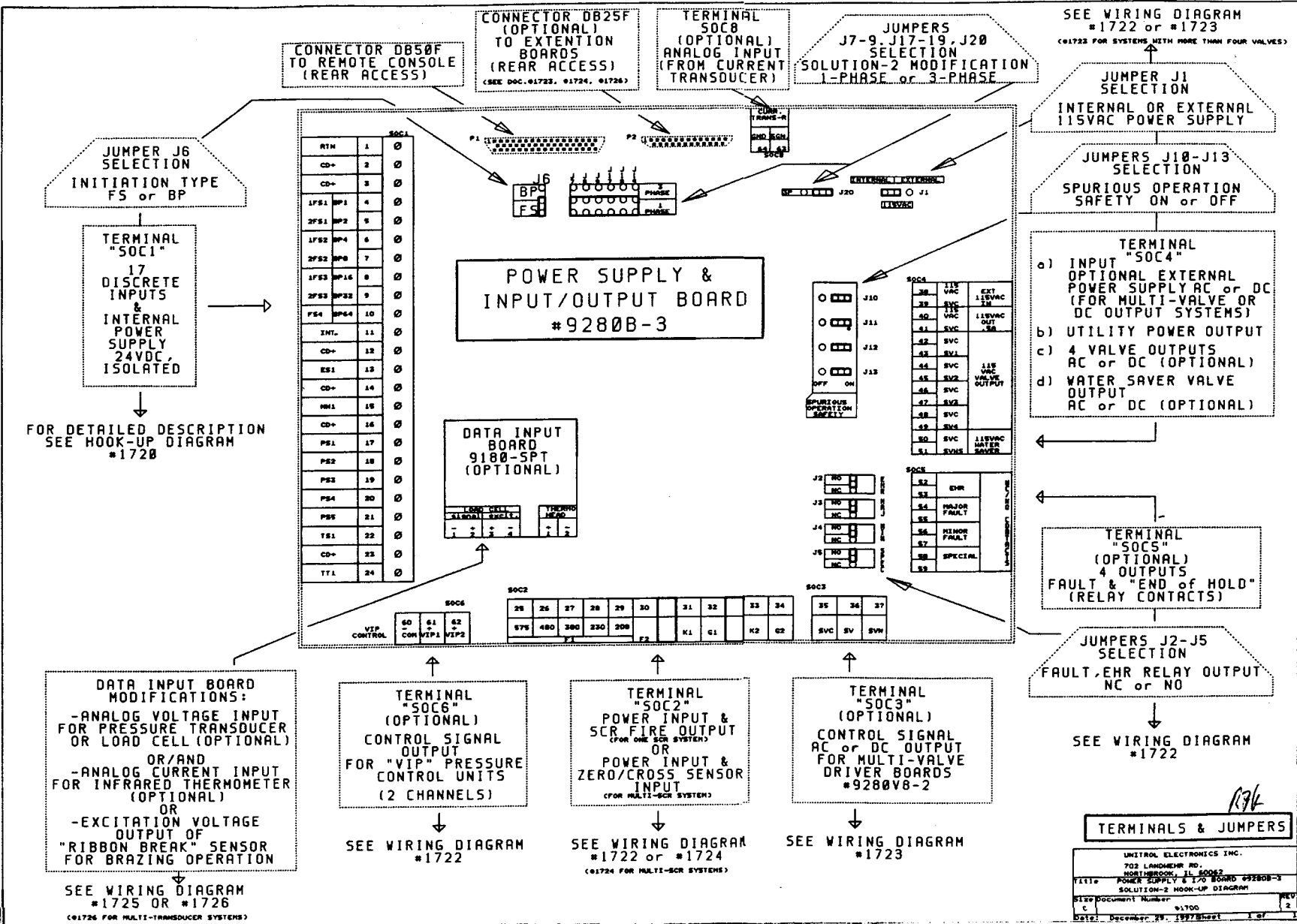

CONNECTOR DB50F TO REMOTE CONSOLE (REAR ACCESS)
CONNECTOR DB25F (OPTIONAL) TO EXTENTION BOARDS (REAR ACCESS)
(SEE DOC.01723, 01724, 01726)
TERMINAL SOC8 (OPTIONAL) ANALOG INPUT (FROM CURRENT TRANSDUCER)
JUMPERS J7-9, J17-19, J20 SELECTION SOLUTION-2 MODIFICATION 1-PHASE or 3-PHASE
SEE WIRING DIAGRAM #1722 or #1723
(#1723 FOR SYSTEMS WITH MORE THAN FOUR VALVES)
JUMPER J1 SELECTION
INTERNAL OR EXTERNAL 115VAC POWER SUPPLY
JUMPERS J10-J13 SELECTION
SPURIOUS OPERATION SAFETY ON or OFF
JUMPER J6 SELECTION
INITIATION TYPE FS or BP
TERMINAL "SOC1"
17 DISCRETE INPUTS & INTERNAL POWER SUPPLY 24VDC, ISOLATED
FOR DETAILED DESCRIPTION SEE HOOK-UP DIAGRAM #1720
POWER SUPPLY & INPUT/OUTPUT BOARD #9280B-3
TERMINAL "SOC4"
a) INPUT OPTIONAL EXTERNAL POWER SUPPLY AC or DC (FOR MULTI-VALVE OR DC OUTPUT SYSTEMS)
b) UTILITY POWER OUTPUT
c) 4 VALVE OUTPUTS AC or DC (OPTIONAL)
d) WATER SAVER VALVE OUTPUT AC or DC (OPTIONAL)
DATA INPUT BOARD 9180-SPT (OPTIONAL)
TERMINAL "SOC5" (OPTIONAL) 4 OUTPUTS FAULT & "END of HOLD" (RELAY CONTACTS)
JUMPERS J2-J5 SELECTION
FAULT, EHR RELAY OUTPUT NC or NO
SEE WIRING DIAGRAM #1722
DATA INPUT BOARD MODIFICATIONS:
-ANALOG VOLTAGE INPUT FOR PRESSURE TRANSDUCER OR LOAD CELL (OPTIONAL)
OR/AND
-ANALOG CURRENT INPUT FOR INFRARED THERMOMETER (OPTIONAL)
OR
-EXCITATION VOLTAGE OUTPUT OF "RIBBON BREAK" SENSOR FOR BRAZING OPERATION
SEE WIRING DIAGRAM #1725 OR #1726
(#1726 FOR MULTI-TRANSDUCER SYSTEMS)
TERMINAL "SOC6" (OPTIONAL)
CONTROL SIGNAL OUTPUT FOR "VIP" PRESSURE CONTROL UNITS (2 CHANNELS)
SEE WIRING DIAGRAM #1722
TERMINAL "SOC2" POWER INPUT & SCR FIRE OUTPUT (FOR ONE SCR SYSTEM) OR POWER INPUT & ZERO/CROSS SENSOR INPUT (FOR MULTI-SCR SYSTEM)
SEE WIRING DIAGRAM #1722 or #1724
(#1724 FOR MULTI-SCR SYSTEMS)
TERMINAL "SOC3" (OPTIONAL)
CONTROL SIGNAL AC or DC OUTPUT FOR MULTI-VALVE DRIVER BOARDS #9280V8-2
SEE WIRING DIAGRAM #1723
TERMINALS & JUMPERS
UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062
Title: POWER SUPPLY & I/O BOARD #9280B-3
SOLUTION-2 HOOK-UP DIAGRAM
Size: C
Document Number: 01700
REV: 2
Date: December 29, 1997 Sheet 1 of

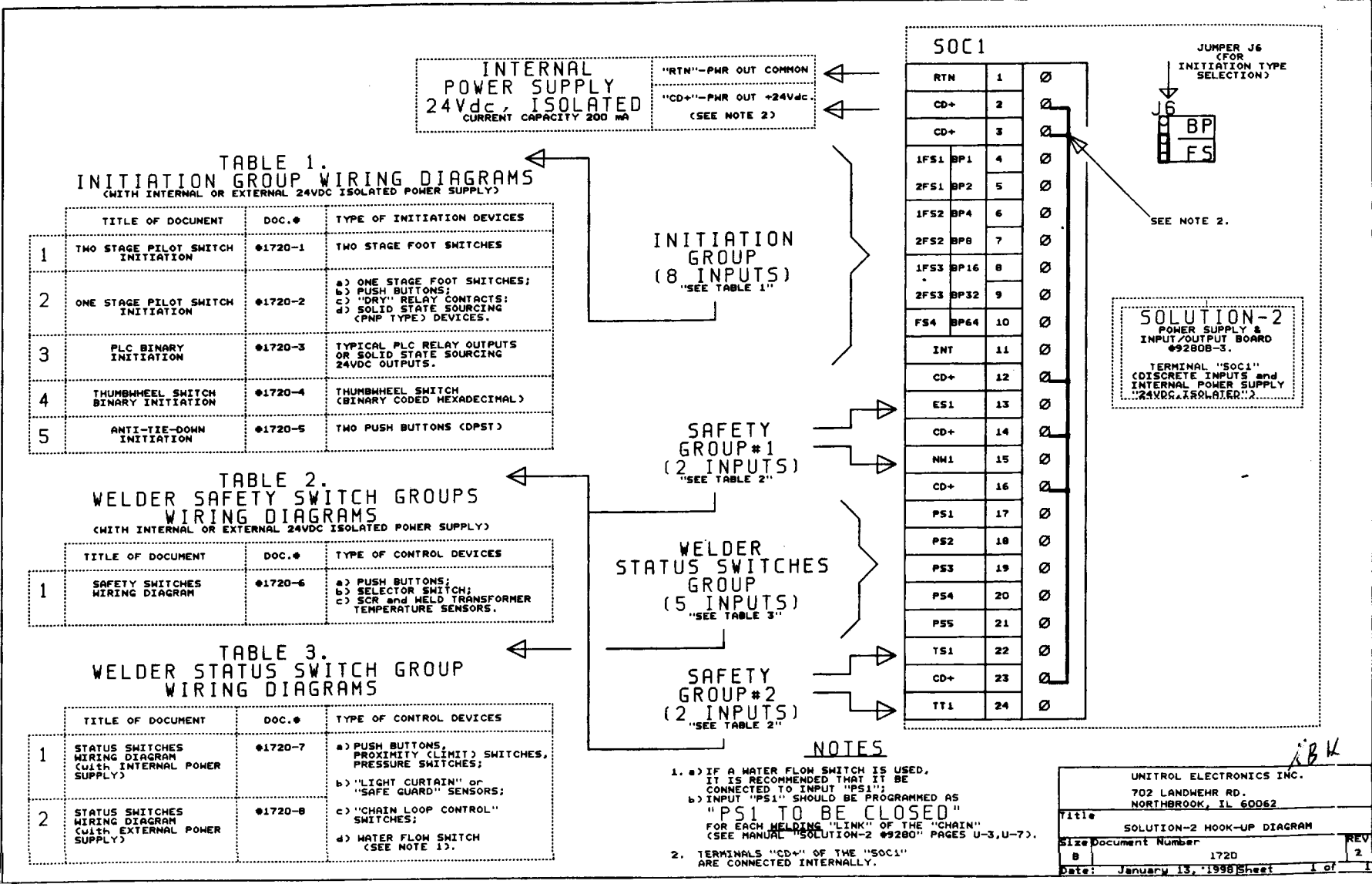


TABLE 1.
INITIATION GROUP WIRING DIAGRAMS
(WITH INTERNAL OR EXTERNAL 24VDC ISOLATED POWER SUPPLY)

	TITLE OF DOCUMENT	DOC.#	TYPE OF INITIATION DEVICES
1	TWO STAGE PILOT SWITCH INITIATION	#1720-1	TWO STAGE FOOT SWITCHES
2	ONE STAGE PILOT SWITCH INITIATION	#1720-2	a) ONE STAGE FOOT SWITCHES; b) PUSH BUTTONS; c) "DRY" RELAY CONTACTS; d) SOLID STATE SOURCING (PNP TYPE) DEVICES.
3	PLC BINARY INITIATION	#1720-3	TYPICAL PLC RELAY OUTPUTS OR SOLID STATE SOURCING 24VDC OUTPUTS.
4	THUMBWHEEL SWITCH BINARY INITIATION	#1720-4	THUMBWHEEL SWITCH (BINARY CODED HEXADECIMAL)
5	ANTI-TIE-DOWN INITIATION	#1720-5	TWO PUSH BUTTONS (DPST)

TABLE 2.
WELDER SAFETY SWITCH GROUPS WIRING DIAGRAMS
(WITH INTERNAL OR EXTERNAL 24VDC ISOLATED POWER SUPPLY)

	TITLE OF DOCUMENT	DOC.#	TYPE OF CONTROL DEVICES
1	SAFETY SWITCHES WIRING DIAGRAM	#1720-6	a) PUSH BUTTONS; b) SELECTOR SWITCH; c) SCR and WELD TRANSFORMER TEMPERATURE SENSORS.

TABLE 3.
WELDER STATUS SWITCH GROUP WIRING DIAGRAMS

	TITLE OF DOCUMENT	DOC.#	TYPE OF CONTROL DEVICES
1	STATUS SWITCHES WIRING DIAGRAM (with INTERNAL POWER SUPPLY)	#1720-7	a) PUSH BUTTONS, PROXIMITY (LIMIT) SWITCHES, PRESSURE SWITCHES; b) "LIGHT CURTAIN" or "SAFE GUARD" SENSORS; c) "CHAIN LOOP CONTROL" SWITCHES; d) WATER FLOW SWITCH (SEE NOTE 1).
2	STATUS SWITCHES WIRING DIAGRAM (with EXTERNAL POWER SUPPLY)	#1720-8	

NOTES

1. a) IF A WATER FLOW SWITCH IS USED, IT IS RECOMMENDED THAT IT BE CONNECTED TO INPUT "PS1";
   b) INPUT "PS1" SHOULD BE PROGRAMMED AS "PS1 TO BE CLOSED" FOR EACH HELDING "LINK" OF THE "CHAIN" (SEE MANUAL "SOLUTION-2 #9280" PAGES U-3,U-7).
2. TERMINALS "CD+" OF THE "SOC1" ARE CONNECTED INTERNALLY.

JBK

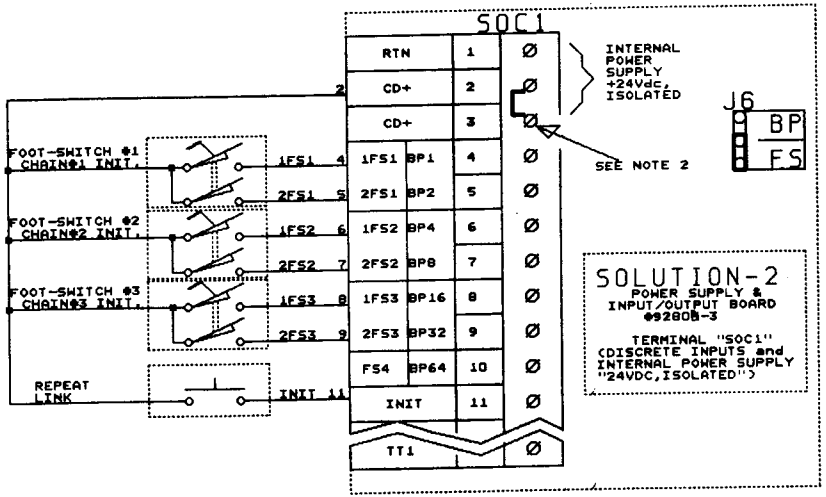
UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062

Title: SOLUTION-2 HOOK-UP DIAGRAM

Size: B | Document Number: 1720 | REV: 2

Date: January 13, 1998 | Sheet 1 of 1

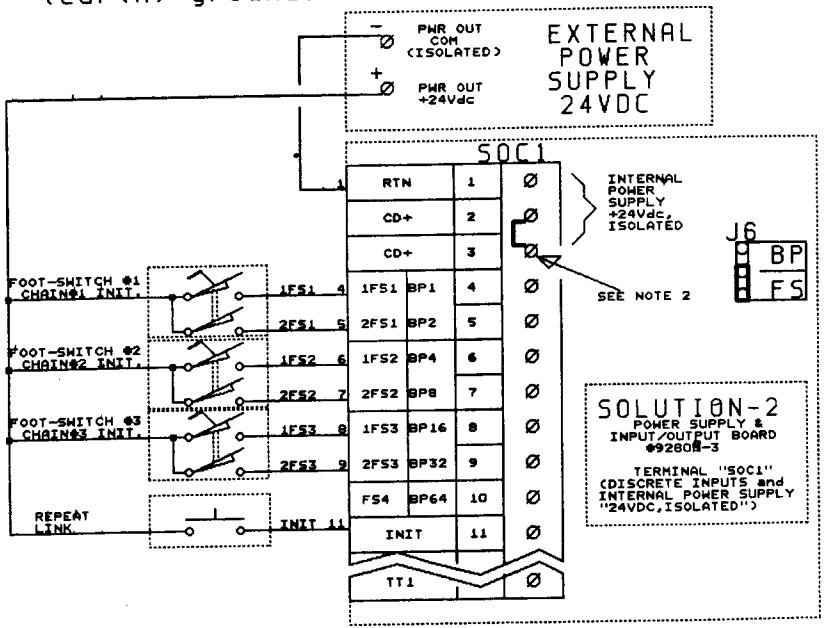
a) WIRING DIAGRAM FOR
TWO-STAGE FOOT SWITCH INITIATION
USING INTERNAL POWER SUPPLY
24VDC, ISOLATED



b) WIRING DIAGRAM FOR
TWO-STAGE FOOT SWITCH INITIATION
USING EXTERNAL POWER SUPPLY 24VDC

IMPORTANT!

dc"NEUT"(or"COM") of the external power supply must be isolated from supply chassis (earth) ground.



NOTES

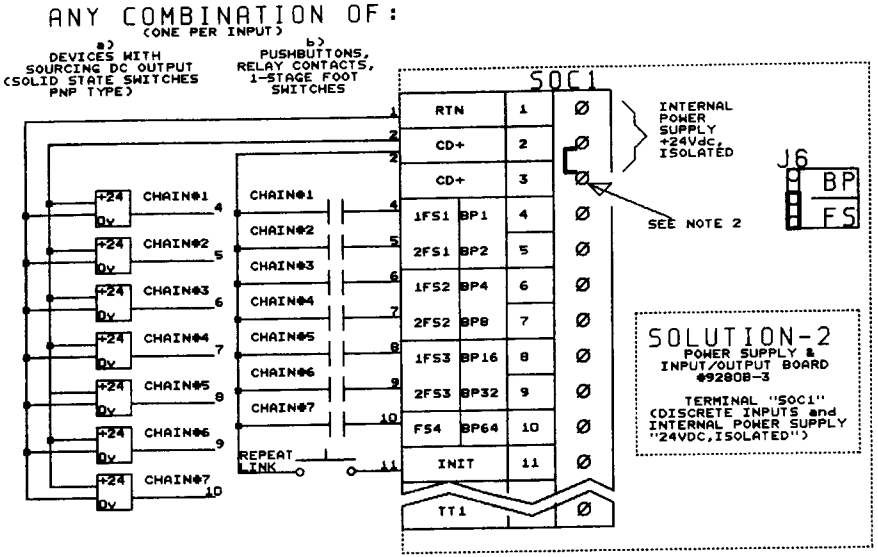
1. TO USE TWO STAGE PILOT SWITCH INITIATION:
   a) SET JUMPER "JP6" TO POSITION "FS" AS SHOWN;
   b) IN "PROGRAM 79" SET INITIATION TO "3-CHAIN,2STAGE=1"
   (SEE INSTRUCTION MANUAL "SOLUTION-2 #9280", PAGES SU-9,SU-10).
2. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

KBA

UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062

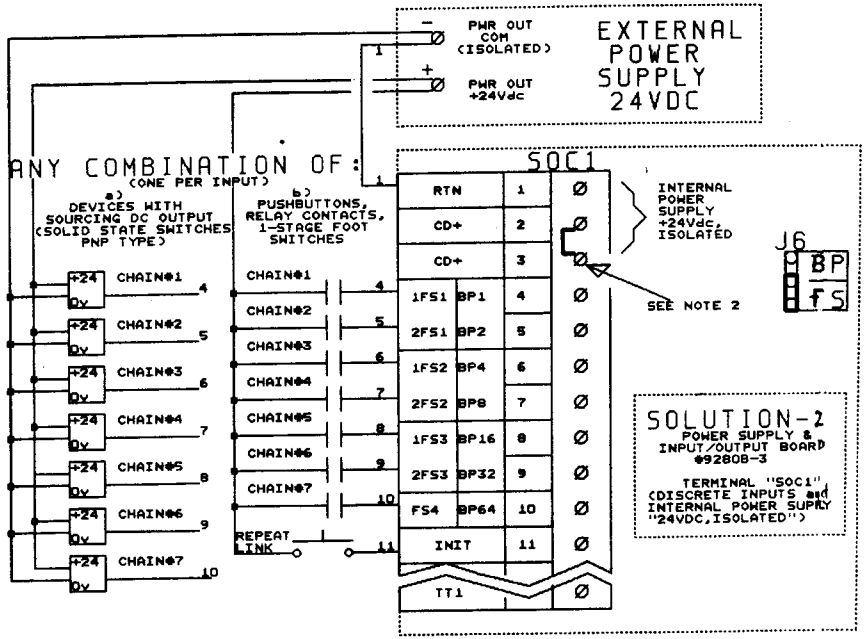
Title	SOLUTION-2 TWO STAGE PILOT SWITCH INITIATION
Size	B
Document Number	1720-1
RE	2
Date:	January 7, 1998
Sheet	1 of

a) WIRING DIAGRAM FOR
ONE STAGE SWITCH INITIATION
USING INTERNAL POWER SUPPLY
24VDC, ISOLATED



b) WIRING DIAGRAM FOR
ONE STAGE SWITCH INITIAION
USING EXTERNAL POWER SUPPLY 24VDC

IMPORTANT!
dc"NEUT"(or"COM") of the external power supply must be isolated from supply chassis (earth) ground.



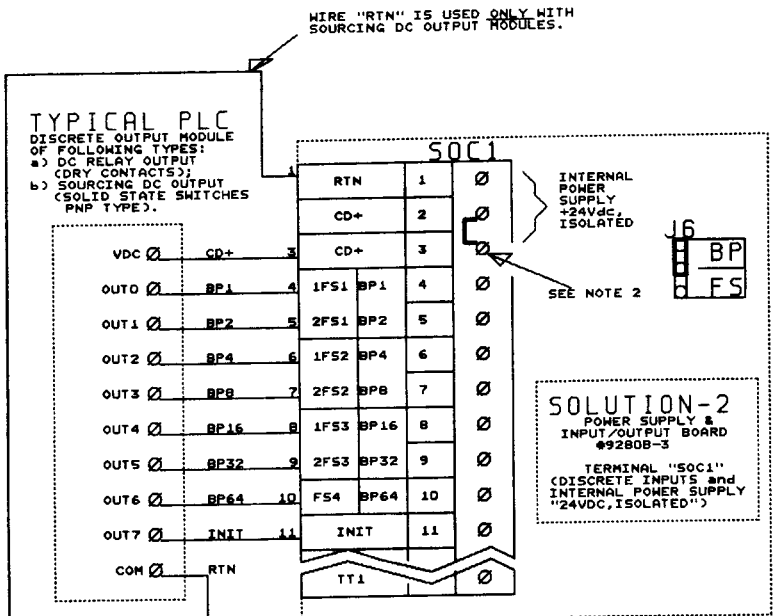
NOTES

1. TO USE ONE STAGE PILOT SWITCH INITIATION:
   a) SET JUMPER "JP6" TO POSITION "FS" AS SHOWN;
   b) IN "PROGRAM 79" SET INITIATION TO "7-CHAIN,1STAGE=2"
   (SEE INSTRUCTION MANUAL "SOLUTION-2 #9280", PAGES SU-9,SU-10).
2. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

KBL

UNITROL ELECTRONICS INC.	
702 LANDWEHR RD. NORTHBROOK, IL 60062	
Title: SOLUTION-2 ONE STAGE PILOT SWITCH INITIATIO	
Size: B	Document Number: #1720-2 REV: 2
Date: JANUARY 7, 1988	Sheet: 1 of 1

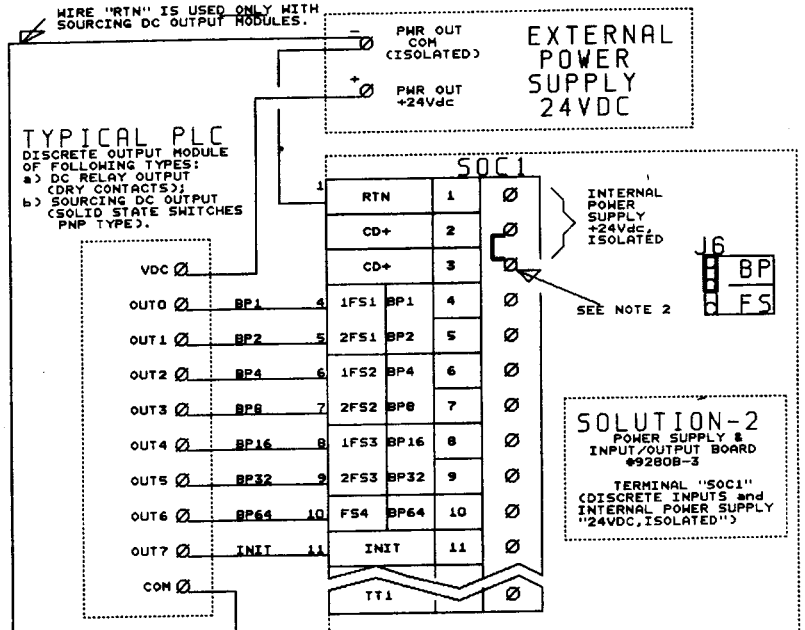
a) WIRING DIAGRAM FOR
PLC "BINARY" INITIATION
USING INTERNAL POWER SUPPLY
24VDC, ISOLATED



b) WIRING DIAGRAM FOR
PLC "BINARY" INITIATION
USING EXTERNAL POWER SUPPLY 24VDC

IMPORTANT!

dc"NEUT"(or"COM") of the external power supply must be isolated from supply chassis (earth) ground.



NOTES

1. TO USE PLC BINARY INITIATION:
   a) SET JUMPER "JP6" TO POSITION "BP" AS SHOWN;
   b) IN "PROGRAM 79" SET INITIATION TO
      - "15-CHAIN,BIN.=3" or
      - "75-PROG,BINARY=4"

   (SEE INSTRUCTION MANUAL "SOLUTION-2 #9280", PAGES SU-9,SU-10).

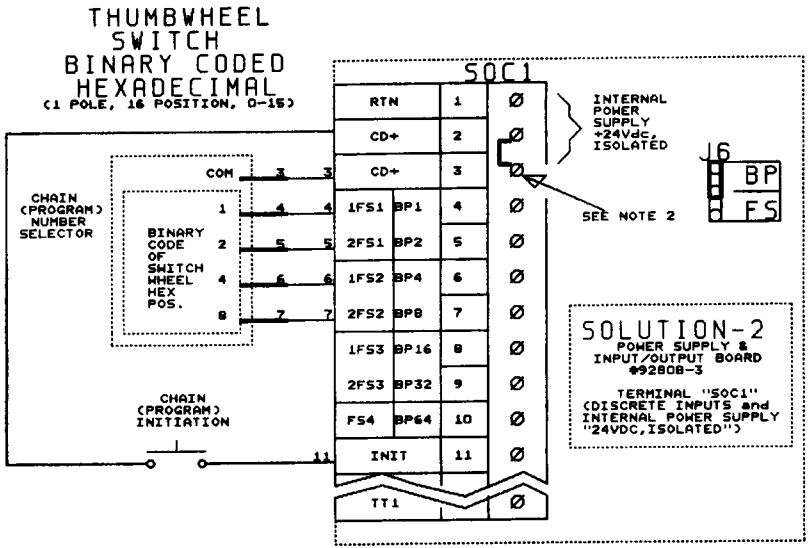
2. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

KB/6

UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062

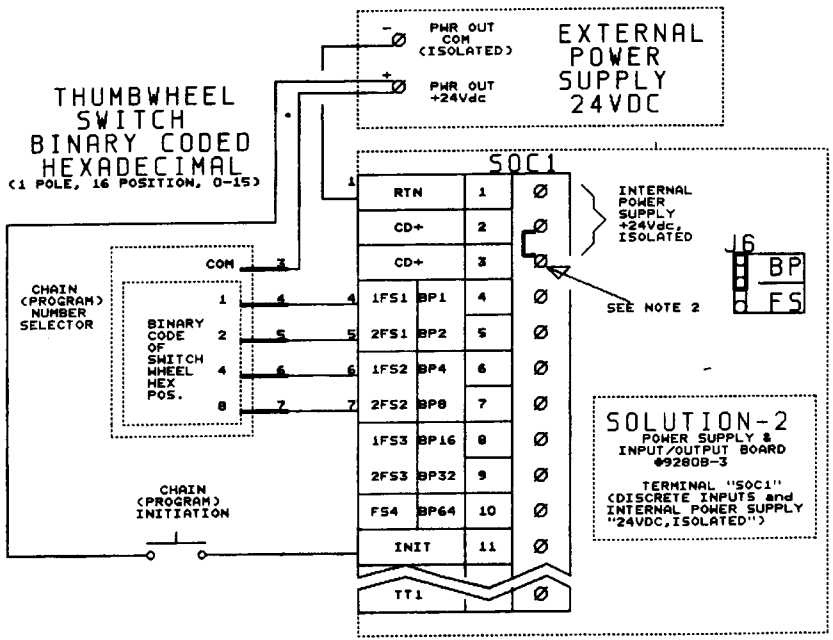
Title	SOLUTION-2 PLC BINARY INITIATION	
Size B	Document Number #1720-3	REV 2
Date: January 7, 1998	Sheet 1 of 1	

a) WIRING DIAGRAM FOR
THUMBWHEEL SWITCH BINARY INITIATION
USING INTERNAL POWER SUPPLY
24VDC, ISOLATED



b) WIRING DIAGRAM FOR
THUMBWHEEL SWITCH BINARY INITIATION
USING EXTERNAL POWER SUPPLY 24VDC

IMPORTANT!
dc"NEUT"(or"COM") of the external power supply must be isolated from supply chassis (earth) ground.



NOTES

1. TO USE THUMBWHEEL SWITCH BINARY INITIATION:
   a) SET JUMPER "JP6" TO POSITION "BP" AS SHOWN;
   b) IN "PROGRAM 79" SET INITIATION TO
      - "15-CHAIN,BIN.=3" or
      - "75-PROG,BINARY=4"
      (WHEN NUMBER OF USED PROGRAMS IS LESS THAN 16)

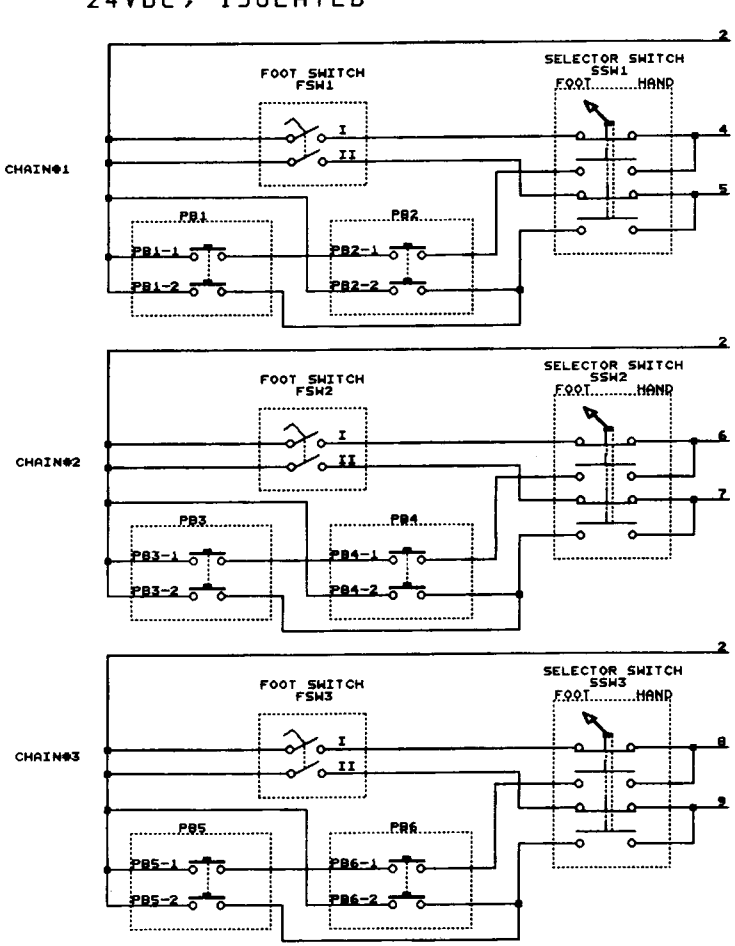
   (SEE INSTRUCTION MANUAL "SOLUTION-2 #9280", PAGES SU-9,SU-10).

2. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

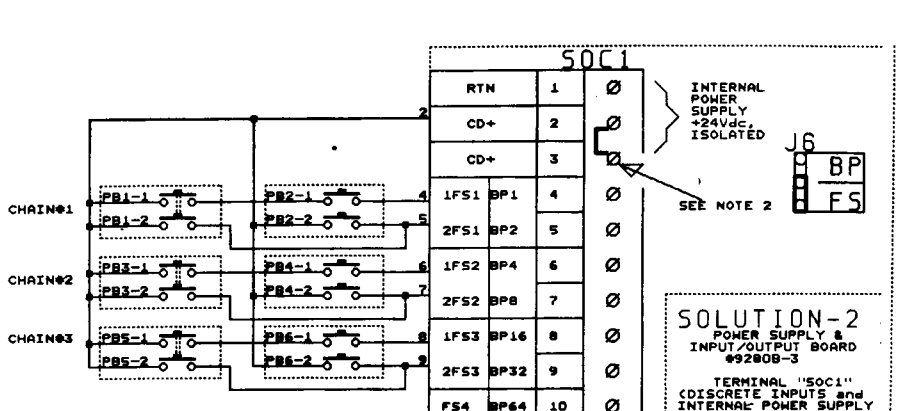
XDH

UNITROL ELECTRONICS INC.	
702 LANDWEHR RD. NORTHBROOK, IL 60062	
title: SOLUTION-2 THUMBWHEEL SWITCH BINARY INITIATION	
Size: B	Document Number: #1720-4 REV: 2
Date: January 8, 1998	Sheet: 1 of 1

a) WIRING DIAGRAM FOR ANTI-TIE-DOWN TWO-STAGE FOOT SWITCH OR DOUBLE HAND PUSH BUTTON INITIATION USING INTERNAL POWER SUPPLY 24VDC, ISOLATED



b) WIRING DIAGRAM FOR ANTI-TIE-DOWN DOUBLE HAND PUSH BUTTON INITIATION USING INTERNAL POWER SUPPLY 24VDC, ISOLATED

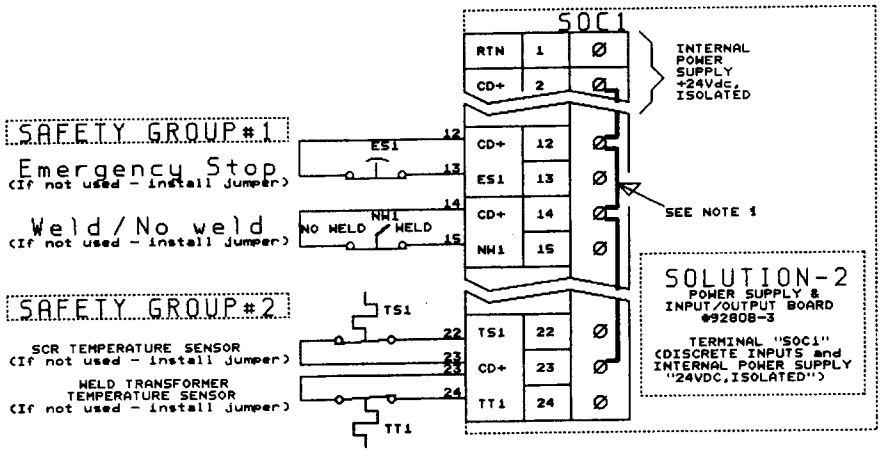


NOTES

1. TO USE ANTI-TIE-DOWN INITIATION
   a) SET JUMPER "JP6" TO POSITION "FS" AS SHOWN;
   b) IN "PROGRAM 79" SET INITIATION TO "3-CHAIN, 2STAGE=1"
   (SEE INSTRUCTION MANUAL "SOLUTION-2 #9280", PAGES SU-9,SU-10).
2. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

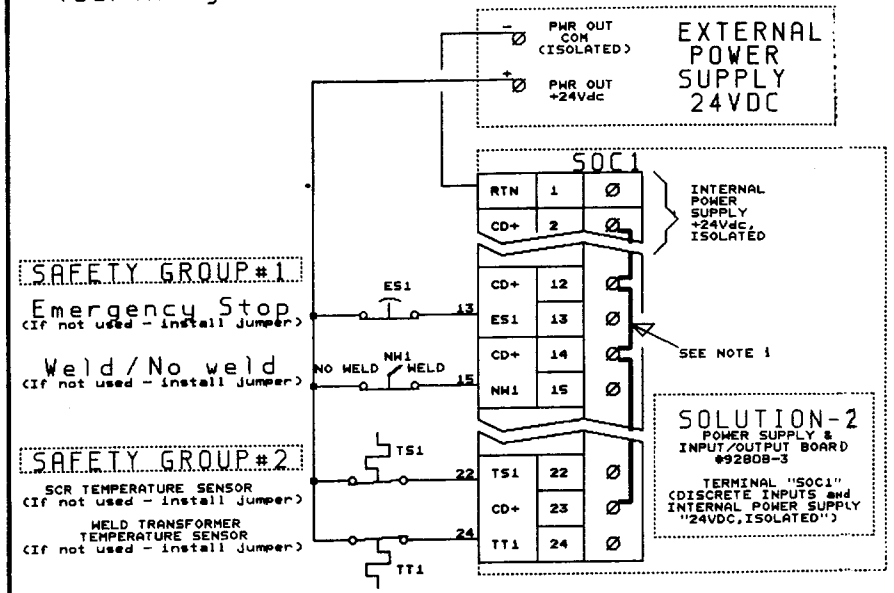
UNITROL ELECTRONICS INC.	
702 LANDWEHR RD. NORTHBROOK, IL. 60062	
Title	SOLUTION-2 ANTI-TIE-DOWN INITIATION
Size B	Document Number #1720-5 REV 2
Date: January 7, 1998	Sheet 1 of 1

a) WIRING DIAGRAM FOR
SAFETY SWITCH GROUPS
USING INTERNAL POWER SUPPLY
24VDC, ISOLATED



b) WIRING DIAGRAM FOR
SAFETY SWITCH GROUPS
USING EXTERNAL POWER SUPPLY 24VDC

IMPORTANT!
dc"NEUT"(or"COM") of the external power supply must be isolated from supply chassis (earth) ground.



NOTES

1. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

KBW

UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062

Title: SOLUTION-2
SAFETY SWITCHES WIRING DIAGRAM

Size: B | Document Number: #1720-6 | REV: 2

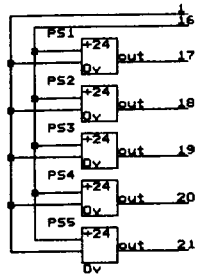
Date: January 12, 1998 | Sheet: 1 of 1

TYPICAL USAGE OF INPUTS "PS1-PS5" (SEE NOTE 1)

ANY COMBINATION OF FOLLOWING TYPES OF SWITCHES:

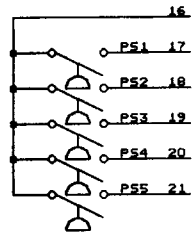
WELDER STATUS SWITCHES GROUP (5 INPUTS)

PROXIMITY SWITCHES SOURCING (PNP) TYPE



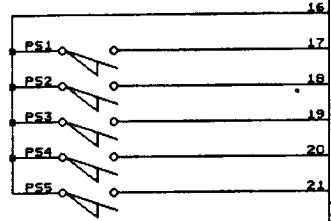
OR

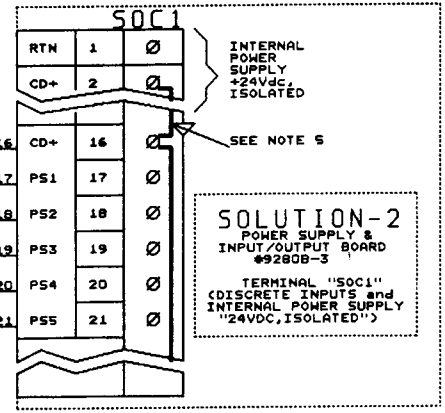
PRESSURE SWITCHES (DRY CONTACTS)



OR

LIMIT SWITCHES (DRY CONTACTS)



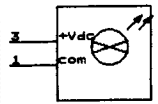


SPECIAL USAGE OF INPUT "PS4" (SEE NOTE 2)

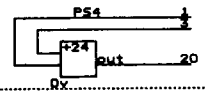
SPECIAL FUNCTION:
PS4-"LIGHT CURTAIN" or "GATE GUARD"

THRU-BEAM TYPE PHOTOELECTRIC SENSOR NORMALLY OPEN (LIGHT OPERATE)

EMITTER

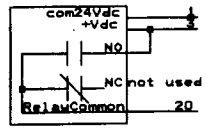


RECEIVER WITH SOLID STATE OUTPUT SOURCING (PNP) TYPE



OR

RECEIVER WITH DC RELAY 24Vdc "DRY CONTACT" OUTPUT



SPECIAL USAGE OF INPUT "PS5" (SEE NOTE 3)

SPECIAL FUNCTION:
PS5-"CHAIN LOOP CONTROL"

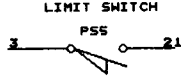
PS5 MAY PERFORM ONE OF TWO "LOOP" FUNCTIONS:
a) LOOP IF PS5 "ON", STOP IF PS5 "OFF";
b) LOOP IF PS5 "ON", DO NEXT IF PS5 "OFF", STOP AFTER LAST CHAIN IF PS5 "OFF".
(USED WHEN CHAINS ARE GROUPED).

TYPES OF CONTROL DEVICES

PROXIMITY SWITCH SOURCING (PNP) TYPE

OR

LIMIT SWITCH



OR

RELAY CONTACT

NOTES

1. TO USE PS1-PS5 AS TYPICAL PROX. (LIMIT) SWITCH INPUTS:
   a) IN "PROGRAM 87/93" SET "PS4=PROX.SWITCH" (SEE MANUAL "SOLUTION-2 #9280" PAGES SU-28,U-18);
   b) IN "PROGRAM 80" SET "ONE CHAIN ONLY"=1" OR "DO NEXT CHAIN=4" (SEE PAGES FROM U-9 TO U-13);
   c) FOLLOW INSTRUCTIONS IN NOTE 4;
   d) IN EACH LINK (OF ALL CHAINS) SET ONE OF THREE POSSIBLE CONDITIONS FOR EACH PROX. SWITCH INPUT:
      - "PS# TO BE EITHER" or
      - "PS# TO BE OPEN" or
      - "PS# TO BE CLOSED"
   (SEE PAGES U-3, U-7).

2. TO USE PS4 AS SPECIAL "LIHGT CURTAIN" INPUT :
   a) IN "PROGRAM 87/93" SET "PS4=LIGHTCURTAIN" (SEE PAGES SU-28,U-18);
   b) FOLLOW INSTRUCTIONS IN NOTES 4 and id.

3. TO USE PS5 AS SPECIAL "CHAIN LOOP CONTROL" INPUT:
   a) IN "PROGRAM 79" CHOOSE ONE OF THREE MODES: "3-CHAIN,2STAGE=1" or "7-CHAIN,1STAGE=2" or "15-CHAIN-BIN.=3" (SEE PAGES SU-2,SU-3).
   b) IN "PROGRAM 80" SET "LOOP IF PS5 ON=2" OR "PS5 OFF, NEXT=3" FOR EACH CHAIN (WHERE NEEDED) (SEE PAGES U-11,U-12);
   c) FOLLOW INSTRUCTIONS IN NOTES 4 and id.

4. IN "PROGRAM 81/01" SET "TOT.PS INPUT=#", WHERE # IS QUANTITY (FROM 0 TO 5) OF ALL USED PS INPUTS MINUS QUANTITY OF "SPECIAL" INPUTS PS4 and/or PS5 (IF ANY) (SEE PAGES SU-7,SU-28).

5. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

KBK

UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062

Title: STATUS SWITCHES WIRING DIAGRAM WITH INTERNAL POWER SUPPLY

Size	Document Number	REV
B	#1720-7	2

Date: January 12, 1998 Sheet 1 of 1

TYPICAL USAGE OF INPUTS "PS1-PS5" (SEE NOTE 1)

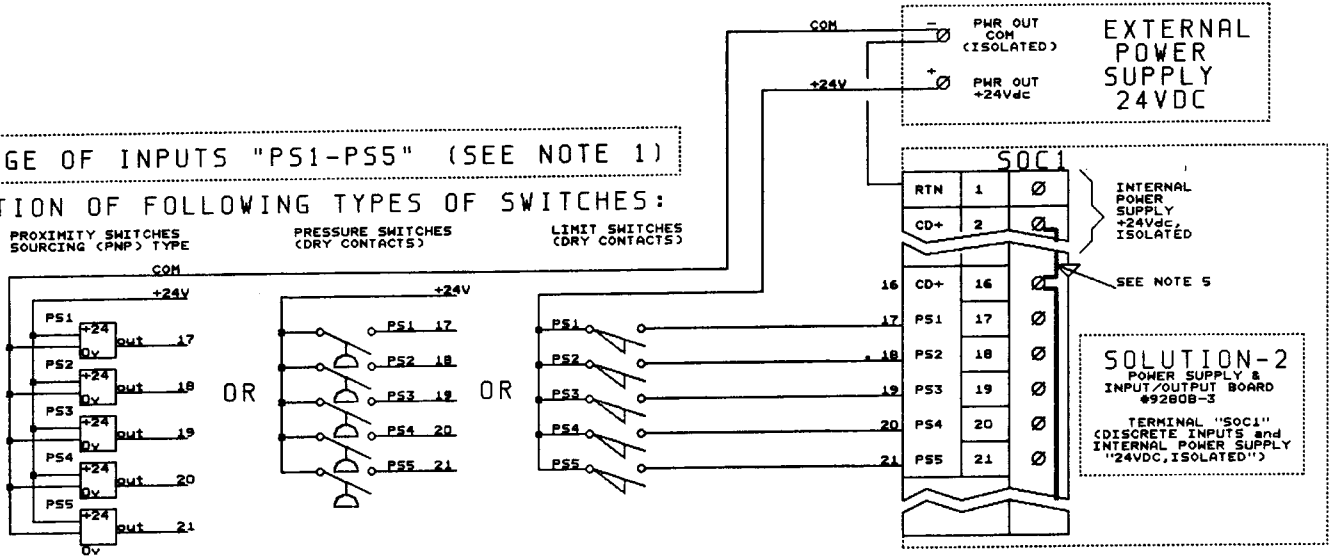
ANY COMBINATION OF FOLLOWING TYPES OF SWITCHES:

WELDER STATUS SWITCHES GROUP (5 INPUTS)

PROXIMITY SWITCHES SOURCING (PNP) TYPE

PRESSURE SWITCHES (DRY CONTACTS)

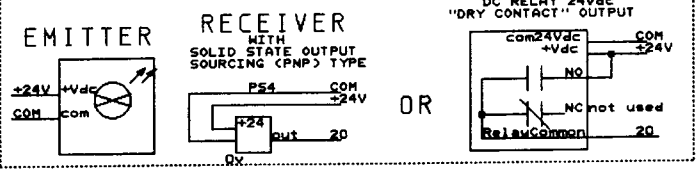
LIMIT SWITCHES (DRY CONTACTS)



SPECIAL USAGE OF INPUT "PS4" (SEE NOTE 2)

SPECIAL FUNCTION:
PS4-"LIGHT CURTAIN" or "GATE GUARD"

THRU-BEAM TYPE PHOTOELECTRIC SENSOR NORMALLY OPEN (LIGHT OPERATE)

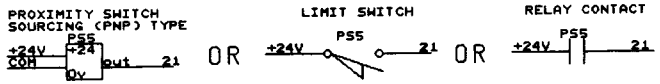


SPECIAL USAGE OF INPUT "PS5" (SEE NOTE 3)

SPECIAL FUNCTION:
PS5-"CHAIN LOOP CONTROL"

PS5 MAY PERFORM ONE OF TWO "LOOP" FUNCTIONS:
a) LOOP IF PS5 "ON", STOP IF PS5 "OFF";
b) LOOP IF PS5 "ON", DO NEXT IF PS5 "OFF", STOP AFTER LAST CHAIN IF PS5 "OFF".
(USED WHEN CHAINS ARE GROUPPED).

TYPES OF CONTROL DEVICES



NOTES

1. TO USE PS1-PS5 AS TYPICAL PROX. (LIMIT) SWITCH INPUTS:
   a) IN "PROGRAM 87/93" SET "PS4=PROX.SWITCH" (SEE MANUAL "SOLUTION-2 #9280" PAGES SU-28,U-18);
   b) IN "PROGRAM 80" SET "ONE CHAIN ONLY"=1" OR "DO NEXT CHAIN=4" (SEE PAGES FROM U-9 TO U-13);
   c) FOLLOW INSTRUCTIONS IN NOTE 4;
   d) IN EACH LINK (OF ALL CHAINS) SET ONE OF THREE POSSIBLE CONDITIONS FOR EACH PROX. SWITCH INPUT:
      - "PS# TO BE EITHER" or
      - "PS# TO BE OPEN" or
      - "PS# TO BE CLOSED"
      (SEE PAGES U-3, U-7).

2. TO USE PS4 AS SPECIAL "LIHGT CURTAIN" INPUT :
   a) IN "PROGRAM 87/93" SET "PS4=LIGHTCURTAIN" (SEE PAGES SU-28,U-18);
   b) FOLLOW INSTRUCTIONS IN NOTES 4 and 1d.

3. TO USE PS5 AS SPECIAL "CHAIN LOOP CONTROL" INPUT:
   a) IN "PROGRAM 79" CHOOSE ONE OF THREE MODES: "3-CHAIN,2STAGE=1" or "7-CHAIN,1STAGE=2" or "15-CHAIN-BIN.=3" (SEE PAGES SU-2,SU-3).
   b) IN "PROGRAM 80" SET "LOOP IF PS5 ON=2" OR "PS5 OFF, NEXT=3" FOR EACH CHAIN (WHERE NEEDED) (SEE PAGES U-11,U-12);
   c) FOLLOW INSTRUCTIONS IN NOTES 4 and 1d.

4. IN "PROGRAM 81/01" SET "TOT.PS INPUT=#", WHERE # IS QUANTITY (FROM 0 TO 5) OF ALL USED PS INPUTS MINUS QUANTITY OF "SPECIAL" INPUTS PS4 and/or PS5 (IF ANY) (SEE PAGES SU-7,SU-28).

5. TERMINALS "CD+" ARE CONNECTED INTERNALLY.

RBH

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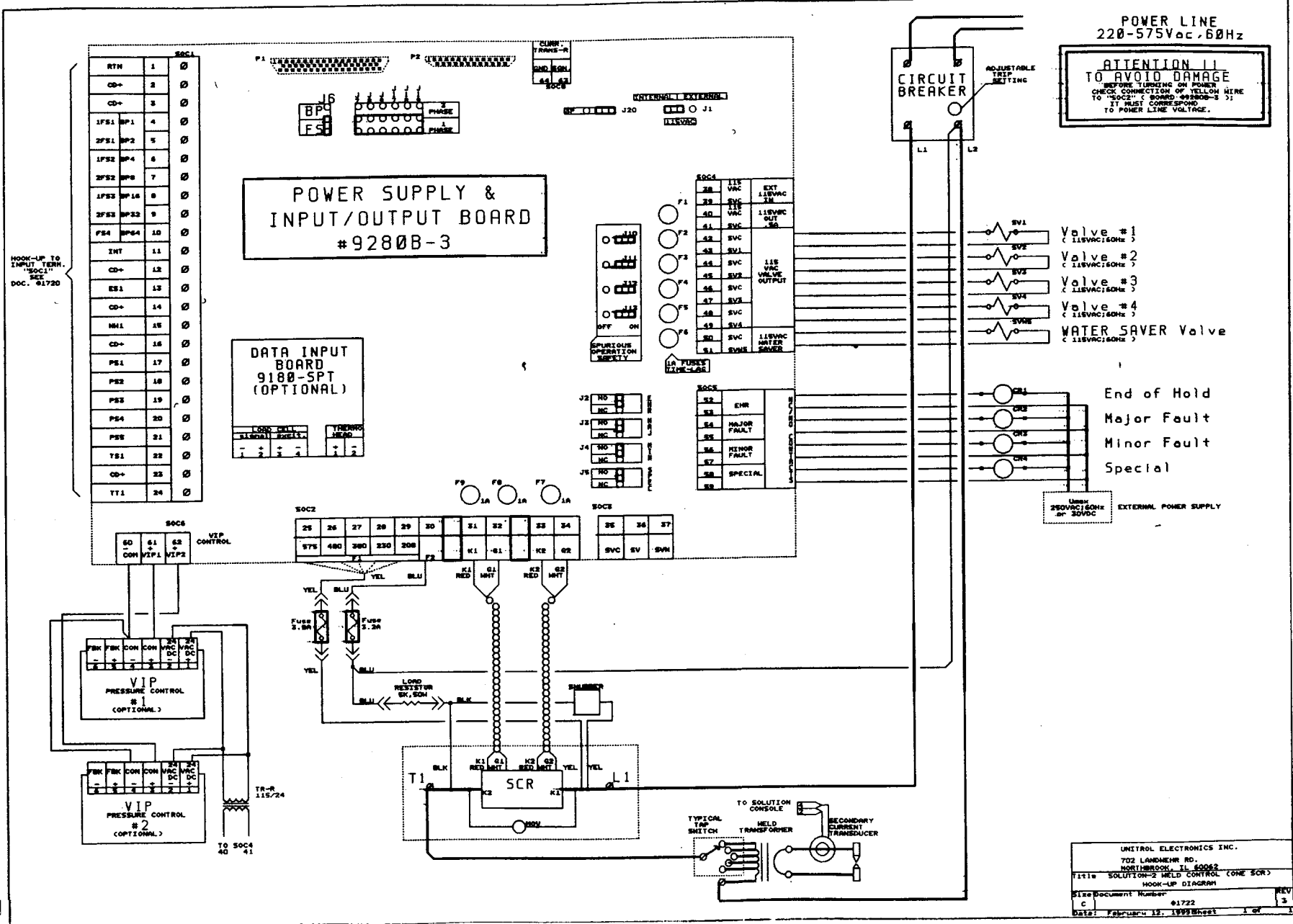
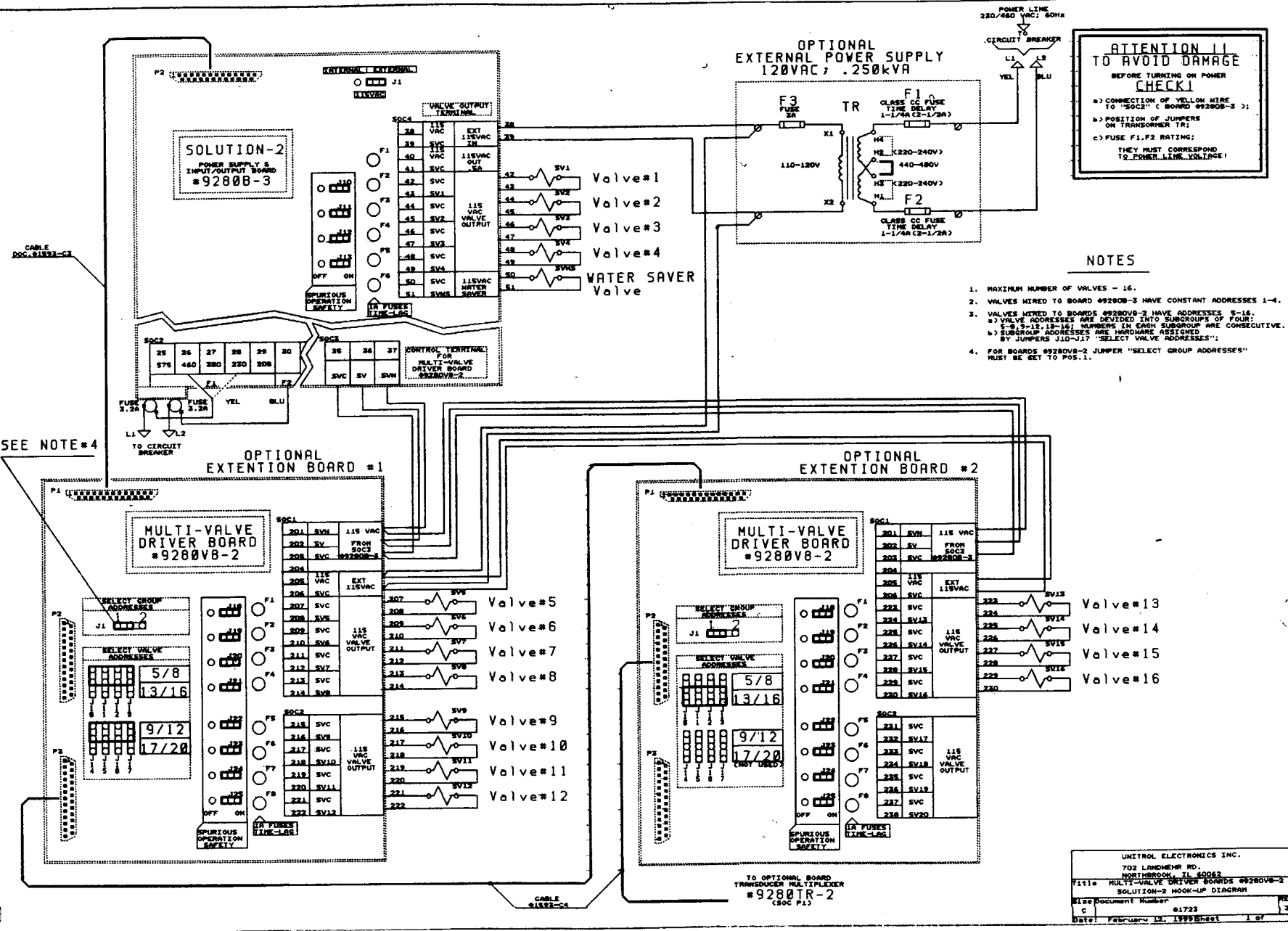
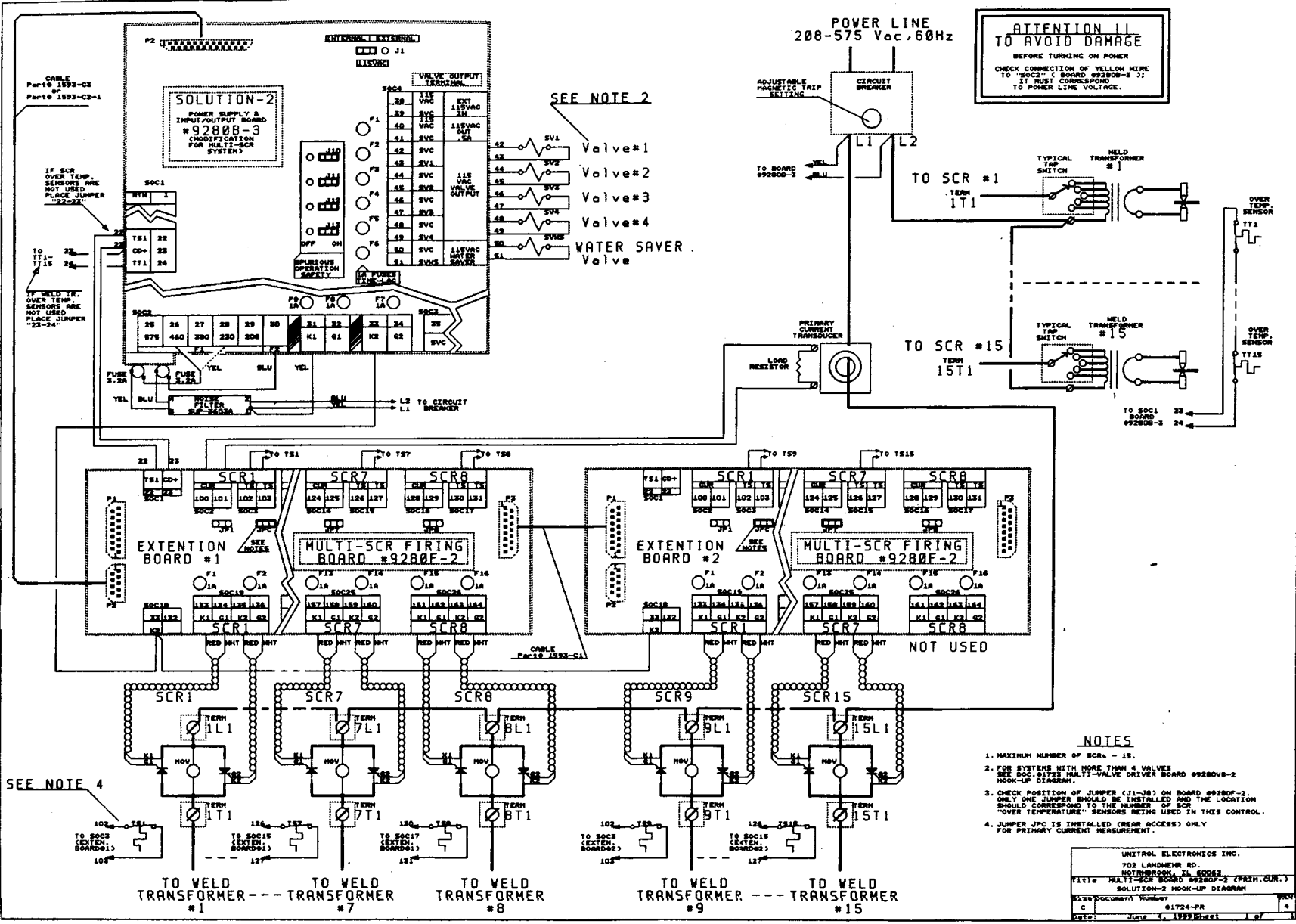
Title	STATUS SWITCHES WIRING DIAGRAM WITH EXTERNAL POWER SUPPLY	
Size B	Document Number #1720-8	REV 2
Date: January 12, 1998	Sheet 1 of 1	



UNITROL ELECTRONICS INC.		
702 LANDWEHR RD. NORTHBROOK, IL 60062		
Title: SOLUTION-2 WELD CONTROL (ONE SCR) HOOK-UP DIAGRAM		
Size: C	Document Number: #1722	REV: 3
Date: February 12, 1993	Sheet: 1 of 1	


SOLUTION-2
POWER SUPPLY & IMPUT/OUTPUT BOARD
#9280B-3
OPTIONAL
EXTERNAL POWER SUPPLY
120VAC; .250kVA
POWER LINE
230/460 VAC; 60Hz
CIRCUIT BREAKER
F3
FUSE
2A
TR
F1
CLASS CC FUSE
TIME DELAY
1-1/4A (2-1/2A)
F2
CLASS CC FUSE
TIME DELAY
1-1/4A (2-1/2A)
110-120V
H4
H2 (220-240V)
440-480V
H3 (220-240V)
H1
X1
X2
YEL
BLU
ATTENTION !!
TO AVOID DAMAGE
BEFORE TURNING ON POWER
CHECK!
a) CONNECTION OF YELLOW WIRE TO "SOC2" (BOARD #9280B-3);
b) POSITION OF JUMPERS ON TRANSORMER TR;
c) FUSE F1,F2 RATING;
THEY MUST CORRESPOND TO POWER LINE VOLTAGE!
VALVE OUTPUT TERMINAL
SOC4
EXT 115VAC IN
115VAC OUT .5A
115 VAC VALVE OUTPUT
115VAC WATER SAVER
SV1
SV2
SV3
SV4
SVWS
Valve#1
Valve#2
Valve#3
Valve#4
WATER SAVER Valve
SPURIOUS OPERATION SAFETY
1A FUSES TIME-LAG
SOC2
SOC3
CONTROL TERMINAL FOR MULTI-VALVE DRIVER BOARD #9280V8-2
FUSE 3.2A
FUSE 3.2A
YEL
BLU
L1
L2
TO CIRCUIT BREAKER
CABLE DOC.01592-C2
SEE NOTE#4
NOTES
1. MAXIMUM NUMBER OF VALVES - 16.
2. VALVES WIRED TO BOARD #9280B-3 HAVE CONSTANT ADDRESSES 1-4.
3. VALVES WIRED TO BOARDS #9280V8-2 HAVE ADDRESSES 5-16.
a) VALVE ADDRESSES ARE DEVIDED INTO SUBGROUPS OF FOUR: 5-8,9-12,13-16; NUMBERS IN EACH SUBGROUP ARE CONSECUTIVE.
b) SUBGROUP ADDRESSES ARE HARDWARE ASSIGNED BY JUMPERS J10-J17 "SELECT VALVE ADDRESSES";
4. FOR BOARDS #9280V8-2 JUMPER "SELECT GROUP ADDRESSES" MUST BE SET TO POS.1.
OPTIONAL
EXTENTION BOARD #1
MULTI-VALVE DRIVER BOARD #9280V8-2
SELECT GROUP ADDRESSES
SELECT VALVE ADDRESSES
5/8
13/16
9/12
17/20
FROM SOC3 #9280B-3
EXT 115VAC
115 VAC VALVE OUTPUT
SV5
SV6
SV7
SV8
SV9
SV10
SV11
SV12
Valve#5
Valve#6
Valve#7
Valve#8
Valve#9
Valve#10
Valve#11
Valve#12
OPTIONAL
EXTENTION BOARD #2
MULTI-VALVE DRIVER BOARD #9280V8-2
SV13
SV14
SV15
SV16
SV17
SV18
SV19
SV20
Valve#13
Valve#14
Valve#15
Valve#16
TO OPTIONAL BOARD TRANSDUCER MULTIPLEXER #9280TR-2 (SOC P1)
CABLE #01592-C4
UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062
Title MULTI-VALVE DRIVER BOARDS #9280V8-2
SOLUTION-2 HOOK-UP DIAGRAM
Size C
Document Number 01723
Date: February 12, 1999 Sheet 1 of 1



NOTES

1. MAXIMUM NUMBER OF SCRs = 15.
2. FOR SYSTEMS WITH MORE THAN 4 VALVES SEE DOC.#1723 MULTI-VALVE DRIVER BOARD #9280V8-2 HOOK-UP DIAGRAM.
3. CHECK POSITION OF JUMPER (J1-J8) ON BOARD #9280F-2. ONLY ONE JUMPER SHOULD BE INSTALLED AND THE LOCATION SHOULD CORRESPOND TO THE NUMBER OF SCR "OVER TEMPERATURE" SENSORS BEING USED IN THIS CONTROL.
4. JUMPER JPC IS INSTALLED (REAR ACCESS) ONLY FOR PRIMARY CURRENT MEASUREMENT.

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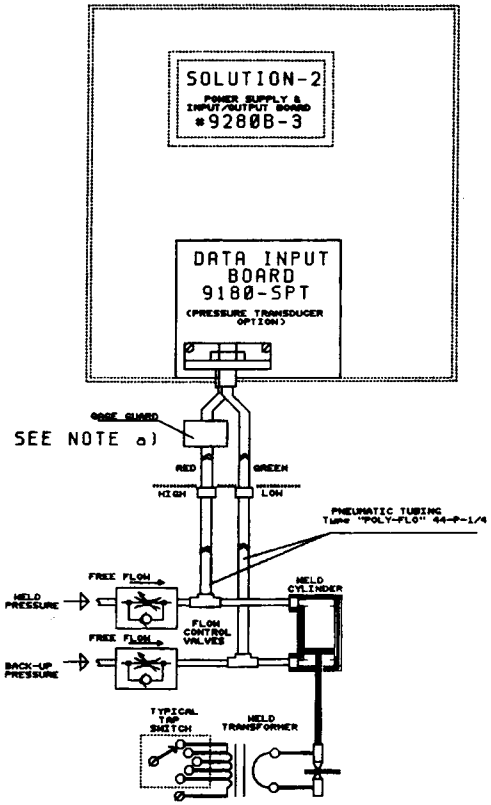
Title: MULTI-SCR BOARD #9280F-2 (PRIM.CUR.)
SOLUTION-2 HOOK-UP DIAGRAM

Size	Document Number	REV
C	01724-PR	4

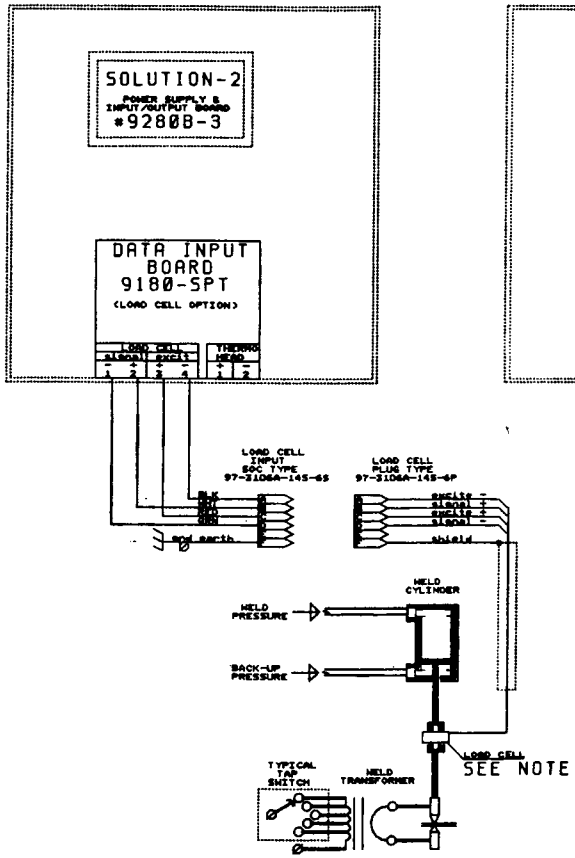
Date: June 4, 1998 Sheet 1 of 1

DATA INPUT BOARD

PRESSURE TRANSDUCER OPTION

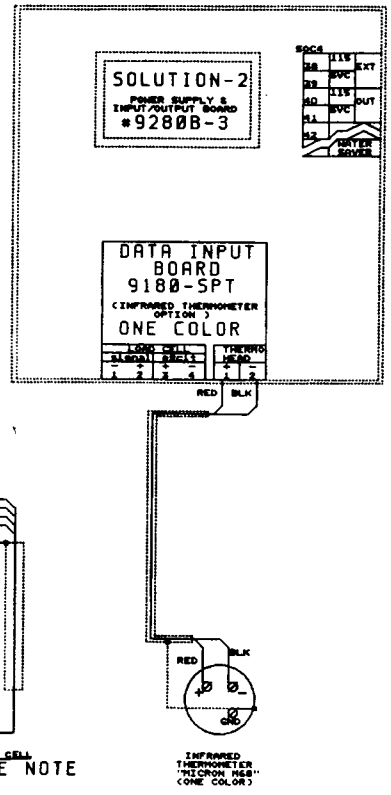


LOAD CELL OPTION

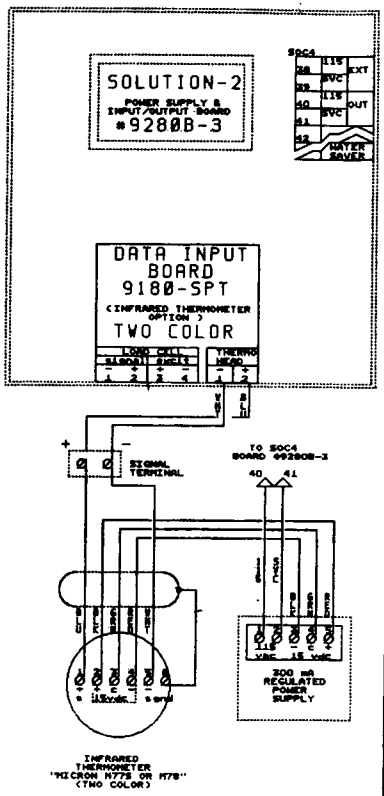


INFRARED THERMOMETER OPTION

a) ONE COLOR



b) TWO COLOR



I. PRESSURE TRANSDUCER PNEUMATIC HOOK-UP DIAGRAM

NOTES

a) ATTENTION!
MAX PRESSURE - 100psi

DO NOT DISASSEMBLE GAGE GUARD. THE GUARD AND PRESSURE TRANSDUCER ARE FILLED WITH PROTECTIVE FLUID AND FACTORY CALIBRATED.

b) TO USE PRESSURE TRANSDUCER SEE "SOLUTION-2" MANUAL "INITIAL SET-UP PROCEDURE" AND CHAPTER "SETTING TIP FORCE CALCULATOR"

II. LOAD CELL HOOK-UP DIAGRAM

NOTES

a) USE ONLY COMPRESSION TYPE LOAD CELLS.

c) TO USE LOAD CELL SEE "SOLUTION-2" MANUAL "INITIAL SET-UP PROCEDURE" AND CHAPTER "SETTING TIP FORCE CALCULATOR".

III. INFRARED THERMOMETER HOOK-UP DIAGRAM

NOTES

a) ALL METAL PARTS OF THE INFRARED THERMOMETER; THERMOHEAD ENCLOSURE, FIBER OPTIC SHIELD AND LENS ASSEMBLY MUST BE ISOLATED FROM THE GROUND EARTH.

b) TO USE INFRARED THERMOMETER SEE MANUAL "TEMPERATURE FEEDBACK AND WELDING CONTROL"

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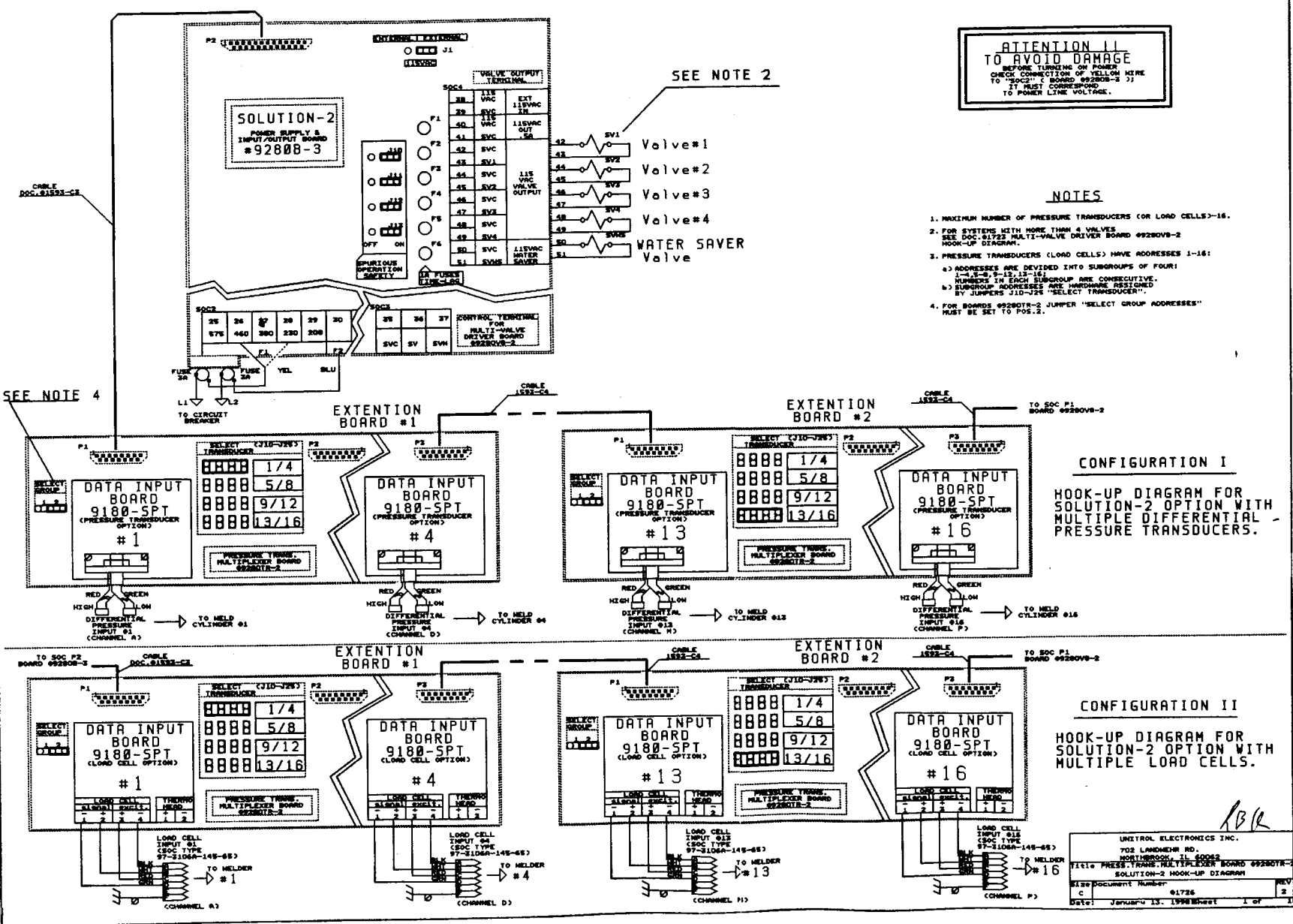
Title	DATA INPUT BOARD 9180-SPT SOLUTION-2 HOOK-UP DIAGRAM	
Size C	Document Number 41225	REV 3
Date: February 12, 1998	Sheet 1 of 1	


ATTENTION !!
TO AVOID DAMAGE
BEFORE TURNING ON POWER
CHECK CONNECTION OF YELLOW WIRE
TO "SOC2" (BOARD 9280B-3)
IT MUST CORRESPOND
TO POWER LINE VOLTAGE.
SOLUTION-2
POWER SUPPLY & INPUT/OUTPUT BOARD
#9280B-3
SEE NOTE 2
Valve#1
Valve#2
Valve#3
Valve#4
WATER SAVER Valve
SEE NOTE 4
EXTENTION BOARD #1
EXTENTION BOARD #2
DATA INPUT BOARD 9180-SPT
(PRESSURE TRANSDUCER OPTION)
#1
#4
#13
#16
CONFIGURATION I
HOOK-UP DIAGRAM FOR SOLUTION-2 OPTION WITH MULTIPLE DIFFERENTIAL PRESSURE TRANSDUCERS.
(LOAD CELL OPTION)
CONFIGURATION II
HOOK-UP DIAGRAM FOR SOLUTION-2 OPTION WITH MULTIPLE LOAD CELLS.
NOTES
1. MAXIMUM NUMBER OF PRESSURE TRANSDUCERS (OR LOAD CELLS)=16.
2. FOR SYSTEMS WITH MORE THAN 4 VALVES SEE DOC.01723 MULTI-VALVE DRIVER BOARD 9928OVB-2 HOOK-UP DIAGRAM.
3. PRESSURE TRANSDUCERS (LOAD CELLS) HAVE ADDRESSES 1-16:
a) ADDRESSES ARE DEVIDED INTO SUBGROUPS OF FOUR: 1-4,5-8,9-12,13-16. NUMBERS IN EACH SUBGROUP ARE CONSECUTIVE.
b) SUBGROUP ADDRESSES ARE HARDWARE ASSIGNED BY JUMPERS J10-J25 "SELECT TRANSDUCER".
4. FOR BOARDS 9928OTR-2 JUMPER "SELECT GROUP ADDRESSES" MUST BE SET TO POS.2.
UNITROL ELECTRONICS INC.
702 LANDWEHR RD.
NORTHBROOK, IL 60062
Title PRESS.TRANS.MULTIPLEXER BOARD 9928OTR-2
SOLUTION-2 HOOK-UP DIAGRAM
Size C
Document Number 01726
REV 2
Date: January 13, 1998 Sheet 1 of 1