

Job Name/Location:**Tag No:****Date:**

For:	File	Resubmit
	Approval	Other _____

PO No.:**Architect:****GC:****Engr:****Mech:****Rep:**

(Company)

(Project Manager)

LMU481HV Multi F MAX Outdoor Unit 4.0 Ton Heat Pump

Performance:

Cooling Capacity (Min.-Rated-Max., Btu/h)	10,800~48,000~58,000
Heating Capacity (Min.-Rated-Max., Btu/h)	12,420~54,000~59,000
Max. Heating Capacity at 17°F (Btu/h)	47,690
Max. Heating Capacity at 5°F (Btu/h)	40,190
Max. Heating Capacity at -4°F (Btu/h)	35,070
Cooling COP @95°F (Rated)	3.75
Heating COP @47°F (Rated)	3.50

Cooling Nominal Test Conditions:
Indoor: 80°F DB / 67°F WB
Outdoor: 95°F DB / 75°F WBHeating Nominal Test Conditions:
Indoor: 70°F DB / 60°F WB
Outdoor: 47°F DB / 43°F WB**Electrical:**

Power Supply (V/Hz/Ø) ¹	208-230V, 60, 1
MOP (A)	40
MCA (A)	32.7
Cooling Rated Amps (A)	29.2
Heating Rated Amps (A)	29.2
Compressor (A)	22.0
Fan Motor (A)	1.6 x 2
Locked Rotor Amps (A)	22

MOP - Maximum Overcurrent Protection

MCA - Minimum Circuit Ampacity

Piping:

Refrigerant Charge (lbs.)	9.26
Liquid Line Connection (in., O.D.)	Ø3/8 x 1
Vapor Line Connection (in., O.D.)	Ø3/4 x 1
Maximum Total Piping ² (ft.)	475.7
Min. / Max. ODU to IDU Piping ³ (ft.)	32.8 / 229.6
Piping Length ⁴ (no add'l refrigerant, ft.)	180.4
Maximum Elevation between ODU and IDU (ft.)	98.4
Maximum Elevation between IDU and IDU (ft.)	49.2

ODU = Outdoor Unit

IDU = Indoor Unit

Features:

- R1 Scroll (Variable Speed) Compressor
- Defrost / Deicing
- Restart delay (three [3] minutes)
- Auto operation
- Low ambient cooling down to 14°F
- Auto restart
- Soft start
- Self diagnosis

Optional Accessories:

- PI-485 - PMNFP14A1
- AC Smart 5 - PACS5A000
- ACP 5 - PACP5A000
- MultiSITEM™ Comm. Mgr. - PBACNBTR0A
- Power Distribution Indicator (PDI)
- Premium - PQNUD1S41
- Mobile LGMV - PLGMVW100
- Low Ambient Wind Baffle (Cooling Operation Down to -4°F) - ZLABGP04A x2
- Drain Pan Heater - PQSH1200

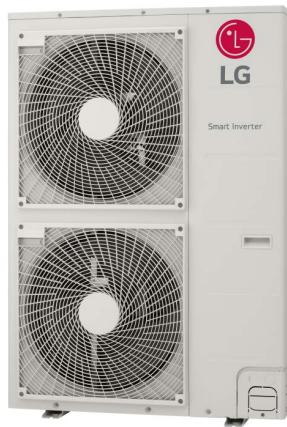
Required⁵ Accessories:

- 2 Port BD Unit - PMBD3620
- 3 Port BD Unit - PMBD3630
- 4 Port BD Unit - PMBD3640
- 4 Port BD Unit - PMBD3641

For a complete list of available accessories, contact your LG representative.

For continual product development, LG reserves the right to change specifications without notice.

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Tag No:**Operating Range:**

Cooling (°F DB) ¹⁵	14 to 118
Heating (°F WB)	-4 to +64

Unit Data:

Refrigerant Type	R410A
Refrigerant Control	EEV
Sound Pressure (Cool / Heat) ±1 dB(A) ⁶	53 / 55
Net / Shipping Weight (lbs.)	192 / 216
Heat Exchanger Coating	Gold Fin™
Minimum No. of Indoor Units	2
Maximum No. of Indoor Units	8

Compressor:

Type	R1 Scroll
Quantity	1
Oil / Type	FVC68D

Fan:

Type	Propeller
Quantity	2
Motor / Drive	Brushless Digitally Controlled/Direct
Max. Airflow Rate (CFM)	1,942 x 2

Notes:

1. Acceptable operating voltage: 187V - 253V.
2. Piping lengths are equivalent.
3. 180.4 ft. of Main Piping + 49.2 ft. of Branch Piping.
4. 49.2 ft. of Main Piping + 131.2 ft. of Branch Piping.
5. At least one branch distribution (BD) unit is required for system operation; a maximum of two can be installed per ODU with the use of a Y-branch accessory (PMBL5620).
6. Sound pressure levels are tested in an anechoic chamber under ISO Standard 3745.
7. All power / communication cable to be minimum 14 AWG from the ODU to the BD unit, and 14 AWG from the BD unit to the IDU.
8. All power / communication cable to be 4-conductor, stranded, shielded or unshielded, and must comply with applicable local and national codes. If shielded, the wire must be grounded to the chassis at the ODU only.
9. Power wiring size must comply with the applicable local and national codes.
10. See the Engineering Manual Capacity Tables for ODU sensible and latent capacities.
11. See the Engineering Manual Combination Tables for allocation of ODU rated capacity to each connected IDU when all are calling for full capacity. Allocation percentages should be applied to ODU capacity at design conditions.
12. This data is rated 0 ft. above sea level, with 115 ft. of refrigerant line, and 0 ft. level difference between ODU and IDUs. All capacities are net with a combination ratio between 95 - 105%.
13. Must follow installation instructions in the applicable LG installation manual.
14. See the Engineering Manual Capacity Tables for ODU capacity at design conditions.
15. Installation of an optional Low Ambient Wind Baffle Kit will allow operation down to -4°F in cooling mode.



Job Name/Location: _____

LMU481HV

Multi F MAX Outdoor Unit

4.0 Ton Heat Pump



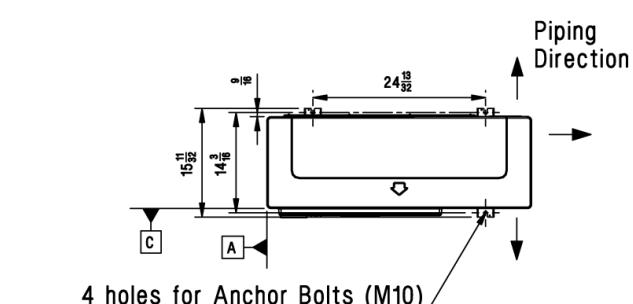
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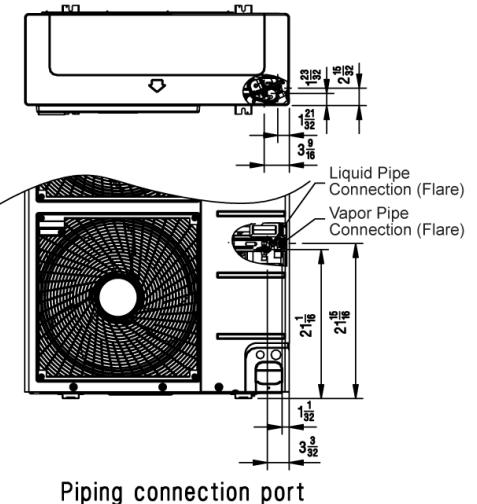
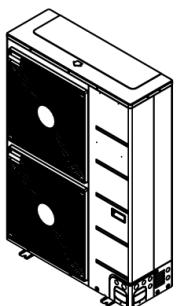
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[Unit: inch]

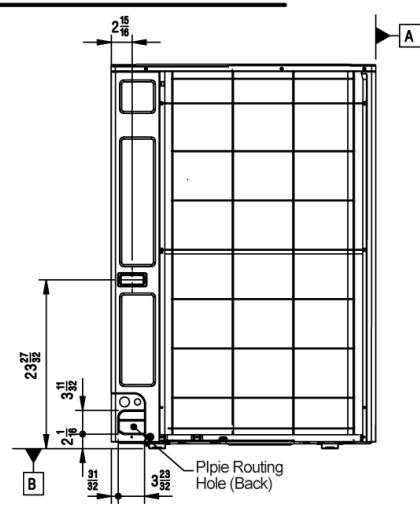
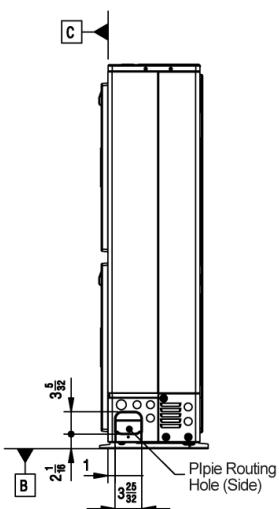
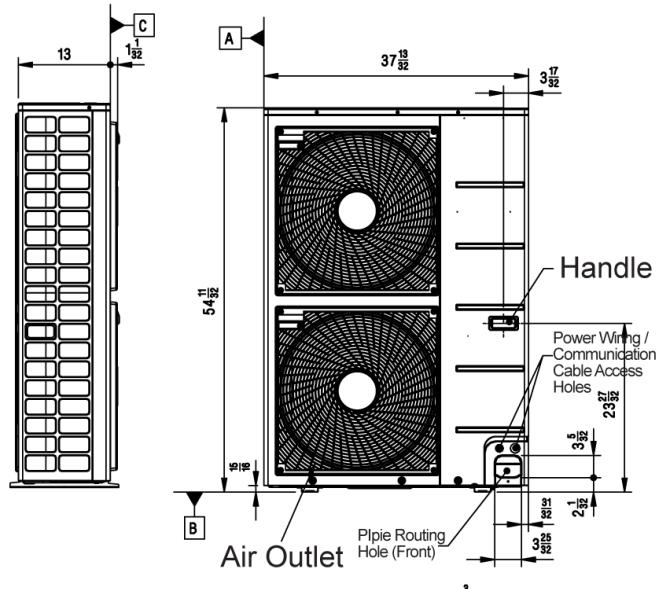
Chassis code : U60A



4 holes for Anchor Bolts (M10)



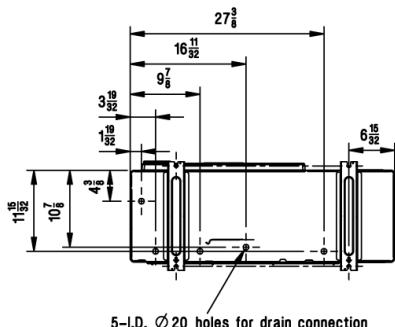
Piping connection port



Symbols

→ Piping Direction

□ Datum line



Notes:

1. Unit must be installed in compliance with the installation manual.
2. Unit must be grounded in accordance with the local or state regulations and applicable national codes.
3. All field-supplied electrical components and materials must comply with local, state, and national codes.
4. Electrical characteristics must be considered for electrical work and design. The capacity of power cable and circuit breaker for the outdoor unit must follow local, state, national, and manufacturer requirements.

Job Name/Location: _____

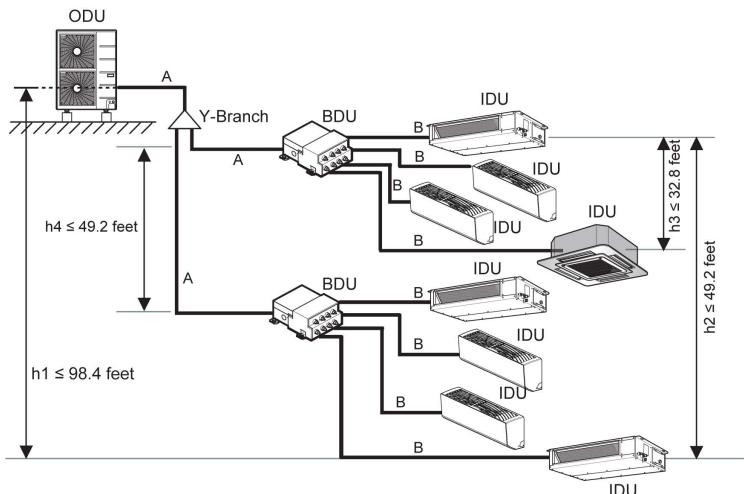
LMU481HV
Multi F MAX Outdoor Unit
4.0 Ton Heat Pump



Tag No.: _____

Date: _____

PO No.: _____



Example: outdoor unit with eight (8) indoor units and two (2) branch distribution units connected.

ODU: Outdoor Unit.

IDU: Indoor Unit.

BDU: Branch Distribution Unit(s).

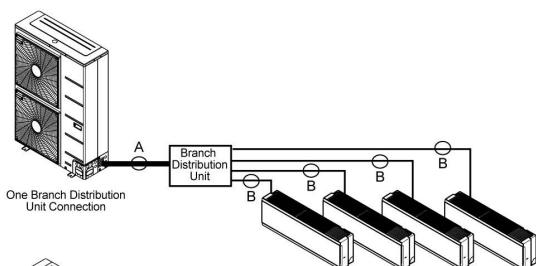
A: Main Pipe.

B: Branch Pipe (Branch Distribution Unit[s] to Indoor Unit[s]).

Multi F MAX Outdoor Unit Refrigerant Piping System Limitations.

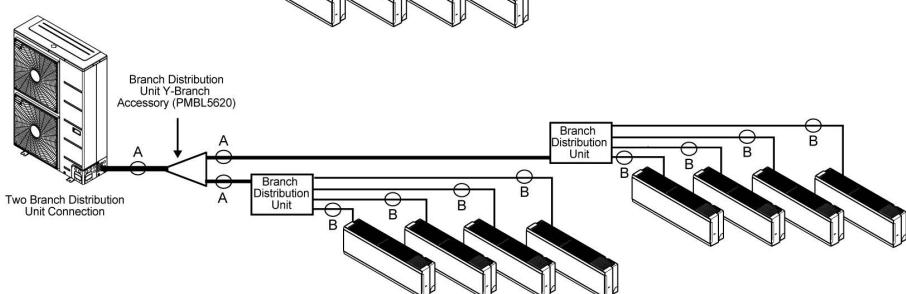
Pipe Length (ELF = Equivalent Length of pipe in Feet)	Total piping length ($\Sigma A + \Sigma B$)		≤475.7 feet
	Main pipe (Outdoor Unit to Branch Distribution Units: A)	Minimum for Each (A) Piping Segment	16.4 feet
	Maximum (ΣA)		≤180.4 feet
	Total branch piping length (ΣB)		≤295.3 feet
	Branch pipe (Branch Distribution Units to Indoor Units: B)	Minimum	16.4 feet
	Maximum		≤49.2 feet
Elevation Differential (All Elevation Limitations are Measured in Actual Feet)	If outdoor unit is above or below indoor unit (h1)		≤98.4 feet
	Between the farthest two indoor units (h2)		≤49.2 feet
	Between branch distribution unit and farthest connected indoor unit(s) (h3)		≤32.8 feet
	Between branch distribution units (h4)		≤49.2 feet

Installing the Unit



Multi F MAX Piping Sizes.

Piping	Main Pipe A (inch)	Branch Pipe B
Liquid	Ø3/8	Depends on the size of the indoor unit piping.
Vapor	Ø3/4	



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GC: _____

Engr: _____

Mech: _____

Rep: _____

(Company) _____

(Project Manager) _____

PMBD3630

3-Port Branch Distribution Unit (BD Unit)

**Performance:**

Max Nominal Port Capacity Btu/h (each port)	24,000
Max Nominal Unit Capacity Btu/h (sum of ports)	72,000
Power Input (W)	24

Operating Range:

Operating Range (°F DB)	0-150
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Electrical:

Power Supply (V ¹ /Hz/Ø)	208-230/60/1
Rated Amps (A)	0.12

Unit Data:

Net Weight (lbs)	15
Shipping Weight (lbs)	17

Piping:

Piping Connection to Outdoor Unit:

Liquid Line (in, OD)	3/8
Vapor Line (in, OD)	3/4

Notes:

- 1.Acceptable operating voltage: 187V-253V.
- 2.All power/communication cable to be minimum 16 AWG from the outdoor unit to the BD unit and 18 AWG from the BD unit to the indoor unit.
- 3.All power/communication cable to be 4-conductor, stranded, shielded and must comply with applicable local and national code.
- 4.Piping lengths:
 - Maximum height difference between BD unit and indoor units - 32.8 ft
 - Maximum height difference between BD unit and BD unit - 49.2 ft.
 - Maximum piping length between BD unit and indoor units - 49.2 ft
- 5.The BD unit should be installed inside of a building.
- 6.Must follow installation instructions in the applicable LG installation manual.
- 7.Power wiring cable size must comply with the applicable local and national code.

Piping Connection to Indoor Unit:

Liquid Line (in, OD)	1/4 (Qty 3)
Vapor Line (in, OD)	3/8 (Qty 3)

Standard Features:

- Distributes refrigerant to indoor units
- Internal components are insulated
- Flare joints provided for easy installation
- Compact design

Job Name/Location:

PMBD3630

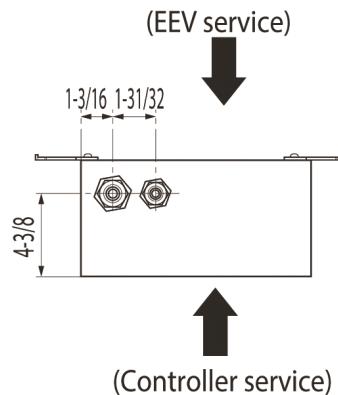
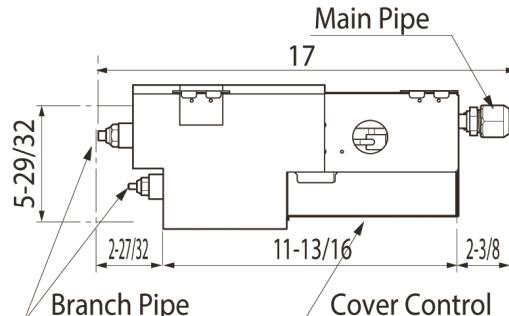
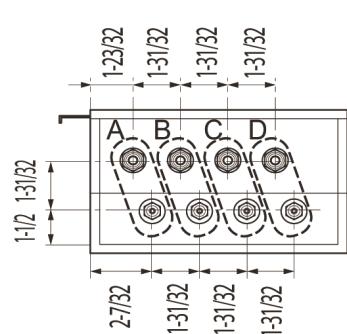
3-Port Branch Distribution Unit (BD Unit)



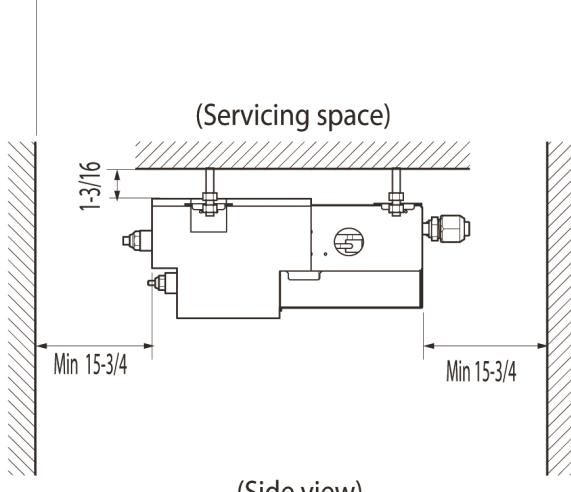
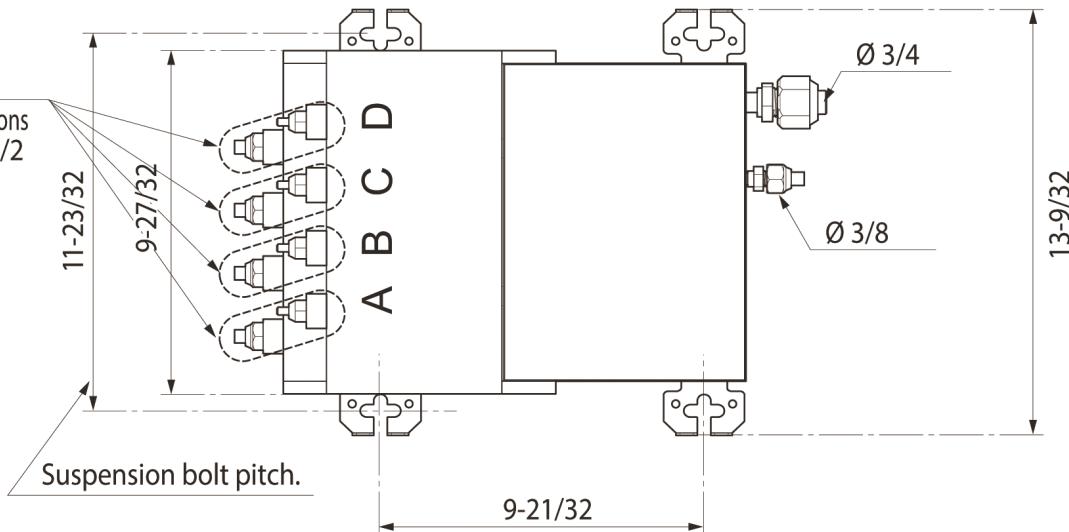
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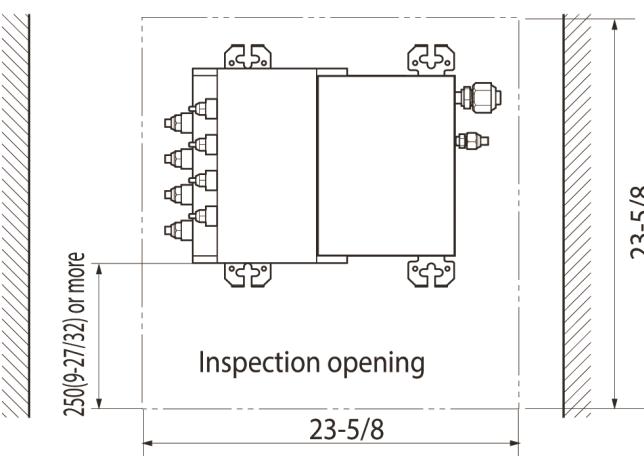
PO No.:



Liquid Pipe: $\varnothing 1/4$
Gas Pipe: $\varnothing 3/8$
PMBD3641: D connections
- $\varnothing 1/4, \varnothing 1/2$



(Side view)



(Bottom view)

Unit : inch

Notes

1. For PMBD3620 unit, ports A and B are available.
2. For PMBD3630 unit, ports A, B and C are available.
3. For PMBD3640 and PMBD3641 units, ports A, B, C and D are available.

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Architect: _____ GC: _____

Engr: _____ Mech: _____

Rep: _____

(Company) (Project Manager)

LDN187HV4

Multi F Ceiling-Concealed Low-Static Duct

18,000 Btu/h

**Performance:**

Nominal Cooling Capacity (Btu/h)	18,000
Nominal Heating Capacity (Btu/h)	20,800

Cooling Nominal Test Conditions:
 Indoor: 80°F DB / 67°F WB
 Outdoor: 95°F DB / 75°F WB

Heating Nominal Test Conditions:
 Indoor: 70°F DB / 60°F WB
 Outdoor: 47°F DB / 43°F WB

Electrical:

Power Supply (V/Hz/Ø)	208-230/60/1
Rated Amps (A)	0.80

Piping:

Installed Liquid Pipe (in., O.D.)	ø1/4
Installed Vapor Pipe (in., O.D.)	ø1/2
Liquid Connection (in., O.D.)	ø1/4
Vapor Connection (in., O.D.)	ø1/2
Drain (in., O.D. / I.D.)	1-1/4, 1
Temperature Sensor	Thermistor

Controls Features:

- Two thermistor control
- Auto operation
- Auto restart
- Control lock function
- Drain pump
- Group control
- Inverter (variable speed fan)
- Compatible with accessory Wi-Fi module¹²
- Compatible with applicable Single Zone Outdoor Units (see single zone literature for matching system details)

Optional Accessories:

- MultiSITE™ CRC1 Controller - PREMTBVC0
- MultiSITE™ CRC1+ Controller - PREMTBVC1
- Simple Remote Controller - PREMTC00U
- Premium Remote Controller - PREMTA000
- AC Smart Premium - PQCSW421E0A
- ACP Premium - PQCPC22A1
- ACP Standard - PQCPC22N1
- LonWorks Gateway - PQNFB16A1
- BACnet Gateway - PQNFB17C1
- Remote Temperature Button Sensor - ZRTBS01
- Simple Dry Contact (1 contact, 24 VAC external power) - PDRYCB100
- Dry Contact for Third Party Thermostat - PDRYCB300
- Dry Contact for Economizer - PDRYCB400
- Auxiliary Heater Kit - PRARH1
- Wi-Fi Module - PWFMDD200

**Entering Mixed Air:**

Cooling (°F DB)	57 ~ 77
Heating (°F WB)	59 ~ 81

Unit Data:

Refrigerant Type	R410A
Refrigerant Control	EEV
Sound Pressure (H/M/L) dB(A) ²	36 / 34 / 31
Primary Filter	Washable Pre-filter
Net Weight (lbs.)	48.5
Shipping Weight (lbs.)	57.3

Fan:

Type	Turbo
Quantity	1
Motor/Drive	Brushless Digitally Controlled/Direct
Air Flow H/M/L (CFM)	530 / 441 / 353
External Static Pressure ^{3,4} (in wg)	0.10
Minimum External Static Pressure ⁵	0.00
Maximum External Static Pressure ⁶	0.20

Notes:

1. Acceptable operating voltage: 187V-253V.
2. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.
3. Adjust fan speed to correct for static pressure increases when using field-supplied air filter.
4. At factory fan speed setting.
5. Air flow rate (CFM) at high speed.
6. See Engineering Manual for sensible and latent capacities.
7. All communication / connection (power) cable from the outdoor unit to the indoor unit is field supplied and must be a minimum of four-conductor, 18 AWG, stranded, shielded or unshielded (if shielded, it must be grounded to the chassis of the outdoor unit only), and must comply with applicable local and national codes.
8. Power wiring cable size must comply with the applicable local and national code.
9. The indoor unit comes with a dry helium charge.
10. Corresponding refrigerant piping length is in accordance with standard length of each outdoor unit and the level difference is 0 ft. All capacities are net with a combination ratio between 95 - 105%.
11. Must follow installation instructions in the applicable LG installation manual.
12. 9/12MBH models manufactured June 2018 and after; LDN187HV4 upon launch.
13. Multi compatible 18k IDUs include socket adapters for refrigerant pipe connections with single zone systems.



Job Name/Location: _____

LDN187HV4

Multi F Ceiling-Concealed Low-Static Duct

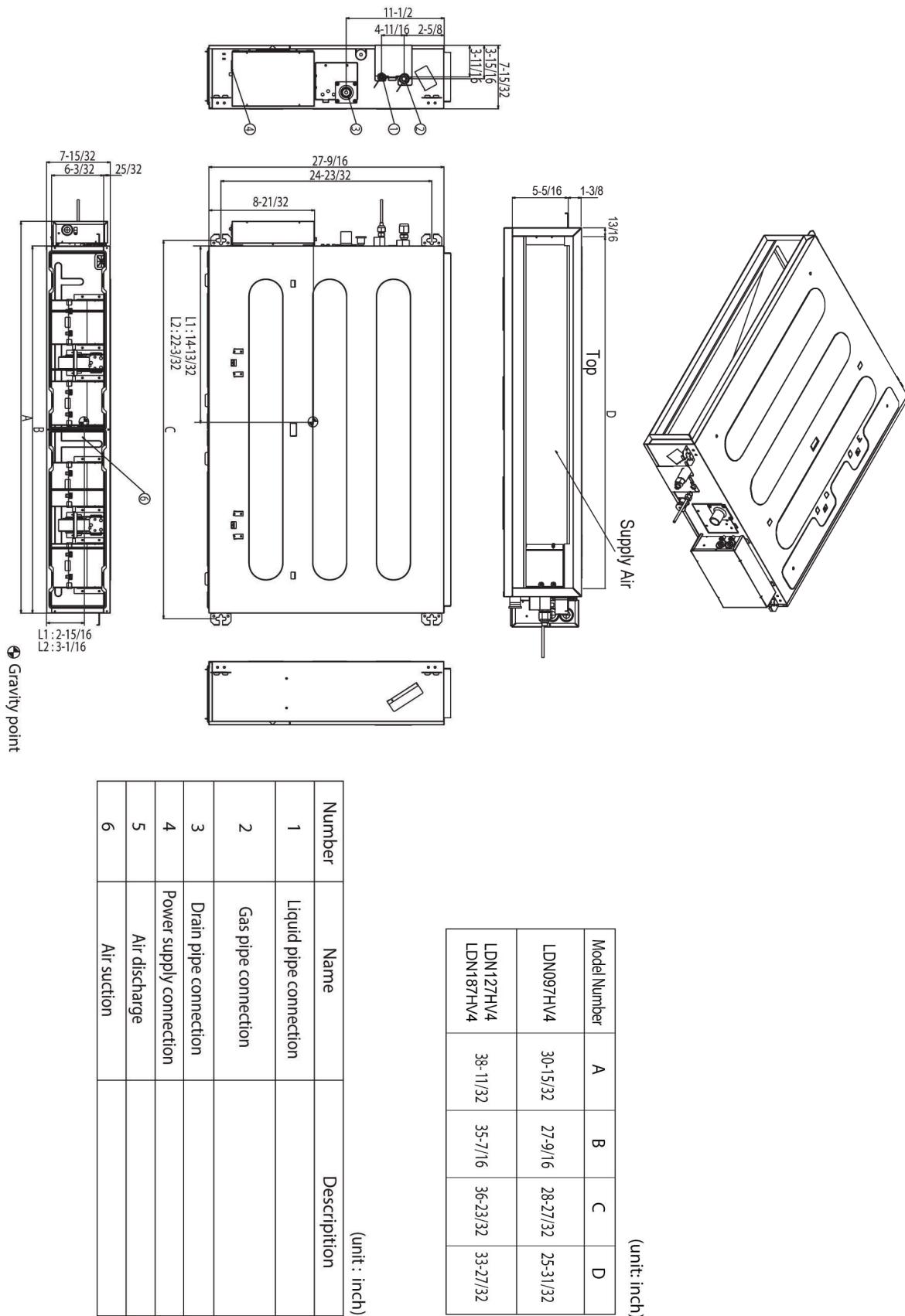
18,000 Btu/h



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Architect: _____ GC: _____

Engr: _____ Mech: _____

Rep:

(Company)

(Project Manager)

PREMTC00U Simple Remote Controller



Unit Data:

Maximum No. of Indoor Units (Group Control)	16
Temperature Value*	Farenheit (1° Increments) / Celsius
Dimensions	4-3/4" L x 2-3/4" W x 5/8" H
Weight	0.18 lbs.

*Temperature Value depends on equipment.

Operating Range:

Cooling (°F DB)	64 ~ 86
Heating (°F WB)	60 ~ 86

Communications Cabling Specifications (V-Net):

Type	Field Supplied
Length**	164 feet
Size	22-3 AWG, twisted, stranded, unshielded

**Communication cable can be extended to a maximum of 164 feet between controller and indoor unit by using field supplied cable or the Wired Remote Group Control Cable Assembly (PZCWRCG3) or Wired Remote Extension Cable (PZWRC1), maximum of 4.

Standard Features:

- Auto Operation (Dual Setpoint)
- Unit Operation – On / Off
- Mode Selection – Cool / Heat / Fan / Auto
- Fan Speed Selection
- Air Flow Direction (available with indoor units equipped for this feature)
- Static Pressure Setting
- Child Lock
- LED Indicator for unit operating status
- Master / Slave Setting for Multiple Controller Installation
- Room Temperature Sensing Location (Zone Controller, Indoor Unit, Two-Thermistor)
- Discharge Vanes – Auto Swing / Fixed (available with indoor units equipped for this feature)
- Manual Central Control Addressing

Optional Accessories:

- 33-foot Extension Cable Assembly (PZWRC1)
- Group Control Cable Kit (PZCWRCG3)

Notes:

1. Must follow installation instructions in the applicable LG installation manual.
2. Available functions / features may differ based on the connected system.