HISTORY		
ISSUE	DESCRIPTION	DATE
D		5/9/18

Note:
For additional Shadow 9 settings and wiring diagrams consult user manual.

SET A
RUN
PROG
START
SINGLE SWITCH KIT
PART NUMBER 9687601
USED WHEN CONNECTING
1 SHADOW 9 SYSTEM

SET B
RUN
PROG
START
DUAL SWITCH KIT
PART NUMBER 9687602
USED WHEN CONNECTING
2 SHADOW 9 SYSTEMS

LIGHT CURTAIN A (J823)
LIGHT CURTAIN A (J824)
NPN PNP EXT INT
SET TO PNP WITH INTERNAL TEST ON WPC2000 BRD.

LIGHT CURTAIN B (J821)
LIGHT CURTAIN A (J822)
NPN PNP EXT INT
SET TO PNP WITH INTERNAL TEST ON WPC2000 BRD.

SHADOW 9 RECEIVER
(BLK) 1 DSSD
(WHT) 2 DSSD
(RED) AUX OUT
(GRY) CTL 2
(PINK) N/U
(YEL) RESET/EDM
(BRN) +24VDC
(BLU) 0 VDC

SHADOW 9 TRANSMITTER
(WHT) N/U
(YEL) N/U
(BLK) N/U
(BRN) +24VDC
(BLU) 0 VDC

RDSS DM2 DUAL SAFETY VALVE
DSV MONITOR
SOLENOID A
SOLENOID B
FACTORY

L1(120 VAC)
L2(120 VAC)
GND
24 VDC POWER SUPPLY
GND
NEU
HI
WHITE
RED
TB105
#90 24 VDC
#89 COM

OUTPUT CONNECTOR ON EDGE OF WPC 2000 BOARD TB109
(+24VDC #122)
(GND #122)
ON IN FOOT CONTINUOUS — SPEC 2 (#123)
ON IN TWO HAND CONTINUOUS — SPEC 1 (#124)
ON IN AUTO S.S — ZERO CAM (#125)
ON IN FOOT S.S — COUNTER (#126)
ON IN ONE HAND S.S — CHAN 4 (#127)
ON IN TWO HAND S.S — CHAN 3 (#128)
ON IN ALL INCH MODES AND BAR MODE — CHAN 2 (#129)
ON IN OFF MODE — CHAN 1 (#130)

DSV-RELAY BOARD
DS302 K302 DSV A #103 TB303 #102
K303
DS303 DSV B #101 TB302 #100
DS301 K301 OUT #99 OUT #98 IN #97
LOCKOUT TERMINALS
OUTPUT TO DSV RELAYS
OUTPUT TO MOTOR START
120VAC INPUT FOR DSV/MOTOR START

SET THE INPUT CHECK VOLTAGE SELECTOR SWITCH (S101) TO 12 - 60 VOLTS.

WPC TERMINALS
ESTOP LOOP TERMINAL #68
#69 ESTOP LOOP INPUT
TOPSTOP LOOP TERMINAL #80
#81 TOPSTOP LOOP INPUT

WPC OUTPUT #29
AUX 3 (DSV ON)
WPC OUTPUT #41 +24 VDC

SmartPAC Pro HMI
(1) 0-10 IN — TB1 ANALOG IN
(2) GND
ETHERNET
J7 USB
J8 USB

POWER SUPPLY MODULE
J13 POWER INPUT
(+24V) 6
(+12V) 5
(GND) 4
(GND) 3
(+5V) 2
(+5V) 1
120-240 VAC @50 - 60 HZ

TB2 INPUTS 1-4
1 <PROG>
2 <SP>
3 <DS 2>
4 <DS 1>
5 <+24>

TB3 IN SETUP
6 <IN 1-4 COM>
7 <GND>
8 <IN 5-8 COM>
9 <GND>

TB4 INPUTS 5-8
10 <CONT>
11 <SS>
12 <INCH>
13 <OFF>
14 <+24>

TB5 OUTPUTS
AUX
MACHINE INHIBIT
15 16 17 18

(L) (N) PE
GROUND
L2 SUPPLY VOLTAGE 120 - 240 VAC 50 - 60 HZ
L1

Wintriss SmartPAC Pro RTS
TB2 INPUT POWER
9 <S3>
11 <DAC1>
12 <AN7>
13 <DAC2>
15 <GND>
17 <+24>
18 <+5>
J7 EXPANSION PORT
J10 USB OUT
TB4 STOP CIRCUITS
205 <A>
206 <B>
207 <ESTOP>
208 <ESTOP>
209 <TSTOP>
210 <TSTOP>
WPC PORT(5)
330 <-TXD6>
329 <+TXD6>
328 <-RXD6>
327 <+RXD6>
326 <GND>
TB8
(CN+)
(SHL)
(CN-)
CAN BUS
TB1

SERIAL COMM. CONNECTOR ON EDGE OF WPC 2000 PROCESSOR BOARD.
TB107
SHLD 111 <GND>
WHT 112 <-RXD>
BLK 113 <+RXD>
GRN 114 <-TXD>
RED 115 <+TXD>
BRN WIRE IS UNUSED
CONNECT TO THE ENCLOSURE

RESOLVER PORT TB3
(S2) <SIN>
(S1) <SIN>
(S4) <COS>
(S3) <COS>
(R2) <SIN>
(R1) <COS>

AUX I/O TB5
(+24 VDC)
(POS SEN)
(GND)
(REM RES)
(GND)
(LOCKOUT)
(SETUP)
(DS 2)
(DS 1)

CONNECT TO THE ENCLOSURE

TB7 SPECIAL PORT(3) COMM PORT(4)
<+RXD3>
<-RXD3>
<+TXD3>
<-TXD3>
<GND>
<+RXD4>
<-RXD4>
<+TXD4>
<-TXD4>

TB6 SFI PORT(1) MODULE PORT(2)
<+RXD1>
<-RXD1>
<+TXD1>
<-TXD1>
<GND>
<+RXD2>
<-RXD2>
<+TXD2>
<-TXD2>

OPTIONAL WPC ADJUSTMENT LOCKOUT SWITCH
OFF ON
OPTIONAL REMOTE RESET BUTTON

OPTIONAL REMOTE DUAL OPERATOR * STATION SELECTOR (REMOTE SWITCH)
BOTH
B A
A OX
B XO
BOTH OO

*THE OPTIONAL DUAL REMOTE SWITCH CAN BE CONNECTED TO TWO DIFFERENT TERMINAL BLOCKS ON THE SMARTPAC PRO. ONLY ONE OR THE OTHER CAN BE USED. THE SELECTION IS PROGRAMMED IN THE SMARTPAC PRO INIT SCREEN.

OPTIONAL REMOTE DUAL OPERATOR STATION SELECTOR (REMOTE SWITCH RTN)
BOTH
B A
MOUNTED ON FRONT PANEL
PROG RUN
XO
A OX
B XO
BOTH OO

STROKE SELECTOR
SINGLE INCH
CONT OFF
BLU BLK OFF XOOO
RED INCH OXOO
GRN S.S. OOXO
WHT CONT. OOOX

PREWIRED ON SMARTPAC FRONT PANEL
OR MAY BE REMOTE (CUSTOMER PROVIDED)

RESOLVER
RESOLVER CABLE
SHIELD
BLK
GRN
RED
YEL
ORG
BRN

SHOWN FOR CW ROTATION FACING SHAFT
FOR CCW ROTATION SWAP THE BLACK AND YELLOW WIRES AT PRESS CONTROL AND AT THE SMARTPAC.

SET JP101 ON SMARTPAC TO SLAVE POSITION.

RESOLVER CONNECTOR ON THE EDGE OF WPC 2000 PROCESSOR BOARD
TB106
110 <GND>
109 <S1>
108 <S2>
107 <R1>
106 <S3>
105 <R2>
104 <S4>
BLK
GRN
RED
YEL
ORG
BRN
CONNECT TO THE ENCLOSURE

CONNECT TO THE ENCLOSURE

CNTR-BAL PRESSURE
COUNTER BALANCE PRESSURE TRANSDUCER SA-200 (OPTIONAL)
SYSTEM AIR PRESSURE TRANSDUCER SA-200 (OPTIONAL)
MAIN SYSTEM AIR PRESSURE
SYSTEM AIR PRESSURE

TB104
WPC TERMINAL #44 ANALOG GRD
WPC INPUT #43 ANALOG 2 IN
WPC OUTPUT #42 +24VDC
WPC OUTPUT #41 +24VDC
WPC OUTPUT #40 +24VDC
WPC OUTPUT #39 +24VDC
WPC OUTPUT #38 +24VDC
WPC OUTPUT #37 +24VDC
WPC OUT #36 AUX 2 OUTPUT
WPC OUT #35 LIGHT CURTAIN - B INTERRUPT
GRP 5 #6 WPC INPUT #88 LC-B2 INPUT
GRP 5 #3 WPC INPUT #87 LC-A2 INPUT
GRP 7 #8 WPC INPUT #86 USER IN 10
GRP 7 #7 WPC INPUT #85 USER IN 8
GRP 7 #6 WPC INPUT #84 USER IN 6
GRP 7 #5 WPC INPUT #83 USER IN 4
GRP 7 #4 WPC INPUT #82 USER IN 2
WPC INPUT #81 USER TOP-STOP STRING IN
WPC TERMINAL #80 SPAC T-STOP
24VDC #79 TOP-STOP STR DRIVE
USER TOP-STOP STRING CENTER LOOP

TB103
WPC TERMINAL #34 ANALOG GRD
WPC INPUT #33 ANALOG 1 IN
WPC OUTPUT #32 +24VDC
WPC TERMINAL #31 GROUND
WPC TERMINAL #30 GROUND
WPC OUT #29 AUX 3 OUTPUT
WPC OUT #28 AUX 1 OUTPUT
WPC OUT #27 LIGHT CURTAIN - A INTERRUPT
WPC INPUT #26 SPECIAL 1
WPC TERMINAL #25 GROUND
WPC INPUT #24 D-R 5V IN
WPC OUTPUT #23 +24VDC
GRP 1 #4 WPC INPUT #78 LC-B1 INPUT
GRP 7 #2 WPC INPUT #77 LC-A1 INPUT
MUTE 2 LAMP OUT 24VDC #76
GRP 6 #8 WPC INPUT #75 SPECIAL 3
GRP 6 #7 WPC INPUT #74 USER IN 9
GRP 6 #6 WPC INPUT #73 USER IN 7
GRP 6 #5 WPC INPUT #72 USER IN 5
GRP 6 #4 WPC INPUT #71 USER IN 3
GRP 6 #3 WPC INPUT #70 REM RESET
WPC INPUT #69
USER E-STOP STRING IN
USER E-STOP STRING CENTER LOOP
WPC TERMINAL #68 SPAC E-STOP
E-STOP STR DRIVE 24VDC #67
GRP 6 #2
GRP 6 #1

USER INPUT 6 GRD
USER INPUT 2
USER INPUT 7
USER INPUT 3
USER INPUT 5
USER INPUT 1
USER INPUT 8 PAIRED WITH 9 E-STOP
USER INPUT 9
+24V
USER INPUT 10 PAIRED WITH 11 E-STOP/LOCKOUT
USER INPUT 10
USER INPUT 11
COUNTERBALANCE AIR PRESSURE
USER INPUT 4 E-STOP
REMOTE RESET

TB102
GRP 4 #10 WPC INPUT #22 FLYWHL SENS
GRP 3 #9 WPC INPUT #21 USER IN 1 *
GRP 4 #9 WPC INPUT #20 DSV MONITOR
GRP 4 #7 WPC INPUT #19 SPECIAL 4
GRP 4 #6 WPC INPUT #18 USER IN 11 *
GRP 4 #5 WPC INPUT #17 MTR REV
GRP 4 #4 WPC INPUT #16 BAR ACTIVATE
GRP 3 #4 WPC INPUT #15 AUTO ACT N/O
GRP 3 #3 WPC INPUT #14 FOOT SW N/O
GRP 4 #1 WPC INPUT #13 NO T-STOP INCH
GRP 3 #2 WPC INPUT #12 PALM B N/O
GRP 3 #1 WPC INPUT #11 PALM A N/O
MUTE 1 LAMP OUT 24VDC #66 W/BRN
PALM TIME LAMP OUT WPC OUT #65 W/BLK
PRIOR ACT LAMP OUT WPC OUT #64 WHITE
GRP 4 #8 WPC INPUT #63 PRIOR ACT IN N/C GREEN
PRIOR ACT B OUT WPC OUT #62
PRIOR ACT IN WPC INPUT #61
GRP 4 #3 WPC INPUT #60 T-STOP B2 IN YELLOW
TOP-STOP B2 OUT WPC OUT #59
TOP-STOP A2 IN WPC INPUT #58
GRP 4 #2 WPC INPUT #57 E-STOP B2 IN BROWN
E-STOP B2 OUT WPC OUT #56
WPC INPUT #55 E-STOP A2 IN VIOLET

OVER-RUN LIMIT SWITCH BLK WHT RED BLUE
FLYWHEEL SENSOR BLK WHT RED
BLUE RED
USED ONLY WITH ACTS FIRMWARE.

OFF ON
ENABLE NO TOP STOP IN INCH MODE
SYSTEM AIR PRESSURE
MOTOR REVERSE
MOTOR FORWARD
+24V
N/C CONTACTS OF BAR CONTROL
ON/OFF SWITCH CAN BE WIRED TO MOTOR STARTER CIRCUIT SO THAT MAIN MOTOR TURNS OFF WHEN BAR MODE IS SELECTED.
BAR CONTROL BOX
OFF ON ACTUATOR

TB101
WPC TERMINAL #10 GROUND
WPC OUTPUT #9 +24VDC
WPC TERMINAL #54 GROUND BLACK
WPC OUTPUT #53 +24VDC W/RED
GRP 2 #6 WPC INPUT #52 TOP-STOP B1 IN ORG
GRP 1 #5 WPC INPUT #8 AIR PRESS IN
TOP-STOP B1 OUT WPC INPUT #51
GRP 1 #3 WPC INPUT #7 MTR FRWD
TOP-STOP A1 IN WPC INPUT #50
GRP 2 #5 WPC INPUT #6 BAR SELECT
TOP-STOP OUT A WPC OUT #49 W/YEL
GRP 2 #4 WPC INPUT #5 AUTO ACT N/O
GRP 2 #3 WPC INPUT #48 E-STOP B1 IN RED
GRP 1 #2 WPC INPUT #4 FOOT SW N/O
E-STOP B1 OUT WPC OUT #47
GRP 2 #2 WPC INPUT #3 ONE HAND
E-STOP A1 IN WPC INPUT #46
GRP 2 #1 WPC INPUT #2 PALM B N/O
E-STOP OUT A WPC OUT #45 GREY W/ORG BLUE
GRP 1 #1 WPC INPUT #1 PALM A N/O

15 PIN CONNECTOR
JUMPER PLUG IN 12 PIN CONNECTOR
OPERATOR STATION CABLE
AUTOMATIC MODE ACTUATOR
FOOT SWITCH

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CHK			
APPROVALS			
ENG.			
MF'G.			
FILENAME			
REL			

Wintriss Controls Group

TITLE
WPC2000 INTEGRATION WITH SMARTPAC Pro & SH9 SYSTEM WIRING DIAGRAM

SIZE	DRAWING NUMBER	REV
D	4334907	D

SHEET 1 OF 1