

Elite® Series Gas Furnaces



ML962V

96% A.F.U.E.† EcoNet Enabled Heating Stages: Two-Stage Motor Type: Constant CFM Input Rates: 40 to 115 kBTU [11.7 to 33.7 kW] Configuration Options: 4-Way Multi-Position

Manufactured for Mainline® HVACmainline.com



† A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks is under license. Other trademarks and trade names are those of their respective owners.

Table of Contents

3
4
5
6
7
8-9
12

Features and Benefits

- Energy Efficiency: ENERGY STAR® certified, featuring 96% AFUE across all model sizes
- Diagnostics: With the BluArch[™] Contractor App & Bluetooth^{®1} technology makes monitoring, troubleshooting and repairing the product easier than ever before
- Dip Switch Free Installation Commissioning via Bluetooth[®] Technology: Seamless final install step without DIP switch configuration using the BluArch[™] Contractor App
- Ignition System: Proven Direct Spark Ignition (DSI) for reliability and longevity
- Water Management System: Exclusive patented block drain sensor that automatically shuts off the furnace when the drain is blocked and alerts the contractor via diagnostic code
- **Two-Stage Heating:** Furnace operation mainly stays at low capacity around 60-65%, but will switch to high capacity to deliver stable heat distribution

- **Constant CFM Motor:** Truly variable speed technology allows for ultimate humidity control, quieter sound levels and year-round energy savings
- Quieter Operation²: A fully insulated blower cabinet, solid bottom and truly variable speed airflow technology makes this furnace one of the quieter options available
- EcoNet[®] Enabled Furnace: The latest in sensor technology and the EcoNet[®] monitoring system provides a new level of protection, control and energy savings
- Allows on-the-go control and receipt of system alerts by the homeowner via the EcoNet[®] Smart Thermostat and EcoNet[®] App³

¹The Bluetooth[®] word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks is under license. Other trademarks and trade names are those of their respective owners.

²Based on manufacturer's furnace offering, and the product's heating stages, motor type and cabinet insulation. Sound levels are also dependent on furnace location and installation.

³Wifi broadband internet connection required. Download the EcoNet[®] App from the App Store[®] or Google Play[®] to set up your EcoNet[®] Smart Thermostat. Receipt of notifications depend on home WiFi set up. Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

Gas Furnaces

ML	<u>96</u>	2	<u>v</u>	040	<u>3</u>	A	<u>17</u>	<u>M4</u>	<u>s</u>	B	A	<u>P</u>
Brand	Furnace Efficiency	Stages of Heating	Motor Type	Heating Input	AC Max. Capacity	Major Series	Width	Position	NOx	Controls	Minor Series	Option Code
ML - Mainline	96 - 96% AFUE	2 - Two-Stage V		040 - 40,000 [11.7 kW] 060 - 60,000 [17.6 kW] 070 - 70,000 [20.5 kW] 075 - 75,000 [22.0 kW] 085 - 85,000 [24.9 kW] 100 - 100,000 [29.3 kW] 115 - 115,000 [33.7 kW]			17 - 17.5" Width 21 - 21" Width 24 - 24.5" Width	M4 - Multi- 4 Way	S - Standard	B - Communicating, Bluetooth®, EcoNet®	A - 1st Series	P - Premium Grade

[] Designates Metric Conversions

AVAILABLE MODELS	
ML962V0403A17M4SBAP	
ML962V0603A17M4SBAP	
ML962V0703A17M4SBAP	
ML962V0705A21M4SBAP	
ML962V0855A21M4SBAP	
ML962V1005A21M4SBAP	
ML962V1155A24M4SBAP	

WARNING THIS FURNACE IS NOT APPROVED **OR RECOMMENDED** FOR USE IN MOBILE HOMES

STANDARD EQUIPMENT					
Adjustable Humidifier On/Off Delay ¹	Electronic On/Off Blower Time Control				
Auxiliary Input Connection ¹	Humidifier Connections				
Condensate Switch Connection ¹	Humidistat Terminal Connection				
Outdoor Air Temperature Sensor Connection ¹	Limit Controls				
Supply Air Sensor Connection ¹	Low Speed Continuous Fan Option				
100% Safety Lock Out	Manual Shut-Off Valve				
2 Stage Induced Draft Motor	Marked Condensate Hoses				
29-4C Stainless Steel Secondary Heat Exchanger Design	On Demand Dehumidifier Connection				
Adjustable Cool Fan Off Delay	One Hour Automatic Retry				
Aluminized Steel Primary Heat Exchanger Design	Power And Self Test Diagnostics				
Blocked Drain Sensor	Pressure Switches				
Blower Compartment Door Safety Switch	PWM Controlled Constant Torque Electrically Commutated Blower Motor				
Bluetooth® Diagnostics	Redundant 2 Stage Main Gas Control				
Bluetooth® Setup	Solid Bottom				
Bluetooth® Setup And Diagnostics	Blower Insulation				
Completely Assembled And Wired	Two Plus Stage Cooling Thermostat Connection ²				
Direct Drive Motor	Fully Insulated Heat Exchanger Cabinet				
Thermostat Connections	Two Speed Heating				
Electronic Air Cleaner Connections					

¹When used with Smart Thermostat only ²When connected to three-speed or modulating AC/HP product

Physical Data and Specifications U.S. and Canadian Models

MODEL NUMBERS	ML962V0403 A17M4SBAP	ML962V0603 A17M4SBAP	ML962V0703 A17M4SBAP	ML962V0705 A21M4SBAP	ML962V0855 A21M4SBAP	ML962V1005 A21M4SBAP	ML962V1155 A24M4SBAP
HIGH FIRE INPUT BTU/HR [kW] ①	42,000 [12.31]	56,000 [16.41]	70,000 [20.50]	70,000 [20.50]	84,000 [24.61]	98,000 [28.72]	112,000 [32.82]
LOW FIRE INPUT	29,400 [8.61]	39,200 [11.49]	49,000 [14.36]	49,000 [14.36]	58,800 [17.23]	68,600 [20.11]	78,400 [23.00]
HEATING CAPACITY BTU/HR [kW]	41,000 [12.02]	55,000 [16.12]	68,000 [19.93]	68,000 [19.93]	82,000 [24.03]	95,000 [27.84]	109,000 [31.94]
HIGH ALTITUDE OUTPUT 10% DERATE [kW] ②	36,288 [10.64]	48,384 [14.18]	60,480 [17.72]	60,480 [17.72]	72,756 [21.27]	84,672 [24.81]	96,768 [28.36]
BLOWER (D x W) [mm]	11 x 7 [279 x 178]	11 x 8 [279 x 203]	11 x 8 [279 x 203]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 11 [279 x 279]
MOTOR H.P. [W]– TYPE	1/2 [373] VS-CT(ECM)	1/2 [373] VS-CT(ECM)	1/2 [373] VS-CT(ECM)	1 [746] VS-CT(ECM)	1 [746] VS-CT(ECM)	1 [746] VS-CT(ECM)	1 [746] VS-CT(ECM)
MIN. CIRCUIT AMPACITY	9	9	8	15	15	16	15
MIN. OVERLOAD PROTECTION DEVICE	15	15	15	20	20	20	20
MAX. OVERLOAD PROTECTION DEVICE	15	15	15	25	25	25	25
MOTOR FULL LOAD AMPS	5.8	5.8	5.8	11.1	11.1	11.1	11.1
MAXIMUM EXT. STATIC PRESSURE (IN. W.C.) [kPa]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]
HEATING HI CFM [L/s]	990 [468]	1100 [520]	1200 [566]	1375 [649]	1735 [819]	1440 [680]	1650 [779]
HEATING LO CFM [L/s]	870 [411]	990 [467]	1030 [486]	1200 [566]	1475 [697]	1250 [590]	1400 [661]
MAX Cooling CFM [L/s]	1240 [585]	1240 [585]	1240 [585]	1980 [934]	1980 [934]	1980 [934]	1980 [934]
MIN Cooling CFM [L/s]	300 [142]	300 [142]	300 [142]	500 [236]	500 [236]	500 [236]	500 [236]
FAN CFM [L/s]	600 [283]	600 [283]	600 [283]	1000 [472]	1000 [472]	1000 [472]	1000 [472]
TEMPERATURE RISE-HIGH FIRE RANGE IN DEGREES °F [°C]	20 - 50 [11 - 28]	30 - 60 [17 - 33]	40 - 70 [22 - 39]	30 - 60 [17 - 33]	30 - 60 [17 - 33]	40 - 70 [22 - 39]	45 - 75 [25 - 42]
TEMPERATURE RISE-LOW FIRE RANGE IN DEGREES °F [°C]	15 - 45 [8 - 25]	20 - 50 [11 - 28]	30 - 60 [17 - 33]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	30 - 60 [17 - 33]	35 - 65 [19 - 36]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	123 [56]	128 [58]	133.5 [61]	146.5 [66]	150 [68]	155 [70]	190 [86.2]
AFUE 3	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%

NOTES: All models are 115V, 60HZ, 1 phase. Gas connection size for all models is 1/2" [13 mm] N.P.T.

Installation instructions for high altitude derate.

⁽²⁾ Canadian installations only.

③ In accordance with D.O.E. test procedures.

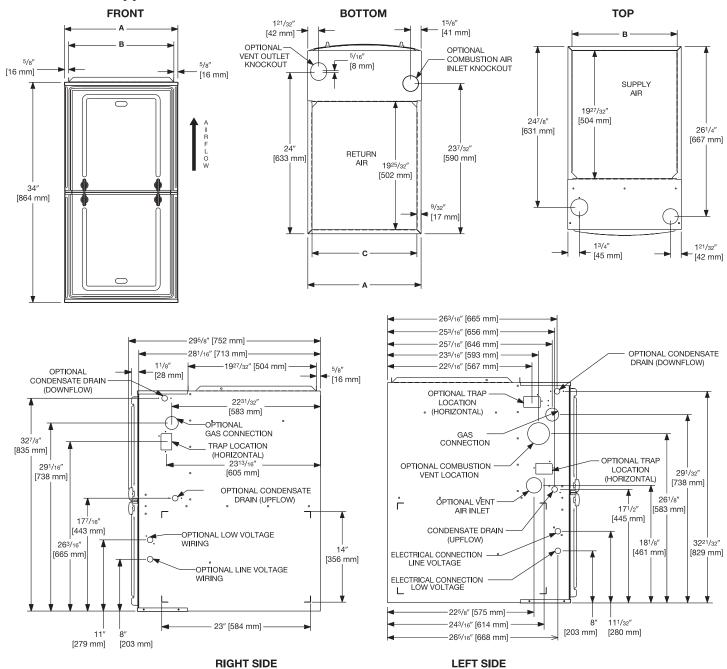
NOTE: Standard model complies with California low NOx requirements up to 40ng/J.

This furnace does not meet air district requirements of 14 ng/J NOx emissions limit, and thus is subject to a mitigation fee of up to \$450.

This furnace is to be installed for propane firing only in air districts requiring 14 ng/J NOx emission limits. Operating in natural gas mode is in violation of these Rules.

Dimensional Data ML962V

Multi-Position Application



Unit Dimensions (Clearance to Combustibles)

MODEL	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]					FLANGE DIMENSIONS			
ML962V	LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	Α	В	C	
040	0	0	0	1 [25]	2 [51]	0	171/2 [445]	16 ¹⁷ /64 [413]	16 ¹³ /64 [412]	
060	0	0	0	1 [25]	2 [51]	0	171/2 [445]	16 ¹⁷ /64 [413]	16 ¹³ /64 [412]	
070	0	0	0	1 [25]	2 [51]	0	171/2 [445]	16 ¹⁷ /64 [413]	16 ¹³ /64 [412]	
070 (wide)	0	0	0	1 [25]	2 [51]	0	21 [533]	19 ⁴⁹ /64 [502]	19 ⁴⁵ /64 [500]	
085	0	0	0	1 [25]	2 [51]	0	21 [533]	1949/64 [502]	19 ⁴⁵ /64 [500]	
100	0	0	0	1 [25]	2 [51]	0	21 [533]	1949/64 [502]	19 ⁴⁵ /64 [500]	
115	0	0	0	1 [25]	2 [51]	0	241/2 [662]	2317/63 [591]	23 ¹³ /64 [589]	

Blower Performance Data

TARGET GAS HEATING AIRFLOWS									
	ML962V0403 A17M4*BAP	ML962V0603 A17M4*BAP	ML962V0703 A17M4*BAP	ML962V0705 A21M4*BAP	ML962V0855 A21M4*BAP	ML962V1005 A21M4*BAP	ML962V1155 A24M4*BAP		
Furnace Lo Heat CFM A (factory)	870 [411]	990 [467]	1030 [486]	1200 [566]	1475 [697]	1250 [590]	1400 [661]		
Furnace Lo Heat CFM B (side return)	870 [411]	1070 [505]	1156 [445]	1375 [649]	1593 [782]	1426 [673]	1512 [714]		
Furnace Lo Heat CFM C (Approx. +7°F)	783 [370]	872 [412]	942 [445]	1080 [510]	1298 [613]	1162 [549]	1260 [595]		
Furnace Lo Heat CFM D (Approx. +12°F)	722 [341]	802 [379]	867 [409]	996 [470]	1195 [564]	1070 [505]	1162 [548]		
Furnace Hi Heat CFM A (factory)	990 [468]	1100 [520]	1200 [566]	1375 [649]	1735 [819]	1440 [680]	1650 [779]		
Furnace Hi Heat CFM B (side return)	990 [468]	1188 [561]	1296 [612]	1550 [732]	1874 [884]	1691 [798]	1800 [850]		
Furnace Hi Heat CFM C (Approx. +7°F)	891 [421]	990 [468]	1080 [510]	1170 [553]	1562 [797]	1409 [665]	1485 [701]		
Furnace Hi Heat CFM D (Approx. +12°F)	822 [388]	913 [431]	996 [470]	1079 [510]	1441 [680]	1299 [614]	1370 [647]		

Vent Termination Kits:

RXGY-E02: Vertical/Horizontal Concentric Vent Termination Kit 2" Pipe (US Only)

RXGY-E02A: Vertical/Horizontal Concentric Vent Termination Kit 2" Pipe (US & Canadian)

RXGY-E03: Vertical/Horizontal Concentric Vent Termination Kit 3" Pipe (US Only)

RXGY-E03A: Vertical/Horizontal Concentric Vent Termination Kit 3" Pipe (US & Canadian)

RXGY-G02: Direct Vent Furnace Side Wall Vent 2" or 3" (US Only)

RXGY-D05: Combustion Air Drain Kit 2"

RXGY-D06: Combustion Air Drain Kit 3"

NEUTRALIZER KIT: RXGY-A01 (Replacement Cartridge 54-22120-01) FOSSIL FUEL KIT: RXPF-F01, RXPF-F02 (TVA)

EXTERNAL BOTTOM FILTER (UPFLOW/HORIZONTAL) RACK: RXGF-CB

EXTERNAL SIDE (UPFLOW) FILTER RACK: RXGF-CD

EXTERNAL (DOWNFLOW) FILTER RACK: RXGF-CC

FILTER RACK FILTER SIZES* INCHES [mm]								
RXGF-CB Model (UPFlow/ Horizontal)		RXGF-CD (UPFLOW)	RXGF-CC (DOWNFLOW)					
ML962V040	15 ³ /4 x 25	15 ^{3/} 4 x 25	12 x 20					
	[400 x 635]	[400 x 635]	[305 x 508]					
ML962V060	15 ³ /4 x 25	15 ³ /4 x 25	12 x 20					
	[400 x 635]	[400 x 635]	[305 x 508]					
ML962V070 15 ³ /4 x 25		15 ^{3/4} x 25	12 x 20					
[400 x 635]		[400 x 635]	[305 x 508]					
ML962V070	19 ¹ /4 x 25	15 ^{3/4} x 25	12 x 20					
(wide)	[489 x 635]	[400 x 635]	[305 x 508]					
ML962V085	19 ¹ /4 x 25	15 ^{3/4} x 25	12 x 20					
	[489 x 635]	[400 x 635]	[305 x 508]					
ML962V100	19 ¹ /4 x 25	15 ^{3/4} x 25	12 x 20					
	[489 x 635]	[400 x 635]	[305 x 508]					
ML962V115	22 ³ /4 x 25	15 ^{3/4} x 25	14 x 20					
	[578 x 635]	[400 x 635]	[356 x 508]					

*Filter racks are shipped without filters.

Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

Indoor Coil Casings

MODEL NUMBER
RXBC-D17A1
RXBC-D21A1
RXBC-D21B1
RXBC-D24A1

For High Altitudes:

NOTE: For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations. See installation instructions as appropriate orifice change is required.

L.P. CONVERSION KIT: RXGJ-FP34

CONDENSATE PUMP KIT: PROSTOCK & 1PCB151TUL

DOWNFLOW/HORIZONTAL CONVERSION KIT: RXGY-CK

DOWNFLOW/HORIZONTAL LEFT ZERO CLEARANCE Conversion Kit: RXGY-ZK

COMBUSTIBLE FLOOR BASE: RXGC-B17 RXGC-B21 RXGC-B24

<u></u>

0

≋

Integrated Controls



EcoNet[®] is smart, technology that allows Heating and Cooling, products to communicate with each other on one integrated network.

THE ECONET® SMART THERMOSTAT

BUILT-IN WIFI
4.3" LCD TOUCH SCREEN
LOCAL WEATHER – Current conditions plus 6-day forecast
5 OPERATING MODES – Heat, Cool, Auto, Emergency Heat and Fan Only
7-DAY PROGRAMMABLE SCHEDULE – Offers comfort without thought
ONE-TOUCH AWAY – Quickly switch to your energy-saving away preferences
VACATION SCHEDULING – Allows you to save while you're away and come home to comfort
STANDBY SCREEN – Displays indoor temperature and current weather

OPERATIONAL FEATURES

AUTOMATIC CHANGEOVER – Transitions between heating and cooling automatically to keep the house comfortable INTEGRATED WATER CONTROL – Enables easy water heater management SMOOTH ARRIVAL – Prompts the system to start ahead of schedule to ensure the home is at the desired temperature at the scheduled time HUMIDITY CONTROL – Supports humidifier accessories or over-cool based dehumidification DETAILED OPERATING STATUS – View pertinent equipment status information and run times CONTINUOUS FAN – Offers 5 speeds (Low, Medium Low, Medium, Medium High, High) SHORT-CYCLE PROTECTION – Avoids damage to equipment from short run cycles

MONITORING & REMOTE CONTROL FEATURES

ACTIVE MONITORING – Alerts to problems that need immediate attention REMOTE CONTROL – Allows adjusting of comfort and settings from anywhere using a mobile device SERVICE ALERTS – Sends routine maintenance reminders AIR FILTER MONITORING – Detects when it's time to replace the air filter ALARM HISTORY – Displays time-stamped alarm codes with clear descriptions

Home

CETST800SYS

Notes ML962V

Notes ML962V



GENERAL TERMS OF LIMITED WARRANTY*

Mainline[®] will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.

Conditional Unit Replacement	
(Registration Required)	Ten (10) Years
Heat Exchanger	Limited Lifetime
Parts	Ten (10) Years

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

"In keeping with its policy of continuous progress and product improvement, Mainline reserves the right to make changes without notice." www.MainlineCollection.com