



**TRANE**<sup>®</sup>

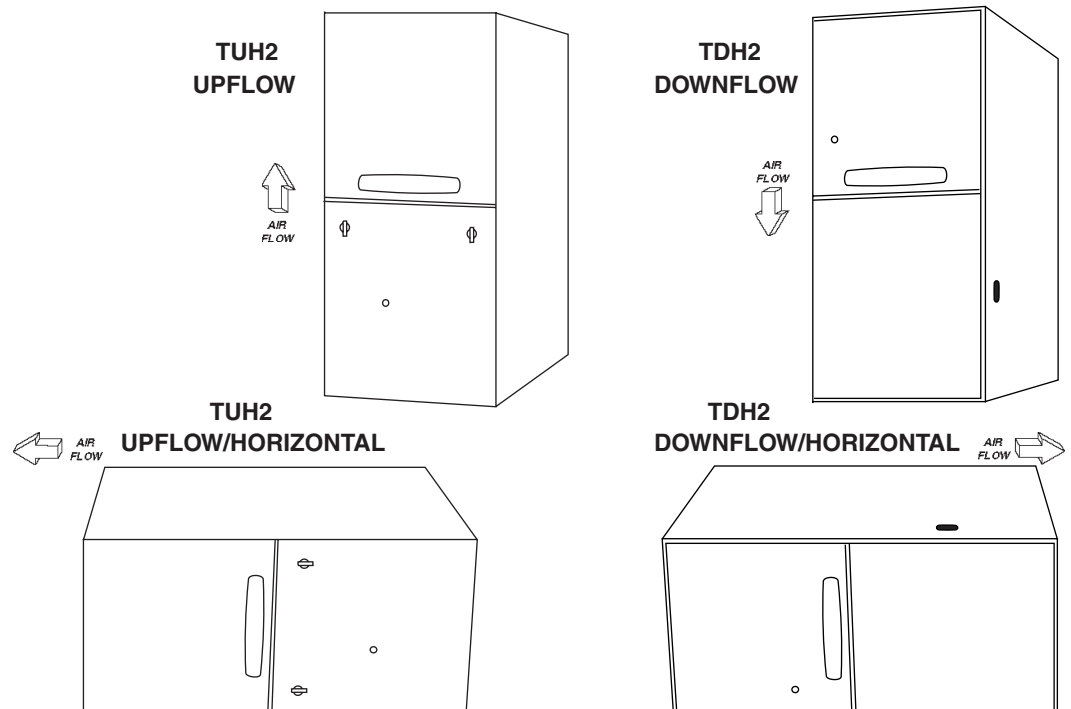
# Upflow/ Horizontal Downflow/Horizontal Condensing, Direct Vent Gas-Fired Furnace

---

## XL 95

TUH2B060A936VA, TUH2B080A942VA,  
TUH2C100A948VA, TUH2D120A960VA,  
TDH2B060A936VA, TDH2B080A942VA,  
TDH2C100A948VA, TDH2D120A960VA

Two-Stage Fan Assisted  
Combustion System



**PUB. NO. 22-1866-05**



# General Features

## NATURAL GAS MODELS

Central Heating furnace designs are certified to ANSI Z21.47 / CSA 2.3 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. **Low energy power vent blower**, to increase efficiency and provide a positive discharge of gas fumes to the outside.

## BURNERS

Multiport Inshot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas** without changing burners.

## 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 four 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.

## SECONDARY HEAT EXCHANGER

The XL 95 has a special type 29-4C™ stainless steel secondary heat exchanger to reclaim heat from flue gases which would normally be lost instead.

## 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. Built-in bottom pan and alternate bottom, left or right side return air connection provision.

## FEATURES AND GENERAL OPERATION

The XL 95 High Efficiency Gas Furnaces employ a Silicon Nitride 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.

- Low energy power venter
- Vent proving pressure switch.

# Features and Benefits

## UH2-PSC Standard Equipment

- Direct drive, 4-speed motor
- 120 Volt Silicon Nitride Igniter
- Variable speed induced draft blower
- Direct/Non-Direct vent option
- PVC venting-1 or 2 pipe option
- Fused 24 volt control circuit
- Manual reset burner safety switches
- Power supply 115/1/60
- Convertible to horizontal on left side
- 2-stage gas valve
- Accessory hook-up capability – Hum and EAC
- Integrated solid state control with self-diagnostics
- Heavy gauge aluminized steel heat exchanger
- **Type 29-4C™** stainless steel secondary heat exchanger
- Multi-port In-shot burners
- Quiet induced draft blower
- Lite Port™ extended system diagnostics
- Stored fault code history in micro processor noncoital memory
- Cleanable high velocity filters (upflow only)
- Hinged blower door \*
- Perfect fit door latches\*
- Insulated blower door\*
- Gasketed blower door\*
- Complete front service access
- Left/right gas connection
- Adjustable fan off times
- Optional L.P conversion kit
- Selectable cooling fan off delay eliminates need for BAY24X045 time delay kit
- Single wire twinning
- **Optional extended warranties**

\* (Upflow only)

# Contents

---

<b>General Features</b>	<b>2</b>
<b>Features and Benefits</b>	<b>2</b>
XL 95 Standard Equipment	2
XL 95 Optional Equipment	4
<b>General Data</b>	<b>5</b>
TUH2B060A936VA	5
TUH2B080A942VA	5
TUH2C100A948VA	5
TUH2D120A960VA	6
TDH2B060A936VA	6
TDH2B080A942VA	6
TDH2C100A948VA	6
TDH2D120A960VA	7
<b>Performance Data</b>	<b>8</b>
<b>Electrical Data</b>	<b>10</b>
<b>Field Wiring</b>	<b>14</b>
<b>Twinning Field Wiring</b>	<b>15</b>
<b>Dimensions</b>	<b>16</b>



# Features and Benefits

## UH2 OPTIONAL EQUIPMENT

Comfort Control, XL803, Programmable 7 Day, 3-Ht, 2-CI.....	TCONT803AS32DA [ ]
For additional comfort control choices, see the product catalog or quick select handbook	
Propane Conversion Kit.....	BAYLPKT210B [ ]
Propane Conversion Kit (stainless steel burners).....	BAYLPSS210B [ ]
Media Air Filter, "Perfect Fit" High Efficiency (14-1/2" Wide Gas Furnace).....	TFM145A9FR0 [ ]
Media Air Filter, "Perfect Fit" High Efficiency (17-1/2" Wide Gas Furnace).....	TFM175A9FR0 [ ]
Media Air Filter, "Perfect Fit" High Efficiency (21" Wide Gas Furnace).....	TFM210A9FR0 [ ]
Media Air Filter, "Perfect Fit" High Efficiency (24-1/2" Wide Gas Furnace).....	TFM245A9FR0 [ ]
Media Air Filter, "Perfect Fit" Standard Efficiency (14-1/2" Wide Gas Furnace).....	TFP145A9FR0 [ ]
Media Air Filter, "Perfect Fit" Standard Efficiency (17-1/2" Wide Gas Furnace).....	TFP175A9FR0 [ ]
Media Air Filter, "Perfect Fit" Standard Efficiency (21" Wide Gas Furnace).....	TFP210A9FR0 [ ]
Media Air Filter, "Perfect Fit" Standard Efficiency (24-1/2" Wide Gas Furnace).....	TFP245A9FR0 [ ]
Coil Enclosure (14-1/2" Wide Cabinets).....	BAYCLE14A1422A [ ]
Coil Enclosure (17-1/2" Wide Cabinets).....	BAYCLE17A1722A [ ]
Coil Enclosure (21" Wide Cabinets).....	BAYCLE21A2130A [ ]
Coil Enclosure (24-1/2" Wide Cabinets).....	BAYCLE24A2430A [ ]
Downflow Subbase.....	BAYBASE205 [ ]
Side Filter Rack.....	BAYFLTR200 [ ]
Filter Kit/Horizontal Conversion TUH2B060,080.....	BAYFLTR203 [ ]
Filter Kit/Horizontal Conversion TUH2C100.....	BAYFLTR204 [ ]
Filter Kit/Horizontal Conversion TUH2D120.....	BAYFLTR205 [ ]
High Altitude Pressure Switch Kit TUH2B060,TDH2B060.....	BAYSWT10AHALTA① [ ]
High Altitude Pressure Switch Kit TUH2B080,C100,D120 , TDH2B080,C100,D120.....	BAYSWT08AHALTA① [ ]
Concentric Vent Kit TUH2 Furnaces.....	BAYAIR30AVENTA [ ]
Sidewall Vent Termination Kit All 2 Pipe Direct Vent Furnaces.....	BAYVENT200B [ ]
Manufactured/Mobile Home Kit All 2 Pipe Direct Vent Furnaces.....	BAYMFGH100A [ ]
Cleanable Filter (14.5"/17.5" wide Upflow models).....	BAYFLTR317 [ ]
Cleanable Filter (21" wide Upflow models).....	BAYFLTR321 [ ]
Cleanable Filter (24.5" wide Upflow models).....	BAYFLTR324 [ ]
Filter Access Door Kit.....	BAYFLTR206 [ ]
CleanEffect™, Whole House Air Cleaner (Upflow 14-1/2" Wide Gas Furnace).....	TFD145ALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Upflow 17-1/2" Wide Gas Furnace).....	TFD175ALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Upflow 21" Wide Gas Furnace).....	TFD210ALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Upflow 24-1/2" Wide Gas Furnace).....	TFD245ALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Downflow 14-1/2" Wide Gas Furnace).....	TFD14DALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Downflow 17-1/2" Wide Gas Furnace).....	TFD17DALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Downflow 21" Wide Gas Furnace).....	TFD21DALFR000B [ ]
CleanEffect™, Whole House Air Cleaner (Downflow 24-1/2" Wide Gas Furnace).....	TFD24DALFR000B [ ]

① Optional kit allows 200 ft. max. vent length from 5,000-12,000 feet above sea level. See installer's guide.



# General Data

## Product Specifications <sup>①</sup>

MODEL	*UH2B060A936VA	*UH2B080A942VA	*UH2C100A948VA	*UH2D120A960VA
TYPE	Upflow / Horizontal	Upflow / Horizontal	Upflow / Horizontal	Upflow / Horizontal
<b>RATINGS</b> <sup>②</sup>				
1st Stage Input BTUH	39,000	52,000	65,000	78,000
1st Stage Capacity BTUH (ICS) <sup>③</sup>	37,440	49,920	62,400	74,880
2nd Stage Input BTUH	60,000	80,000	100,000	120,000
2nd Stage Capacity BTUH (ICS) <sup>③</sup>	57,600	76,800	96,000	115,200
Temp. rise (Min.-Max.) °F	35 - 65	35 - 65	35 - 65	40 - 70
AFUE (Upflow / Horizontal)	96.0 / 95.2	96.0 / 95.2	96.0 / 95.2	96.0 / 95.2
<b>BLOWER DRIVE</b>				
	DIRECT	DIRECT	DIRECT	DIRECT
Diameter - Width (In.)	10 x 7	10 x 8	10 x 10	11.75 x 10.62
No. Used	1	1	1	1
Speeds (No.)	4	4	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/3	1/3	1/2	3/4
R.P.M.	1075	1075	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>				
Drive - No. Speeds	Centrifugal Direct - Variable	Centrifugal Direct - Variable	Centrifugal Direct - Variable	Centrifugal Direct - Variable
Motor HP - R.P.M.	1/50 - 5000	1/50 - 5000	1/50 - 5000	1/50 - 5000
Volts / Ph / Hz	115/3/60	115/3/60	115/3/60	115/3/60
FLA	1.0	1.0	1.0	1.0
<b>FILTER — Furnished?</b>				
Type Recommended	No	No	No	No
Hi Vel. (No.-Size-Thk.)	High Velocity 1 - 17 x 25 - 1 in.	High Velocity 1 - 17 x 25 - 1 in.	High Velocity 1 - 20 x 25 - 1 in.	High Velocity 1 - 24 x 25 - 1 in.
<b>VENT Pipe Diameter Min. (in.)</b>				
	2 Round	2 Round	2.5 Round	3 Round
<b>HEAT EXCHANGER</b>				
Type - Fired	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired				
Gauge (Fired)	20	20	20	20
<b>ORIFICES — Main</b>				
Nat. Gas Qty. — Drill Size	3 — 45	4 — 45	5 — 45	6 — 45
L.P. Gas Qty. — Drill Size	3 — 56	4 — 56	5 — 56	6 — 56
<b>GAS VALVE</b>				
	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage
<b>PILOT SAFETY DEVICE</b>				
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>				
	Multiport Inshot	Multiport Inshot	Multiport Inshot	Multiport Inshot
Number	3	4	5	6
<b>POWER CONN. — V/Ph/Hz</b> <sup>④</sup>				
	115/1/60	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	9.2	10.2	12.5	12.9
Max. Overcurrent Protection (Amps)	15	15	20	20
<b>PIPE CONN. SIZE (IN.)</b>				
	1/2	1/2	1/2	1/2
<b>DIMENSIONS</b>				
	H x W x D	H x W x D	H x W x D	H x W x D
Crated (In.)	41-3/4 x 19-1/2 x 30-1/2	41-3/4 x 19-1/2 x 30-1/2	41-3/4 x 23 x 30-1/2	41-3/4 x 26-1/2 x 30-1/2
<b>WEIGHT</b>				
Shipping (Lbs.)/Net (Lbs.)	150 / 146	158 / 156	171 / 168	205 / 193

\* May be "A" or "T"

① Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3.

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

MODEL	*DH2B060A936VA	*DH2B080A942VA	*DH2C100A948VA	*DH2D120A960VA
TYPE	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal
<b>RATINGS</b> <sup>②</sup>				
1st Stage Input BTUH	39,000	52,000	65,000	78,000
1st Stage Capacity BTUH (ICS) <sup>③</sup>	37,050	49,400	61,750	74,880
2nd Stage Input BTUH	60,000	80,000	100,000	120,000
2nd Stage Capacity BTUH (ICS) <sup>③</sup>	57,000	76,000	95,000	115,200
Temp. rise (Min.-Max.) °F.	35 - 65	35 - 70	35 - 70	40 - 70
AFUE	95	95	95	96
<b>BLOWER DRIVE</b>				
Diameter - Width (In.)	DIRECT 10.62 x 8	DIRECT 11.75 x 8	DIRECT 11.75 x 10.62	DIRECT 11.75 x 10.62
No. Used	1	1	1	1
Speeds (No.)	4	4	4	4
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/3	1/2	1/2	3/4
R.P.M.	1075	1075	1075	1075
Volts/Ph/Hz	115/1/60	115/1/60	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>				
Drive - No. Speeds	Centrifugal Direct - Variable	Centrifugal Direct - Variable	Centrifugal Direct - Variable	Centrifugal Direct - Variable
Motor HP - R.P.M.	1/50 - 5000	1/50 - 5000	1/50 - 5000	1/50 - 5000
Volts/Ph/Hz	115/3/60	115/3/60	115/3/60	115/3/60
FLA	1.0	1.0	1.0	1.0
<b>FILTER — Furnished?</b>				
Type Recommended	No	No	No	No
Hi Vel. (No.-Size-Thk.)	High Velocity 2 - 14x20 - 1 in.	High Velocity 2 - 14x20 - 1 in.	High Velocity 2 - 16x20 - 1 in.	High Velocity 2 - 16x20 - 1 in.
<b>VENT Pipe Diameter Min. (in.)</b>				
	2 Round	2 Round	2.5 Round	3 Round
<b>HEAT EXCHANGER</b>				
Type - Fired	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I	Aluminized Steel - Type I
-Unfired				
Gauge (Fired)	20	20	20	20
<b>ORIFICES — Main</b>				
Nat. Gas Qty. — Drill Size	3 — 45	4 — 45	5 — 45	6 — 45
L.P. Gas Qty. — Drill Size	3 — 56	4 — 56	5 — 56	6 — 56
<b>GAS VALVE</b>				
	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage
<b>PILOT SAFETY DEVICE</b>				
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>				
Number	Multiport Inshot 3	Multiport Inshot 4	Multiport Inshot 5	Multiport Inshot 6
<b>POWER CONN. — V/Ph/Hz</b> <sup>④</sup>				
Ampacity (In Amps)	115/1/60 9.8	115/1/60 11.4	115/1/60 12.5	115/1/60 12.9
Max. Overcurrent Protection (Amps)	15	15	20	20
<b>PIPE CONN. SIZE (IN.)</b>				
	1/2	1/2	1/2	1/2
<b>DIMENSIONS</b>				
Crated (In.)	H x W x D 41-3/4 x 19-1/2 x 30-1/2	H x W x D 41-3/4 x 19-1/2 x 30-1/2	H x W x D 41-3/4 x 23 x 30-1/2	H x W x D 41-3/4 x 26-1/2 x 30-1/2
<b>WEIGHT</b>				
Shipping (Lbs.)/Net (Lbs.)	155/ 145	168 / 158	185 / 175	206 / 196

\* May be "A" or "T"

① Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3.

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

For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 feet 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

UH2 FURNACE AIRFLOW (CFM) VS. EXTERNAL STATIC PRESSURE (in. w.c.)										
MODEL	SPEED TAP	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
*UH2B060A936VA	4- HIGH - Black	1359	1313	1264	1204	1144	1079	1004	919	812
	3- MED.-HIGH - Blue**	1232	1199	1161	1116	1065	1004	934	852	744
	2- MED.-LOW - Yellow	1077	1054	1027	994	953	904	845	768	666
	1- LOW - Red	926	913	895	871	836	792	733	670	570
*UH2B080A942VA	4- HIGH - Black	1646	1611	1573	1530	1477	1421	1360	1289	1200
	3- MED.-HIGH - Blue**	1366	1356	1337	1311	1280	1243	1197	1139	1060
	2- MED.-LOW - Yellow	1175	1159	1145	1130	1108	1081	1045	993	929
	1- LOW - Red	1004	994	997	982	963	943	907	866	824
*UH2C100A948VA	4- HIGH - Black	1982	1912	1836	1761	1679	1593	1496	1389	1267
	3- MED.-HIGH - Blue**	1892	1832	1765	1696	1621	1538	1446	1342	1205
	2- MED.-LOW - Yellow	1759	1712	1660	1604	1536	1465	1383	1275	1149
	1- LOW - Red	1593	1557	1521	1485	1433	1370	1294	1182	1068
*UH2D120A960VA	4- HIGH - Black	2380	2334	2287	2241	2193	2118	2043	1956	1870
	3- MED.-HIGH - Blue**	2042	2029	2016	1984	1952	1892	1830	1771	1712
	2- MED.-LOW - Yellow	1695	1690	1684	1668	1652	1627	1601	1545	1489
	1- LOW - Red	1402	1404	1406	1397	1387	1358	1328	1285	1242

\* - First letter may be "A" or "T"  
 \*\* = Factory Set Heat Speed Tap Setting

CFM VS. TEMPERATURE RISE																		
MODEL	Cubic Feet Per Minute (CFM)																	
	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
*UH2B060A936VA		64	61	55	51	48	44	41										
*UH2B080A942VA					62	57	53	50	48	46	44							
*UH2C100A948VA								65	61	56	53	49	47	43				
*UH2D120A960VA												67	63	58	54	55	51	47

\* - First letter may be "A" or "T"



# Performance Data

DH2 FURNACE AIRFLOW (CFM) VS. EXTERNAL STATIC PRESSURE (in. w.c.)										
MODEL	SPEED TAP	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
*DH2B060A936VA	4- HIGH - Black	1343	1287	1228	1167	1104	1035	960	878	782
	3- MED.-HIGH - Blue**	1162	1129	1091	1045	993	935	871	795	706
	2- MED.-LOW - Yellow	998	987	967	939	902	855	800	731	644
	1- LOW - Red	743	740	734	725	709	685	648	594	520
*DH2B080A942VA	4- HIGH - Black	1501	1453	1402	1344	1283	1216	1145	1068	986
	3- MED.-HIGH - Blue**	1442	1393	1341	1285	1227	1166	1103	1037	968
	2- MED.-LOW - Yellow	1346	1308	1263	1212	1155	1092	1024	950	869
	1- LOW - Red	1225	1197	1160	1116	1062	1001	931	853	766
*DH2C100A948VA	4- HIGH - Black	1835	1772	1709	1637	1566	1485	1405	1313	1222
	3- MED.-HIGH - Blue**	1726	1674	1622	1557	1492	1416	1340	1252	1164
	2- MED.-LOW - Yellow	1581	1539	1498	1440	1383	1321	1258	1172	1085
	1- LOW - Red	1401	1374	1346	1308	1269	1209	1148	1075	1001
*DH2D120A960VA	4- HIGH - Black	2147	2074	2000	1941	1881	1807	1732	1655	1576
	3- MED.-HIGH - Blue**	1995	1940	1885	1827	1767	1699	1631	1547	1462
	2- MED.-LOW - Yellow	1712	1681	1649	1602	1555	1505	1455	1381	1307
	1- LOW - Red	1424	1408	1392	1367	1341	1296	1251	1188	1124

\* - First letter may be "A" or "T"  
 \*\* = Factory Set Heat Speed Tap Setting

CFM VS. TEMPERATURE RISE																	
MODEL	Cubic Feet Per Minute (CFM)																
	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
*DH2B060A936VA	69	63	60	54	51	46	43	40	37								
*DH2B080A942VA				69	66	62	59	55	52	48	44						
*DH2C100A948VA						69	67	64	61	58	55	51	48	45			
*DH2D120A960VA										70	66	63	58	54	49	41	

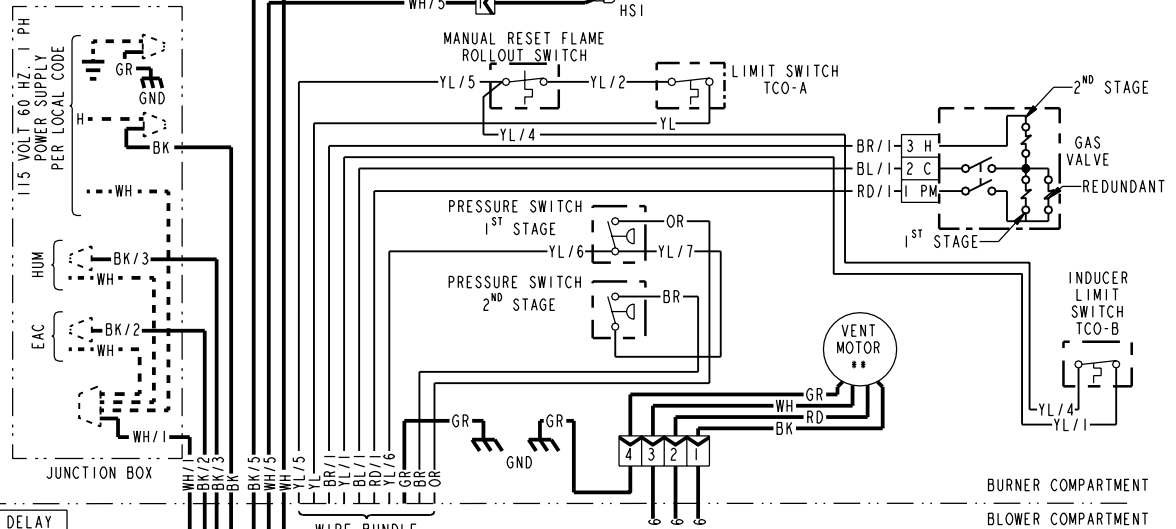
\* - First letter may be "A" or "T"



# Electrical Data

## \*UH2 Wiring Diagram

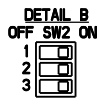
**IMPORTANT:**  
INTEGRATED CONTROL IS POLARITY SENSITIVE.  
HOT LEG OF 120V POWER SUPPLY MUST BE  
CONNECTED TO THE BLACK POWER LEAD AS  
INDICATED ON WIRING DIAGRAM.



STAGING DELAY		
DS1	DS2	MIN.
ON	OFF	0.5
OFF	ON	5
OFF	OFF	10*
ON	ON	15



HEAT "OFF" DELAY		
DS1	DS2	DELAY
ON	OFF	60 SEC
ON	ON	100 SEC*
OFF	ON	140 SEC
OFF	OFF	180 SEC



DS3	COOL OFF DELAY
ON	0 SECONDS*
OFF	80 SECONDS

2 PIN CONNECTOR	
1.	IGN-N IGNITOR-NEUTRAL
2.	IGN-H IGNITOR

4 PIN CONNECTOR	
1.	INDUCER, PHASE 1
2.	INDUCER, PHASE 2
3.	INDUCER, PHASE 3
4.	NOT USED, (CONTROL END)

12 PIN CONNECTOR	
1.	PSO PRESSURE SWITCH OUTPUT
2.	HLI HIGH LIMIT INPUT
3.	MVH VALVE HIGH STAGE
4.	MVL VALVE LOW STAGE
5.	GND GROUND
6.	PS2 HPS INPUT
7.	TH 24VAC
8.	MVC VALVE COMMON
9.	HLO HIGH LIMIT OUTPUT
10.	ILI INDUCER LIMIT INPUT
11.	TR 24V RETURN
12.	PS1 LPS INPUT

TABLE "A"			
SPEED TAPS FOR I.D. FAN MOTOR			
MODEL	PARK	LO HEAT	HI HEAT
UH2B060A936V^^	YL	RD	BL
UH2B080A942V^^	YL	RD	BL
UH2C100A948V^^	YL	RD	BL
UH2D120A960V^^	YL	RD	BL

\* PREFIX MAY BE "A" OR "T"  
^^ SUFFIX MAY BE A THROUGH Z

RD = LOW                      BL = MED. HIGH  
YL = MED. LOW              BK = HIGH

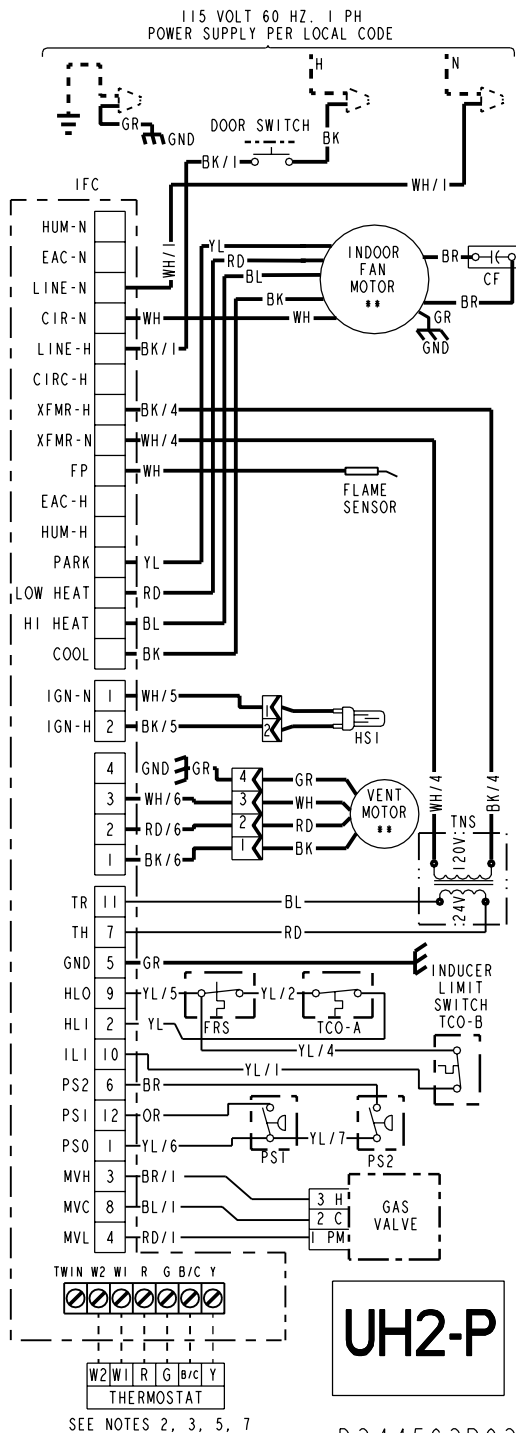
(continued on next page)

From Dwg. D344563



# Electrical Data

## \*UH2 Schematic Diagram



DIAGNOSTIC CODES (SEE NOTE 8)	
RED LED - LitePort In Data - 1 Flash every 20 seconds	
2 FLASHES - SYSTEM LOCKOUT RETRIES OR RECYCLES EXCEEDED	6 FLASHES - 115 VOLT AC POWER REVERSED
3 FLASHES - INDUCER OR PRESSURE SWITCH FAULT	7 FLASHES - GAS VALVE CIRCUIT ERROR
4 FLASHES - OPEN LIMIT SWITCH	8 FLASHES - LOW FLAME SENSE SIGNAL
5 FLASHES - FLAME SENSED WHEN NO FLAME SHOULD BE PRESENT	9 FLASHES - OPEN INDUCER LIMIT
	10 FLASHES - INDUCER COMMUNICATION FAULT
	CONTINUOUS ON - INTERNAL CONTROL FAILURE
GREEN LED - STATUS	
SLOW FLASH - NORMAL, NO CALL FOR HEAT	
FAST FLASH - NORMAL, CALL FOR HEAT PRESENT	
GREEN AND RED LED'S ON CONTINUOUS - FUSE OPEN OR INTERNAL CONTROL FAILURE	

WARNING	CAUTION
HAZARDOUS VOLTAGE DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.	USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

**INTEGRATED FURNACE CONTROL**

REPLACE WITH PART CNT 06584 OR EQUIVALENT

ELECTRICAL RATING  
INPUT: 25 V.A.C., 60 HZ.  
XFMR SEC. CURRENT: 450 MA. + MV LOAD  
MV OUTPUT: 1.5 A @ 24 V.A.C.  
IND OUTPUT: 3 PHASE OUTPUT  
IGN OUTPUT: 2.0 A @ 120V.A.C.  
CIRC. BLOWER OUTPUT: 14.5 FLA,  
25 LRA @ 120 VAC  
HUMIDIFIER & AIR CLEANER  
MAX. LOAD: 1.0 A @ 120 VAC

TIMINGS  
PREPURGE: 0 SEC.; INTERPURGE: 60 SEC.  
POST PURGE: 5 SECONDS  
IGNITOR WARMUP: 20 SECONDS  
IAP: 3; TFI: 5 SECONDS  
RETRIES: 2; RECYCLES: 10  
HEAT ON DELAY: 45 SECONDS  
COOL ON DELAY: 0 SECONDS  
AUTO RESTART: 60 MINUTES  
AUTO RESTART PURGE: 15 SECONDS

TCO THERMAL CUT OUT	LINE } FACTORY WIRING	BK BLACK	GR GREEN
PS PRESSURE SWITCH	24 v } WIRING	WH WHITE	BR BROWN
FRS FLAME ROLLOUT SWITCH	LINE } FIELD WIRING	YL YELLOW	RD RED
FP FLAME SENSOR	24 v } WIRING	OR ORANGE	BL BLUE
HSI HOT SURFACE IGNITER			
DOOR SWITCH			
FUSE			

CF CAPACITOR

COIL

INTERNAL THERMAL PROTECTION

WIRE COLOR

NUMBER ID (IF ANY)

L LINE	TH 24 VAC (HOT)
N NEUTRAL	TR 24 VAC (COMMON)
GND GROUND	MV MAIN GAS VALVE
B/C COMMON	TNS TRANSFORMER
HLO HIGH LIMIT OUTPUT	ILI INDUCER LIMIT INPUT
HLI HIGH LIMIT INPUT	

**NOTES:**

- IF ANY OF THE ORIGINAL WIRING AS SUPPLIED WITH THIS FURNACE MUST BE REPLACED, IT MUST BE WITH WIRE HAVING A TEMPERATURE RATING OF AT LEAST 105 C.
- THERMOSTAT HEAT ANTICIPATOR SETTING: FIRST STAGE .38 AMPS, SECOND STAGE .13 AMPS. IF SETTING IS NOT FIXED ON THERMOSTAT, FOR SINGLE STAGE HEATING THERMOSTAT SET AT .51 AMPS.
- FOR PROPER OPERATION OF COOLING SPEED, "Y" TERMINAL MUST BE CONNECTED TO THE ROOM THERMOSTAT.
- THESE LEADS PROVIDE 120V POWER CONNECTIONS FOR ELECTRONIC AIR CLEANER (EAC) AND HUMIDIFIER (HUM). MAX. LOAD: 1.0 AMPS EACH.
- JUMPER W1 AND W2 FOR SINGLE STAGE HEATING THERMOSTAT, SECOND STAGE WILL BE ENERGIZED, DELAYED PER STAGING DELAY SETTING.
- POWER MUST BE OFF WHEN DIP SWITCHES ARE SET.
- WHEN TWINNING TWO FURNACES, BOTH UNITS MUST BE CONNECTED TO THE SAME 115 VAC PHASE. CONNECT THE TWO UNITS "TWIN" TERMINALS WITH 14 TO 22 AWG WIRE.
- ON POWER-UP, LAST FOUR FAULTS, IF ANY, WILL BE FLASHED ON RED LED. GREEN LED WILL BE SOLID ON DURING LAST FAULT RECOVERY.

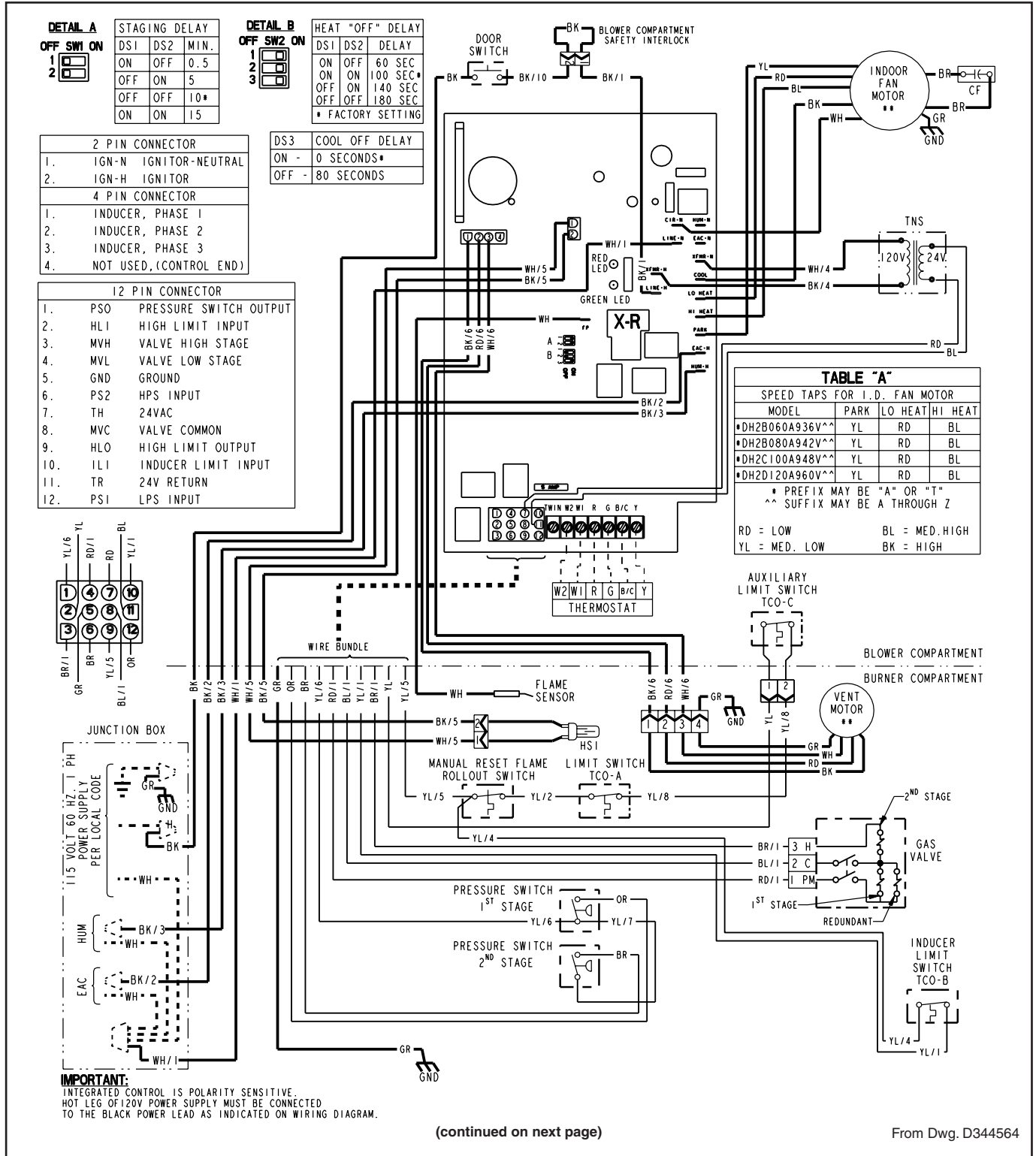
**UH2-P**

D344563P03  
REV00

From Dwg. D344563

# Electrical Data

## \*DH2 Wiring Diagram



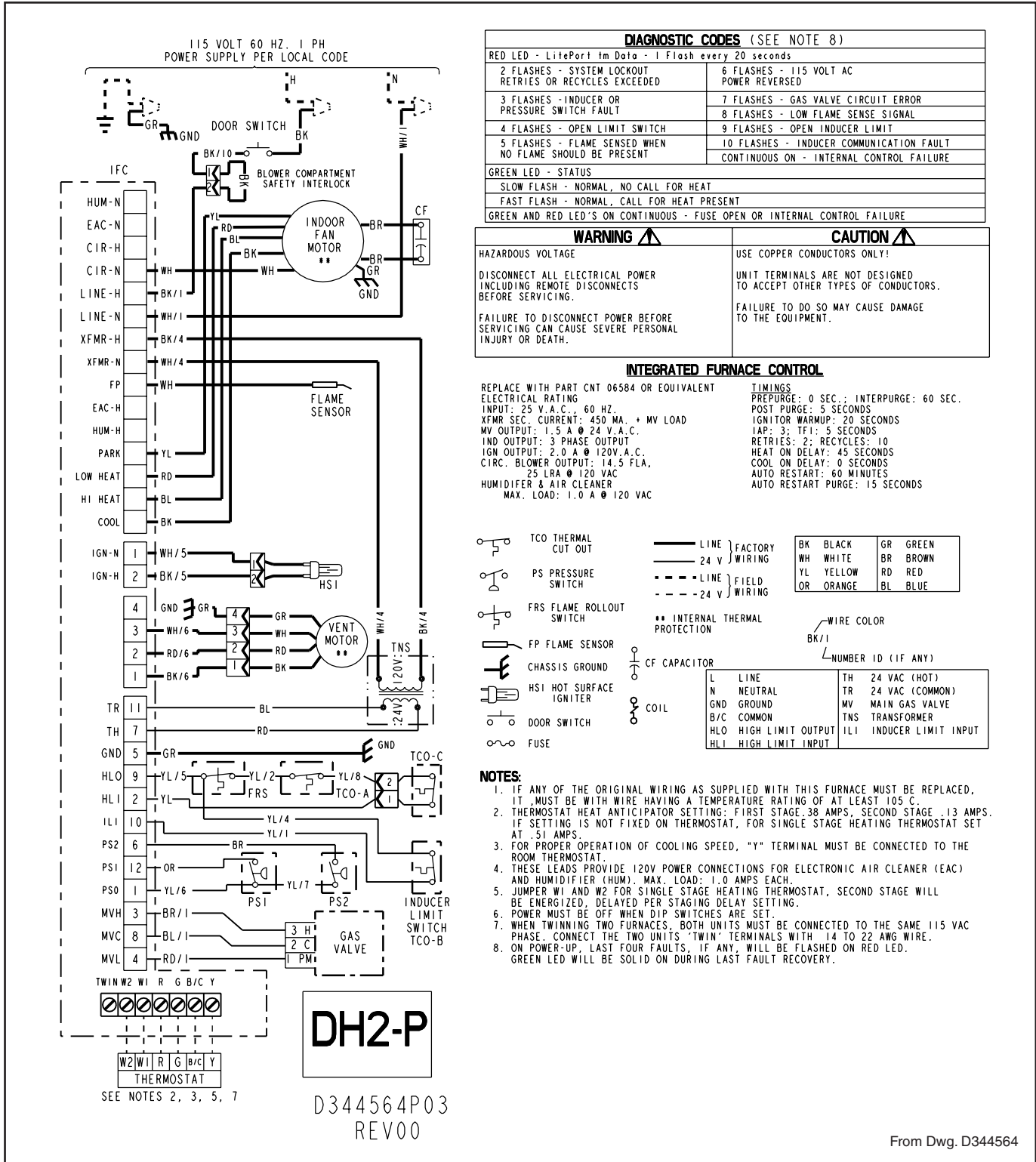
(continued on next page)

From Dwg. D344564



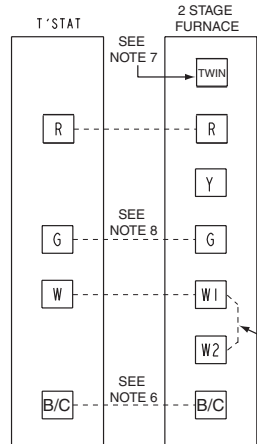
# Electrical Data

## \*DH2 Schematic Diagram



# Field Wiring

## FIELD WIRING DIAGRAM FOR 2 STAGE FURNACE 1 STAGE HEATING USING A 1 STAGE HEATING THERMOSTAT NO COOLING

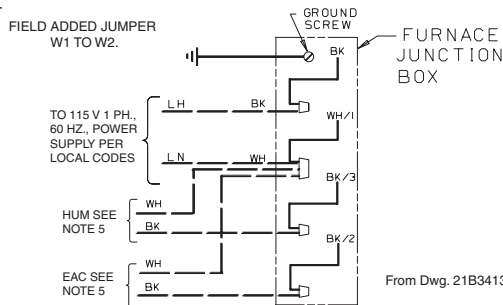


INTER-COMPONENT WIRING

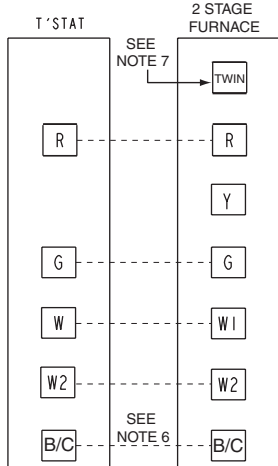
----- 24 V. LINE V. } FIELD WIRING  
 ----- 24 V. LINE V. } FACTORY WIRING

### NOTES:

1. BE SURE POWER AGREES WITH EQUIPMENT NAMPLATE(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. THESE LEADS PROVIDE 115 V. POWER FOR CONNECTION OF ELECTRONIC AIR CLEANER AND HUMIDIFIER MAX. LOAD 1.0 AMPS EACH.
6. THIS CONNECTION IS ONLY USED FOR THERMOSTATS REQUIRING CONNECTION TO THE 24 V. POWER SUPPLY. (COMMON)
7. SEE TWINNING CONNECTION DIAGRAMS FOR PROPER CONNECTIONS WHEN USING THIS FEATURE.
8. WHEN A HEATING THERMOSTAT (WITHOUT FAN SWITCH) IS USED, NO WIRING ON "G" TERMINAL OF IFC IS USED.
9. W1 AND W2 MUST BE JUMPED TOGETHER FOR PROPER OPERATION. **SEE SW1 SETTINGS FOR 2ND STAGE TIMING. DEFAULT IS 10 MINUTES.**



## FIELD WIRING DIAGRAM FOR 2 STAGE FURNACE 2 STAGE HEATING USING A 2 STAGE HEATING THERMOSTAT NO COOLING

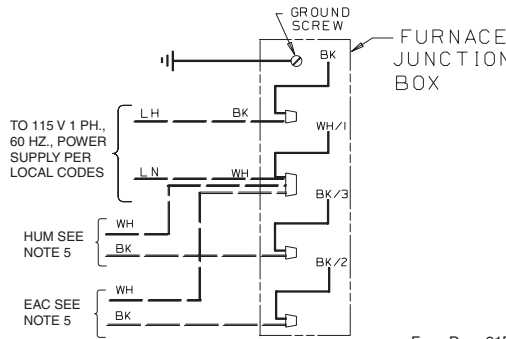


INTER-COMPONENT WIRING

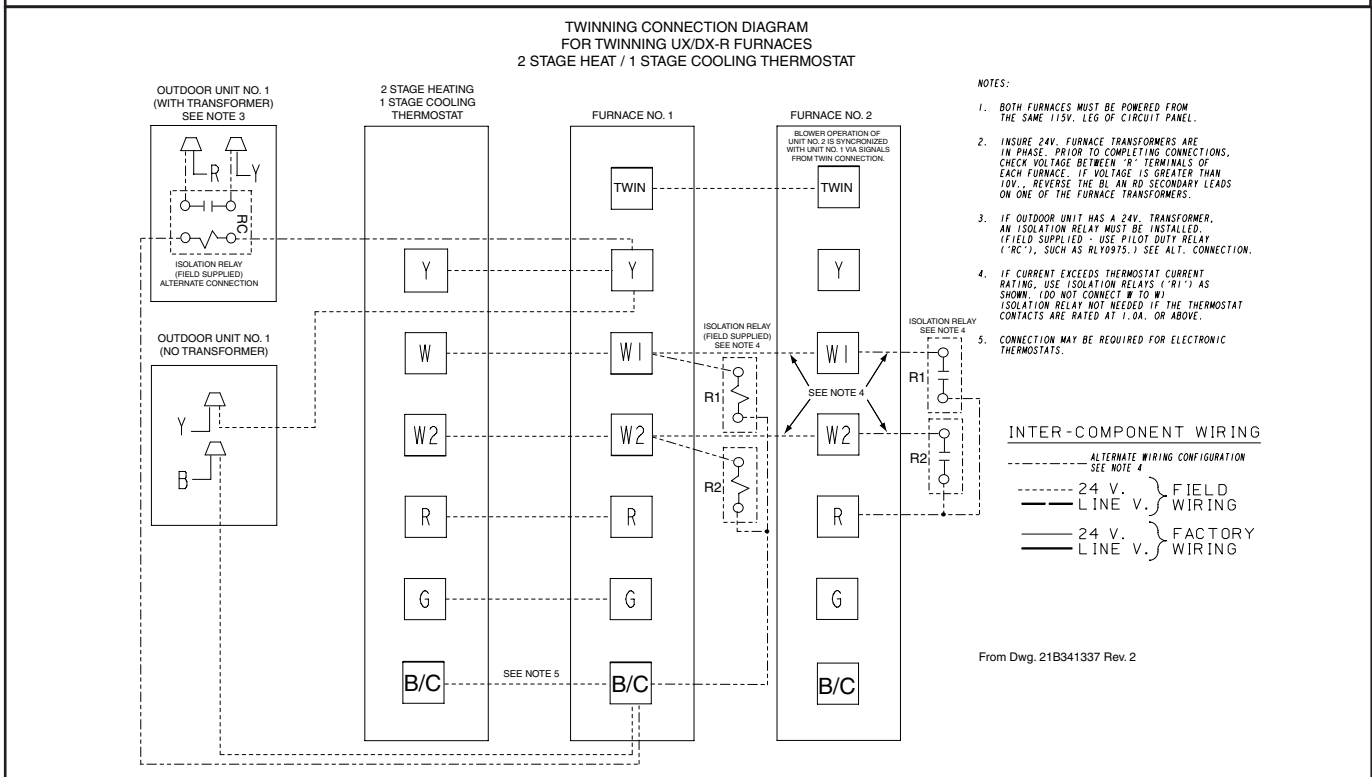
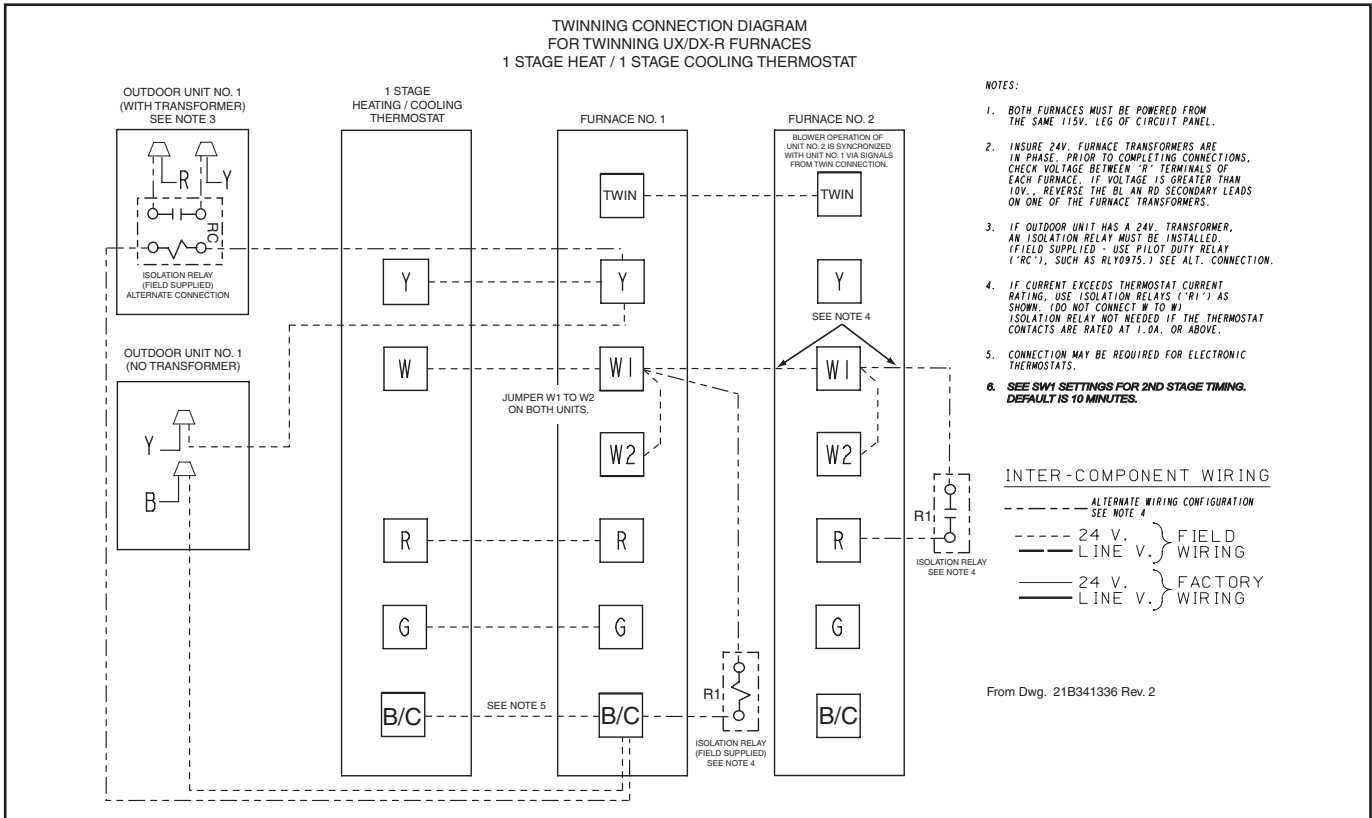
----- 24 V. LINE V. } FIELD WIRING  
 ----- 24 V. LINE V. } FACTORY WIRING

### NOTES:

1. BE SURE POWER AGREES WITH EQUIPMENT NAMPLATE(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. THESE LEADS PROVIDE 115 V. POWER FOR CONNECTION OF ELECTRONIC AIR CLEANER AND HUMIDIFIER MAX. LOAD 1.0 AMPS EACH.
6. THIS CONNECTION IS ONLY USED FOR THERMOSTATS REQUIRING CONNECTION TO THE 24 V. POWER SUPPLY. (COMMON)
7. SEE TWINNING CONNECTION DIAGRAMS FOR PROPER CONNECTIONS WHEN USING THIS FEATURE.



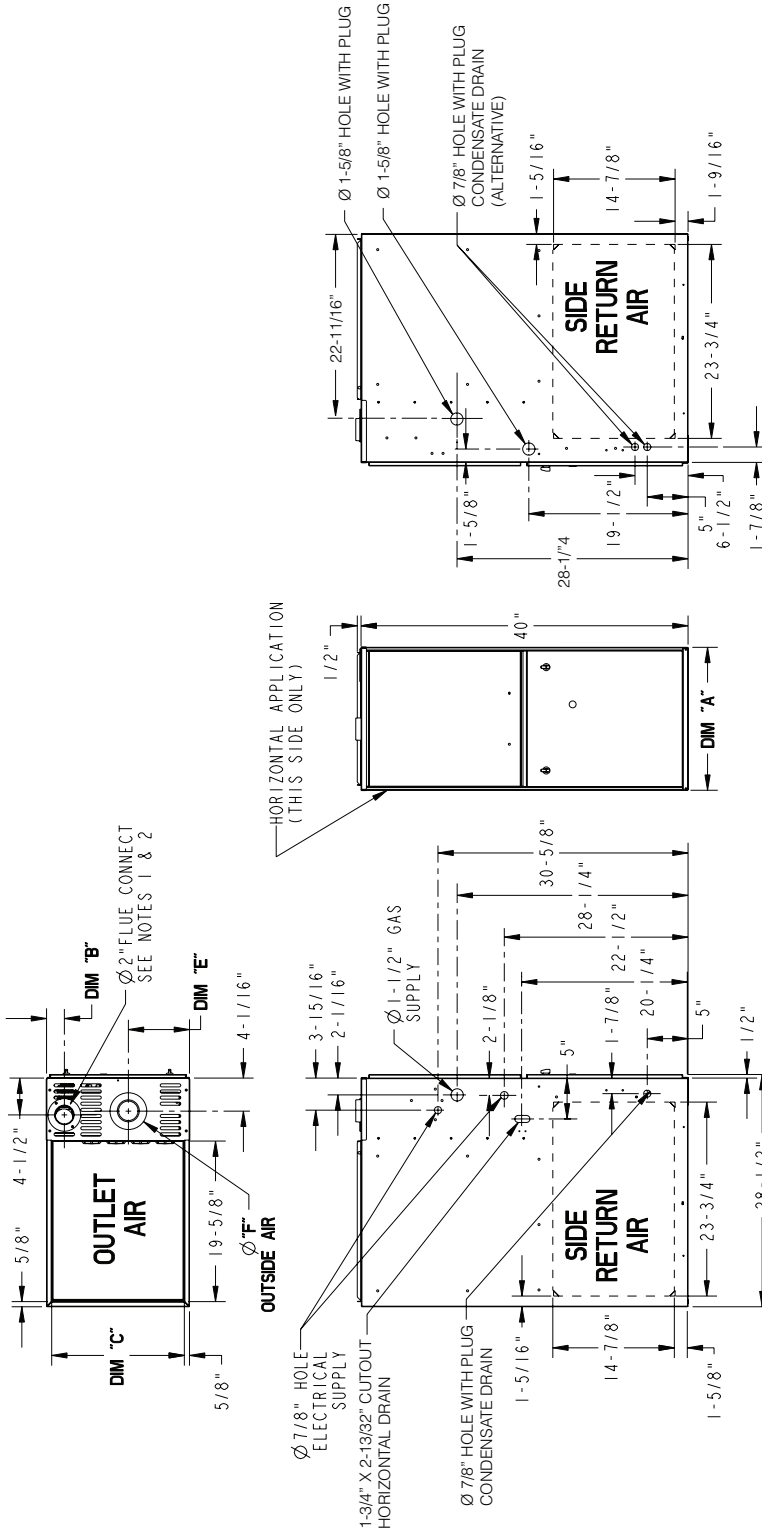
# Twinning Field Wiring



# UH2 Dimensions

## \*UH2 UPFLOW/HORIZONTAL OUTLINE DRAWING

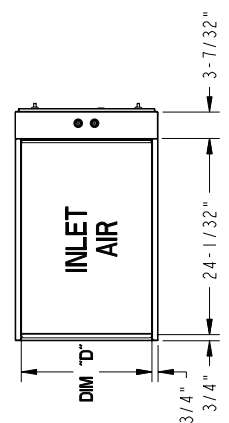
(ALL DIMENSIONS ARE IN INCHES)



MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS	
UPFLOW SIDES	0 IN.
REAR	0 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.
HORIZONTAL FLUE DISCHARGE ON THE LEFT	
SIDES	0 IN.
RIGHT	0 IN.
LEFT	6 IN.
REAR	18 IN.
FRONT	1 IN.
TOP	0 IN.
FLUE	0 IN.
CLOSED	
SIDES	1 IN.
RIGHT	1 IN.
LEFT	3 IN.
REAR	3 IN.
FRONT	1 IN.
TOP	1 IN.
FLUE	0 IN.

Model (See Note 1 & 2)	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"
*UH2B060A936VA	17-1/2"	2-1/4"	16-1/4"	16"	7-1/2"	2"
*UH2B080A942VA	21"	2-1/2"	19-3/4"	19-1/2"	9"	3"
*UH2C100A948VA	24-1/2"	2-15/16"	23-1/4"	23"	10"	3"
*UH2D120A960VA	24-1/2"	2-15/16"	23-1/4"	23"	10"	3"

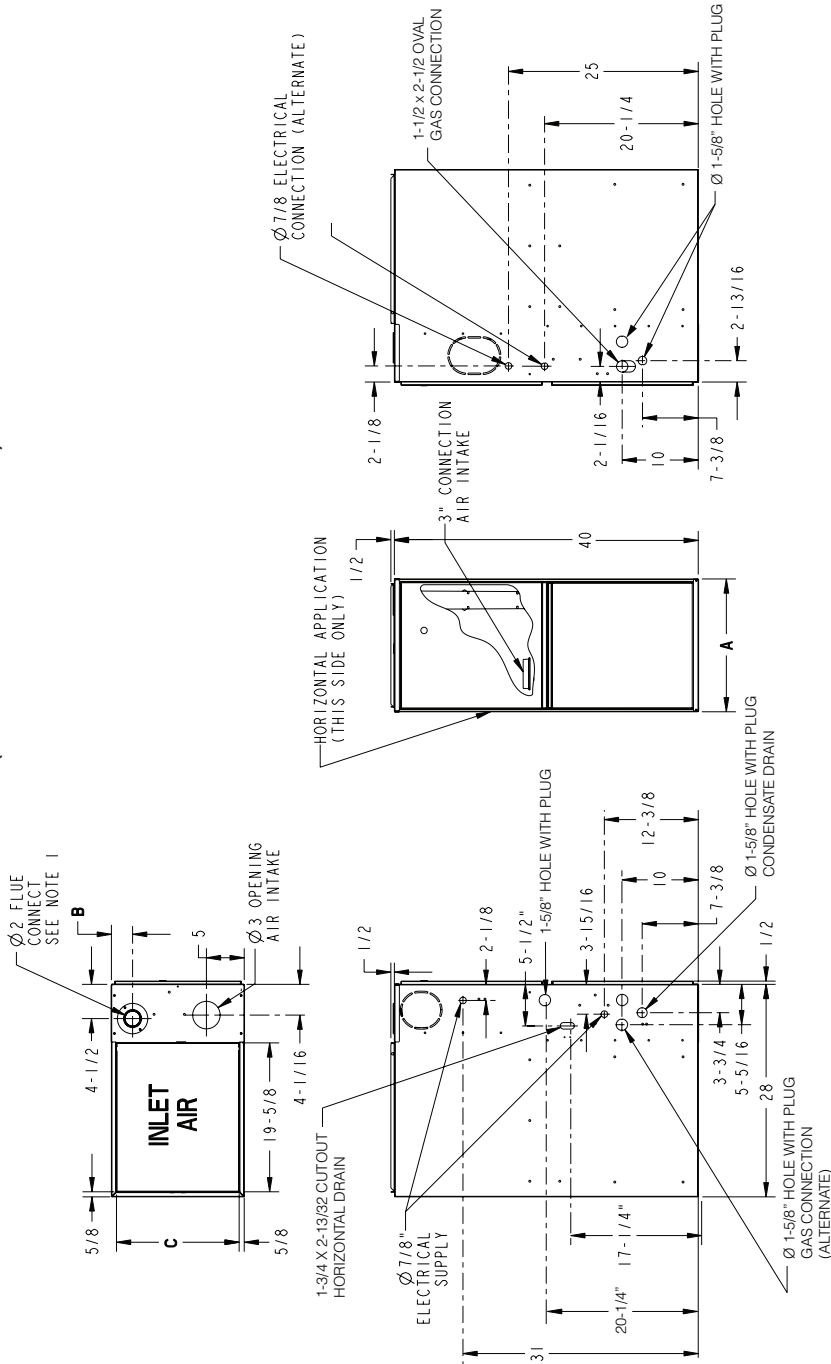
- \* Prefix May Be "A" or "T"
- Notes:
- \*UH2D120A960VA Requires 3" Diameter Vent Pipe. \*UH2C100A948VA Requires 2-1/2" or 3" Diameter Vent Pipe.
  - Diameter of Vent Pipe may be limited to 2-1/2" or 3" on some models at different altitudes. Refer to the Vent Length Table for proper application.



# DH2 Dimensions

## \*DH2 DOWNFLOW/HORIZONTAL OUTLINE DRAWING

(ALL DIMENSIONS ARE IN INCHES)



MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS	
<b>DOWNFLOW</b>	
SIDES	0 IN.
REAR	0 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.
<b>HORIZONTAL FLUE DISCHARGE ON THE LEFT</b>	
SIDES	0 IN.
RIGHT	0 IN.
LEFT	0 IN.
REAR	6 IN.
FRONT	18 IN.
TOP	1 IN.
FLUE	0 IN.
<b>CLOSET</b>	
SIDES	1 IN.
RIGHT	1 IN.
LEFT	3 IN.
REAR	3 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.

Model (See Note 1)	DIM "A"	DIM "B"	DIM "C"	DIM "D"
*DH2B060A936VA	17-1/2"	2-1/4"	16-1/4"	16"
*DH2B080A942VA	21"	2-1/2"	19-3/4"	19-1/2"
*DH2C100A948VA	24-1/2"	2-15/16"	23-1/4"	23"

\* Prefix May Be "A" or "T"

Notes: 1. Diameter of Vent Pipe may be limited to 2-1/2" or 3" on some models at different altitudes. Refer to the Vent Length Table for proper application.







Trane  
6200 Troup Highway  
Tyler, TX 75707  
www.trane.com

---

Literature Order Number	22-1866-05
File Number	22-1866-05
Supersedes	22-1866-04
Date	03/17

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