

Instruction of GMV Communication Convertor

1 Notice

- ◆ This instruction is applicable for Communication Convertor ME55-33/F(C), for installation and maintenance of it;
- ◆ Please read this instruction carefully before installation; installation and maintenance work must be conducted by authorized company or professional personnel;
- ◆ Communication convertor does not has waterproof function that it must be installed in indoor and dry place;
- ◆ Please retain this instruction well for future reference.

2 Product Summarize

Communication convertor is for converting information between CAN network communication and 485 network communication, which can achieve compatible operation between GMV4 indoor unit with 485 communication technology and outdoor unit of GMV5, GMV5S, GMV ES with CAN network communication technology.

Notes: For the system adopting such product, its outdoor unit must be the unit with CAN network, and indoor unit must be GMV4 unit with 485 network.

3 Product Introduction

3.1 Components

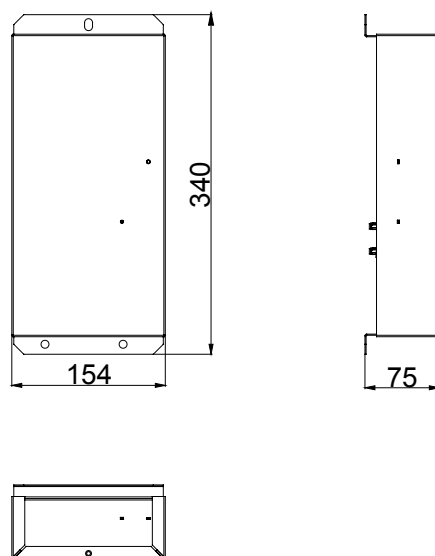
Package of this product includes the following components, please check before use.

Communication convertor	One
Instruction	One
Tapping screw	Three
Tapping screw parts	Two

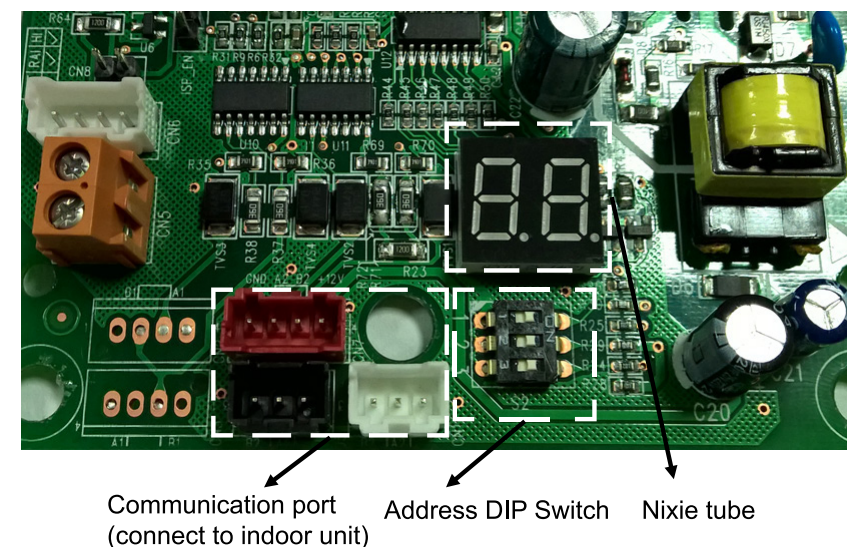
3.2 Specific Introduction

Notes: Picture of product is only for reference, Please refer to actual products. Unspecified measure unit is mm.

External dimension of communication convertor is as below:



Mainboard of communication convertor is as below:



3.3 Working Condition

Normal working requirements of communication convertor:

- 1.It should be installed on the wall or in electric cabinet;
- 2.Temperature: 0℃ -40℃ ;
- 3.Relative humidity: less than or equal to 85%;

3.4 Feature of system

For the GMV system adopts communication convertor, its installation of outdoor unit and indoor unit are the same as general system, the only difference is that the communication convertor is extra installed in the communication network between indoor units and outdoor units.

If outdoor unit is modularized unit, then it can connect to 4 modules in parallel at most, after parallel connection of outdoor unit, connect communication wire to communication convertor, it can connect to 5 communication convertors at most, each communication convertor can connect to 16 indoor units at most, therefore a modularized system can connect to 80 sets of indoor units at most.

3.5 System Function

The GMV system with communication convertor is set to be compatible with general system, which mainly includes engineering application function, unit function and settlement of malfunction.

3.5.1 Compatible Functions

- 1.Indoor unit does not support auto addressing function that it should conduct related setting of address code according to instruction manual of indoor unit, otherwise it may cause communication malfunction;
- 2.For monitor and control of system, please use Gree Debugger; it does not support Text Parser;
- 3.Partial setting functions of Gree Debugger are invalid;
- 4.The system does not support trial running stipulated in instruction manual of outdoor unit; the unit can operate after finishing installation, there is no need to conduct debugging.

3.5.2 Malfunction Settlement

Indoor unit that connects into this system can only display and inquire partial malfunctions as below. Other malfunctions should inquire the malfunction code displayed in outdoor unit, communication convertor or Gree Debugger.

Code of indoor unit	Code of Communication convertor or Gree Debugger	Malfunction
F0	d3	Ambient temperature sensor malfunction
F1	d4	Inlet pipe temperature sensor malfunction
F2	d5	Pipeline temperature sensor malfunction
F3	d6	Outlet pipe temperature sensor malfunction
E2	L5	Anti-freeze protection
E6	C0	Communication malfunction
E7	L6	Mode conflict

E8	L1	Indoor fan protection
E9	L3	Water-full protection
EH	L2	E-heater protection

Notes: Codes other than the above codes of indoor unit, it should be subject to the codes displayed in outdoor unit, communication convertor or Gree debugger.

4 Installation of Product

4.1 Installation Instruction

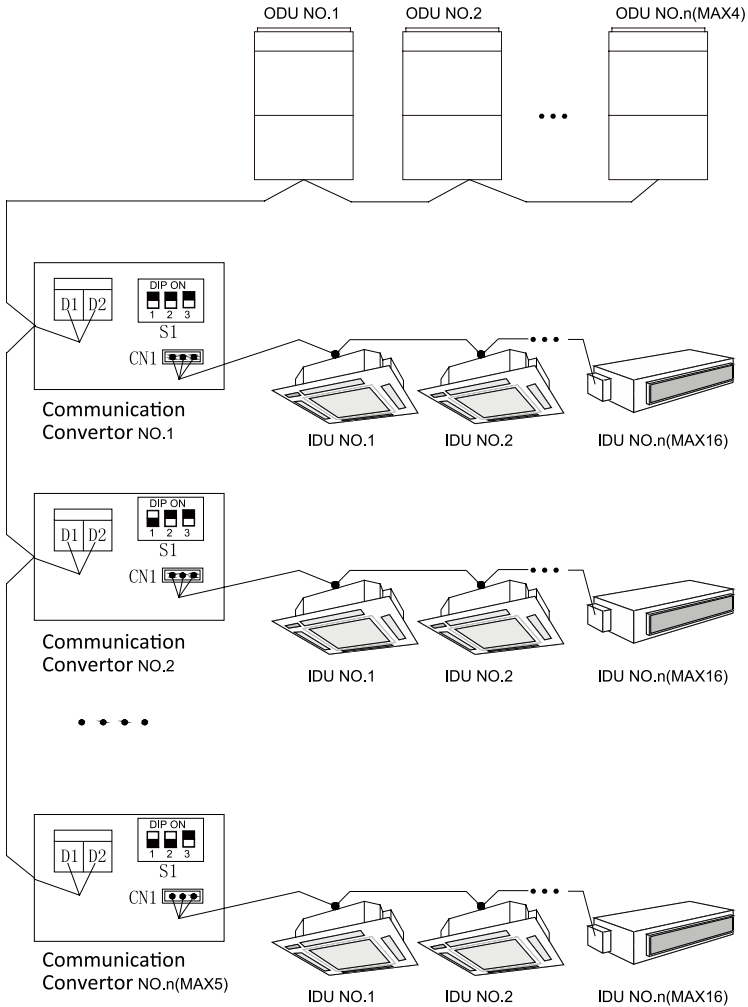
4.1.1 Installation Instruction of units

- 1.Installation of pipelines is the same as that of general system, for specific information please refer to instruction manual of outdoor unit;
- 2.For adding method and adding quantity of refrigerant please refer to instruction manual of outdoor unit;
- 3.For installation of electricity (power cord, communication wire) between outdoor unit and outdoor unit, indoor unit and indoor unit, please refer to instruction manual of outdoor unit and indoor unit (wired controller);
- 4.Communication convertor must be installed between communication network of outdoor unit and communication network of indoor unit;

4.1.2 Installation of communication convertor

Notes: communication convertor must be installed between communication network of outdoor unit and communication network of indoor unit for converting data between CAN network and 485 network.

Sketch map for communication network of system adopting communication convertor is as below:



4.2 Selection of installation position

Communication convertor does not has waterproof function that it must be installed in indoor and dry place;
Directly install the three screws on the wall (plastic particles for installation are separately prepared by installation personnel).

4.3 Connection of electricity

4.3.1 Connection of power cord

Model selection for electricity of communication convertor is as below:

Capacity of circuit breaker (A)	Minimum sectional area of earthing line (mm ²)	Recommended lead (sectional area mm ² ×quantity)
6	0.75	0.75×3

Power of communication convertor and indoor unit are supplied together, power cord is connected to L and N of wiring board.

4.3.2 Connection of communication wire

Model selection between communication convertor and outdoor unit should refer to model selection of communication wire of outdoor unit; connecting way of communication wire is the same as that of outdoor unit that use fastening screw to connect to D1 and D2 in wiring board of convertor.

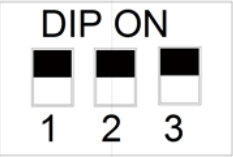
Use the prepared wire of indoor unit as communication wire between communication convertor and indoor unit to connect to CN1 or CN3 or CN2 in needle stand of convertor.

4.4 Setting of DIP Switch

S1 DIP Switch on communication convertor represents communication address of convertor, which can be respectively set as 01, 02.....05; for the system with multiple communication convertors, each communication convertor must be set as 01, 02.....; corresponding relation of dial code and address are as below:

DIP Switch			Address
The first digit	The second digit	The third digit	
0	0	0	01
1	0	0	02
0	1	0	03
1	1	0	04
0	0	1	05

When adjusting dial switch to number side represents 1, adjusting it to ON side represents 0, as shown below, the black part means the position of DIP switch, so the DIP switch of following figure is “000”, representing address 01.



Notes: setting of DIP switch must be conducted under power-off status, DIP switch should be dialed in correct place; after dialing the switch please record the address code.

5 Troubleshooting

When communication malfunction occurs, please solve according to the following methods; for settlement of other malfunctions please refer to 3.5.2 and instruction manual of indoor units and outdoor units.

Under the same communication convertor, if partial indoor units have communication malfunction, please check if address code of indoor unit and address code of wired controller are correctly set;

Under the same communication convertor, if all the indoor units have communication malfunction, please check if communication convertor is energized, and check if address code of communication convertor is correctly set;

- 1. Under multiple communication convertors, if all the indoor units have communication malfunction, please check if address code of communication convertors are correctly set.

