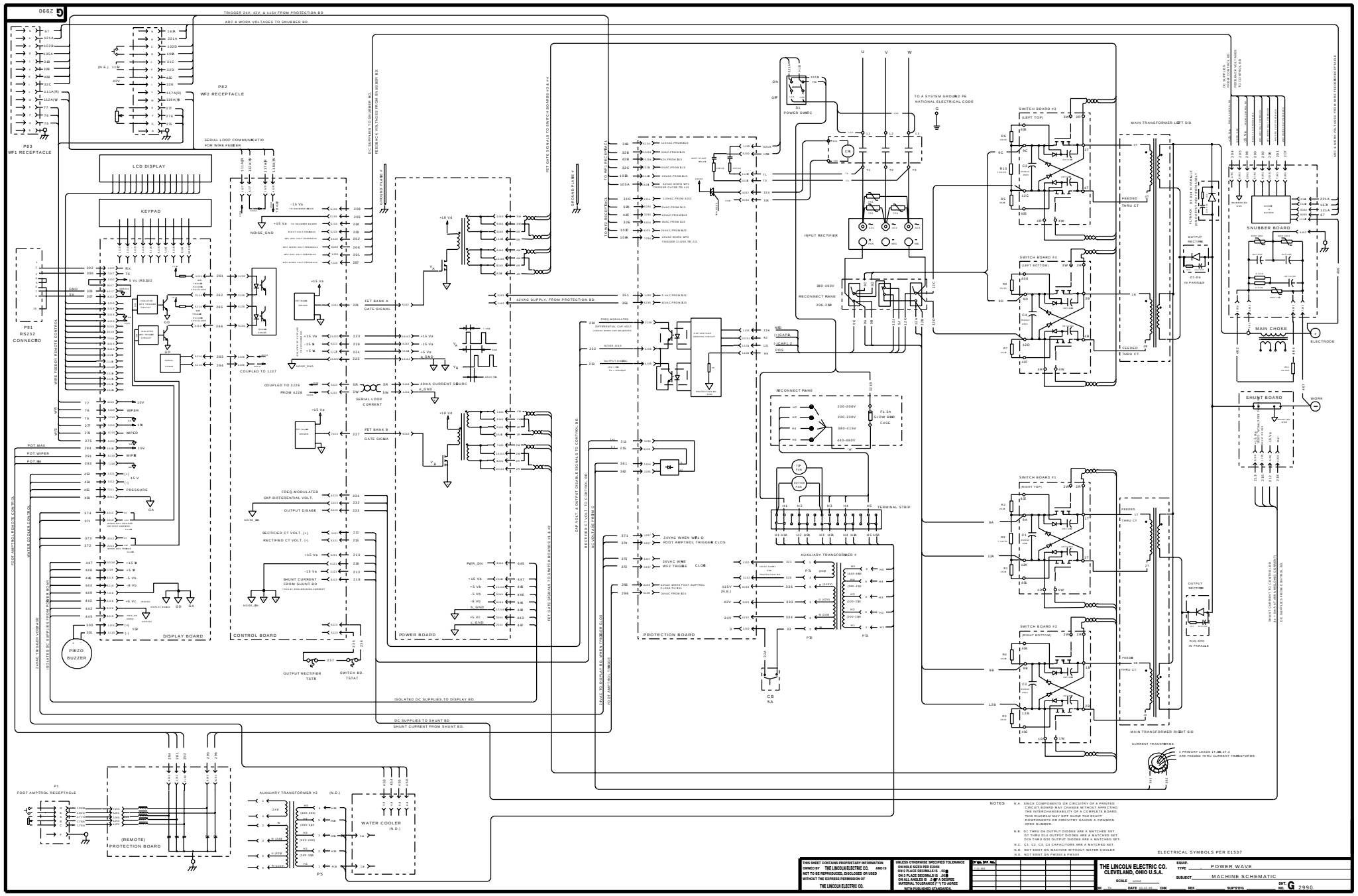
G 2990
TRIGGER 24V, 42V, & 115V FROM PROTECTION BD.
ARC & WORK VOLTAGES TO SNUBBER BD.
P82
WF2 RECEPTACLE
P83
WF1 RECEPTACLE
SERIAL LOOP COMMUNICATIO
FOR WIRE FEEDER
LCD DISPLAY
KEYPAD
P81
RS232
CONNECTIO
WIRE FEEDER REMOTE CONTROL
DISPLAY BOARD
CONTROL BOARD
POWER BOARD
PROTECTION BOARD
PIEZO
BUZZER
FOOT AMPTROL REMOTE CONTROL
WATER COOLER CONTROL
24VAC TRIGGERS TO WF2 WIRE FEEDER
ISOLATED DC SUPPLIES TO WF2 WIRE FEEDER
NOISE_GND
FET BANK A
GATE SIGNAL
FET BANK B
GATE SIGNA
SERIAL LOOP
CURRENT
COUPLED TO 1227
COUPLED TO 3226
FROM 4228
FREQ MODULATED
CAP DIFFERENTIAL VOLT.
OUTPUT DISABLE
RECTIFIED CT VOLT. (+)
RECTIFIED CT VOLT. (-)
SHUNT CURRENT
FROM SHUNT BD
OUTPUT RECTIFIER
TSTR
SWITCH BD.
TSTAT
PWR_ON
S_GND
HOT GATE SIGNALS TO SWITCH BOARDS #1 & #3
CAP VOLT & OUTPUT DISABLE SIGNALS TO CONTROL BD.
RECTIFIED CT VOLT. TO CONTROL BD.
AC VOLTAGE FEEDBACK
24VAC TO DISPLAY BD. (MAIN TRANSFORMER CLOS
FOOT AMPTROL TRIGGE
ISOLATED DC SUPPLIES TO DISPLAY BD.
DC SUPPLIES TO SHUNT BD
SHUNT CURRENT FROM SHUNT BD.
P1
FOOT AMPTROL RECEPTACLE
(REMOTE)
PROTECTION BOARD
AUXILIARY TRANSFORMER #2
(N.O.)
WATER COOLER
(N.O.)
P5
DC SUPPLIES TO SHUNT BD.
REGEN FEEDBACK VOLTAGES FROM SHUNT BD.
RETURN SIGNALS TO SWITCH BOARDS #1 & #3
GROUND PLANE #
TO WF1 WIRE FEEDER
TO WF2 WIRE FEEDER
POWER SWITC
ON
OFF
TO A SYSTEM GROUND PE
NATIONAL ELECTRICAL CODE
INPUT RECTIFIER
380-460V
RECONNECT PANE
208-230
RECONNECT PANE
200-208V
220-230V
380-415V
440-460V
F1 5A
SLOW BLO
FUSE
TOP
FAN
BOTTOM
FAN
TERMINAL STRIP
AUXILIARY TRANSFORMER #
CB
5A
SWITCH BOARD #1
(RIGHT TOP)
SWITCH BOARD #2
(RIGHT BOTTOM)
SWITCH BOARD #3
(LEFT TOP)
SWITCH BOARD #4
(LEFT BOTTOM)
MAIN TRANSFORMER LEFT SID
MAIN TRANSFORMER RIGHT SID
FEEDER
THRU CT
OUTPUT
RECTIFIE
D1-D6
IN PARALLE
D15-D20
IN PARALLE
SNUBBER BOARD
MAIN CHOKE
ELECTRODE
WORK
SHUNT BOARD
CURRENT TRANSFORMERS
A PRIMARY LEADS 17, 18, 27, 4
ARE PASSED THRU CURRENT TRANSFORME
ELECTRICAL SYMBOLS PER E1537
NOTES
N.A. SINCE COMPONENTS OR CIRCUITRY OF A PRINTED CIRCUIT BOARD MAY CHANGE WITHOUT AFFECTING THE INTERCHANGEABILITY OF A COMPLETE BOARD, THIS DIAGRAM MAY NOT SHOW THE EXACT COMPONENTS OR CIRCUITRY HAVING A COMMON CODE NUMBER.
N.B. D1 THRU D6 OUTPUT DIODES ARE A MATCHED SET. D7 THRU D14 OUTPUT DIODES ARE A MATCHED SET. D15 THRU D20 OUTPUT DIODES ARE A MATCHED SET.
N.C. C1, C2, C3, C4 CAPACITORS ARE A MATCHED SET.
N.D. NOT EXIST ON MACHINE WITHOUT WATER COOLER
N.E. NOT EXIST ON PW150 & PW300
THIS SHEET CONTAINS PROPRIETARY INFORMATION OWNED BY THE LINCOLN ELECTRIC CO. AND IS NOT TO BE REPRODUCED, DISCLOSED OR USED WITHOUT THE EXPRESS PERMISSION OF THE LINCOLN ELECTRIC CO.
UNLESS OTHERWISE SPECIFIED TOLERANCE ON ALL DECIMALS IS: ON 2 PLACE DECIMALS IS: ON 3 PLACE DECIMALS IS: ON ALL ANGLES IS: IF A DEGREE MATERIAL TOLERANCE (*) TO AGREE WITH EXPLOSED STANDARDS
THE LINCOLN ELECTRIC CO.
CLEVELAND, OHIO U.S.A.
EQUIP. POWER WAVE
TYPE
SUBJECT MACHINE SCHEMATIC
SCALE NONE
DATE 10-10-05
CHK.
REF.
SUP'SDG
SHT. NO. G 2990