MAINLINE®
Reliably Comfortable.™

Elite® Series Gas Furnaces

EcoNet®

ML951V Ultra Low NOx

95% A.F.U.E.†
EcoNet® Enabled
Heating Stages: Single Stage
Motor Type: Constant CFM
Input Rates: 40 to 100 kBTU [12.31 to 27.84 kW]
Configuration Options: Upflow Horizontal

Manufactured for
Mainline®
HVACmainline.com

ENERGY STAR

Dual Fuel

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

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Features and Benefits

- **Ultra Low Greenhouse Gas Emissions:** Certified unit meets 14ng/j NOx emission standard – reducing NOx emissions by 65%
- **Energy Efficiency:** ENERGY STAR® certified, featuring 95% AFUE across all model sizes
- **Diagnostics:** With the BluArch™ Contractor & EcoNet® Apps, built-in EcoNet® & 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:** Patented block drain sensor that automatically shuts off the furnace when the drain is blocked, and also alerts the contractor via diagnostic code
- **Constant CFM Motor:** Truly variable speed technology allows for ultimate humidity control, quieter sound levels and year-round energy savings
- **Quieter Operation[2]:** 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® App[3]
- **This unit is certified** for use in elevations up to 10,000 feet

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[2]Based 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.

[3]Wifi 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	95	1	V	040	3	A	17	UH	U	B	A	P
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	95 - 95% AFUE	1 - Single Stage	V - ECM Variable Speed	040 - 40K BTUH [12.31 kW] 060 - 60K BTUH [16.41 kW] 070 - 70K BTUH [20.51 kW] 100 - 100K BTUH [27.84 kW]	3 - 3 ton drive 5 - 5 ton drive	A - 1st Design Series	17 - 17.5" Width 21 - 21" Width	UH - Upflow Horizontal	U - Ultra Low NOx	B - Communicating, EcoNet®, Bluetooth®	A - 1st Series	P - Premium Grade

[ ] Designates Metric Conversions

AVAILABLE MODELS
ML951V0403A17UHUBAP
ML951V0603A17UHUBAP
ML951V0705A21UHUBAP
ML951V1005A21UHUBAP

STANDARD EQUIPMENT	
100% Safety Lock Out	Limit Controls
2 Stage Cooling	Low Speed Continuous Fan Option
29-4C Stainless Steel Secondary Heat Exchanger	Manual Shut-Off Valve
3 Way Multi Poise Design Upflow/Horizontal	On Demand Dehumidification
Blocked Drain Sensor	One-Hour Automatic Retry
Blower Compartment Door Safety Switch	Outdoor Air Temperature Connection
Bluetooth® Set Up, Diagnostics & Marked Hoses for Ease of Installation	Power and Self-Test Diagnostics
Complete Assembly and Wiring	Pressure Switches
Condensate Switch Connection	Redundant Main Gas Control
Constant CFM Variable Speed CT Motor	Return Air Temp Sensor Connection
Cool Fan Off Delay	Solid Bottom
Direct Drive	Blower Insulation
Electronic Air Cleaner Connections	Stainless Steel Primary Heat Exchanger
EXV Connection	Suction Pressure/Evap. Temperature Connection
Flame Sense Current Diagnostics	Suction Temperature Connection
Fully Insulated Heat Exchanger Cabinet	Supply Air Temperature Connection
Furnace Diagnostics-7 Segment LED All Units	Transformer
Humidifier Connections	Variable Speed 3 Phase Induced Draft Motor

WARNING

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

Physical Data and Specifications
U.S. and Canadian Models

MODEL NUMBERS ML951V 1 STG VS-CT UP/HZ SERIES	ML951V0403A17UHUBAP	ML951V0603A17UHUBAP	ML951V0705A21UHUBAP	ML951V1005A21UHUBAP
INPUT-BTU/HR [kW]	42,000 [12.31]	56,000 [16.41]	70,000 [20.51]	95,000 [27.84]
HEATING CAPACITY BTU/HR [kW] ①	39,900 [11.69]	53,200 [15.59]	66,500 [19.49]	90,250 [26.45]
HEAT EXT. STATIC PRESSURE [kPA]	.10 [.02]	.12 [.03]	.15 [.04]	.20 [.05]
BLOWER (D X W) [mm]	11 x 8 [279 x 203]	11 x 8 [279 x 203]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
MOTOR H.P. [W] TYPE	1/2 [373] VS-CT(ECM)	3/4 [560] VS-CT(ECM)	1 [746] VS-CT(ECM)	1 [746] VS-CT(ECM)
MIN. CIRCUIT AMPACITY	9	13	17	17
MIN. OVERLOAD PROTECTION DEVICE	15	20	20	20
MAX. OVERLOAD PROTECTION DEVICE	15	20	25	25
MOTOR FULL LOAD AMPS	6.1	9.6	12.4	12.4
HEATING CFM [L/s]	825 [389]	1050 [496]	1210 [571]	1650 [779]
MAX. COOLING CFM [L/s]	1240 [585]	1240 [585]	1980 [934]	1980 [934]
MIN. COOLING CFM [L/s]	300 [142]	300 [142]	500 [236]	500 [236]
FAN CFM [L/s]	600 [283]	800 [378]	1000 [472]	1000 [472]
MAX. E.S.P. (IN. W.C.) [kPA]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]
TEMPERATURE RISE RANGE °F [°C]	30 - 60 [17 - 33]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	40 - 70 [22 - 39]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	143 [65]	143.5 [65]	168.5 [76]	170.5 [77]
AFUE ②	95.00%	95.00%	95.00%	95.00%

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

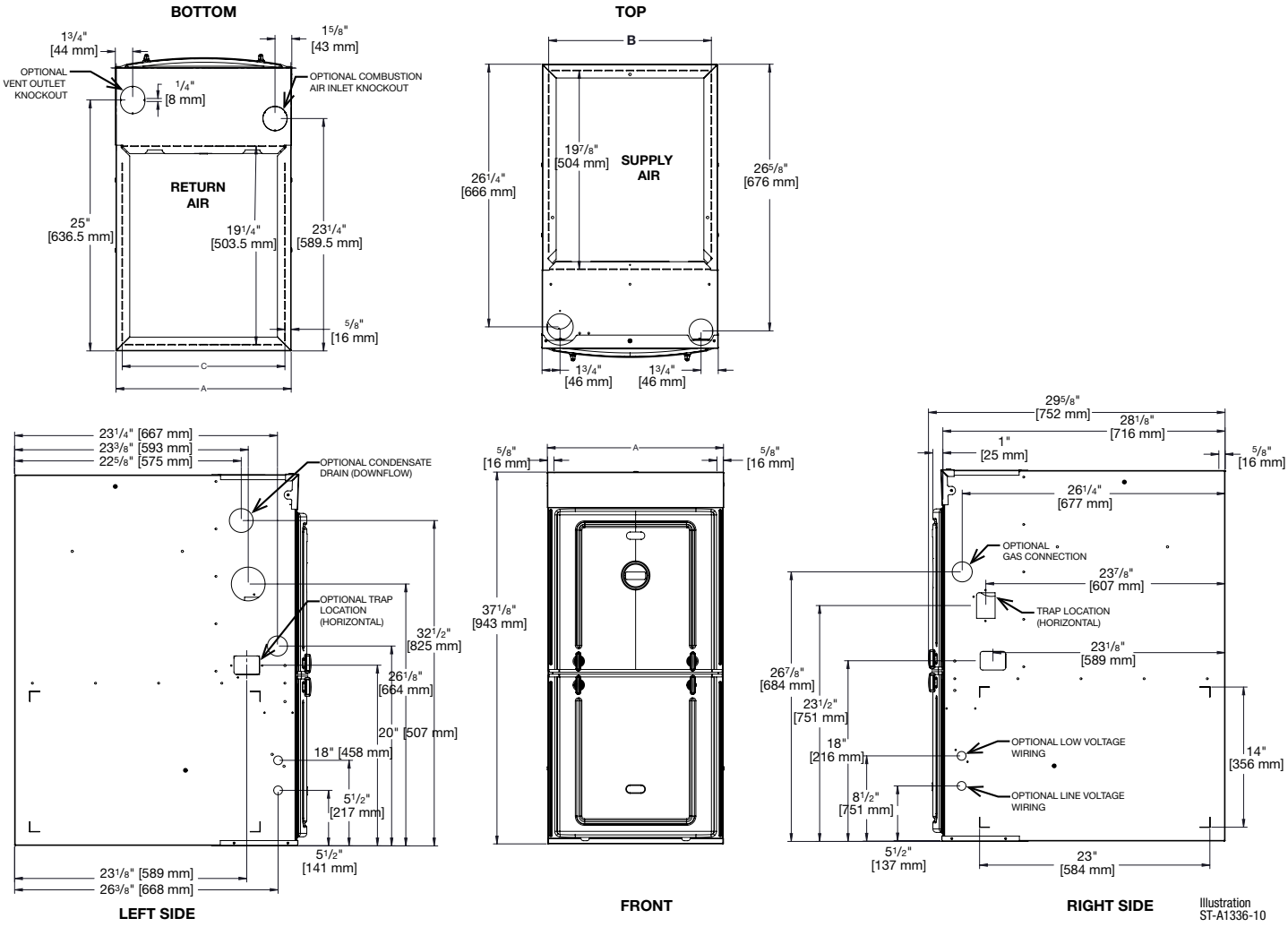
① This model does not require any component changes at elevations 0-5,500 ft. above sea level. At elevations higher than 2,000 ft. these models do require a 2% de-rate for every 1,000 ft. of elevation above sea level.

② In accordance with D.O.E test procedures.

This furnace meets air district requirements of 14 ng/J NOx emissions limit, and thus is eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com in SCAQMD.

[ ] Designates Metric Conversions

Multi-position Application



Unit Dimensions (Clearance to Combustibles)

MODEL ML951V ULN	MINIMUM CLEARANCE (IN.) [mm]						FLANGE DIMENSIONS		
	LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	A	B	C
040	0	0	0	1 [25]	2 [51]	0	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
060	0	0	0	1 [25]	2 [51]	0	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070	0	0	0	1 [25]	2 [51]	0	21 [533]	19 49/64 [502]	19 45/64 [500]
100	0	0	0	1 [25]	2 [51]	0	21 [533]	19 49/64 [502]	19 45/64 [500]

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and in accordance with local codes.

[ ] Designates Metric Conversions

Blower Performance Data

TARGET GAS HEATING AIRFLOWS					
		ML951V0403 A17UHUBAP	**ML951V0603 A17UHUBAP**	**ML951V0705 A21UHUBAP**	**ML951V1005 A21UHUBAP**
Factory High Heating CFM [L/s]	Factory High Heating CFM [L/s]	825 [389]	1050 [496]	1210 [571]	1650 [779]
High Heat Side Return CFM [L/s]	High Heat Side Return CFM [L/s]	891 [421]	1134 [535]	1265 [597]	1782 [841]
High Heat Approx. ±2°F CFM	High Heat Approx. ±2°F CFM	797 [376]	1014 [479]	1168 [551]	1593 [752]
High Heat Approx. ±4°F CFM	High Heat Approx. ±4°F CFM	772 [364]	982 [463]	1132 [534]	1543 [728]

[ ] Designates Metric Conversions

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)

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

EXTERNAL SIDE (UPFLOW) FILTER RACK: RXGF-CD

EXTERNAL (DOWNFLOW) FILTER RACK: RXGF-CC

CONDENSATE PUMP KIT: PROSTOCK & 1PCB151TUL

COMBUSTIBLE FLOOR BASE: RXGC-B17
RXGC-B21

FILTER RACK FILTER SIZES* INCHES [mm]			
MODEL	**RXGF-CB (UPFLOW/ HORIZONTAL)**	**RXGF-CD (UPFLOW)**	**RXGF-CC (DOWNFLOW)**
ML951V(-)040	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]	14 x 20 [356 x 508]
ML951V(-)060	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]	14 x 20 [356 x 508]
ML951V(-)070	19 1/4 x 25 [489 x 635]	15 3/4 x 25 [400 x 635]	14 x 20 [356 x 508]
ML951V(-)100	19 1/4 x 25 [489 x 635]	15 3/4 x 25 [400 x 635]	14 x 20 [356 x 508]

Indoor Coil Casings

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

For High Altitudes:

PRESSURE SWITCH ASSEMBLY: 42-109148-05

The 100K BTU furnace will require the installation of 42-109148-05 when operating in elevations above 8,000 ft. Please read installation instructions for more details regarding the installation of the pressure switch assembly.

[ ] Designates Metric Conversions

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

CETST800SYS

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

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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

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