

Installation Manual for DRED Interface (DRC-101A)

About DRED Interface

The DRED interface (DRC-101A) allows the air-conditioner to go in to Demand Response Mode in response to signals sent from the Electric Supplier at times when it is necessary to reduce peak demand. The air-conditioner will be capable of all three Demand Response Modes (DRM). DRM1: Compressor Off, DRM2: Total electrical energy consumption of the system is not more than 50%, DRM3: Total electrical energy consumption of the system is not more than 75%.

Note: This DRED interface is only compatible with MSZ-G series with model name MUZ-GEVAD/MSZ-GE**VAD.**

1. Safety Precautions

- Read all Safety Instructions before using this device.
- This manual contains important safety information.
Be sure to comply with the instructions.
- After installing the interface, provide this Installation Manual to the user. Instruct users to store this manual with their room air conditioner Instruction Manual and Warranty in a safe location.

WARNING

(Improper handling may have serious consequences, including serious injury or death.)

■ **Users should not install the Interface on their own.**

Improper installation may result in fire, electric shock, or damage/water leaks. Consult the dealer from whom you purchased the unit or a professional Installer.

■ **The Interface should be securely installed in accordance with the enclosed Installation Manual.**

Improper installation may result in fire, electric shock, or damage.

■ **Connect and fasten the electric wires securely so external force on the wires will not apply on the terminals.**

Improper connection and mounting may result in breakdown, heat generation, smoke generation, or fire.

■ **Electrical work must be performed by authorized personnel according to the local regulations (AS/NZS 3000) and the instructions detailed in the installation manual**

Inadequate circuit capacity or improper installation may result in electric shock or fire.

■ **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**

■ **Children should be supervised at all times to ensure that they do not play with the appliances.**

CAUTION

(Improper handling may have consequences, including injury or damage to the house.)

■ **To prevent damage from static electricity; touch a nearby metal body to discharge static electricity before touching the Interface unit.**

Static electricity from the human body may damage the Interface unit.

■ **Do not use in special environments.**

Do not use in places with high concentrations of oil (including machine oil), steam, or sulphuric gas as it may lead to severe decrease in functionality and damage to parts.

■ **Do not install in a system which is to provide cooling or heating to critical applications. (e.g. Nursing homes, hospitals etc)**

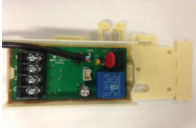
■ **Turn off power supply of connected equipment when performing installation or wiring work.**

Failure to turn off the power supply of the connected equipment may lead to malfunction or breakdown of the Interface unit or connected equipment.

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■ **Do not connect DRED power cables to the outdoor unit terminal block (L, N).**

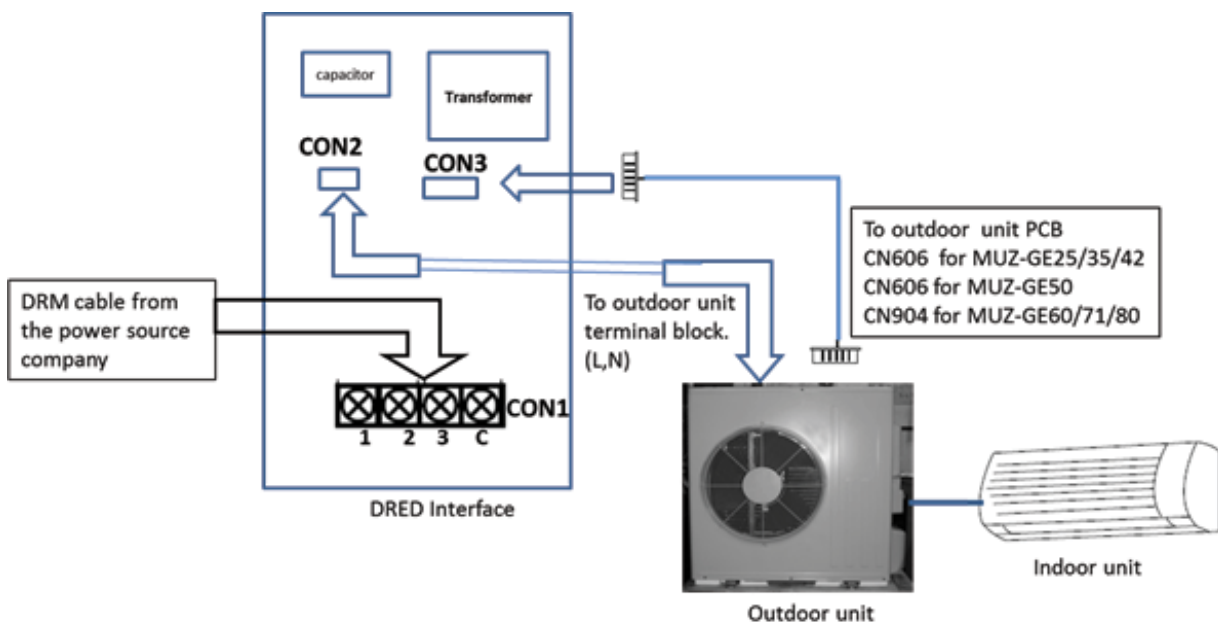
2. Parts List

No.	Description	Figure	Q'ty	Applicable Models		
				A	B	C
1.	DRED Interface with holder (DRC-101A)		1	●	●	●
2.	Lead wire A(300mm)		1	●	●	
3.	Lead wire B (340mm)		1			●
4.	Screw(T.ST. 4x12))		1			●
5.	Cable Tie		2	●	●	
6.	This installation manual		1	●	●	●

Applicable Models:

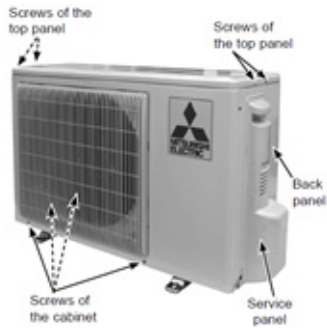
A: MUZ-GE25/35/42VAD-A* B: MUZ-GE50VAD-A* C: MUZ-GE60/71/80VAD-A*

3. System Diagram

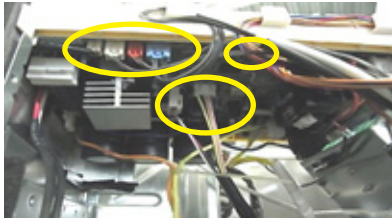


4. Installation Procedure (Applicable Model: MUZ-GE25/35/42VAD-A*)

1. Isolate power to the unit.
2. Remove the service panel, top panel, cabinet and back panel.



3. Remove all the connectors from Electrical Assembly.
(CN641 CN643 CN644 CN724 CN932)



Before removing the connectors



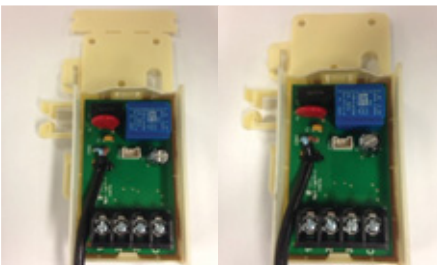
After removing the connectors

4. Remove two screws to pull out the Electrical Assembly.



Remove screws

5. Remove the upper part of the Holder and then smooth the edges.



Before

After

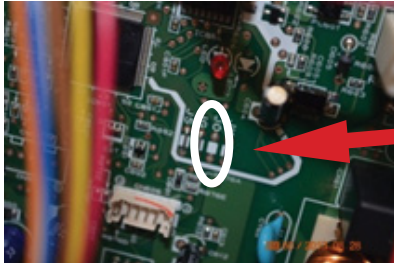
6. Connect the RJ45 adapter cable (supplied with DRED signal receiver) to the terminal bed (CON1) on the DRED interface (DRC-101A).

DRM TERMINAL	CABLE COLOUR
DRM3	ORANGE
DRM2	PINK
DRM1	PURPLE
DRM-Common	GREY



AIR CONDITIONING SYSTEMS

7. Cut the JS jumper on the outdoor unit PCB to activate the DRED function.



Cut JS jumper

8. Connect the lead wire A between the DRED interface (CON3) and outdoor unit PC board (CN606).

9. Reconnect all the connectors.

Arrange the wires neatly using the U and L formed hook on the holder. Make sure the wires do not touch any other components in the unit.

10. Fix the Holder on terminal block support with a cable tie.



11. Install the Electrical Assembly.

12. Connect the DRED interface (DRC-101A) power source wire to the terminal block (L, N) on the outdoor unit. Brown to L and Blue to N.

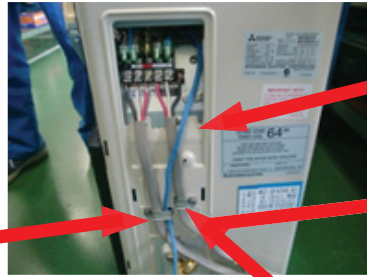


TERMINAL BLOCK	CABLE COLOUR
L	BROWN
N	BLUE

13. Fix the Electrical Assembly with two screws which were removed in step 4.

14. Connect the RJ45 DRM cable from DRED signal receiver to RJ45 adapter.

15. Replace back panel, cabinet and top panel. When installing the back panel, be sure to pass the wires through the panel for the DRED interface (DRC-101A) interconnect and secure neatly.



DRED cable

Clamp 1

Pass the wires through the clamp 1 to fix it.

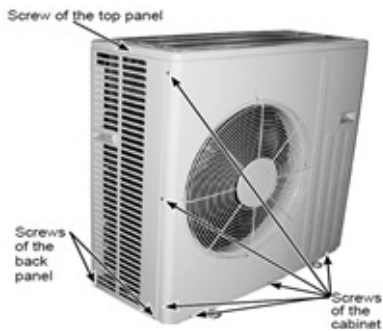
To prevent the wires to be damaged by clamp 2 edges, paste filament tape or vinyl tape over the clamp edges.

Clamp 2

16. Replace the service panel.

4 . Installation Procedure (Applicable Model: MUZ-GE50VAD-A*)

1. Isolate power to the unit.
2. Remove the top panel and cabinet.



3. Remove all the connectors from the Electrical Assembly.
(CN641 CN643 CN644 CN724 CN932)

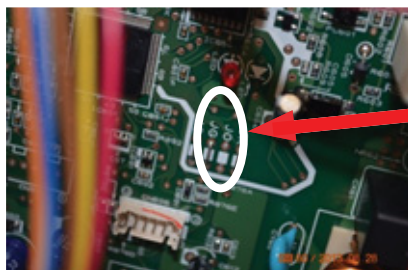


Before removing the connectors



After removing the connectors

4. Cut the JS jumper on the outdoor PCB board to activate DRED function.



Cut JS jumper

AIR CONDITIONING SYSTEMS

5. Connect the RJ45 adapter cable supplied with DRED signal receiver to the terminal bed (CON1) on the DRED interface (DRC-101A).

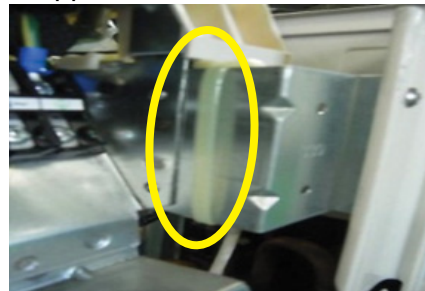
DRM TERMINAL	CABLE COLOUR
DRM3	ORANGE
DRM2	PINK
DRM1	PURPLE
DRM-Common	GREY



6. A) Clip on Holder to metal frame as shown below.

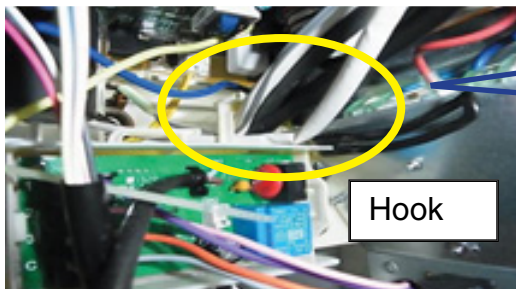


B) Fix front end of holder to metal frame with the supplied cable tie as shown below.



7. A) Pass lead wires for thermistors into U-formed hook on Holder.

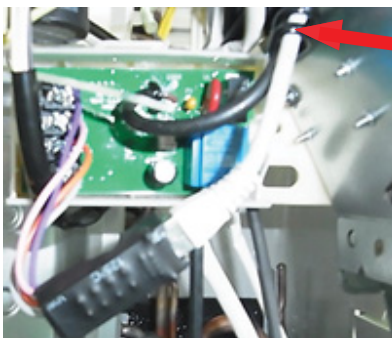
B) Pass lead wires for fan motor behind/under Holder.



Hook

For easy installation of holder, push the clamps towards the back.

8. Connect the RJ45 DRM cable from DRED signal receiver to RJ45 adapter.



Bind the wires with clamp to fix.

Make sure wires do not have contact with other edges.

9. Connect the lead wire A between the DRED interface (CON3) and outdoor unit PCB board (CN606).

10. Connect the DRED interface (DRC-101A) power source wire to terminal block (L, N) on the outdoor unit. Brown to L and Blue to N.



TERMINAL BLOCK	CABLE COLOUR
L	BROWN
N	BLUE

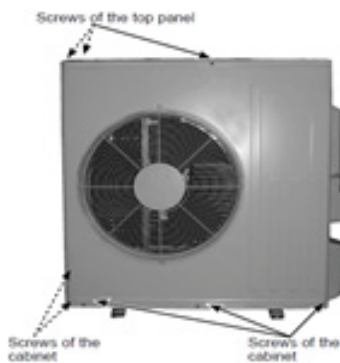
11. Arrange the wires neatly.



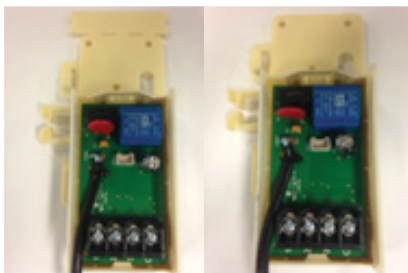
12. Replace the cabinet and top panel.

4. Installation Procedure (Applicable Model: MUZ-GE60/71/80VAD-A*)

1. Isolate power to the unit.
2. Remove the top panel and cabinet.



3. Remove upper part of the Holder and smooth the edges.



Before

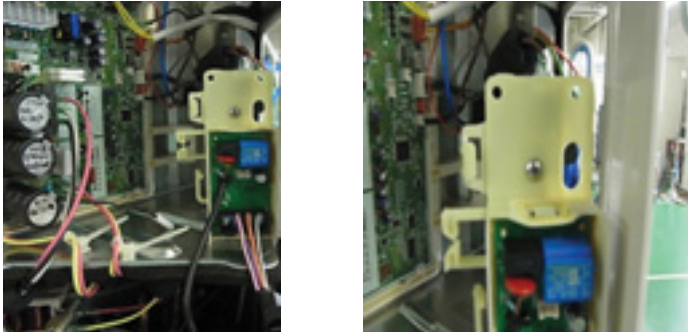
After

4. Connect the RJ45 adapter cable (Supplied with DRED signal receiver) to the terminal bed (CON1) on the DRED interface.

DRM TERMINAL	CABLE COLOUR
DRM3	ORANGE
DRM2	PINK
DRM1	PURPLE
DRM-Common	GREY



5. Fix Holder on terminal block support with the supplied screw.



6. Connect the DRED interface (DRC-101A) power source wire to terminal block (L, N) on the outdoor unit. Brown to L and Blue to N.

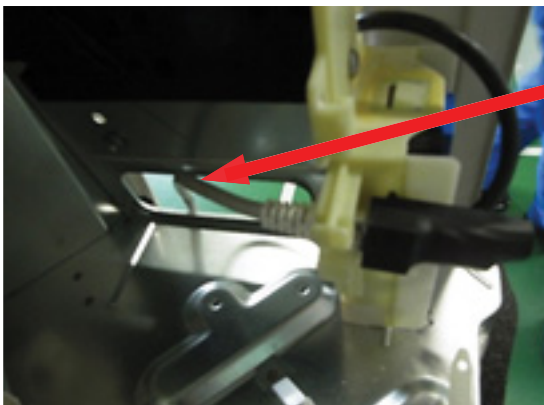


Paste filament tape on the edges to prevent it from cutting the wires

TERMINAL BLOCK	CABLE COLOUR
L	BROWN
N	BLUE

7. Connect the lead wire B between the DRED interface (CON3) and outdoor unit PCB board (CN904).

8. Connect the RJ45 DRM cable from DRED signal receiver to RJ45 adapter.



Fix the DRED wire on the hook.

9. Replace the cabinet and top panel.