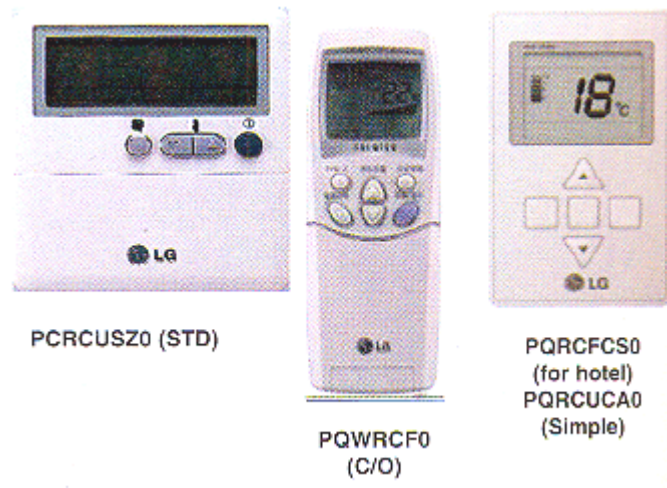


Advanced Microprocessor Controllers used in MPS/Multi V LG Conditioners

LG Advanced Microprocessor Controllers are having More Beneficial Features than Normal Wired/Wireless Remote Controllers. The advanced Controllers incorporate the following features like Energy Saving/Schedule Automatic Operation management, Central control system individual/integrated Operation & Monitoring, Power Distribution indicator that indicates power consumption of each Unit and Monthly accumulated Power Consumption, Dry Contact Interface for automatic control of air conditioning system, Storage/Back Up of set up information in case of power failure.

1. LCD – Wired and wire less remote controller



Function of wired and wireless remote controllers are: -

Operation Indication Screen, swirl button, timer set, temp. set, fan operation, On/ Off Button, fan speed button etc.

Main features: weekly programme / on / off LED / fan auto / wireless receiver/ auto swing/ child lock set temperature/ room temperature/ vane control/ sleep mode/ jet cool ect

2. Special Controllers

2.1 Deluxe wired remote controller

1) Appearance, function & features

1. Big LCD panel which can display various information.
2. Deluxe touch panel.
3. Memorizes data (operation data) in case of power failure.
4. ON/OFF, Temperature setting, room temperature display, Air flow control, lock setting, reservation function, Fault diagnosis function, operation mode setting, basic functions.
5. Easy address setting with central control.
6. Deluxe with LCD back light applied
7. Vane control & child lock, optimum air control as deluxe function
8. Back light LED is ON during operation.



Deluxe wired Controller
(PQRUCDS0)

Can control one or multi indoors units which have been installed at remote areas with same function by same controller at same time.

2.2 Simple Central Controller

Features

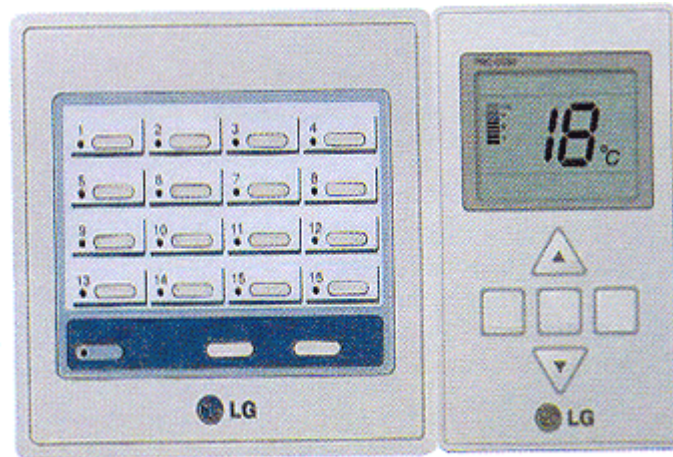
- Individual Operation (one button one A/C)
 - ON Operation (max. 16 set).
 - OFF Operation (max. 16 set).
 - Individual Lock Function (1 unit).
- Total control of each Group (Max. 8 groups with 256 units in group control)
 - Group ON/ Group OFF
 - Group Lock Function (16 units).
- Central Control
 - All ON/OFF operation (max. 256 set).
 - Hard Lock Function (Locking all units).
 - All Lock system (256 units)
- Error state Indication (for unit/group)
- Sequential starting to protect over current.
- Diagnostic function (LED blinking)
- Check of locked set.
- Cooling / Heating Synchronized control is possible (PQCSB101S0)



Simple Central Controller
(PQCSB101S0)

2.3 Simple Central Controller + function

Simple Central Controller with function controller



Simple Central Controller
(PQCSB101S0)

Function Controller
(PQCSC101S0)

? It is possible to control all indoor units by function controller. This is quite useful like in school LG-Digital Leader LG Electronics It can be controlled at administration office.

Main Function

- Individual operation
- Total ON Operation (max. 16 set)
- Indication of error state on set
- Scanning of addresses of indoor units.
- Mode Change
- Total & Individual Lock Function

Functional Controller --- Additional Function

- Mode control – Fan/Cool/Heat
- Team control – Up/Down
- Fan control – High/Med/Low

3. Central Control System

3.1 Deluxe Controllers

Deluxe Controller



Deluxe Controller

Features

- Individual / Integrated Operation / Monitoring (Max. 256 Indoor units)
- Group Management
- Self-diagnosis Function
- Semi-permanent Life / Convenient Maintenance
- Easy Update
- Management Cost Down
- Convenient GUI / Touch Screen
- Schedule Automatic Operation Management/ Energy Saving (PQCSW502A0 only)

3.2 PC Controller

• Individual/Integrated Operation and Monitoring

We can identify operation status of the Air conditioner, operation mode, fan speed, locking, temperature setting and error, etc. by selecting the installed unit through individual selection or group selection.

• Group Management

Group management of the installed Air-conditioner is available and hence you can group unit by their location, nature and size. And by giving specific name to the setup group you can utilize this system more effectively.

• Self Diagnosis Function

The Air Conditioner installed can self diagnose its error status and then transmits the error to the central controller. Therefore, a rapid countermeasure against failure of Air Conditioner allows easy management and increases the life of Air-Conditioner.

• Upgrade

Additional installation of a new program is available via the and also the existing program can be upgraded to a new program. Using such upgrade function always enable to construct a modem type of Central Control System.

- **Semi Permanent Life / Convenient Maintenance**

Since the PC controller is designed for semi permanent use, this system can be used semi – permanently after installation differently from the existing PC or large central control system which require a continuous management.

PC Controller

PRCTFE0 : Special purchase

All the functions of deluxe controllers are available with PC Controllers. Operation of all indoor units is at the click of the mouse.

Max 2048 Indoor units can be with single PC Controller.

Apart from Grouping, Scheduling, etc we can also see the error code of each Indoor unit, if it is there.

- **Management Cost Down**

In absence of the central control system, the manager had to control a number of Air Conditioner individually. Even if Central Control system used, it has only the on / off management function, thus 2 or 3 building managers were actually required. However, manipulation of all functions can be now done at a control room for the PC central controller and so a manager can easily control all Air-conditioner. Automatic operation is also allowed without a manager if schedule function is used.

- **Convenient GUI**

No special education is required for using the PC Central Controller, it can be conveniently used just by pressing the button on the screen, and its function can be understood with an intuitive pictogram. Especially, schedule setting is done by just dragging the screen as patented technology differs from the existing system which requires to press the button by more than an average 30 times to enter a schedule.

- **Schedule Automatic Operation Management / Energy Saving**

For the schedule Automatic Operation, weekly setting is available. Enlisting of the schedule exception processing schedule (national holiday) is done for a year prevents the air conditioner from an unnecessary operation, allowing the system to be controlled at the center so that it can be used only for a necessary case and thus enabling to obtain an excellent energy saving effect. This function can be applied if there is fixed schedule for schools, college and university to get excellent effect.

- **Stable Data Storage / Back-up**

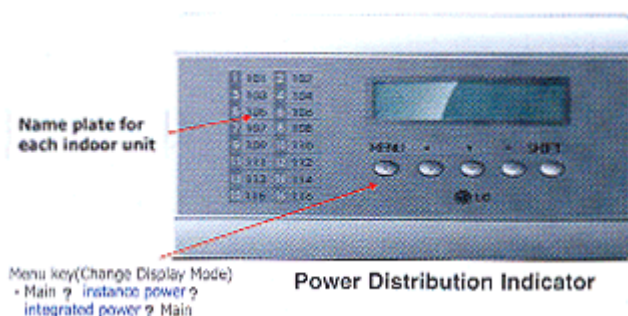
Setup information is saved as it is even if no power is supplied since all data is saved in the built-in flash memory.

4. Advanced Controllers

4.1 PDI (Power Distribution Indicator)

Features & outlook

- It's for power consumption of the multi type air-conditioner used for common power line
 - ? Indicating power consumption of the every indoor unit
 - ? Accumulated Total Power Consumption
 - ? Accumulated / Current Power Consumption of each indoor unit
 - ? Monthly Accumulated Power Consumption
 - ? Data back-up on EEPROM even if power turns off
 - ? Self function display without another system connection
 - ? LCD Display for various data monitoring



4.2 Building Network Unit (BNU-LW)

Features & outlook

Easy interface between BMS and LG Air Conditioner A conversion gateway between BMS System

- Using LonWorks protocol and LG Air Conditioner
- Using LGAP protocol

Can process max 64 indoor units.

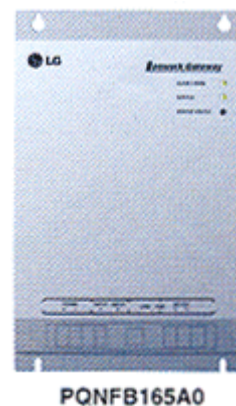
- (Valid indoor address: 00~3F)

Control Items

- On / off command
- Operation mode setting
- Fan speed setting
- Temperature setting
- Lock setting

Monitoring Items

- On / off status report
- Operation mode status report
- Fan speed / temperature setting status report
- Error code Report.



Reference Book:

Cooling India
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