



FRIEDRICH

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Endeavor™ Line *F-Series* Gas Furnaces



This product meets a stringent set of our internally defined sustainability standards



FR921V

92% A.F.U.E.†

EcoNet® Enabled

Heating Stages: Single Stage

Motor Type: Constant CFM

Input Rates: 40 to 115 kBTU [11.7 to 33.7 kW]

Configuration Options: 4-Way Multi-Position



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

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Features and Benefits

- **PlusOne® Energy Efficiency:** US South ENERGY STAR® certified, featuring 92% AFUE across all model sizes
- **PlusOne® Diagnostics:** With the Friedrich® 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 Friedrich Contractor App
- **PlusOne® Ignition System:** Proven Direct Spark Ignition (DSI) for reliability and longevity
- **PlusOne® Water Management System:** Friedrich-exclusive 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 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

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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, Alex and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

Gas Furnaces

FR	92	1	V	040	3	A	17	M4	S	C	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
FR - Friedrich®	92 - 92% AFUE	1 - Single Stage	V - ECM Variable Speed	040 - 40K BTUH [11.7 kW] 060 - 60K BTUH [17.6 kW] 070 - 70K BTUH [20.5 kW] 085 - 85K BTUH [24.9 kW] 100 - 100K BTUH [29.3 kW] 115 - 115K BTUH [33.7 kW]	3 - 3 ton drive 5 - 5 ton drive	A - 1st Design Series	17 - 17.5" Width 21 - 21" Width 24 - 24.5" Width	M4 - Multi-4 Way	S - Standard	C - Communicating, EcoNet®, Bluetooth®	A - 1st Series	P - Premium Grade

[] Designates Metric Conversions

AVAILABLE MODELS
FR921V0403A17M4SCAP
FR921V0603A17M4SCAP
FR921V0703A17M4SCAP
FR921V0705A21M4SCAP
FR921V0855A21M4SCAP
FR921V1005A21M4SCAP
FR921V1155A24M4SCAP

STANDARD EQUIPMENT
Condensate switch connection ¹
100% safety lock out
29-4C stainless steel secondary heat exchanger design
Adjustable cool fan off delay
Aluminized steel primary heat exchanger design
Blocked Drain Sensor
Blower compartment door safety switch
Bluetooth® diagnostics
Bluetooth® setup
Bluetooth® setup and diagnostics
Completely assembled and wired
Direct drive motor
EcoNet® Thermostat connections
Electronic on/off blower time control
Fully insulated heat exchanger cabinet
Humidistat terminal connection
Induced draft motor
Limit controls
Low speed continuous fan option
Manual shut-off valve
Marked condensate hoses
One hour automatic retry
Power and self test diagnostics
Pressure switch
PWM Controlled constant torque electrically commutated blower motor
Redundant main gas control
Single stage heating thermostat connection
Solid bottom
Blower Insulation
Two plus stage cooling thermostat connection ²

¹When used with EcoNet® Smart Thermostat only

²When connected to three-speed or modulating AC/HP product

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

Physical Data and Specifications—U.S. Models

MODEL NUMBERS	FR921V0403 A17M4SCAP	FR921V0603 A17M4SCAP	FR921V0703 A17M4SCAP	FR921V0705 A21M4SCAP	FR921V0855 A21M4SCAP	FR921V1005 A21M4SCAP	FR921V1155 A24M4SCAP
HIGH FIRE INPUT BTU/HR [kW] ①	42,000 [12.30]	56,000 [16.41]	70,000 [20.51]	70,000 [20.51]	84,000 [24.61]	98,000 [28.72]	112,000 [32.82]
HEATING CAPACITY BTU/HR [kW]	39,900 [11.69]	53,200 [15.59]	66,500 [19.49]	66,500 [19.49]	79,800 [23.39]	93,100 [27.28]	106,400 [31.18]
HIGH ALTITUDE OUTPUT 10% DERATE [kW] ②	35,910 [10.52]	47,880 [14.03]	59,850 [17.54]	59,850 [17.54]	71,820 [21.05]	83,790 [24.56]	95,760 [28.06]
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	10	10	10	17	17	18	17
MIN. OVERLOAD PROTECTION DEVICE	15	15	15	20	20	25	20
MAX. OVERLOAD PROTECTION DEVICE	15	15	15	25	25	25	25
Motor Full Load Amps	6.1	6.1	6.1	12.4	12.4	12.4	12.4
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 CFM [L/s]	990 [468]	1100 [520]	1200 [566]	1375 [649]	1735 [819]	1440 [680]	1650 [779]
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]	40 - 70 [23 - 39]	40 - 70 [22 - 39]	45 - 75 [25 - 42]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	123 [56]	128 [58]	133.5 [61]	146.5 [66]	150 [68]	155 [70]	190 [86.2]
AFUE ③	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%

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

① Installation instructions for high altitude derate.

② Canadian installations only.

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

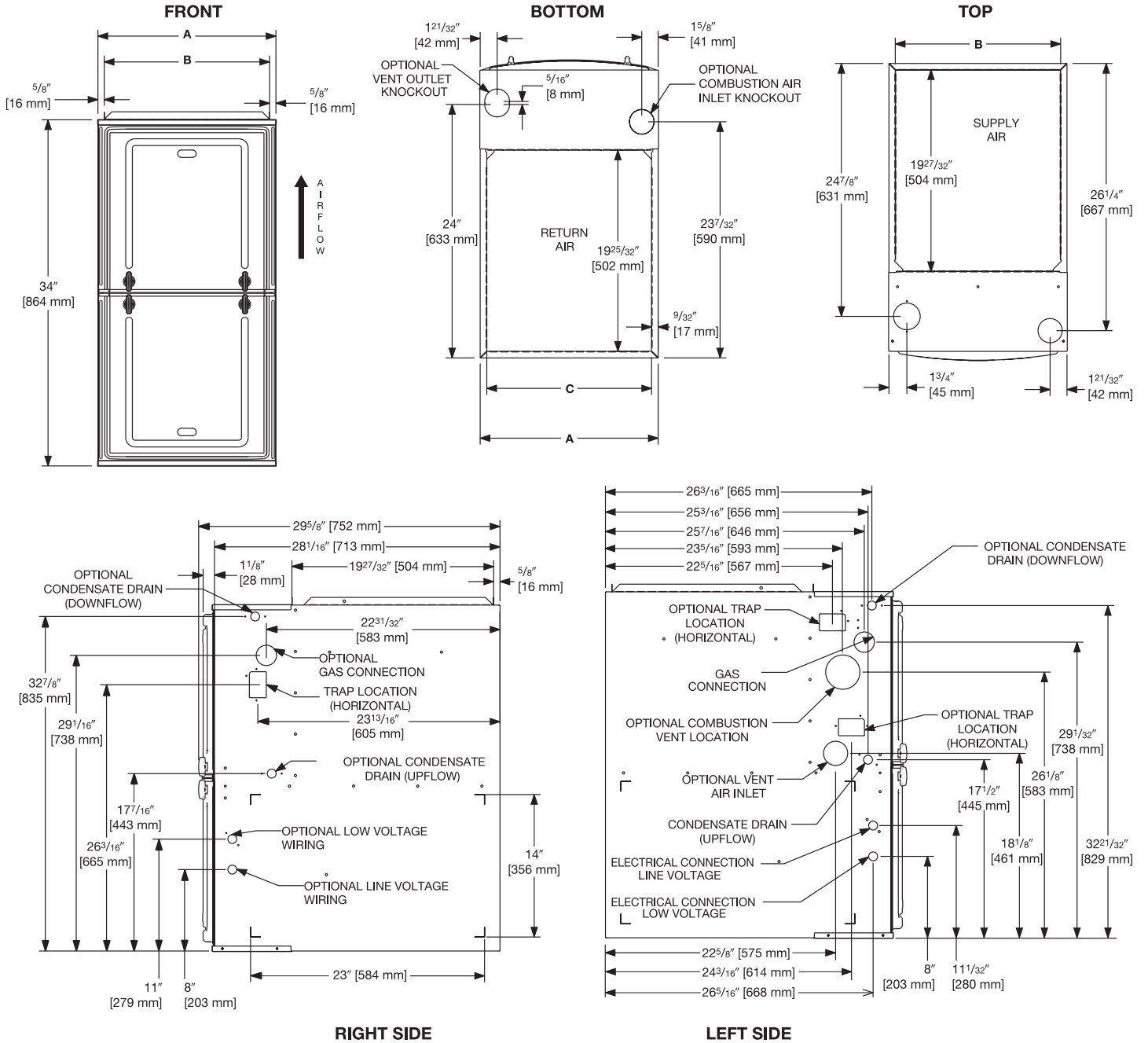
NOTE: Standard model complies with California low nox requirements up to 40ng/J.

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.

[] Designates Metric Conversions

Multi-Position Application



Unit Dimensions (Clearance To Combustibles)

MODEL FR921V	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]					SHIP WGTS.	FLANGE DIMENSIONS		
		RIGHT SIDE	BACK	TOP	FRONT	VENT		A	B	C
040	0	0	0	1 [25]	2 [51]	0	123.5 [56]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
060	0	0	0	1 [25]	2 [51]	0	128 [58]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070	0	0	0	1 [25]	2 [51]	0	132 [60]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070 (wide)	0	0	0	1 [25]	2 [51]	0	147.5 [67]	21 [533]	19 49/64 [502]	19 45/64 [500]
085	0	0	0	1 [25]	2 [51]	0	147.5 [67]	21 [533]	19 49/64 [502]	19 45/64 [500]
100	0	0	0	1 [25]	2 [51]	0	152 [69]	21 [533]	19 49/64 [502]	19 45/64 [500]
115	0	0	0	1 [25]	2 [51]	0	165 [75]	24 1/2 [662]	23 17/64 [591]	23 13/64 [589]

*A service clearance of at least 24" is recommended in front of all furnaces
Supply and return depicted as upflow configuration.
Flange configuration will vary depending on installation orientation.

[] Designates Metric Conversions

Blower Performance Data

TARGET GAS HEATING AIRFLOWS							
	FR921V0403 A17M4SCAP	FR921V0603 A17M4SCAP	FR921V0703 A17M4SCAP	FR921V0705 A21M4SCAP	FR921V0855 A21M4SCAP	FR921V1005 A21M4SCAP	FR921V1155 A24M4SCAP
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]	1238 [584]	1562 [737]	1296 [612]	1485 [701]
Furnace Hi Heat CFM D (Approx. +12°F)	822 [388]	913 [431]	996 [470]	1141 [539]	1440 [680]	1195 [564]	1370 [647]

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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

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-FP38

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

[] Designates Metric Conversions

FILTER RACK FILTER SIZES* INCHES [mm]			
MODEL	RXGF-CB (UPFLOW/ HORIZONTAL)	RXGF-CD (UPFLOW)	RXGF-CC (DOWNFLOW)
FR921V(-)040	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	14 x 20 [356 x 508]
FR921V(-)060	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	14 x 20 [356 x 508]
FR921V(-)070	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	14 x 20 [356 x 508]
FR921V(-)070 (wide)	19 ¹ / ₄ x 25 [489 x 635]	15 ³ / ₄ x 25 [400 x 635]	12 x 20 [305 x 508]
FR921V(-)085	19 ¹ / ₄ x 25 [489 x 635]	15 ³ / ₄ x 25 [400 x 635]	14 x 20 [356 x 508]
FR921V(-)100	19 ¹ / ₄ x 25 [489 x 635]	15 ³ / ₄ x 25 [400 x 635]	14 x 20 [356 x 508]
FR921V(-)115	22 ³ / ₄ x 25 [578 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

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



CETST800SYS

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*

Friedrich® 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 Parts (Registration Required).....	Ten (10) Years
Heat Exchanger	Limited Lifetime

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.

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In keeping with its policy of continuous progress and product improvement, Friedrich reserves the right to make changes without notice.

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