



**TRANE®**

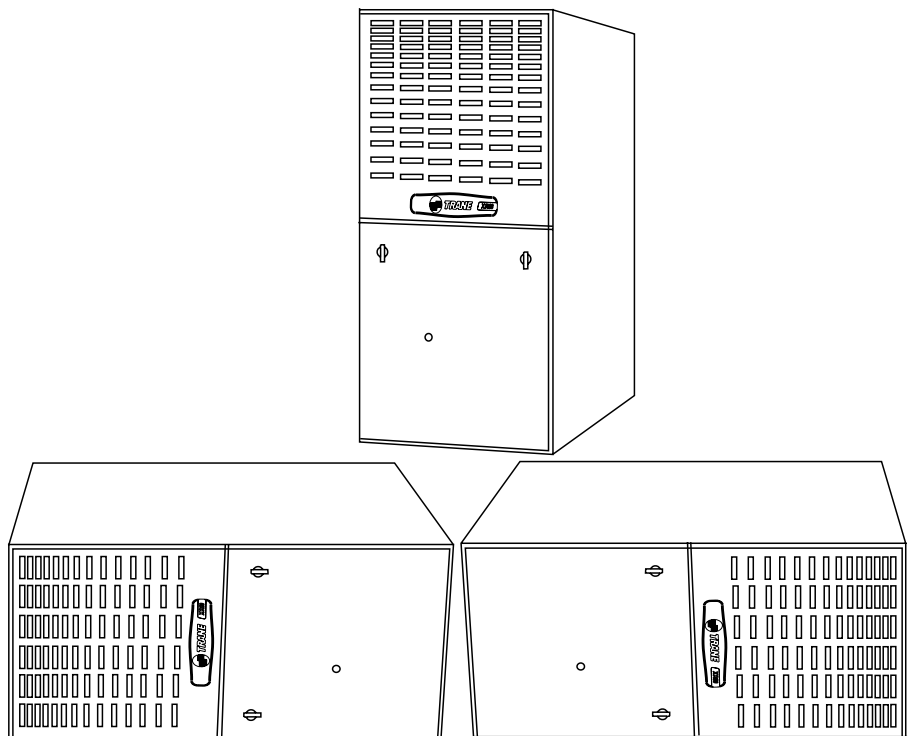
# Upflow/Horizontal Right or Upflow/Horizontal Left Condensing Gas Furnace

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## XT 90

TUX1B040A9H21B  
TUX1B060A9H31B  
TUX1B080A9H31B  
TUX1C100A9H41B  
TUX1D120A9H51B

TDX1B040A9H21B  
TDX1B060A9H31B  
TDX1B080A9H31B  
TDX1C100A9H41B  
TDX1D120A9H51B



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**PUB. NO. 22-1786-03**



**TRANE®**

## General Features

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### **NATURAL GAS MODELS**

Central Heating furnace designs are certified by the American and Canadian Gas Association 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.

### **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 XT90 High Efficiency Gas Furnaces employ a Silicon Carbide 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.



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**TRANE**<sup>®</sup>

# Features and Benefits

## XT 90 UPFLOW/HORIZONTAL RIGHT or LEFT STANDARD EQUIPMENT

- Convertible to horizontal with left or right airflow
- Power supply 115/1/60
- **Type 29-4C™** stainless steel secondary heat exchanger
- Silicon Nitride Hot surface igniter with adaptive heat up
- Integrated solid state control with self-diagnostics
- Single wire twinning
- Attractive color accents
- Hinged blower door
- Perfect Fit door latches
- Insulated blower door
- Gasketed blower door
- Internal filter rack
- Standard filter sizes
- Cleanable high velocity filters
- Heavy gauge aluminized steel heat exchanger
- Blower door safety switch
- Multi-port In-shot burners
- Complete front service access
- Alternate bottom/left/right return air
- Slide out blower assembly
- High efficiency direct drive 4 speed motor
- Adjustable fan off times
- Common vent capability
- Heavy gauge reinforced wrap-around steel cabinet
- Optional L.P. conversion kit
- Left/right gas connection
- Accessory hook-up capability
- Selectable cooling fan off eliminates need for BAY24X045 time delay relay
- 24 volt fuse
- Manual reset flame roll-out switches
- **Non-prorated 20-year heat exchanger limited warranty**
- **Five-year limited parts warranty**

## XT90 Optional Equipment

### OPTIONAL EQUIPMENT FOR CONDENSING UNITS (Check mark [✓] indicates accessories included).

For Comfort Controls, See price book pages .....	[ ]
<b>CleanEffects™</b> Whole House Air Cleaner (14-1/2" Wide, Upflow / Side Return Furnace) .....	TFD145ALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (17-1/2" Wide, Upflow / Side Return Furnace) .....	TFD175ALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (21" Wide, Upflow / Side Return Furnace) .....	TFD210ALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (24-1/2" Wide, Upflow / Side Return Furnace) .....	TFD245ALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (14-1/2" Wide, Downflow Furnace) .....	TFD14DALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (17-1/2" Wide, Downflow Furnace) .....	TFD17DALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (21" Wide, Downflow Furnace) .....	TFD21DALFR000A [ ]
<b>CleanEffects™</b> Whole House Air Cleaner (24-1/2" Wide, Downflow Furnace) .....	TFD24DALFR000A [ ]
Electronic Air Filter, "Perfect Fit" Super Efficiency (14-1/2" Wide Gas Furnace) .....	TFE145A9FR0 [ ]
Electronic Air Filter, "Perfect Fit" Super Efficiency (17-1/2" Wide Gas Furnace) .....	TFE175A9FR0 [ ]
Electronic Air Filter, "Perfect Fit" Super Efficiency (21" Wide Gas Furnace) .....	TFE210A9FR0 [ ]
Electronic Air Filter, "Perfect Fit" Super Efficiency (24-1/2" Wide Gas Furnace) .....	TFE245A9FR0 [ ]
Air Filter, "Perfect Fit" High Efficiency (14-1/2" Wide Gas Furnace) .....	TFM145A9FR0 [ ]
Air Filter, "Perfect Fit" High Efficiency (17-1/2" Wide Gas Furnace) .....	TFM175A9FR0 [ ]
Air Filter, "Perfect Fit" High Efficiency (21" Wide Gas Furnace) .....	TFM210A9FR0 [ ]
Air Filter, "Perfect Fit" High Efficiency (24-1/2" Wide Gas Furnace) .....	TFM245A9FR0 [ ]
Air Filter, "Perfect Fit" Standard Efficiency (14-1/2" Wide Gas Furnace) .....	TFP145A9FR0 [ ]
Air Filter, "Perfect Fit" Standard Efficiency (17-1/2" Wide Gas Furnace) .....	TFP175A9FR0 [ ]
Air Filter, "Perfect Fit" Standard Efficiency (21" Wide Gas Furnace) .....	TFP210A9FR0 [ ]
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 [ ]
High Altitude Switch .....	BAYHALT248 [ ]
Downflow Subbase .....	BAYBASE205 [ ]
Propane Conversion Kit .....	BAYLPKT210B [ ]
Propane Conversion Kit (With Stainless Steel burners) .....	BAYLPSS210B [ ]
Masonry Chimney Vent Kit .....	BAYVENT800B [ ]
Filter Access Door Kit (Downflow models) .....	BAYFLTR206 [ ]



# General Data

## PRODUCT SPECIFICATIONS ①

MODEL	TUX1B040A9H21B	TUX1B060A9H31B	TUX1B080A9H31B
<b>TYPE</b>	Upflow / Horizontal	Upflow / Horizontal	Upflow / Horizontal
<b>RATINGS ②</b>			
Input BTUH	40,000	60,000	80,000
Capacity BTUH (ICS) ③	38,000	56,000	74,000
AFUE	92.1	92.1	92.1
Temp. rise (Min.-Max.) °F.	30 - 60	30 - 60	35 - 65
<b>BLOWER DRIVE</b>	DIRECT	DIRECT	DIRECT
Diameter - Width (In.)	10 x 7	10 x 7	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	1/2	1/2	1/2
R.P.M.	1075	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>	Centrifugal	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1	Direct - 1
Motor HP - RPM	1/55 - 3000	1/55 - 3000	1/24 - 3200
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
FLA	1.0	1.0	1.35
<b>FILTER — Furnished?</b>	Yes	Yes	Yes
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 17x25 - 1in.	1 - 17x25 - 1in.	1 - 17x25 - 1in.
<b>VENT — Size (in.)</b>	2 Round	2 Round	2 Round
<b>HEAT EXCHANGER</b>			
Type-Fired	Aluminized Steel	Aluminized Steel	Aluminized Steel
-Unfired			
Gauge (Fired)	20	20	20
<b>ORIFICES — Main</b>			
Nat. Gas. Qty. — Drill Size	2 — 45	3 — 45	4 — 45
L.P. Gas Qty. — Drill Size	2 — 56	3 — 56	4 — 56
<b>GAS VALVE</b>	Redundant - Single Stage	Redundant - Single Stage	Redundant - Single Stage
<b>PILOT SAFETY DEVICE</b>			
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>	Multiport Inshot	Multiport Inshot	Multiport Inshot
Number	2	3	4
<b>POWER CONN. — V / Ph / Hz ④</b>	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	9.7	9.7	10.0
Max Overcurrent Protection (Amps)	15	15	15
<b>PIPE CONN. SIZE (IN.)</b>	1/2	1/2	1/2
<b>DIMENSIONS</b>	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 19-1/2 x 30-1/2
<b>WEIGHT</b>			
Shipping (Lbs.) / Net (Lbs)	139 / 129	150 / 140	158 / 148

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 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.

**TRANE®**

# General Data

## PRODUCT SPECIFICATIONS ①

MODEL	TUX1C100A9H41B	TUX1D120A9H51B
<b>TYPE</b>	Upflow / Horizontal	Upflow / Horizontal
<b>RATINGS ②</b>		
Input BTUH	100,000	120,000
Capacity BTUH (ICS) ③	93,000	112,000
AFUE	92.1	92.1
Temp. rise (Min.-Max.) °F.	35 - 65	40 - 70
<b>BLOWER DRIVE</b>	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	3/4	1
R.P.M.	1100	1100
Volts / Ph / Hz	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1
Motor HP - RPM	1/20- 3450	1/20- 3450
Volts / Ph / Hz	115/1/60	115/1/60
FLA	.71	.71
<b>FILTER — Furnished?</b>	Yes	Yes
Type Recommended	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 20x25 - 1in.	1 - 24x25 - 1in.
<b>VENT — Size (in.)</b>	2 Round	2 Round
<b>HEAT EXCHANGER</b>		
Type-Fired	Aluminized Steel	Aluminized Steel
-Unfired		
Gauge (Fired)	20	20
<b>ORIFICES — Main</b>		
Nat. Gas. Qty. — Drill Size	5 — 45	6 — 45
L.P. Gas Qty. — Drill Size	5 — 56	6 — 56
<b>GAS VALVE</b>	Redundant - Single Stage	Redundant - Single Stage
<b>PILOT SAFETY DEVICE</b>		
Type	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>	Multiport Inshot	Multiport Inshot
Number	5	6
<b>POWER CONN. — V / Ph / Hz ④</b>	115/1/60	115/1/60
Ampacity (In Amps)	12.4	14.5
Max Overcurrent Protection (Amps)	20	20
<b>PIPE CONN. SIZE (IN.)</b>	1/2	1/2
<b>DIMENSIONS</b>	H x W x D	H x W x D
Crated (In.)	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)	171 / 162	205 / 193

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 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 ①

MODEL	TDX1B040A9H21B	TDX1B060A9H31B	TDX1B080A9H31B
<b>TYPE</b>	Downflow / Horizontal	Downflow / Horizontal	Downflow / Horizontal
<b>RATINGS ②</b>			
Input BTUH	40,000	60,000	80,000
Capacity BTUH (ICS) ③	38,000	56,000	74,000
AFUE	91.0	91.0	91.0
Temp. rise (Min.-Max.) °F.	30 - 60	30 - 60	35 - 65
<b>BLOWER DRIVE</b>	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	1/2	1/2	3/4
R.P.M.	1080	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>	Centrifugal	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1	Direct - 1
Motor HP - RPM	1/55- 3000	1/55- 3000	1/25- 3200
Volts / Ph / Hz	115/1/60	115/1/60	115/1/60
FLA	1.14	1.0	1.35
<b>FILTER — Furnished?</b>	Yes	Yes	Yes
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 14x20 - 1in.	2 - 14x20 - 1in.	2 - 14x20 - 1in.
<b>VENT — Size (in.)</b>	2 Round	2 Round	2 Round
<b>HEAT EXCHANGER</b>			
Type-Fired	Aluminized Steel	Aluminized Steel	Aluminized Steel
-Unfired			
Gauge (Fired)	20	20	20
<b>ORIFICES — Main</b>			
Nat. Gas. Qty. — Drill Size	2 — 45	3 — 45	4 — 45
L.P. Gas Qty. — Drill Size	2 — 56	3 — 56	4 — 56
<b>GAS VALVE</b>	Redundant - Single Stage	Redundant - Single Stage	Redundant - Single Stage
<b>PILOT SAFETY DEVICE</b>			
Type	Hot Surface Ignition	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>	Multiport Inshot	Multiport Inshot	Multiport Inshot
Number	2	3	4
<b>POWER CONN. — V / Ph / Hz ④</b>	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	9.7	9.7	12.4
Max Overcurrent Protection (Amps)	15	15	15
<b>PIPE CONN. SIZE (IN.)</b>	1/2	1/2	1/2
<b>DIMENSIONS</b>	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 19-1/2 x 30-1/2
<b>WEIGHT</b>			
Shipping (Lbs.) / Net (Lbs)	145 / 135	155 / 145	168 / 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 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 ①

MODEL	TDX1C100A9H41B	TDX1D120A9H51B
<b>TYPE</b>	Downflow / Horizontal	Downflow / Horizontal
<b>RATINGS ②</b>		
Input BTUH	100,000	120,000
Capacity BTUH (ICS) ③	94,000	110,000
AFUE	91.0	91.0
Temp. rise (Min.-Max.) °F.	35 - 65	40 - 70
<b>BLOWER DRIVE</b>	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	3/4	1
R.P.M.	1075	1075
Volts / Ph / Hz	115/1/60	115/1/60
<b>COMBUSTION FAN - Type</b>	Centrifugal	Centrifugal
Drive - No. Speeds	Direct - 1	Direct - 1
Motor HP - RPM	1/20- 3450	1/20- 3450
Volts / Ph / Hz	115/1/60	115/1/60
FLA	.71	.71
<b>FILTER — Furnished?</b>	Yes	Yes
Type Recommended	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	2 - 16x20 - 1in.	2 - 16x20 - 1in.
<b>VENT — Size (in.)</b>	2 Round	3 Round
<b>HEAT EXCHANGER</b>		
Type-Fired	Aluminized Steel	Aluminized Steel
-Unfired		
Gauge (Fired)	20	20
<b>ORIFICES — Main</b>		
Nat. Gas. Qty. — Drill Size	5 — 45	6 — 45
L.P. Gas Qty. — Drill Size	5 — 56	6 — 56
<b>GAS VALVE</b>	Redundant - Single Stage	Redundant - Single Stage
<b>PILOT SAFETY DEVICE</b>		
Type	Hot Surface Ignition	Hot Surface Ignition
<b>BURNERS — Type</b>	Multiport Inshot	Multiport Inshot
Number	5	6
<b>POWER CONN. — V / Ph / Hz ④</b>	115/1/60	115/1/60
Ampacity (In Amps)	12.4	15.5
Max Overcurrent Protection (Amps)	20	20
<b>PIPE CONN. SIZE (IN.)</b>	1/2	1/2
<b>DIMENSIONS</b>	H x W x D	H x W x D
Crated (In.)	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)	185 / 175	206 / 196

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 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

FURNACE AIRFLOW (CFM) VS. STATIC PRESSURE (ins.w.g.)										
MODEL	SPEED TAP	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
*UX1B040A9H21B	4 - HIGH - Black	1159	1131	1102	1077	1052	1022	992	961	930
	3 - MED-HIGH - Blue	938	910	881	851	820	786	751	717	662
	2 - MED-LOW - Yellow	844	814	783	750	717	681	645	604	563
	1 - LOW - Red	772	732	691	656	621	581	540	497	454
*UX1B060A9H31B	4 - HIGH - Black	1358	1327	1296	1272-	1248	1215	1182	1122	1061
	3 - MED-HIGH - Blue	1196	1166	1135	1109	1082	1053	1023	989	955
	2 - MED-LOW - Yellow	1025	1000	975	943	910	878	845	813	780
	1 - LOW - Red	863	830	797	762	726	687	648	601	554
*UX1B080A9H31B	4 - HIGH - Black	1436	1404	1371	1346	1320	1289	1257	1214	1170
	3 - MED-HIGH - Blue	1334	1308	1281	1250	1219	1193	1167	1132	1097
	2 - MED-LOW - Yellow	1239	1209	1179	1149	1119	1090	1060	1030	999
	1 - LOW - Red	1160	1131	1101	1070	1039	1007	974	940	905
*UX1C100A9H41B	4 - HIGH - Black	1888	1852	1815	1776	1737	1698	1659	1626	1593
	3 - MED-HIGH - Blue	1751	1715	1679	1643	1606	1571	1536	1493	1450
	2 - MED-LOW - Yellow	1530	1491	1452	1415	1378	1336	1293	1253	1212
	1 - LOW - Red	1245	1204	1162	1115	1067	1023	979	931	882
*UX1D120A9H51B	4 - HIGH - Black	2153	2121	2089	2056	2023	1983	1943	1907	1870
	3 - MED-HIGH - Blue	1895	1856	1817	1779	1741	1708	1674	1634	1593
	2 - MED-LOW - Yellow	1777	1743	1708	1673	1637	1601	1564	1524	1484
	1 - LOW - Red	1618	1579	1540	1504	1467	1430	1393	1354	1315
*DX1B040A9H21B	4 - HIGH - Black	1156	1128	1100	1072	1043	1012	981	917	852
	3 - MED-HIGH - Blue	935	859	859	828	797	757	717	679	641
	2 - MED-LOW - Yellow	835	803	771	736	701	652	602	569	536
	1 - LOW - Red	752	726	700	648	596	554	511	471	431
*DX1B060A9H31B	4 - HIGH - Black	1337	1314	1291	1257	1223	1187	1150	1090	1030
	3 - MED-HIGH - Blue	1159	1127	1094	1065	1036	997	957	920	883
	2 - MED-LOW - Yellow	967	930	893	856	818	774	729	690	651
	1 - LOW - Red	863	823	782	742	702	657	611	571	531
*DX1B080A9H31B	4 - HIGH - Black	1614	1585	1555	1489	1423	1363	1303	1202	1101
	3 - MED-HIGH - Blue	1322	1295	1267	1239	1211	1180	1149	1111	1072
	2 - MED-LOW - Yellow	1098	1067	1036	1003	970	933	896	864	831
	1 - LOW - Red	970	934	898	868	837	794	750	712	674
*DX1C100A9H41B	4 - HIGH - Black	1844	1808	1771	1736	1700	1669	1638	1590	1542
	3 - MED-HIGH - Blue	1748	1716	1683	1648	1612	1574	1535	1497	1459
	2 - MED-LOW - Yellow	1429	1392	1354	1312	1269	1235	1200	1154	1108
	1 - LOW - Red	1203	1134	1124	1077	1029	983	937	887	837
*DX1D120A9H51B	4 - HIGH - Black	2162	2127	2091	2049	2006	1964	1922	1849	1775
	3 - MED-HIGH - Blue	1928	1888	1848	1811	1774	1736	1698	1653	1607
	2 - MED-LOW - Yellow	1782	1743	1703	1665	1626	1582	1537	1500	1462
	1 - LOW - Red	1552	1520	1488	1450	1412	1370	1328	1295	1261

\* May be "A" or "T"



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# Performance Data

CFM VS. TEMPERATURE RISE																		
MODEL	CFM (CUBIC FEET PER MINUTE)																	
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
*UX1B040A9H21B			56	48	42	37	33	30										
*UX1B060A9H31B					63	56	50	45	42	38	36	33	31	29				
*UX1B080A9H31B							67	61	56	51	48	44	42	39	37	35		
*UX1C100A9H41B										64	60	56	52	49	46	44	42	40
*UX1D120A9H51B											71	67	63	59	56	53	50	48

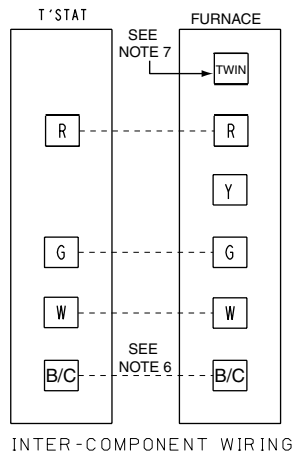
\* May be "A" or "T"

CFM VS. TEMPERATURE RISE																		
MODEL	CFM (CUBIC FEET PER MINUTE)																	
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
*DX1B040A9H21B			56	48	42	37	33	30										
*DX1B060A9H31B					63	56	50	45	42	38	36	33	31	29				
*DX1B080A9H31B							67	61	56	51	48	44	42	39	37	35		
*DX1C100A9H41B										64	60	56	52	49	46	44	42	40
*DX1D120A9H51B											71	67	63	59	56	53	50	48

\* May be "A" or "T"

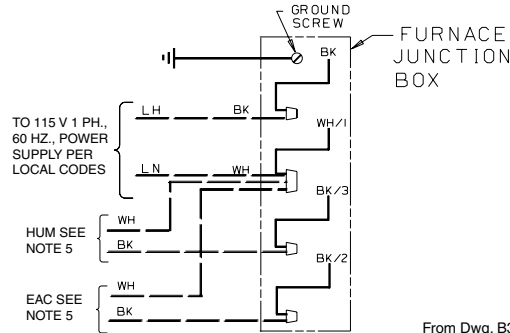
# Field Wiring

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

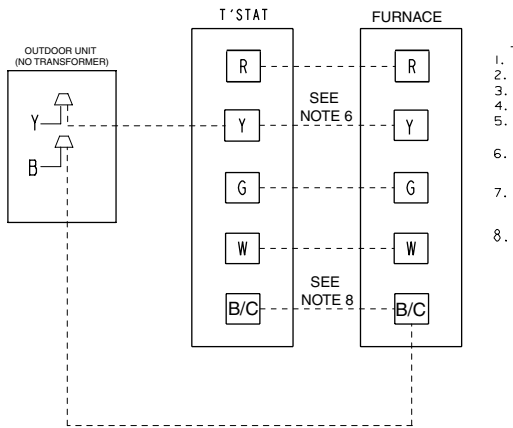


NOTES:

1. BE SURE POWER 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. 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.

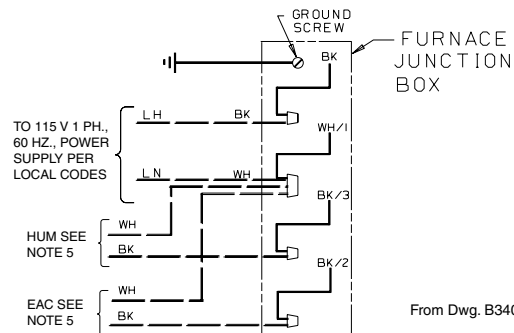


## FIELD WIRING DIAGRAM FOR 1 STAGE FURNACE 1 STAGE HEATING, 1 STAGE COOLING USING A 1 STAGE HEATING, 1 STAGE COOLING THERMOSTAT (OUTDOOR SECTION WITHOUT TRANSFORMER)



NOTES:

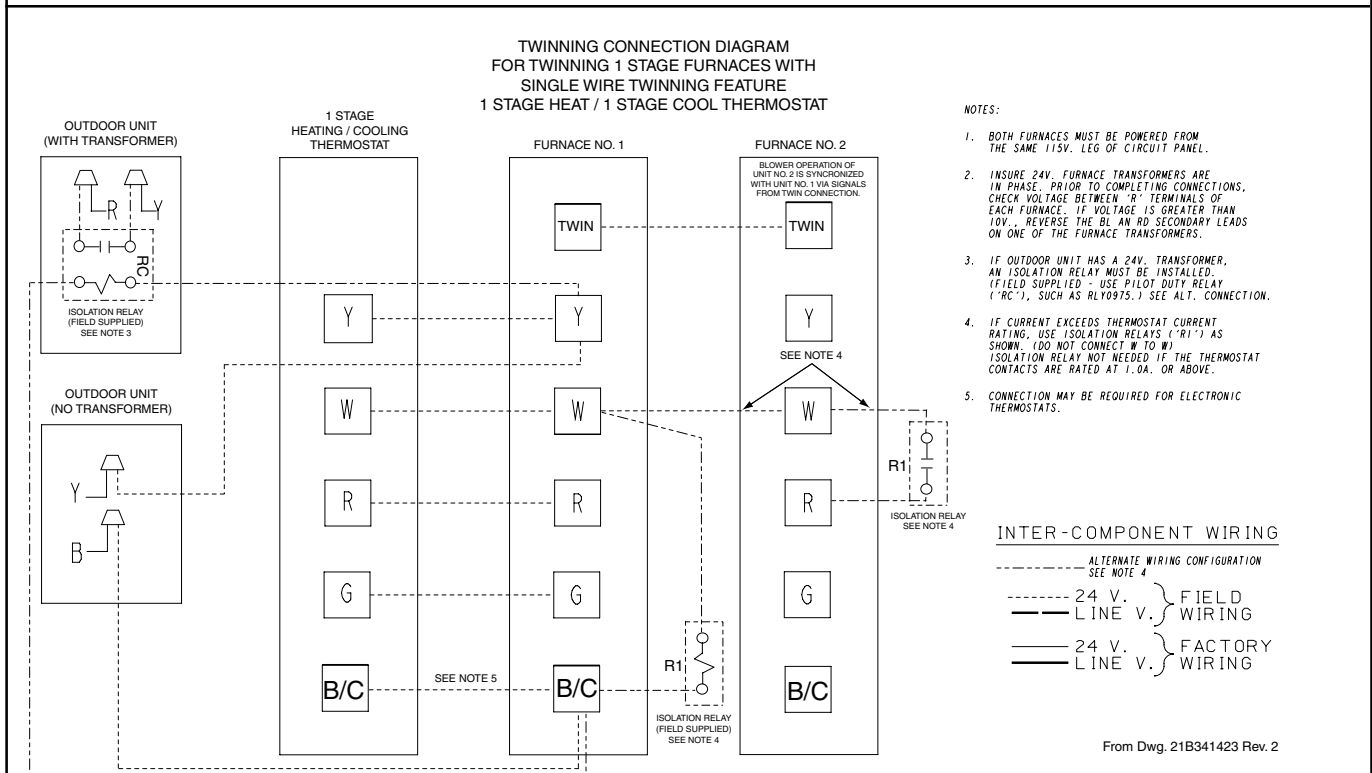
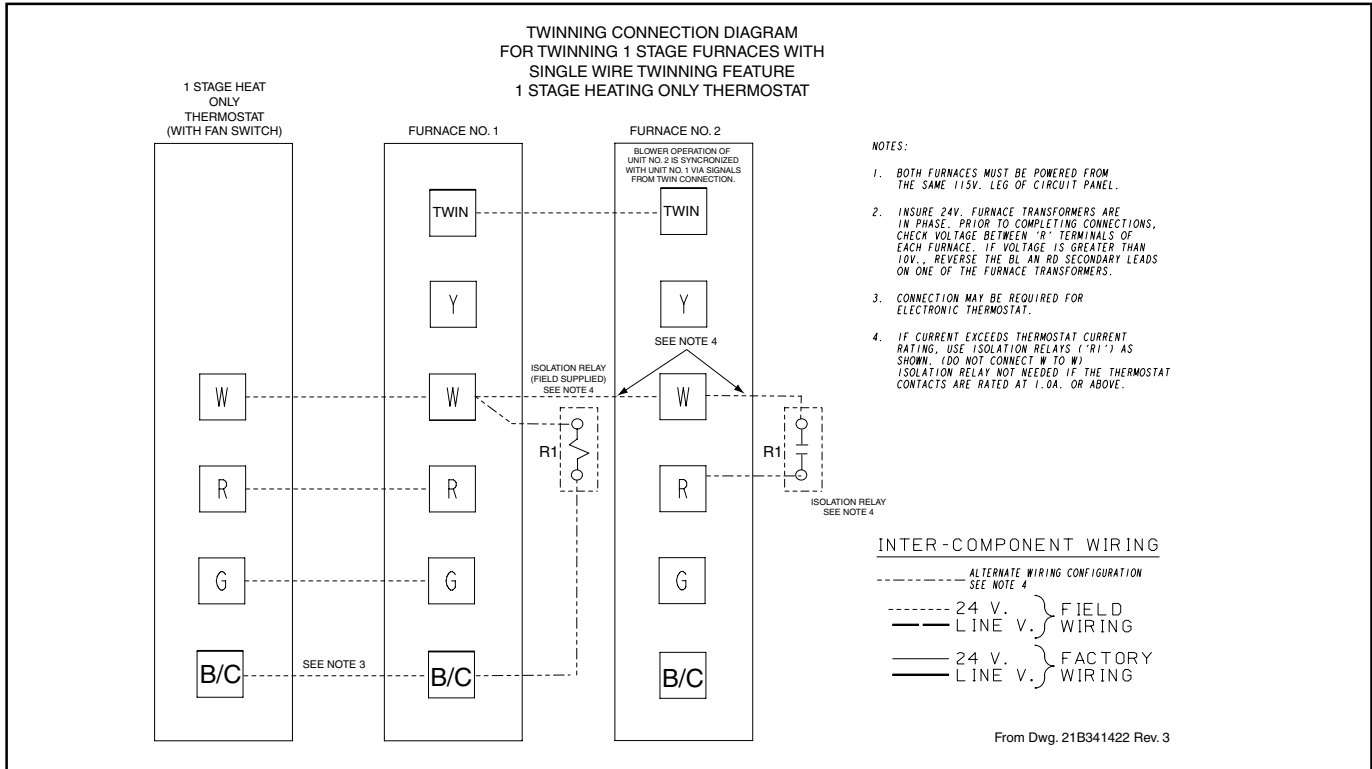
1. BE SURE POWER AGREES WITH EQUIPMENT NAMEPLATE(S)
2. LOW VOLTAGE(24 V. WIRING) TO BE NO. 18 A.W.G. MIN.
3. GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. SET THERMOSTAT HEAT ANTICIPATOR PER UNIT WIRING DIAGRAM.
5. THESE LEADS PROVIDE 115 V. POWER FOR CONNECTION OF ELECTRONIC AIR CLEANER AND HUMIDIFIER MAX. LOAD 1.0 AMPS EACH.
6. THE "Y" TERMINAL FROM THE THERMOSTAT MUST BE WIRED TO THE "Y" TERMINAL OF THE FURNACE CONTROL FOR PROPER BLOWER OPERATION DURING COOLING.
7. IGNITION CONTROL IS POLARITY SENSITIVE. HOT LEG OF 120 VOLT POWER SUPPLY MUST BE CONNECTED TO THE BLACK LINE POWER LEAD AS INDICATED ON THE WIRING DIAGRAM OR IGNITION LOCKOUT WILL OCCUR.
8. THIS CONNECTION IS ONLY USED FOR THERMOSTATS REQUIRING CONNECTION TO THE 24 V. POWER SUPPLY. (COMMON)





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# Twinning

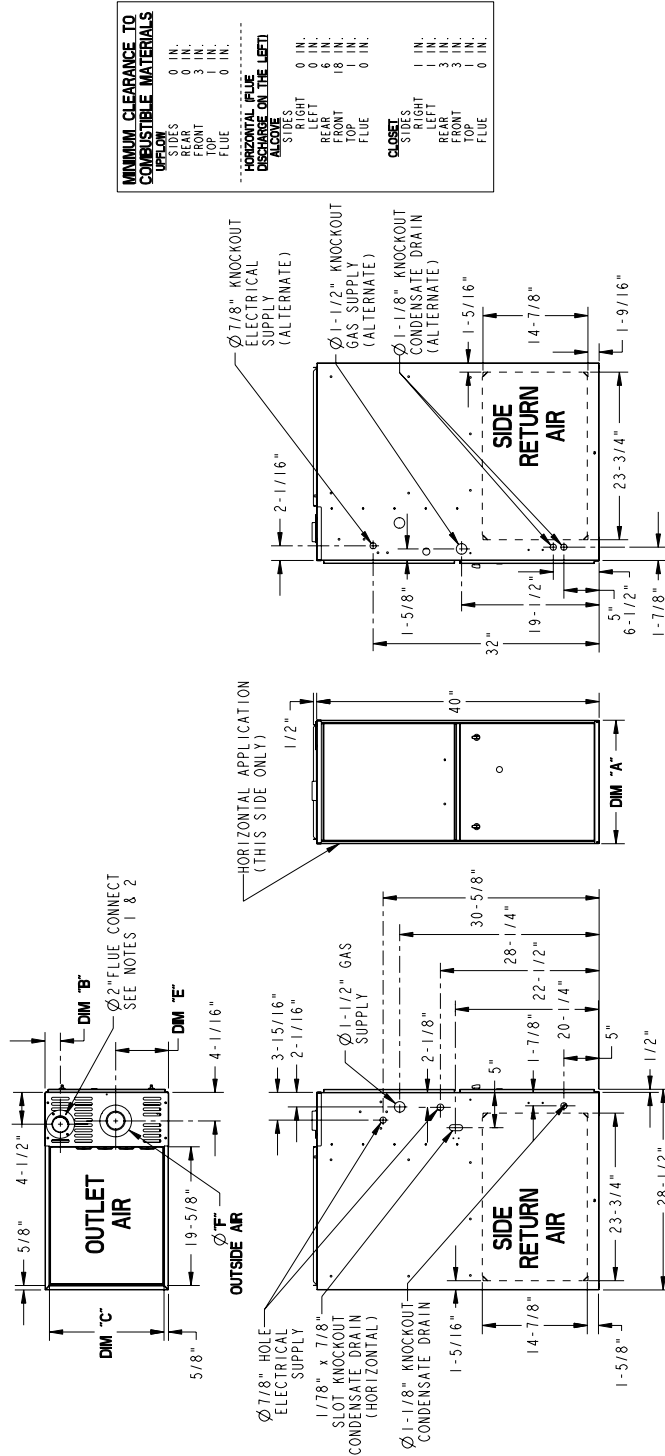




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# Dimensions

## TUX1-H OUTLINE DRAWING (ALL DIMENSIONS ARE IN INCHES)



NOTES:  
 1. \*UX120-960 REQUIRES 3" DIAMETER VENT PIPE.  
 \*UX100-948 & \*UX100-960 REQUIRES 2-1/2" OR 3" DIAMETER VENT PIPE.  
 2. DIAMETER OF VENT PIPE MAY BE LIMITED TO 2-1/2" OR 3" DEPENDING ON MODEL. REFER TO THE VENT LENGTH TABLE FOR PROPER APPLICATION.

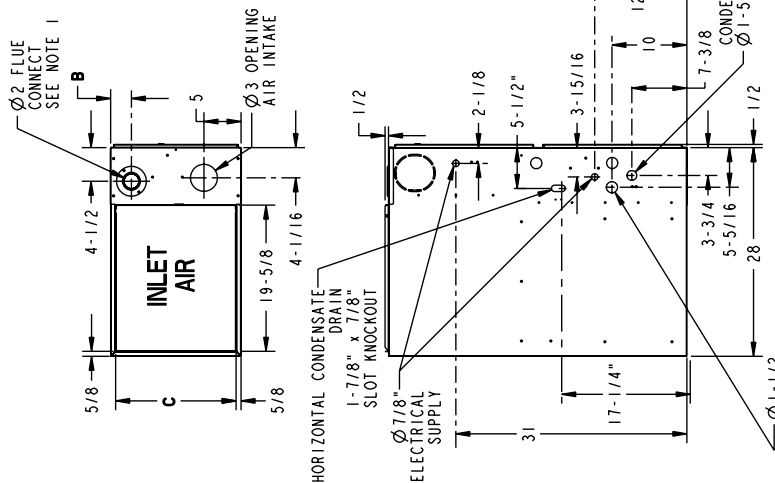
MODEL (SEE NOTE 1 & 2)	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"
*UX1B040A9241** *UX1B060A9361** *UX1B080A9421** *UX060R936*** *UX080R942*** *UT060R9V3*** *UT080R9V3*** *UX1B040A9H21** *UX1B060A9H31** *UX1B080A9H51**	17-1/2"	2-1/4"	16-1/4"	16"	7-1/2"	2"
*UX1C100A9481** *UX1C080A9601** *UX1C060A9761** *UX1C100A9H41**	21"	2-1/2"	19-3/4"	19-1/2"	9"	3"
*UX1D100A9601** *UX1D120A9601** *UY120R960*** *UY120R9V5*** *UX1D120A9H51**	24-1/2"	2-15/16"	23-1/4"	23"	10"	3"



**TRANE**

# Dimensions

## TDX1-H OUTLINE DRAWING (ALL DIMENSIONS ARE IN INCHES)



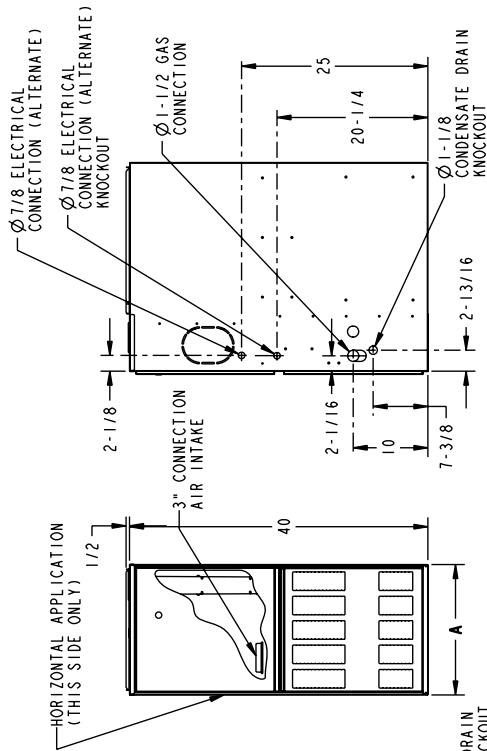
MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS DOWNFLOW	
SIDES	0 IN.
REAR	3 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.

HORIZONTAL FLUE DISCHARGE (ON THE LEFT)	
SIDES	0 IN.
RIGHT	0 IN.
LEFT	0 IN.
REAR	6 IN.
FRONT	18 IN.
TOP	0 IN.
FLUE	0 IN.

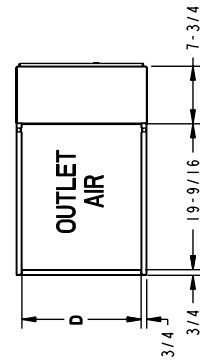
CLOSET	
SIDES	1 IN.
RIGHT	1 IN.
LEFT	1 IN.
REAR	3 IN.
FRONT	1 IN.
TOP	1 IN.
FLUE	0 IN.



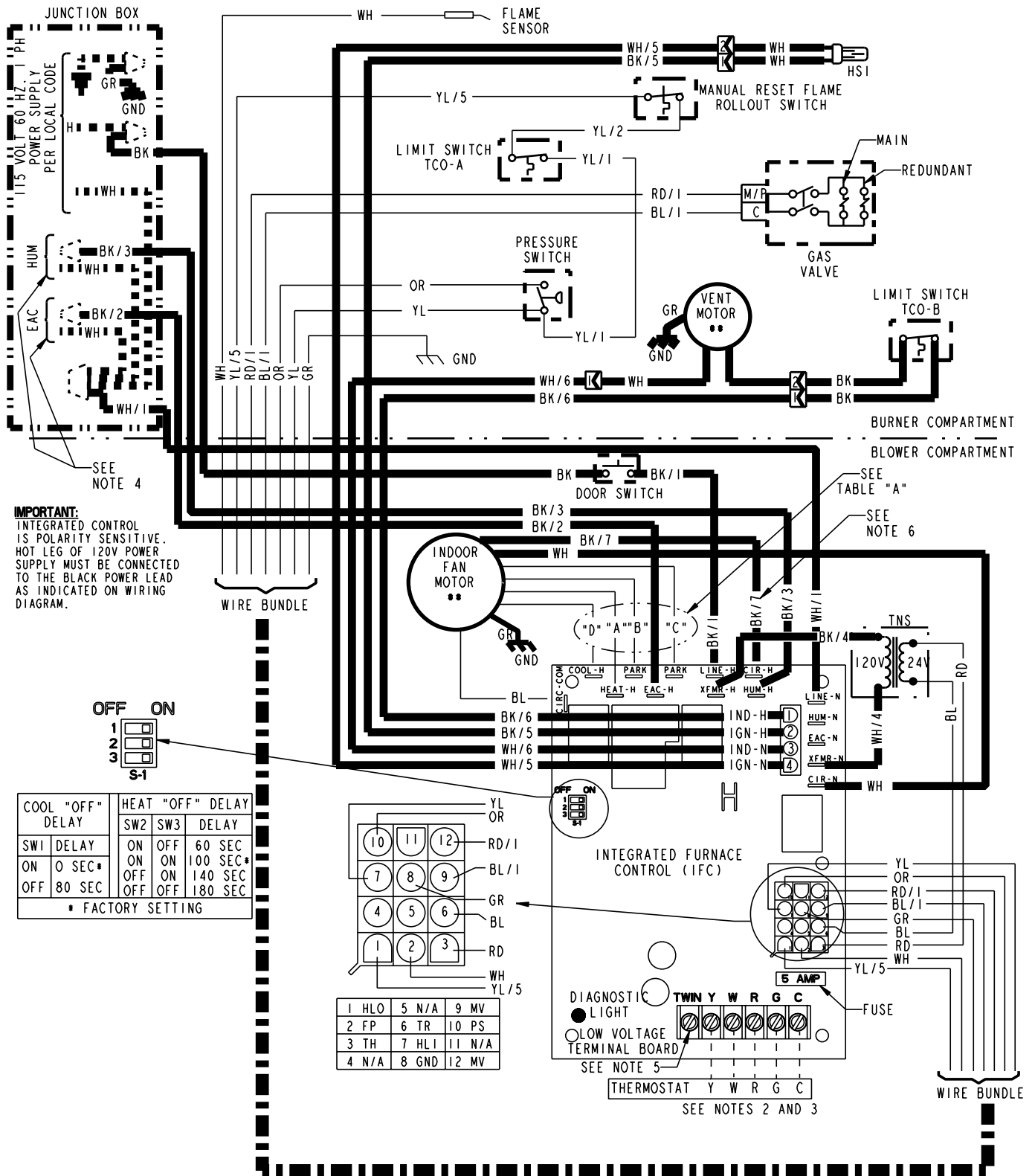
MODEL (SEE NOTE 1)	DIM "A"	DIM "B"	DIM "C"	DIM "D"
*DX1B040A9241**				
*DX1B060A9361**				
*DX1B080A9421**				
*DX060R936***	17-1/2"	2-1/4"	16-1/4"	16"
*DX080R942***				
*DX060R933***				
*DX080R933***				
*DX1B040A9H21**				
*DX1B060A9H31**				
*DX1B080A9H31**				
*DX1C100A9481**				
*DX100R948***	21"	2-1/2"	19-3/4"	19-1/2"
*DX100R93V***				
*DX1D120A9H51**				
*DX1D120A9601**				
*DX120R960***	24-1/2"	2-15/16"	23-1/4"	23"
*DX120R93V***				
*DX1D120A9H51**				

- \*\* PREFIX MAY BE "A" OR "T"
- \*\*\* SUFFIX LETTER MAY BE "D" - 0 THRU 9
- \*\*\*\* SUFFIX LETTER MAY BE "W" - 0 THRU 9
- \*\*\*\*\* SUFFIX LETTER MAY BE "A" - Z

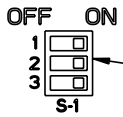
NOTES:  
1. DIAMETER OF VENT PIPE MAY BE LIMITED BY LOCAL CODES. REFER TO LOCAL CODES FOR VENT PIPE SIZES. REFER TO THE VENT LENGTH TABLE FOR PROPER APPLICATION.



# TUX1-H Wiring Diagram For Gas Furnaces

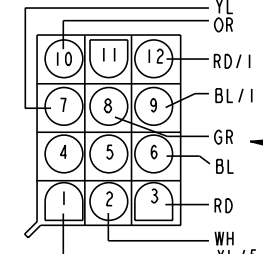


**IMPORTANT:**  
INTEGRATED CONTROL IS POLARITY SENSITIVE. HOT LEG OF 120V POWER SUPPLY MUST BE CONNECTED TO THE BLACK POWER LEAD AS INDICATED ON WIRING DIAGRAM.



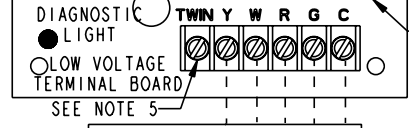
COOL "OFF" DELAY		HEAT "OFF" DELAY		DELAY
SW1	DELAY	SW2	SW3	
ON	0 SEC*	ON	ON	60 SEC
OFF	80 SEC	OFF	ON	100 SEC*
		OFF	OFF	140 SEC
				180 SEC

\* FACTORY SETTING



1 HLO	5 N/A	9 MV
2 FP	6 TR	10 PS
3 TH	7 HLI	11 N/A
4 N/A	8 GND	12 MV

INTEGRATED FURNACE CONTROL (IFC)



TERMOSTAT Y W R G C  
SEE NOTES 2 AND 3

# TUX1-H Schematic Diagram For Gas Furnaces

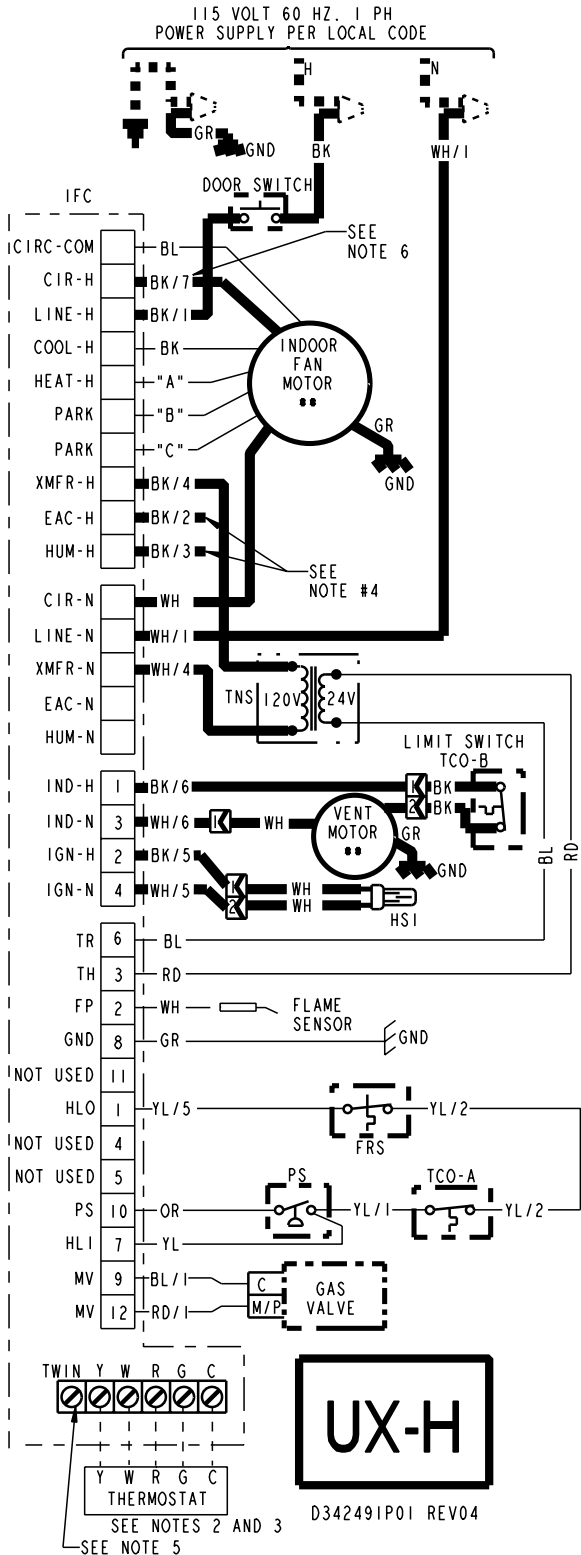


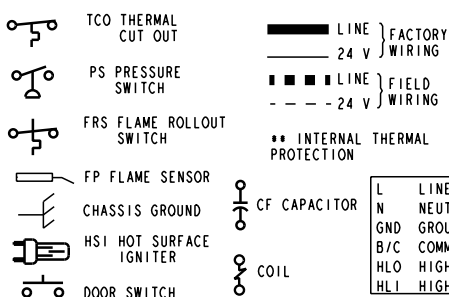
TABLE "A"				
SPEED TAPS FOR I.D. FAN MOTOR				
MODEL	HEAT "A"	PARK "B"	PARK "C"	COOL "D"
*UX1B040A9H21A**	RD/WH	BK/WH	YL/WH	BL/WH
*UX1B060A9H31A**	BL/WH	YL/WH	RD/WH	BK/WH
*UX1B080A9H31A**	BL/WH	YL/WH	RD/WH	BK/WH
*UX1C100A9H41A**	BL/WH	YL/WH	RD/WH	BK/WH
*UX1D120A9H51A**	BL/WH	YL/WH	RD/WH	BK/WH

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

RD/WH= LOW=1      BL/WH= MED. HIGH=3  
YL/WH= MED. LOW=2      BK/WH= HIGH=4

**DIAGNOSTIC CODES**

FLASHING SLOW: NORMAL - NO CALL FOR HEAT  
FLASHING FAST: NORMAL - CALL FOR HEAT  
CONTINUOUS ON: REPLACE IFC  
CONTINUOUS OFF: CHECK POWER  
2 FLASHES: EXTERNAL LOCKOUT (RETRIES OR RECYCLES EXCEEDED)  
3 FLASHES: PRESSURE SWITCH ERROR  
4 FLASHES: OPEN LIMIT DEVICE  
5 FLASHES: FLAME SENSE WHEN NO FLAME SHOULD BE PRESENT  
6 FLASHES: 115 VAC POWER REVERSED POLARITY OR POOR GROUNDING  
7 FLASHES: GAS VALVE CIRCUIT ERROR  
8 FLASHES: LOW FLAME SENSE SIGNAL  
9 FLASHES: CHECK IGNITER



**WARNING**

HAZARDOUS VOLTAGE:  
DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.  
FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.

**CAUTION**

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 CNT04711 OR EQUIVALENT

INPUT: 25 VAC, 60 HZ.  
XFMR SEC. CURRENT: 450 MA.  
MV OUTPUT: 1.5 A @ 24 VAC  
IND OUTPUT: 2.2 FLA, 3.5 LRA @ 120 VAC  
CIRC. BLOWER OUTPUT: 14.5 FLA, 14.5 LRA @ 120 VAC  
HUMIDIFIER & AIR CLEANER  
MAX. LOAD: 1.0 A @ 120 VAC  
IGNITER OUTPUT: 2.0 A @ 120 VAC

BK	BLACK	GR	GREEN
WH	WHITE	BR	BROWN
YL	YELLOW	RD	RED
OR	ORANGE	BL	BLUE

WIRE COLOR

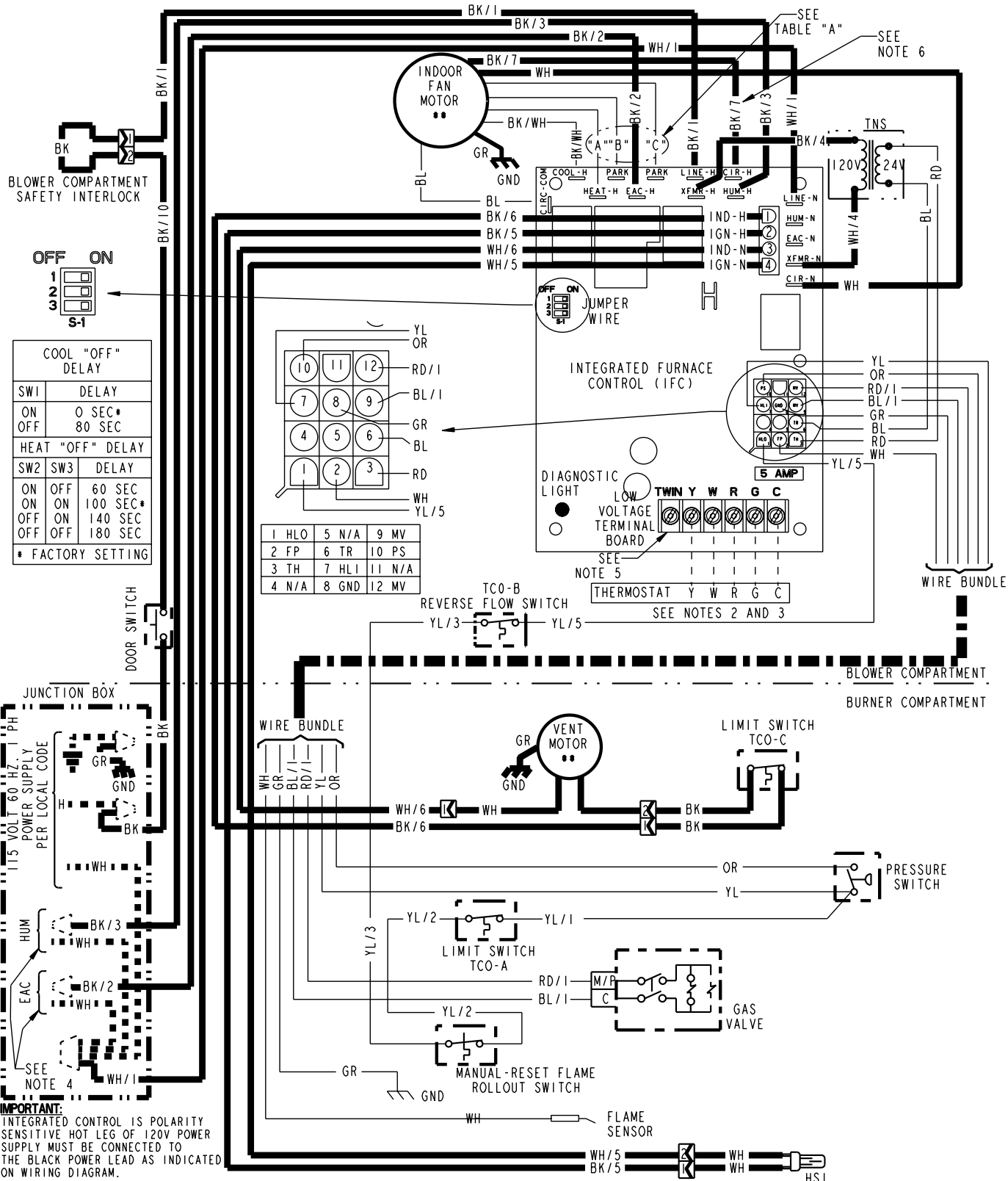
BK/1 } NUMBER ID (IF ANY)

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		
HLI	HIGH LIMIT INPUT		

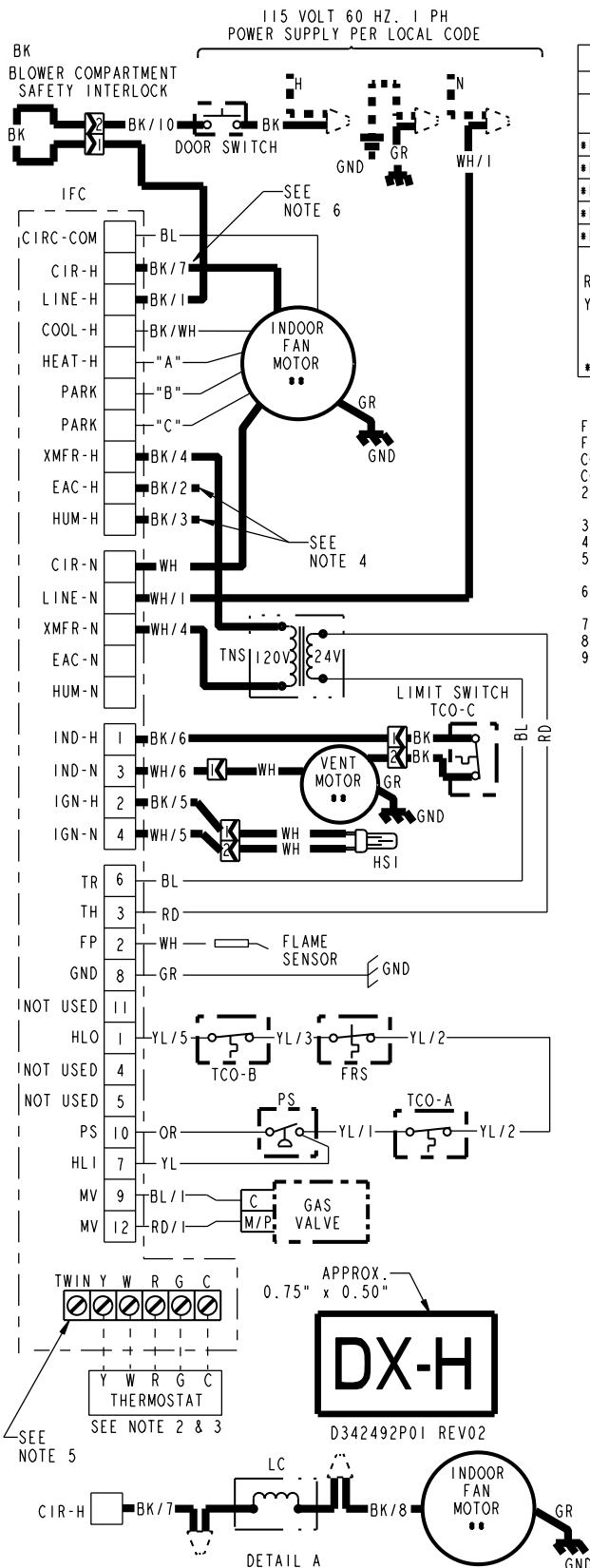
- NOTES:**
- IF ANY OF THE ORIGINAL WIRING AS SUPPLIED WITH THIS FURNACE MUST BE REPLACED, IT MUST BE WITH WIRE HAVING A TEMPERATURE RATING OF AT LEAST 105 C.
  - THERMOSTAT HEAT ANTICIPATOR SETTING: .38 AMPS
  - FOR PROPER OPERATION OF COOLING SPEED, "Y" TERMINAL MUST BE CONNECTED TO THE ROOM THERMOSTAT.
  - THESE LEADS PROVIDE 120V POWER CONNECTIONS FOR ELECTRONIC AIR CLEANER (EAC) AND HUMIDIFIER (HUM). MAX. LOAD: 1.0 AMPS EACH.
  - 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.
  - FOR MOELS USING 3/4 HP & 1 HP INDOOR FAN MOTOR, USE DETAIL A & TABLE A.



# TDX1-H Wiring Diagram For Gas Furnaces



# TDX1-H Schematic Diagram For Gas Furnaces



**TABLE "A"**

SPEED TAPS FOR I. D. FAN MOTOR

MODEL	HEAT "A"	PARK "B"	PARK "C"	BLOWER HP
*DX1B040A9H21A**	YL/WH	BL/WH	RD/WH	1/2
*DX1B060A9H31A**	BL/WH	YL/WH	RD/WH	1/2
*DX1B080A9H31A**	BL/WH	YL/WH	RD/WH	3/4
*DX1C100A9H41A**	BL/WH	YL/WH	RD/WH	3/4
*DX1D120A9H51A**	BL/WH	YL/WH	RD/WH	1

RD/WH = LOW=1      BL/WH = MED.HIGH=3  
YL/WH = MED. LOW=2      BK /WH= HIGH=4

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

**WARNING**

HAZARDOUS VOLTAGE:  
DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.  
FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.

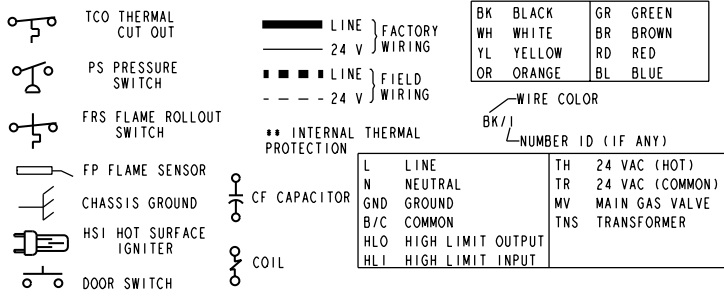
**CAUTION**

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.

**DIAGNOSTIC CODES**

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9 FLASHES: CHECK IGNITER

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REPLACE WITH PART CNT04711 OR EQUIVALENT  
INPUT: 25 VAC, 60 HZ.  
XFMR SEC. CURRENT: 450 MA.  
MV OUTPUT: 1.5 A @ 24 VAC  
IND OUTPUT: 2.2 FLA, 3.5 LRA @ 120 VAC  
CIRC. BLOWER OUTPUT: 14.5 FLA, 14.5 LRA @ 120 VAC  
HUMIDIFIER & AIR CLEANER  
MAX. LOAD: 1.0 A @ 120 VAC  
IGNITER OUTPUT: 6.0 A @ 120 VAC



- 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: .38 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.
  - 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.
  - FOR MOELS USING 3/4 HP & 1 HP INDOOR FAN MOTOR, USE DETAIL A & TABLE A.



## Notes

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**TRANE**<sup>®</sup>

**The Trane Company**  
A business of American Standard, Inc.  
6200 Troup Highway  
Tyler, TX 75707



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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.