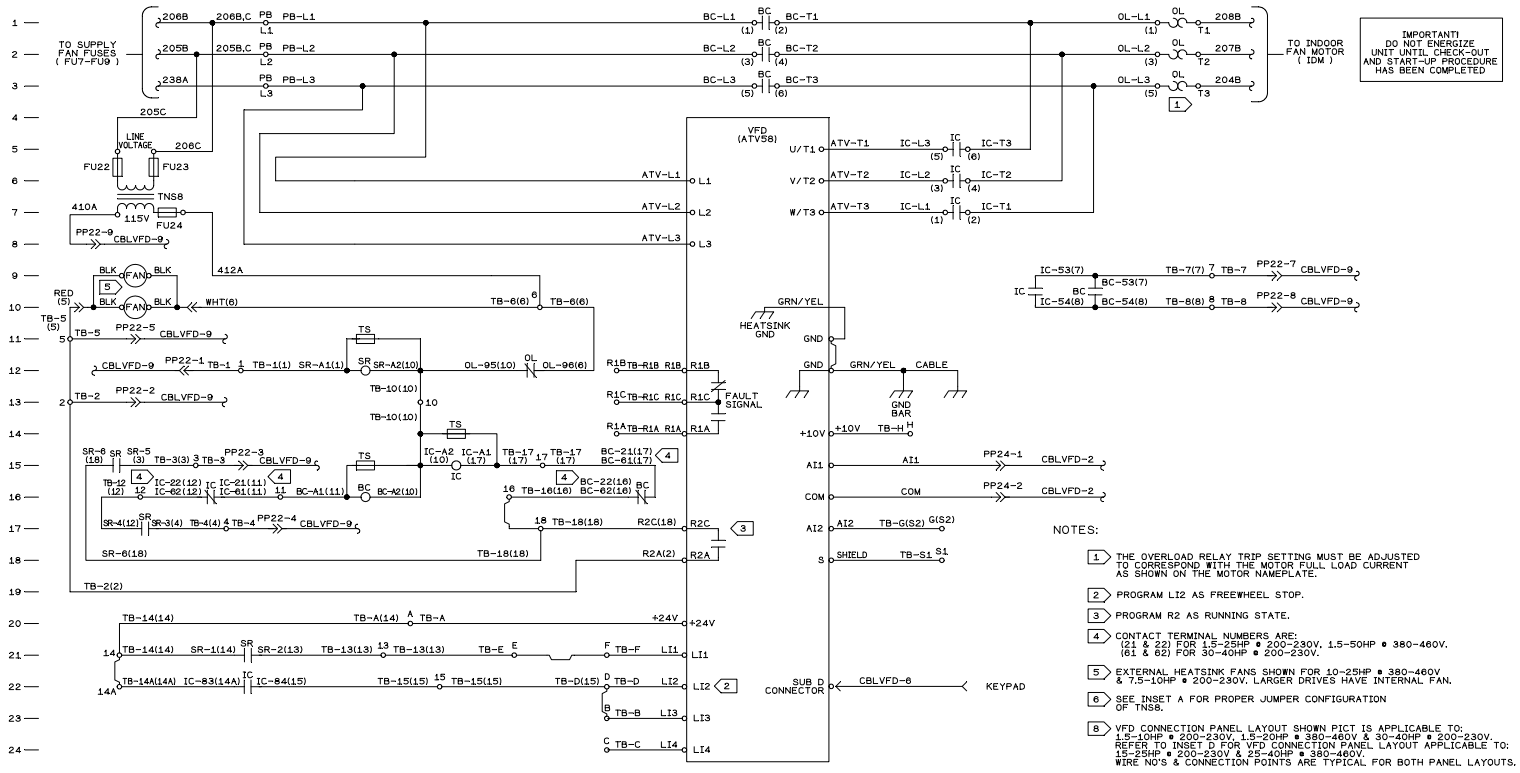


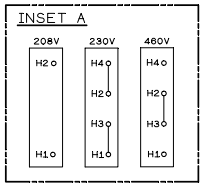
IMPORTANT!
DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURE HAS BEEN COMPLETED

NOTES:

1. THE OVERLOAD RELAY TRIP SETTING MUST BE ADJUSTED TO CORRESPOND WITH THE MOTOR FULL LOAD CURRENT AS SHOWN ON THE MOTOR NAMEPLATE.
2. PROGRAM LI2 AS FREEWHEEL STOP.
3. PROGRAM R2 AS RUNNING STATE.
4. CONTACT TERMINAL NUMBERS ARE:
   (21 & 22) FOR 1.5-25HP @ 200-230V. 1.5-50HP @ 380-460V.
   (61 & 62) FOR 30-40HP @ 200-230V.
5. EXTERNAL HEATSINK FANS SHOWN FOR 10-25HP @ 380-460V & 7.5-10HP @ 200-230V. LARGER DRIVES HAVE INTERNAL FAN.
6. SEE INSET A FOR PROPER JUMPER CONFIGURATION OF TNS8.
8. VFD CONNECTION PANEL LAYOUT SHOWN PICT IS APPLICABLE TO: 1.5-10HP @ 200-230V. 1.5-20HP @ 380-460V & 30-40HP @ 200-230V. REFER TO INSET D FOR VFD CONNECTION PANEL LAYOUT APPLICABLE TO: 15-25HP @ 200-230V & 25-40HP @ 380-460V. WIRE NO'S & CONNECTION POINTS ARE TYPICAL FOR BOTH PANEL LAYOUTS.

ABBREVIATIONS	
BC	BYPASS CONTACTOR
FAN	HEATSINK FAN
IC	ISOLATION CONTACTOR
OL	OVERLOAD
PB	POWER BLOCK
SR	START RELAY
TB	TERMINAL BLOCK
TNS8	V.F.D. TRANSFORMER
TS	TRANSIENT SUPPRESSOR
VFD	VARIABLE FREQUENCY DRIVE

INSET A



FUSE REPLACEMENT TABLE						
VFD CIRCUIT FUSE	HIGH EFFICIENCY MOTORS					
	UNIT VOLTAGE	FUSE RATING	7.5 HP	10 HP	15 HP	20 HP
FU7-FU9 (CLASS "T" FUSES)	208V/60/3	600V	80A	100A	125A	175A
	230V/60/3	600V	60A	90A	125A	150A
	460V/60/3	600V	35A	45A	60A	90A
FU22-FU23	208-230V	CLASS CC	1.5 AMP			
	460V	CLASS CC	0.8 AMP			
FU24	208-230V	CLASS CC	2.0 AMP			
	460V	CLASS CC	2.0 AMP			

⚠ 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.

⚠ AVERTISSEMENT

VOLTAGE HASARDEUX!

DECONNECTEZ TOUTES LES SOURCES ELECTRIQUES INCLUANT LES DISJONCTEURS SITUES A DISTANCE AVANT D'EFFECTUER L'ENTRETIEN.

FAUTE DE DECONNECTER LA SOURCE ELECTRIQUE AVANT D'EFFECTUER L'ENTRETIEN PEUT ENTRAINER DES BLESSURES CORPORELLES SEVERES OU LA MORT.

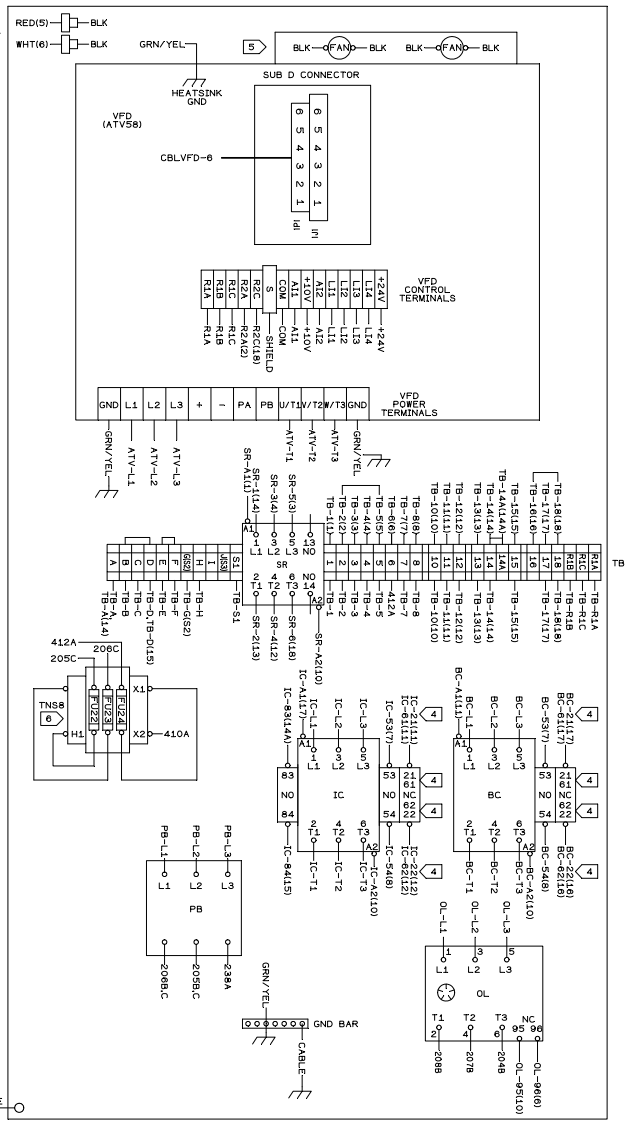
⚠ CAUTION

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.

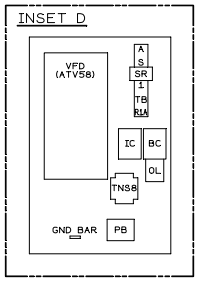
8 VFD ASSEMBLY



ATV58 PROGRAMMING CONFIGURATION
NOTE: CHECK TO MAKE SURE THE 50/60 Hz SELECTOR SWITCH LOCATED TO THE LEFT OF THE KEYPAD LOCATION AND BELOW THE DIAGNOSTIC LEDs IS SET TO THE 60 Hz POSITION (TO THE RIGHT).

SQUARE D VARIABLE FREQUENCY DRIVE FACTORY SETTING SUMMARY			
MENU	PARAMETER	ADJUSTMENT	DESCRIPTION
MACRO	CFG	VT	SET FOR VARIABLE TORQUE
CFG	rEF	HP+	460V, 5-20HP ONLY
1	rFr		DISPLAY OUTPUT FREQUENCY
2	ACC	30s	30 SECONDS ACCELERATION
2	dEC	30s	30 SECONDS DECELERATION
2	LSP	35 Hz	35 HERTZ (FOR VOYAGER 3)
2	ItH	Motor FLA	CURRENT USED FOR MOTOR THERMAL PROTECTION
2	HSP	60 Hz	SETS MAXIMUM OUTPUT FREQUENCY OF DRIVE AS A FUNCTION OF INPUT SPEED REFERENCE SIGNAL
3	Un5	208 or 230	208/230 VOLT ONLY
3	SFt	HF1	HIGH SWITCH FREQ FOR LOW DUTY
3	SFr	8	8 kHz SWITCHING FREQUENCY
3	CLI	11 times Motor FLA	LIMITS MAX CURRENT TO MOTOR
3	nCr	Motor NP FLA	NOMINAL CURRENT USED FOR OVERLOAD CALCULATION
3	tFr	72 Hz	SETS MAXIMUM OUTPUT FREQ OF DRIVE CONTROLLER
4	tCC	2W	SELECT 2-WIRE CONTROL
4	tCt	LEL	DEFINE TYPE OF 2-WIRE CONTROL
5	LI2	NST	FREEWHEEL STOP WHEN LI2 OPEN
5	LI3	NO	NO ASSIGNMENT
5	LI4	NO	NO ASSIGNMENT
5	R2	RUN	RELAY R2 SET FOR DRIVE RUNNING
6	FLr	YES	ENABLES CATCH ON THE FLY RESTART
6	Atr	YES	ALLOWS RESTART OF DRIVE UPON REMOVAL OF A FAULT CONDITION WITH A MAINTAINED RUN SIGNAL
6	IPL	YES	DISABLES DRIVE INPUT PHASE LOSS DETECTION
6	OPL	NO	DISABLES DRIVE OUTPUT PHASE LOSS DETECTION

INSET D



10 X 15 METAL PLATE

REPLACES:		2307-4598
REVISION DATE:		THE TRANE COMPANY
DRAWN BY:	J.DEPRIEST	
DATE:	03/01/00	
SENSOR TRS		2307-4319

FILE NUMBER:

SCHEMATIC & CONNECTION WIRING DIAGRAM ID FAN VARIABLE FREQUENCY DRIVE 27.5 - 50 TON YCC/YCD/YCE

DRAWING NUMBER: 2307-4577 REV: B