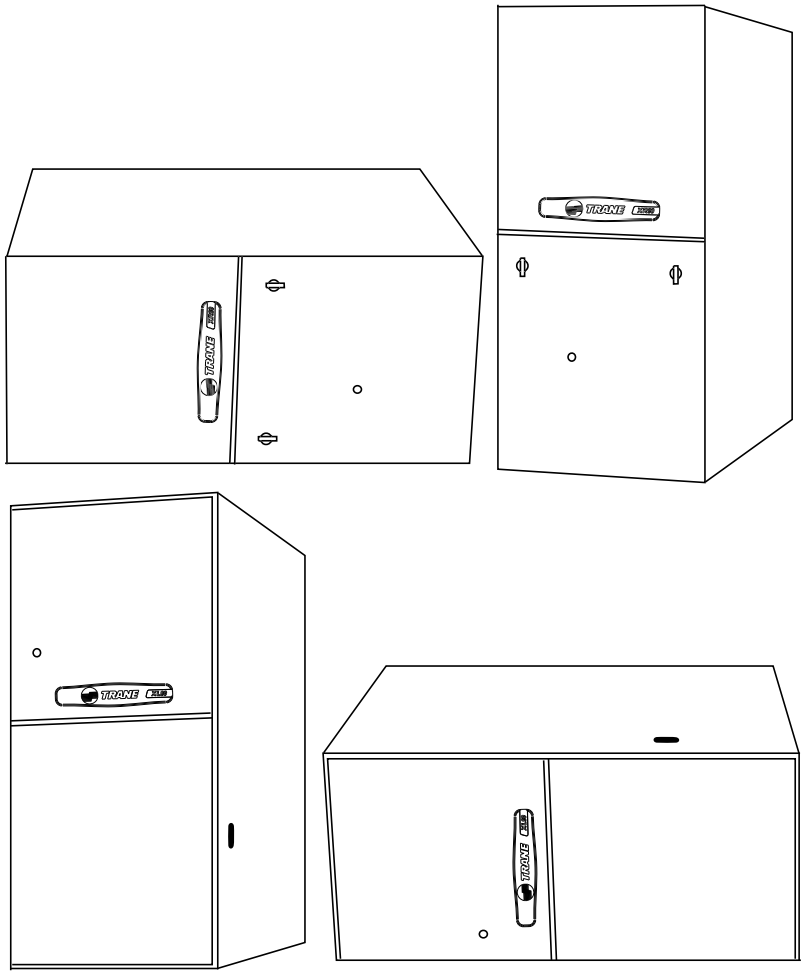
Upflow/ Horizontal Left, Downflow/ Horizontal Right Two Stage Condensing Gas-Fired Furnace

XL 90

TUX2B060A9362A, TUX2B080A9422A,
TUX2C100A9482A, TUX2D120A9602A,
TDX2B060A9362A, TDX2B080A9422A,
TDX2C100A9482A, TDX2D120A9602A
Direct Vent with
Variable Speed Inducer



PUB. NO. 22-1705-08

General Features

NATURAL GAS MODELS
Central Heating furnace designs are certified by the American 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 XL90 High Efficiency Gas Furnaces employ an Adaptive Heat Up 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.

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

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Contents

Features and Benefits

XL 90 STANDARD EQUIPMENT

- Direct Drive - 4 speed PSC Motor
- Silicon Nitride Igniter with adaptive heat up
- Variable speed induced draft blower
- Direct/Non-Direct vent 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
- PVC venting-1 or 2 pipe option
- Accessory hook-up capability
- Integrated solid state control with self-diagnostics
- Attractive color accents
- Heavy gauge aluminized steel heat exchanger
- Multi-port In-shot burners
- Single wire twinning
- HInged blower door *
- Perfect fit door latches*
- Insulated blower door*
- Gasketed blower door*
- Internal filter rack*
- Standard filter sizes
- Two tone color
- Multi-port In-shot burners
- 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

* (Upflow only)

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Features and Benefits

XL 90 OPTIONAL EQUIPMENT

Thermostat, 2-Stage Heat / 1-Stage Cooling ..... TAYSTAT241 [ ]
Thermostat, Electronic Programmable 2-Stage Heating ..... TAYSTAT302C [ ]
Thermostat, Mechanical Heating Only With Fan Switch ..... TAYSTAT303C [ ]
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” High Efficiency (14-1/2" Wide Gas Furnace) ..... TFM145A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” High Efficiency (17-1/2" Wide Gas Furnace) ..... TFM175A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” High Efficiency (21" Wide Gas Furnace) ..... TFM210A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” High Efficiency (24-1/2" Wide Gas Furnace) ..... TFM245A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” Standard Efficiency (14-1/2" Wide Gas Furnace) ..... TFP145A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” Standard Efficiency (17-1/2" Wide Gas Furnace) ..... TFP175A9FR0 [ ]
Electronic Air Filter, “Perfect Fit” Standard Efficiency (21" Wide Gas Furnace) ..... TFP210A9FR0 [ ]
Electronic 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 TUX060,080-R ..... BAYFLTR203 [ ]
Filter Kit/Horizontal Conversion TUX100-R ..... BAYFLTR204 [ ]
Filter Kit/Horizontal Conversion TUX120-R ..... BAYFLTR205 [ ]
Filter Accessory Kit ..... BAYFLTR317 [ ]
Filter Accessory Kit ..... BAYFLTR321 [ ]
Filter Accessory Kit ..... BAYFLTR324 [ ]
High Altitude Pressure Switch Kit (TUX2B060, TDX2B060) ..... BAYHALT245① [ ]
High Altitude Pressure Switch Kit (TUX2B080, TUX2C100, TDX2B080, TDX2C100) ..... BAYHALT246① [ ]
High Altitude Pressure Switch Kit (TUX2D120, TDX2D120) ..... BAYHALT247① [ ]
Concentric Vent Kit TUX Furnaces ..... BAYVENT100A [ ]
Sidewall Vent Termination Kit All 2 Pipe Direct Vent Furnaces ..... BAYVENT200B [ ]
Manufactured/Mobile Home Kit All 2 Pipe Direct Vent Furnaces ..... BAYMFGH100A [ ]
Filter Rack Kit ..... BAYRACK960A [ ]
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 [ ]

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

General Data

TUX2 PRODUCT SPECIFICATIONS①

MODEL	TUX2B060A9362A	TUX2B080A9422A	TUX2C100A9482A	TUX2D120A9602A
RATINGS②				
1st Stage Input BTUH	39000	52000	65000	72000
1st Stage Capacity BTUH (ICS)③	36000	48000	60000	66600
2nd Stage Input BTUH	60000	80000	100000	120000
2nd Stage Capacity BTUH (ICS)③	56000	73000	93000	112000
AFUE (ICS)	93.0	92.5	93.0	92.5
Temp. Rise (Min.-Max.) °F.	30 - 60	35 - 65	35 - 65	40 - 70
BLOWER DRIVE	DIRECT	DIRECT	DIRECT	DIRECT
Dia.-Width (In.)	10 x 7	10 x 8	10 x 10	11 x 10
No. Used	1	1	1	1
Speeds (No.)	4	4	4	4
CFM vs. in. w.g.	SEE FAN PERF. TABLE	SEE FAN PERF. TABLE	SEE FAN PERF. TABLE	SEE FAN PERF. TABLE
Motor HP	1/3	1/3	1/2	3/4
R.P.M.	1075	1075	1075	1100
Volts/Ph/Hz	115/1/60	115/1/60	115/1/60	115/1/60
COMBUSTION FAN - TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
Drive - No. Speeds	DIRECT - VARIABLE	DIRECT - 1	DIRECT - VARIABLE	DIRECT - VARIABLE
Motor HP - RPM	1/15 - 5000	1/15 - 5000	1/15 - 5000	1/15 - 5000
Volts/Ph/Hz	33 - 110/3/60 - 180	33 - 110/3/60 - 180	33 - 110/3/60 - 180	33 - 110/3/60 - 180
FL Amps	1.0	1.0	1.0	1.0
FILTER — Furnished?	NO	NO	NO	NO
Type Recommended	HIGH VELOCITY	HIGH VELOCITY	HIGH VELOCITY	HIGH VELOCITY
Filter (No.-Size-Thk.)	1 - 17 X 25 - 1 IN	1 - 17 X 25 - 1 IN	1 - 20 X 25 - 1 IN	1 - 24 X 25 - 1 IN
VENT — Size (In.)	2 ROUND	2 ROUND	2 ROUND	3 ROUND
HEAT EXCHANGER				
Type -Fired	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1
-Unfired				
Gauge (Fired)	20	20	20	20
ORIFICES — Main				
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
GAS VALVE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE
DIRECT IGNITION DEVICE				
Type	HOT SURFACE	HOT SURFACE	HOT SURFACE	HOT SURFACE
BURNERS — Type	IN-SHOT	IN-SHOT	IN-SHOT	IN-SHOT
Number	3	4	5	6
POWER CONN. — V/Ph/Hz④	115/1/60	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	8.7	9.5	13.1	13.5
Max. Overcurrent Protection (Amps)	15	15	20	20
PIPE CONN. SIZE (IN.)	1/2	1/2	1/2	1/2
DUCT CONN.	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
DIMENSIONS	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
Uncrated	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
WEIGHT				
Shipping (Lbs.)/Net (Lbs.)	158 / 146	168 / 156	197 / 185	206 / 193

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 applicaitons, 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.

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General Data

TDX2 PRODUCT SPECIFICATIONS①

MODEL	TDX2B060A9362A	TDX2B080A9422A	TDX2C100A9482A	TDX2D120A9602A
RATINGS②				
1st Stage Input BTUH	39000	52000	65000	78000
1st Stage Capacity BTUH (ICS)③	36000	48000	60000	72000
2nd Stage Input BTUH	60000	80000	100000	120000
2nd Stage Capacity BTUH (ICS)③	55000	74000	93000	111000
AFUE (ICS)	92.0	92.5	93.0	92.5
Temp. Rise (Min.-Max.) °F.	35 - 65	40 - 70	45 - 75	45 - 75
BLOWER DRIVE	DIRECT	DIRECT	DIRECT	DIRECT
Dia.-Width (In.)	10 x 8	11 x 8	11 x 10	11 x 10
No. Used	1	1	1	1
Speeds (No.)	4	4	4	4
CFM vs. in. w.g.	SEE FAN PERF. TABLE	SEE FAN PERF. TABLE	SEE FAN PERF. TABLE	SEE FAN PERF. 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
COMBUSTION FAN - TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
Drive - No. Speeds	DIRECT - VARIABLE	DIRECT - VARIABLE	DIRECT - VARIABLE	DIRECT - VARIABLE
Motor HP - RPM	1/15 - 5000	1/15 - 5000	1/15 - 5000	1/15 - 5000
Volts/Ph/Hz	33 - 110/3/60 - 180	33 - 110/3/60 - 180	33 - 110/3/60 - 180	33 - 110/3/60 - 180
FL Amps	1.0	1.0	1.0	1.0
FILTER — Furnished?	NO	NO	NO	NO
Type Recommended	HIGH VELOCITY	HIGH VELOCITY	HIGH VELOCITY	HIGH VELOCITY
Filter (No.-Size-Thk.)	2 - 14 X 20 X 1	2 - 14 X 20 X 1	2 - 16 X 20 X 1	2 - 16 X 20 X 1
VENT — Size (In.)	2 ROUND	2 ROUND	2 ROUND	3 ROUND
HEAT EXCHANGER				
Type -Fired -Unfired	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1	ALUMINIZED STEEL TYPE 1
Gauge (Fired)	20	20	20	20
ORIFICES — Main				
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
GAS VALVE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE	REDUNDANT - TWO STAGE
DIRECT IGNITION DEVICE				
Type	HOT SURFACE IGNITER	HOT SURFACE IGNITER	HOT SURFACE IGNITER	HOT SURFACE IGNITER
BURNERS — Type	IN-SHOT	IN-SHOT	IN-SHOT	IN-SHOT
Number	3	4	5	6
POWER CONN. — V/Ph/Hz④	115/1/60	115/1/60	115/1/60	115/1/60
Ampacity (In Amps)	9.5	11.3	13.1	13.5
Max. Overcurrent Protection (Amps)	15	15	20	20
PIPE CONN. SIZE (IN.)	0.50	0.50	0.50	0.50
DUCT CONN.	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
DIMENSIONS	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
Uncrated	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING	SEE OUTLINE DRAWING
WEIGHT				
Shipping (Lbs.)/Net (Lbs.)	160 / 145	168 / 158	185 / 175	206 / 196

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 applicaitons, 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.

Upflow
Performance Data

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**
*UX2B060A9362A	4 - HIGH - Black	1394	1359	1314	1260	1196	1122	1038	945	853
	3 - MED.-HIGH - Blue	1250	1232	1202	1160	1106	1040	962	873	771
	2 - MED.-LOW - Yellow	1102	1092	1069	1034	986	925	852	766	668
	1 - LOW - Red	957	944	922	891	853	806	750	686	614
*UX2B080A9422A	4 - HIGH - Black	1748	1683	1615	1544	1470	1393	1314	1232	1147
	3 - MED.-HIGH - Blue	1375	1367	1347	1314	1268	1210	1139	1056	960
	2 - MED.-LOW - Yellow	1178	1167	1147	1119	1082	1036	982	919	847
	1 - LOW - Red	859	863	856	839	811	772	723	663	592
*UX2C100A9482A	4 - HIGH - Black	2054	1980	1906	1826	1746	1649	1551	1428	1305
	3 - MED.-HIGH - Blue	1932	1875	1818	1746	1673	1577	1481	1371	1260
	2 - MED.-LOW - Yellow	1762	1720	1677	1615	1552	1463	1373	1266	1158
	1 - LOW - Red	1558	1546	1533	1477	1421	1350	1278	1175	1071
*UX2D120A9602A	4 - HIGH - Black	2454	2406	2358	2310	2261	2184	2106	2017	1928
	3 - MED.-HIGH - Blue	2105	2092	2078	2045	2012	1950	1887	1826	1765
	2 - MED.-LOW - Yellow	1747	1742	1736	1720	1703	1677	1651	1593	1535
	1 - LOW - Red	1445	1447	1449	1440	1430	1400	1369	1325	1280
* - First letter may be "A" or "T"										

NOTE: See page 11 for factory heat & cool speed tap settings

CFM VS. TEMPERATURE RISE														
MODEL	**Cubic Feet Per Minute (CFM)**													
	900	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**
*UX2B060A9362A	56	50	45	42	39	36								
*UX2B080A9422A			61	56	51	48	44	42						
*UX2C100A9482A					64	60	56	52	49	46	44	42		
*UX2D120A9602A								63	59	56	53	50	48	46
* - First letter may be "A" or "T"														

Downflow
Performance Data

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**
*DX2B060A9362A	4 - HIGH - Black	1487	1425	1362	1286	1209	1125	1040	935	830
	3 - MED.-HIGH - Blue	1342	1291	1240	1182	1124	1047	989	869	769
	2 - MED.-LOW - Yellow	1181	1147	1113	1061	1009	943	877	779	681
	1 - LOW - Red	877	863	849	820	791	739	686	612	537
*DX2B080A9422A	4 - HIGH - Black	1547	1498	1445	1386	1323	1254	1180	1101	1016
	3 - MED.-HIGH - Blue	1487	1436	1382	1325	1265	1202	1137	1069	998
	2 - MED.-LOW - Yellow	1388	1348	1302	1249	1191	1126	1056	979	896
	1 - LOW - Red	1263	1234	1196	1150	1095	1032	960	879	790
*DX2C100A9482A	4 - HIGH - Black	1892	1827	1762	1688	1614	1531	1448	1354	1260
	3 - MED.-HIGH - Blue	1779	1726	1672	1605	1538	1460	1381	1291	1200
	2 - MED.-LOW - Yellow	1630	1587	1544	1485	1426	1362	1297	1208	1119
	1 - LOW - Red	1444	1416	1388	1348	1308	1246	1184	1108	1032
*DX2D120A9602A	4 - HIGH - Black	2213	2138	2062	2001	1939	1863	1786	1706	1625
	3 - MED.-HIGH - Blue	2057	2000	1943	1883	1822	1752	1681	1595	1508
	2 - MED.-LOW - Yellow	1765	1733	1700	1652	1603	1552	1500	1424	1347
	1 - LOW - Red	1468	1452	1435	1409	1382	1336	1290	1225	1159
*- First letter may be "A" or "T"										

CFM VS. TEMPERATURE RISE																	
MODEL	**Cubic Feet Per Minute (CFM)**																
	800	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**	**2400**
*DX2B060A9362A	63	56	51	46	42	39	36	34									
*DX2B080A9422A			68	61	56	52	48	45	42	40							
*DX2C100A9482A						65	60	56	53	50	47	44	42	40	38	37	35
*DX2D120A9602A								67	63	59	56	53	51	48	46	44	42
*- First letter may be "A" or "T"																	

Maximum Vent Length Table

VENT LENGTH TABLE			
ALTITUDE	**MAXIMUM TOTAL EQUIVALENT LENGTH IN FEET FOR VENT AND INLET AIR (SEE NOTES)**		
0-7,000 Feet	**2 INCH PIPE**	**2.5 INCH PIPE**	**3 INCH* PIPE**
*UX/ *DX2B060A9362A	200	200	200
*UX/ *DX2B080A9422A	50	120	200
*UX/ *DX2C100A9482A	Not Allowed	60	200
*UX/ *DX2D120A9602A	Not Allowed	Not Allowed	200
7,000-9,500 Feet	**2 INCH PIPE**	**2.5 INCH PIPE**	**3 INCH PIPE**
*UX/ *DX2B060A9362A	100	100	100
*UX/ *DX2B080A9422A	25	60	100
*UX/ *DX2C100A9482A	Not Allowed	30	100
*UX/ *DX2D120A9602A	Not Allowed	Not Allowed	100
9,500-12,000 Feet	**2 INCH PIPE**	**2.5 INCH PIPE**	**3 INCH PIPE**
*UX/ *DX2B060A9362A	50	50	50
*UX/ *DX2B080A9422A	Not Allowed	30	50
*UX/ *DX2C100A9482A	Not Allowed	Not Allowed	50
*UX/ *DX2D120A9602A	Not Allowed	Not Allowed	50

NOTES: * - First letter may be "A" or "T"

1. Minimum vent length for all models: 3' horizontal and vertical.
2. DO NOT MIX PIPE DIAMETERS IN THE SAME LENGTH OF PIPE OUTSIDE THE FURNACE CABINET (Except adapters at the top of the furnace). If different inlet and vent pipe sizes are used, the vent pipe must adhere to the maximum length limit shown in the table above (See note 6 below for exception). The inlet pipe can be of a larger diameter, but never smaller than the vent pipe.
3. MAXIMUM PIPE LENGTHS MUST NOT BE EXCEEDED! THE LENGTH SHOWN IS NOT A COMBINED TOTAL, IT IS THE MAXIMUM LENGTH OF EACH (Vent or Inlet air pipes).
4. One SHORT radius 90° elbow is equivalent to 10' of 3" pipe and one LONG radius elbow is equivalent to 6' of 3" pipe. One 90° elbow is equivalent to 7½' of 2½" pipe or 5' of 2" pipe. Two 45° elbows equal one 90°elbow.
5. The termination tee or bend must be included in the total number of elbows. If the BAYAIR30AVENTA termination kit is used, the equivalent length of pipe is 5 feet. BAYVENT200B equivalent length is 0 feet.
6. Pipe adapters are field supplied (except 120).

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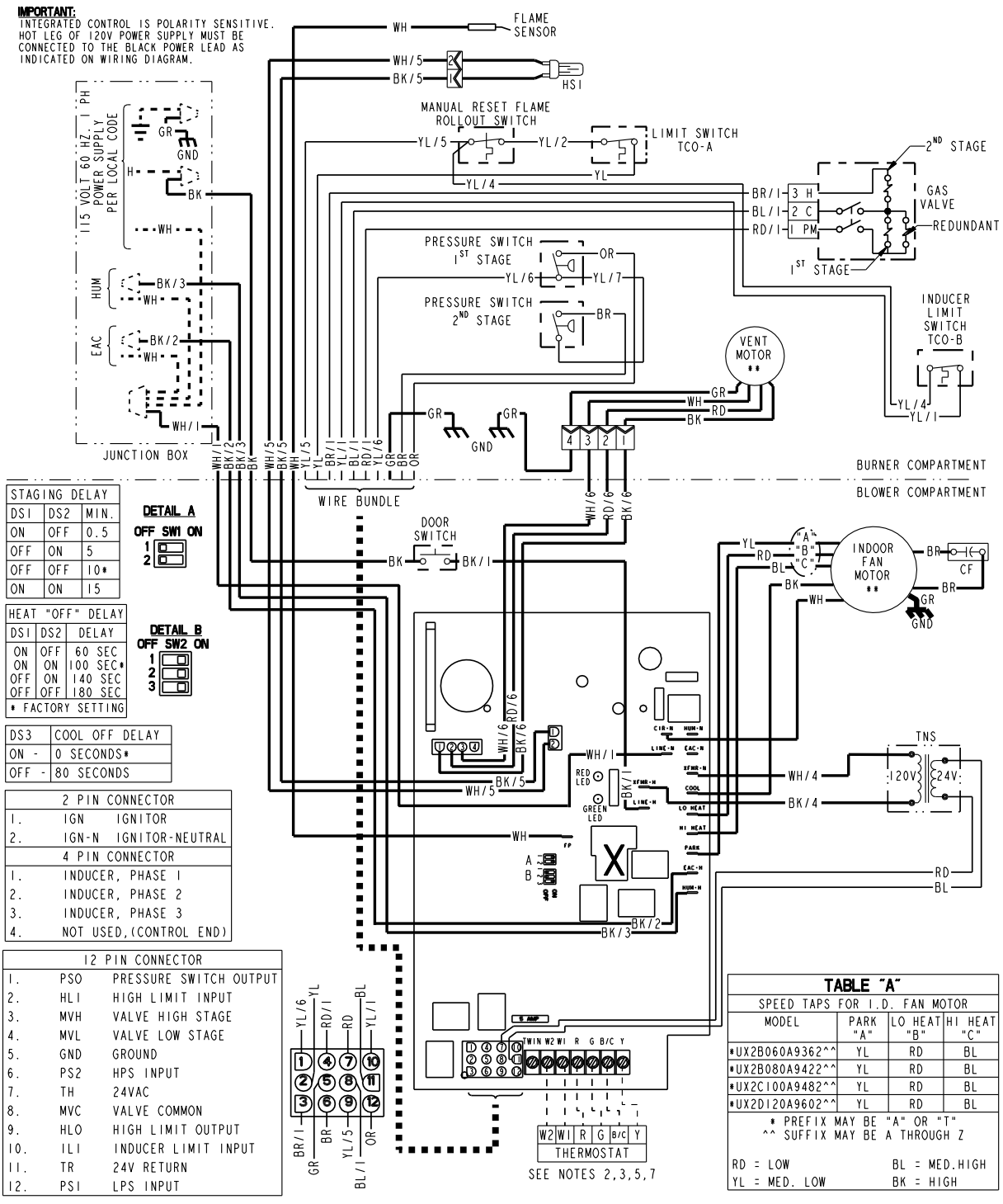
Electrical Data

*UX2 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

* FACTORY SETTING

DS3	COOL OFF DELAY
ON -	0 SECONDS*
OFF -	80 SECONDS

2 PIN CONNECTOR		
1.	IGN	IGNITOR
2.	IGN-N	IGNITOR-NEUTRAL
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.	PSI	LPS INPUT

TABLE "A"

SPEED TAPS FOR I.D. FAN MOTOR

MODEL	PARK "A"	LO HEAT "B"	HI HEAT "C"
*UX2B060A9362^^	YL	RD	BL
*UX2B080A9422^^	YL	RD	BL
*UX2C100A9482^^	YL	RD	BL
*UX2D120A9602^^	YL	RD	BL

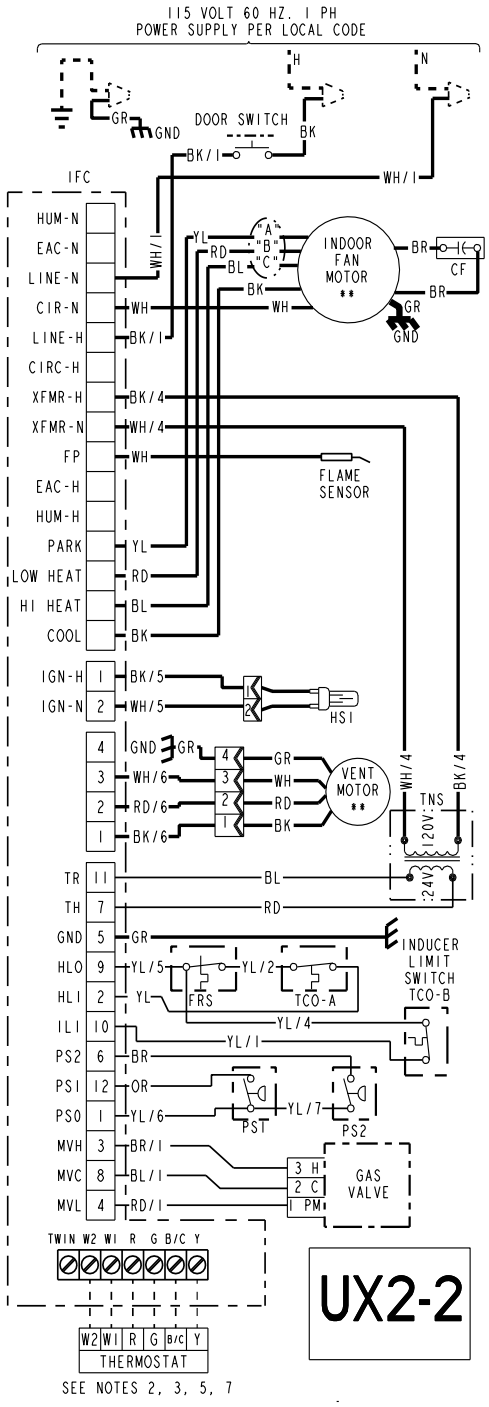
* PREFIX MAY BE "A" OR "T"
^^ SUFFIX MAY BE A THROUGH Z

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

From Dwg. D342781P01

Electrical Data

*UX2 SCHEMATIC DIAGRAM



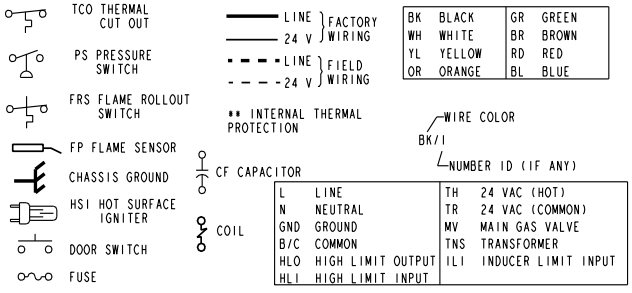
DIAGNOSTIC CODES (SEE NOTE 8)	
RED LED - LitePort tm Data - 1 Flash every 20 seconds	
2 FLASHES - SYSTEM LOCKOUT RETRIES OR RECYCLES EXCEEDED	6 FLASHES - 115 VOLT AC POWER REVERSED OR IGNITER FAULT
3 FLASHES - PRESSURE SWITCH FAULT	7 FLASHES - GAS VALVE CIRCUIT ERROR
	8 FLASHES - LOW FLAME SENSE SIGNAL
4 FLASHES - OPEN LIMIT SWITCH	9 FLASHES - OPEN INDUCER LIMIT
5 FLASHES - FLAME SENSED WHEN NO FLAME SHOULD BE PRESENT	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 04677 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
HUMIDIFER & 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



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

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		

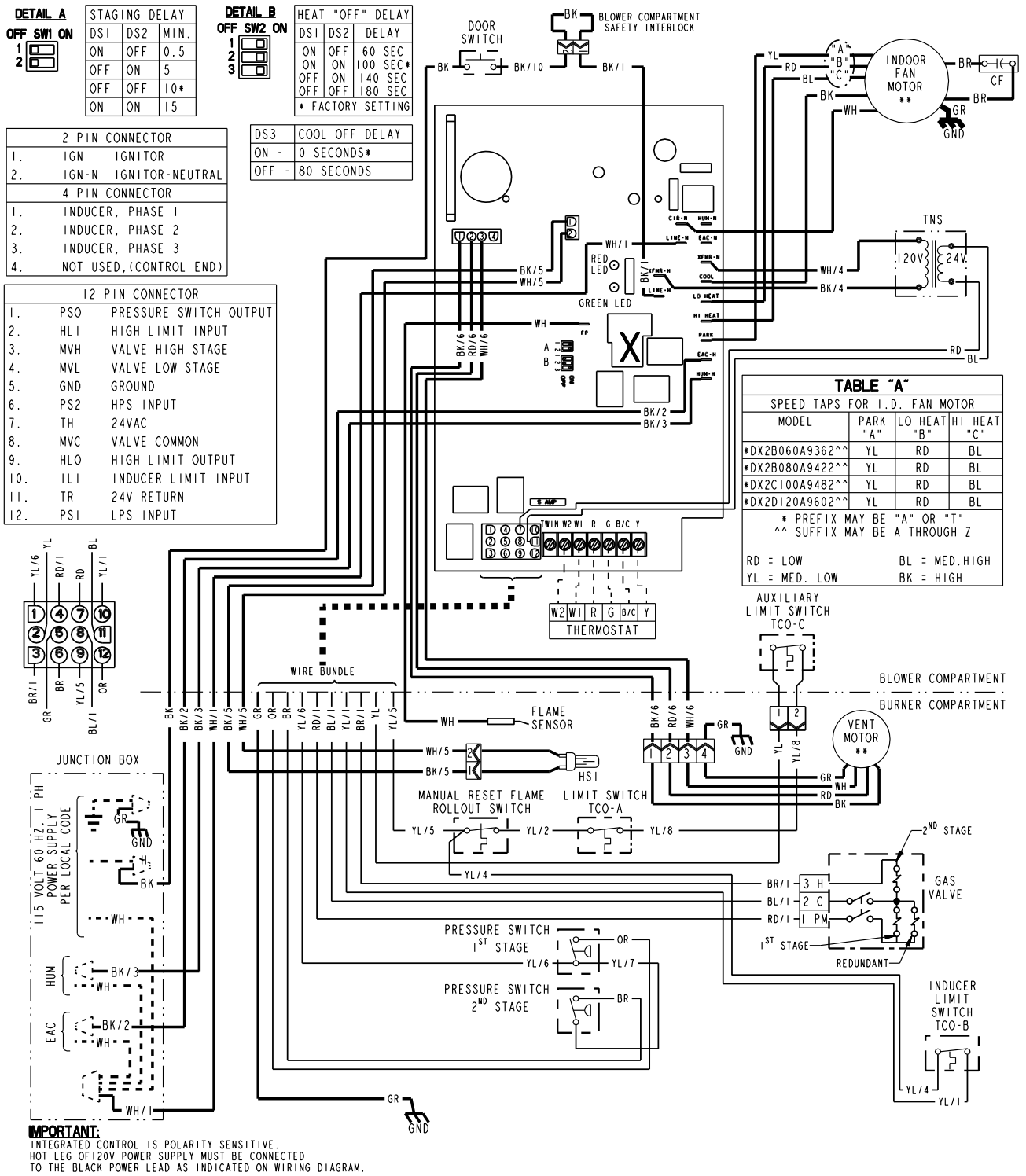
NOTES:

1. 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.
2. 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.
3. FOR PROPER OPERATION OF COOLING SPEED, "Y" TERMINAL MUST BE CONNECTED TO THE ROOM THERMOSTAT.
4. THESE LEADS PROVIDE 120V POWER CONNECTIONS FOR ELECTRONIC AIR CLEANER (EAC) AND HUMIDIFIER (HUM). MAX. LOAD: 1.0 AMPS EACH.
5. JUMPER W1 AND W2 FOR SINGLE STAGE HEATING THERMOSTAT, SECOND STAGE WILL BE ENERGIZED, DELAYED PER STAGING DELAY SETTING.
6. POWER MUST BE OFF WHEN DIP SWITCHES ARE SET.
7. 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.
8. ON POWER-UP, LAST FOUR FAULTS, IF ANY, WILL BE FLASHED ON RED LED. GREEN LED WILL BE SOLID ON DURING LAST FAULT RECOVERY.

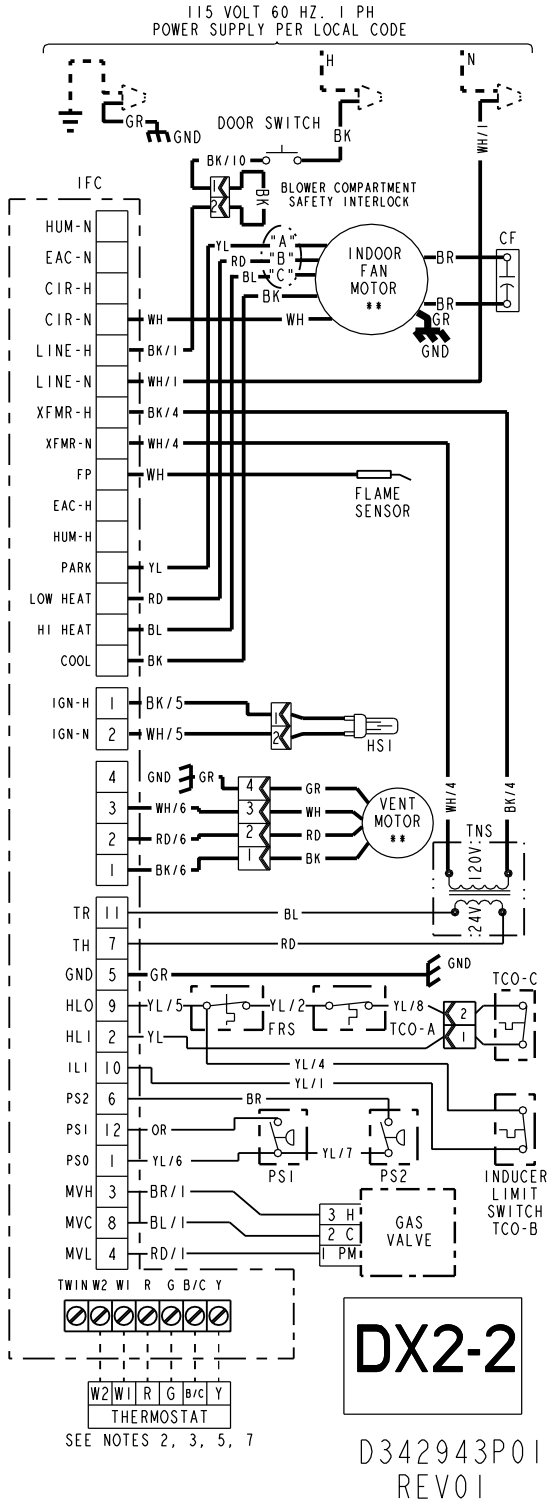
From Dwg. D342782P01

Pub. No. 22-1705-08

*DX2 WIRING DIAGRAM



*DX2 SCHEMATIC DIAGRAM



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WARNING ⚠	CAUTION ⚠
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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
PS PRESSURE SWITCH
FRS FLAME ROLLOUT SWITCH
FP FLAME SENSOR
CHASSIS GROUND
HSI HOT SURFACE IGNITER
DOOR SWITCH
FUSE

LINE / 24 V — FACTORY WIRING
LINE / - - 24 V - - — FIELD WIRING

** INTERNAL THERMAL PROTECTION

CF CAPACITOR
COIL

WIRE COLOR
BK/1
NUMBER ID (IF ANY)

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

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:

1. 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.
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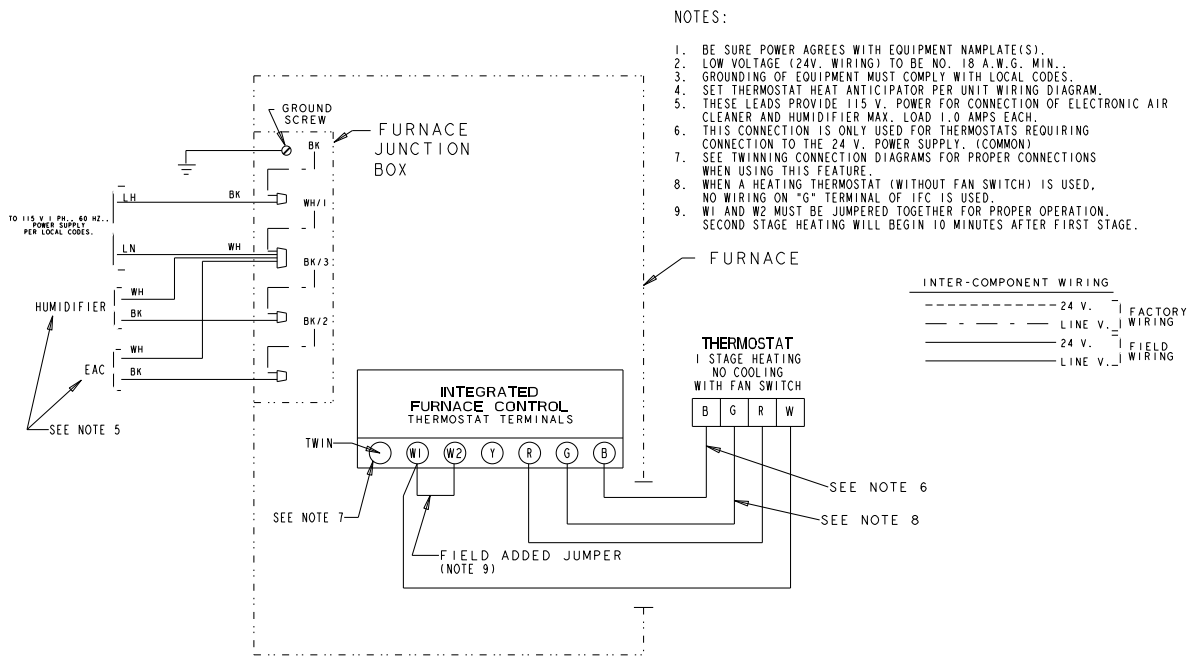
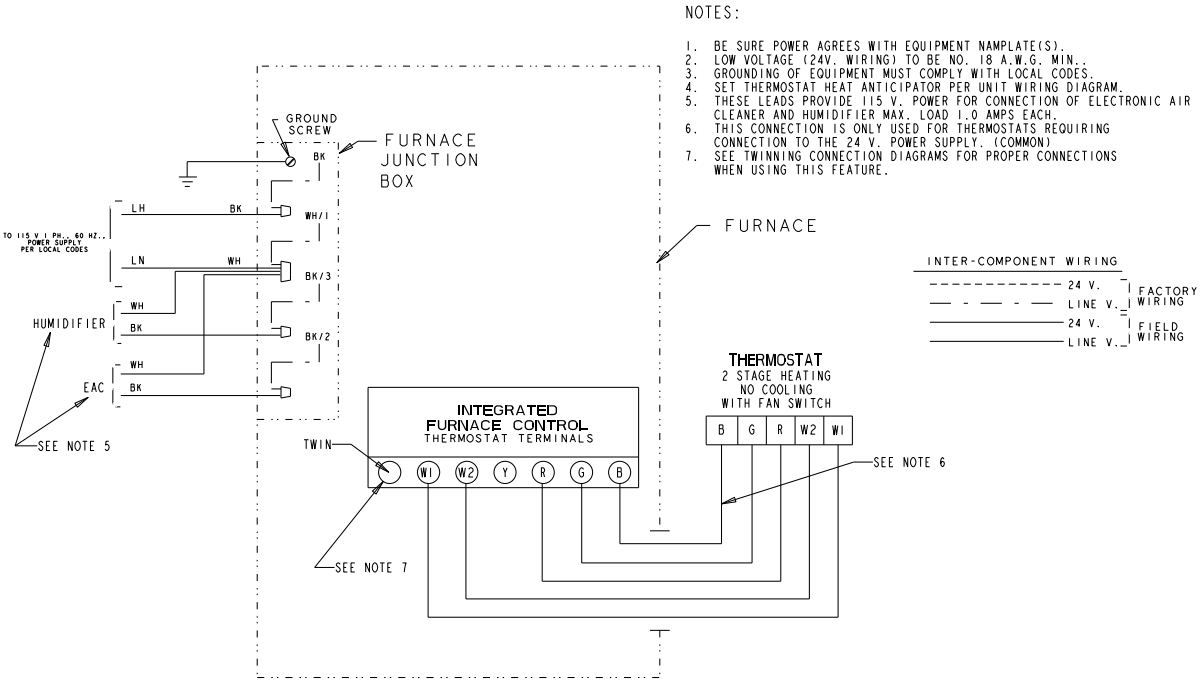
Pub. No. 22-1705-08

Field Wiring

FIELD WIRING DIAGRAM FOR SINGLE STAGE HEATING ONLY

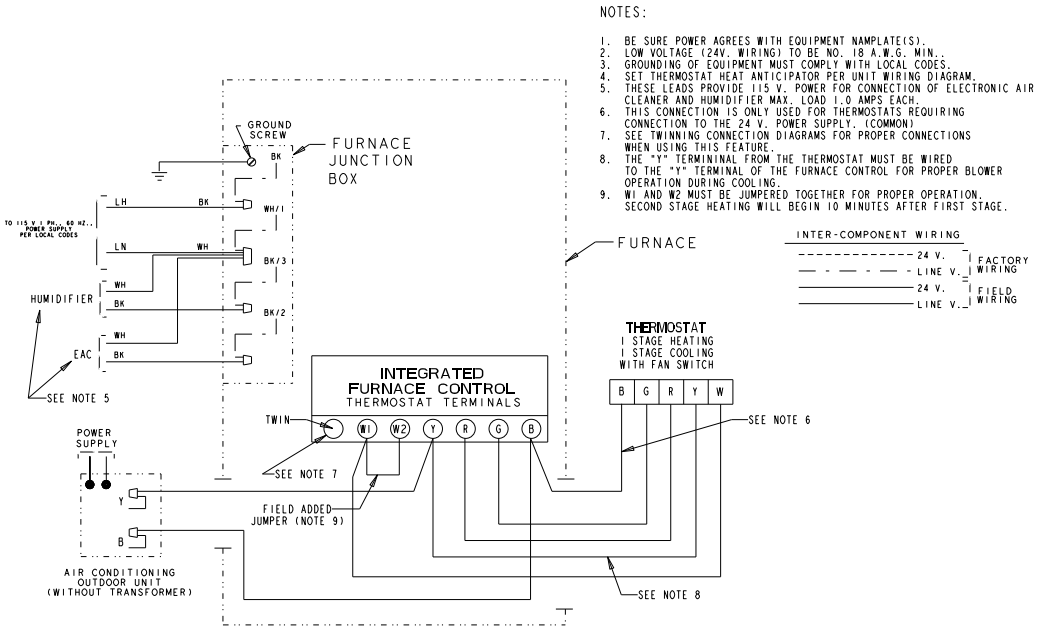


FIELD WIRING DIAGRAM FOR TWO STAGE HEATING ONLY

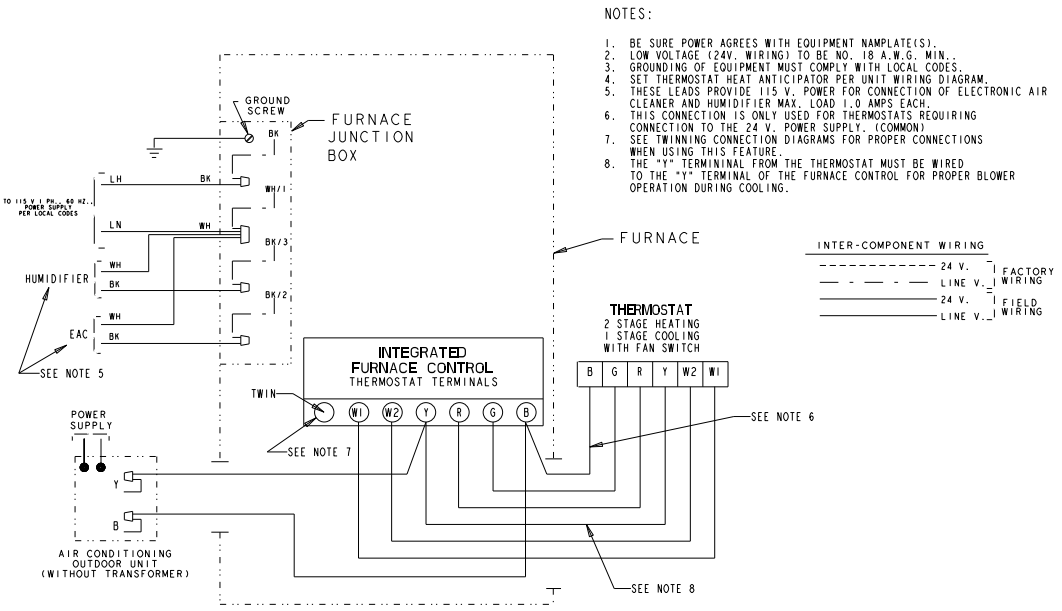


Field Wiring

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



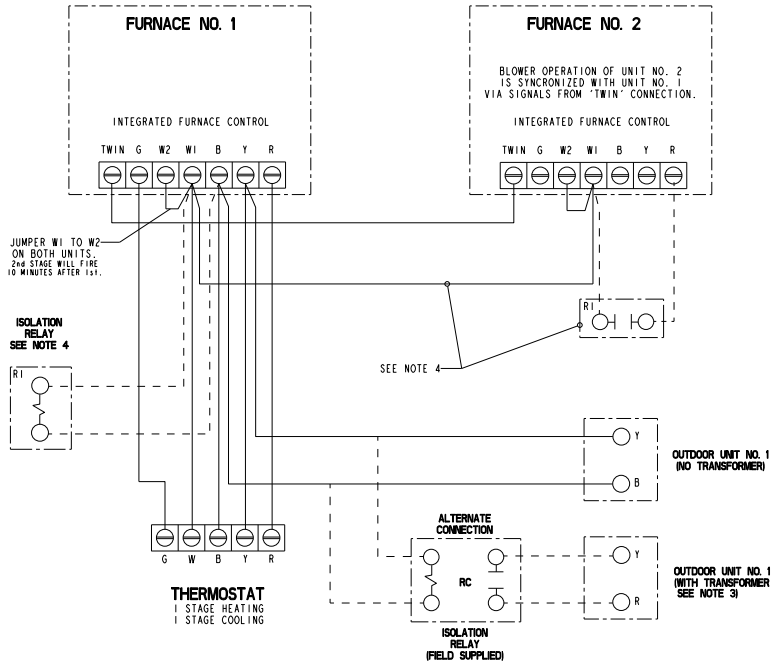
FIELD WIRING DIAGRAM FOR TWO STAGE HEATING/ SINGLE STAGE COOLING (OUTDOOR SECTION WITHOUT TRANSFORMER)



Pub. No. 22-1705-08

Twinning Field Wiring

TWINNING CONNECTION DIAGRAM
FOR TWINNING UX/DX-R FURNACES
1 STAGE HEAT / 1 STAGE COOLING THERMOSTAT

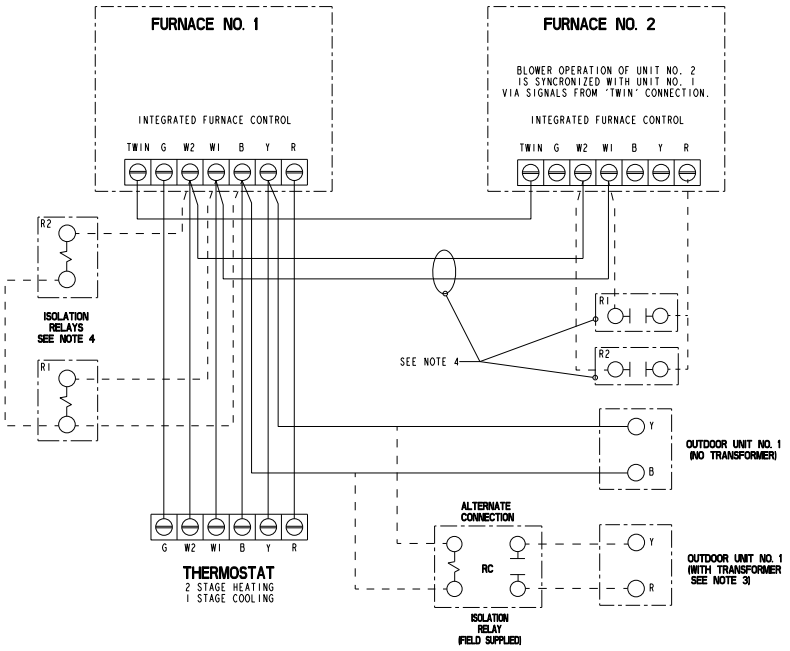


NOTES:

1. BOTH FURNACES MUST BE POWERED FROM THE SAME 115 V. LEG OF CIRCUIT PANEL.
2. INSURE 24 V. FURNACE TRANSFORMERS ARE IN PHASE. PRIOR TO COMPLETEING CONNECTIONS, CHECK VOLTAGE BETWEEN 'R' TERMINALS OF EACH FURNACE. IF VOLTAGE IS GREATER THAN 10 V., REVERSE THE BL AND RD SECONDARY LEADS ON ONE OF THE FURNACE TRANSFORMERS.
3. IF OUTDOOR UNIT HAS A 24 V. 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 W1 TO W1). ISOLATION RELAY NOT NEEDED IF THERMOSTAT CONTACTS ARE RATED AT 1.0 A OR ABOVE.

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

TWINNING CONNECTION DIAGRAM
FOR TWINNING UX/DX-R FURNACES
2 STAGE HEAT / 1 STAGE COOLING THERMOSTAT

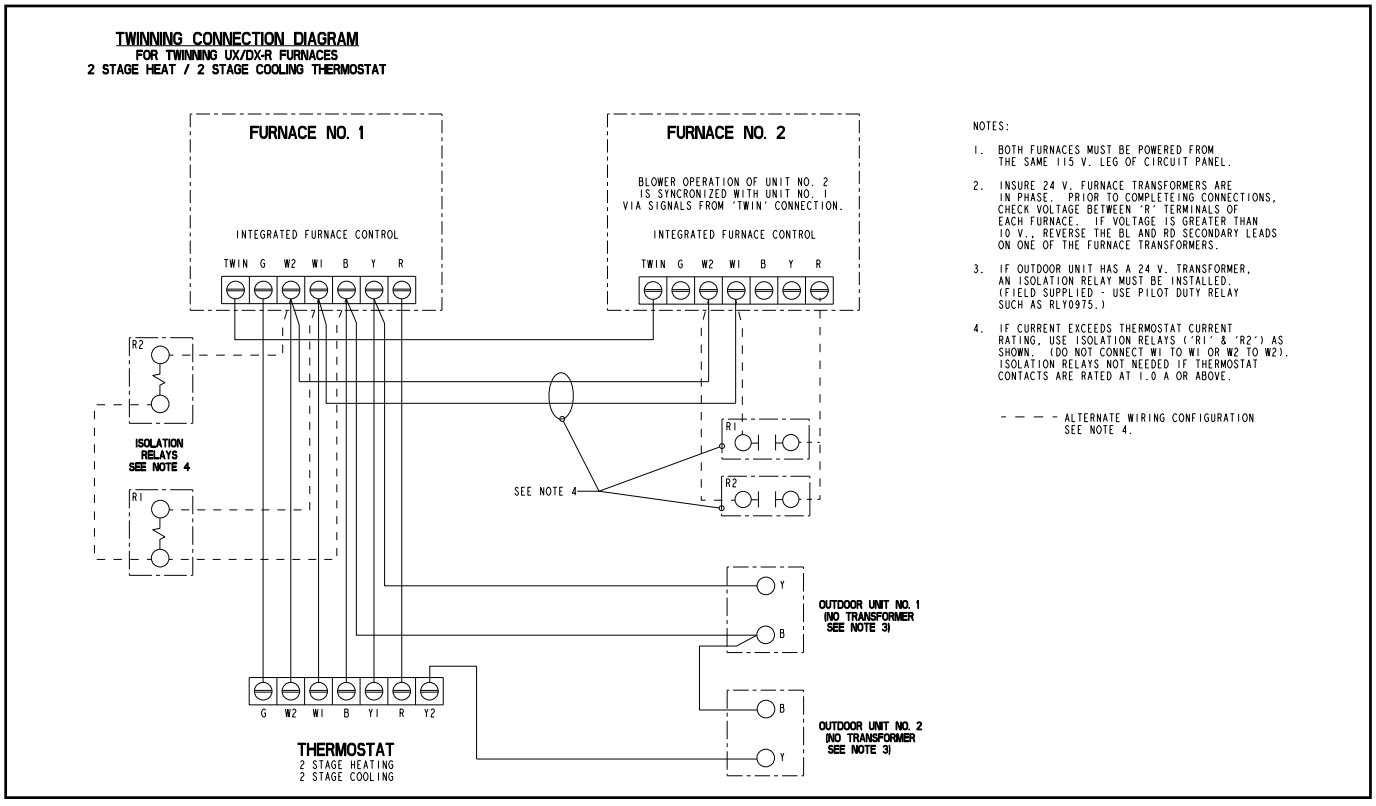


NOTES:

1. BOTH FURNACES MUST BE POWERED FROM THE SAME 115 V. LEG OF CIRCUIT PANEL.
2. INSURE 24 V. FURNACE TRANSFORMERS ARE IN PHASE. PRIOR TO COMPLETEING CONNECTIONS, CHECK VOLTAGE BETWEEN 'R' TERMINALS OF EACH FURNACE. IF VOLTAGE IS GREATER THAN 10 V., REVERSE THE BL AND RD SECONDARY LEADS ON ONE OF THE FURNACE TRANSFORMERS.
3. IF OUTDOOR UNIT HAS A 24 V. 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' & 'R2') AS SHOWN. (DO NOT CONNECT W1 TO W1 OR W2 TO W2). ISOLATION RELAYS NOT NEEDED IF THERMOSTAT CONTACTS ARE RATED AT 1.0 A OR ABOVE.

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

Twinning Field Wiring

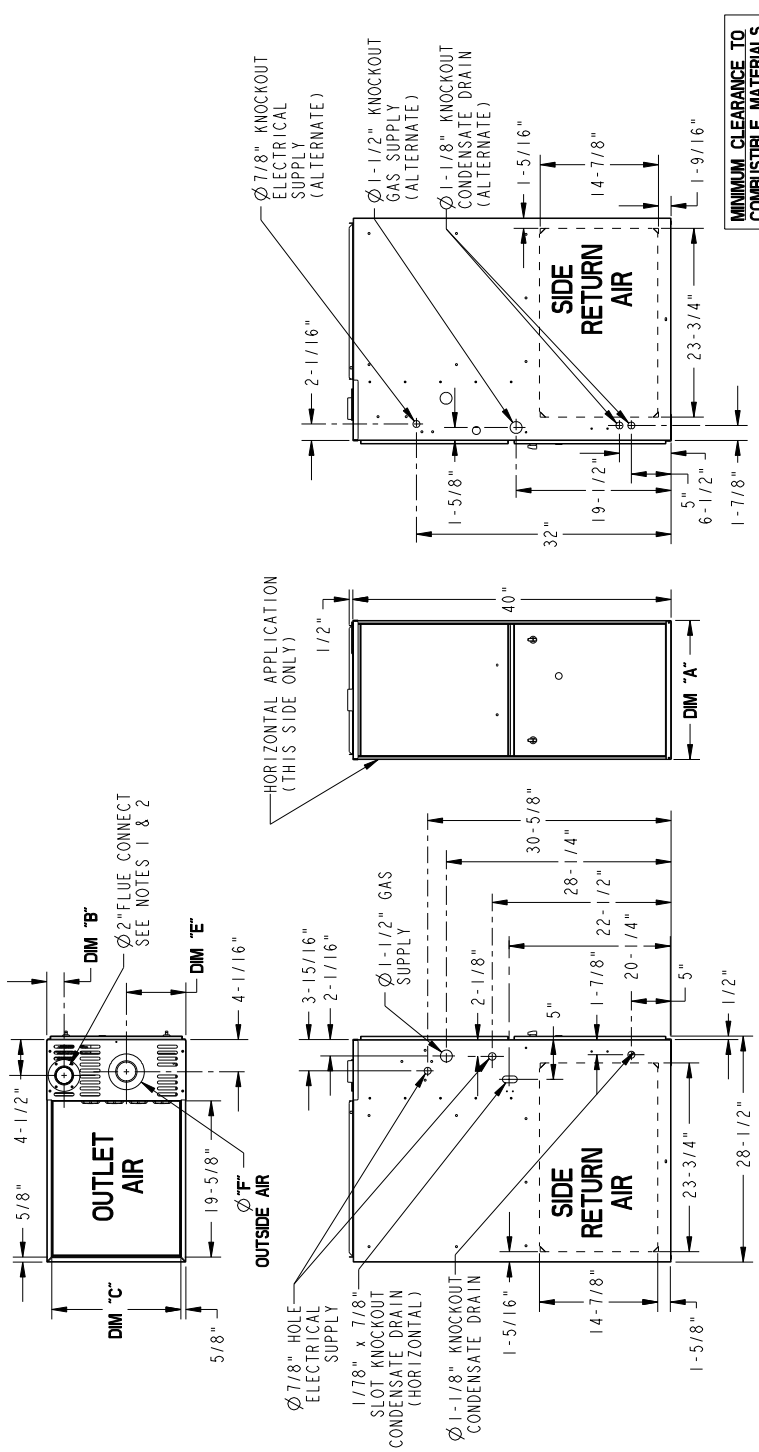


Pub. No. 22-1705-08

Dimensions

*UX2 UPFLOW / HORIZONTAL OUTLINE DRAWING

(ALL DIMENSIONS ARE IN INCHES)



Model (See Note 1 & 2)	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"
*UX2B060A9362A *UX2B080A9422A	17-1/2"	2-1/4"	16-1/4"	16"	7-1/2"	2"
*UX2C100A9482A	21"	2-1/2"	19-3/4"	19-1/2"	9"	3"
*UX2D120A9602A	24-1/2"	2-15/16"	23-1/4"	23"	10"	3"

* Prefix May Be "A" or "T"

Notes:
1. *UX2D120A9602A Requires 3" Diameter Vent Pipe.
*UX2C100A9482A Requires 2-1/2" or 3" Diameter Vent Pipe.
2. 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.

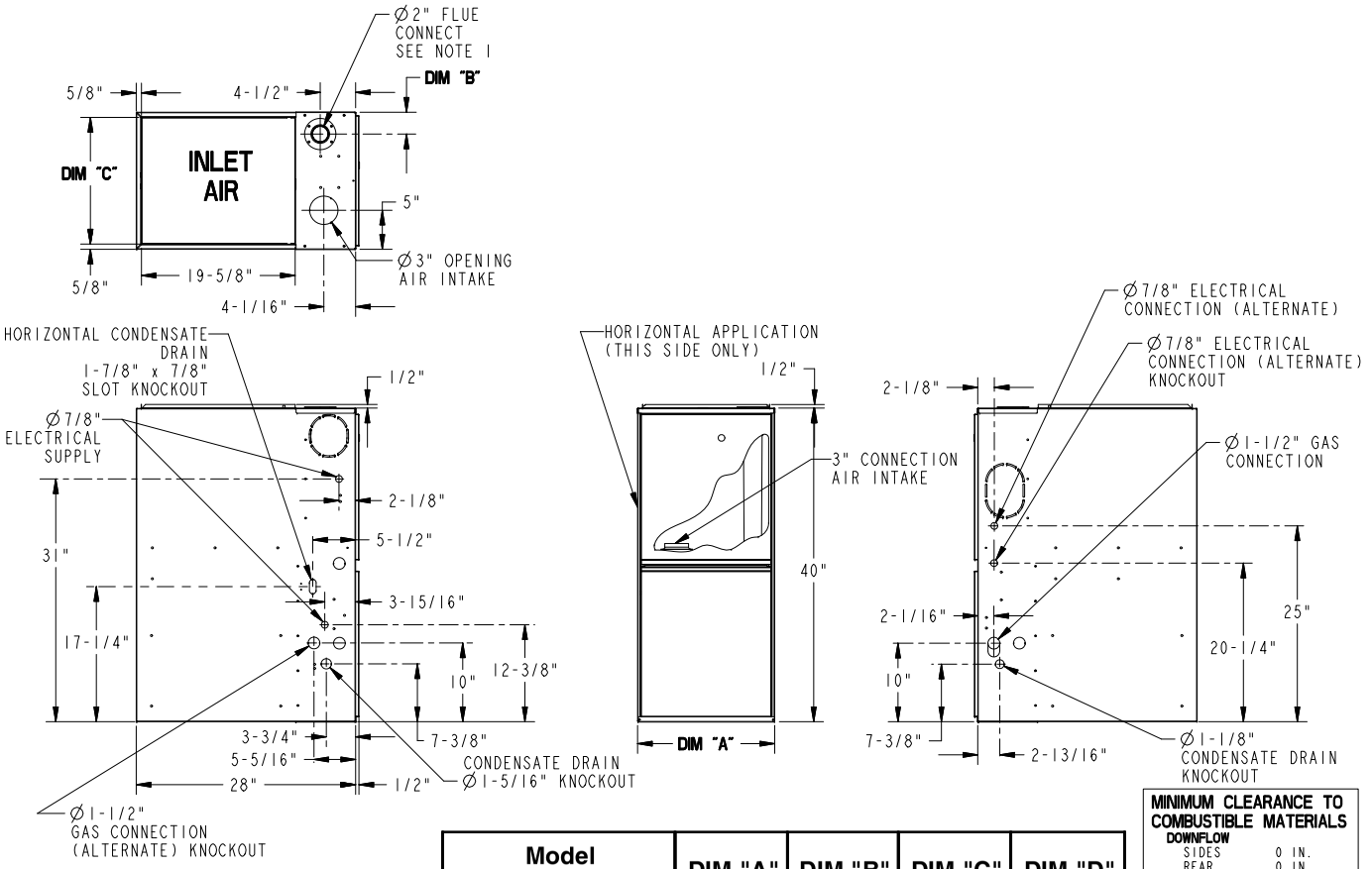
MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS

UPFLOW	
SIDES	0 IN.
REAR	0 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.
HORIZONTAL (FLUE DISCHARGE ON THE LEFT) ALCOVE	
SIDES	
RIGHT	0 IN.
LEFT	0 IN.
REAR	6 IN.
FRONT	18 IN.
TOP	1 IN.
FLUE	0 IN.
CLOSET	
SIDES	
RIGHT	1 IN.
LEFT	1 IN.
REAR	3 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.

From Dwg. 21C341884 Rev. 1

*DX2 DOWNFLOW / HORIZONTAL OUTLINE DRAWING

(ALL DIMENSIONS ARE IN INCHES)



Model (See Note 1)	DIM "A"	DIM "B"	DIM "C"	DIM "D"
*DX2B060A9362A *DX2B080A9422A	17-1/2"	2-1/4"	16-1/4"	16"
*DX2C100A9482A	21"	2-1/2"	19-3/4"	19-1/2"
*DX2D120A9602A	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.

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS

DOWNFLOW

SIDES	0 IN.
REAR	0 IN.
FRONT	3 IN.
TOP	1 IN.
FLUE	0 IN.

HORIZONTAL (FLUE DISCHARGE ON THE LEFT)

ALCOVE

SIDES	
RIGHT	0 IN.
LEFT	0 IN.
REAR	6 IN.
FRONT	18 IN.
TOP	1 IN.
FLUE	0 IN.

CLOSET

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

From Dwg. 21C341885 Rev. 1

Pub. No. 22-1705-08

Notes

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

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