



TRANE[®]

4TTX6036-SF-1B

Service Facts

Split System Cooling Condensers 4TTX6036B1000A

⚠ CAUTION

UNIT CONTAINS R-410A REFRIGERANT!
R-410A OPERATING PRESSURE EXCEEDS THE LIMIT OF R-22. PROPER SERVICE EQUIPMENT IS REQUIRED. FAILURE TO USE PROPER SERVICE TOOLS MAY RESULT IN EQUIPMENT DAMAGE OR PERSONAL INJURY.

SERVICE
USE ONLY R-410A REFRIGERANT AND APPROVED POE COMPRESSOR OIL.

IMPORTANT — This document contains a wiring diagram, a parts list, and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

⚠ WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER and DISCHARGE CAPACITORS BEFORE SERVICING

C - SPLIT
COOLING

PRODUCT SPECIFICATIONS

OUTDOOR UNIT ①②	4TTX6036B1000A
POWER CONNS. — V/PH/HZ ③	230/1/60
MIN. BRCH. CIR. AMPACITY	24
BR. CIR. } MAX. (AMPS)	40
PROT. RTG. } MIN. (AMPS)	40
COMPRESSOR	CLIMATUFF [®] - SCROLL
NO. USED - NO. SPEEDS	1 - 1
VOLTS/PH/HZ	230/1/60
R.L. AMPS ⑦ - L.R. AMPS	16.7 - 82
FACTORY INSTALLED	
START COMPONENTS ⑧	NO
INSULATION/SOUND BLANKET	YES
COMPRESSOR HEAT	NO
OUTDOOR FAN	PROPELLER
DIA. (IN.) - NO. USED	27.6 - 1
TYPE DRIVE - NO. SPEEDS	DIRECT - 1
CFM @ 0.0 IN. W.G. ④	4225
NO. MOTORS - HP	1 - 1/3
MOTOR SPEED R.P.M.	850
VOLTS/PH/HZ	200/230/1/60
F.L. AMPS	2.80
OUTDOOR COIL — TYPE	SPINE FIN [™]
ROWS - F.P.I.	1 - 24
FACE AREA (SQ. FT.)	21.95
TUBE SIZE (IN.)	5/16
REFRIGERANT	
LBS. — R-410A (O.D. UNIT) ⑤	6 LBS., 10 OZ.
FACTORY SUPPLIED	YES
LINE SIZE - IN. O.D. GAS ⑥	3/4
LINE SIZE - IN. O.D. LIQ. ⑥	3/8
FCCV	
RESTRICTOR ORIFICE SIZE	NA
DIMENSIONS	H X W X D
CRATED (IN.)	45.4 x 35.1 x 38.7
WEIGHT	
SHIPPING (LBS.)	287
NET (LBS.)	242

TUBING INFORMATION

Tubing Sizes		Tubing Length	Additional Refrigerant
Suction	Liquid		
3/4"	3/8"	20'	3 oz.
3/4"	3/8"	30'	9 oz.
3/4"	3/8"	40'	14 oz.
3/4"	3/8"	50'	20 oz.
3/4"	3/8"	60'	26 oz.

Tubing lengths in excess of eighty (80) feet see application software.

- ① Certified in accordance with the Unitary Air-conditioner Equipment certification program, which is based on A.R.I. standard 210/240.
- ② Rated in accordance with A.R.I. standard 270.
- ③ Calculated in accordance with Natl. Elec. Codes. Only use HACR circuit breakers or fuses.
- ④ Standard Air — Dry Coil — Outdoor
- ⑤ This value approximate. For more precise value see unit nameplate.
- ⑥ Max. linear length 80 ft.; Max. lift - Suction 25 ft.; Max lift - Liquid 25 ft. For greater length consult refrigerant piping software Pub. No. 32-3312-0* (* denotes latest revision).
- ⑦ This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.
- ⑧ No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

⚠ CAUTION

HOT SURFACE!
DO NOT TOUCH TOP OF COMPRESSOR.
May cause minor to severe burning.

⚠ CAUTION

CONTAINS REFRIGERANT!
SYSTEM CONTAINS OIL AND REFRIGERANT UNDER HIGH PRESSURE. RECOVER REFRIGERANT TO RELIEVE PRESSURE BEFORE OPENING SYSTEM.
Failure to follow proper procedures can result in personal illness or injury or severe equipment damage.

⚠ WARNING

THIS INFORMATION IS INTENDED FOR USE BY INDIVIDUALS POSSESSING ADEQUATE BACKGROUNDS OF ELECTRICAL AND MECHANICAL EXPERIENCE. ANY ATTEMPT TO REPAIR A CENTRAL AIR CONDITIONING PRODUCT MAY RESULT IN PERSONAL INJURY AND OR PROPERTY DAMAGE. THE MANUFACTURER OR SELLER CANNOT BE RESPONSIBLE FOR THE INTERPRETATION OF THIS INFORMATION, NOR CAN IT ASSUME ANY LIABILITY IN CONNECTION WITH ITS USE.

⚠ CAUTION

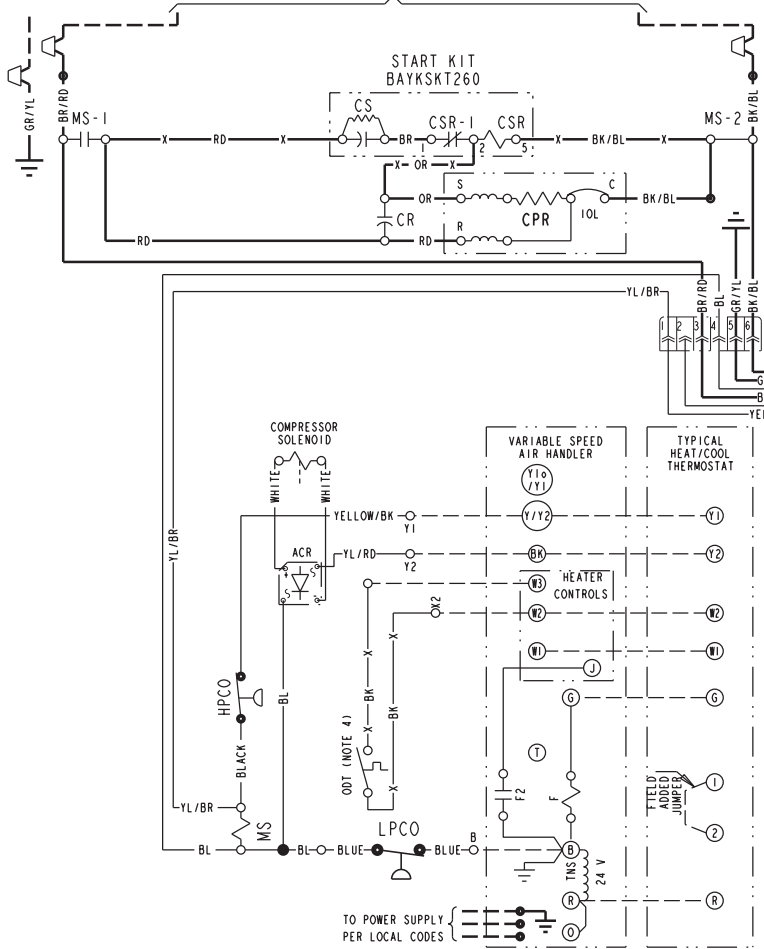
RECONNECT ALL GROUNDING DEVICES. ALL PARTS OF THIS PRODUCT CAPABLE OF CONDUCTING ELECTRICAL CURRENT ARE GROUNDED. IF GROUNDING WIRES, SCREWS, STRAPS, CLIPS, NUTS OR WASHERS USED TO COMPLETE A PATH TO GROUND ARE REMOVED FOR SERVICE, THEY MUST BE RETURNED TO THEIR ORIGINAL POSITION AND PROPERLY FASTENED.

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

SCHEMATIC DIAGRAM

4TTX6036B1000A

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



CA	COOLING ANTICIPATOR	LPCO	LOW PRESSURE CUTOFF SW.
CBS	COIL BOTTOM SENSOR	MS	COMPRESSOR MOTOR CONTACTOR
CF	FAN CAPACITOR	ODA	OUTDOOR ANTICIPATOR
CN	WIRE CONNECTOR	OFT	OUTDOOR FAN THERMOSTAT
CPR	COMPRESSOR	ODS	OUTDOOR TEMPERATURE SENSOR
CR	RUN CAPACITOR	ODT	OUTDOOR THERMOSTAT
CS	STARTING CAPACITOR	RHS	RESISTANCE HEAT SWITCH
CSR	CAPACITOR SWITCHING RELAY	SC	SWITCHOVER VALVE SOLENOID
DFC	DEFROST CONTROL	SM	SYSTEM "ON-OFF" SWITCH
F	INDOOR FAN RELAY	TDL	DISCHARGE LINE THERMOSTAT
HA	HEATING ANTICIPATOR	TS	TRANSFORMER
HPCO	HIGH PRESSURE CUTOFF SW.	TS	HEATING-COOLING THERMOSTAT
IOL	INTERNAL OVERLOAD PROTECTOR	TSH	HEATING THERMOSTAT
ACR	A/C RECTIFIER		

WARNING
HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRIC 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!

COLOR OF WIRE
BK/BL BLACK WIRE WITH BLUE MARKER
COLOR OF MARKER

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

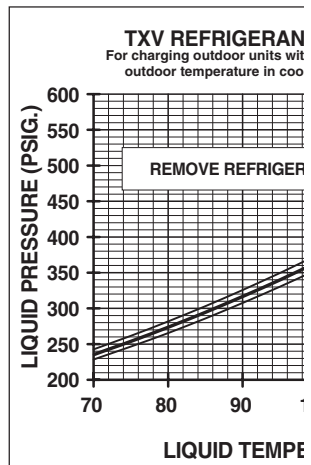
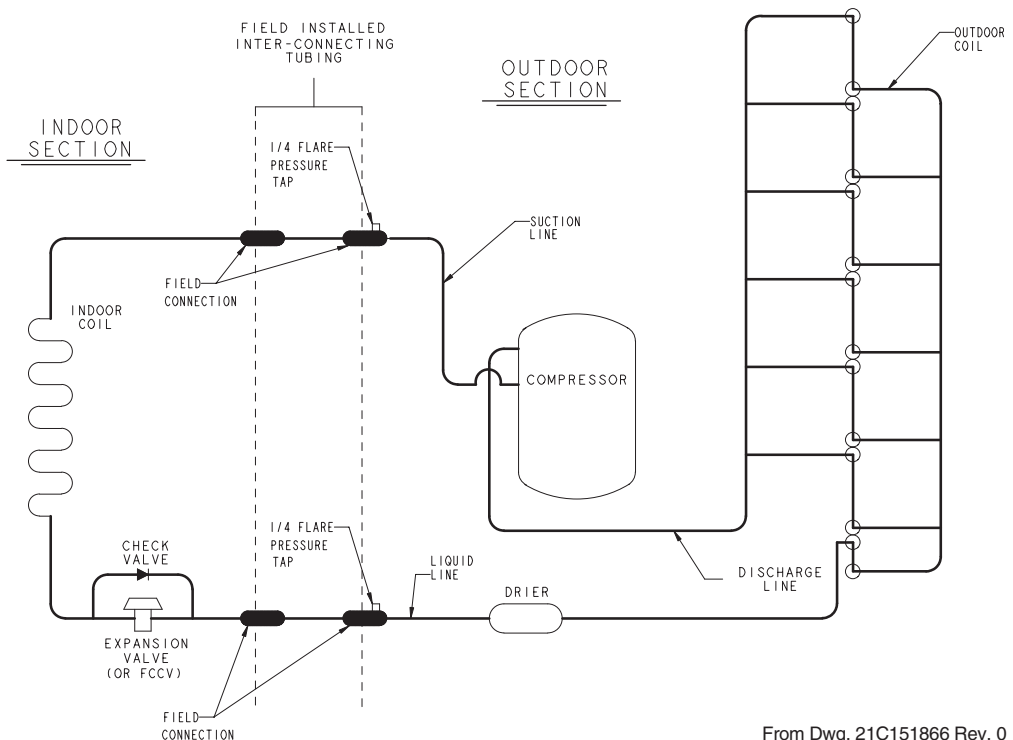
- NOTES:
- BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE.
 - POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
 - LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
 - IF OUTDOOR THERMOSTAT (ODT) IS NOT USED, CONNECT W2 TO W3.
 - BE SURE THE JUMPER BETWEEN R AND BK IS CUT OR REMOVED.
 - WITH O AND Y/Y2 ENERGIZED, INDOOR FAN IS AT 80% AIRFLOW.
 - WITH O, Y/Y2 AND BK ENERGIZED, INDOOR FAN IS AT 100% AIRFLOW.

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE.



REFRIGERANT CIRCUIT

FOR FIRST S*



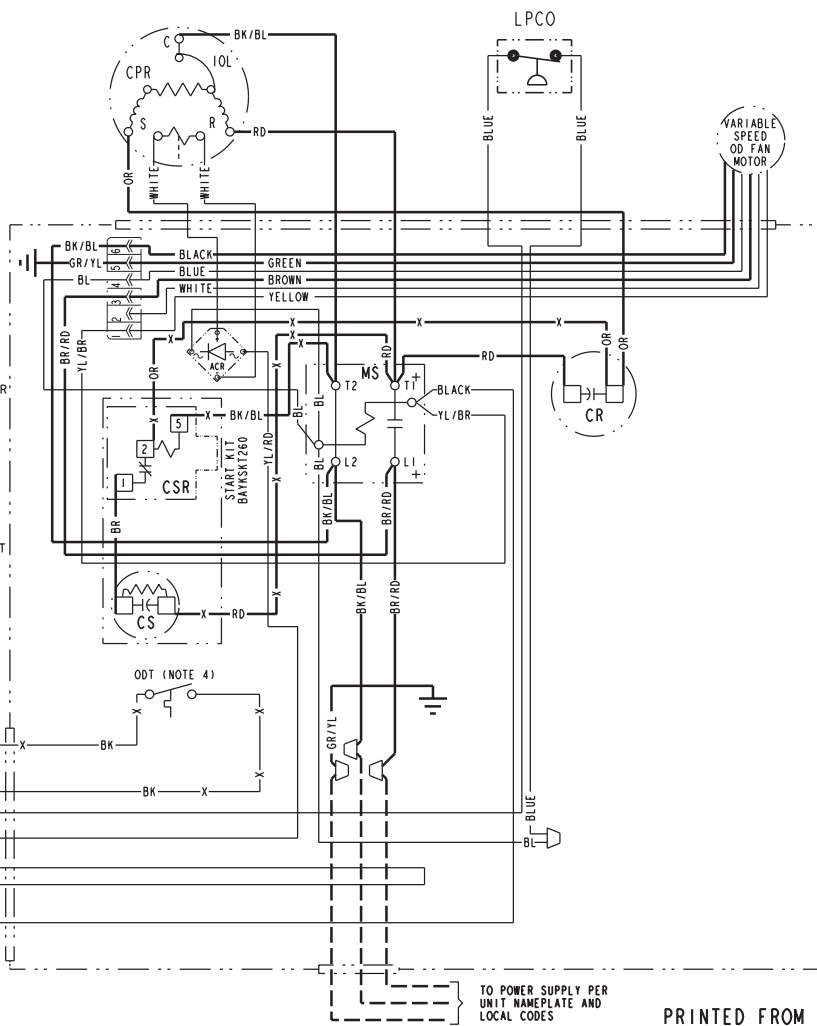
- Measure Liquid Line Temperature and Refrigerant Pressure at service valves.
- Determine total refrigerant pipe length and height (lift) if indoor section is above the condenser. Plot the intersection of the two points on the Curve Selection Chart to determine which curve to use.
- Plot the pressure and temperature on the TXV Charging Curve.
- If the lines cross above the curve remove refrigerant, if below curve add refrigerant.
- Whenever charge or added, the system should be operated for 20 minutes to allow the refrigerant to settle.
- When system performance reference charge and performance (charge and performance) are achieved, the system should be rechecked.

From Dwg. 21C151866 Rev. 0

WIRING DIAGRAM

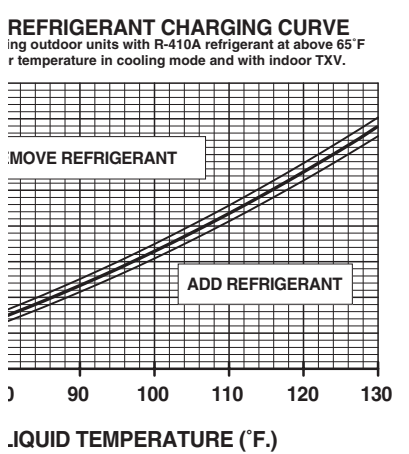
LEGEND-EQUIPMENT DIAGRAM

—	24 V. LINE V.	FACTORY WIRING
- - -	24 V. LINE V.	
- · - · -	24 V. LINE V.	FIELD WIRING
⊥	GROUND	
●	JUNCTION	
○	WIRE NUT OR CONNECTOR	
⌞	COIL	
⌞	CAPACITOR	
⌞	RELAY CONTACT (N.O.)	
⌞	RELAY CONTACT (N.C.)	
⌞	THERMISTOR	
⌞	INTERNAL OVERLOAD PROTECTOR	
⌞	PRESSURE ACTUATED SWITCH	
⌞	TEMP. ACTUATED SWITCH	
⌞	POL. PLUG FEMALE HOUSING (MALE TERM.)	
⌞	POL. PLUG MALE HOUSING (FEMALE TERM.)	
⌞	RESISTOR OR HEATING ELEMENT	
⌞	MOTOR WINDING	
○	TERMINAL	

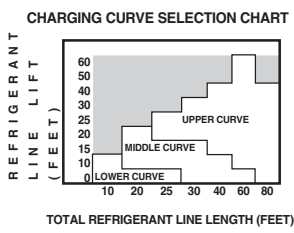


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FIRST STAGE ONLY

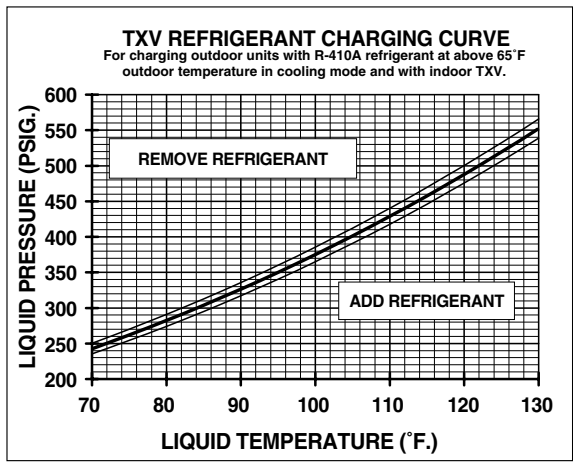


- Whenever charge is removed or added, the system must be operated for a minimum 20 minutes to stabilize before additional measurements can be made.
- When system is correctly charged refer to System Performance Curves to verify charge and performance.



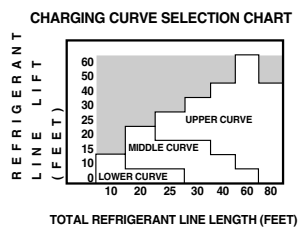
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FOR SECOND STAGE ONLY



- Measure Liquid Line Temperature and Refrigerant Pressure at service valves.
- Determine total refrigerant pipe length and height (lift) if indoor section is above the condenser. Plot the intersection of the two points on the Curve Selection Chart to determine which curve to use.
- Plot the pressure and temperature on the TXV Charging Curve.
- If the lines cross above the curve remove refrigerant, if below curve add refrigerant.

- Whenever charge is removed or added, the system must be operated for a minimum 20 minutes to stabilize before additional measurements can be made.
- When system is correctly charged refer to System Performance Curves to verify charge and performance.



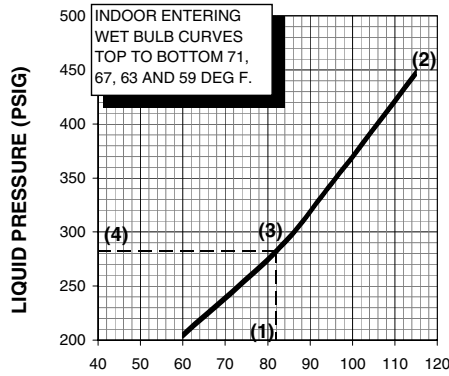
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PRESSURE CURVES FOR 4TTX6036B1000A

FIRST STAGE

4TEE3F40A

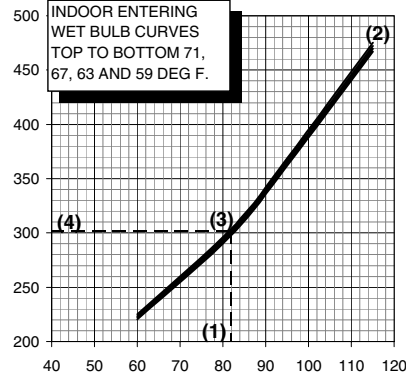
Cooling with Thermal Expansion Valve



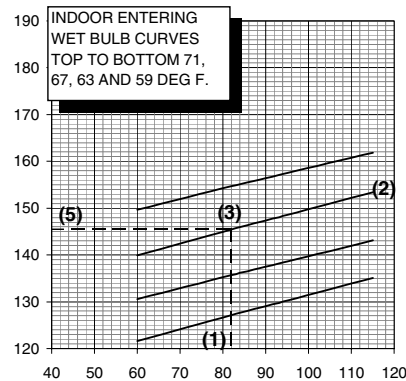
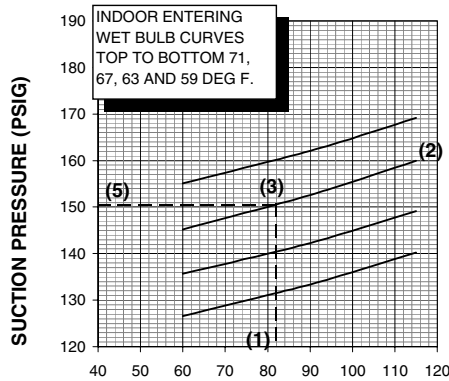
SECOND STAGE

4TEE3F40A

Cooling with Thermal Expansion Valve



OUTDOOR TEMPERATURE (Degree F)



OUTDOOR TEMPERATURE (Degree F)

COOLING PERFORMANCE CAN BE CHECKED WHEN THE OUTDOOR TEMP IS ABOVE 65 DEG F.

TO CHECK COOLING PERFORMANCE, SELECT THE PROPER INDOOR CFM, ALLOW PRESSURES TO STABILIZE. MEASURE INDOOR WET BULB TEMPERATURE, OUTDOOR TEMPERATURE, LIQUID AND SUCTION PRESSURES. ON THE PLOTS LOCATE OUTDOOR TEMPERATURE (1); LOCATE INDOOR WET BULB (2); FIND INTERSECTION OF OD TEMP. & ID W.B. (3); READ LIQUID (4) OR SUCTION (5) PRESSURE IN LEFT COLUMN.

EXAMPLE: FIRST STAGE

- (1) OUTDOOR TEMP. 82 F.
- (2) INDOOR WET BULB 67 F.
- (3) AT INTERSECTION
- (4) LIQUID PRESSURE @ 1075 CFM IS 283 PSIG
- (5) SUCTION PRESSURE @ 1075 CFM IS 151 PSIG

EXAMPLE: SECOND STAGE

- (1) OUTDOOR TEMP. 82 F.
- (2) INDOOR WET BULB 67 F.
- (3) AT INTERSECTION
- (4) LIQUID PRESSURE @ 1230 CFM IS 302 PSIG
- (5) SUCTION PRESSURE @ 1230 CFM IS 145 PSIG

INTERCONNECTING LINES
GAS - 3/4" O.D.
LIQUID - 3/8" O.D.

ACTUAL:

LIQUID PRESSURE SHOULD BE +/- 10 PSI OF CHART
SUCTION PRESSURE SHOULD BE +/- 3 PSIG OF CHART

DWG.NO. 4TTX6036B1

**FIRST STAGE
ALTERNATE
INDOOR UNITS
COOLING WITH TXV**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG	
		SUCT. PRESS	LIQUID PRESS
4TEE3F37A	875	-10	-2
4TEE3F40A	1075	0	0
TDD060R9V3+TXH033A4	900	-9	-2
TDD060R9V3+TXH041A4	900	-8	-2
TDD060R9V3+RXC031S3	900	-9	-2
TDD060R9V3+RXC036S3	900	-6	-1
TDD080R9V3+TXH033A4	850	-10	-2
TDD080R9V3+TXH041A4	850	-9	-2
TDD080R9V3+RXC031S3	850	-10	-2
TDD080R9V3+RXC036S3	850	-7	-2
TDD100R9V3+TXH033A4	850	-10	-2
TDD100R9V3+TXH041A4	850	-8	-2
TDD100R9V3+RXC037S3	900	-6	-2
TDY080R9V3+TXH033A4	750	-12	-3
TDY080R9V3+RXC031S3	800	-12	-3
TDY080R9V3+RXC036S3	800	-9	-2
TDY100R9V3+TXH033A4	800	-11	-2
TDY100R9V3+TXH041A4	800	-10	-2
TDY100R9V3+RXC037S3	800	-9	-2
TUD060R9V3+TXH033A4	950	-8	-2
TUD060R9V3+TXH041A4	950	-7	-2
TUD060R9V3+RXC031S3	900	-9	-2
TUD060R9V3+RXC036S3	900	-6	-1

**FIRST STAGE
ALTERNATE
INDOOR UNITS
COOLING WITH TXV**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG	
		SUCT. PRESS	LIQUID PRESS
TUD080R9V3+TXH033A4	900	-9	-2
TUD080R9V3+TXH041A4	900	-8	-2
TUD080R9V3+RXC031S3	900	-9	-2
TUD080R9V3+RXC036S3	900	-6	-1
TUD080R9V3+TXH033A4	900	-9	-2
TUD080R9V4+TXH041A4	900	-8	-2
TUD080R9V4+RXC037S3	900	-6	-1
TUD100R9V3+TXH033A4	900	-9	-2
TUD100R9V3+TXH041A4	900	-8	-2
TUD100R9V3+RXC031S3	950	-8	-2
TUD100R9V3+RXC036S3	950	-5	-1
TUY080R9V3+TXH033A4	750	-12	-3
TUY080R9V3+TXH041A4	775	-11	-2
TUY080R9V3+RXC036S3	775	-9	-2
TUY100R9V3+TXH033A4	800	-11	-2
TUY100R9V3+TXH041A4	800	-10	-2
TUY100R9V4+RXC037S3	800	-8	-2

*BASE INDOOR UNIT(S) CURVES ON 4TTX6036B1

**SECOND STAGE
ALTERNATE
INDOOR UNITS
COOLING WITH TXV**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG	
		SUCT. PRESS	LIQUID PRESS
4TEE3F37A	1160	-8	-5
4TEE3F40A	1232	0	0
TDD060R9V3+TXH033A4	1200	-8	-4
TDD060R9V3+TXH041A4	1200	-5	-3
TDD060R9V3+RXC031S3	1200	-6	-4
TDD060R9V3+RXC036S3	1200	-3	-2
TDD080R9V3+TXH033A4	1125	-9	-5
TDD080R9V3+TXH041A4	1140	-6	-4
TDD080R9V3+RXC031S3	1120	-8	-4
TDD080R9V3+RXC036S3	1130	-5	-3
TDD100R9V3+TXH033A4	1130	-9	-5
TDD100R9V3+TXH041A4	1200	-5	-3
TDD100R9V3+RXC037S3	1180	-4	-2
TDY080R9V3+TXH033A4	1100	-9	-6
TDY080R9V3+RXC031S3	1050	-9	-5
TDY080R9V3+RXC036S3	1050	-6	-4
TDY100R9V3+TXH033A4	1050	-10	-6
TDY100R9V3+TXH041A4	1050	-8	-5
TDY100R9V3+RXC037S3	1050	-6	-4
TUD060R9V3+TXH033A4	1250	-7	-4
TUD060R9V3+TXH041A4	1250	-4	-3
TUD060R9V3+RXC031S3	1200	-6	-4
TUD060R9V3+RXC036S3	1200	-3	-2

**SECOND STAGE
ALTERNATE
INDOOR UNITS
COOLING WITH TXV**

INDOOR UNIT	CFM	PRESSURE CURVE CORRECTION PSIG	
		SUCT. PRESS	LIQUID PRESS
TUD080R9V3+TXH033A4	1200	-8	-4
TUD080R9V3+TXH041A4	1200	-5	-3
TUD080R9V3+RXC031S3	1200	-6	-4
TUD080R9V3+RXC036S3	1200	-3	-2
TUD080R9V4+TXH033A4	1200	-8	-4
TUD080R9V4+TXH041A4	1200	-5	-3
TUD080R9V4+RXC037S3	1200	-3	-2
TUD100R9V3+TXH033A4	1200	-8	-4
TUD100R9V3+TXH041A4	1200	-5	-3
TUD100R9V3+RXC031S3	1250	-6	-3
TUD100R9V3+RXC036S3	1250	-3	-2
TUY080R9V3+TXH033A4	1000	-12	-7
TUY080R9V3+TXH041A4	1025	-10	-4
TUY080R9V3+RXC036S3	1040	-7	-4
TUY100R9V3+TXH033A4	1050	-10	-6
TUY100R9V3+TXH041A4	1050	-8	-5
TUY100R9V4+RXC037S3	1060	-6	-4

*BASE INDOOR UNIT(S) CURVES ON 4TTX6036B1