



Internal Use Only

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# Low Ambient Control Kit

## SVC MANUAL

**MODEL : PRVC2**

\* PRVC2 is available only for the Multi-V IV model  
(PRVC2 can not be installed for the previous Multi-V IV model)

### **CAUTION**

Before Servicing the unit, read the safety precautions in General SVC manual.  
Only for authorized service personnel.

# TABLE OF CONTENTS

■ Safety Precautions.....	3
■ Name of each Part.....	5
■ Self-Diagnosis Function.....	6

# Safety Precautions



To prevent injury to the user or other people and property damage, the following instructions must be followed.

- Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

**⚠ WARNING** This symbol indicates the possibility of death or serious injury.

**⚠ CAUTION** This symbol indicates the possibility of injury or damage.

- Meanings of symbols used in this manual are as shown below.

	<b>Be sure not to do.</b>
	<b>Be sure to follow the instruction.</b>

**⚠ WARNING**

## ■ During installation

**Please install the designated location in the Control box.**

- It can cause the breakdown or accident.

**Do not touch the board when the power is connected .**

- It can cause a fire, electric shock, explosion, injury and problem to the product.

**Always request for installation of the product to the service center or the installation service provider.**

- It can cause a fire, electric shock, explosion and injury.

**When reinstalling the previously installed product, request for service to the service center or the installation service provider.**

- It can cause a fire, electric shock, explosion and injury.

■ **During use**

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**Do not modify or extend the power cord.**

- It can cause a fire and electric shock.

**Do not pour water inside the product.**

- It can cause an electric shock and problem to the product.

**When the product is submersed in water, always request for service to the service center or the installation service provider.**

- It can cause a fire and electric shock.

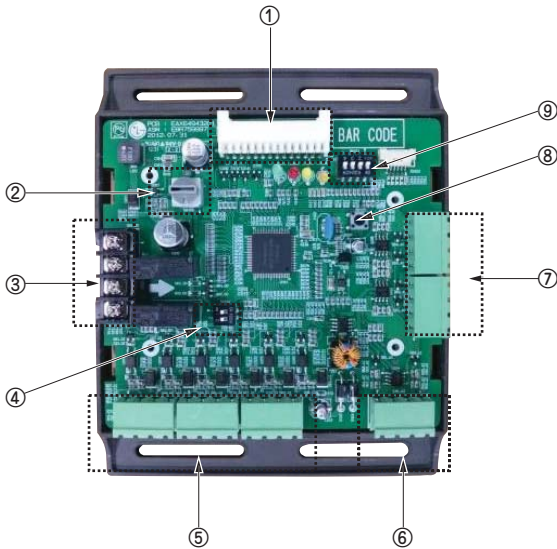
**Make the children and the elderly use the product with the help of a guardian.**

- It can cause a safety accident and problems to the product.

**Do not give impact to the product.**

- It can cause problem to the product.

# Name of each part



- ① **Main connector** : Power input and communication connector with Outdoor unit
- ② **SW104** : Rotary Switch for setting Demand control step
- ③ **Digital Output** : Operating & Error status Relay output (250V, 1A)
- ④ **SW102** : Switch for setting internal function
- ⑤ **Digital Input** : Dry contact input
- ⑥ **Analog Input** : DC0~10V Analog signal input
- ⑦ **Analog Output** : DC0~10V Analog signal output
- ⑧ **SW103** : Reset Switch
- ⑨ **SW101** : Dip Switch for setting operating function

# Self-diagnosis function

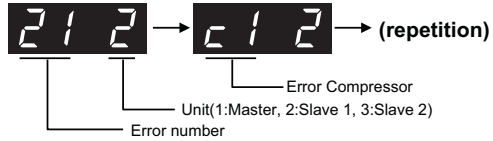
## Error Indicator

- This function indicates types of failure in self-diagnosis and occurrence of failure for air condition.
- Error mark is displayed on display window of indoor units and wired remote controller, and 7-segment LED of outdoor unit control board as shown in the table.
- If more than two troubles occur simultaneously, lower number of error code is first displayed.
- After error occurrence, if error is released, error LED is also released simultaneously.

## Error Display

- 1st,2nd,3rd LED of 7-segment indicates error number, 4th LED indicates unit number. Indicates unit number.  
 (\*=1:Master, 2:Slave 1, 3:Slave 2)

- Ex) 211 : No.21 error of master unit  
 213 : No.21 error of slave2  
 1051 : No.105 error of master unit

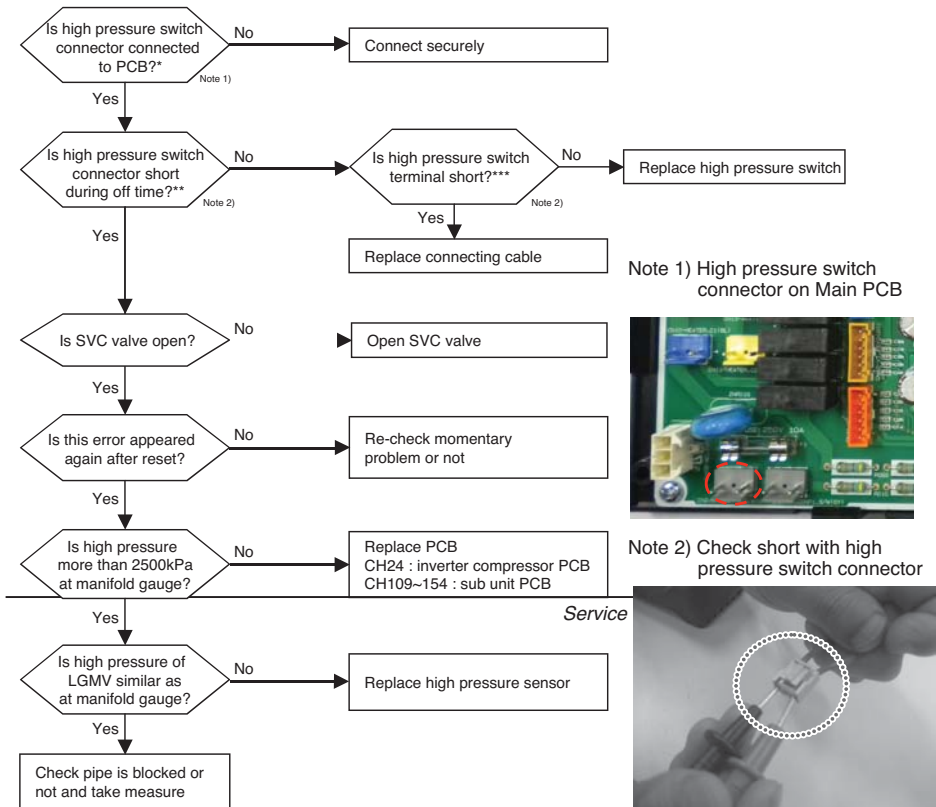


\* Refer to the DX-Ventilation manual for DX-Ventilation error code

	Display number		Error item	Root cause of error
Outdoor unit	2	4 *	Master Outdoor Unit High Pressure Switch	System is turned off by Master Outdoor Unit high pressure switch.
	3	4 *	High Pressure of Master Outdoor Unit	High Pressure of Master Outdoor Unit
	3	5 *	Low Pressure of Master Outdoor Unit	Low Pressure of Master Outdoor Unit
	4	2 *	Master Outdoor Unit Low Pressure Sensor Fault	Master Outdoor Unit Low Pressure Sensor open or short
	4	3 *	Master Outdoor Unit High Pressure Sensor Fault	Master Outdoor Unit High Pressure Sensor open or short

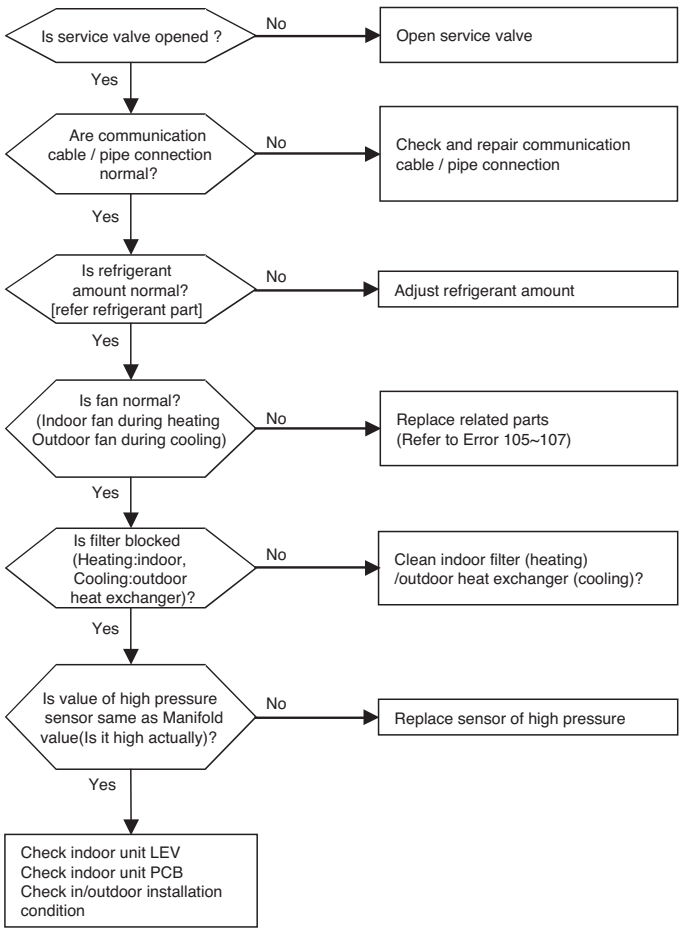
Error No.	Error Type	Error Point	Main Reasons
24* Master 241 Slave1 242 Slave2 243	Excessive rise of discharge pressure in outdoor compressor	Compressor off due to the high pressure switch in outdoor unit	<ol style="list-style-type: none"> <li>1. Defective high pressure switch</li> <li>2. Defective fan of indoor unit or outdoor unit</li> <li>3. Check valve of compressor clogged</li> <li>4. Pipe distortion due to the pipe damage</li> <li>5. Refrigerant overcharge</li> <li>6. Defective LEV at the indoor or outdoor unit .</li> <li>7. Covering or clogging(Outdoor covering during the cooling mode /Indoor unit filter clogging during the heating mode)</li> <li>8. SVC valve clogging</li> <li>9. Defective outdoor PCB</li> </ol>

■ Error diagnosis and countermeasure flow chart



Error No.	Error Type	Error Point	Main Reasons
34*	Over-increase of discharge pressure of compressor	Error happens because of 3 times successive compressor off due to over-increase of high pressure by high pressure sensor	1. Defect of high pressure sensor 2. Defect of indoor or outdoor unit fan 3. Deformation because of damage of refrigerant pipe 4. Over-charged refrigerant 5. Defective indoor / outdoor unit EEV 6. When blocked - Outdoor unit is blocked during cooling - Indoor unit filter is blocked during heating 7. SVC valve is clogged 8. PCB defect of outdoor unit 10. Indoor unit pipe temperature sensor defect
Master 341			
Slave1 342			
Slave2 343			

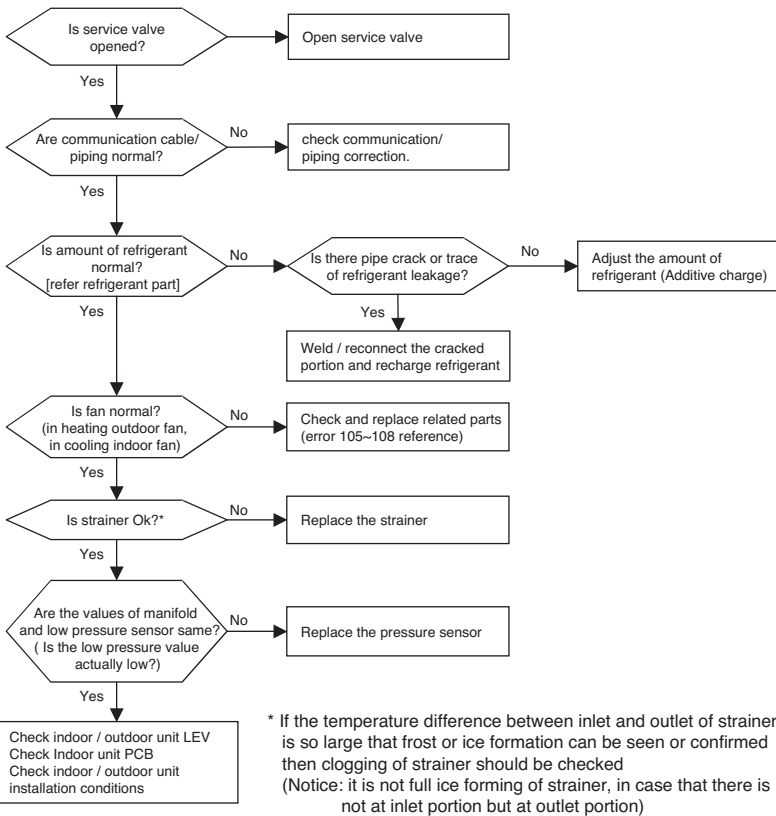
■ Error diagnosis and countermeasure flow chart





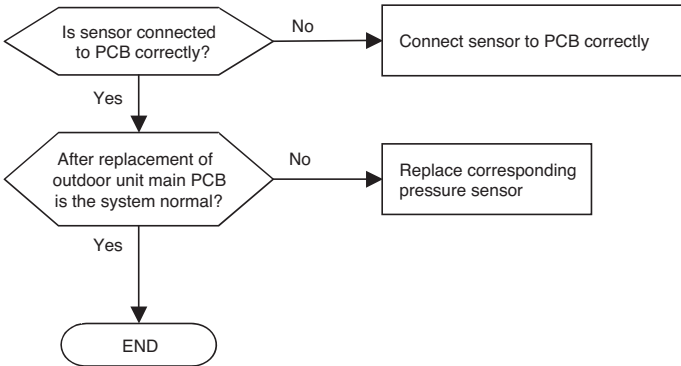
Error No.	Error Type	Error Point	Main Reasons
35*	Excessive drop of discharge pressure of compressor	Error happens because of 3 times successive compressor off due to excessive drop of low pressure by the low pressure sensor	1. Defective low pressure sensor 2. Defective outdoor/indoor unit fan 3. Refrigerant shortage/leakage 4. Deformation because of damage of refrigerant pipe 5. Defective indoor / outdoor unit EEV 6. Covering / clogging (outdoor unit covering during the cooling mode/ indoor unit filter clogging during heating mode) 7. SVC valve clogging 8. Defective outdoor unit PCB 9. Defective indoor unit pipe sensor
Master 351			
Slave1 352			
Slave2 353			

■ Error diagnosis and countermeasure flow chart

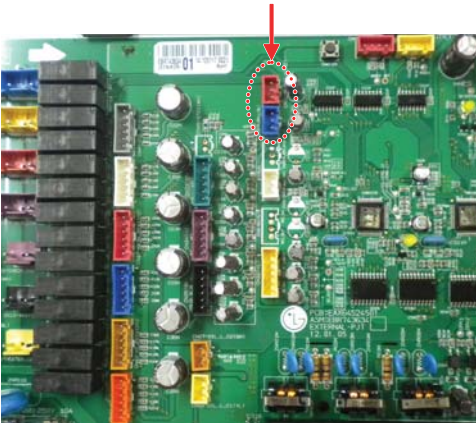


Error No.	Error Type	Error Point	Main Reasons
42* Master 421 Slave1 422 Slave2 423	Sensor error of low pressure	Abnormal value of sensor (Open/Short)	1. Bad connection of low pressure connector 2. Defect of low pressure connector (Open/Short) 3. Defect of outdoor PCB
43* Master 431 Slave1 432 Slave2 433	Sensor error of high pressure	Abnormal value of sensor (Open/Short)	1. Bad connection of high pressure connector 2. Defect of high pressure connector (Open/Short) 3. Defect of outdoor PCB

**■ Error diagnosis and countermeasure flow chart**



Pressure sensor connector





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