

THREE PHASE WIRING FOR ASCO® 7000 SERIES NON-AUTOMATIC TRANSFER SWITCHES TYPE J7NTS RATED 260, 400, & 600 AMPERES

FEATURES, SETTINGS, OPERATION, ACCESSORIES & NOTES

THE FOLLOWING FEATURES AND RELATED SETTINGS ARE PART OF THE GROUP 5 CONTROL PANEL'S USER CONFIGURABLE PARAMETERS. FOR DETAILED INFORMATION REGARDING THE CONFIGURATION OF THESE PARAMETERS AND OTHER FEATURES OF THE GROUP 5 CONTROL PANEL, REFER TO THE **GROUP 5 CONTROL PANEL FOR ASCO® 7000 SERIES TRANSFER SWITCHES** USER'S GUIDE (PART NO. 381333-126) PROVIDED WITH EVERY 7000 SERIES TRANSFER SWITCH.

THE NOMINAL OPERATING VOLTAGE & FREQUENCY IS PRE-PROGRAMMED AT THE FACTORY BASED ON THE NAMEPLATE DATA PRINTED ON THE TRANSFER SWITCH & CONTROL PANEL NAMEPLATES.

VOLTAGE & FREQUENCY SENSING

THE FOLLOWING SETTINGS ARE EXPRESSED AS A PERCENTAGE OF THE CONTROL PANEL'S NOMINAL VOLTAGE SETTING UNLESS STATED OTHERWISE. ALL SETTINGS ARE ADJUSTABLE IN INCREMENTS OF 1%.

A. RMS VOLTAGE SENSING ON ALL PHASES OF THE NORMAL & EMERGENCY SOURCES.

PARAMETER	RANGE OF SETTINGS	DEFAULT SETTING
NORMAL VOLTAGE DROPOUT	70-98%	85%
NORMAL VOLTAGE PICKUP	85-100%	90%
NORMAL OVER VOLTAGE TRIP	102-115%	OFF
NORMAL VOLTAGE UNBALANCE	YES/NO	NO
NORMAL VOLTAGE UNBALANCE DROPOUT	5-20% OF AVG. NORMAL VOLTAGE	20% (if ON)
NORMAL VOLTAGE UNBALANCE PICKUP	3-18% OF AVG. NORMAL VOLTAGE	10% (if ON)
EMERGENCY VOLTAGE DROPOUT	70-98%	75%
EMERGENCY VOLTAGE PICKUP	85-100%	90%
EMERGENCY OVER VOLTAGE TRIP	102-115%	OFF
EMERGENCY VOLTAGE UNBALANCE	YES/NO	NO
EMERGENCY VOLTAGE UNBALANCE DROPOUT	5-20% OF AVG. EMERGENCY VOLTAGE	20% (if ON)
EMERGENCY VOLTAGE UNBALANCE PICKUP	3-18% OF AVG. EMERGENCY VOLTAGE	10% (if ON)

B. FREQUENCY SENSING OF THE NORMAL & EMERGENCY SOURCES.

PARAMETER	RANGE OF SETTINGS	DEFAULT SETTING
NORMAL FREQUENCY DROPOUT	85-98%	90%
NORMAL FREQUENCY PICKUP	90-100%	95%
NORMAL OVER FREQUENCY TRIP	102-110%	OFF
EMERGENCY FREQUENCY DROPOUT	85-98%	90%
EMERGENCY FREQUENCY PICKUP	90-100%	95%
EMERGENCY OVER FREQUENCY TRIP	102-110%	OFF

TIME DELAYS

THE FOLLOWING TIME DELAY SETTINGS ALL HAVE AN ADJUSTABLE RANGE OF 0-60 min 59 sec UNLESS STATED OTHERWISE. ADJUSTABLE IN INCREMENTS OF 1 sec.

NOTE: SOME TIME DELAYS MAY BE EFFECTED BY CUSTOMER REQUESTED ACCESSORIES PROVIDED WITH THE UNIT. REFER TO THE DESCRIPTIONS PROVIDED UNDER THE "ACCESSORIES" NOTES ON THIS PAGE.

FEATURE	NAME	DEFAULT SETTING
1C	NORMAL SOURCE FAILURE TO ENGINE START	1 sec
2B	TRANSFER TO EMERGENCY ON AVAILABILITY OF EMERGENCY SOURCE	0 sec
1F	EMERGENCY SOURCE FAILURE RETRANSFER (NORMAL SOURCE AVAILABLE)	0 sec
2E	ENGINE COOLDOWN FOLLOWING RETRANSFER TO NORMAL	5 min
3A	RETRANSFER TO NORMAL (NORMAL FAILURE MODE)	30 min
-	DELAYED TRANSFER (LOAD "OFF" TIME), [0-5 min 59 sec]	3 sec

DESCRIPTIONS OF TIME DELAYS:

FEAT. 1C - DELAY ON NORMAL SOURCE OUTAGE. STARTS ON FAILURE OF NORMAL SOURCE. RESETS IF NORMAL SOURCE IS ACCEPTED BEFORE EXPIRATION. INHIBITS ENGINE STARTING AND TRANSFER UNTIL EXPIRATION.

FEAT. 2B - DELAY PRIOR TO TRANSFER TO THE EMERGENCY SOURCE. DELAY STARTS ON EXPIRATION OF FEAT. 1C AND WHEN THE EMERGENCY SOURCE HAS BEEN ACCEPTED. DELAY RESETS IF THE EMERGENCY SOURCE FAILS PRIOR TO EXPIRATION. ON EXPIRATION, TRANSFER TO EMERGENCY IS INITIATED UNLESS THE NORMAL SOURCE HAS RECOVERED AND THE "COMMIT TO TRANSFER" FEATURE IS SET TO "NO" COMMIT. PROVIDES A PERIOD FOR EMERGENCY SOURCE STABILIZATION OR STAGING OF MULTIPLE TRANSFER SWITCH CONTROLLED LOADS TO THE EMERGENCY SOURCE.

FEAT. 1F - DELAY ON RETRANSFER TO NORMAL IN THE EVENT OF EMERGENCY SOURCE FAILURE. DELAY BEGINS ON FAILURE OF THE EMERGENCY SOURCE IF THE NORMAL SOURCE IS ACCEPTABLE. ON EXPIRATION, RETRANSFER TO NORMAL WILL BE INITIATED.

FEAT. 2E - DELAY ON ENGINE SHUTDOWN (ENGINE COOL DOWN PERIOD). DELAY STARTS FOLLOWING RETRANSFER TO THE NORMAL SOURCE. PROVIDES A PERIOD FOR THE ENGINE-GENERATOR SET TO RUN UNLOADED PRIOR TO SHUTDOWN.

FEAT. 3A - RETRANSFER TO NORMAL DELAY (NORMAL FAILURE MODE) DELAY STARTS WHEN NORMAL SOURCE IS ACCEPTED (FOLLOWING IT'S FAILURE) AND WHILE THE LOAD IS CONNECTED TO EMERGENCY. RESETS IF NORMAL FAILS PRIOR TO EXPIRATION OR IF THE EMERGENCY SOURCE FAILS BEFORE EXPIRATION AND FEAT. 1F EXPIRES (AUTOMATIC BYPASS ON EMERGENCY SOURCE FAILURE). PROVIDES A PERIOD FOR THE NORMAL SOURCE TO STABILIZE PRIOR TO RETRANSFER.

MOTOR LOAD TRANSFER FEATURE

FEAT. 27 - INPHASE TRANSFER CONTROL LOGIC TO INITIATE AN INPHASE TRANSFER OF LOADS BETWEEN LIVE SOURCES. USED TO PREVENT NOISANCE TRIPPING OF CIRCUIT BREAKERS AND POSSIBLE DAMAGE TO MECHANICAL LOADS CAUSED BY OUT OF PHASE TRANSFER.

ACTIVATED VIA THE GROUP 5 CONTROL PANEL USER INTERFACE (TRANSFER CONTROL CENTER) BY SELECTING "IN-PHASE MONITOR ENABLE" = YES. AN ADJUSTABLE DELAY (0.0-3.0 sec, FACTORY SET TO 1.5 sec, IN INCREMENTS OF 0.1 sec) DELAYS SENSING TO PERMIT STABILIZATION OF THE SOURCES PRIOR TO SENSING. FACTORY SETTING IS DISABLED UNLESS SPECIFIED TO BE FACTORY ACTIVATED AT THE TIME OF ORDER.

THE ENGINE EXERCISER FEATURE PROVIDES A MEANS TO PERFORM AUTOMATIC EXERCISING OF THE ENGINE-GENERATOR SET EITHER WITH OR WITHOUT LOAD TRANSFER. THE USER CAN PROGRAM UP TO SEVEN DIFFERENT EXERCISE ROUTINES. EACH ROUTINE INCLUDES:

1. ENABLE OR DISABLE THE ROUTINE
2. ENABLE OR DISABLE TRANSFER OF THE LOAD DURING THE ROUTINE
3. SET START TIME OF ROUTINE -
 - TIME OF DAY
 - DAY OF WEEK
 - WEEK OF MONTH (1st, 2nd, 3rd, 4th, ALTERNATE OR ALL)
4. SET THE DURATION OF THE ROUTINE

PARAMETER	RANGE OF SETTING	DEFAULT SETTING
MONTH (CLOCK SET)	JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	CURRENT DATE
DAY	1-31	
YEAR	00-99	
HOUR	0-23	
MINUTE	0-59	
ENABLE ROUTINE (ROUTINE 1-7)	YES/NO	NO
TRANSFER LOAD	YES/NO	NO
START HOUR	0-23	0
START MINUTE	0-59	0
RUN WEEK	ALL, ALTERNATE, 1st, 2nd, 3rd, 4th, 5th	ALL
RUN DAY	SUN MON TUE WED THU FRI SAT	SUN
DURATION HOURS	0-23	0
DURATION MINUTES	0-59	0

SIGNALS & AUXILIARIES

A. FEATURES 7 & 8- ENGINE START SIGNAL
SIGNAL INITIATED BY DROPOUT OF CONTROL PANEL RELAY (NR) FOLLOWING EXPIRATION OF THE FEATURE 1C TIME DELAY (DELAY TO OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES). FEATURE 7 CLOSING TO SIGNAL ENGINE START. FEATURE 8 OPENS TO SIGNAL ENGINE START. ENGINE STARTING SIGNAL RESETS FOLLOWING RETRANSFER TO THE NORMAL SOURCE AND EXPIRATION OF THE FEATURE 2E (ENGINE COOL DOWN) TIME DELAY. FEATURES 7 & 8 ARE PROVIDED AS A SINGLE FORM C CONTACT CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB). CONTACT RATED 5 AMPS AT 32 VDC/120VAC RESISTIVE.

B. FEATURES 14AG & 14BG - TRANSFER SWITCH AUXILIARY POSITION INDICATING CONTACTS. EIGHT (8) FORM C CONTACTS TO INDICATE CONNECTION OF THE TRANSFER SWITCH TO NORMAL (14A) OR EMERGENCY (14B). CONTACTS CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB). CONTACTS RATED 10 AMPS, 32 VDC, 250 VAC.

OPERATION

ALL TRANSFERS TO AND FROM EMERGENCY ARE PERFORMED MANUALLY WITH THE USE OF A MANUALLY OPERATED SELECTOR SWITCH.

TRANSFER TO EMERGENCY:
IF THE NORMAL SOURCE FAILS, THE TRANSFER SWITCH INITIATES STARTING OF THE ENGINE-GENERATOR SET. WHEN PROPER VOLTAGE AND FREQUENCY HAVE BEEN ATTAINED, AND AFTER THE MANUALLY OPERATED SELECTOR SWITCH HAS BEEN SET TO EMERGENCY, THE LOAD WILL BE TRANSFERRED TO THE EMERGENCY SOURCE.

RETRANSFER TO NORMAL:
1. IF THE MANUAL SELECTOR SWITCH IS SET TO NORMAL PRIOR TO THE NORMAL SOURCE BEING RESTORED, TRANSFER TO NORMAL WILL OCCUR ONLY AFTER THE NORMAL SOURCE IS RESTORED FOR THE DURATION OF THE FEATURE 3A (RETRANSFER TO NORMAL) TIME DELAY SETTING.
2. IF THE NORMAL SOURCE IS RESTORED AND THE MANUAL SELECTOR SWITCH IS THEN SET TO NORMAL, THE LOAD WILL BE TRANSFERRED TO THE NORMAL SOURCE IMMEDIATELY.

THE ENGINE WILL CONTINUE TO RUN FOR THE ENGINE COOLDOWN PERIOD, FEATURE 2E.

USER CONTROLS AND INDICATIONS

- A. MANUALLY OPERATED SELECTOR SWITCH TO AFFECT TRANSFER TO THE NORMAL OR EMERGENCY SOURCE.
- B. FEATURES 9A & 9B - TRANSFER SWITCH POSITION INDICATORS.
FEATURE 9A: TRANSFER SWITCH CLOSED ON NORMAL (GREEN LED)
FEATURE 9B: TRANSFER SWITCH CLOSED ON EMERGENCY (RED LED)
- C. FEATURES 9C & 9D - SOURCE ACCEPTANCE INDICATORS.
FEATURE 9C: NORMAL SOURCE ACCEPTED (GREEN LED)
FEATURE 9D: EMERGENCY SOURCE ACCEPTED (RED LED)

FACTORY CP SETTINGS

PARAMETER	SETTING	
	DEFAULT	FACTORY
<TEST OR MANUAL MODE INPUT>		
TEST OPERATION	"YES"	"NO"
MANUAL OPERATION	"NO"	"YES"
TD E>N (TEST MODE)	"30 sec"	"0 sec"

GENERAL NOTES

1. SWITCH SHOWN DE-ENERGIZED AND CONNECTED TO THE NORMAL SOURCE.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUBLICATION ICS 1-1983, PART 1-101A.
3. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
4. ○ ON TERMINAL BLOCKS INDICATES AVAILABLE FIELD CONNECTION POINT.
5. ● ON TERMINAL BLOCKS INDICATES FACTORY CONNECTION POINT.
6. CONTROL AND ACCESSORY WIRING IS ROUTED IN ACCORDANCE WITH ASCO ASSEMBLY PROCEDURE GS451261.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE UNIT.

BASE CATALOG NUMBER				CATALOG NUMBER SUFFIXES				EXPLANATION OF CATALOG NUMBER CODES				
TS FRAME	CATALOG TYPE	NEUTRAL TYPE	PHASE POLES	AMPS	VOLT CODE	CONTROLLER	OPTIONAL ACCESSORY	ENCLOSURE CODE	NEUTRAL TYPE	VOLTAGE CODES	ENCLOSURE CODES	DESCRIPTION
									CODE	TYPE	DESCRIPTION	
J	7NTS	A B C	3	260 400 600	H J K L M N P Q R	5	X		BLANK	1 2 3R 4 4X 7 12	OPEN TYPE (NO ENCLOSURE) GENERAL PURPOSE, INDOOR INDOOR, WATER & DUST RESISTANT OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) TYPE 4 PLUS CORROSION RESISTANCE (FIBERGLASS) EXPLOSION PROOF INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT	
		BLANK FOR NONE					BLANK FOR NONE	BLANK FOR OPEN TYPE		M N P Q	(SECURE ENCLOSURES) OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT	

CATALOG NUMBER _____
ASCO® CERTIFIED TO
 S.O. _____
 BY _____
 DATE _____

FORM REV - _____

208564	TR	WK	05/04/06
ISSUE			
CHANGE LETTER	ECN NO.	BY	APP.
			DATE

PROJECT NAME: _____

WIRING DIAGRAM

7000 SERIES (J7NTS) GROUP 5 CONTROLS

THIRD ANGLE PROJECTION

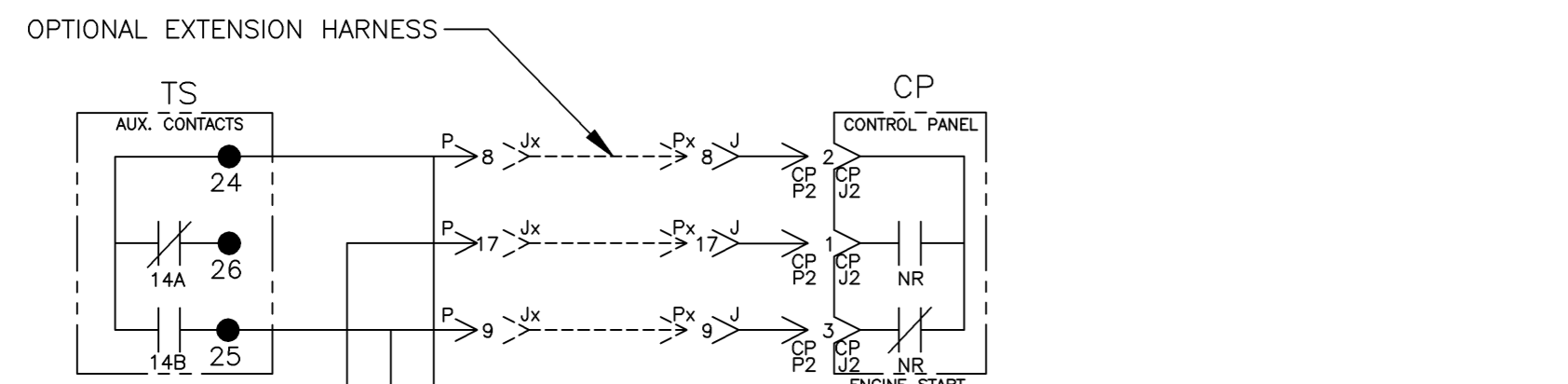
BY	DATE	MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055	ASSEMBLY REF. NO.
DJB	05/04/06		
CHECKED	BK	PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	SCALE
DRAFTING	WK		1:1
APPROVAL			ACAD

SIZE DWG. NO. **DS796898**

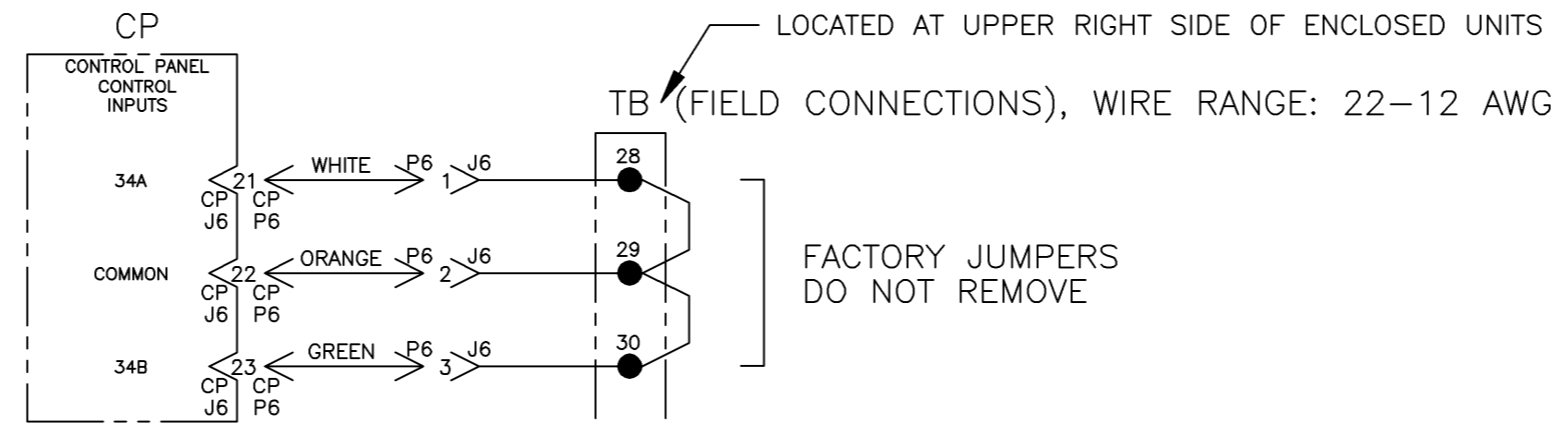
CHANGE LETTER _____ ECN NO. 208564 SHEET 1 OF 6

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 FLORHAM PARK, NEW JERSEY 07932 U.S.A.

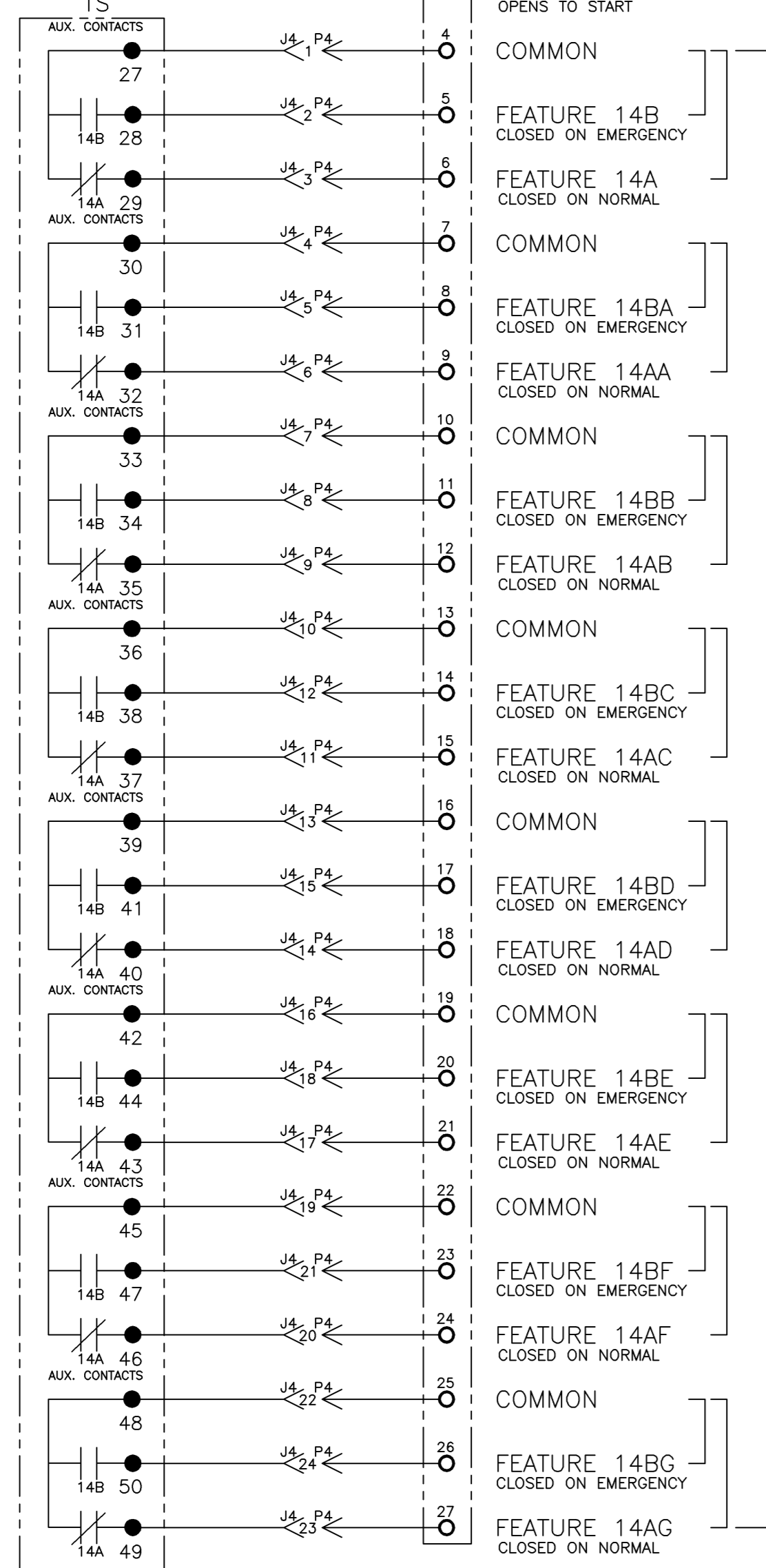
FIELD CONNECTIONS



LOCATED AT UPPER RIGHT SIDE OF ENCLOSED UNITS
TB (FIELD CONNECTIONS), WIRE RANGE: 22-12 AWG

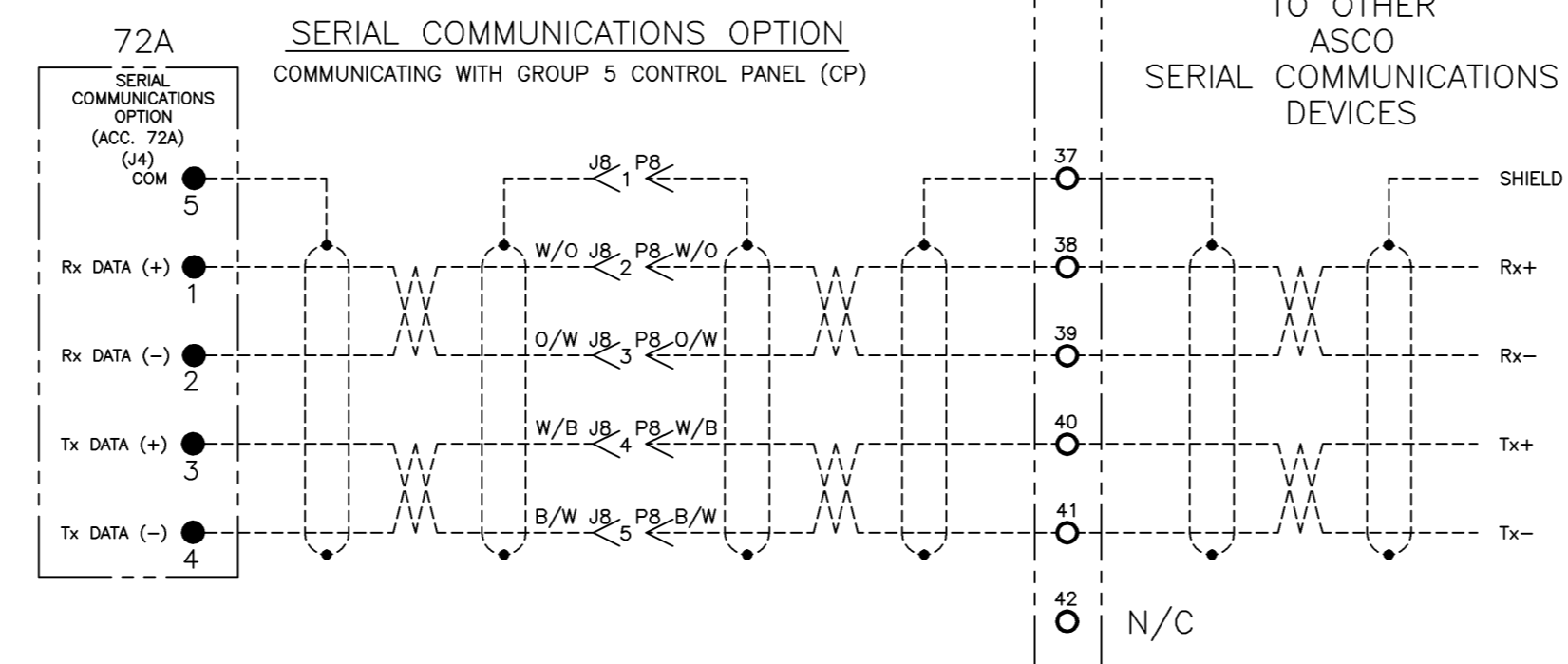


FACTORY JUMPERS
DO NOT REMOVE



ENGINE STARTING SIGNALS
(5 AMPS, 32VDC)

TS AUXILIARY CONTACTS
(10 AMPS, 32VDC)
(10 AMPS, 250VAC)
GENERAL PURPOSE



- 72A NOTES:
- EARTH GROUND SHIELD AT HOST DEVICE ONLY.
 - FIELD WIRING: USE UL LISTED, STRANDED, TWISTED PAIRS, OVERALL FOIL SHIELD WITH STRANDED DRAIN WIRE SUITABLE FOR RS-422 EQUIVALENT TO:
 - (STANDARD 80°C) BELDEN 9842 OR 9829 OR ALPHA 6202C OR 6222C
 - (PLENUM RATED) BELDEN 89729 OR 82729 OR ALPHA 58902

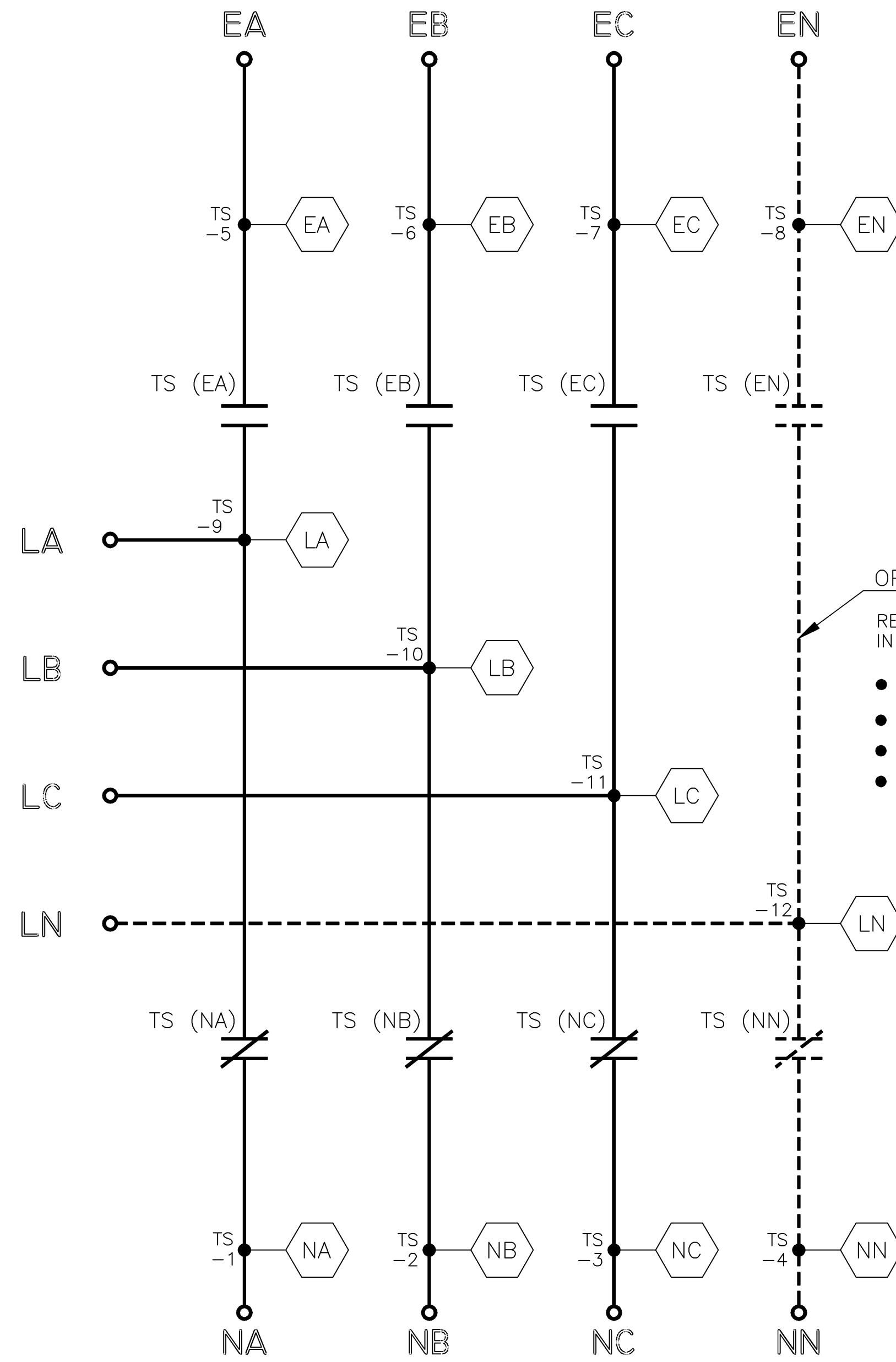
PROJECT NAME:		208564 TR WK 05/04/06	
ISSUE		CHANGE LETTER	ECN NO. BY APP. DATE
WIRING DIAGRAM		SUBSIDIARY DISTRIBUTION	
7000 SERIES (J7NTS) GROUP 5 CONTROLS		AE	AN AM AJ AL
		CH	AV AA AS AR
		AG	AP AC AS
DRAWN BY: DJB 05/04/06		MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005.	
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DRAFTING APPROVAL: WK 05/04/06		ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A.	
FINAL APPROVAL:		COMPUTER GENERATED DRAWING	
		SCALE: 1:1	ACAD FILE
		SIZE: DWS NO. DS796898	
		CHANGE LETTER	ECN NO. 208564 SHEET 2 OF 6

MAIN POWER POLES

TS OPERATOR CIRCUIT

EMERGENCY

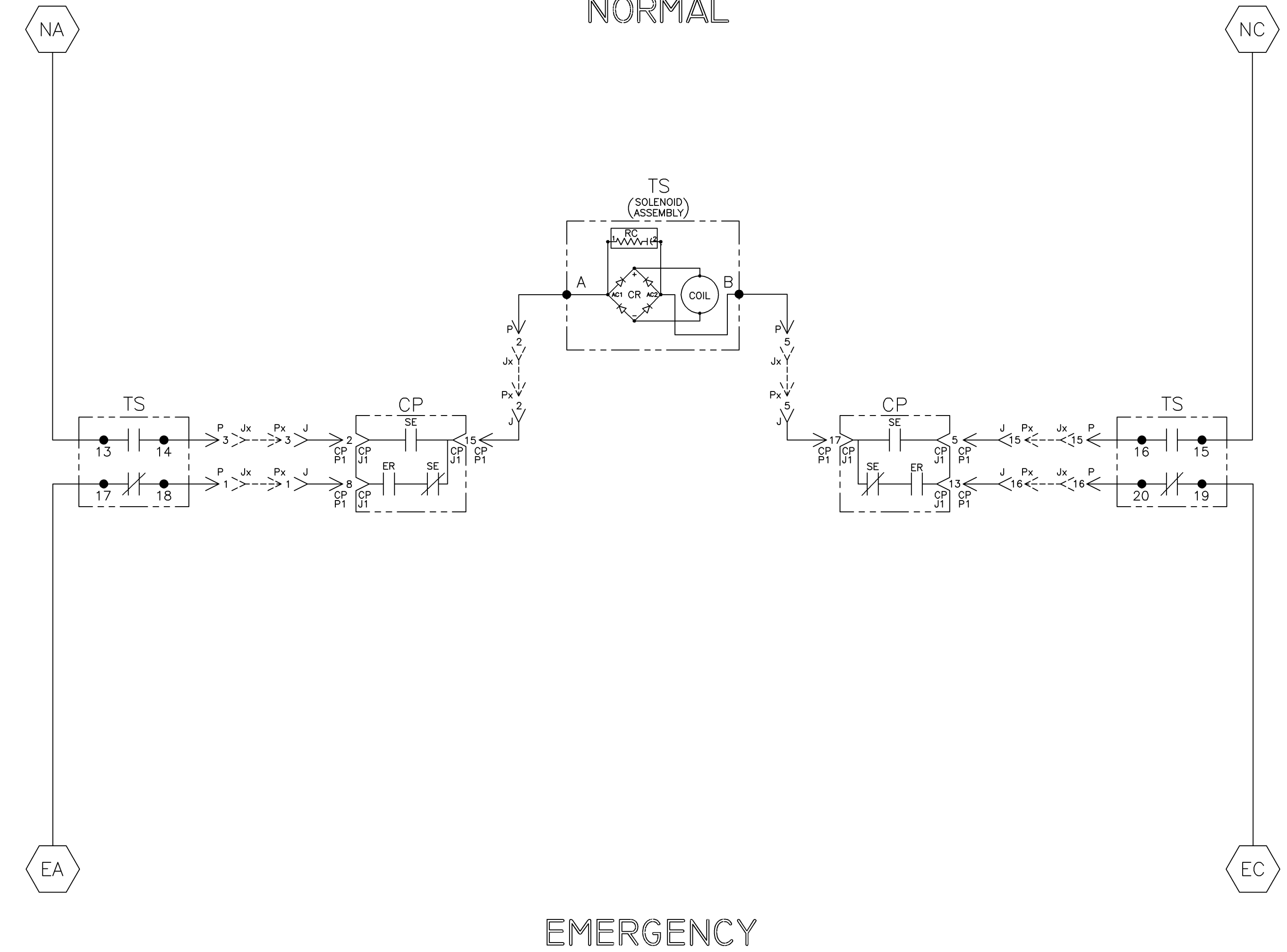
NORMAL



OPTIONAL NEUTRAL TYPES
REFER TO "EXPLANATION OF CATALOG NUMBER CODES"
IN CATALOG NUMBER CHART ON SHEET 1.

- NONE
- SWITCHING CONTACTS
- OVERLAPPING CONTACTS
- SOLID BUS PLATE

NOTE:
TS SHOWN CLOSED ON NORMAL SOURCE.



TS	SOLENOID POSITION			
	CLOSED BEFORE NORMAL	BEFORE TDC	BEFORE CLOSED	EMERG
13-14				
15-16				
17-18				
19-20				

TDC (TOP DEAD CENTER)
TRANSFER SWITCH TEST & ADJUSTMENT PROCEDURE
SPECIFIES CONTROL CUT-OFF (CONTACT OPENING)
SETTING.

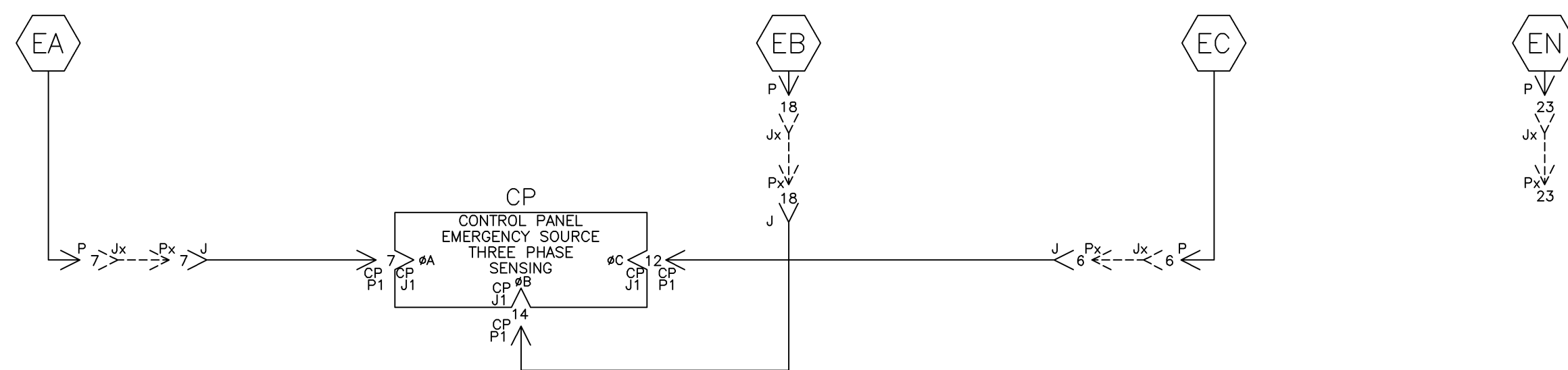
PROJECT NAME:		208564 TR WK 05/04/06	
WIRING DIAGRAM		ISSUE	
7000 SERIES (J7NTS)		SUBSIDIARY DISTRIBUTION	
GROUP 5 CONTROLS		THIRD ANGLE PROJECTION	
BY	DATE	MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055	ASSEM. REF. NO.
DRAWN BY	DJB	05/04/06	
CHECKED	BK	05/04/06	PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.
DRAFTING	WK	05/04/06	
APPROVAL			
SCALE 1:1		ACAD FILE	
SIZE DWG. NO. DS796898		COMPUTER GENERATED DRAWING	
CHANGE LETTER	ECN NO.	208564	3 OF 6



EMERGENCY SOURCE CIRCUITS

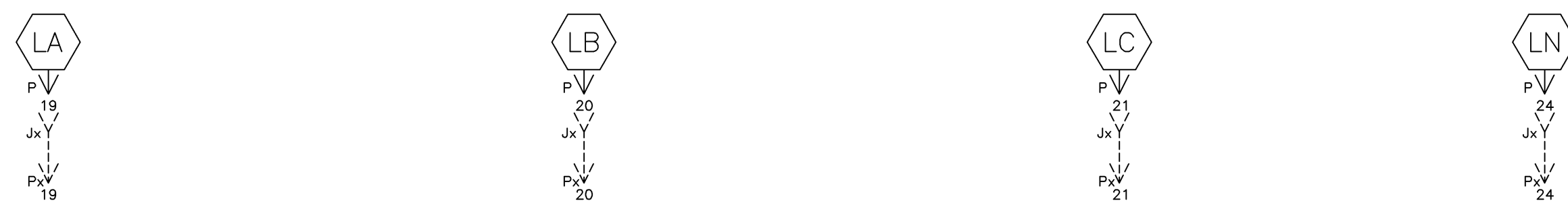
ADDITIONAL CIRCUITS

EMERGENCY



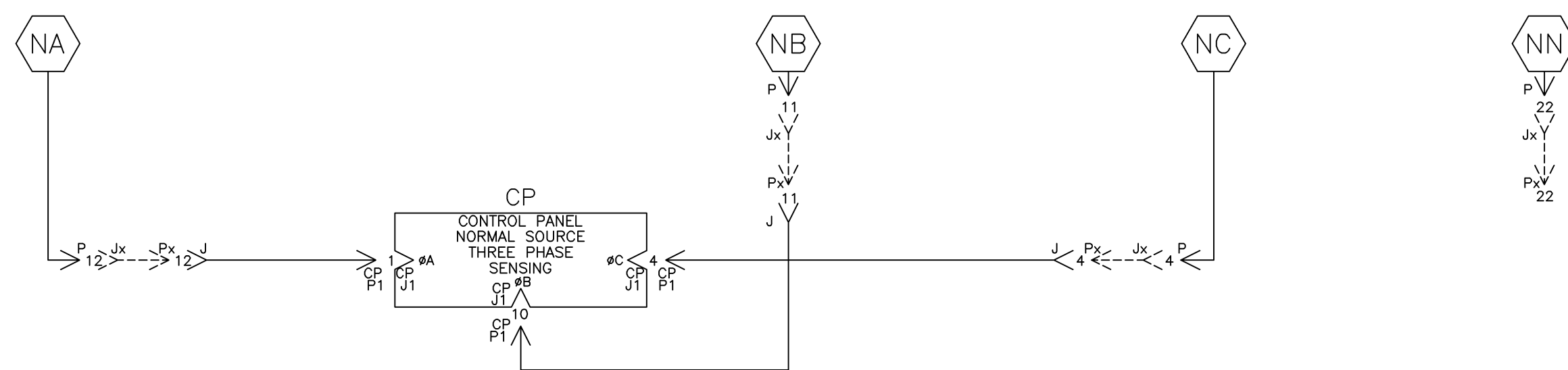
LOAD TERMINAL CIRCUITS

LOAD

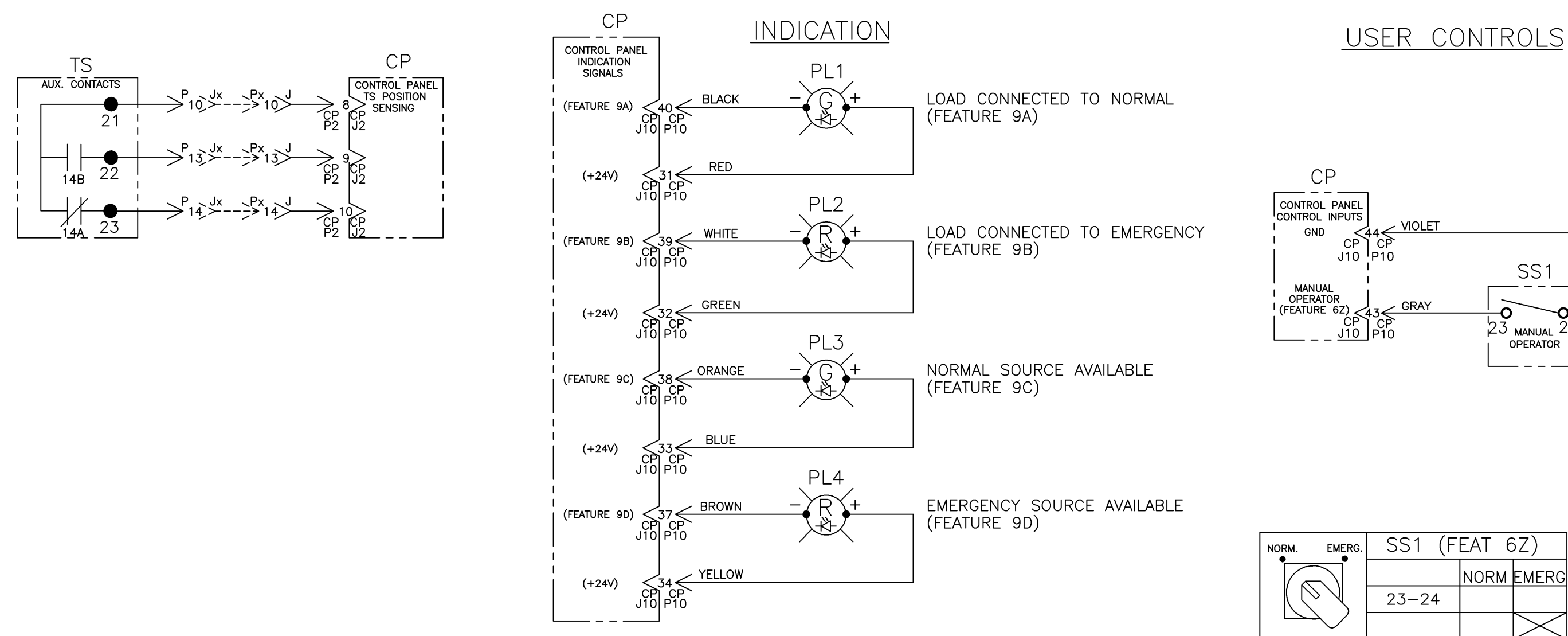


NORMAL SOURCE CIRCUITS

NORMAL



CONTROL CIRCUITS

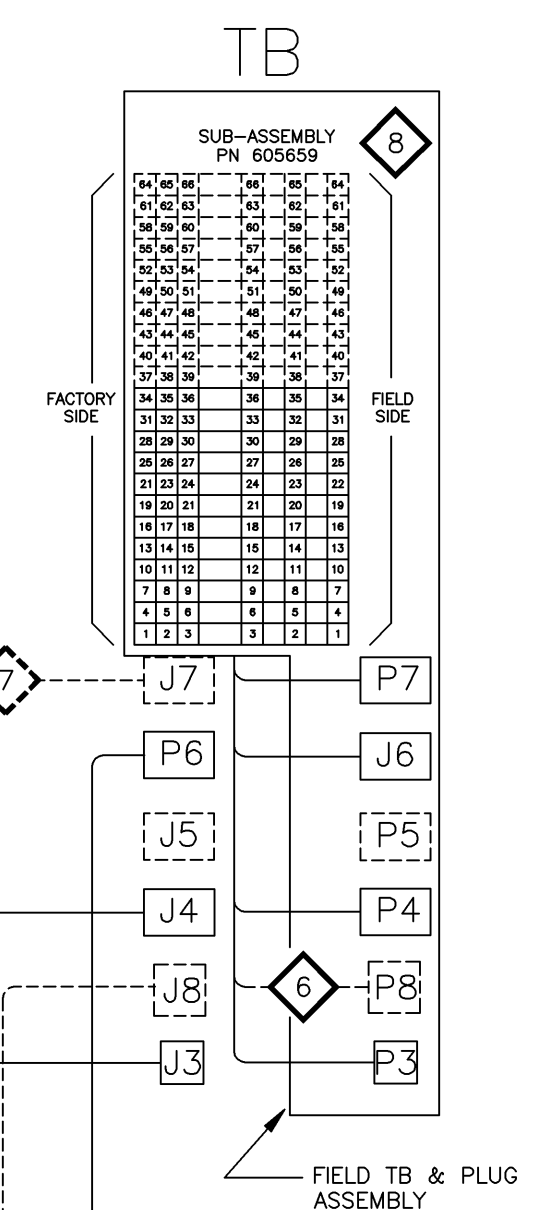
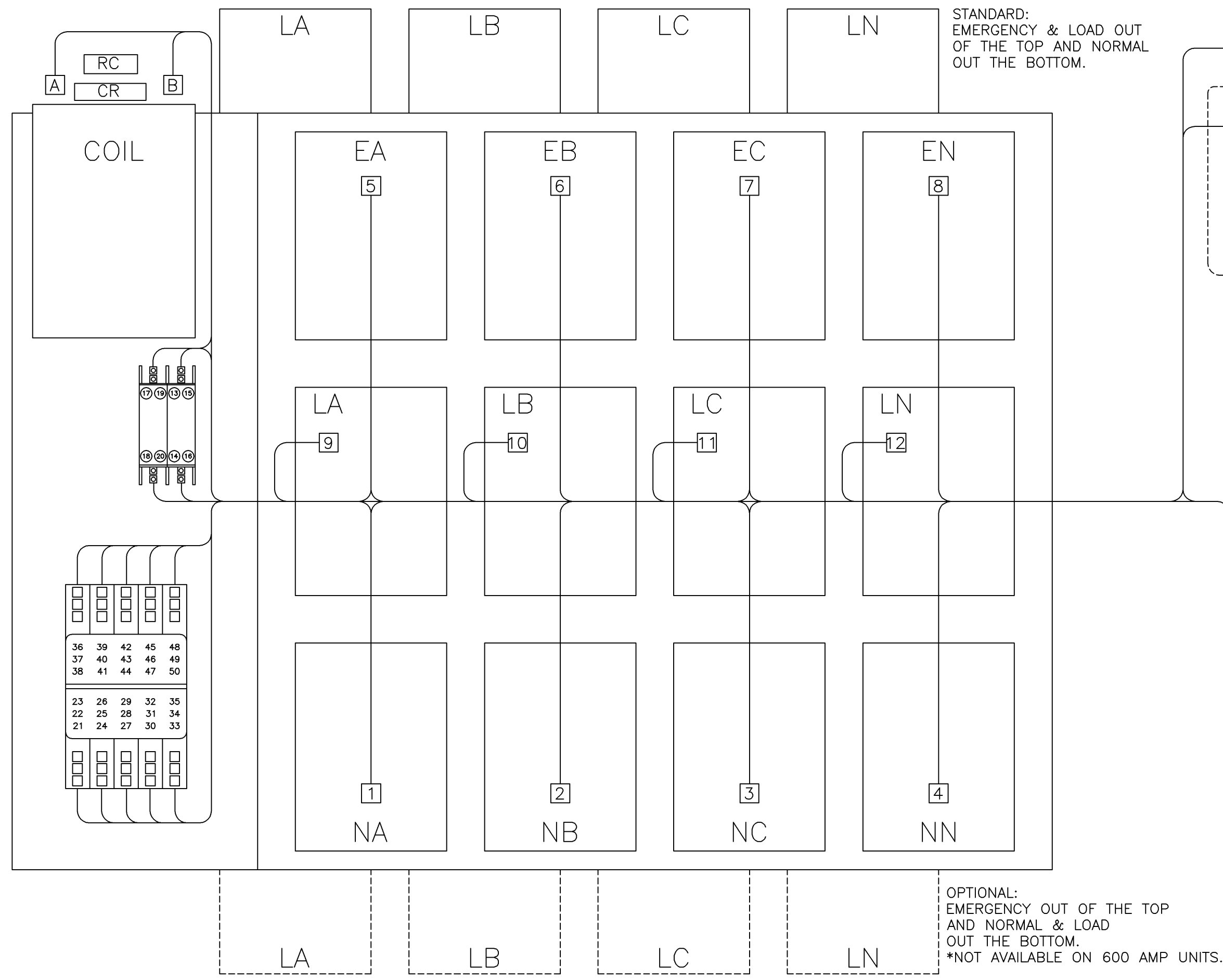


PROJECT NAME:		208564 TR WK 05/04/06	
WIRING DIAGRAM		ISSUE	
7000 SERIES (J7NTS)		SUBSIDIARY DISTRIBUTION	
GROUP 5 CONTROLS		THIRD ANGLE PROJECTION	
BY: DJB	DATE: 05/04/06	MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-005.	ASSEM. REF. NO.
CHECKED: BK	DATE: 05/04/06	PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	
DRAFTING APPROVAL: WK	DATE: 05/04/06	COMPUTER GENERATED DRAWING	
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CHANGE LETTER:	ECN NO. 208564	SHEET NO. 4	OF 6

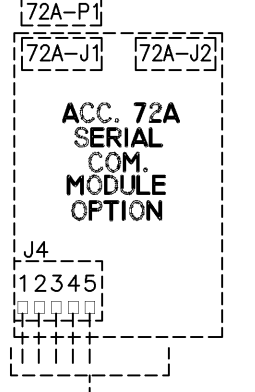
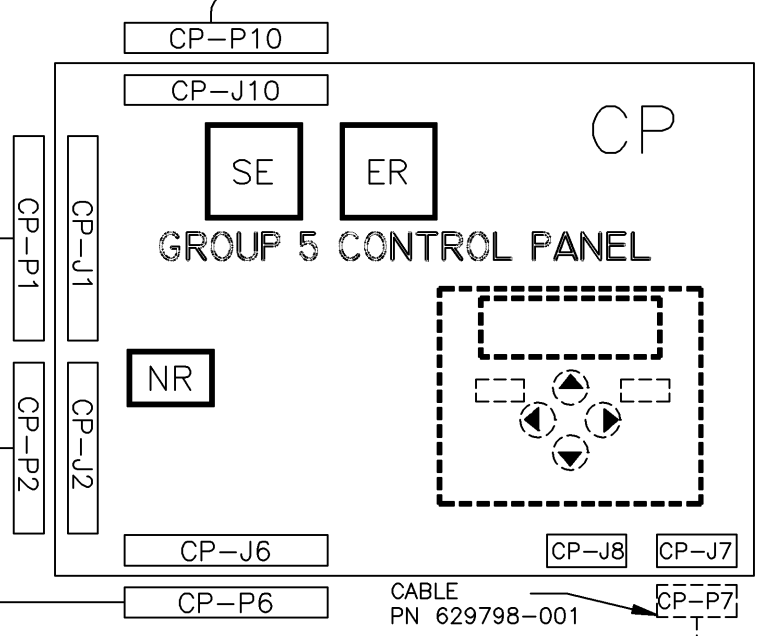
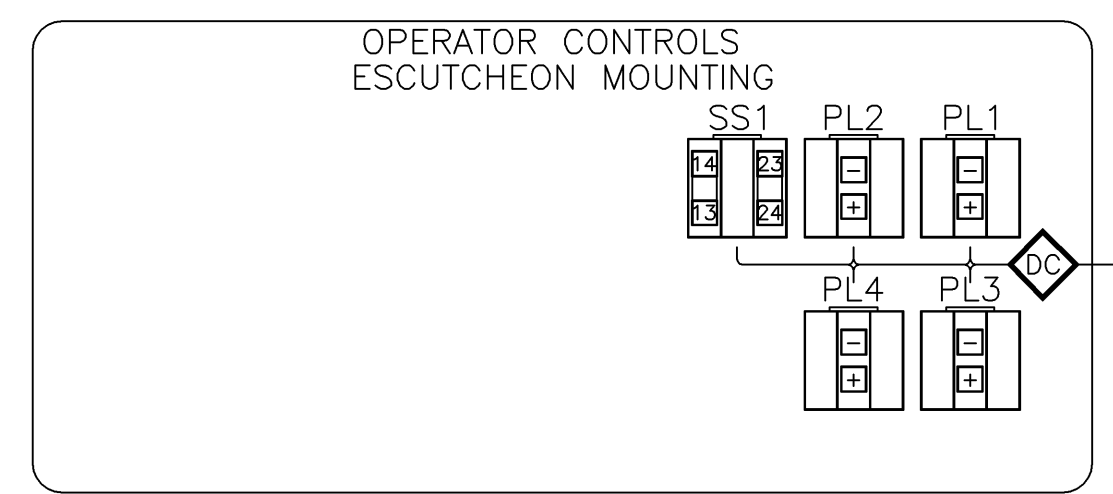
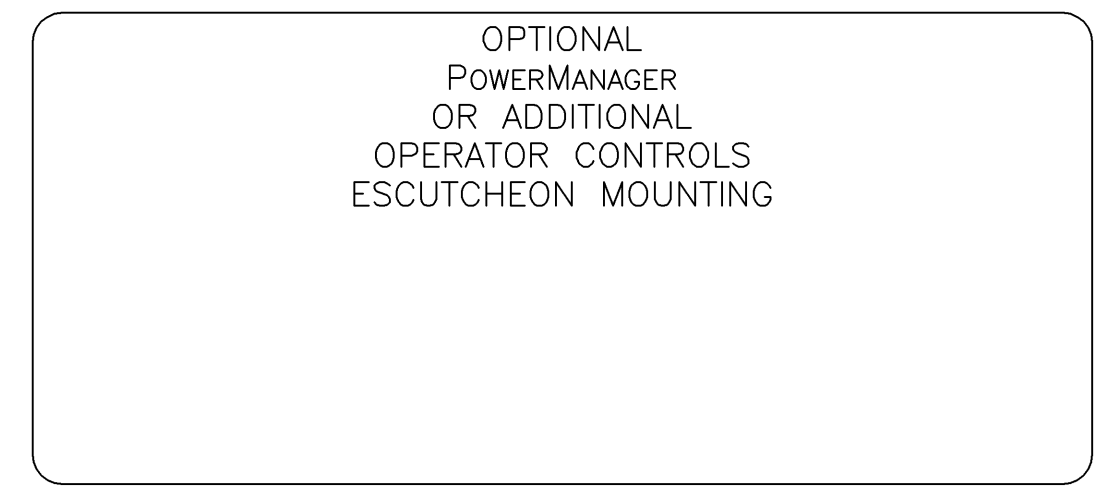
PHYSICAL DIAGRAM

ENCLOSURE

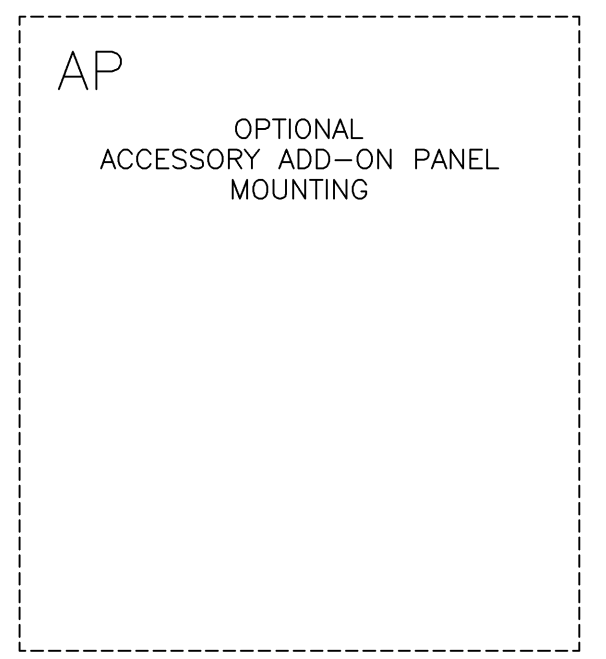
TS (TRANSFER SWITCH)
VIEW FROM INSIDE FRONT



TOP DOOR (INSIDE)



ASCO OPTIONAL
SERIAL COMMUNICATION
DEVICE



OPERATOR CONTROLS

ID	DESCRIPTION
PL1	TS CONNECTED TO NORMAL (GREEN)
PL2	TS CONNECTED TO EMERGENCY (RED)
PL3	NORMAL SOURCE ACCEPTED (GREEN)
PL4	EMERGENCY SOURCE ACCEPTED (RED)
SS1	MANUAL TRANSFER OPERATOR NORMAL EMERGENCY

DOOR HINGE

BONDING STRAP
PN 098323-019

PROJECT NAME: WIRING DIAGRAM

7000 SERIES (J7NTS)
GROUP 5 CONTROLS

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055.

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FLORHAM PARK, NEW JERSEY 07932 U.S.A.

208564	TR	WK	05/04/06

CHANGE LETTER ECN NO. BY APP. DATE

THIRD ANGLE PROJECTION

SCALE 1:1 ACAD FILE

SIZE DWG. NO. SHEET

DS796898 5 OF 6

WIRE RUN LISTING

Table 1: HARNESS LOCATOR 1 (HARNES 619510-062 (P,J3,J4) MAIN TS). Columns: WIRE No., HARNES 619510-062 (P,J3,J4) MAIN TS, CLR, AWG. Rows: 1 P-1,TS-18; 2 P-2,TS-A; 3 P-3,TS-14; 4 P-4,TS-3; 5 P-5,TS-15; 6 P-6,TS-7; 7 TS-7,TS-19; 8 P-8,TS-24; 9 TS-24,J3-1; 10 P-9,TS-25; 11 TS-25,J3-2; 12 P-10,TS-21; 13 P-11,TS-2; 14 TS-12,TS-13; 15 P-14,TS-23; 16 P-15,TS-16; 17 P-16,TS-20; 18 P-17,J3-3; 19 P-18,TS-6; 20 P-19,TS-9; 21 P-20,TS-10; 22 P-21,TS-11; 23 P-22,TS-4; 24 P-23,TS-8; 25 J4-1,TS-27; 26 J4-2,TS-28; 27 J4-3,TS-29; 28 J4-4,TS-30; 29 J4-5,TS-31; 30 J4-6,TS-32; 31 J4-7,TS-33; 32 J4-8,TS-34; 33 J4-9,TS-35; 34 J4-10,TS-36; 35 J4-11,TS-37; 36 J4-12,TS-38; 37 J4-13,TS-39; 38 J4-14,TS-40; 39 J4-15,TS-41; 40 J4-16,TS-42; 41 J4-17,TS-43; 42 J4-18,TS-44; 43 J4-19,TS-45; 44 J4-20,TS-46; 45 J4-21,TS-47; 46 J4-22,TS-48; 47 J4-23,TS-49; 48 J4-24,TS-50. ADD WIRES: 97 J3-4.

Table 2: HARNESS LOCATOR 3 (HARNES 309320-005 OPTIONAL 8" EXTENSION HARNES). Columns: WIRE No., HARNES 309320-005 OPTIONAL 8" EXTENSION HARNES, CLR, AWG. Rows: 1 Jx-1,Px-1; 2 Jx-2,Px-2; 3 Jx-3,Px-3; 4 Jx-4,Px-4; 5 Jx-5,Px-5; 6 Jx-6,Px-6; 7 Jx-7,Px-7; 8 Jx-8,Px-8; 9 Jx-9,Px-9; 10 Jx-10,Px-10; 11 Jx-11,Px-11; 12 Jx-12,Px-12; 13 Jx-13,Px-13; 14 Jx-14,Px-14; 15 Jx-15,Px-15; 16 Jx-16,Px-16; 17 Jx-17,Px-17; 18 Jx-18,Px-18; 19 Jx-19,Px-19; 20 Jx-20,Px-20; 21 Jx-21,Px-21; 22 Jx-22,Px-22; 23 Jx-23,Px-23; 24 Jx-24,Px-24.

Table 3: HARNESS LOCATOR 4 (HARNES 619510-005 (P6) FIELD INPUTS). Columns: WIRE No., HARNES 619510-005 (P6) FIELD INPUTS, CLR, AWG. Rows: 49 P6-1,CP-P6-21; 50 P6-2,CP-P6-22; 51 P6-3,CP-P6-23; 52 P6-4,CP-P6-9; 53 P6-5,CP-P6-10. REMOVE WIRES: 52 P6-4,CP-P6-9; 53 P6-5,CP-P6-10. ADD WIRES: 54 P6-6; 55 P6-7; 56 P6-8; 57 P6-9; 58 P6-10; 59 P6-11; 60 P6-12; 61 P6-13; 62 P6-14; 63 P6-15; 64 P6-16; 65 P6-17; 66 P6-18; 67 P6-19; 68 P6-20; 69 P6-21; 70 P6-22; 71 P6-23; 72 P6-24.

Table 4: HARNESS LOCATOR 7 (HARNES (J7) OPTIONAL FIELD OUTPUTS). Columns: WIRE No., HARNES (J7) OPTIONAL FIELD OUTPUTS, CLR, AWG. Rows: 73 J7-1; 74 J7-2; 75 J7-3; 76 J7-4; 77 J7-5; 78 J7-6; 79 J7-7; 80 J7-8; 81 J7-9; 82 J7-10; 83 J7-11; 84 J7-12; 85 J7-13; 86 J7-14; 87 J7-15; 88 J7-16; 89 J7-17; 90 J7-18; 91 J7-19; 92 J7-20; 93 J7-21; 94 J7-22; 95 J7-23; 96 J7-24.

Table 5: HARNESS LOCATOR 8 (SUB-ASSEMBLY 605659 (P3,P4,J6,P7,TB) STD. FIELD TB). Columns: WIRE No., SUB-ASSEMBLY 605659 (P3,P4,J6,P7,TB) STD. FIELD TB, CLR, AWG. Rows: 8 TB-1,P3-1; 9 TB-2,P3-2; 17 TB-3,P3-3; 25 TB-4,P4-1; 26 TB-5,P4-2; 27 TB-6,P4-3; 28 TB-7,P4-4; 29 TB-8,P4-5; 30 TB-9,P4-6; 31 TB-10,P4-7; 32 TB-11,P4-8; 33 TB-12,P4-9; 34 TB-13,P4-10; 36 TB-14,P4-12; 35 TB-15,P4-11; 37 TB-16,P4-13; 39 TB-17,P4-15; 38 TB-18,P4-14; 40 TB-19,P4-16; 42 TB-20,P4-18; 41 TB-21,P4-17; 43 TB-22,P4-19; 45 TB-23,P4-21; 44 TB-24,P4-20; 46 TB-25,P4-22; 48 TB-26,P4-24; 47 TB-27,P4-23; 49 TB-28,J6-1; 50 TB-29,J6-2; 51 TB-30,J6-3; 52 TB-31,J6-4; 53 TB-32,J6-5; 73 TB-34,P7-1; 74 TB-35,P7-2; 75 TB-36,P7-3. JUMPERS: -TB-28,TB-29; -TB-29,TB-30. ADD WIRES: 97 P3-4.

Table 6: HARNESS LOCATOR 5 (HARNES 605454-005 (J8) OPTIONAL SERIAL I/O). Columns: WIRE No., HARNES 605454-005 (J8) OPTIONAL SERIAL I/O, CLR, AWG. Rows: 98 JB-1,72A-5; 99 JB-2,72A-1; 100 JB-3,72A-2; 101 JB-4,72A-3; 102 JB-5,72A-4. ADD WIRES: 103 JB-6; 104 JB-7; 105 JB-8; 106 JB-9. Table 7: HARNESS LOCATOR 6 (HARNES 605454-007 (P8,TB) OPTIONAL SERIAL I/O). Columns: WIRE No., HARNES 605454-007 (P8,TB) OPTIONAL SERIAL I/O, CLR, AWG. Rows: 98 P8-1,TB-37; 99 P8-2,TB-38; 100 P8-3,TB-39; 101 P8-4,TB-40; 102 P8-5,TB-41. ADD WIRES: 103 P8-6; 104 P8-7; 105 P8-8; 106 P8-9.

Table 8: HARNESS LOCATOR 10 (HARNES 713083-001 (CP-P10) DOOR CONTROLS & INDICATORS). Columns: WIRE No., HARNES 713083-001 (CP-P10) DOOR CONTROLS & INDICATORS, CLR, AWG. Rows: 150 CP-P10-31,PL1(+); 151 CP-P10-42,SS1-14; 152 CP-P10-40,PL1(-); 153 CP-P10-39,PL2(-); 154 CP-P10-38,PL3(-); 155 CP-P10-37,PL4(-); 156 CP-P10-43,SS1-23; 157 CP-P10-41,SS1-13; 158 CP-P10-32,PL2(+); 159 CP-P10-33,PL3(+); 160 CP-P10-34,PL4(+); 161 CP-P10-44,SS1-24. REMOVE WIRES: 151 CP-P10-42,SS1-14; 157 CP-P10-41,SS1-13. ADD WIRES.

Table 9: ADDITIONAL WIRING. Columns: WIRE No., ADDITIONAL WIRING, CLR, AWG. Row: 16.

Table 10: HARNESS LOCATOR 2 (HARNES 483763 (J,CP-P1,CP-P2) CONTROL PANEL). Columns: WIRE No., HARNES 483763 (J,CP-P1,CP-P2) CONTROL PANEL, CLR, AWG. Rows: 1 J-1,CP-P1-8; 2 J-2,CP-P1-15; 3 J-3,CP-P1-2; 4 J-4,CP-P1-4; 5 J-5,CP-P1-17; 6 J-6,CP-P1-12; 7 J-7,CP-P1-7; 8 J-8,CP-P2-2; 9 J-9,CP-P2-3; 10 J-10,CP-P2-8; 11 J-11,CP-P1-10; 12 J-12,CP-P1-1; 13 J-13,CP-P2-9; 14 J-14,CP-P2-10; 15 J-15,CP-P1-5; 16 J-16,CP-P1-13; 17 J-17,CP-P2-1; 18 J-18,CP-P1-14. ADD WIRES: 19 J-19; 20 J-20; 21 J-21; 22 J-22; 23 J-23; 24 J-24.

PROJECT NAME: WIRING DIAGRAM 7000 SERIES (J7NTS) GROUP 5 CONTROLS. ISSUE: 208564 TR WK 05/04/06. SCALE: 1:1 ACAD FILE. ASSEMBLY REF. NO. DS 796898. ASICO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A.