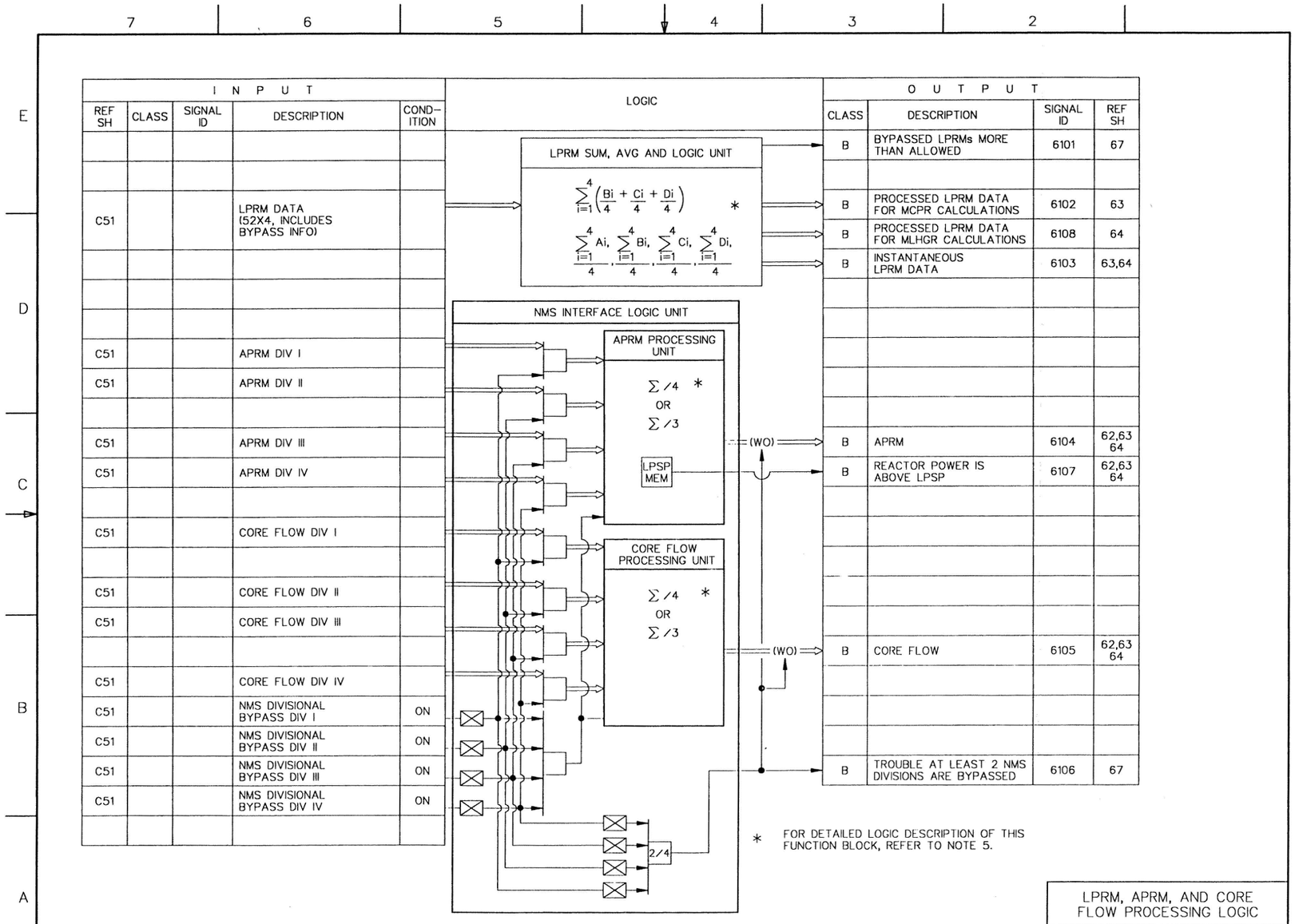
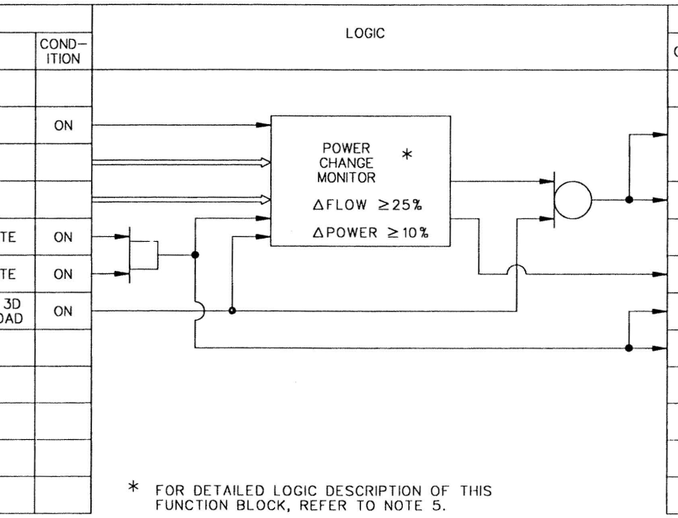


Figure 7.7-3 Rod Control and Information System IBD (Sheet 61 of 87)

INPUT				
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION
	B	6107	REACTOR POWER IS ABOVE LPSP	ON
	B	6105	CORE FLOW	
	B	6104	APRM	
	B	6307	3D DOWNLOAD COMPLETE	ON
	B	6407	3D DOWNLOAD COMPLETE	ON
DOI	B		MANUAL REQUEST FOR 3D MONITOR DATA DOWNLOAD	ON



OUTPUT			
CLASS	DESCRIPTION	SIGNAL ID	REF SH
D	SIGNAL TO PGCS/APR TO STOP AUTOMATIC POWER CHANGE WHILE 3D MONITOR DATA DOWNLOAD IS IN PROGRESS	6201	PGCS/ APR
D	3D MONITOR DATA DOWNLOAD REQUEST	6202	PMCS C91
B	ATLM TROUBLE #1	6205	67
D		6203	PMCS CRT/C91
L	3D DOWNLOAD COMPLETE	6204	DOI

* FOR DETAILED LOGIC DESCRIPTION OF THIS FUNCTION BLOCK, REFER TO NOTE 5.

3D-MONITOR DATA DOWNLOAD REQUEST LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 62 of 87)

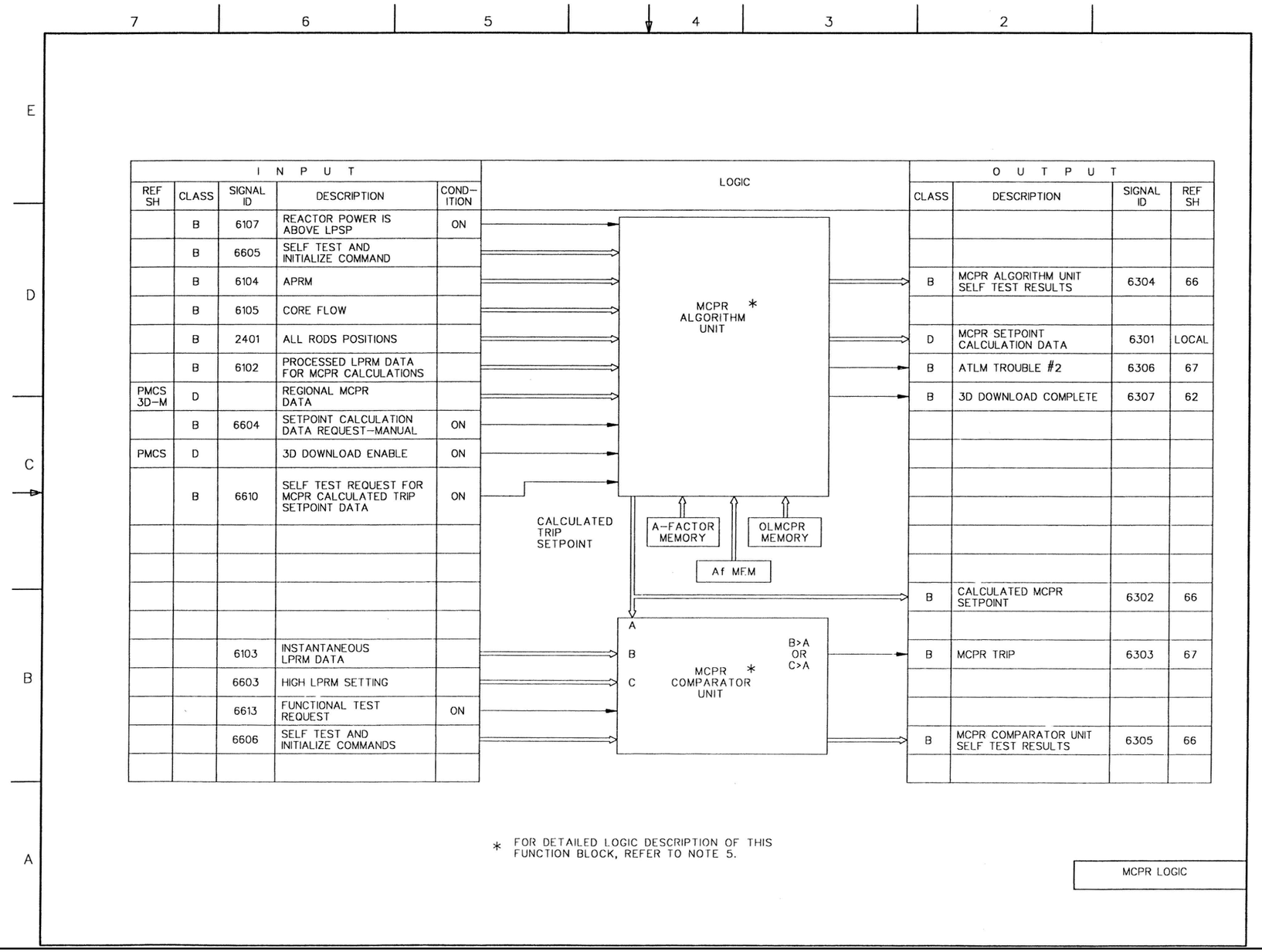
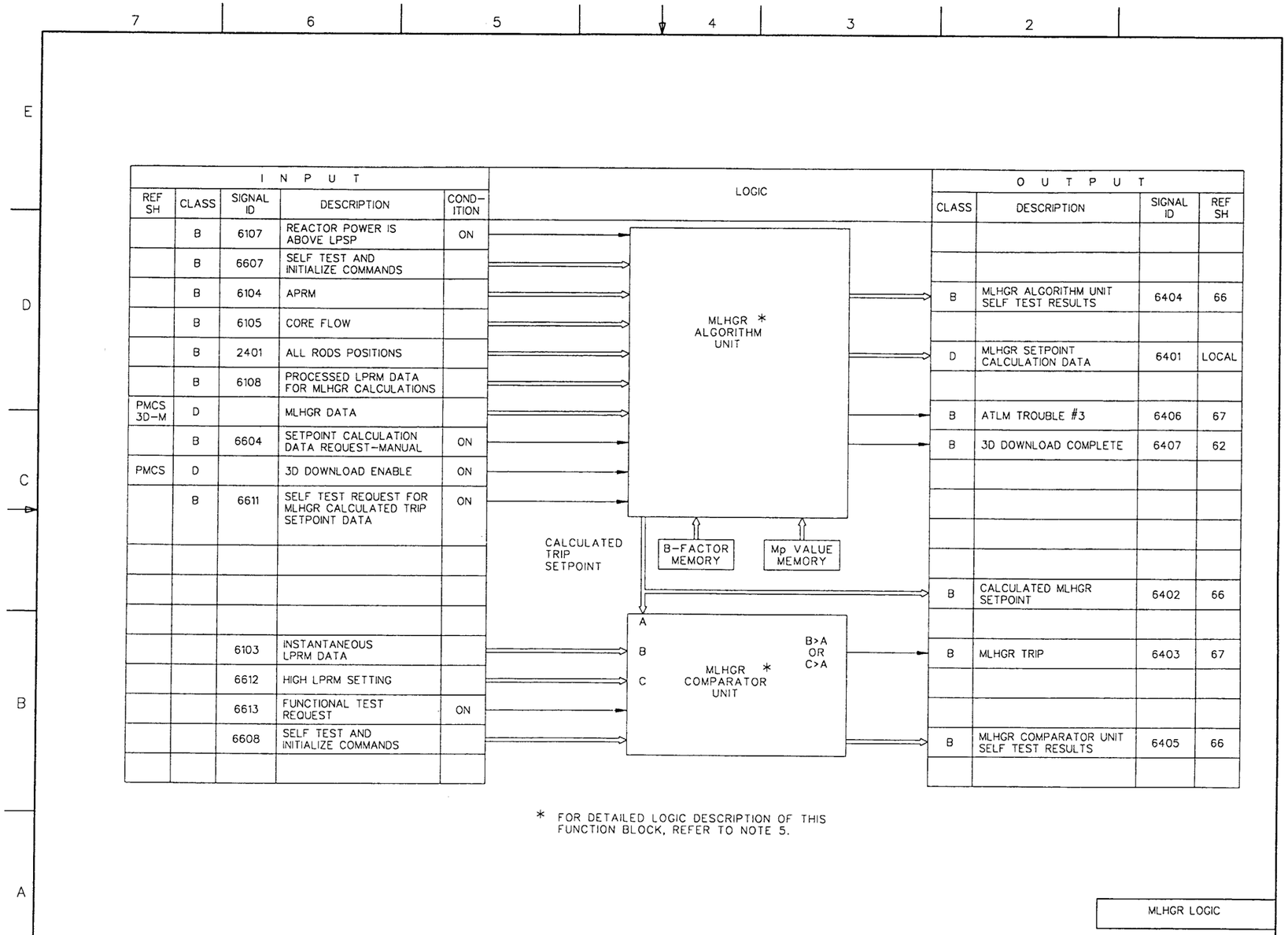


Figure 7.7-3 Rod Control and Information System IBD (Sheet 63 of 87)



INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	6107	REACTOR POWER IS ABOVE LPSP	ON					
	B	6607	SELF TEST AND INITIALIZE COMMANDS						
	B	6104	APRM			B	MLHGR ALGORITHM UNIT SELF TEST RESULTS	6404	66
	B	6105	CORE FLOW						
	B	2401	ALL RODS POSITIONS			D	MLHGR SETPOINT CALCULATION DATA	6401	LOCAL
	B	6108	PROCESSED LPRM DATA FOR MLHGR CALCULATIONS						
PMCS 3D-M	D		MLHGR DATA			B	ATLM TROUBLE #3	6406	67
	B	6604	SETPOINT CALCULATION DATA REQUEST-MANUAL	ON		B	3D DOWNLOAD COMPLETE	6407	62
PMCS	D		3D DOWNLOAD ENABLE	ON					
	B	6611	SELF TEST REQUEST FOR MLHGR CALCULATED TRIP SETPOINT DATA	ON					
						B	CALCULATED MLHGR SETPOINT	6402	66
		6103	INSTANTANEOUS LPRM DATA			B	MLHGR TRIP	6403	67
		6612	HIGH LPRM SETTING						
		6613	FUNCTIONAL TEST REQUEST	ON					
		6608	SELF TEST AND INITIALIZE COMMANDS			B	MLHGR COMPARATOR UNIT SELF TEST RESULTS	6405	66

Figure 7.7-3 Rod Control and Information System IBD (Sheet 64 of 87)

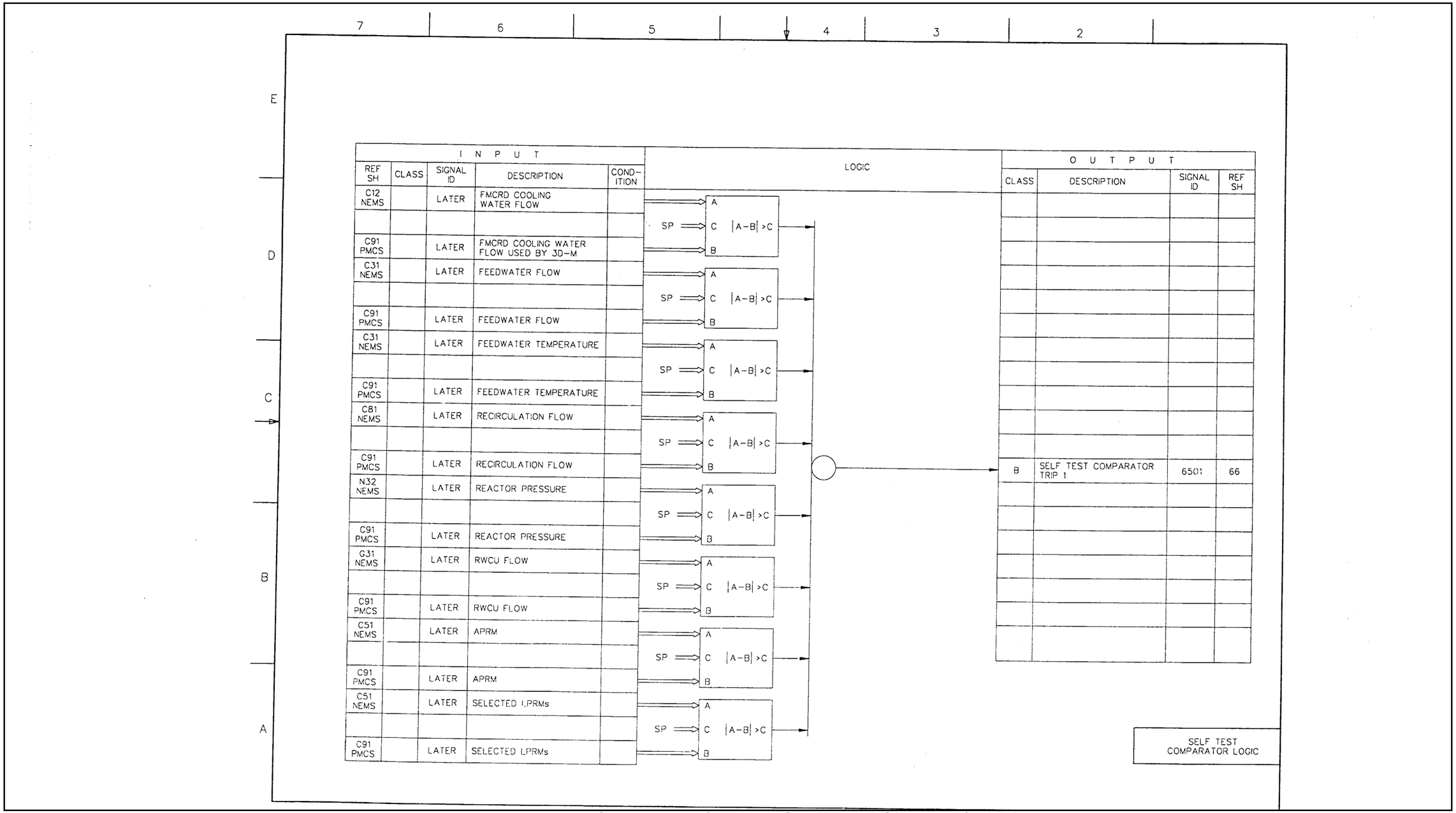
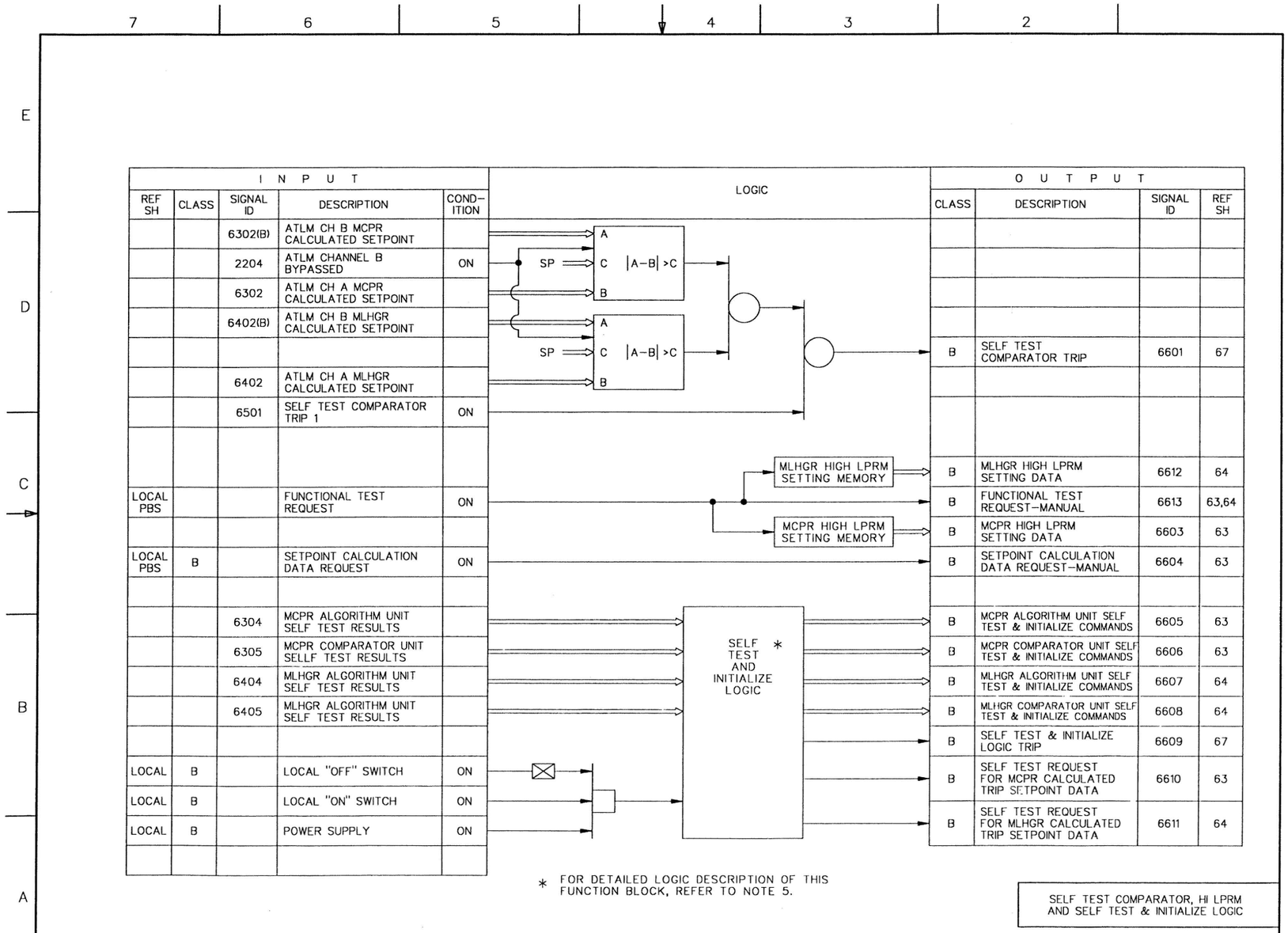


Figure 7.7-3 Rod Control and Information System IBD (Sheet 65 of 87)



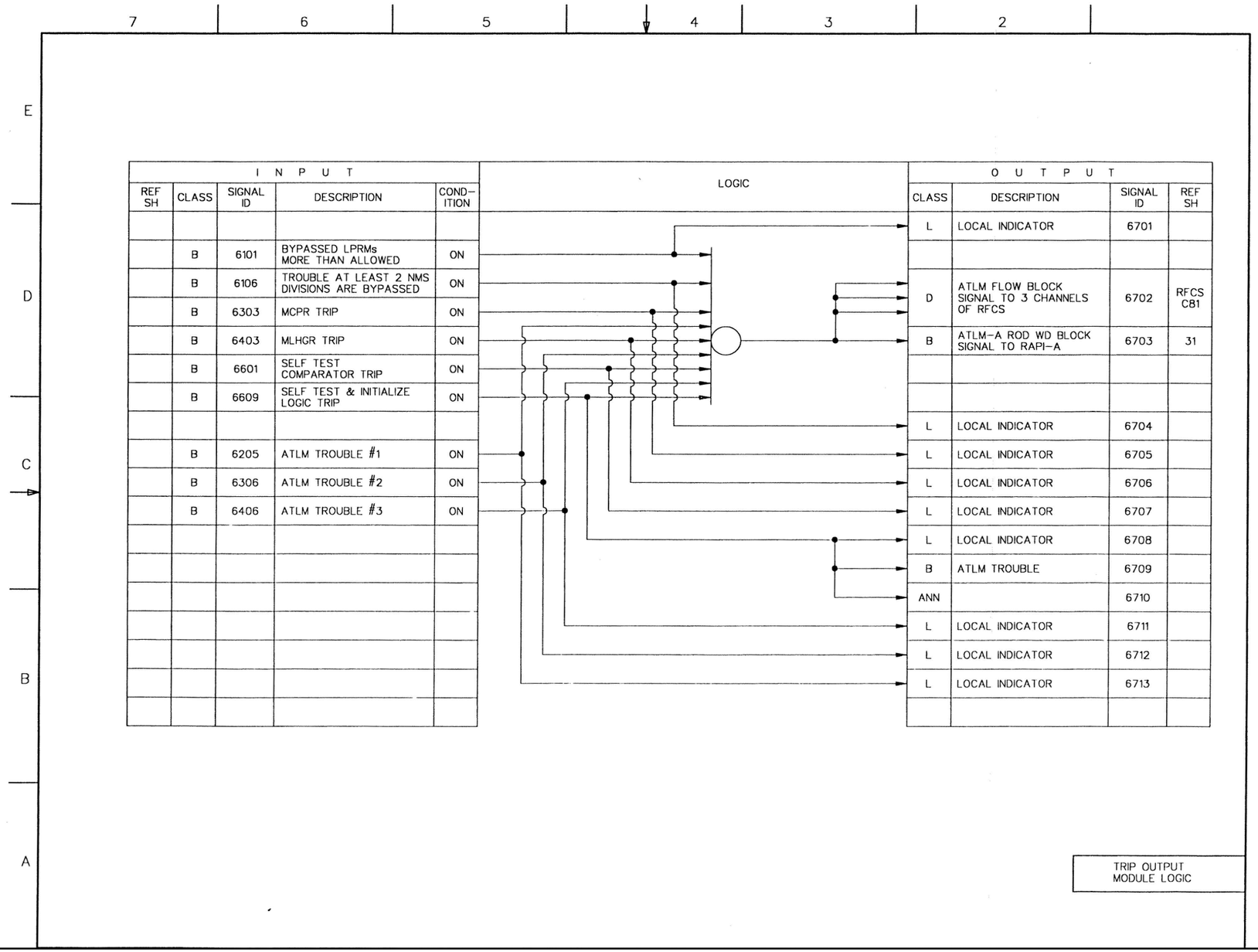
INPUT REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION
		6302(B)	ATLM CH B MCPR CALCULATED SETPOINT	
		2204	ATLM CHANNEL B BYPASSED	ON
		6302	ATLM CH A MCPR CALCULATED SETPOINT	
		6402(B)	ATLM CH B MLHGR CALCULATED SETPOINT	
		6402	ATLM CH A MLHGR CALCULATED SETPOINT	
		6501	SELF TEST COMPARATOR TRIP 1	ON
LOCAL PBS			FUNCTIONAL TEST REQUEST	ON
LOCAL PBS	B		SETPOINT CALCULATION DATA REQUEST	ON
		6304	MCPR ALGORITHM UNIT SELF TEST RESULTS	
		6305	MCPR COMPARATOR UNIT SELLF TEST RESULTS	
		6404	MLHGR ALGORITHM UNIT SELF TEST RESULTS	
		6405	MLHGR ALGORITHM UNIT SELF TEST RESULTS	
LOCAL	B		LOCAL "OFF" SWITCH	ON
LOCAL	B		LOCAL "ON" SWITCH	ON
LOCAL	B		POWER SUPPLY	ON

OUTPUT CLASS	DESCRIPTION	SIGNAL ID	REF SH
B	SELF TEST COMPARATOR TRIP	6601	67
B	MLHGR HIGH LPRM SETTING DATA	6612	64
B	FUNCTIONAL TEST REQUEST−MANUAL	6613	63,64
B	MCPR HIGH LPRM SETTING DATA	6603	63
B	SETPOINT CALCULATION DATA REQUEST−MANUAL	6604	63
B	MCPR ALGORITHM UNIT SELF TEST & INITIALIZE COMMANDS	6605	63
B	MCPR COMPARATOR UNIT SELF TEST & INITIALIZE COMMANDS	6606	63
B	MLHGR ALGORITHM UNIT SELF TEST & INITIALIZE COMMANDS	6607	64
B	MLHGR COMPARATOR UNIT SELF TEST & INITIALIZE COMMANDS	6608	64
B	SELF TEST & INITIALIZE LOGIC TRIP	6609	67
B	SELF TEST REQUEST FOR MCPR CALCULATED TRIP SETPOINT DATA	6610	63
B	SELF TEST REQUEST FOR MLHGR CALCULATED TRIP SETPOINT DATA	6611	64

* FOR DETAILED LOGIC DESCRIPTION OF THIS FUNCTION BLOCK, REFER TO NOTE 5.

SELF TEST COMPARATOR, HI LPRM AND SELF TEST & INITIALIZE LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 66 of 87)



INPUT					OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION	CLASS	DESCRIPTION	SIGNAL ID	REF SH
					L	LOCAL INDICATOR	6701	
	B	6101	BYPASSED LPRMs MORE THAN ALLOWED	ON				
	B	6106	TROUBLE AT LEAST 2 NMS DIVISIONS ARE BYPASSED	ON	D	ATLM FLOW BLOCK SIGNAL TO 3 CHANNELS OF RFCS	6702	RFCS C81
	B	6303	MCPR TRIP	ON				
	B	6403	MLHGR TRIP	ON	B	ATLM-A ROD WD BLOCK SIGNAL TO RAPI-A	6703	31
	B	6601	SELF TEST COMPARATOR TRIP	ON				
	B	6609	SELF TEST & INITIALIZE LOGIC TRIP	ON				
					L	LOCAL INDICATOR	6704	
	B	6205	ATLM TROUBLE #1	ON	L	LOCAL INDICATOR	6705	
	B	6306	ATLM TROUBLE #2	ON	L	LOCAL INDICATOR	6706	
	B	6406	ATLM TROUBLE #3	ON	L	LOCAL INDICATOR	6707	
					L	LOCAL INDICATOR	6708	
					B	ATLM TROUBLE	6709	
					ANN		6710	
					L	LOCAL INDICATOR	6711	
					L	LOCAL INDICATOR	6712	
					L	LOCAL INDICATOR	6713	

Figure 7.7-3 Rod Control and Information System IBD (Sheet 67 of 87)

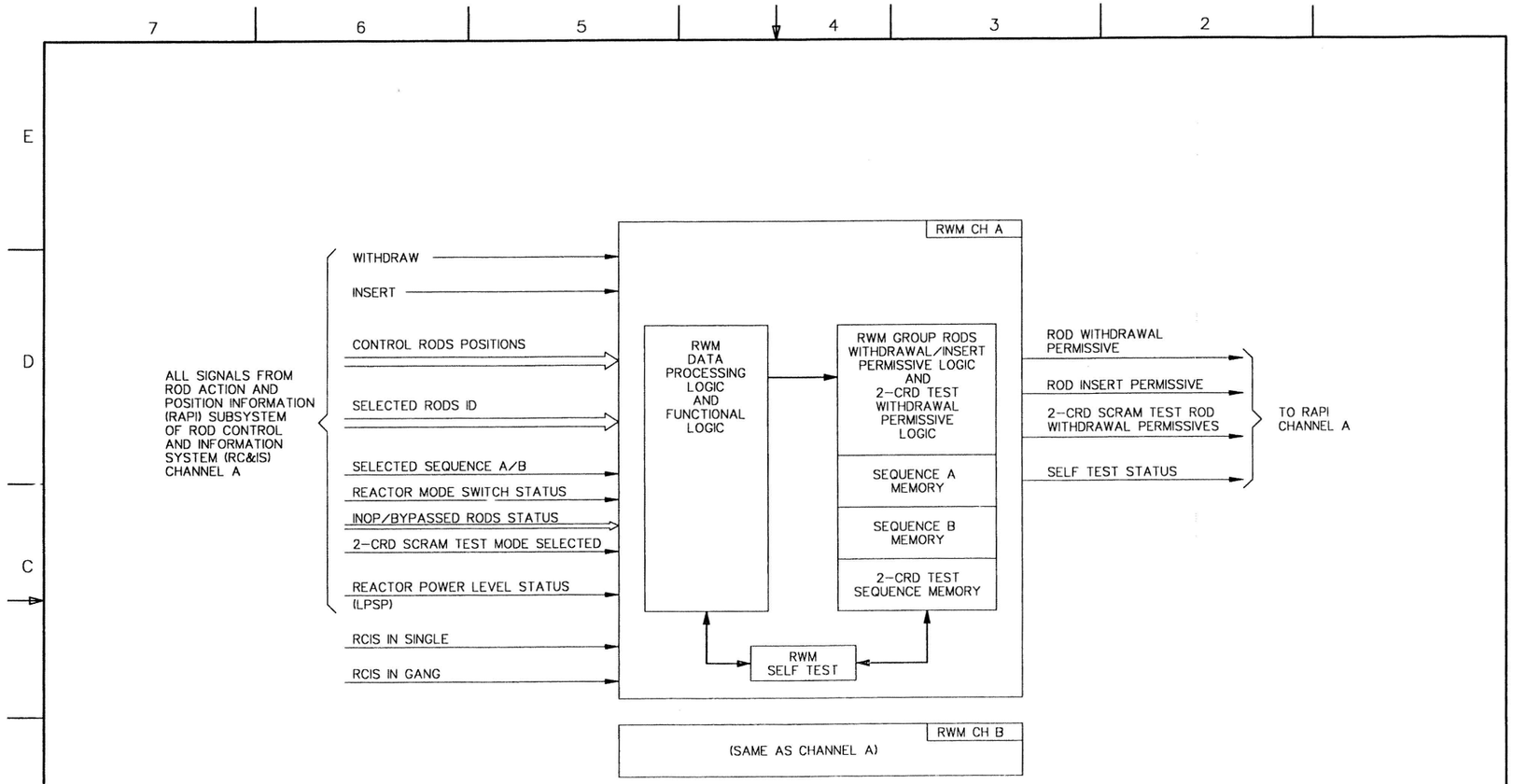


Figure 7.7-3 Rod Control and Information System IBD (Sheet 68 of 87)

INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	0404	REACTOR MODE SWITCH IN START-UP	ON		B	G1-G4 GANG ROD WITHDRAWAL INITIAL CONDITIONS OK	6901	73,74 75,76
	B	0305	REACTOR POWER IS BELOW LPSP	ON					
	B	0405	REACTOR MODE SWITCH IS IN RUN	ON		B	G1-G4 GANG ROD INSERT INITIAL CONDITIONS OK	6902	73,74 75,76
	B	0605	RCIS IN GANG ROD DRIVE MODE	ON		B	G1-G4 SINGLE ROD INSERT INITIAL CONDITIONS OK	6903	73,74 75,76
	B	0604	RCIS IN SINGLE ROD DRIVE MODE	ON		B	G1-G4 SINGLE ROD WITHDRAWAL INITIAL CONDITIONS OK	6904	73,74 75,76
	B	0707	RCIS IN ROD INSERT MODE	ON		B	G5-G10 GANG ROD INSERT INITIAL CONDITIONS OK	6905	77,78 79,80 81,82
	B	0708	RCIS IN ROD WITHDRAWAL MODE	ON		B	G5-G10 GANG ROD WITHDRAWAL INITIAL CONDITIONS OK	6906	77,78 79,80 81,82
						B	G5-G10 SINGLE ROD WITHDRAWAL INITIAL CONDITIONS OK	6907	77,78 79,80 81,82
						B	G5-G10 SINGLE ROD INSERT INITIAL CONDITIONS OK	6908	77,78 79,80 81,82

RWM INITIAL CONDITIONS GENERATION LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 69 of 87)

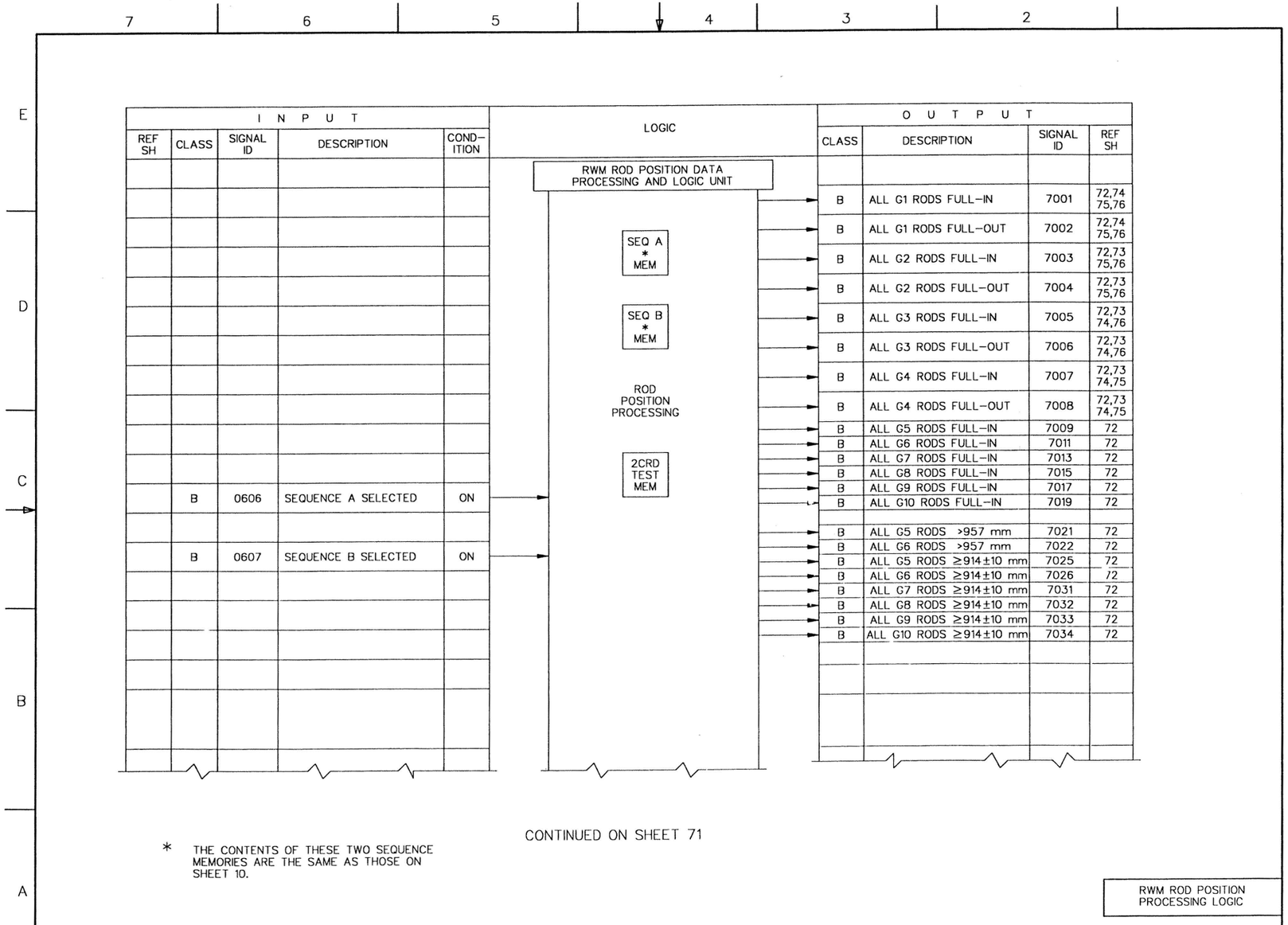


Figure 7.7-3 Rod Control and Information System IBD (Sheet 70 of 87)

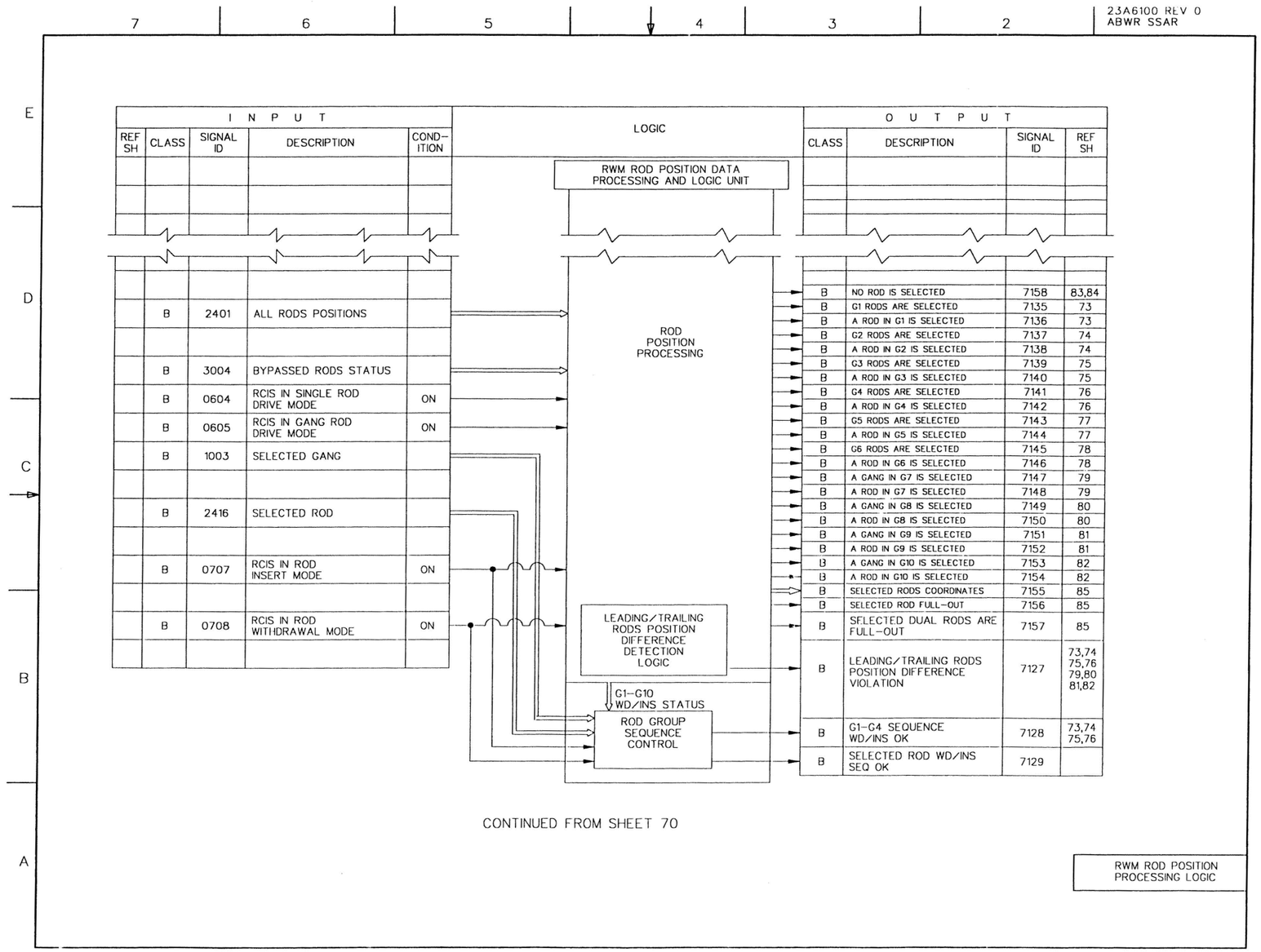


Figure 7.7-3 Rod Control and Information System IBD (Sheet 71 of 87)

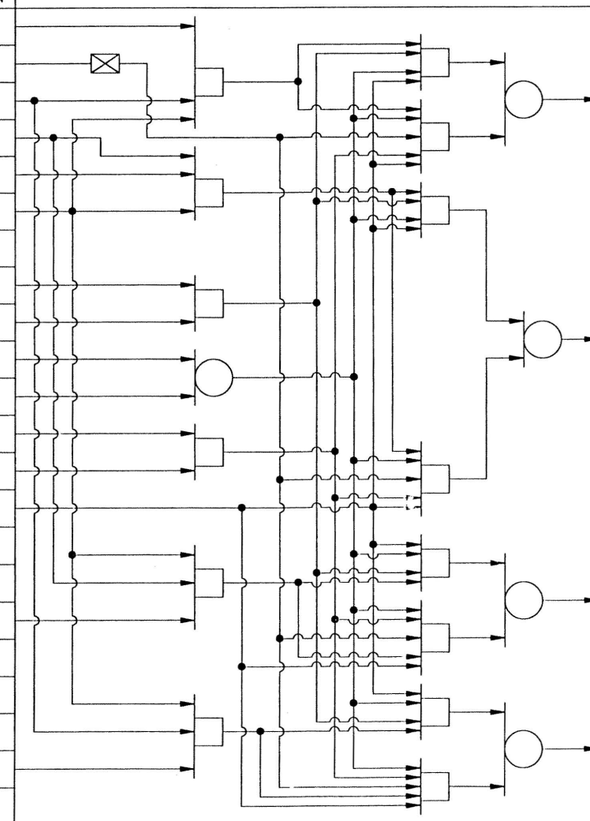
INPUT					OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION	CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	7009	G5 RODS FULL-IN	OFF				
	B	7011	G6 RODS FULL-IN	ON				
	B	7013	G7 RODS FULL-IN	ON	B	G5-G10 RODS FULL-IN	7201	73,74 75,76
	B	7015	G8 RODS FULL-IN	ON				
	B	7017	G9 RODS FULL-IN	ON				
	B	7019	G10 RODS FULL-IN	ON				
					B	G5 RODS PARTIAL INSERT PERMISSIVE	7205	77
	B	7021	ALL G5 RODS >957 mm	ON				
	B	7022	ALL G6 RODS >957 mm	ON	B	G6 RODS PARTIAL INSERT PERMISSIVE	7206	78
	B	7025	G5 RODS ≥ 914±10 mm	ON	B	G9 & G10 ROD(S) WD/INS PERMISSIVE ENABLE	7202	81,82
	B	7026	G6 RODS ≥ 914±10 mm	ON				
	B	7031	G7 RODS ≥ 914±10 mm	ON				
	B	7032	G8 RODS ≥ 914±10 mm	ON				
					B	G7 & G8 ROD(S) WD/INS PERMISSIVE ENABLE	7204	79,80
	B	7033	G9 RODS ≥ 914±10 mm	ON				
	B	7034	G10 RODS ≥ 914±10 mm	ON				
	B	7002	G1 RODS FULL-OUT	ON				
	B	7004	G2 RODS FULL-OUT	ON	B	G1-G4 RODS FULL-OUT	7203	77,78 79,80 81,82
	B	7006	G3 RODS FULL-OUT	ON				
	B	7008	G4 RODS FULL-OUT	ON				
	B	7001	G1 RODS FULL-IN	ON				
	B	7003	G2 RODS FULL-IN	ON	B	ALL RODS FULL-IN	7207	85
	B	7005	G3 RODS FULL-IN	ON				
	B	7007	G4 RODS FULL-IN	ON				

LOGIC

ENABLE, FULL-IN, AND FULL-OUT LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 72 of 87)

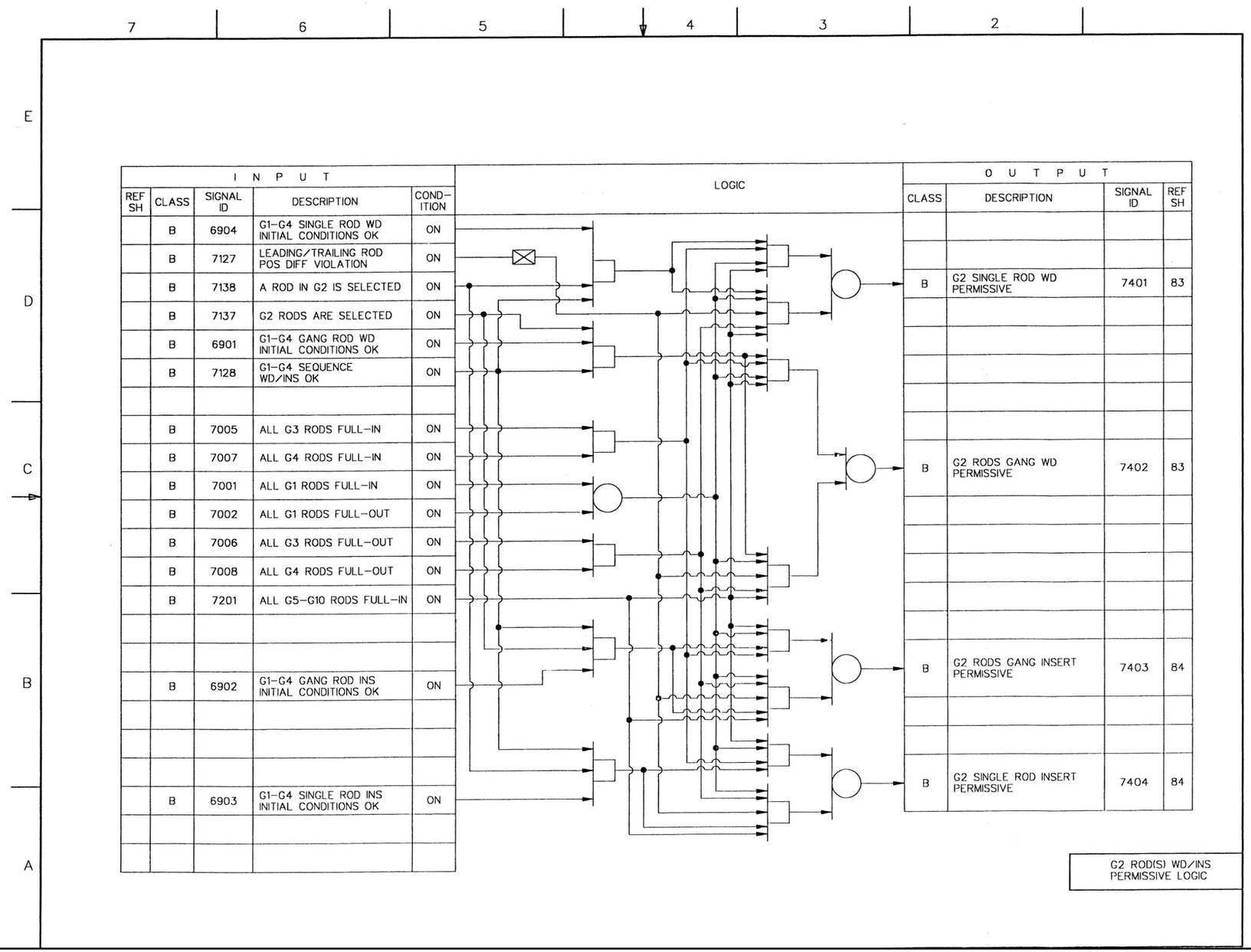
INPUT				
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION
	B	6904	G1-G4 SINGLE ROD WD INITIAL CONDITIONS OK	ON
	B	7127	LEADING/TRAILING ROD POS DIFF VIOLATION	ON
	B	7136	A ROD IN G1 IS SELECTED	ON
	B	7135	G1 RODS ARE SELECTED	ON
	B	6901	G1-G4 GANG ROD WD INITIAL CONDITIONS OK	ON
	B	7128	G1-G4 SEQUENCE WD/INS OK	ON
	B	7005	ALL G3 RODS FULL-IN	ON
	B	7007	ALL G4 RODS FULL-IN	ON
	B	7003	ALL G2 RODS FULL-IN	ON
	B	7004	ALL G2 RODS FULL-OUT	ON
	B	7006	ALL G3 RODS FULL-OUT	ON
	B	7008	ALL G4 RODS FULL-OUT	ON
	B	7201	ALL G5-G10 RODS FULL-IN	ON
	B	6902	G1-G4 GANG ROD INS INITIAL CONDITIONS OK	ON
	B	6903	G1-G4 SINGLE ROD INS INITIAL CONDITIONS OK	ON



OUTPUT			
CLASS	DESCRIPTION	SIGNAL ID	REF SH
B	G1 SINGLE ROD WD PERMISSIVE	7301	83
B	G1 RODS GANG WD PERMISSIVE	7302	83
B	G1 RODS GANG INSERT PERMISSIVE	7303	84
B	G1 SINGLE ROD INSERT PERMISSIVE	7304	84

G1 ROD(S) WD/INS PERMISSIVE LOGIC

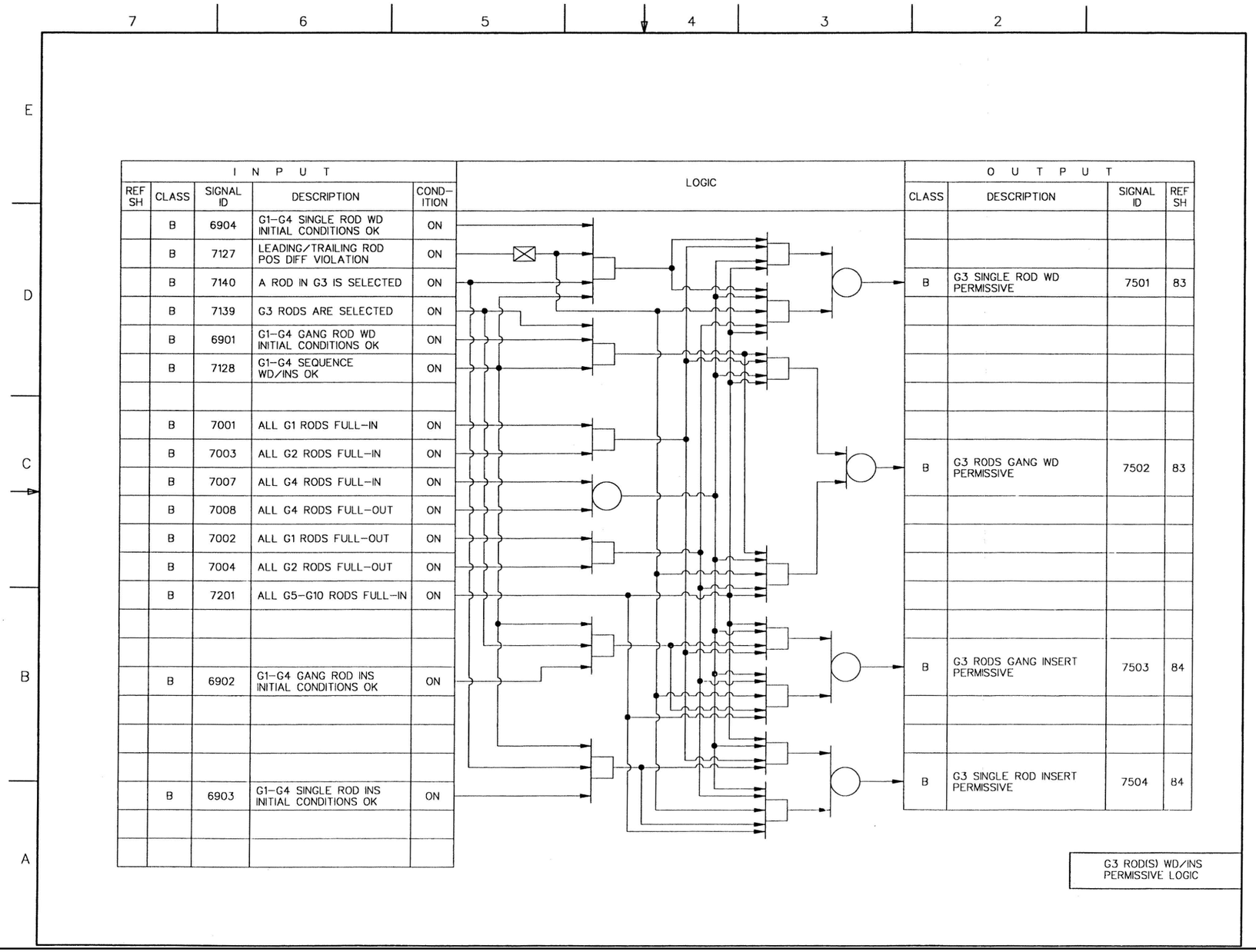
Figure 7.7-3 Rod Control and Information System IBD (Sheet 73 of 87)



INPUT				
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION
	B	6904	G1-G4 SINGLE ROD WD INITIAL CONDITIONS OK	ON
	B	7127	LEADING/TRAILING ROD POS DIFF VIOLATION	ON
	B	7138	A ROD IN G2 IS SELECTED	ON
	B	7137	G2 RODS ARE SELECTED	ON
	B	6901	G1-G4 GANG ROD WD INITIAL CONDITIONS OK	ON
	B	7128	G1-G4 SEQUENCE WD/INS OK	ON
	B	7005	ALL G3 RODS FULL-IN	ON
	B	7007	ALL G4 RODS FULL-IN	ON
	B	7001	ALL G1 RODS FULL-IN	ON
	B	7002	ALL G1 RODS FULL-OUT	ON
	B	7006	ALL G3 RODS FULL-OUT	ON
	B	7008	ALL G4 RODS FULL-OUT	ON
	B	7201	ALL G5-G10 RODS FULL-IN	ON
	B	6902	G1-G4 GANG ROD INS INITIAL CONDITIONS OK	ON
	B	6903	G1-G4 SINGLE ROD INS INITIAL CONDITIONS OK	ON

OUTPUT			
CLASS	DESCRIPTION	SIGNAL ID	REF SH
B	G2 SINGLE ROD WD PERMISSIVE	7401	83
B	G2 RODS GANG WD PERMISSIVE	7402	83
B	G2 RODS GANG INSERT PERMISSIVE	7403	84
B	G2 SINGLE ROD INSERT PERMISSIVE	7404	84

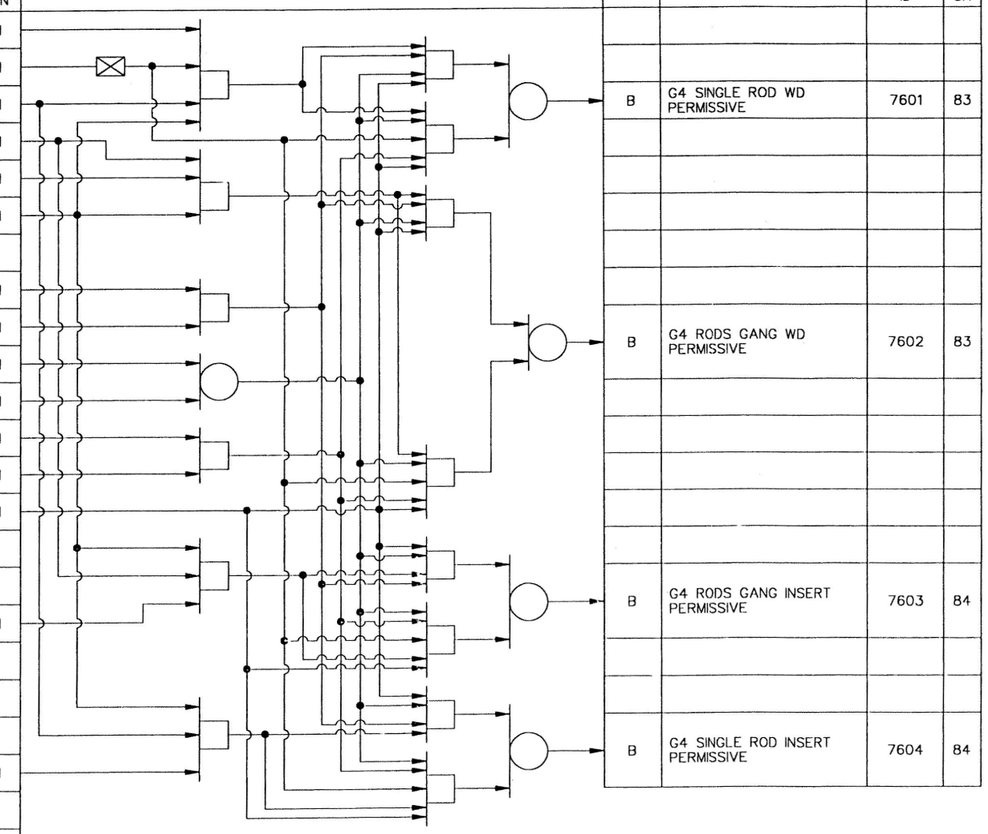
Figure 7.7-3 Rod Control and Information System IBD (Sheet 74 of 87)



INPUT					OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION	CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	6904	G1-G4 SINGLE ROD WD INITIAL CONDITIONS OK	ON				
	B	7127	LEADING/TRAILING ROD POS DIFF VIOLATION	ON				
	B	7140	A ROD IN G3 IS SELECTED	ON	B	G3 SINGLE ROD WD PERMISSIVE	7501	83
	B	7139	G3 RODS ARE SELECTED	ON				
	B	6901	G1-G4 GANG ROD WD INITIAL CONDITIONS OK	ON				
	B	7128	G1-G4 SEQUENCE WD/INS OK	ON				
	B	7001	ALL G1 RODS FULL-IN	ON				
	B	7003	ALL G2 RODS FULL-IN	ON	B	G3 RODS GANG WD PERMISSIVE	7502	83
	B	7007	ALL G4 RODS FULL-IN	ON				
	B	7008	ALL G4 RODS FULL-OUT	ON				
	B	7002	ALL G1 RODS FULL-OUT	ON				
	B	7004	ALL G2 RODS FULL-OUT	ON				
	B	7201	ALL G5-G10 RODS FULL-IN	ON				
	B	6902	G1-G4 GANG ROD INS INITIAL CONDITIONS OK	ON	B	G3 RODS GANG INSERT PERMISSIVE	7503	84
	B	6903	G1-G4 SINGLE ROD INS INITIAL CONDITIONS OK	ON	B	G3 SINGLE ROD INSERT PERMISSIVE	7504	84

Figure 7.7-3 Rod Control and Information System IBD (Sheet 75 of 87)

INPUT					OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION	CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	6904	G1–G4 SINGLE ROD WD INITIAL CONDITIONS OK	ON				
	B	7127	LEADING/TRAILING ROD POS DIFF VIOLATION	ON				
	B	7142	A ROD IN G4 IS SELECTED	ON	B	G4 SINGLE ROD WD PERMISSIVE	7601	83
	B	7141	G4 RODS ARE SELECTED	ON				
	B	6901	G1–G4 GANG ROD WD INITIAL CONDITIONS OK	ON				
	B	7128	G1–G4 SEQUENCE WD/INS OK	ON				
	B	7001	ALL G1 RODS FULL–IN	ON				
	B	7003	ALL G2 RODS FULL–IN	ON	B	G4 RODS GANG WD PERMISSIVE	7602	83
	B	7005	ALL G3 RODS FULL–IN	ON				
	B	7006	ALL G3 RODS FULL–OUT	ON				
	B	7002	ALL G1 RODS FULL–OUT	ON				
	B	7004	ALL G2 RODS FULL–OUT	ON				
	B	7201	ALL G5–G10 RODS FULL–IN	ON				
					B	G4 RODS GANG INSERT PERMISSIVE	7603	84
	B	6902	G1–G4 GANG ROD INS INITIAL CONDITIONS OK	ON				
					B	G4 SINGLE ROD INSERT PERMISSIVE	7604	84
	B	6903	G1–G4 SINGLE ROD INS INITIAL CONDITIONS OK	ON				



G4 ROD(S) WD/INS PERMISSIVE LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 76 of 87)

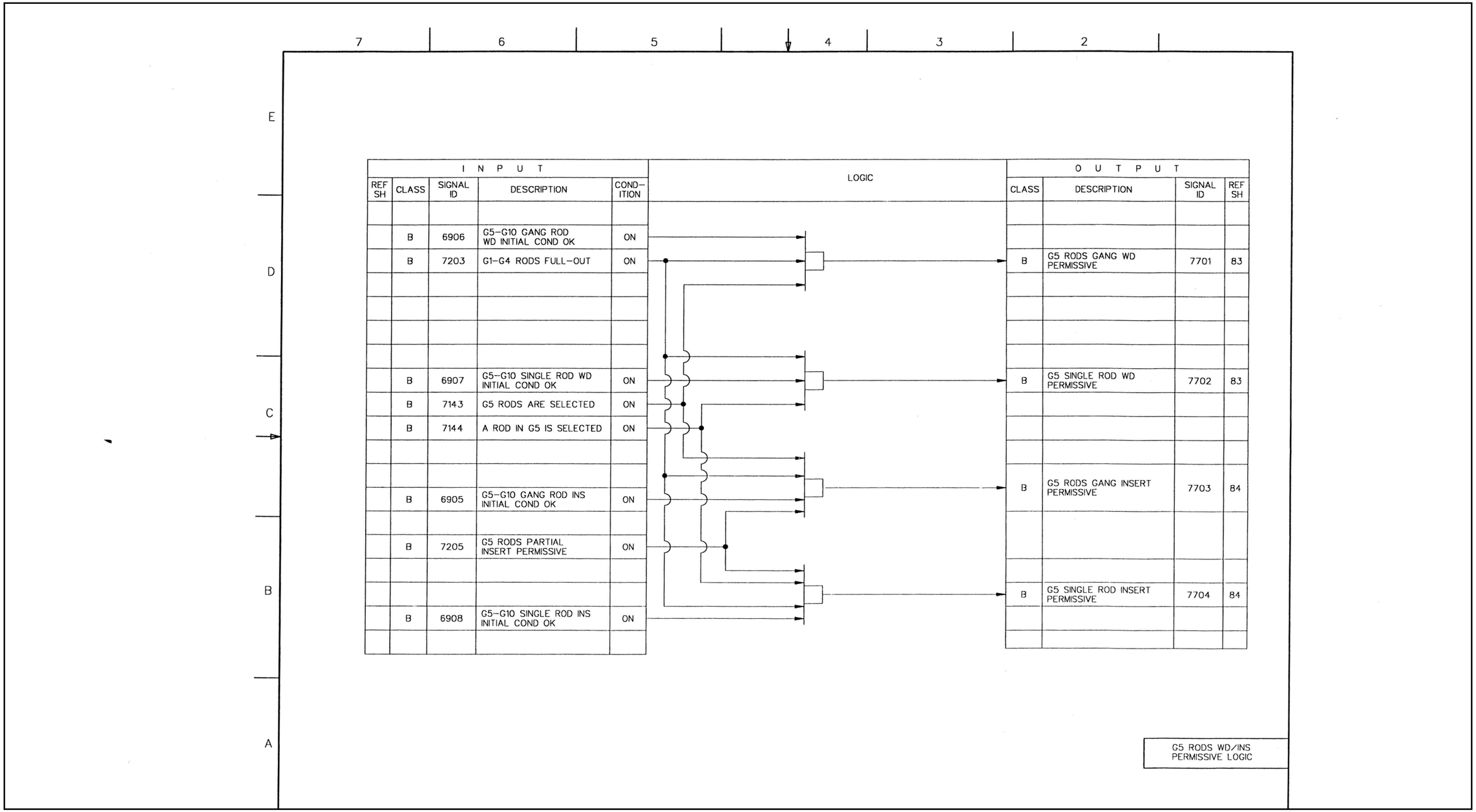


Figure 7.7-3 Rod Control and Information System IBD (Sheet 77 of 87)

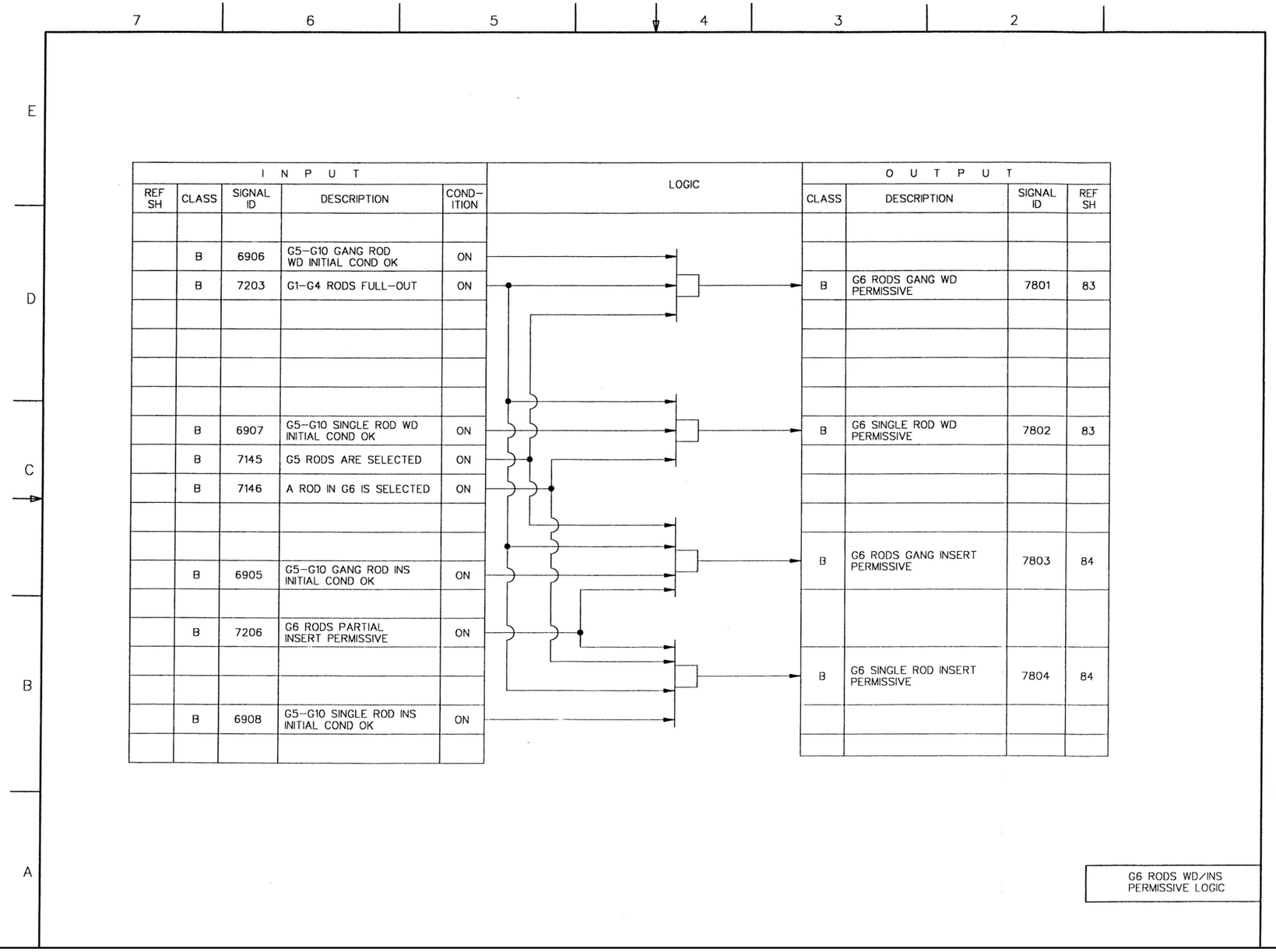


Figure 7.7-3 Rod Control and Information System IBD (Sheet 78 of 87)

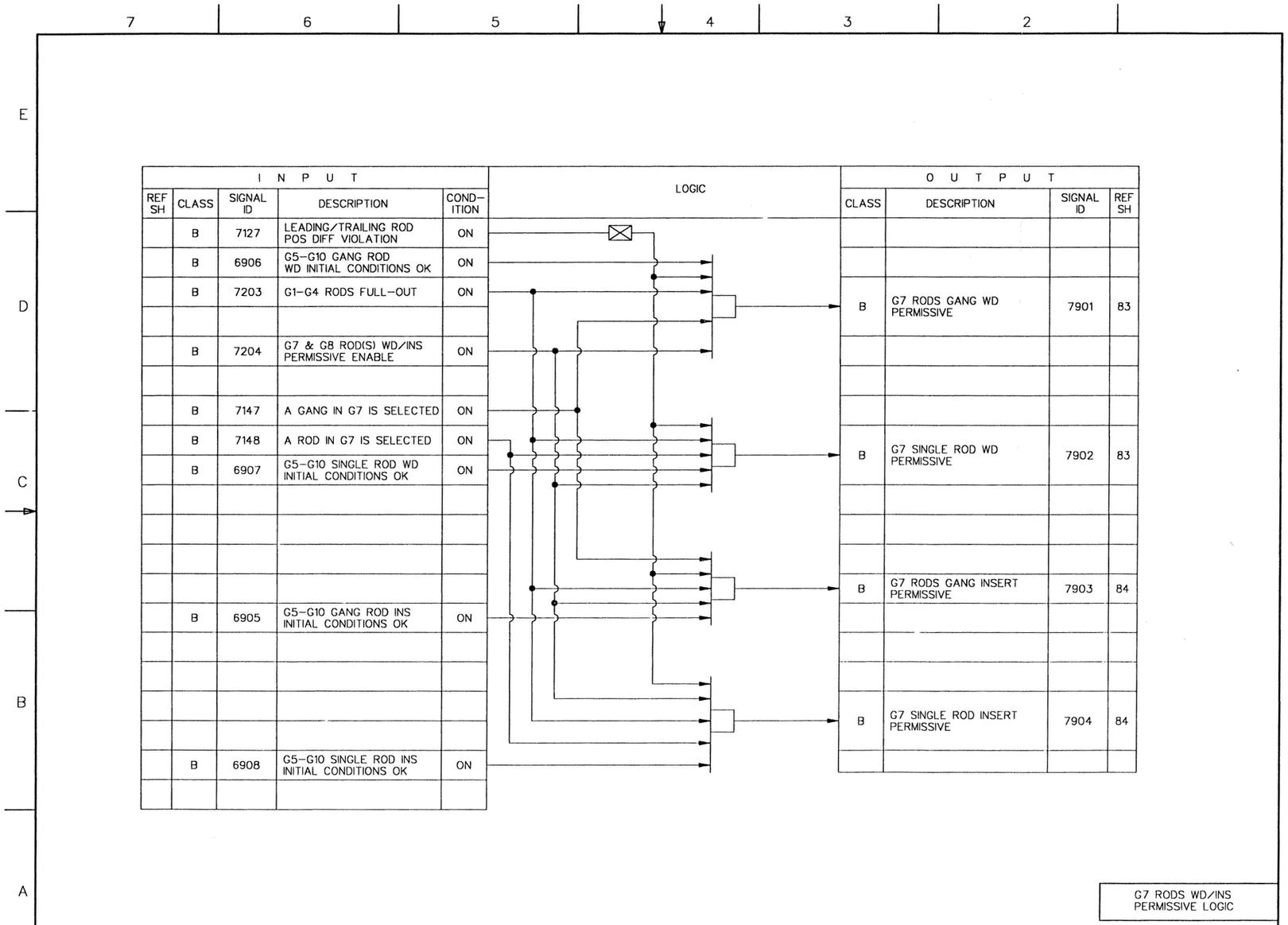


Figure 7.7-3 Rod Control and Information System IBD (Sheet 79 of 87)

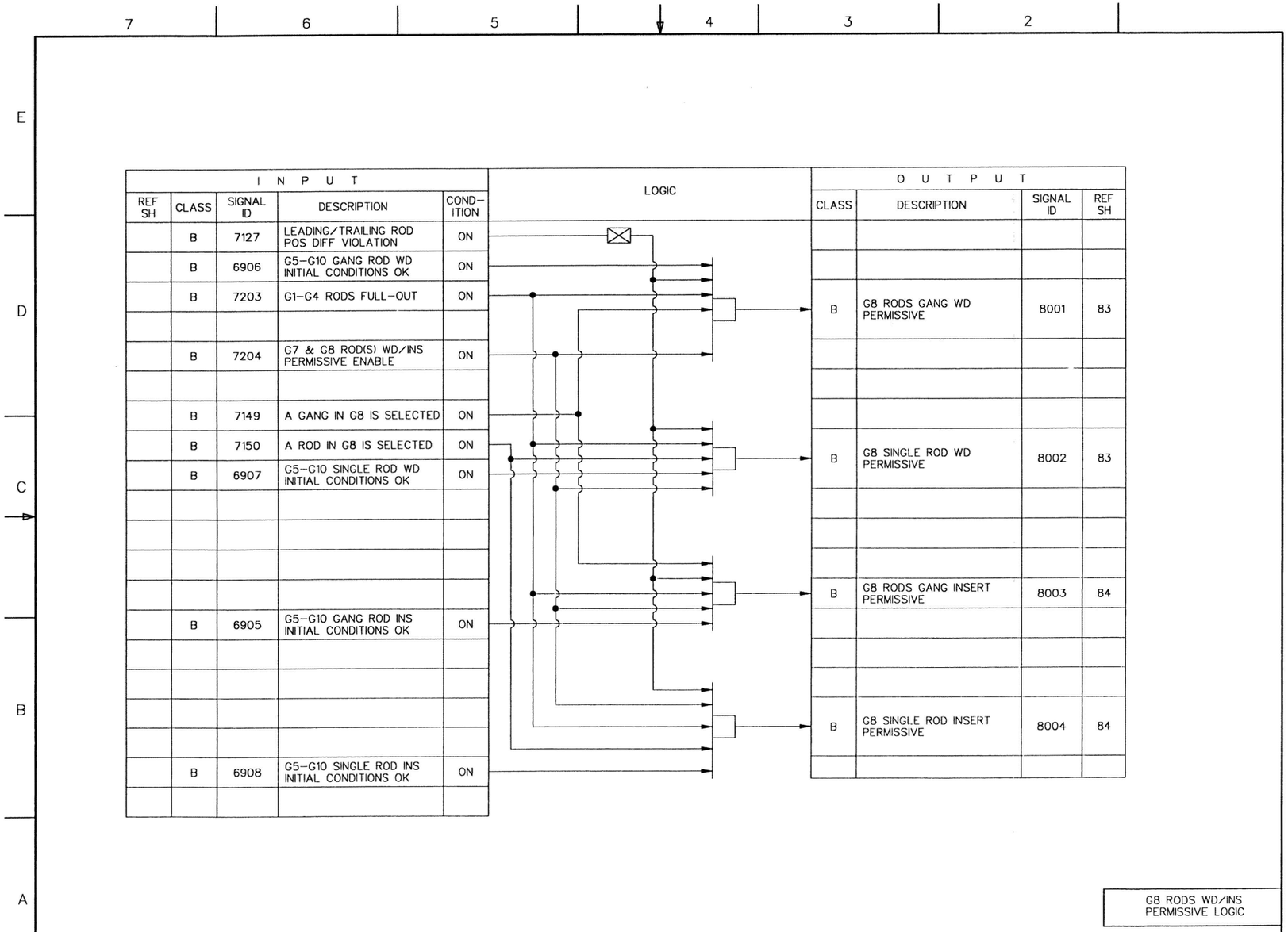


Figure 7.7-3 Rod Control and Information System IBD (Sheet 80 of 87)

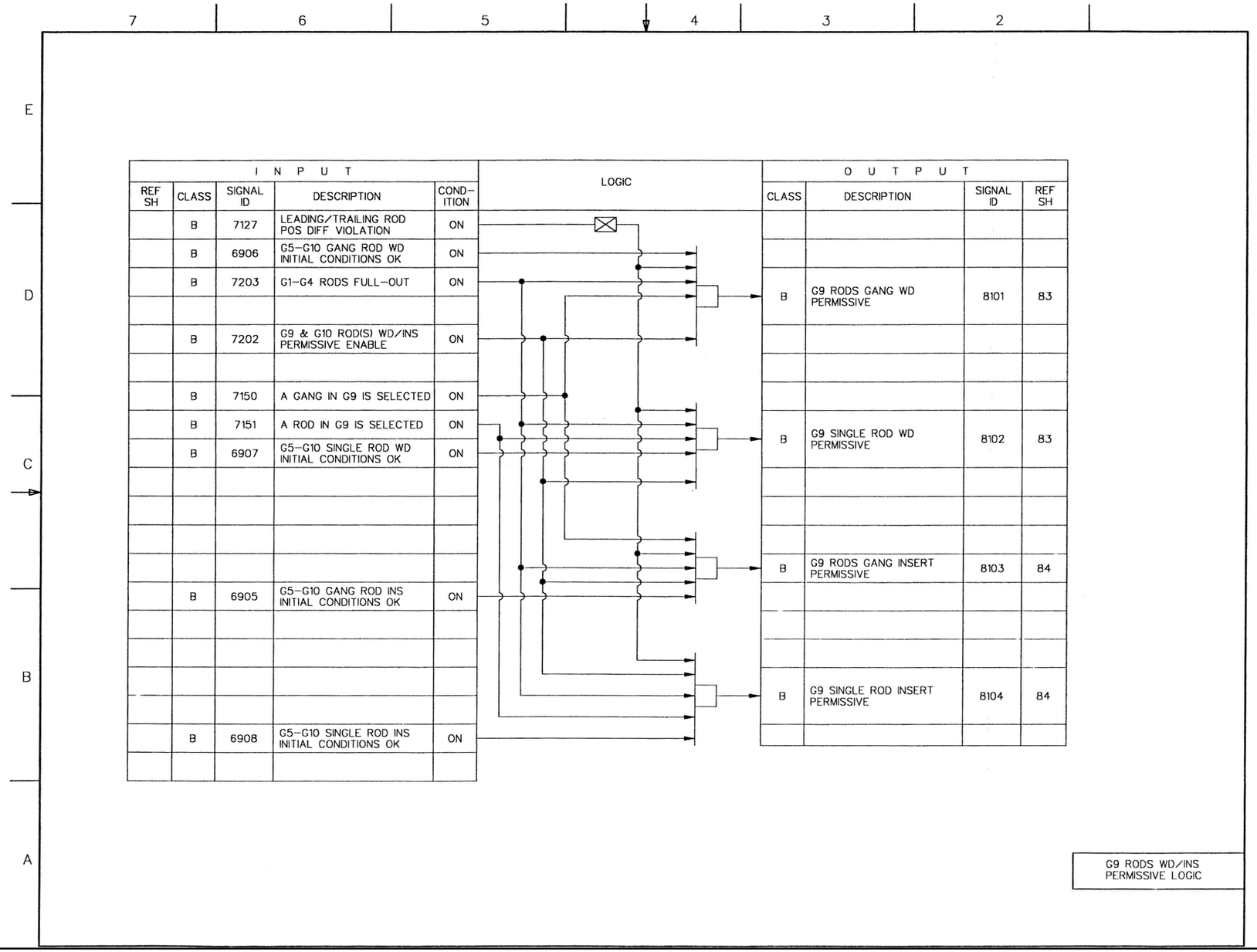


Figure 7.7-3 Rod Control and Information System IBD (Sheet 81 of 87)

INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	7127	LEADING/TRAILING ROD POS DIFF VIOLATION	ON					
	B	6906	G5-G10 GANG ROD WD INITIAL CONDITIONS OK	ON					
	B	7203	G1-G4 RODS FULL-OUT	ON		B	G10 RODS GANG WD PERMISSIVE	8201	83
	B	7202	G9 & G10 ROD(S) WD/INS PERMISSIVE ENABLE	ON					
	B	7153	A GANG IN G10 IS SELECTED	ON					
	B	7154	A ROD IN G10 IS SELECTED	ON		B	G10 SINGLE ROD WD PERMISSIVE	8202	83
	B	6907	G5-G10 SINGLE ROD WD INITIAL CONDITIONS OK	ON					
	B	6905	G5-G10 GANG ROD INS INITIAL CONDITIONS OK	ON		B	G10 RODS GANG INSERT PERMISSIVE	8203	84
	B	6908	G5-G10 SINGLE ROD INS INITIAL CONDITIONS OK	ON		B	G10 SINGLE ROD INSERT PERMISSIVE	8204	84

G10 RODS WD/INS PERMISSIVE LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 82 of 87)

INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	7301	G1 SINGLE ROD WD PERMISSIVE	ON					
	B	7302	G1 RODS GANG WD PERMISSIVE	ON					
	B	7401	G2 SINGLE ROD WD PERMISSIVE	ON					
	B	7402	G2 RODS GANG WD PERMISSIVE	ON					
	B	7501	G3 SINGLE ROD WD PERMISSIVE	ON					
	B	7502	G3 RODS GANG WD PERMISSIVE	ON					
	B	7601	G4 SINGLE ROD WD PERMISSIVE	ON					
	B	7602	G4 RODS GANG WD PERMISSIVE	ON					
	B	7701	G5 RODS GANG WD PERMISSIVE	ON					
	B	7702	G5 SINGLE ROD WD PERMISSIVE	ON		B	RWM ROD WD PERMISSIVE	8301	18
	B	7801	G6 RODS GANG WD PERMISSIVE	ON					
	B	7802	G6 SINGLE ROD WD PERMISSIVE	ON					
	B	7901	G7 RODS GANG WD PERMISSIVE	ON					
	B	7902	G7 SINGLE ROD WD PERMISSIVE	ON					
	B	8001	G8 RODS GANG WD PERMISSIVE	ON					
	B	8002	G8 SINGLE ROD WD PERMISSIVE	ON					
	B	8101	G9 RODS GANG WD PERMISSIVE	ON					
	B	8102	G9 SINGLE ROD WD PERMISSIVE	ON					
	B	8201	G10 RODS GANG WD PERMISSIVE	ON					
	B	8202	G10 SINGLE ROD WD PERMISSIVE	ON					
	B	7158	NO ROD IS SELECTED	ON					

RWM ROD WD PERMISSIVE LOGIC

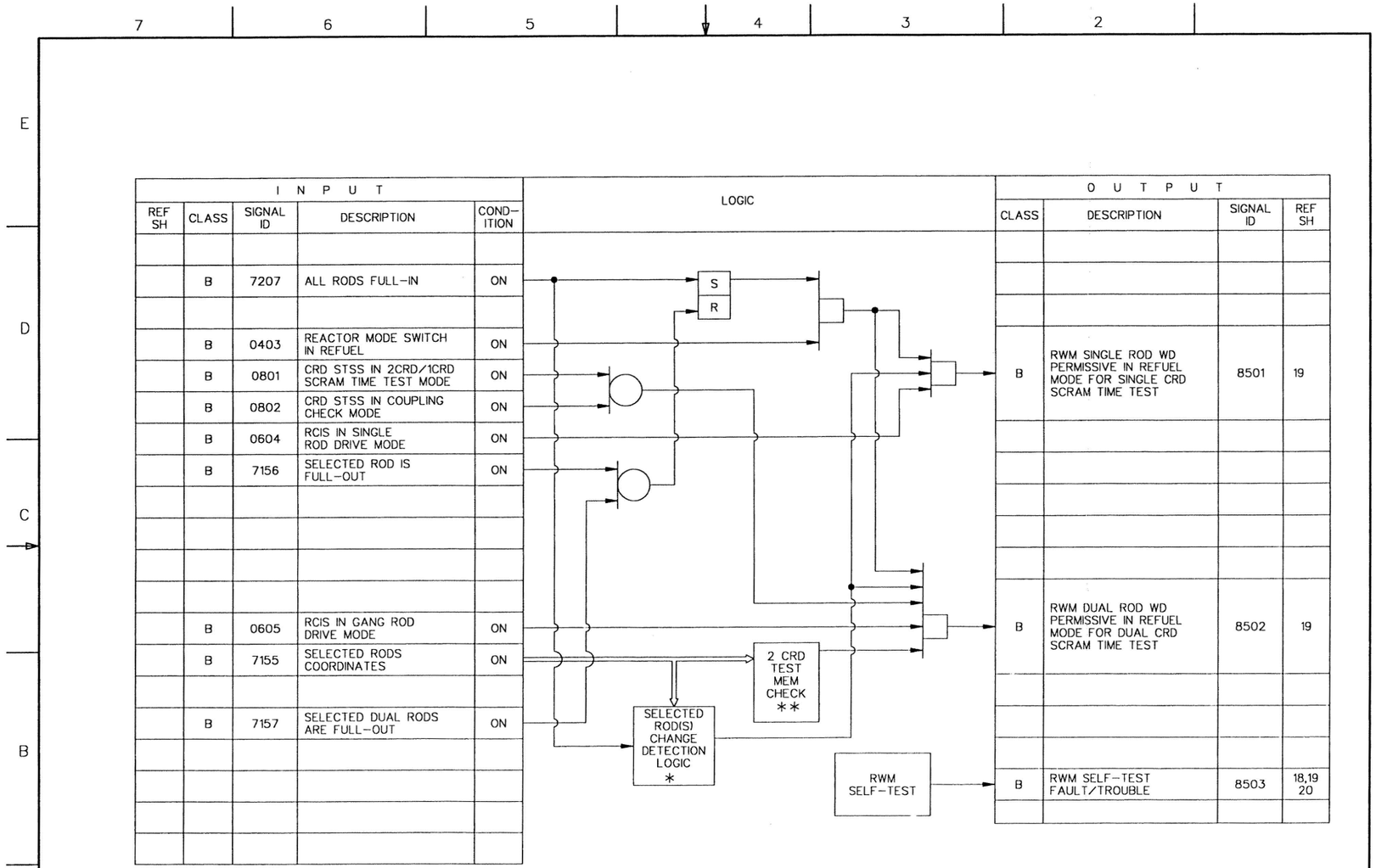
Figure 7.7-3 Rod Control and Information System IBD (Sheet 83 of 87)

INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	7303	G1 RODS GANG INS PERMISSIVE	ON					
	B	7304	G1 SINGLE ROD INS PERMISSIVE	ON					
	B	7403	G2 RODS GANG INS PERMISSIVE	ON					
	B	7404	G2 SINGLE ROD INS PERMISSIVE	ON					
	B	7503	G3 RODS GANG INS PERMISSIVE	ON					
	B	7504	G3 SINGLE ROD INS PERMISSIVE	ON					
	B	7603	G4 RODS GANG INS PERMISSIVE	ON					
	B	7604	G4 SINGLE ROD INS PERMISSIVE	ON					
	B	7703	G5 RODS GANG INS PERMISSIVE	ON					
	B	7704	G5 SINGLE ROD INS PERMISSIVE	ON		B	RWM ROD INS PERMISSIVE	8401	20
	B	7803	G6 RODS GANG INS PERMISSIVE	ON					
	B	7804	G6 SINGLE ROD INS PERMISSIVE	ON					
	B	7903	G7 RODS GANG INS PERMISSIVE	ON					
	B	7904	G7 SINGLE ROD INS PERMISSIVE	ON					
	B	8003	G8 RODS GANG INS PERMISSIVE	ON					
	B	8004	G8 SINGLE ROD INS PERMISSIVE	ON					
	B	8103	G9 RODS GANG INS PERMISSIVE	ON					
	B	8104	G9 SINGLE ROD INS PERMISSIVE	ON					
	B	8203	G10 RODS GANG INS PERMISSIVE	ON					
	B	8204	G10 SINGLE ROD INS PERMISSIVE	ON					
	B	0403	REACTOR MODE SWITCH IN REFUEL	ON					
	B	7158	NO ROD IS SELECTED	ON					

RWM ROD INS PERMISSIVE LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 84 of 87)

INPUT					LOGIC	OUTPUT			
REF SH	CLASS	SIGNAL ID	DESCRIPTION	COND-ITION		CLASS	DESCRIPTION	SIGNAL ID	REF SH
	B	7207	ALL RODS FULL-IN	ON					
	B	0403	REACTOR MODE SWITCH IN REFUEL	ON		B	RWM SINGLE ROD WD PERMISSIVE IN REFUEL MODE FOR SINGLE CRD SCRAM TIME TEST	8501	19
	B	0801	CRD STSS IN 2CRD/1CRD SCRAM TIME TEST MODE	ON					
	B	0802	CRD STSS IN COUPLING CHECK MODE	ON					
	B	0604	RCIS IN SINGLE ROD DRIVE MODE	ON					
	B	7156	SELECTED ROD IS FULL-OUT	ON					
	B	0605	RCIS IN GANG ROD DRIVE MODE	ON		B	RWM DUAL ROD WD PERMISSIVE IN REFUEL MODE FOR DUAL CRD SCRAM TIME TEST	8502	19
	B	7155	SELECTED RODS COORDINATES	ON					
	B	7157	SELECTED DUAL RODS ARE FULL-OUT	ON					
						B	RWM SELF-TEST FAULT/TROUBLE	8503	18,19 20



* THIS LOGIC GENERATES A HIGH OUTPUT AS LONG AS THERE IS NO CHANGE IN THE COORDINATES OF SELECTED ROD(S), AFTER "ALL RODS FULL-IN" SIGNAL BECOMES LOW.

** THIS LOGIC GENERATES A HIGH OUTPUT WHENEVER THE "SELECTED RODS COORDINATES" INPUT IS CONSISTENT WITH THE MEMORY CONTENT AS DEPICTED ON SH 87.

RWM ROD WD PERMISSIVE LOGIC FOR 1CRD/2CRD TEST & SELF-TEST LOGIC

Figure 7.7-3 Rod Control and Information System IBD (Sheet 85 of 87)

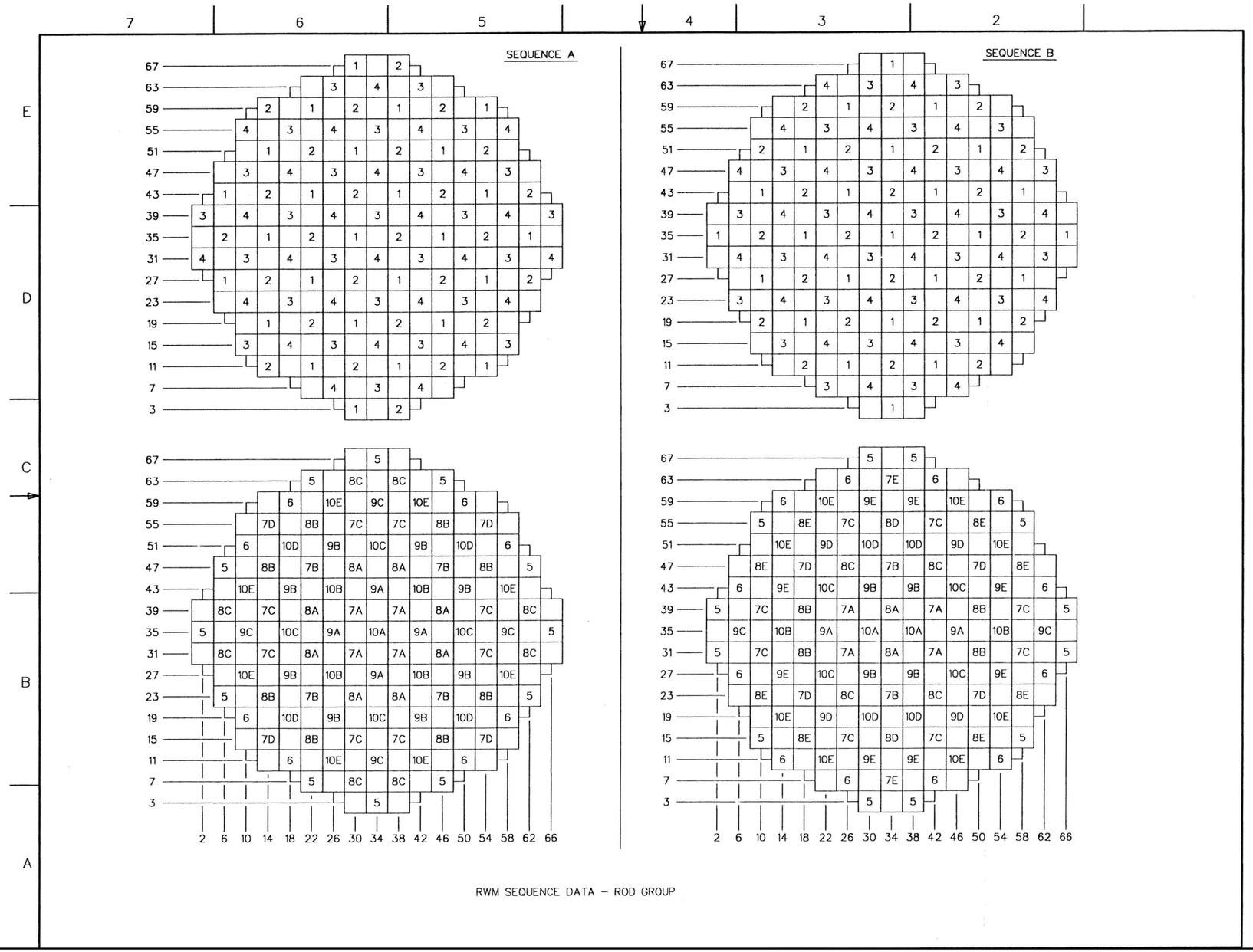
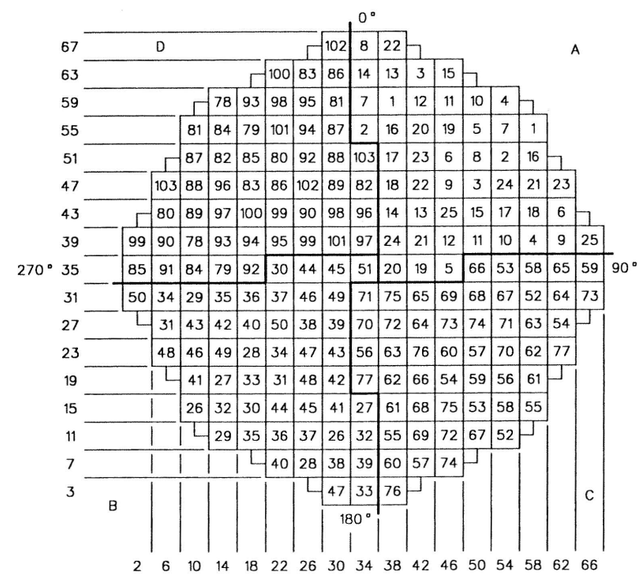


Figure 7.7-3 Rod Control and Information System IBD (Sheet 86 of 87)

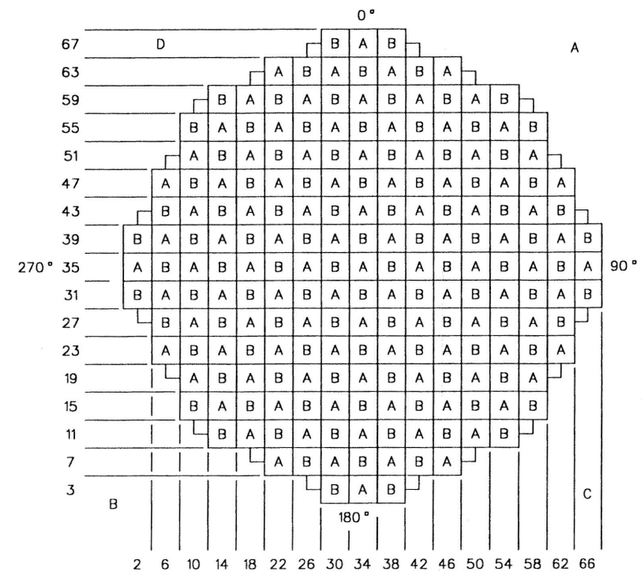
DIVISION	HCU #	CR
A	1–25	50
B	26–51	51
C	52–77	52
D	78–103	52



CONTROL ROD ASSIGNMENT TO HYDRAULIC CONTROL UNITS

A – A–SEQUENCE ROD (101 CONTROL RODS)

B – B–SEQUENCE ROD (104 CONTROL RODS)



CONTROL ROD SEQUENCE SEPARATION

Figure 7.7-3 Rod Control and Information System IBD (Sheet 87 of 87)