TRANE®

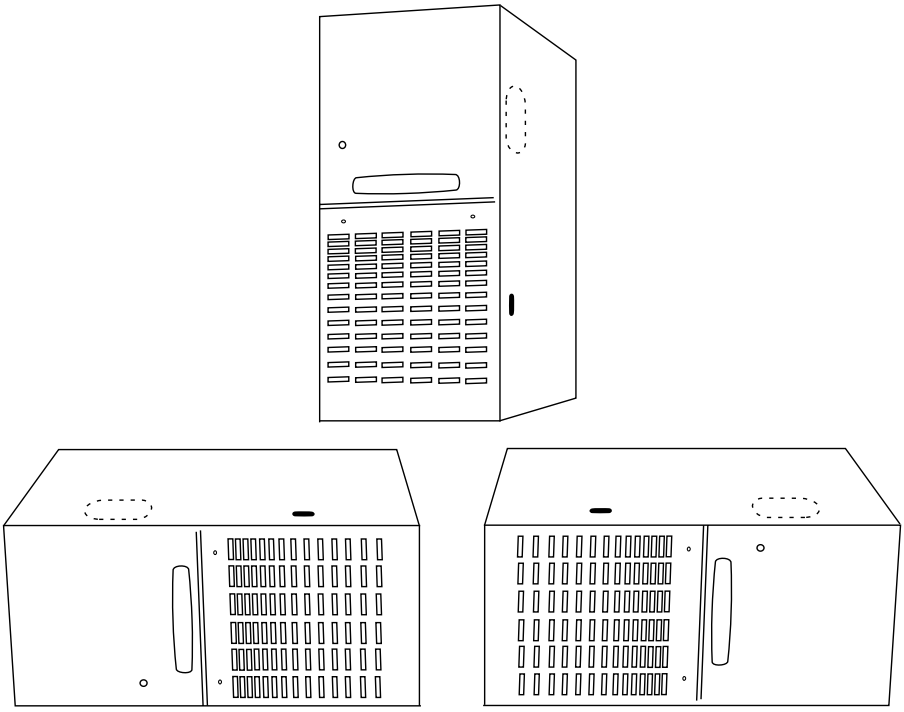
TDD-D-1

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

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

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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

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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

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

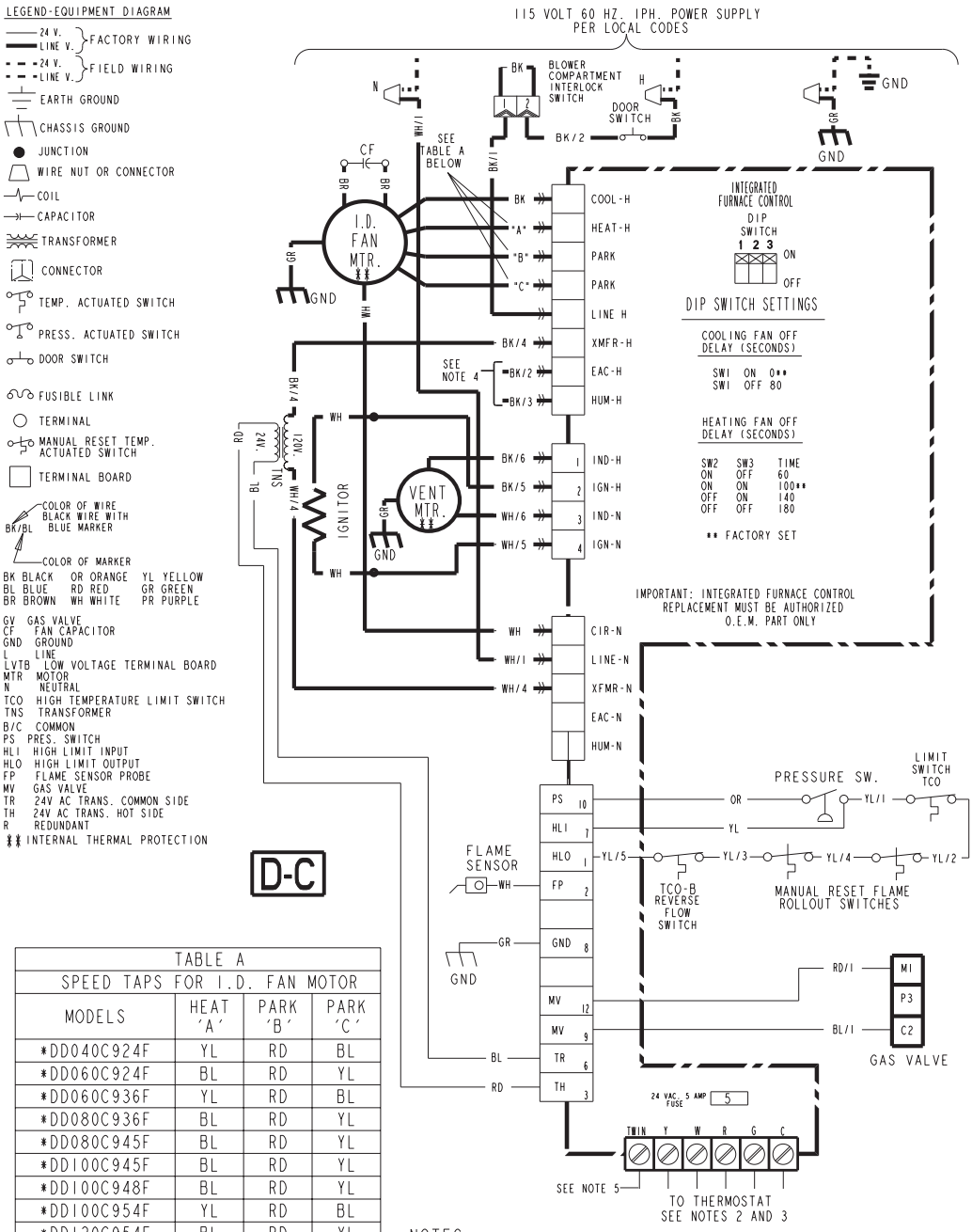


TABLE A			
SPEED TAPS FOR I.D. FAN MOTOR			
MODELS	HEAT 'A'	PARK 'B'	PARK 'C'
*DD040C924F	YL	RD	BL
*DD060C924F	BL	RD	YL
*DD060C936F	YL	RD	BL
*DD080C936F	BL	RD	YL
*DD080C945F	BL	RD	YL
*DD100C945F	BL	RD	YL
*DD100C948F	BL	RD	YL
*DD100C954F	YL	RD	BL
*DD120C954F	BL	RD	YL
*DD120C960F	BL	RD	YL
*DD140C960F	BL	RD	YL
(1) RED - LOW			
(2) YELLOW - MED. LOW			
(3) BLUE - MED. HIGH			
(4) BLACK - HIGH			

*MAY BE PREFIX "A" OR "T"

NOTES:

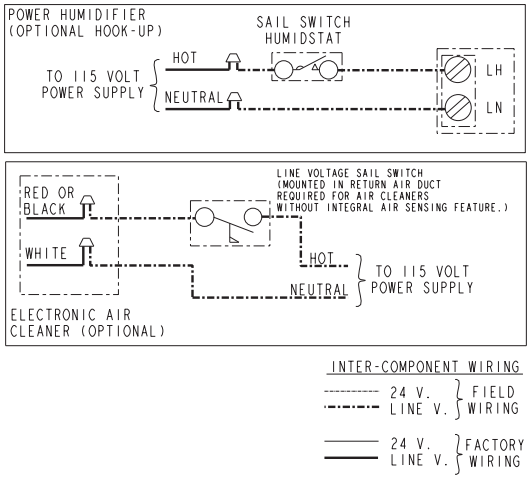
1. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C.
2. THERMOSTAT HEAT ANTICIPATOR SETTING: .38 AMPS.
3. FOR PROPER OPERATION OF COOLING FAN SPEED, "Y" TERMINAL MUST BE CONNECTED TO ROOM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

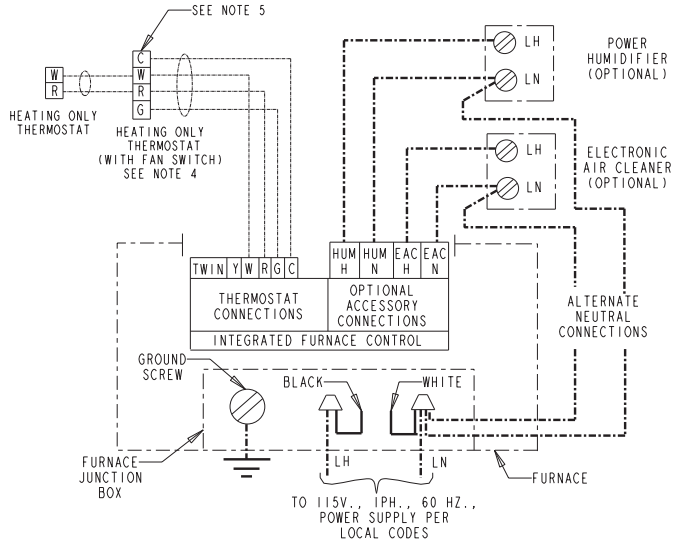
From Dwg. 21D341705 Rev. 0

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.

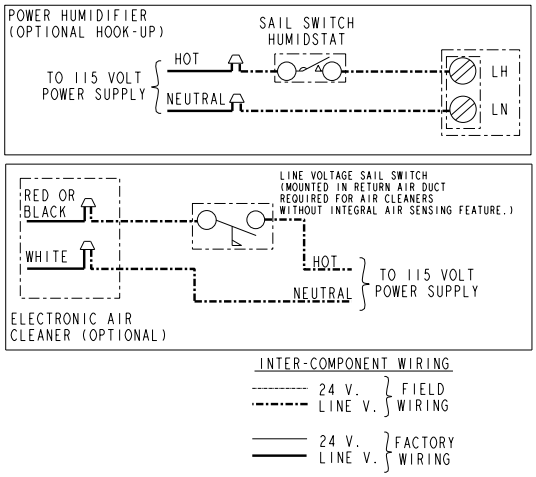


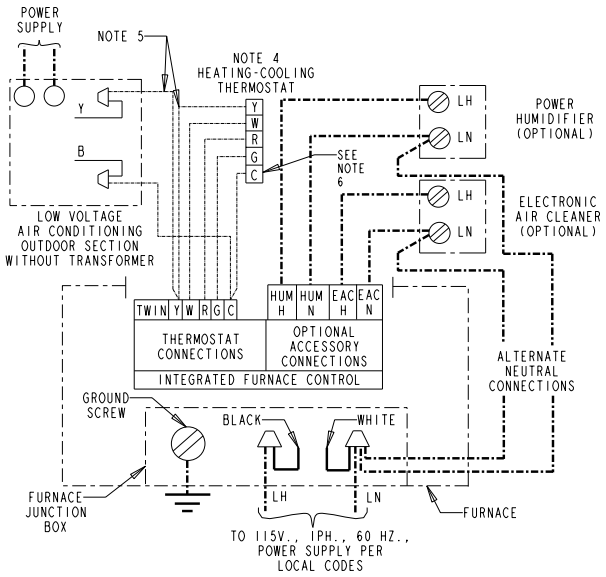


From Dwg. 21B341437 Rev. 1

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.

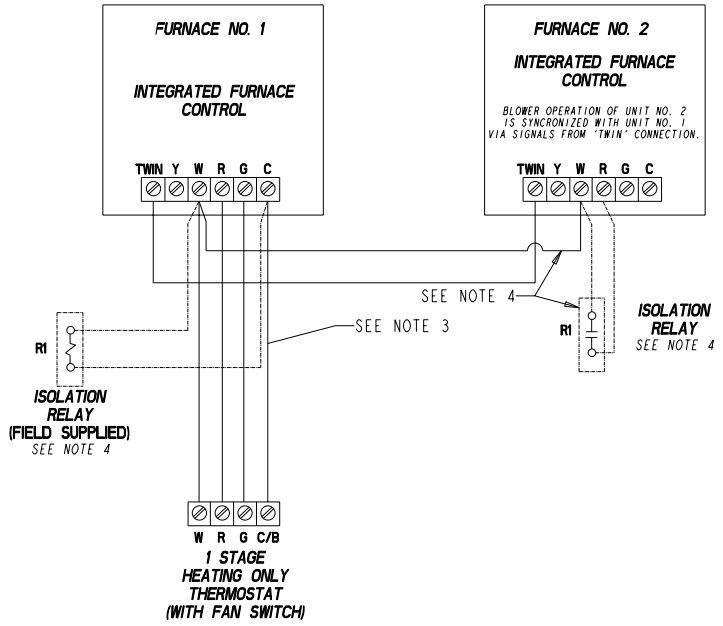




From Dwg. 21B341436 Rev. 1

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.

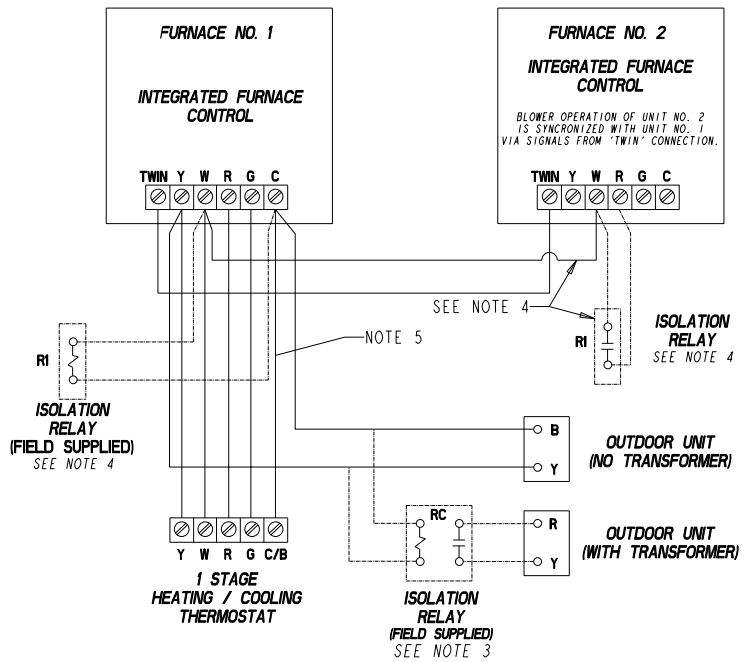
3.) CONNECTION MAY BE REQUIRED FOR ELECTRONIC THERMOSTAT.

4.) IF CURRENT EXCEEDS THERMOSTAT CURRENT RATING, USE ISOLATION RELAYS ('R1') 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 ('R1') AS SHOWN. (DO NOT CONNECT W TO W) ISOLATION RELAY NOT NEEDED IF THE THERMOSTAT CONTACTS ARE RATED AT 1.0A. OR ABOVE.

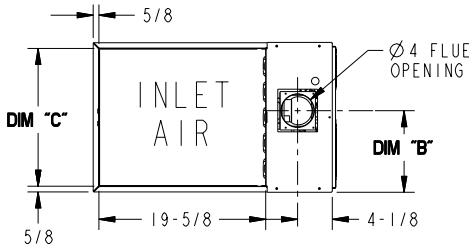
5.) CONNECTION MAY BE REQUIRED FOR ELECTRONIC THERMOSTATS.

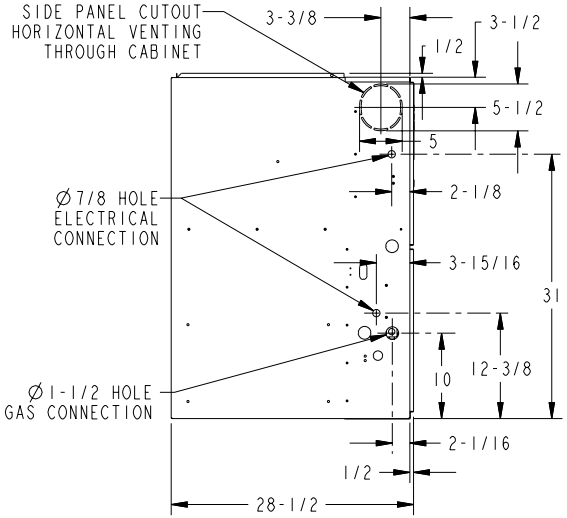
---------- ALTERNATE WIRING CONFIGURATION SEE NOTE 4.

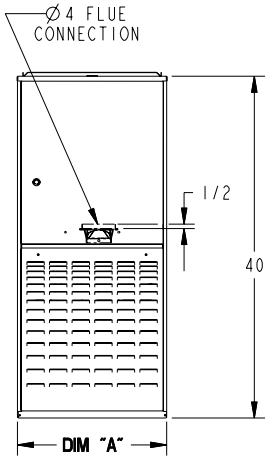
From Dwg. 21B341423 Rev. 1

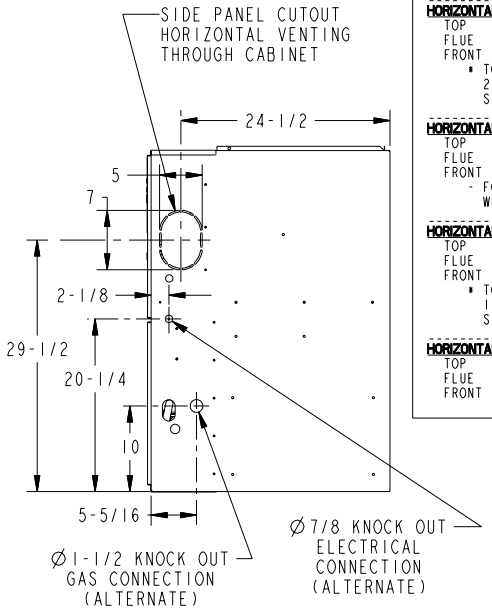
TDD-C OUTLINE DRAWING

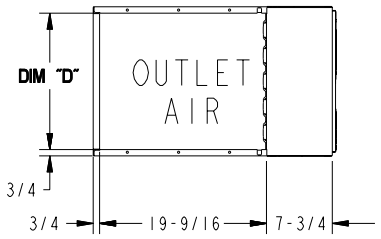
(ALL DIMENSIONS ARE IN INCHES)











MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS

DOWNFLOW CLOSET

SIDES 3* IN. W/SINGLE WALL VENT - 0 IN. W/TYPE B-1 VENT
FLUE 6 IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
FRONT 6 IN. BACK 1 IN.
* 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. BACK 3 IN. SIDES 1 IN.
* TOP ONLY FOR 14.5" CABINETS. 2 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL CLOSET (FLUE DISCHARGE RIGHT)

TOP 2 IN. W/SINGLE WALL VENT
FLUE 6 IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
FRONT 6 IN. BACK 3 IN. SIDES 1 IN.
- FOR INSTALLATION ON COMBUSTIBLE FLOORING ONLY WHEN B-1 VENT CONNECTOR IS USED.

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 18 IN. BACK 0 IN. SIDES 0 IN.
* TOP ONLY FOR 14.5" CABINETS. 1 IN. FOR REMAINING CABINET SIZES (17.5", 21.0", 24.5").

HORIZONTAL ALCOVE (FLUE DISCHARGE RIGHT)

TOP 1 IN. W/SINGLE WALL VENT
FLUE 6 IN. W/SINGLE WALL VENT - 1 IN. W/TYPE B-1 VENT
FRONT 18 IN. BACK 0 IN. SIDES 0 IN.

MODEL		DIM "A"	DIM "B"	DIM "C"	DIM "D"
*DD040C924**	*DD040R924**	14-1/2"	9-5/8"	13-1/4"	13"
*DD060C924**	*DD060R936**				
*DD060C936**					
*DD080C936**	*DD060R9V3**	17-1/2"	9-5/8"	16-1/4"	16"
*DD080C945**	*DD080R936**				
*DD100C945**	*DD080R9V3**				
	*DD100R945**				
*DD100C948**	*DD100R948**	21"	13-1/16"	19-3/4"	19-1/2"
*DD100C954**	*DD100R960**				
*DD120C954**	*DD100R9V5				
*DD120C960**	*DD120R960**	24-1/2"	15-5/16"	23-1/4"	23"
*DD140C960**	*DD120R9V5**				
	*DD140R960**				

* PREFIX LETTER MAY BE "A" OT "T"
** SUFFIX MAY BE F (O THROUGH 9)

From Dwg. 21C341700 Rev. 0

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	

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