresponding troubleshooting process is displayed on the right.

Note: *troubleshooting* may not contain all the information about the error and protection features. For example, the protection details for defrost and oil return are not included in the error information. Refer to the troubleshooting manual of the outdoor unit for specific equipment errors.

2.2.2.7 Data Process



Click "Save Data", and M-DT will save the current data to the database.

Note: Even if this option is not selected, the backend database will automatically save the data.

Click "Export Data" to go to the interface to save the data.

Export Data		Export CSV	Format
Time Quan	2017-10-18 17:0	1:30	•
End Time	2017-10-18 17:0	7:47	×
Export		Quit	

In this interface, you can opt to export the indoor unit (IDU), and outdoor unit (ODU). Select CSV or Excel for the exported data format, and select the time segment to be exported.

Click "Export" to go to the window to select the saving path. Select the path.

While the data is being exported, you will see a window that indicates the progress. Please be patient. At this time, clicking on any M-DT operation may lead to M-DT downtime:



Note: If there are many operating records, it may take a longer time to export the data. The data file has a default name with the format "ODU_View-[Time]", "IDU_View-[Time]" ODU content:

	A	В	C	D	E	F	G	Н	I	J	K	L	И	n	0	P	Q	R	S	Т	U	V
1	ID	Frame No	Time	RefSys Address	Address	Type	ΗP	Node	T4	T3	INV1	T7C1	CUR1	EXVA	EXVB	S72	S74	S75	SY6	ST1	Error Code	Demand
2	;	ι 1	2017/10/18		129	V5x	10	OFF	70	60	55	33	0	400	800	OFF	OFF	ON	OFF	OFF	00	2
3	1	2 1	2017/10/18	() 130	V5x	10	OFF	70	60	55	33	0	400	800	OFF	ON	ON	OFF	OFF	H3	2

ID	No.
Frame No	M-DT frame number, each M-DT query is 1 frame
Time	Time of query
RefSys Address	Refrigerant System Address
Address	External network address: 129 - master unit /130 - slave unit 1/131 - slave unit 2/132 - slave unit 3
Туре	ODU model
HP	HP of ODU
Mode	Operating Mode
	The remaining parameters are the same as the list of parameters

IDU content:

	A	В	С	D	E	F	G	H	I	J	K	L	M	N	0
1	ID	Frame No	Time	RefSys Address	Address	Туре	HP	Node	Fan	T2B	T2	T1	Setpoint	EXV	Error Code
2	1	. 1	2017/10/18	0	0	HWALL	0.8	HEAT	Å	-25	-25	-25	16	8	IE7
3	2	1	2017/10/18	0	1	HWALL	0.8	OFF	A	-25	-25	-25	16	8	100

ID	No.
Frame No	M-DT frame number, each M-DT query is 1 frame
Time	Time of query
RefSys Address	Refrigerant System Address
Address	External network address: 129 - master unit /130 - slave unit 1/131 - slave unit 2/132 - slave unit 3
Туре	IDU model ("OLD" for non-V6 indoor units, model abbreviations for the other models)
HP	IDU HP
Mode	Operating Mode
	Subsequent data will be consistent with the list of parameters.



Note: The data export time must be within the M-DT effective time period. Data export may fail if the *Start Time* is earlier than when the M-DT is turned on, or if the *End Time* is later than when diagnostics are turned off.

Note: When exporting the Excel file, if the excel file is in use, it may cause the export to fail. Please close Excel and try to export again.

Note: Office 2012 or higher must be installed in the computer.

Note: If the system has non-V6 indoor or outdoor units, the refrigerant system addresses exported from the indoor units may not be consistent with the refrigerant system of the outdoor unit.

Note: Data export should be carried out only after the M-DT has been running for 5 minutes. Otherwise, the M-DT may exit with exception.

2.2.3 Data logs

Once the M-DT is turned on, a copy of the database will be saved. The path is DBFolder under the installation directory. Click the "Data logs" button on the login interface to go to the database window where you can select the database that you want to view.

If the loaded database is empty, the following prompt appears.

т	he database is empty	Į
	ОК	

Click to return to the login interface.





12/22/2017 11:51:48

118 is the frame number of the current data;

434 is the total number of frames.

"12/22/2017 11:51:48" is the corresponding time of the current frame number.

Scroll along the progress bar to jump to a particular frame.

Auto Play Auto Play Pre Frame Next Frame	Jump automation Jump to the pre Jump to the new	ally to t vious franc t frame	he n ame	ext frame	
Data	Selection	Cond	Sea	arch range	
Data Selection - S	elect the searcl	n param	eter	s.	
Cond - Para	ameter conditior	ו "<, >, =	=".		
Search range - N	lumerical value	of the s	earc	h parame	ter.
Example:	ODU/T4	>		100	

Used to search for data that fulfills the search conditions, such as searching for data at ambient temperature >30°C. This will automatically jump to the frame that fulfills the search conditions each time you click. If such a frame does not exist, the following prompt appears.

N	o data has been fou	nd.
	ОК	I

Note: A minimum of one functional interface must be on for

Next Frame

, and scrolling along

the progress bar to work. Otherwise, the above functions will not work (no effect on clicking).

Note: As long as the data in any equipment satisfies the search parameters, the equipment will be considered to have fulfilled the search conditions. If the temperature is set to be "greater than" 17°C in the search, and there is an indoor unit where the temperature exceeds 17°C, then the corresponding frame data is considered to have fulfilled the data conditions.

Note: The history interface refreshes at every query interval (one data frame), and this is not related to the refresh time at the advanced setting interface. The refresh time is longer when you have more equipment, and vice versa. A query interval is about 200*2*number of equipment.

MD17U-019AW

技术要求 双胶纸100g,黑白印刷,148*210mm

6.25

增加技术要求,内容不变,故不升级版本