

Processor File: GNCVDC4B.ASH
February 10, 1997 - 13:23

ALYN 2/10/97

Allen-Bradley Co.
1747 Series Software
APS Release 4.02
Documentation Utility
Program Listing

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MOCK TIMER RESET FUNCTION
ON DIE CLOSED/RESET
INPUT TIMER
ON

MOCK RESET
BIT ON

OFF METAL VALVE OUTPUT AT END OF PLUNGER STROKE (METAL INSPECTION)
CLOSING
INTERFER
FILE SET
POINT

LATCH BIT

Source A 1:3.1
Source B 1:10.16
100

LATCH BIT
FROM METAL
INSPECTION
OUTPUTS
OFF

MODE CYCLE
STAMP
INPUT
FROM DCM

1:3

ON DIE CLOSED
INPUT

1:3

1:3

1:3
TIMER ON DELAY
1:3
TIMER
Time Base 0.01
Preset 30
Accum 0

1:3
TIMER ON DELAY
1:3
TIMER
Time Base 0.01
Preset 30
Accum 0

1:3
TIMER ON DELAY
1:3
TIMER
Time Base 1.0
Preset 300
Accum 0

1:3
TIMER ON DELAY
1:3
TIMER
Time Base 1.0
Preset 300
Accum 0

71 2002.26

7351

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[illegible]

TO FAULT
OUTPOST

710F-----
--+--TIMER OFF DELAY +--(EN)--+

Timer	74:50--(DN)
Time Base	0.01
Pre-set	550
Actual	550

FAULT
OUTPUT TO

170

100-443887-100

2:21 START OF PURGE TWO, AIR OFF METAL VALVE OPEN
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MANUAL
VACUUM
TEST ON
B3
37

2:28
LEAK DOWN TIME CHECK FOR METAL VALVES DURING AUTOMATIC CYCLE

TIMER FOR
LEAK DOWN
TIMER ON DELAY + (EN)
14:12+ (DN)
Time Base 0.01
Preset 100
Accum 0

2:27
DOWN TIMED OUT CHECK FOR FAULT
DOWN
ED OUT

FAULT
CHECK BIT

B3
UPDATE
FOR PRES.
TRANSDUCER
INPUT
MOV
MOVE

Source 14.0
Dest M7:10
2444
2444

2:26
VACUUM CHECK AT DIE CLOSE
ON FAULT

CHECK BIT

B3
B3
GT
GREATER THAN
Source A M7:10
2444
Source B M7:11
1148

47
83
RUNG
FAULT
OUTPUT TO
Accum 351
Preset 350
Time Base 0.01
14:51+ (DN)
TIMER OFF DELAY + (EN)
10F

FAULT OUTPUT TO DIAM SCREEN

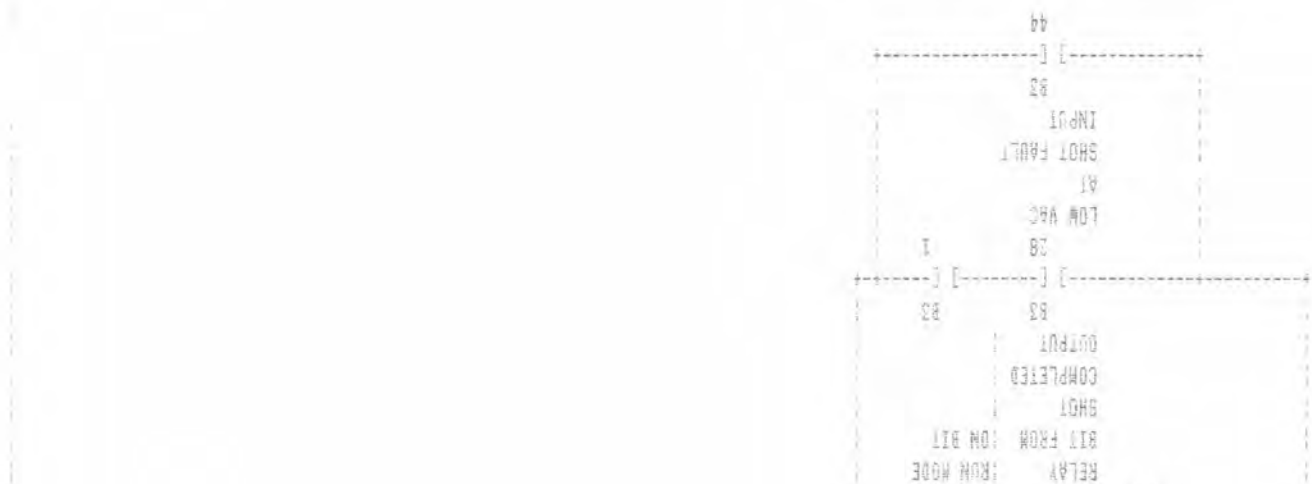
OUTPUT TO
DIAM ALARM
SCREEN

FAULT
OUTPUT TO
LIGHT

0:2
B

FAULT
OUTPUT
TO MCM
0:2
14

FAULT
OUTPUT
BIT FOR
DIAM+
ALARM
03



VAC LINE
VALVES ON

B2
B0

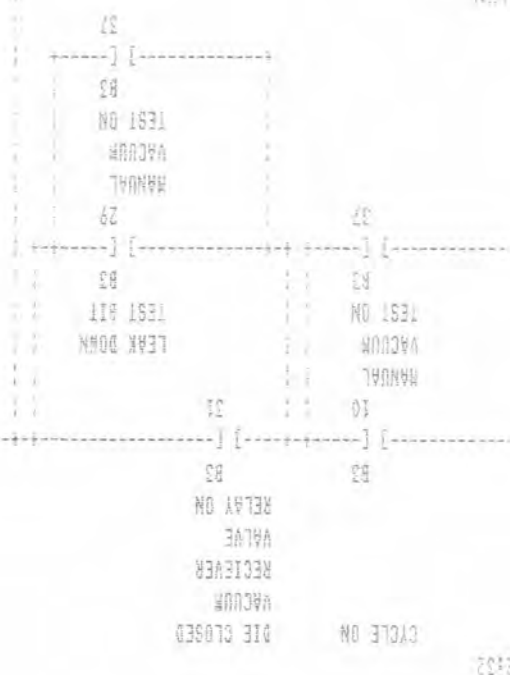
101
CLOSED AND VACUUM SYSTEM ON WAITING FOR METAL INJECTION FROM PLUGGER
MODE 101E CLOSED
IT INPUT



OUTPUT TO
 RECEIVER
 VALVE
 SOLENOID

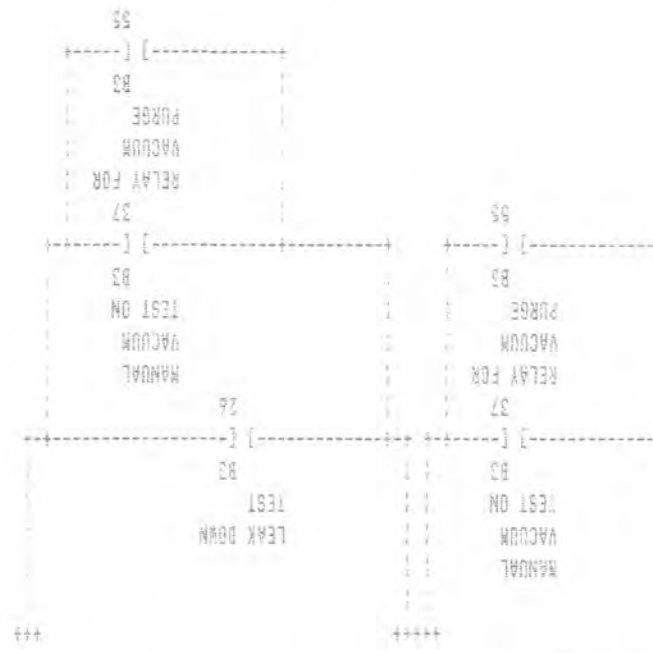
0.1

VAC LINE
 VALVE
 OUTPUT
 0.1



MANUAL
 REG TEST
 PUT
 B3
 0.1

DIE CLOSED
 RELAY BIT
 B3
 0.1



PLUNGER POSITION SET POINTS FOR MEASURING VACUUM DURING THE
METAL INJECTION CYCLE

CLOSED/CYCLE ON INTERFER

FILE SET INTERFER

POINT FILE SET

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TIMED CHECK OF VACUUM DURING SHOT

+TOP

+TIMER OFF DELAY

14:40+-(DN)

Time Base

0.01

Preset

100

Accum

100

100

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CLOSED/CYCLE ON

UPPER

LIMIT FOR

VACUUM

FAULT

14:40 +GRT

83

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Source A

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Source B

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PLUNGER POSITION SET POINTS FOR MEASURING VACUUM DURING THE
METAL INJECTION CYCLE

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10:27
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INTERFER

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FILE SET

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POINT

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FILE SET

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POINT

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INTERFER

09:49
FILE SET

09:48
POINT

09:47
INTERFER

09:46
FILE SET

ST OPTIONS SUMMARY

INSURE VALID X-RET INFO:	YES
GRAPHICS MODE:	NO
PAGE WIDTH:	160
PAGE LENGTH:	66
STARTING FILE:	2
ENDING FILE:	2
POWER KILL:	YES
ADDRESS COMMENTS:	YES
ADDRESS DISPLAY:	YES
RUNG COMMENTS:	YES
Ladder Cross References:	NONE

PROCESSOR FILE: QMCVDC4B.ACH

Processor File: QMCVDC9B.ACH
February 10, 1997 - 13:23

ALVN 2/10/97

Allen-Bradley Co.
1797 Series Software
APS Release 4.02
Documentation Utility
Cross Reference

Sympt / Comment	Instruction File Number: Run Number
- I -	RUN MODE ON BIT 2:0 2:7 2:9 2:30 2:31 2:38 2:39
- (-) -	RUN "ON" MODE BIT 2:38
- I -	LATCH BIT FROM METALINJECTION OUTPUTS OFF 2:6 2:14
- I/-	LATCH BIT FROM METALINJECTION OUTPUTS OFF 2:13
- (-) -	2:6
- 000- 2:1	
- I -	2:2
- (-) -	2:1
- I -	CYCLE ON 2:0 2:3 2:8 2:13 2:28 2:32 2:33 2:34 2:40 2:41 2:43 2:45
- I -	PURGE 2 INPUT 2:18 2:23
- I -	FAULT CHECK BIT 2:29 2:30
- (-) -	FAULT CHECK BIT 2:27
- I -	LEAK DOWN TEST: 2:23
- (-) -	TO VACUUM LINE CONTROL VALVES 2:25
- I -	RELAY BIT FROM SHOT COMPLETED OUTPUT 2:30
- I/-	RELAY INPUT FROM FAULT RUN# 2:46

Symbol / Comment /
Instruction File Number: Run Number

- 1 - LEAK DOWN TEST BIT 2:32
- 1 - TO VACUUM RECEIVER CONTROL VALVE 2:25

- 1 - DIE CLOSED/CLAY BIT 2:30
- 1 - VAC LINE VALVES ON 2:31

- 1 - DIE CLOSED/VACUUM RECEIVER VALVE RELAY ON 2:31
- 1 - VACUUM RECEIVER VALVE ON RELAY BIT 2:31

- 1 - JOG CYCLE LATCH 2:33
- 1 - JOG LATCH RELAY 2:33 2:33 2:37

- 1 - MANUAL PURGE TEST/INPUT 2:18 2:20 2:32
- 1 - OUTPUT TO AIR VALVE/RELARGE SOLINOID 2:33

- 1 - PURGE TEST 2:19
- 1 - JOG DEFAULT BIT 2:37

- 1 - VACUUM TEST ON 2:16
- 1 - MANUAL VACUUM TEST ON 2:19 2:25 2:32 2:33 2:33

- 1 - VACUUM TEST ON BIT 2:37
- 1 - LOW VAC BIT SHOT FAULT/INPUT 2:30

- 1 - OUTPUT TO FAULT RUNS 2:43
- 1 - 2:13

Symbol / Comment / Instruction File Number: Run Number

-J I- FAULT 41 PURGE 2:30

-J I- TO FAULT OUTPUT 2:18

-J I- VACUUM LEAK DOWN TEST FAULT 2:30

-J I- OUTPUT TO FAULT RUNS 2:28

-J I- 2:42

-J I- 2:41

-J I- RELAY FOR VACUUM PURGE 2:33 2:33

-J I- RELAY BIT FOR VAC PURGE 2:20

-J I- RELAY BIT TO LATCH FAULT OUTPUT 2:30

-J I- FAULT OUTPUT BIT FOR DIAG+ ALARM 2:30

-J I- FAULT OUTPUT TO ALARM SCREEN 2:19

-J I- OUTPUT TO DIAG ALARMSCREEN 2:25

-J I- OUTPUT TO DIAG ALARMSCREEN 2:44

-J I- POWER ON 2:10 2:11 2:13 2:14 2:15 2:18

-J I- RUN INPUT BUTTON 2:38

-J I- NOT RUN BUTTON 2:33

-J I- JOG BUTTON 2:35

-J I- JOG BUTTON 2:35

Symbol / Comment / Instruction File Number: Run Number

-LES- 2:18 UPPER LIMIT FOR VACUUM FAULT

-GRT- 2:43 VACUUM AT SHOT PRESSURE/SENSOR UPDATE

-MOV- 2:40 VACUUM AT SHOT PRESSURE/SENSOR UPDATE

-GRT- 2:43

-COP- 2:2

-GRT- 2:41 2:45

-GRT- 2:6

-LES- 2:41 2:43

-LES- 2:5 MOTOR ON

-LES- 2:32 OUTPUT TO RECEIVER VALVE SOLENOID

-LES- 2:32 VAC LINE VALVE OUTPUT

-LES- 2:32 VAC LINE VALVE OUTPUT

-LES- 2:32 FAULT OUTPUT TO LIGHT

-LES- 2:32 RUN ON LIGHT

-LES- 2:32 LOG LIGHT OUTPUT

-LES- 2:32 OUTPUT TO SHOT COMPLETE

PROCESSOR FILE: DMCD04M.ACH

SYMBOL / COMMENT /
INSTRUCTION FILE NUMBERING NUMBER

-1-	1-	2:15	FAULT	OUTPUT	TO DCM
-1-	1-	2:30	LARGE	SOLENOIDS PHYSICAL OUTPUTS ON	
-1-	1-	2:15	RESET	TIMER	FOR HSCC COUNTER
-1-	1-	2:4	RESET	TIMER	ON
-1-	1-	2:3	RESET	TIMER	CHECK FROM DCM
-1-	1-	2:7	CYCLE START	INPUT TIMER	
-1-	1-	2:10	RESET	TIMER FOR AUTOMATIC CYCLE OF PURGE	
-1-	1-	2:12	AUTO CLEARESET	TIMER	OUTPUT
-1-	1-	2:12	LARGE	SOLENOIDS ON TIMER	
-1-	1-	2:15 2:20	PURGE 1	LARGE	SOLENOIDS ON TIMER
-1-	1-	2:13	PURGE ONE PLUS DELAY BETWEEN PURGE TWO		
-1-	1-	2:21	PURGE 1	DONE START OF PURGE 2	
-1-	1-	2:21	LARGE	SOLENOIDS ON TIMER	
-1-	1-	2:23			

Processor File: QMCV0048.ACH

Symbol / Comment /
Instruction File Number;Kung Number

2:22	-] [-	
-TON-	2:23	
-] [-	2:24	CYCLE SPACER DONE
-TON-	2:24	VACUUM CONTROLS AND/OR ON
-] [-	2:26	
-] [-	2:26	VACUUM CYCLE ON
-TON-	2:28	TIMER FOR LEAK DOWN
-] [-	2:27	LEAK DOWN TIMED OUT
-TON-	2:24	TIMER TO SET VAC. UPDATE POINT
-TON-	2:17	
-] [-	2:18	
-ON-	2:18	
-] [-	2:17	
-TON-	2:16	
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Symbol / Comment / Instruction File Number/Label Number

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Inside Valid X-Ref Info:	YES
Graphics Mode:	NO
Page Width:	160
Page Length:	67
Starting Values:	5
Ending Value:	1
Sort Order:	DESC
Address Comments:	YES
Instruction Mappings:	YES

Processor File: QMCVDC4B.ACF
February 10, 1997 - 13:23

ALYN 2/10/97

Alien-Bradley Co.
1747 Series Software
APS Release 4.02
Documentation Utility
Data Table

is Data Radix=HEX
#300
ESCH

Processor File: QMCVD42.HCM

[illegible]

PROCESSOR FILE: DMCVDC48.ACH

S	Z	N	C
0	0	0	0
SUSPEND STATUS	00000000	00000000	00000000
SUSPEND FILE	00000000	10000001	00000000
SUSPEND CODE	0	0	0
830R STATUS	10000000	00101010	00000000
FAULT	00000000	00000000	00000000
MODE	0000	FREE RUNNING CLOCK	10000001 01110011
DESCRIPTION:			
REGISTER	0000 0000		
I/O SLOT ENABLE	30	0	20
I/O SLOT ADDRESS	30	0	20
PROCESSOR ADDRESS	47207	1	
I/O SLOT INTERRUPT ENABLER	0	0	30
SCAN [x10 #]	9	0	30
BE SCAN [x10 #]	6		
WM SCAN [x10 #]	3		
REGISTER VALUE	0	0	30
WORDS FILED	YES	00000000 00000000 00000000 00000000	
ROUTINE SUBROUTINE FILE	0		
I/O INTERRUPT FILE EXEC	0		
SINGLE STEP TEST	FILE	RUNG	
START STEP ON	0	0	0
END STEP BEFORE	0	0	0
FAULT/POWER DOWN	1	0	0
COMPILED FOR SINGLE STEP	0	NO	
TIME	0	0	0
DATE	0	0	0
TIME	0	0	0
DATE	0	0	0
TIME	0	0	0
DATE	0	0	0

Address	Data (Rdx1=BINARY)	Address	Data (Rdx1=BINARY)	Address	Data (Rdx1=BINARY)	Address	Data (Rdx1=BINARY)
0000 0000 0000 0000	83:7	0000 0000 0000 0000	83:11	0000 0000 0000 0000	83:15	0000 0000 0000 0000	83:19
0000 0000 0000 0000	83:8	0000 0000 0000 0000	83:12	0000 0000 0000 0000	83:16	0000 0000 0000 0000	83:20
0000 0000 0000 0000	83:9	0000 0000 0000 0000	83:13	0000 0000 0000 0000	83:17	0000 0000 0000 0000	83:21
0000 0000 0000 0000	83:A	0000 0000 0000 0000	83:14	0000 0000 0000 0000	83:18	0000 0000 0000 0000	83:22
0000 0000 0000 0000	83:B	0000 0000 0000 0000	83:15	0000 0000 0000 0000	83:19	0000 0000 0000 0000	83:23
0000 0000 0000 0000	83:C	0000 0000 0000 0000	83:16	0000 0000 0000 0000	83:20	0000 0000 0000 0000	83:24
0000 0000 0000 0000	83:D	0000 0000 0000 0000	83:17	0000 0000 0000 0000	83:21	0000 0000 0000 0000	83:25
0000 0000 0000 0000	83:E	0000 0000 0000 0000	83:18	0000 0000 0000 0000	83:22	0000 0000 0000 0000	83:26
0000 0000 0000 0000	83:F	0000 0000 0000 0000	83:19	0000 0000 0000 0000	83:23	0000 0000 0000 0000	83:27

Table File 5 IS EMPTY
Table File 6 IS EMPTY

Processor File: OMCD04P.ACH

Table File # RECEIVED
Table File # NOT IN USE

Processor File: DMCD049.ACH

File Length: 0
File Length: 0
File Length: 0
File Length: 0
File Length: 0
File Length: 0
File Length: 0

Processor File: OMCDQ98.ACH

File Length:0
File Length:0
File Length:0
File Length:0
File Length:0
File Length:0
File Length:0

Table
2/10/97

Processor file: DMCVDCQB.ACH

February 10, 1997 Page 11
Data Table File M1.1

OPTION SUMMARY

YES	INSURE VALID X-REF INFO:
NO	GRAPHICS MODE:
150	PAGE WIDTH:
66	PAGE LENGTH:
0	SKIPPING FILE:
10	ENDING FILE:
HEX	INPUT FILE RADIX:
HEX	OUTPUT FILE RADIX:
DECIMAL	INTERNAL FILE RADIX:
BINARY	QUERY FILE RADIX:
HEX	NO FILE RADIX:
HEX	MY FILE RADIX:

Processor File: QMCVDCQB.ACH

Processor File: OMCD048.ACH
February 10, 1997 - 13:23

ALYN 2/10/97

Allen-Bradley Co.
1797 Series Software
APS Release 4.02
Documentation Utility
Processor Config

CATALOG # CARD DESCRIPTION CONFIG. - SIZE

1747-L524 1/02 CPU - 48 USER MEMORY
 1746-142 8-Input 100/120 WAC
 1744-0A16 16-Output (TRIAL) 100/120 WAC
 1745-HSCE High Speed Counter/Encoder
 1746-M14 4 Ch. Analog Input
 ***** NOT CONFIGURED *****
 ***** NOT CONFIGURED *****

Insure Valid X-Ret Info:

YES

Graphics Model:

NO

Page Width:

160

Page Length:

65