

Art Cool Display Rack Item # ASRK



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DUCT-FREE SPLIT AIR CONDITIONING SYSTEMS

ART COOL<sup>™</sup> SERIES

FLOOR STANDING SERIES

# INSTALLER'S GUIDE

IG-104-2005-VER1

100



# **SMARTER SOLUTIONS** FOR **RESIDENTIAL & COMMERCIAL** AIR CONDITIONING APPLICATIONS.

#### LG Duct-Free Split Air Conditioning systems

offer a range of solutions that are cost-efficient, quiet, and attractive. They provide a smart alternative to both central HVAC and window-mounted air conditioners.

#### These innovative systems are "split" into two efficient units. The interior unit may be one of 2 choices:

- Wall-mounted
- Floor standing

The **wall-mounted interior unit** is slim, lightweight and aesthetically pleasing. Low-voltage power makes it safe and easy to install. Each interior unit has a remote control for setting modes and temperature in the space where installed.

LG's elegant **Art Cool**<sup>™</sup> units feature a range of colors and styles, adding beauty to any setting.

The larger, dual zone Art Cool systems operate two interior units that are mounted in separate rooms. These units are connected to a single exterior unit.

The **floor-standing interior unit** is placed on the floor, against a wall, or in the corner and work well in a large open space. The interior unit comes with a wireless remote control. This system requires high voltage (208/230) wiring.

The **outdoor unit** operates on high-voltage power and utilizes one or two compressors.

# **PERFORMANCE ADVANTAGES**

• Safe, easy installation. Wall-mounted interior units mount easily on any wall. No electrician is required (local codes permitting) and they are extremely safe to install because they utilize a 36-volt DC line that connects to the outdoor unit.

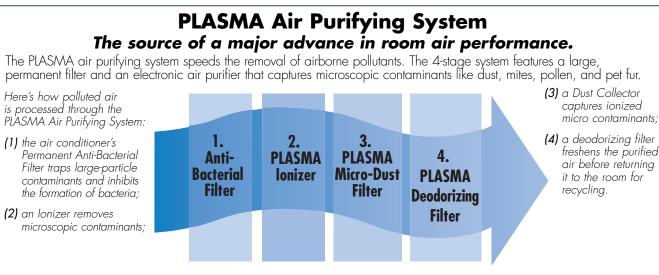
Installation of all models requires only a 2-inch diameter port through the wall to run wires and pipes. No ducts or sheet metal are required.

- Ease of serviceability. Test key mode allows a technician to troubleshoot the system by cycling through all major operations. LED flash code diagnostics are featured for ease of troubleshooting. For repairs, only a Phillips screwdriver is required for disassembly and reassembly of either the interior or exterior units.
- Energy efficient. The wall-mounted interior units are powered by small, 36-volt DC motors that are extremely quiet and consume very little energy.
- Ultra-quiet operation. Wall-mounted interior units have a cross-flow fan that operates at low speed but generates more air. Special fan housing creates smooth, quiet air flow and the unit's low-voltage DC motor operates with minimal noise.

Floor standing units utilize a polymeric fan blade with a sound dampening bearing system. This turbofan system, combined with a specially designed PSC motor make this a very quiet air conditioner, especially for its size.

# **KEY FEATURES**

- Multi Power System. Multi Power System™ Provides the uttraction System<sup>™</sup>. Provides the utmost in comfort. MPS utilizes energy-efficient twin compressors to more closely match the cooling load of the space. This unique technology maintains a more even temperature by reducing the on/off cycling associated with conventional central air.
- Chaos Swing. Natural air flow system featured on interior units. Computer controlled vanes create a more natural flow of air, reducing temperature stratification.
- Three-way Cooling. Air flows from three directions, creating more natural circulation.
- Jet Cool. Operates at high speed for up to 30 minutes to quickly cool a room down to 65° F.
- Cooling Mode. Circulates cooled air.
- Dehumidifying Mode. Indoor unit accurately senses room temperature and controls humidity by shutting down compressor(s) before a room is over-cooled.
- Fan Mode. Circulates air without cooling.
- Evaporator Frost Control. Prevents indoor coil from freezing by shutting down if temperature of coil drops below 32° F and cannot be reactivated until the coil temperature reaches 45° F.



Note: Not all products have all features. Please check product pages for specifics.



- Auto Sleep Mode. When the timer is set to turn off the interior unit, this feature automatically increases the temperature setting  $2^{\circ}$  F twice (after 1/2 hour and one hour). The interior unit shuts off when the timer setting is reached.
- On/Off Timer. Power On starts the interior unit after the number of hours selected. Power Off shuts off the interior unit after the number of hours selected.
- Auto Restart. Automatically restarts a unit to programmed setting when the electricity comes on after a power failure.
- Auto Operation. Provides 3 levels of comfort from which to choose. Temperature and fan speed will set automatically.
- Plasma Air Purifying System. See illustration below.
- Temperature Display. Shows temperature of room on interior unit.
- Control Lock Function. Prevents tampering with control buttons on the indoor unit. While Control Lock Function is active, system is operated by remote control only.

# **INSTALLATION** • MATERIALS

# Don't forget to **BUY...**

- Mounting screws and anchors (wall mount and ceiling cassette)
- Optional condensate pump (interior wall installation only)
- 1/2" condensate drain tubing
- Hose clamps
- For wall-mounted: Four #18 AWG conductor cable to connect indoor and outdoor units (Type SIO-WA recommended)
- For floor standing: Three #18 AWG conductor cable to connect indoor and outdoor units (Type SIO-WA recommended)

- Closed cell insulating tubing for suction line
- Closed cell insulating tubing for heat pump line
- (heat pump models only) • Refrigerant line
- (see specs. pg. 4)
- Electrical tape
- Condenser mounting pad
- Disconnect and wiring for condenser unit
- Plastic duct and installation hardware to conceal connecting tubing on exterior walls
- Anchor bolts (optional for floor standing)

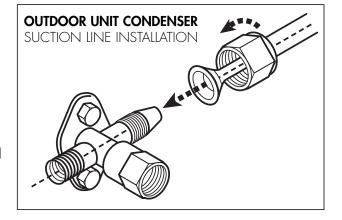
# Don't forget to **BRING...**

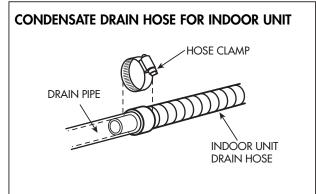
• Vacuum pump

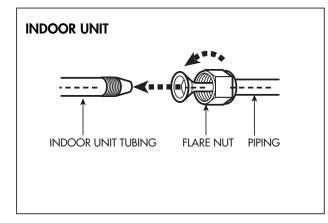
• Micron gauge

• Gauge manifold

- Level gauge
- 2" hole core drill
- Flaring tool set
- Gas leak detector







#### **Refrigerant Line & Formula Specifications\*** Ρ BTUs Zone Type Model Liqui Art Cool 1/4" A/C C LA090CP 9.000 Single Zone 12,000 1/4" LA120CP 14,000 1/4" LA141CP LA180CP 18,000 1/4" Art Cool A/C C LAM240CP 24,000 1/4" Dual Zone Floor A/C LF300CP 28,000 3/8" Standing LF480CE 48,000 3/8"

\*Each system is pre-charged with enough refrigerant to charge 25 ft. of line and the interior unit. In the case of multi-splits, there is enough refrigerant to charge 25 ft. of line to each interior unit.

Note: Systems having the outdoor unit mounted above the indoor unit (e.g. basement installations) have the following additional requirement:

For systems with maximum elevation of 25 ft. (see chart above), refrigerant lines must be oil trapped between 8 ft. and 16.4 ft. of elevation.

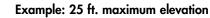
For systems with maximum elevation of greater than 25 ft. (see chart above), refrigerant lines must be oil trapped at least every 16.4 ft. of elevation.

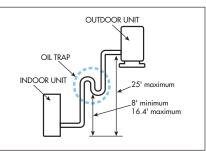




# **REFRIGERATION** • QUICK REFERENCE

Pip id	e size Suction	Additional Refrigerant	Max. length each pipe	Max. elevation	
1	3/8"	0.21 oz./ft.	50'	25'	
I	1/2"	0.21 oz./ft.	50'	25'	
1	1/2"	0.21 oz./ft.	50'	25'	
1	5/8"	0.21 oz./ft.	100'	50'	
I	1/2"	0.21 oz./ft.	50'	25'	
	5/8" 3/4"	0.32 oz./ft. 0.42 oz./ft.	100' 131'	66' 82'	





# **ELECTRICAL** • QUICK REFERENCE

Electrical Specifications								
Zone	Туре	Model	BTUs	Voltage Rated MCA		MCA*	* <b>MOP</b> **	
				Indoor	Outdoor	Amps		
Art Cool	A/C C	LAO90CP	9,000	36V DC	115	8.5	15.0	15
Single Zone		LA120CP	12,000	36V DC	115	11.7	15.0	20
		LA141CP	14,000	36V DC	115	14.9	15.0	30
		LA180CP	18,000	36V DC	208/230	9.0	15.0	20
Art Cool	A/C C	LAM240CP	24,000	36V DC	208/230	11.0	15.0	20
Dual Zone								
Floor***	A/C C	lf300CP	28,000	208/230	208/230	11.5	17.0	25
Standing		LF480CE	48,000	208/230	208/230	20.0	28.9	50

All equipment single phase.

#### NOTE:

- Separately wire the high and low voltage line.
   Use heat-proof electrical wiring capable of withstanding temperature up to 167°F.
   Use outdoor and waterproof connection cable rated more than 300V for the connection between indoor and outdoor unit. (Type SJO-WA recommended).

\*Minimum Circuit Ampacity

**\*\*Maximum Overcurrent Protection** \*\*\*Floor standing MCA + MOP calculated for indoor and outdoor units connected to common breaker (Preferred method).

Wire Size	
Minimum AWG	14-3
Indoor/Outdoor Connecting Cable Minimum AWG	18-4















# ART SINGLE ZONE DUAL ZONE



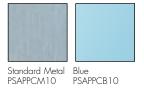


# ART COOL MINI-SPLIT SINGLE ZONE

# 9,000 BTUs











Van Gogh PSAPPAA10 Sisley PSAPPAS10 Impressionist Series

# Standard Features:

- Chaos Swing
- Three-way cooling Installation guide
  - let Cool
  - Cooling mode
  - Dehumidifying mode
  - Fan mode
  - Evaporator frost control
  - Auto sleep mode
  - 24-Hour On/Off timer
  - Auto restart
  - Auto operation
  - Anti-bacterial filter
  - PLASMA Air Purifying System
  - Temperature display on indoor unit
  - Deluxe illuminated remote control
  - Ultra-quiet operation

• Remote control Remote control

- Installation manual **Exterior Unit**
- Exterior unit
- Exterior unit has
- refrigerant for charging indoor coil and a 25' line set
- See page 4 for refrigerant line requirements and formulas. See page 5 for electrical specifications.

Performance	LA090CP
Capacity (BTUs)	9,000
SEER	10
Air Circulation (Rated CFM)	250
Fan Speeds (Cool/Fan Only)	3/3
Electrical	
Rated Voltage Outdoor	115-1-60
Rated Voltage Indoor	36
Rated Amps Cooling	8.5
Rated Watts Cooling	940
Indoor Dimensions	
$W \times H \times D$ (inches)	22 13/32 x
	22 5/16 x
	5 13/32
Weight (lbs.)	24.9
Outdoor Dimensions	
W x H x D (inches)	30 5/16 x
	21 5/16 x
	9 19/32
Weight (lbs.)	72.8
Thermostat Range	
Cooling (°F)	64-86

# Standard Metal Blue PSAPPCM10 PSAPPCB10





Van Gogh PSAPPAA10 Sisley PSAPPAS10 Impressionist Series

Performance	LA120CP
Capacity (BTUs)	12,000
SEER	10
Air Circulation (Rated CFM)	330
Fan Speeds (Cool/Fan Only)	3/3
Electrical	
Rated Voltage Outdoor	115-1-60
Rated Voltage Indoor	36
Rated Amps Cooling	11.7
Rated Watts Cooling	1,290
Indoor Dimensions	
W x H x D (inches)	22 13/32 x
	22 5/16 x
	5 13/32
Weight (lbs.)	24.9
Outdoor Dimensions	
W x H x D (inches)	30 5/16 x
	21 5/16 x
	9 19/32
Weight (lbs.)	72.8
Thermostat Range	
Cooling (°F)	64-86





# • Wall unit

Includes:

map & hardware

**Interior Unit** 

- batteries, holder & holder hardware
- Includes:
- sufficient



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DUAL

# HIGH WALL DUCT-FREE **ART COOL MINI-SPLIT** SINGLE ZONE

# 12,000 BTUs

LA120CP (A/C Model) 12,000 BTUs Cooling



#### Standard Features:

- Chaos Swing
- Three-way cooling Installation guide
- let Cool
- Cooling mode
- Dehumidifying mode
- Fan mode
- Evaporator frost control
- Auto sleep mode
- 24-Hour On/Off timer
- Auto restart
- Auto operation
- Anti-bacterial filter
- PLASMA Air Purifying System
- Temperature display on indoor unit
- Deluxe illuminated remote control
- Ultra-quiet operation

# **Interior Unit** Includes:

- Wall unit
- map & hardware
- Remote control
- Remote control batteries, holder & holder hardware
- Installation manual

## **Exterior Unit** Includes:

- Exterior unit
- Exterior unit has sufficient refrigerant for charging indoor coil and a 25' line set

See page 4 for refrigerant line requirements and formulas.

See page 5 for electrical specifications.

# HIGH WALL DUCT-FREE

# ART COOL MINI-SPLIT SINGLE 70NE

# 14,000 BTUs

LA141CP (A/C Model) 14,000 BTUs Cooling







## **Standard** Features:

- Chaos Swing
- Jet Cool
- Cooling mode
- Dehumidifying mode
- Fan mode
- Evaporator frost control
- Auto sleep mode
- 24-Hour On/Off timer
- Auto restart
- Auto operation
- Triple-filter air purifying system
- PLASMA Air Purifying System
- Temperature display on indoor unit
- Deluxe illuminated remote control
- Ultra-quiet operation

Includes:
• Wall unit
<ul> <li>Wall unit</li> </ul>
installation plate
& hardware
<ul> <li>Remote control</li> </ul>
• Domoto control

Remote control

**Interior Unit** 

- batteries, holder & holder hardware
- Installation manual

#### **Exterior Unit** Includes:

- Exterior unit
- Exterior unit has sufficient refrigerant for charging indoor coil and a 25' line set
- See page 4 for refrigerant line requirements and formulas. See page 5 for electrical specifications.

Performance	LA141CP
Capacity (BTUs)	14,000
SEER	10
Air Circulation (Rated CFM)	335
Fan Speeds (Cool/Fan Only)	3/3
Electrical	
Rated Voltage Outdoor	115-1-60
Rated Voltage Indoor	36
Rated Amps Cooling	14.9
Rated Watts Cooling	1,400
Indoor Dimensions	
$W \times H \times D$ (inches)	40 1/2 x
	11 13/32 x
	6
Weight (lbs.)	22.9
Outdoor Dimensions	
$W \times H \times D$ (inches)	30 5/16 x
	21 5/16 x
	9 19/32
Weight (lbs.)	77.2
Thermostat Range	
Cooling (°F)	64-86

# Standard Metal PSAPVCM10 Wood PSAPVCD10 Blue PSAPVCB10 White Wood PSAPVCW10

Performance LA180CP 18,000 Capacity (BTUs) SEER 10 Air Circulation (Rated CFM) 420 3/3 Fan Speeds (Cool/Fan Only) **Electrical** 208/230-1-60 Rated Voltage Outdoor Rated Voltage Indoor 36 9.0 Rated Amps Cooling Rated Watts Cooling 1,900 **Indoor Dimensions**  $W \times H \times D$  (inches) 36 1/2 x 20 19/32 x 5 13/16 37.9 Weight (lbs.) **Outdoor Dimensions** 34 5/16 x  $W \times H \times D$  (inches) 25 13/16 x 12 19/32 Weight (lbs.) 127.9 **Thermostat Range** 64-86 Cooling (°F)





# HIGH WALL DUCT-FREE **ART COOL MINI-SPLIT** SINGLE ZONE

# 18,000 BTUs

LA180CP (A/C Model) 18,000 BTUs Cooling



## Standard Features:

- Chaos Swing
- Three-way cooling
- let Cool
- Cooling mode
- Dehumidifying mode
- Fan mode
- Evaporator frost control
- Auto sleep mode
- 24-Hour On/Off timer
- Auto restart
- Auto operation
- Anti-bacterial filter
- PLASMA Air Purifying System
- Temperature display on indoor unit
- Deluxe illuminated remote control
- Ultra-quiet operation

## **Interior Unit** Includes:

- Wall unit
- Wall unit installation plate & hardware
- Remote control
- Remote control batteries, holder & holder hardware
- Installation manual

#### **Exterior Unit** Includes:

- Exterior unit
- Exterior unit has sufficient refrigerant for charging indoor coil and a 25' line set

See page 4 for refrigerant line requirements and formulas.

See page 5 for electrical specifications.

# HIGH WALL DUCT-FREE

# ART COOL MINI-SPLIT DUAL ZONE

# **24,000** BTUs

LAM240CP (A/C Model) (C) 12,000+12,000 BTUs Cooling





Standard Metal Blue PSAPPCM10 PSAPPCB10





Van Gogh PSAPPAA10 Sisley PSAPPAS10 Impressionist Series

# Standard Features:

- Multi Power System™
- Chaos Swing
- Jet Cool
- Cooling mode
- Dehumidifying mode
- Fan mode
- Evaporator frost control
- Auto sleep mode • 24-Hour On/Off Timer
- Auto restart
- Auto operation
- Anti-bacterial filter
- PLASMA Air Purifying System
- Temperature display on indoor unit
- Deluxe illuminated remote control
- Ultra quiet operation

Interior	Unit	
Includes:		
	•.	

- 2 Wall units • 2 installation guide
- maps & hardware
- Three-way cooling 2 Remote controls
  - Remote control batteries, 2 holders & holder hardware

#### **Exterior Unit** Includes:

- Exterior unit
- Installation manual
- Exterior unit has sufficient refrigerant for charging 2 indoor coils and a 25' line set per indoor unit
- See page 4 for refrigerant line requirements and formulas. See page 5 for electrical specifications.

Performance	LAM240CP
Capacity (BTUs)	24,000
SEER	10
Air Circulation (Rated CFM)	300*
Fan Speeds (Cool/Fan Only)	3/3
Electrical	
Rated Voltage Outdoor	208/230-1-60
Rated Voltage Indoor	36
Rated Amps Cooling	11.0
Rated Watts Cooling	2,400
Indoor Dimensions	
$W \times H \times D$ (inches)	22 13/32 x
	22 5/16 x
	5 13/32
Weight (lbs.)	24.9*
Outdoor Dimensions	
$W \times H \times D$ (inches)	34 5/16 x
	25 13/16 x
	12 19/32
Weight (lbs.)	138.9
Thermostat Range	
Cooling (°F)	64-86
*per indoor unit	

# **DUCT-FREE FLOOR STANDING** AIR CONDITIONERS



INDOOR UNIT

OUTDOOR UNIT









INDOOR UNIT

OUTDOOR UNIT

# FLOOR STANDING

# DUCT-FREE

# FLOOR STANDING SINGLE ZONE

# **30,000** BTUs

LF300CP (A/C Model) 28,000 BTUs Cooling







## Standard Features:

- Multi Power Flc
- System<sup>™</sup>
- Three-way cooling Re
- Jet Cool
- Cooling modeDehumidifying
- mode
- Fan mode
- Evaporator frost control
- 7-Hour On/Off timer
- Auto restart
- Auto operation
- PLASMA Air Purifying System
- Temperature display on indoor unit
- Touch-screen control panel
- Remote control
- Built-in remote control holder
- Control lock function
- Ultra quiet turbo fan

Interior Unit	Perfe
Includes:	Capa
<ul> <li>Floor standing unit</li> </ul>	SEER
<ul> <li>Remote control</li> </ul>	Air Ci
<ul> <li>Remote control</li> </ul>	Fan S
batteries	Elect
<ul> <li>Installation manual</li> </ul>	Rated
	Rated
	-

(MPS)

#### Exterior Unit Includes:

- Exterior unit
   Exterior unit has sufficient refrigerant for charging indoor coil and a 25'
- line set
- See page 4 for refrigerant line requirements and formulas.

Cooling (°F)

See page 5 for electrical specifications.

Performance	LF300CP
Capacity (BTUs)	28,000
SEER	13
Air Circulation (Rated CFM)	741
Fan Speeds (Cool/Fan Only)	4/3
Electrical	
Rated Voltage Outdoor	208/230-1-60
Rated Voltage Indoor	208/230-1-60
Rated Amps Cooling	11.5
Rated Watts Cooling	2,600
Indoor Dimensions	
W x H x D (inches)	22 13/32 x
	71 21/32 x
	12 1/4
Weight (lbs.)	72.7
Outdoor Dimensions	
W x H x D (inches)	34 5/16 x
	25 13/16 x
	12 19/32
Weight (lbs.)	136.6
Thermostat Range	

61-86

Performance	LF480CE
Capacity (BTUs)	48,000
SEER	13
Air Circulation (Rated CFM)	1,236
Fan Speeds (Cool/Fan Only)	3/3
Electrical	
Rated Voltage Outdoor	208/230-1-60
Rated Voltage Indoor	208/230-1-60
Rated Amps Cooling	20.0
Rated Watts Cooling	4,500
Indoor Dimensions	
W x H x D (inches)	23 7/32 x
	71 1/4 x
	17 5/16
Weight (lbs.)	127.9
Outdoor Dimensions	
W x H x D (inches)	35 7/16 x
	48 7/32 x
	14 9/16
Weight (lbs.)	198.4
Thermostat Range	
Cooling (°F)	61-86

🕑 LG



FLOOR STANDING

# FLOOR STANDING SINGLE ZONE

# 48,000 BTUs

LF480CE (A/C Model) 48,000 BTUs Cooling



# Standard Features:

- Multi Power System<sup>™</sup>
- Jet Cool
- Cooling mode
- Dehumidifying mode
- Fan mode
- Evaporator frost control
- 7-Hour On/Off timer
- Auto restart
- Auto operation
- Temperature display on indoor unit
- Remote control
- Control lock function
- Ultra quiet turbo fan

## Interior Unit Includes:

- Floor standing unit
- Remote control
- Remote control batteries
- Installation manual

## Exterior Unit Includes:

- Exterior unit
- Exterior unit has sufficient refrigerant for charging indoor coil and a 25' line set

See page 4 for refrigerant line requirements and formulas.

See page 5 for electrical specifications.

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