

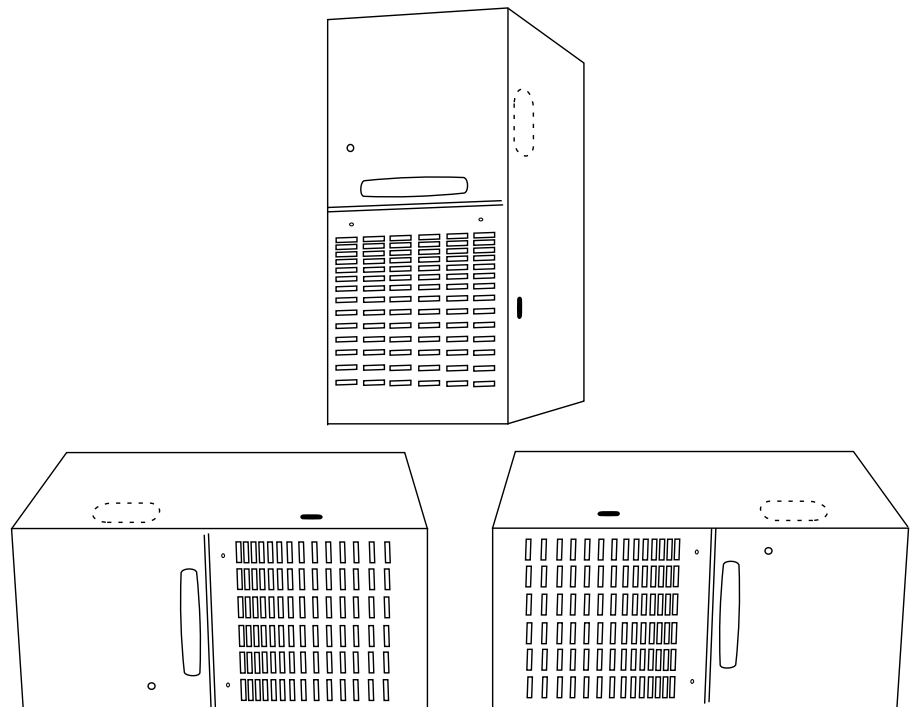


Downflow/Horizontal Right or Downflow/Horizontal Left Induced Draft Gas Furnace

XR 80

TDD040,060,080,100,120,140C

**Single-Stage Fan Assisted
Combustion System**



PUB. NO. 22-1671-04-0702 (EN)



General Features

Natural Gas Models

Central Heating furnace designs are certified by the American and Canadian Gas Associations for both natural and L.P. gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

Safe Operation

The Integrated System Control has solid state devices, which continuously monitor for presence of flame, when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide extra safety.

Quick Heating

Durable, cycle tested, heavy gauge **aluminized steel heat exchanger** quickly transfers heat to provide warm conditioned air to the structure.

Burners

Multi-port In-shot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas**.

Integrated System Control

Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self-diagnostics for ease of service. Also contains connection points for E.A.C./humidifier.

Air Delivery

The 4-speed, direct drive blower motor, has sufficient airflow for most heating and cooling requirements, will switch from heating to cooling speeds on demand from room thermostat. The blower door safety switch will prevent or terminate furnace operation when the blower door is removed.

Styling

Heavy gauge steel and “wrap-around” cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. The heat exchanger section of the cabinet is completely lined with foil faced fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass.

Features and

General Operation

The XR 80 High Efficiency Gas Furnace employs an adaptive Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

- a. Low energy power venter
- b. Vent proving pressure switch.

Contents

General Features	2
Features and Benefits	4
Standard Equipment	4
Optional Equipment	5
General Data	6
TDD040C924F	6
TDD060C924F	6
TDD060C936F	6
TDD080C936F	7
TDD080C945F	7
TDD100C945F	7
TDD100C948F	8
TDD100C954F	8
TDD120C954F	8
TDD120C960F	9
TDD140C960F	9
Performance Data	10
Electrical Data	12
Field Wiring	13
Dimensions	15



Features and Benefits

XR 80 Downflow/Horizontal Right or Left Standard Equipment

- Power supply 115/1/60
- Multi-port In-shot burners
- Integrated solid state control with self-diagnostics
- Silicon Nitride hot surface igniter with adaptive heat up
- Complete front service access
- Heavy gauge aluminized steel heat exchanger
- Slide out blower assembly
- Blower door safety switch
- Direct drive, 4-speed motor
- Cleanable high velocity filters
- Optional L.P. conversion kit
- Common vent
- Left and right side knockout for venting
- Selectable cooling fan off delay eliminates need for BAY24X045 time delay relay
- Quiet slow opening gas valve
- Downflow convertible to horizontal on left or right side
- Insulated blower door
- Insulated blower compartment
- Accessory hook-up capability – Hum and EAC
- Quiet induced draft blower
- Blower door safety switch
- Left/right gas connection
- 24 volt fuse
- Manual reset burner box limit
- **Non-prorated 20-year heat exchanger limited warranty**
- **5-year limited parts warranty**



Features and Benefits

Optional Equipment

Thermostat	BAYSTAT388 []
Thermostat, Heating/Cooling Single Stage (Mounts Horizontally)	AY28X092 []
Thermostat, Heating/Cooling Single Stage (Mounts Vertically)	BAYSTAT305 []
Thermostat, Electronic Programmable 1-Stage Heating/1-Stage Cooling	TAYSTAT300C []
Propane Conversion Kit	BAYLPKT210A []
Electronic Air Filter, "Perfect Fit" Super Efficiency (14-1/2" Wide Gas Furnace)	TFE145A9FR1 []
Electronic Air Filter, "Perfect Fit" Super Efficiency (17-1/2" Wide Gas Furnace)	TFE175A9FR1 []
Electronic Air Filter, "Perfect Fit" Super Efficiency (21" Wide Gas Furnace)	TFE210A9FR1 []
Electronic Air Filter, "Perfect Fit" Super Efficiency (24-1/2" Wide Gas Furnace)	TFE245A9FR1 []
Electronic Air Filter, "Perfect Fit" High Efficiency (14-1/2" Wide Gas Furnace)	TFM145A9FR1 []
Electronic Air Filter, "Perfect Fit" High Efficiency (17-1/2" Wide Gas Furnace)	TFM175A9FR1 []
Electronic Air Filter, "Perfect Fit" High Efficiency (21" Wide Gas Furnace)	TFM210A9FR1 []
Electronic Air Filter, "Perfect Fit" High Efficiency (24-1/2" Wide Gas Furnace)	TFM245A9FR1 []
Electronic Air Filter, "Perfect Fit" Standard Efficiency (17-1/2" Wide Gas Furnace)	TFP175A9FR01 []
Electronic Air Filter, "Perfect Fit" Standard Efficiency (21" Wide Gas Furnace)	TFP210A9FR01 []
Electronic Air Filter, "Perfect Fit" Standard Efficiency (24-1/2" Wide Gas Furnace)	TFP245A9FR01 []
Coil Enclosure (14-1/2" Wide Cabinets)	BAYCLE1400C []
Coil Enclosure (17-1/2" Wide Cabinets)	BAYCLE1700C []
Coil Enclosure (21" Wide Cabinets)	BAYCLE2100C []
Coil Enclosure (24-1/2" Wide Cabinets)	BAYCLE2400C []
Filter Access Door Kit	BAYFLTR206 []
Downflow Subbase	BAYBASE205 []
High Altitude Pressure Switch Kit	BAYHALT248 []



General Data

Product Specifications ^①

MODEL	TDD040C924F	TDD060C924F	TDD060C936F
TYPE	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal
RATINGS ^②			
Input BTUH	40,000	60,000	60,000
Capacity BTUH (ICS) ^③	31,000	48,000	48,000
AFUE	80.0	80.0	80.0
Temp. rise (Min.-Max.) °F.	30 - 60	35 - 65	30 - 60
BLOWER DRIVE	DIRECT	DIRECT	DIRECT
Diameter - Width (In.)	10 x 6	10 x 7	11 x 7
No. Used	1	1	1
Speeds (No.)	4	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/5	1/5	1/2
R.P.M.	1075	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
COMBUSTION FAN - Type	Centrifugal	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1	Direct - 1
Motor HP - RPM	1/50 - 3000	1/50 - 3000	1/50 - 3000
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
FLA	1.0	1.0	1.0
FILTER — Furnished?	Yes	Yes	Yes
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	2 - 14x20 - 1in.	2 - 14x20 - 1in.	2 - 14x20 - 1in.
VENT — Size (in.)	4 Round	4 Round	4 Round
HEAT EXCHANGER			
Type -Fired	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired			
Gauge (Fired)	20	20	20
ORIFICES — Main			
Nat. Gas. Qty. — Drill Size	2 — 45	3 — 45	3 — 45
L.P. Gas Qty. — Drill Size	2 — 56	3 — 56	3 — 56
GAS VALVE	Redundant - Single Stage	Redundant - Single Stage	Redundant - Single Stage
PILOT SAFETY DEVICE			
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot	Multi-port In-shot	Multi-port In-shot
Number	2	3	3
POWER CONN. — V / Ph / Hz ^④	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	5.2	5.2	11.2
Max. Overcurrent Protection (Amps)	10	15	15
PIPE CONN. SIZE (IN.)	1/2	1/2	1/2
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	41 x 15-1/2 x 29-1/2	41 x 15-1/2 x 29-1/2	41 x 15-1/2 x 29-1/2
WEIGHT			
Shipping (Lbs.) / Net (Lbs)	119 / 109	129 / 119	129 / 119

① Central Furnace heating designs are certified by AGA and CSA.

② For U.S. applications, above input ratings (BTUH) are up to 2,000 ft., derate 4% per 1,000 ft. for elevations above 2,000 ft. above sea level.
For Canadian applications, above input ratings (BTUH) are up to 4,500 ft., derate 4% per 1,000 ft. for elevations above 4,500 ft. above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.



General Data

Product Specifications ^①

MODEL	TDD080C936F	TDD080C945F	TDD100C945F
TYPE	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal
RATINGS ^②			
Input BTUH	80,000	80,000	100,000
Capacity BTUH (ICS) ^③	64,000	64,000	80,000
AFUE	80.0	80.0	80.0
Temp. rise (Min.-Max.) °F.	35 - 65	35 - 65	35 - 65
BLOWER DRIVE	DIRECT	DIRECT	DIRECT
Diameter - Width (In.)	10 x 7	10 x 8	10 x 8
No. Used	1	1	1
Speeds (No.)	4	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/3	1/3	1/3
R.P.M.	1075	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
COMBUSTION FAN - Type	Centrifugal	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1	Direct - 1
Motor HP - RPM	1/50 - 3000	1/50 - 3000	1/50 - 3200
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
FLA	1.0	1.0	1.0
FILTER — Furnished?	Yes	Yes	Yes
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	2 - 14x20 - 1in.	2 - 16x20 - 1in.	2 - 16x20 - 1in.
VENT — Size (in.)	4 Round	4 Round	4 Round
HEAT EXCHANGER			
Type -Fired	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired			
Gauge (Fired)	20	20	20
ORIFICES — Main			
Nat. Gas. Qty. — Drill Size	4 — 45	4 — 45	5 — 45
L.P. Gas Qty. — Drill Size	4 — 56	4 — 56	5 — 56
GAS VALVE	Redundant - Single Stage	Redundant - Single Stage	Redundant - Single Stage
PILOT SAFETY DEVICE			
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot	Multi-port In-shot	Multi-port In-shot
Number	4	4	5
POWER CONN. — V / Ph / Hz ^④	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	8.5	9.1	9.1
Max. Overcurrent Protection (Amps)	10	10	10
PIPE CONN. SIZE (IN.)	1/2	1/2	1/2
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	41 x 18-1/2 x 29-1/2	41 x 18-1/2 x 29-1/2	41 x 18-1/2 x 29-1/2
WEIGHT			
Shipping (Lbs.) / Net (Lbs)	146 / 135	146 / 135	156 / 145

① Central Furnace heating designs are certified by AGA and CSA.

② For U.S. applications, above input ratings (BTUH) are up to 2,000 ft., derate 4% per 1,000 ft. for elevations above 2,000 ft. above sea level.
For Canadian applications, above input ratings (BTUH) are up to 4,500 ft., derate 4% per 1,000 ft. for elevations above 4,500 ft. above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.



General Data

Product Specifications ^①

MODEL	TDD100C948F	TDD100C954F	TDD120C954F
TYPE	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal
RATINGS ^②			
Input BTUH	100,000	100,000	120,000
Capacity BTUH (ICS) ^③	80,000	81,000	96,000
AFUE	80.0	80.0	80.0
Temp. rise (Min.-Max.) °F.	35 - 65	30 - 60	35 - 65
BLOWER DRIVE	DIRECT	DIRECT	DIRECT
Diameter - Width (In.)	10 x 8	11 x 10	11 x 10
No. Used	1	1	1
Speeds (No.)	4	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/2	1/2	1/2
R.P.M.	1075	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
COMBUSTION FAN - Type	Centrifugal	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1	Direct - 1
Motor HP - RPM	1/50 - 3000	1/50 - 3000	1/50 - 3000
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
FLA	1.0	1.0	1.0
FILTER — Furnished?	Yes	Yes	Yes
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	2 - 16x20 - 1in.	2 - 14x20 - 1in.	2 - 16x20 - 1in.
VENT — Size (in.)	4 Round	4 Round	4 Round
HEAT EXCHANGER			
Type -Fired	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired			
Gauge (Fired)	20	20	20
ORIFICES — Main			
Nat. Gas. Qty. — Drill Size	5 — 45	5 — 45	6 — 45
L.P. Gas Qty. — Drill Size	5 — 56	5 — 56	6 — 56
GAS VALVE	Redundant - Single Stage	Redundant - Single Stage	Redundant - Single Stage
PILOT SAFETY DEVICE			
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot	Multi-port In-shot	Multi-port In-shot
Number	5	5	6
POWER CONN. — V / Ph / Hz ^④	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	14.2	12.8	12.8
Max. Overcurrent Protection (Amps)	15	15	15
PIPE CONN. SIZE (IN.)	1/2	1/2	1/2
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	41 x 22 x 29-1/2	41 x 22 x 29-1/2	41 x 22 x 29-1/2
WEIGHT			
Shipping (Lbs.) / Net (Lbs)	166 / 154	167 / 155	170 / 158

① Central Furnace heating designs are certified by AGA and CSA.

② For U.S. applications, above input ratings (BTUH) are up to 2,000 ft., derate 4% per 1,000 ft. for elevations above 2,000 ft. above sea level.
For Canadian applications, above input ratings (BTUH) are up to 4,500 ft., derate 4% per 1,000 ft. for elevations above 4,500 ft. above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.



General Data

Product Specifications ^①

MODEL	TDD120C960F	TDD140C960F
TYPE	Downflow / Horizontal	Downflow / Horizontal
RATINGS ^②		
Input BTUH	120,000	140,000
Capacity BTUH (ICS) ^③	96,000	113,000
AFUE	80.0	80.0
Temp. rise (Min.-Max.) °F.	35 - 65	45 - 75
BLOWER DRIVE	DIRECT	DIRECT
Diameter - Width (In.)	11 x 10	11 x 10
No. Used	1	1
Speeds (No.)	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table
Motor HP	1/2	3/4
R.P.M.	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60
COMBUSTION FAN - Type	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1
Motor HP - RPM	1/50 - 3000	1/50 - 3000
Volts / Ph / Hz	115/1/60	115/1/60
FLA	1.0	1.0
FILTER — Furnished?	Yes	Yes
Type Recommended	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	2 - 16x20 - 1in.	2 - 16x20 - 1in.
VENT — Size (in.)	4 Round	4 Round
HEAT EXCHANGER		
Type -Fired	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired		
Gauge (Fired)	20	20
ORIFICES — Main		
Nat. Gas. Qty. — Drill Size	6 — 45	7 — 45
L.P. Gas Qty. — Drill Size	6 — 56	7 — 56
GAS VALVE	Redundant - Single Stage	Redundant - Single Stage
PILOT SAFETY DEVICE		
Type	Hot Surface Ignition	Hot Surface Ignition
BURNERS — Type	Multi-port In-shot	Multi-port In-shot
Number	6	7
POWER CONN. — V / Ph / Hz ^④	115/1/60	115/1/60
Ampacity (In Amps)	12.8	13.1
Max. Overcurrent Protection (Amps)	15	15
PIPE CONN. SIZE (IN.)	1/2	1/2
DIMENSIONS	H x W x D	H x W x D
Crated (In.)	41 x 25-1/2 x 29-1/2	41 x 25-1/2 x 29-1/2
WEIGHT		
Shipping (Lbs.) / Net (Lbs)	189 / 176	196 / 183

① Central Furnace heating designs are certified by AGA and CSA.

② For U.S. applications, above input ratings (BTUH) are up to 2,000 ft., derate 4% per 1,000 ft. for elevations above 2,000 ft. above sea level.
For Canadian applications, above input ratings (BTUH) are up to 4,500 ft., derate 4% per 1,000 ft. for elevations above 4,500 ft. above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.



Performance Data

FURNACE AIRFLOW (CFM) VS. STATIC PRESSURE (ins. w.g.)										
MODEL	SPEED TAP	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
TDD040C924F	4 - HIGH - Black	1070	1033	1000	960	920	860	810	740	-
	3 - MED.-HIGH - Blue	870	850	823	790	753	813	667	613	490
	2 - MED.-LOW - Yellow	740	720	690	663	627	588	547	483	-
	1 - LOW - Red	633	600	577	543	507	463	420	360	-
TDD060C924F	4 - HIGH - Black	1200	1155	1111	1056	1001	924	848	774	701
	3 - MED.-HIGH - Blue	1025	988	951	905	859	797	735	646	558
	2 - MED.-LOW - Yellow	838	808	779	742	704	646	588	502	415
	1 - LOW - Red	722	689	656	618	579	528	478	376	275
TDD060C936F	4 - HIGH - Black	1480	1429	1375	1318	1282	1100	1112	1029	959
	3 - MED.-HIGH - Blue	1302	1276	1229	1188	1141	1088	1024	953	882
	2 - MED.-LOW - Yellow	1115	1100	1070	1035	1000	965	918	859	790
	1 - LOW - Red	956	947	918	888	859	824	788	741	682
TDD080C936F	4 - HIGH - Black	1523	1496	1463	1420	1369	1310	1243	1172	1100
	3 - MED.-HIGH - Blue	1317	1307	1261	1242	1223	1175	1122	1060	1000
	2 - MED.-LOW - Yellow	1123	1119	1106	1082	1056	1016	976	930	880
	1 - LOW - Red	942	943	931	920	898	868	833	795	760
TDD080C945F	4 - HIGH - Black	1798	1750	1692	1642	1575	1500	1425	1325	1225
	3 - MED.-HIGH - Blue	1384	1367	1333	1300	1275	1233	1192	1142	1083
	2 - MED.-LOW - Yellow	1210	1150	1108	1075	1042	1008	967	925	867
	1 - LOW - Red	1005	970	808	775	767	733	700	675	617
TDD100C945F	4 - HIGH - Black	1767	1731	1669	1615	1546	1469	1392	1300	1146
	3 - MED.-HIGH - Blue	1382	1354	1323	1292	1254	1207	1177	1108	1038
	2 - MED.-LOW - Yellow	1130	1138	1115	1085	1054	1015	977	938	877
	1 - LOW - Red	840	831	815	792	762	731	700	654	625
TDD100C948F	4 - HIGH - Black	1965	1915	1865	1805	1740	1670	1587	1500	1370
	3 - MED.-HIGH - Blue	1645	1627	1605	1575	1535	1482	1421	1330	1220
	2 - MED.-LOW - Yellow	1407	1398	1387	1375	1347	1318	1275	1190	1095
	1 - LOW - Red	1202	1208	1205	1195	1166	1140	1105	1045	970
TDD100C954F	4 - HIGH - Black	2165	2113	2060	1995	1929	1842	1755	1674	1593
	3 - MED.-HIGH - Blue	1962	1927	1891	1839	1786	1724	1662	1581	1500
	2 - MED.-LOW - Yellow	1705	1688	1671	1636	1600	1547	1492	1435	1377
	1 - LOW - Red	1492	1467	1442	1414	1385	1346	1307	1243	1179
TDD120C954F	4 - HIGH - Black	2241	2202	2163	2106	2049	1979	1908	1804	1700
	3 - MED.-HIGH - Blue	1981	1962	1942	1904	1866	1805	1743	1680	1617
	2 - MED.-LOW - Yellow	1721	1705	1688	1671	1653	1611	1569	1515	1461
	1 - LOW - Red	1476	1466	1456	1440	1423	1392	1361	1302	1243
TDD120C960F	4 - HIGH - Black	2241	2202	2163	2106	2049	1979	1908	1804	1700
	3 - MED.-HIGH - Blue	1981	1962	1942	1904	1866	1805	1743	1680	1617
	2 - MED.-LOW - Yellow	1721	1705	1688	1671	1653	1611	1569	1515	1461
	1 - LOW - Red	1476	1466	1456	1440	1423	1392	1361	1302	1243
TDD140C960F	4 - HIGH - Black	2377	2321	2265	2199	2133	2050	1967	1877	1786
	3 - MED.-HIGH - Blue	2115	2081	2046	1992	1938	1872	1805	1727	1649
	2 - MED.-LOW - Yellow	1806	1793	1779	1738	1696	1655	1614	1556	1497
	1 - LOW - Red	1527	1507	1486	1473	1459	1422	1384	1329	1273



Performance Data

CFM VS. TEMPERATURE RISE																					
MODEL	Cubic Feet Per Minute (CFM)																				
	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	
TDD040C924F	59	49	42	37	33	30															
TDD060C924F			63	56	49	44	40														
TDD060C936F				56	49	44	40	37	34	32											
TDD80C936F						59	54	59	46	42											
TDD80C945F					64	57	52	48	44	41											
TDD100C945F								62	57	53	49	46	44	41							
TDD100C9484F								62	57	53	49	46	44	41	39	37					
TDD100C954F								62	57	53	49	46	44	41	39	37	35	34	32	31	
TDD120C954F											59	56	52	49	47	44	42	40			
TDD120C960F											59	56	52	49	47	44	42	40			
TDD140C960F											69	65	61	58	55	52	49	47	45		

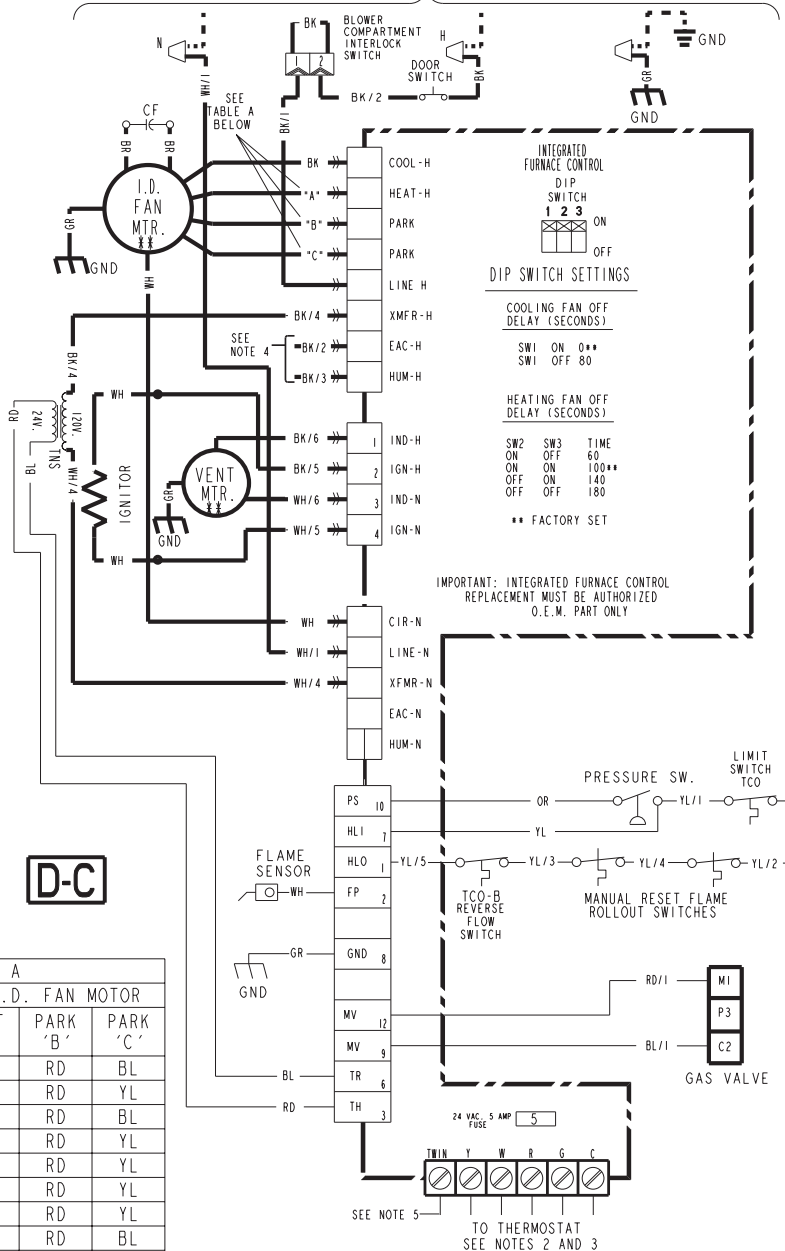
Electrical Data

SCHEMATIC DIAGRAMS FOR GAS FURNACES

LEGEND-EQUIPMENT DIAGRAM

- 24 V. LINE V. } FACTORY WIRING
- - - 24 V. LINE V. } FIELD WIRING
- ⊕ EARTH GROUND
- ⊕ CHASSIS GROUND
- JUNCTION
- ⊕ WIRE NUT OR CONNECTOR
- ⊕ COIL
- ⊕ CAPACITOR
- ⊕ TRANSFORMER
- ⊕ CONNECTOR
- ⊕ TEMP. ACTUATED SWITCH
- ⊕ PRESS. ACTUATED SWITCH
- ⊕ DOOR SWITCH
- ⊕ FUSIBLE LINK
- TERMINAL
- ⊕ MANUAL RESET TEMP. ACTUATED SWITCH
- TERMINAL BOARD
- ⊕ COLOR OF WIRE
BK/BL BLACK WIRE WITH BLUE MARKER
- ⊕ COLOR OF MARKER
BK BLACK OR ORANGE YL YELLOW
BL BLUE RD RED GR GREEN
BR BROWN WH WHITE PR PURPLE
- GV GAS VALVE
- CF FAN CAPACITOR
- GND GROUND
- L LINE
- LVTB LOW VOLTAGE TERMINAL BOARD
- N NEUTRAL
- TCS HIGH TEMPERATURE LIMIT SWITCH
- TNS TRANSFORMER
- B/C COMMON
- PS PRES. SWITCH
- HLI HIGH LIMIT INPUT
- HLO HIGH LIMIT OUTPUT
- FP FLAME SENSOR PROBE
- MV GAS VALVE
- TR 24V AC TRANS. COMMON SIDE
- TH 24V AC TRANS. HOT SIDE
- R REDUNDANT
- ⊕ INTERNAL THERMAL PROTECTION

115 VOLT 60 HZ. 1PH. POWER SUPPLY
PER LOCAL CODES



D-C

TABLE A SPEED TAPS FOR I.D. FAN MOTOR			
MODELS	HEAT 'A'	PARK 'B'	PARK 'C'
*DD040C924F	YL	RD	BL
*DD060C924F	BL	RD	YL
*DD060C936F	YL	RD	BL
*DD080C936F	BL	RD	YL
*DD080C945F	BL	RD	YL
*DD100C945F	BL	RD	YL
*DD100C948F	BL	RD	YL
*DD100C954F	YL	RD	BL
*DD120C954F	BL	RD	YL
*DD120C960F	BL	RD	YL
*DD140C960F	BL	RD	YL

(1) RED - LOW
(2) YELLOW - MED. LOW
(3) BLUE - MED. HIGH
(4) BLACK - HIGH

*MAY BE PREFIX "A" OR "T"

- NOTES:
- IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105° C.
 - THERMOSTAT HEAT ANTICIPATOR SETTING: .38 AMPS.
 - FOR PROPER OPERATION OF COOLING FAN SPEED, "Y" TERMINAL MUST BE CONNECTED TO ROOM THERMOSTAT.
 - THESE TERMINALS PROVIDE 120V. POWER FOR CONNECTION OF ELECTRONIC AIR CLEANER AND HUMIDIFIER, MAX. LOAD 1.0 AMPS EACH.
 - WHEN TWINNING TWO FURNACES, BOTH UNITS MUST BE CONNECTED TO THE SAME 115VAC PHASE. CONNECT THE TWO UNITS 'TWIN' TERMINALS WITH 14 TO 22GAWG. WIRE.

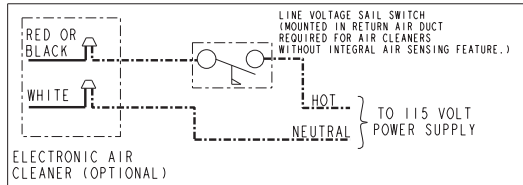
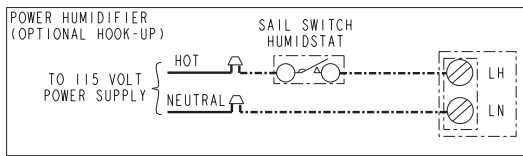
From Dwg. 21D341705 Rev. 0

Field Wiring

FIELD WIRING DIAGRAM FOR SINGLE STAGE HEATING ONLY

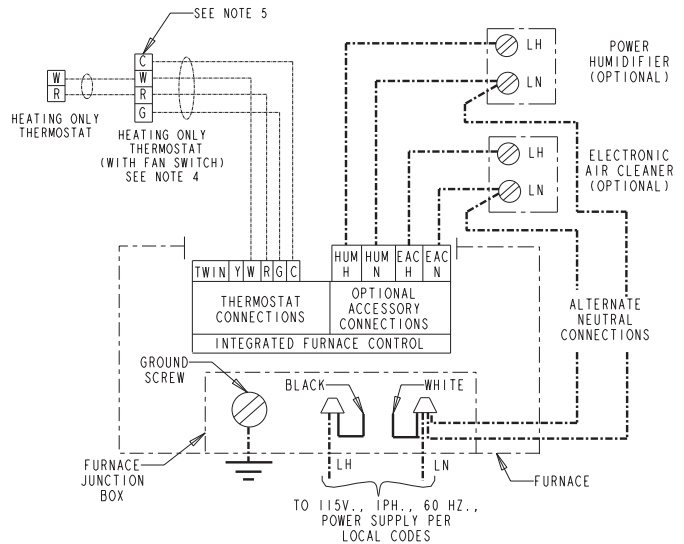
NOTES

1. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE(S).
2. LOW VOLTAGE (24V.) WIRING TO BE NO. 18 A.W.G. MIN.
3. GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. SET THERMOSTAT HEAT ANTICIPATOR PER UNIT WIRING DIAGRAM.
5. 24V COMMON CONNECTION MAY BE REQUIRED FOR USE WITH ELECTRONIC THERMOSTATS.



INTER-COMPONENT WIRING

----- 24 V. } FIELD WIRING
 - - - - - LINE V. }
 _____ 24 V. } FACTORY LINE V. } WIRING

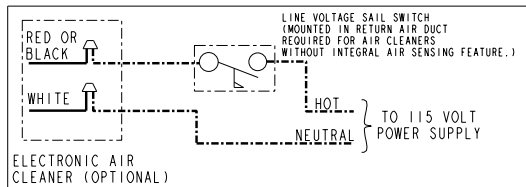
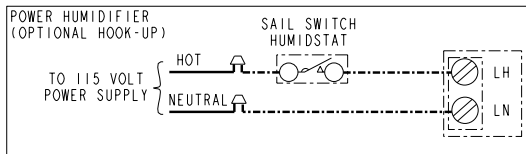


From Dwg. 21B341437 Rev. 1

FIELD WIRING DIAGRAM FOR SINGLE STAGE HEATING/COOLING (OUTDOOR SECTION WITHOUT TRANSFORMER)

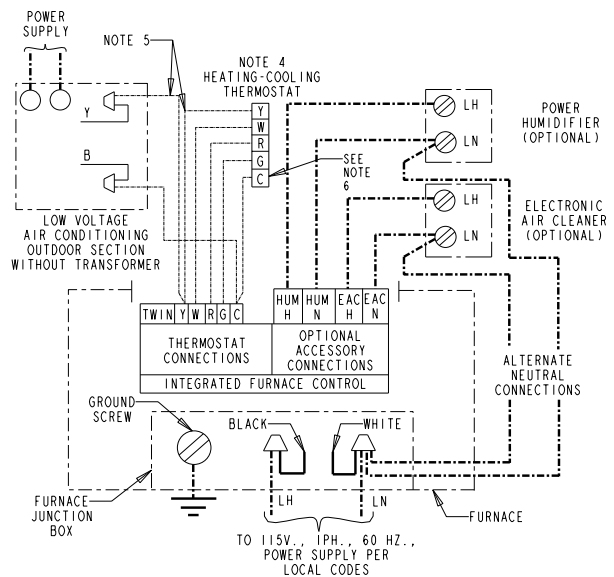
NOTES

1. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE(S).
2. LOW VOLTAGE (24V.) WIRING TO BE NO. 18 A.W.G. MIN.
3. GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. SET THERMOSTAT HEAT ANTICIPATOR PER UNIT WIRING DIAGRAM.
5. THE "Y" TERMINAL FROM THE THERMOSTAT MUST BE WIRED TO THE "Y" TERMINAL OF THE FURNACE CONTROL FOR PROPER BLOWER OPERATION DURING COOLING.
6. 24V COMMON CONNECTION MAY BE REQUIRED FOR USE WITH ELECTRONIC THERMOSTATS.



INTER-COMPONENT WIRING

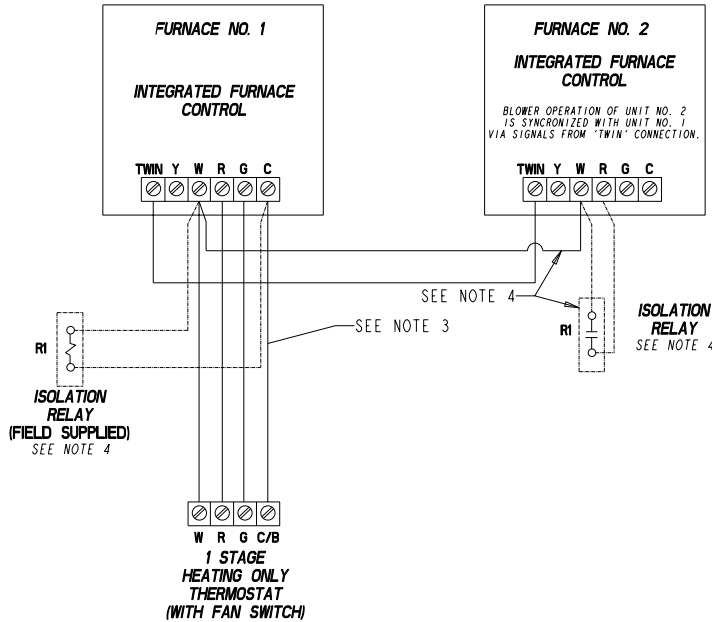
----- 24 V. } FIELD WIRING
 - - - - - LINE V. }
 _____ 24 V. } FACTORY LINE V. } WIRING



From Dwg. 21B341436 Rev. 1

Field Wiring

**TWINNING CONNECTION DIAGRAM
FOR TWINNING 1 STAGE FURNACES
WITH SINGLE WIRE TWINNING FEATURE
1 STAGE HEATING ONLY THERMOSTAT**



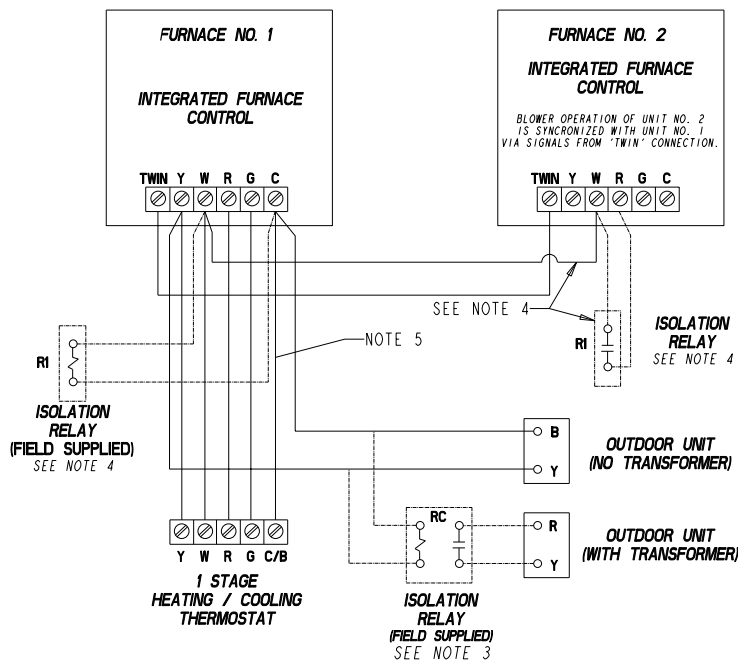
NOTES:

- 1.) BOTH FURNACES MUST BE POWERED FROM THE SAME 115V. LEG OF CIRCUIT PANEL.
- 2.) INSURE 24V. FURNACE TRANSFORMERS ARE IN PHASE. PRIOR TO COMPLETING CONNECTIONS, CHECK VOLTAGE BETWEEN 'R' TERMINALS OF EACH FURNACE. IF VOLTAGE IS GREATER THAN 10V., REVERSE THE BL AND RD SECONDARY LEADS ON ONE OF THE FURNACE TRANSFORMERS.
- 3.) CONNECTION MAY BE REQUIRED FOR ELECTRONIC THERMOSTAT.
- 4.) IF CURRENT EXCEEDS THERMOSTAT CURRENT RATING, USE ISOLATION RELAYS ('RI') AS SHOWN. (DO NOT CONNECT W TO W) ISOLATION RELAY NOT NEEDED IF THE THERMOSTAT CONTACTS ARE RATED AT 1.0A. OR ABOVE.

----- ALTERNATE WIRING CONFIGURATION
SEE NOTE 4.

From Dwg. 21B341422 Rev. 1

**TWINNING CONNECTION DIAGRAM
FOR TWINNING 1 STAGE FURNACES
WITH SINGLE WIRE TWINNING FEATURE
1 STAGE HEAT / 1 STAGE COOLING THERMOSTAT**



NOTES:

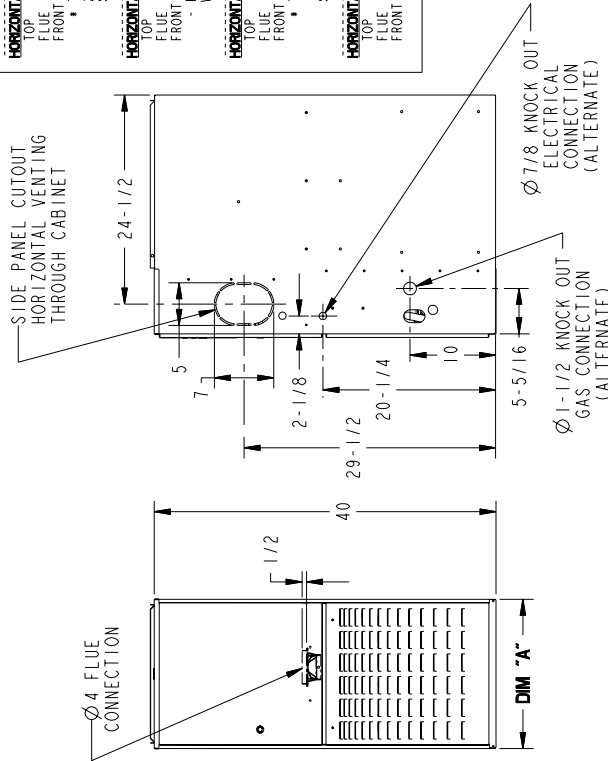
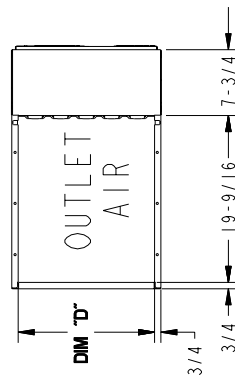
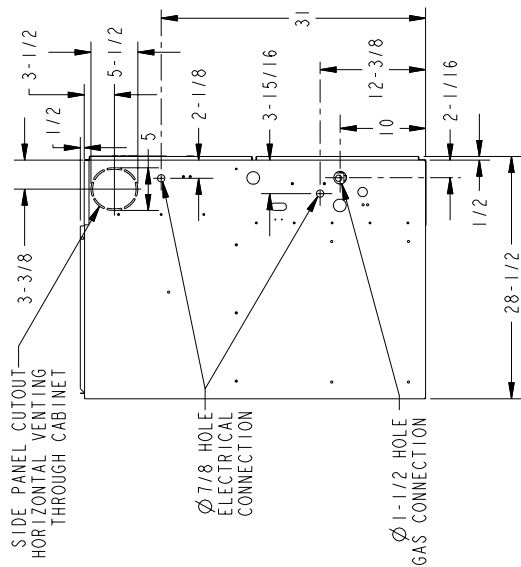
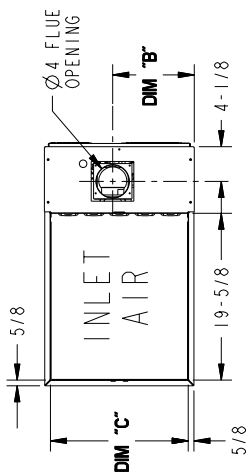
- 1.) BOTH FURNACES MUST BE POWERED FROM THE SAME 115V. LEG OF CIRCUIT PANEL.
- 2.) INSURE 24V. FURNACE TRANSFORMERS ARE IN PHASE. PRIOR TO COMPLETING CONNECTIONS, CHECK VOLTAGE BETWEEN 'R' TERMINALS OF EACH FURNACE. IF VOLTAGE IS GREATER THAN 10V., REVERSE THE BL AND RD SECONDARY LEADS ON ONE OF THE FURNACE TRANSFORMERS.
- 3.) IF OUTDOOR UNIT HAS A 24V. TRANSFORMER, AN ISOLATION RELAY MUST BE INSTALLED. (FIELD SUPPLIED - USE PILOT DUTY RELAY ('RC'), SUCH AS RLY0975.) SEE ALT. CONNECTION.
- 4.) IF CURRENT EXCEEDS THERMOSTAT CURRENT RATING, USE ISOLATION RELAYS ('RI') AS SHOWN. (DO NOT CONNECT W TO W) ISOLATION RELAY NOT NEEDED IF THE THERMOSTAT CONTACTS ARE RATED AT 1.0A. OR ABOVE.
- 5.) CONNECTION MAY BE REQUIRED FOR ELECTRONIC THERMOSTATS.

----- ALTERNATE WIRING CONFIGURATION
SEE NOTE 4.

From Dwg. 21B341423 Rev. 1

TDD-C OUTLINE DRAWING

(ALL DIMENSIONS ARE IN INCHES)



MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS

DOWNFLOW CLOSET

SIDES 3" IN. W/SINGLE WALL VENT - 0 IN. W/TYPE B-1 VENT
 FRONT 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 BACK 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 * RIGHT SIDE ONLY FOR 14.5" CABINETS
 * 0 IN. TO LEFT SIDE, 0 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL CLOSET (FLUE DISCHARGE LEFT)

TOP 3" IN. W/SINGLE WALL VENT - 2 IN. W/TYPE B-1 VENT
 FLUE 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FRONT 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 BACK 3" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 * TOP ONLY FOR 14.5" CABINETS
 * 2 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL CLOSET (FLUE DISCHARGE RIGHT)

TOP 3" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FLUE 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FRONT 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 BACK 3" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 * TOP ONLY FOR 14.5" CABINETS
 * 1 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL ALCOVE (FLUE DISCHARGE LEFT)

TOP 3" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FLUE 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FRONT 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 BACK 0 IN. W/SINGLE WALL VENT - 0 IN. W/TYPE B-1 VENT
 * TOP ONLY FOR 14.5" CABINETS
 * 1 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL ALCOVE (FLUE DISCHARGE RIGHT)

TOP 3" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FLUE 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 FRONT 6" IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
 BACK 0 IN. W/SINGLE WALL VENT - 0 IN. W/TYPE B-1 VENT
 * TOP ONLY FOR 14.5" CABINETS
 * 1 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

MODEL	DIM "A"	DIM "B"	DIM "C"	DIM "D"
*DD040C924** *DD040R924**	14-1/2"	9-5/8"	13-1/4"	13"
*DD060C924** *DD060R936**	17-1/2"	9-5/8"	16-1/4"	16"
*DD080C936** *DD080R936**	21"	13-1/16"	19-3/4"	19-1/2"
*DD100C945** *DD100R960**	24-1/2"	15-5/16"	23-1/4"	23"
*DD120C954** *DD120R960**				
*DD140C960** *DD140R960**				

* PREFIX LETTER MAY BE "A" OR "T"
 ** SUFFIX MAY BE "O" THROUGH "9"



The Trane Company
An American Standard Company
www.trane.com

Literature Order Number	TDD-D-1	P.I.
File Number	PL-UN-FURN-TDD-D-1	
Supersedes	TDD-D-1 3/98	
Stocking Location	PI Louisville & Webb/Mason-Houston	7/02

Since The Trane Company has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>