Addr.		Description							
SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		Cuv. wheel sensor information							
4	3							Stop position S57	Origin S58
		Reagent fridge sensor information							
4	4				Bottle detec-tion S52	Lid open S51	Outside stop position S49	Inside stop position S50	Origin S48
		Cooling sampler sensor information							
4	5				Cup detec-tion S31	Lid open S32		Stop position S30	Origin S29
		Cuv. wash unit sensor information							
4	6							Lower point position check S62	Upper point position S61
		Reagent probe sensor information							
4	7			Normal stop position (S44)	Rotation origin (S43)	Special stop position (reagent) S45		Level detec-tion S55	Upper point position S46
		Sample probe sensor information							
4	8			Normal stop position S35	Rotation origin S33	Special stop position (Cuv.) S34		Level detec-tion S40	Upper point position S36
		Rack transfer unit sensor information							
4	9			Rack detec- tion S7	Rack presence S3	Rack feed pitch S1	Rack receive pitch S2	Re-run rack arrival S28	Re-run rack pass S27
		Rack transfer unit sensor information							
4	A		Rack identifi-cation 1 S4	Rack identifi-cation 2 S5	Rack identifi-cation S6	Sample cup detec-tion S8	Rack stepping S16		

Addr.		Description							
SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		Rack transfer unit sensor information							
4	C							ID mirror stop position S10	ID mirror origin S9
		Rack transfer unit sensor information							
4	D							Claw feed origin 2 S14	Claw feed origin 1 S11
		Rack transfer unit sensor information							
4	E			Re-run rack detection S20		Re-run rack feed pitch S19	Re-run rack receive pitch S18	Rack arrival S17	
		Rack transfer unit sensor information							
4	F							Storage rack presence S21	
		Rack transfer unit sensor information							
5	1			Rack full S26	Push out position S25	Standby position S24			
		Dispenser sensor information							
5	3			Sample lower point S39	Sample upper point S38			Reagent lower point S54	Reagent upper point S53
		Mix unit sensor information							
5	5				Stop position S59	Origin S58			Upper point position S60
		Sample probe sensor information							
5	7		Crash detection S47						
		Reagent probe sensor information							
5	8		Crash detection S37						

I/O Port Table

I/O Port Table

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	0								
		DA OPMC STATUS							
0	1						Rotation BUSY		
		DA SENSOR STATUS							
0	2	Outer stop pos. DAS06	Inner stop pos. DAS02		R Bottle detection DAS06	Cover open DAS03			Rotation origin DAS01
0	3								
		DC OPMC STATUS							
0	4						Rotation BUSY		
		DC SENSOR STATUS							
0	5		Stop pos. DCS02			Sample detection DCS05	Small cover open DCS04	Large cover open DCS03	Rotation origin DCS01
		DC SENSOR REVERSAL STATUS							
0	6		Stop pos. L						
0	7								
		FA OPMC STATUS							
0	8						Up/down movement BUSY		
		FA SENSOR STATUS							
0	9					Liquid level detection FAS01	Crash FAS07	Upper pos. FAS01	
		FA OUTER SENSOR STATUS							
0	A	Moving down not permited							
		FA SENSOR REVERSAL STATUS							
0	B					Liquid level detection L	Crash L		
		FA OPMC STATUS							
0	C						Rotation BUSY		
		FA SENSOR STATUS							
0	D						Ratotion stop pos. 1 FAS05	Stop pos. FAS04	Rotation origin FAS03
0	E								
		FB OPMC STATUS							
0	F						Up/Down movement BUSY		

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		FB SENSOR STATUS							
1	0							Lower position FBS02	Upper position FBS01
		FB OUTER SENSOR STATUS							
1	1	Falling Down not permitted							
		FC OPMC SENSOR STATUS							
1	2						Up/Down movement BUSY		
		FC SENSOR STATUS							
1	3							Lower position FCS05	Upper position FCS01
		FC OUTER SENSOR STATUS							
1	4	Falling Down not permitted							
		FC OPMC STATUS							
1	5						Rotation BUSY		
		FC SENSOR STATUS							
1	6							Stop position FCS03	Rotation origin FCS01
1	7								
		FC OPMC STATUS							
1	8						Mix BUSY		
		FC SENSOR STATUS							
1	9		Rotation detection FCS04						
1	A								
		FD OPMC STATUS							
1	B						Up/down movement BUSY		
		FD SENSOR STATUS							
1	C					Liquid level detection FCS08	Crush FDS07	Upper position FDS01	
		FD OUTER SENSOR STATUS							
1	D	Falling Down not permitted							
1	E								
		FD SENSOR REVERSAL STATUS							
1	F					Liquid level detection L	Crush detection L		

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	0	FD OPMC STATUS					Rotation BUSY		
2	1	FD SENSOR STATUS					Rotation stop pos. 1 FDS05	Stop pos. FDS04	Rotation origin FDS03
2	2								
2	3	AA OPMC STATUS					Detergent pump BUSY		
2	4	Sample aspiration valve V29	Liquid dripping aspiration valve V26	Aspiration valve for OVF V23	Air release valve for dripping liquid V25	Air release valve for aspiration V31	Air release valve for OVF V22	Air release valve for sample V28	Wash water aspiration valve V32
2	5	DI water supply valve V2	OPD valve V1		Vacuum pump P4			Vacuum tank waste water valve V34	Degasser P9
2	6	Wash water dripping valve V19	Detergent dripping valve V21	Wash water dispense valve V16	Detergent dispense valve V18				
2	7	Mix wash water valve V11	Interior wash back valve V9	R inner wash valve V6	S inner wash valve V5	Sample drain valve V30	Dripping liquid drain valve V27	Aspiration drain valve V33	OVF drain valve V24
2	8					Test counter	Detergent dilution valve	Mix detergent valve	Probe outer wash
2	9				DS rack stopper			Diluted detergent supply P3	DI water P1
2	A								
2	B						DIAG LED		STAT LED
2	C								
2	D	Diluted detergent Lower limit	Diluted detergent Lower position	Diluted detergent Upper pos.	Diluted detergent Upper limit	DI water Lower limit	DI water Lower pos.	DI water Upper pos.	DI water Upper limit
2	E		Vacuum tank Upper pos.		Detergent No detergent				
2	F								

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	0								Vacuum tank Pressure AAS04
3	1				Rear DIAG SW AAS07			DIAG SW AAS06	
3	2	DI water supply valve status	OPD valve status						
					SA OPMC STATUS				
3	3						S Dispense BUSY		
					SA SENSOR STATUS				
3	4							S SA lower limit SAS02	S SA upper Limit SAS01
					CLOT DETECTION SENSOR STATUS				
3	5	Foreign object. aspiration 1	Foreign object aspiration 2	Foreign object aspiration 3	Air bubble incorporation	Air aspiration	Invalid Command		
					CLOT DETECTION SENSOR STATUS				
3	6	Communication error							
					SA OPMC STATUS				
3	7						R dispense BUSY		
					SA SENSOR STATUS				
3	8							R SA lower limit. SAS42	R SA upper limit SAS41
					SA OPMC STATUS				
3	9						ISE dispense BUSY		
					SA SENSOR STATUS				
3	A							ISE SA lower limit SAS42	ISE SA upper limit SAA11
					CB OPMC STATUS				
3	B						Belt feed motor BUSY		
					CB SENSOR STATUS				
3	C			Cover open CBS20	Rack detection CBS01	Rack step 10 CBS14	Rack step 9 CBS13	Rack step 8 CBS12	Rack step 7 CBS11
					CB OPMC STATUS				
3	D						Mirror rotation BUSY		
					CB SENSOR STATUS				
3	E	Rack step 6 CBS10	Rack step 5 CBS09	Rack step 4 CBS08	Rack step 3 CBS07	Rack step 2 CBS06	Rack step 1 CBS05	Mirror stop CBS03	Mirror Origin CBS02
					CG OPMC STATUS				
3	F						Sample pawl feed motor BUSY		

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		CG SENSOR STATUS							
4	0								Sample feed origin CGS02
		CA OPMC STATUS							
4	1						Rack feed motor BUSY		
		CA SENSOR STATUS							
4	2	Cover open CAS06	Rack type 2 CAS05-2	Rack type 1 CAS05-2	Rack type 0 CAS05-1	Rack detection CAS03	Re-run rack arrival CAS03	Rack feed pitch CAS02	Rack receptacle pitch CAS01
4	3								
		CC OPMC STATUS							
4	4						Re-run rack feed motor BUSY		
		CC SENSOR STATUS							
4	5						Rack feed pitch CCS03	Rack receptacle pitch CCS02	Rack arrival CCS01
		CD OPMC STATUS							
4	6						Belt feed motor BUSY		
		CD SENSOR STATUS							
4	7						Re-run rack pass CDS03	Rack storage present CDS02	Re-run rack detection CDS01
4	8								
		CG OPMC STATUS							
4	9						ID pawl feed rotation motor BUSY		
		CB, CG SENSOR STATUS							
4	A	Cup detect 5 CBS19	Cup detect 4 CBS18	Cup detect 3 CBS17	Cup detect 2 CBS16	Cup detect 1 CBS15			ID feed origin CGS01
		CE OPMC STATUS							
4	B						Rack feed motor BUSY		
		CE, CH SENSOR STATUS							
4	C						Rack full CHS01	Feeding position CES02	Waiting Position CES01
4	D								
		ISE OPMC STATUS							
4	E						MID dispense BUSY		
		ISE SENSOR STATUS							
4	F						MID solution present IDS02	Buffer solution present IDS01	Cover open/close IAS01

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		ISE OPMC STATUS							
5	0							Sample aspiration BUSY	
		ISE OPMC STATUS							
5	1							Mix BUSY	
		ISE SENSOR STATUS							
5	2							REF solution present IDS03	
5	3								
5	4								
5	5								
5	6								
5	7								
5	8								
5	9								
5	A								
5	B								
		ISE SENSOR STATUS							
5	C	Pot over flow detection IAS02		Analog power ON IAS03	Cable disconnection ISA04				
		GA CMD RESPONSE							
5	D						Rotation BUSY	Photometry BUSY	
5	E								
5	F								

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	0								
6	1	GA SENSOR REVERSAL STATUS						Stop pos. L	
6	2	GA SENSOR STATUS					Rotations not permitted GAS04	Stop pos. GAS02	Rotation origin GAS01
6	3								
6	4								
6	5								
6	6								
6	7								
6	8								
6	9								
6	A								
6	B								
6	C								
6	D								
6	E								
6	F								

Unit	No.	Short name	ADD	Ds	LED
AA	C1	S counter	14	DS4	OOOO XOOO
AA	L1	CA disable LED			
AA	L2	STAT END LED			
AA	L3	STAT SET LED			
AA	P1	DI water pump	14	DS7	OXOO OOOO
AA	P2	Detergent dilution pump	14	DS8	XOOO OOOO
AA	P4	Detergent A pump	53	DS8	XOOO OOOO
AA	P5	Detergent B pump	53	DS7	OXOO OOOO
AA	P6	Vacuum pump	15	DS1	OOOO OOOX
AA	P7	GA circulation pump			
AA	P12	Pure detergent A pump	14	DS5	OOOX OOOO
AA	P13	Pure detergent B pump	14	DS6	OOXO OOOO
AA	S63	Vacuum tank full	0C	DS7	OXOO OOOO
AA	S64	Vacuum tank pressure SW	0C	DS8	XOOO OOOO
AA	S65	DI water (overflow)	0C	DS2	OOOO OOXO
AA	S66	DI water (upper)			
AA	S67	DI water (lower)			
AA	S68	DI water (empty)	0C	DS1	OOOO OOOX
AA	S69	Pure detergent A (empty)	0C	DS5	OOOX OOOO
AA	S70	Pure detergent B (empty)	0C	DS6	OOXO OOOO
AA	S71	Detergent A (overflow)	0D	DS4	OOOO XOOO
AA	S72	Detergent A (upper)	0D	DS3	OOOO OXOO
AA	S73	Detergent A (lower)	0D	DS2	OOOO OOXO
AA	S74	Detergent A (empty)	0D	DS1	OOOO OOOX
AA	S75	Detergent B (overflow)	0D	DS8	XOOO OOOO
AA	S76	Detergent B (upper)	0D	DS7	OXOO OOOO
AA	S77	Detergent B (lower)	0D	DS6	OOXO OOOO
AA	S78	Detergent B (empty)	0D	DS5	OOOX OOOO
AA	SW1	STAT SW	0A	DS4	OOOO XOOO
AA	SW2	DIAG SW	0A	DS1	OOOO OOOX
AA	V2	Water supply valve			
AA	V3	Detergent A dilution valve	10	DS3	OOOO OXOO
AA	V4	Detergent B dilution valve	10	DS4	OOOO XOOO
AA	V5	S inner wash valve	10	DS5	OOOX OOOO
AA	V6	R1 inner wash valve	10	DS6	OOXO OOOO
AA	V7	R2 inner wash valve	10	DS7	OXOO OOOO
AA	V10	Probe outer wash valve	10	DS8	XOOO OOOO
AA	V11	S/R1 M1 wash valve	11	DS1	OOOO OOOX
AA	V12	R2 M2 wash valve	11	DS6	OOXO OOOO
AA	V16	Wash water disp. valve	12	DS3	OOOO OXOO
AA	V17	Detergent A disp. valve	12	DS1	OOOO OOOX
AA	V18	Detergent B disp. valve	12	DS2	OOOO OOXO
AA	V19	Wash water drip valve	12	DS6	OOXO OOOO
AA	V20	Detergent A drip valve	12	DS4	OOOO XOOO
AA	V21	Detergent B drip valve	12	DS5	OOOX OOOO
AA	V22	OVF air release valve	12	DS8	XOOO OOOO
AA	V23	OVF asp. valve	13	DS3	OOOO OXOO
AA	V24	OVF drain valve	13	DS7	OXOO OOOO
AA	V25	Drip air release valve	13	DS2	OOOO OOXO
AA	V26	Drip asp. valve	13	DS4	OOOO XOOO

Unit	No.	Short name	ADD	Ds	LED
AA	V27	Liquid dripping drain valve	14	DS1	OOOO OOOX
AA	V28	Conc. waste air release valve	12	DS7	OXOO OOOO
AA	V29	Mixture asp. valve	14	DS2	OOOO OOXO
AA	V30	Mixture drain valve	13	DS6	OOXO OOOO
AA	V31	Aspiration air release valve	13	DS1	OOOO OOOX
AA	V32	Wash water asp. valve	13	DS5	OOOX OOOO
AA	V33	Aspiration drain valve	13	DS8	XOOO OOOO
AA	V34	Vacuum waste valve	14	DS3	OOOO OXOO
AA	V40	Air drive valve	15	DS8	XOOO OOOO
AA	V41	S/R1 M1detergent B valve	11	DS3	OOOO OXOO
AA	V45	R2 M2 detergent B valve	11	DS8	XOOO OOOO
CA	BCR1	BCR (Rack)			
CA	M1	CA rack feed	4C	DS7	OXOO OOOO
CA	S1	CA feed pitch	4C	DS4	OOOO XOOO
CA	S2	CA receptacle pitch	4C	DS3	OOOO OXOO
CA	S3	CA rack present	4C	DS5	OOOX OOOO
CA	S4	Rack type 1	4D	DS7	OXOO OOOO
CA	S5	Rack type 2	4D	DS6	OOXO OOOO
CA	S6	Rack type 3	4D	DS5	OOOX OOOO
CA	S91	LA rack arrival	4E	DS4	OOOO XOOO
CA	S92	LA manual rack set	4E	DS3	OOOO OXOO
CA	S93	LA rack pass	4E	DS1	OOOO OOOX
CA	S112	CA repeat run arrival	4C	DS2	OOOO OOXO
CB	BCR2	BCR (S)			
CB	M2	CB belt	4C	DS8	XOOO OOOO
CB	S7	CB rack detection	4C	DS6	OOXO OOOO
CB	S8	CB cup detection	4D	DS4	OOOO XOOO
CB	S16	Rack feed detection	4E	DS8	XOOO OOOO
CC	M6	CC rack send	51	DS8	XOOO OOOO
CC	M13	CC rack support			
CC	S100	CC cover open	51	DS6	OOXO OOOO
CC	S101	CC rack arrival	52	DS1	OOOO OOOX
CC	S102	CC pre-rack detection	51	DS2	OOOO OOXO
CC	S103	CC rack feed origin	51	DS4	OOOO XOOO
CC	S104	CC rack feed pos.	51	DS1	OOOO OOOX
CC	S105	CC shaft lower pos.	51	DS5	OOOX OOOO
CC	S106	CC rack push pos.	51	DS3	OOOO OXOO
CD	M7	CD rack send	51	DS7	OXOO OOOO
CD	S107		53	DS1	OOOO OOOX
CD	S109	CD retrieval pos.	53	DS3	OOOO OXOO
CD	S110	CD rack repeat pos.	53	DS2	OOOO OOXO
CD	S111	CD rack arrival detection	52	DS2	OOOO OOXO
CD	S113	CD repeat run rack pass	4C	DS1	OOOO OOOX
CD	S114	CD retrieval rack pass	52	DS3	OOOO OXOO
CE	M8	CE rack push	52	DS8	XOOO OOOO
CE	S24	CE rack wait pos.	52	DS4	OOOO XOOO
CE	S25	CE push Pos.	52	DS5	OOOX OOOO
CG	S11	ID pawl origin	50	DS1	OOOO OOOX
CG	S14	S pawl origin	50	DS2	OOOO OOXO
CG01	M4	ID pawl	50	DS7	OXOO OOOO
CG02	M5	S pawl	50	DS8	XOOO OOOO

Unit	No.	Short name	ADD	Ds	LED
CH	S26	Rack full	52	DS6	OOXO OOOO
DA	BCR4	BCR (R1)			
DA	BCR5	BCR (R2)			
DA01	M16	R1 tray rot.	44	DS8	XOOO OOOO
DA01	S48	R1 tray rot. origin	44	DS1	OOOO OOOX
DA01	S49	R1 tray stop pos. (33)	44	DS2	OOOO OOXO
DA01	S50	R1 tray stop pos. (48)	44	DS3	OOOO OXOO
DA01	S51	R1 cover open	44	DS4	OOOO XOOO
DA01	S52	R1 bottle detection	44	DS5	OOOX OOOO
DA11	M28	R2 tray rot.	45	DS8	XOOO OOOO
DA11	S120	R2 tray rot. origin	45	DS1	OOOO OOOX
DA11	S121	R2 tray stop pos. (33)	45	DS2	OOOO OOXO
DA11	S122	R2 tray stop pos. (48)	45	DS3	OOOO OXOO
DA11	S123	R2 cover open	45	DS4	OOOO XOOO
DA11	S124	R2 bottle detection	45	DS5	OOOX OOOO
DB	P8	DA circulation pump			
DC	BCR3	BCR (STAT)			
DC	M9	STAT rot.	4F	DS7	OXOO OOOO
DC	S29	STAT rot. origin	4F	DS1	OOOO OOOX
DC	S30	STAT rot. stop pos.	4F	DS2	OOOO OOXO
DC	S31	STAT sample tube exist	4F	DS3	OOOO OXOO
DC	S32	STAT cover open	4F	DS4	OOOO XOOO
DD	P9	DC circulation pump			
EC	M34	Probe inner wash	58	DS8	XOOO OOOO
EC	S134	EC upper pos.	58	DS1	OOOO OOOX
EC	S135	EC lower pos.	58	DS2	OOOO OOXO
FA(R/L)	M10	S probe rot.	4A	DS8	XOOO OOOO
FA(R/L)	S33	S rot. origin	4A	DS5	OOOX OOOO
FA(R/L)	S34	S rot cuv pos.	4A	DS4	OOOO XOOO
FA(R/L)	S35	S rot. stop pos.	4A	DS6	OOXO OOOO
FA(U/D)	M11	S probe U/D	4A	DS7	OXOO OOOO
FA(U/D)	S36	S probe middle pos.	4B	DS1	OOOO OOOX
FA(U/D)	S37	S probe crash detection	4A	DS3	OOOO OXOO
FA(U/D)	S40	S liquid level detection	4A	DS2	OOOO OOXO
FA(U/D)	S42	Sample probe upper pos.	4A	DS1	OOOO OOOX
FB	M22	Cuv wash U/D	46	DS7	OXOO OOOO
FB	S61	FB upper pos.	46	DS1	OOOO OOOX
FB	S62	FB down detection	46	DS2	OOOO OOXO
FC01(MIX)	M21	M1 mix	58	DS7	OXOO OOOO
FC01(R/L)	M19	M1 rot.	57	DS8	XOOO OOOO
FC01(R/L)	S58	M1 rot. origin	57	DS5	OOOX OOOO
FC01(R/L)	S59	M1 rot. stop pos.	57	DS6	OOXO OOOO
FC01(U/D)	M20	M1 U/D	57	DS7	OXOO OOOO
FC01(U/D)	S60	M1 upper pos.	57	DS1	OOOO OOOX
FC11(MIX)	M32	M2 mix	49	DS7	OXOO OOOO
FC11(R/L)	M30	M2 rot.	48	DS8	XOOO OOOO
FC11(R/L)	S130	M2 rot. origin	48	DS5	OOOX OOOO
FC11(R/L)	S131	M2 rot. stop pos.	48	DS6	OOXO OOOO
FC11(U/D)	M31	M2 U/D	48	DS7	OXOO OOOO
FC11(U/D)	S132	M2 upper pos.	48	DS1	OOOO OOOX

Unit	No.	Short name	ADD	Ds	LED
FD01(R/L)	M14	R1 probe rot.	47	DS8	XOOO OOOO
FD01(R/L)	S43	R1 probe rot. origin	47	DS5	OOOX OOOO
FD01(R/L)	S44	R1 probe rot. cuv pos.	47	DS6	OOXO OOOO
FD01(R/L)	S45	R1 probe rot. stop pos.	47	DS4	OOOO XOOO
FD01(U/D)	M15	R1 probe U/D	47	DS7	OXOO OOOO
FD01(U/D)	S46	R1 probe upper pos.	47	DS1	OOOO OOOX
FD01(U/D)	S47	R1 probe crash detection	47	DS3	OOOO OXOO
FD01(U/D)	S55	R1 liquid level detection	47	DS2	OOOO OOXO
FD11(R/L)	M26	R2 probe rot.	59	DS8	XOOO OOOO
FD11(R/L)	S115	R2 probe rot. origin	59	DS5	OOOX OOOO
FD11(R/L)	S116	R2 probe rot. cuv pos.	59	DS6	OOXO OOOO
FD11(R/L)	S117	R2 probe rot. stop pos.	59	DS4	OOOO XOOO
FD11(U/D)	M27	R2 probe U/D	59	DS7	OXOO OOOO
FD11(U/D)	S118	R2 probe upper pos.	59	DS1	OOOO OOOX
FD11(U/D)	S119	R2 probe crash detection	59	DS3	OOOO OXOO
FD11(U/D)	S127	R2 liquid level detection	59	DS2	OOOO OOXO
GA	M18	Cuv rot.	40	DS3	OOOO OXOO
GA	S56	Cuv wheel origin	43	DS1	OOOO OOOX
GA	S57	Cuv wheel stop pos.	43	DS2	OOOO OOXO
HA	P3	Degassor	15	DS2	OOOO OOXO
ISE	M23	ISE B disp.			
ISE	M24	ISE mix			
ISE	S86	ISE B empty	0E	DS3	OOOO OXOO
ISE	S87	ISE MID empty	0E	DS2	OOOO OOXO
ISE	S88	ISE REF empty	0E	DS1	OOOO OOOX
ISE	V35	ISE flowcell valve			
ISE	V36	ISE REF valve			
ISE	V37	ISE B valve			
OPD	V1	OPD			
OPH	P10	OPH1			
OPH	P11	OPH2			
OPH	S79	OPH1 full	0C	DS4	OOOO XOOO
OPH	S81	OPH2 full	0C	DS3	OOOO OXOO
SA	M12	S disp.	55	DS4	OOOO XOOO
SA	M17	R1 disp.	54	DS4	OOOO XOOO
SA	M29	R2 disp.	54	DS8	XOOO OOOO
SA	S125	R2 disp. upper pos.	54	DS5	OOOX OOOO
SA	S126	R2 disp. lower pos.	54	DS6	OOXO OOOO
SA	S38	S disp. upper pos.	55	DS1	OOOO OOOX
SA	S39	S disp. lower pos.	55	DS2	OOOO OOXO
SA	S41	S clog detection	56	DS1	OOOO OOOX
SA	S53	R1 disp. upper pos.	54	DS1	OOOO OOOX
SA	S54	R1 disp. lower pos.	54	DS2	OOOO OOXO
SA	S83	ISE B disp. upper pos.			
SA	S84	ISE B disp. lower pos.			

I/O Port Table

I/O Port Table

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	0								
					CB OPMC STATUS				
0	1	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CB BUSY		
					CB SENSOR STATUS				
0	2				CB Cover CAS06,CAS07	CB Stop CBS01		Rack detect 2 CBS03	
0	3	Rack type Front Side CBS06 (SW3)	Rack type Middle position CBS06 (SW2)	Rack type Rack ID Rabel side CBS06 (SW1)			Rack detect 3 CBS04		Rack detect 1 CBS02
					CB SENSOR INVERSION STATUS				
0	4					CB Stop L			
0	5								
					CC OPMC STATUS				
0	6	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CC BUSY		
					CC, CD SENSOR STATUS				
0	7	Rack step 6 CDS14	Rack step 5 CDS13	Rack step 4 CDS12	Rack step 3 CDS11	Rack step 2 CDS10	Rack step 1 CDS09	CC Stop CCS02	CC Origin CCS01
0	8							CC Stop L	
					CC OPMC STATUS				
0	9	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	Shutter BUSY		
					CC, CD SENSOR STATUS				
0	A	CD Rack check CDS26		Rack step 10 CDS18	Rack step 9 CDS17	Rack step 8 CDS16	Rack step 7 CDS15	Shutter stop CCS04	Shutter origin CCS03
					CD LEVER1 OPMC STATUS				
0	B	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CD Lever1 BUSY		
					CD SENSOR STATUS				
0	C		Cup detect 3 CDS22	Cup detect 2 CDS21	Cup detect 1 CDS20	Lever1 back CDS04	Lever1 forward CDS03	Lever1 stop CDS02	Lever1 origin CDS01
					CD LEVER1 SENSOR INVERSION STATUS				
0	D							Lever1 stop L	
					CD LEVER2 OPMC STATUS				
0	E	OPMC.READY READY	OPMC.BUSY BUSY	OPMC.ILL PRM ILL PRM	OPMC.ERR ERR	CMD.END END	CDLever2 BUSY		
					CD SENSOR STATUS				
0	F	Cup detect 5 CDS24	Cup detect 4 CDS23		CD Rack pass 1 CDS19	Lever2 back CDS08	Lever2 forward CDS07	Lever2 stop CDS06	Lever2 origin CDS05

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	0	CD LEVER2 SENSOR INVERSION STATUS						Lever2 stop L	
1	1	CE OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CE BUSY		
1	2	CE SENSOR STATUS CE Rack pass 2 CES11	CE Rack pass 1 CES09	CE Rack detect 2 CES07	CE Rack detect 1 CES06	CE Lever push CES02	Front rack detect CES03		Lever origin CES01
1	3	CE RACK SUPPORT LEVER OPMC STATUS OPMC.READY READY	OPMC.BUSY BUSY	OPMC.ILL PRM ILL PRM	OPMC.ERR ERR	CMD.END END	Rack support BUSY		
1	4	CE SENSOR STATUS						Rack support stop CES05	Rack support origin CES04
1	5						Rack full detect CAS01		
1	6	CF LEVER1 OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CF lever1 BUSY		
1	7	CA, CF SENSOR STATUS			CA Rack pass CAS03		CD Cover CAS04	CF Lever1 stop CFS02	CF Lever1 origin CFS01
1	8	CA SENSOR INVERSION STATUS			CA Rack pass L				
1	9	CF LEVER2 OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CF Lever2 BUSY		
1	A	CF LEVER2 SENSOR STATUS						Lever2 stop CFS04	Lever2 origin CFS03
1	B	CG OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CG BUSY		
1	C	CG SENSOR STATUS						Lever stop CGS02	Lever origin CGS01
1	D	CH OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CH BUSY		
1	E	CH SENSOR STATUS	Lever stop CHS02				CE Cover CAS05	Rack detect CHS03	Lever origin CHS01
1	F								

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	0								
2	1	CJ OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	CJ BUSY		
2	2	CJ SENSOR STATUS						CJ Stop CJS02	CJ Origin CJS01
2	3	DA01 OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	DA01 BUSY		
2	4	DA01 SENSOR STATUS	R1 Stop DAS02				R1 Bottle detect DAS04	R1 Cover DAS03	R1 Origin DAS01
2	5	DA01 SENSOR INVERSION STATUS	R1 Stop L						
2	6	Number of passings counted by DA01 sensor							
2	7	DA11 OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	DA11 BUSY		
2	8	DA11 SENSOR STATUS	R2 Stop DAS12				R2 Bottle detect DAS14	R2 Cover DAS13	R2 Origin DAS11
2	9	DA11 SENSOR INVERSION STATUS	R2 Stop L						
2	A	Number of passings counted by DA11 sensor							
2	B	DC OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	DC BUSY		
2	C	DC SENSOR STATUS	DC Stop DCS02			Cup detect DCS05	DC Cover 2 DCS04	DC Cover 1 DCS03	DC Origin DCS01
2	D	DC SENSOR INVERSION STATUS	DC Stop L						
2	E	Number of passings counted by DC sensor							
2	F	FA UP-DOWN OPMC STATUS OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FA Up-Down BUSY		

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		FA UPPER/LOWER POS. SENSOR STATUS							
3	0					Liquid level	S Crash FAS07	S Upper FAS01	S Middle FAS02
		FA UPPER/LOWER POS. SENSOR INVERSION STATUS							
3	1					Liquid level L	S Crash L		
		FA ROTATION OPMC STATUS							
3	2	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FA Rotation BUSY		
		FA ROTATION SENSOR STATUS							
3	3					S Rotation pos.2 FAS06	S Rotation pos.1 FAS05	S Rotation stop FAS04	S Rotation origin FAS03
		FB OPMC STATUS							
3	4	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FB BUSY		
		FB SENSOR STATUS							
3	5							Lower pos. FBS02	Upper pos. FBS01
		FC01 UP-DOWN OPMC STATUS							
3	6	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC01 Up-Down BUSY		
		FC01UPPER/LOWER POS. SENSOR STATUS							
3	7							Lower pos. FCS05	Upper pos. FCS01
		FC01 ROTATION OPMC STATUS							
3	8	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC01 Rotation BUSY		
		FC01 ROTATION SENSOR STATUS							
3	9							Rotation stop FCS03	Rotation origin FCS02
		FC01 MIX OPMC STATUS							
3	A	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC01 Mix BUSY		
		FC01 MIX SENSOR STATUS							
3	B		FC01 Mix monitor FCS04						
		Number of passings counted by FC01 mix monitor sensor							
3	C								
		FC11 UP-DOWN OPMC STATUS							
3	D	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC11 Up-Down BUSY		
		FC11 UPPER/LOWER POS. SENSOR STATUS							
3	E							Lower pos. FCS15	Upper pos. FCS11
		FC11 ROTATION OPMC STATUS							
3	F	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC11 Rotation BUSY		

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		FC11 ROTATION SENSOR STATUS							
4	0							Rotation stop FCS13	Rotation origin FCS12
		FC11 MIX OPMC STATUS							
4	1	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FC11 Mix BUSY		
4	2		FC11 Mix monitor FCS14						
		Number of passings counted by FC11 mix monitor sensor							
4	3								
		FD01 UP-DOWN OPMC STATUS							
4	4	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FD01 Up-Down BUSY		
		FD01 UPPER/LOWER POS. SENSOR STATUS							
4	5					R1 Liquid level	R1 Crash FDS07	R1 Upper pos. FDS01	
		FD01 UPPER/LOWER POS. SENSOR INVERSION STATUS							
4	6					R1 Liquid level L	R1 Crash L		
		FD01 ROTATION OPMC STATUS							
4	7	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FD01 Rotation BUSY		
		FD01 ROTATION SENSOR STATUS							
4	8					R1 Rotation pos.2 FDS06	R1 Rotation pos.1 FDS05	R1 Rotation stop FDS04	R1 Rotation origin FDS03
		FD11 UP-DOWN OPMC STATUS							
4	9	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FD11 Up-Down BUSY		
		FD11 UPPER/LOWER POS. SENSOR STATUS							
4	A					R2 Liquid level	R2 Crash FDS17	R2 Upper pos. FDS11	
		FD11 UPPER/LOWER POS. SENSOR INVERSION STATUS							
4	B					R2 Liquid level L	R2 Crash L		
		FD11 ROTATION OPMC STATUS							
4	C	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	FD11 Rotation BUSY		
		FD11 ROTATION SENSOR STATUS							
4	D					R2 Rotation pos.2 FDS16	R2 Rotation pos.1 FDS15	R2 Rotation stop FDS14	R2 Rotation origin FDS13
		S DISPENSER OPMC STATUS							
4	E	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	S Dispenser BUSY		
		S DISPENSER SENSOR STATUS							
4	F						S Dispensing pressure	S Dispenser lower pos. SAS02	S Dispenser upper pos. SAS01

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
		S PRESSURE SENSOR STATUS							
5	0	Clot detection 1 (Low-sensitive)	Clot detection 2 (Middle-sensitive)	Clot detection 3 (High-sensitive)	Air aspiration (Reserved)	Air bubble incorporation*1	Invalid command (*2)		
		R1 DISPENSER OPMC STATUS							
5	1	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	R1 Dispenser BUSY		
		R1 DISPENSER SENSOR STATUS							
5	2							R1 Dispenser lower pos. SAS12	R1 Dispenser upper pos. SAS11
		R2 DISPENSER OPMC STATUS							
5	3	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	R2 Dispenser BUSY		
		R2 DISPENSER SENSOR STATUS							
5	4							R2 Dispenser lower pos. SAS22	R2 Dispenser upper pos. SAS21
		WASH DISPENSER OPMC STATUS							
5	5	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	Wash dispenser BUSY		
		WASH DISPENSER SENSOR STATUS							
5	6							Wash dispenser lower pos. SAS32	Wash dispenser upper pos. SAS31
		DETERGENT SUPPLY PUMP OPMC STATUS							
5	7	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	Detergent supply BUSY		
		ISE MIX OPMC STATUS							
5	8	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	ISE Mix BUSY		
		MID LIQUID DISCHARGE OPMC STATUS							
5	9	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	Mid liquid discharge BUSY		
		ISE SENSOR STATUS							
5	A						Mid liquid level ISES02	Buffer liquid level ISES01	ISE Cover ISES05
		ISE MIXTURE ASPIRATION OPMC STATUS							
5	B	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	ISE Mixture aspiration BUSY		
		BUFFER LIQUID DISPENSER OPMC STATUS							
5	C	OPMC READY	OPMC BUSY	OPMC ILL PRM	OPMC ERR	CMD END	Buffer liquid BUSY		
		BUFFER LIQUID DISPENSER SENSOR STATUS							
5	D						Ref liquid level ISES03	B. dispenser lower pos. SAS42	B. dispenser upper pos. SAS41
		ISE SENSOR STATUS							
5	E	ISE Sample pot liquid level ISES04		ISE AP ON (*3)	ISE Sample Pot Liquid Level Sensor disconnected				
		GA CMD RESPONSE							
5	F	Error occurring			Interfering with other motors	Initializing	Rotation BUSY	Photometry processing	Command processing

*1: When it detects the bubbles in the line, the light comes on.

*2: When it detects Invalid command between the S pressure monitor PCB and the Dispenser control PCB, the light comes on.

*3: When the analog power for the ISE is ON, the light comes on.

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	0	FIRM REWRITE RESPONSE							
				Timeout	Deletion failure	Cross-check failure	PRG Upper limit	Rewrite failure	Successful end
6	1	GA Err Inf 1							
				OPMC Error	Photometry processing A/D Error	Lamp Bright	BUSY Reception error	Invalid command	Invalid parameter
6	2	GA Err Inf 2							
								RAM Error	ROM Error
6	3	GA Err Inf 3							
					Operations not permitted Error		Rotation start Error	GA Stop L	GA Err
6	4	GA SENSOR STATUS							
							Rotations not permitted	GA Stop GAS02	GA Origin GAS01
6	5	S Inner wash valve V5	Vaccum tank waste valve V27	S Interior wash back valve V7	R2 Inner wash valve V4	R1 Inner wash valve V3	R2 Mix detergent discharge valve V30	R2 Mix wash water discharge valve V10	Detergent dilution valve V2
6	6								Test counter
6	7	DI Water supply valve V28			Vacuum pump P6	Waste water pump P7			Degasser P3
6	8	S Outer wash valve 1 V8	S/R1 Mix detergent discharge valve V11	S/R1 Mix wash water dischage valve V6	Probe outer wash valve V13				
6	9	Air release valve for mixture V23	Wash water dispense valve 4 V19	Wash water dispense valve 3 V18	Wash water dispense valve 2 V17	Wash water dispense valve 1 V16	Detergent dispense valve 2 V15	Detergent dispense valve 1 V14	S Outer wash valve 2 V9
6	A		S Outer wash tank valve V12	Wash water drain valve V22	Mixture drain valve V20	Overflow drain valve V21	Overflow aspiration valve V26	Air release valve for overflow V25	Mixture aspiration valve V24
6	B						Diluted detergent pump P9	Detergent dilution pump P1	DI Water supply pump P2
6	C								
6	D								
6	E								
6	F								

SW2	SW1	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	0	Diluted detergent Dil. Det. EMPTY	Diluted detergent Lower pos.	Diluted detergent Upper pos.	Diluted detergent Dil. Det. Overflow	DI Water DI water Empty	DI Water Lower pos.	DI Water Upper pos.	DI Water DI water Overflow
7	1				Vacuum tank full S4				Detergent tank Det. tank EMPTY S3
7	2							Conc. Waste water tank full S6	Washing waste water tank full S5
7	3				Rear DIAG SW			DIAG SW	STAT SW
7	4								
7	5								Weak negative-pressure S8
7	6								
7	7								
7	8								
7	9								
7	A								
7	B								
7	C								
7	D								
7	E								
7	F								

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
40	Cuv.Wheel System Status							
				Rotation not possible	Resetting	Rotation BUSY M18	Photometry BUSY	System BUSY
41	Cuv.Wheel Error Information							
	Lamp Bright	Gain Error	Offset Error	A/D Error	Error Channel Outside Main	Error Channel Outside Sub	Error Channel Inside Main	Error Channel Inside Sub
42	Cuv.Wheel Rotation.I/F Information							
			Parameter Error		Undefined command received	No Wheel operation	Operation not possible because of stop Sens OFF	Operation not possible because of Origin Sens OFF
43	Cuv.Wheel Sensor.Flag.INT Information							
		Pulse Output Completed	A/D Convert Completed	ARC NET Interrupt			Stop Pos GAS01	Origin GAS00
44	Sample Probe Prohibition Signal							
	Wheel rotation not possible because of lower sens ON							
45	Sample Probe PCB Error Information							
								OPMC#1 Error
46	Sample Probe Sensor Information 1							
	Rotation BUSY FAS09	Up/Down BUSY FAS19	Stop Pos Pos FAS01	Origin Pos Pos FAS00	Rotation Pos Pos FAS02	Crash Detection FAS21	Level Detection FAS12	Upper Pos FAS10
47	Sample Probe Sensor Information 2							
								Middle Pos FAS11
48	Sample Probe Error Information							
	Down not possible because of Cuv wheel stop off	Stop for Crash Detection limit		Down not possible because of Rotation Sens OFF		Level Detection Latch		Rotation not Possible because of Upper/Middle Sens OFF
49	R11 Probe Prohibition Signal							
	Wheel rotation not possible because of lower sens ON							R1 Compartment rotation prohibition
4A	R11 Probe PCB Error Information							
								OPMC#1 Error
4B	R11 Probe Sensor Information 1							
	Rotation BUSY FD11S09	Up/Down BUSY FD11S19	Stop Pos FD11S01	Origin Pos (Dsp.) FD11S00	Rotation Pos Pos (Asp.) FD11S02	Crash Detection FD11S21	Level Detection FD11S12	Upper Pos FD11S10
4C	R11 Probe Sensor Information 2							
								Middle Pos FD11S11
4D	R11 Probe Error Information							
	Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
4E	**R12 Probe Prohibition Signal**							
	Wheel rotation not possible because of lower sens ON							R1 Compartment rotation prohibition
4F	**R12 Probe PCB Error Information**							
								OPMC#1 Error
50	**R12 Probe Sensor Information 1**							
	Rotation BUSY **FD01S09**	Up/Down BUSY **FD01S19**	Stop Pos **FD01S01**	Origin Pos (Dsp.) **FD01S00**	Rotation Pos Pos (Asp.) **FD01S02**	Crash Detection **FD01S21**	Level Detection **FD01S12**	Upper Pos **FD01S10**
51	**R12 Probe Sensor Information 2**							
								Middle Pos **FD01S11**
52	**R12 Probe Error Information**							
	Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF
53	**R21 Probe Prohibition Signal**							
	Wheel rotation not possible because of lower sens ON			R2 Compartment rotation prohibition				
54	**R21 Probe PCB Error Information**							
								OPMC#1 Error
55	**R21 Probe Sensor Information 1**							
	Rotation BUSY **FD21S09**	Up/Down BUSY **FD21S19**	Stop Pos **FD21S01**	Origin Pos (Dsp.) **FD21S00**	Rotation Pos Pos (Asp.) **FD21S02**	Crash Detection **FD21S21**	Level Detection **FD21S12**	Upper Pos **FD21S10**
56	**R21 Probe Sensor Information 2**							
								Middle Pos **FD21S11**
57	**R21 Probe Error Information**							
	Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit	R2 Compartment access prohibition	Rotation Stop Pos OFF		Level Detection Latch		Rotation not Possible because of Upper Sens OFF
58	**R21 Probe Prohibition Signal**							
	Wheel rotation not possible because of lower sens ON			R2 Compartment rotation prohibition				
59	**R22 Probe PCB Error Information**							
								OPMC#1 Error
5A	**R22 Probe Sensor Information 1**							
	Rotation BUSY **FD31S09**	Up/Down BUSY **FD31S19**	Stop Pos **FD31S01**	Origin Pos (Dsp.) **FD31S00**	Rotation Pos Pos (Asp.) **FD31S02**	Crash Detection **FD31S21**	Level Detection **FD31S12**	Upper Pos **FD31S10**
5B	**R21 Probe Sensor Information 2**							
								Middle Pos **FD31S11**
5C	**R22 Probe Error Information**							
	Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit	R2 Compartment access prohibition	Rotation Stop Pos OFF		Level Detection Latch		Rotation not Possible because of Upper Sens OFF

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
5D	Reagent Compartment Prohibition Signal							
			R21/R22 Down prohibition				R11/R12 Down prohibition	
5E	Reagent Compartment PCB Error Information							
							OPMC#2 Error	OPMC#1 Error
5F	R1 Compartment Sensor Information							
	Rotation BUSY DA01S09			Bottle Detection DA01S21	Cover DA01S11	Stop Pos DA01S01		Roatation Origin DA01S00
60	R2 Compartment Sensor Information							
	Rotation BUSY DA11S09			Bottle Detection DA11S21	Cover DA11S11	Stop Pos DA11S01		Roatation Origin DA11S00
61	Reagent Compartment Error Information							
				R2 Compartment rotation prohibition				R1 Compartment rotation prohibition
62	S1/R11/R21 Dispenser PCB Error Information							
						OMSC#3(R21) Error	OMSC#2(S1) Error	OMSC#1(R11) Error
63	S1/R11/R21 Dispenser Sensor Information 2							
			R21 Lower Pos SA21S01	R21 Upper Pos SA21S00	S1 Lower Pos SA01S01	S1 Upper Pos SA01S00	R11 Lower Pos SA11S01	R11 Upper Pos SA11S00
64	S1/R11/R21 Dispenser Sensor Information 1							
						R21 BUSY SA21S09	S1 BUSY SA01S09	R11 BUSY SA11S09
65	S1/R11/R21 Dispenser Clog Sensor Information							
							Detection (Neg.) SA01S21	Detection (Pos.) SA01S22
66	S1/R11/R21 Dispenser Sensor Information 3							
						R21 Waiting for operation	S1 Waiting for operation	R11 Waiting for operation
67	S2/R12/R22 Dispenser PCB Error Information							
						OMSC#3(R22) Error	OMSC#2(S2) Error	OMSC#1(R12) Error
68	S2/R12/R22 Dispenser Sensor Information 2							
			R22 Lower Pos SA22S01	R22 Upper Pos SA22S00	S2 Lower Pos SA02S01	S2 Upper Pos SA02S00	R12 Lower Pos SA12S01	R12 Upper Pos SA12S00
69	S2/R12/R22 Dispenser Sensor Information 1							
						R22 BUSY SA22S09	S2 BUSY SA02S09	R12 BUSY SA12S09
6A	S2/R12/R22 Dispenser Clog Sensor Information							
							Detection (Neg.) SA02S21	Detection (Pos.) SA02S22
6B	S2/R12/R22 Dispenser Sensor Information3							
						R22 Waiting for operation	S2 Waiting for operation	R12 Waiting for operation

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
6C	**MIX Prohibition Signal**							
	Cuv.Wheel rotation prohibition							
6D	**MIX PCB Error Information**							
							OPMC#2 Error	OPMC#1 Error
6E	**MIX Sensor Information 1**							
	Rotation BUSY **FCS09**	Up/Down BUSY **FCS19**	Rotation Stop Pos **FCS01**	Rotation Origin **FCS00**				Upper Pos **FCS10**
6F	**MIX Sensor Information 2**							
		Mixing BUSY **FCS29**						
70	**Degassed Water Pump 2 Status Information**							
	Degassed Water Pump2 BUSY							
71	**MIX Error Information**							
		Down not possible because of Cuv wheel stop off		Rotation Sens OFF				Rotation not possible because of Upper Sens OFF
72	**DIP SW Information**							
	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW0
73	**Cuv.Washer Prohibition Signal**							
	Cuv.Wheel rotation prohibition							
74	**Cuv.Washer PCB Error Information**							
							OPMC#2 Error	OPMC#1 Error
75	**Cuv.Washer Sensor Information**							
	Up/Down BUSY **FBS09**	FA Rotation Pos 2 **FAS02**					Lower Pos **FBS01**	Upper Pos **FBS00**
76	**Degassed Water Pump 1 Status Information**							
	Degassed Water Pump1 BUSY							
77	**Cuv.Washer Error Informaton**							
		Down not possible because of Cuv wheel stop off						

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
78	**Rack Supply PCB Error Information**							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
79	**Rack Supply Sensor Information**							
	M1 BUSY **CBS19**	M2 BUSY **CBS29**			Reverse Prohibition **CBS06**	Forward Prohibition **CBS05**	Feed Pos **CBS01**	Receptacl Pos **CBS02**
7A	**Rack Retrieval Sensor Information**							
	Retrieval BUSY **CES19**	Carry-out BUSY **CES29**	Carry-Out LA Pos **CES05**	Carry-out Repeat Pos **CES04**	Carry-Out Origin **CES03**		Retrieval Stop Pos **CES02**	Retrieval Origin **CES01**
7B	**Rack Storage Sensor Information**							
	Retrieval BUSY **CFS19**			Rack Full **CAS08**			Stop Pos **CFS02**	Origin **CFS01**
7C	**Rack Type Detection Sensor Information**							
				Rack Present **CBS03**		**d2**	Rack Type CBS04 **d1**	**d0**
7D	**Rack Pass Detection Sensor Information**							
					CE Rack Pass 2 **CAS07**	CE Rack Pass 1 **CAS06**	CC Rack Pass 2 **CAS05**	CC Rack Pass 1 **CAS04**
7E	**LA Feed-in/Carry-out Sensor Information**							
			Rack Reverse Prohibition **CBS07**	Carry-out Detection **CBS10**			Rack Pass **CBS09**	Rack Detection **CBS08**
7F	**Rack Storage PCB Error Information**							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
80	**Rack Send-in Sensor Information**							
	Send-in BUSY **CCS19**	Carry-out BUSY **CCS29**	Carry-out Stop Pos **CCS04**	Carry-out Origin **CCS03**		Cup Detection **CAS03**	Send-in Stop Pos **CCS02**	Send-in Origin **CCS01**
81	**Rack Buffer Sensor Information**							
	M1 BUSY **CDS19**	M2 BUSY **CDS29**	Reverse Prohibition **CDS09**	Forward Prohibition **CDS08**			Receptacle Pos **CDS02**	Feed Pos **CDS01**
82	**Rack Return Sensor Information**							
	Return BUSY **CLS19**						Stop Pos **CLS02**	Origin Pos **CLS01**
83	**Rack Type Detection Sensor Information**							
			Rack Present 2 **CDS04**	Rack Present 1 **CDS03**		**d2**	Rack Type CAS10 **d1**	**d0**
84	**Rack Pass Detection Sensor Information**							
						ANL Rack Pass3 **CDS07**	ANL Rack Pass2 **CDS06**	ANL Rack Pass1 **CDS05**

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
85				STAT Prohibition Signal				
					Sample Probe Down prohibition			
86				STAT PCB Error Information				
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
87				STAT Sensor Information				
	Rotaton BUSY DCS09			Cover DCS11		Cup Detection DCS21	Stop Pos DCS01	Origin DCS00
88				Rack Transfer1 Sensor Information		Rack Step	Lever 1	Lever 1
	Belt BUSY CGS19	Lever BUSY CGS29				Detection 1 CGS03	Stop Pos CGS02	Origin CGS01
89				Rack Transfer2 Sensor Information		Rack Step	Lever 2	Lever 2
	Belt BUSY CGS39	Lever BUSY CGS49				Detection 2 CGS07	Stop Pos CGS06	Origin Pos CGS05

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
90	**Com Master STATUS**							
	READY	BUSY	DOWN LOAD		PCB ERROR	Transmit ERROR	Receive ERROR	Circuit Cut off
91	**Com Master Error Information-1**							
					COMMUNICATION ERROR	DP-RAM ERROR	S-RAM ERROR	ROM ERROR
92	**Com Master Error Information-2**							
	Number of response Com Slave							
93	**Com Slave STATUS (Sample Probe)**							
	READY	BUSY						Receive ERROR
94	**Com Slave STATUS (R11 Probe)**							
	READY	BUSY						Receive ERROR
95	**Com Slave STATUS (R12 Probe)**							
	READY	BUSY						Receive ERROR
96	**Com Slave STATUS (R21 Probe)**							
	READY	BUSY						Receive ERROR
97	**Com Slave STATUS (R22 Probe)**							
	READY	BUSY						Receive ERROR
98	**Com Slave STATUS (Reagent Compartment)**							
	READY	BUSY						Receive ERROR
99	**Com Slave STATUS (S1/R11/R21 Dispenser)**							
	READY	BUSY						Receive ERROR
9A	**Com Slave STATUS (S2/R12/R22 Dispenser)**							
	READY	BUSY						Receive ERROR
9B	**Com Slave STATUS (Mix)**							
	READY	BUSY						Receive ERROR
9C	**Com Slave STATUS (Cuv.Washer)**							
	READY	BUSY						Receive ERROR
9D	**Com Slave STATUS (Rack Supply)**							
	READY	BUSY						Receive ERROR
9E	**Com Slave STATUS (Rack Storge)**							
	READY	BUSY						Receive ERROR
9F	**Com Slave STATUS (STAT)**							
	READY	BUSY						Receive ERROR

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
A0	Com Slave Semaphore (Sample Probe)							Command not transmited
A1	Com Slave Semaphore (R11 Probe)							Command not transmited
A2	Com Slave Semaphore (R12 Probe)							Command not transmited
A3	Com Slave Semaphore (R21 Probe)							Command not transmited
A4	Com Slave Semaphore (R22 Probe)							Command not transmited
A5	Com Slave Semaphore (Reagent							Command not transmited
A6	Com Slave Semaphore (S1/R11/R21							Command not transmited
A7	Com Slave Semaphore (S2/R12/R22							Command not transmited
A8	Com Slave Semaphore (Mix)							Command not transmited
A9	Com Slave Semaphore (Cuv.Washer)							Command not transmited
AA	Com Slave Semaphore (Rack Supply)							Command not transmited
AB	Com Slave Semaphore (Rack Storage)							Command not transmited
AC	Com Slave Semaphore (STAT)							Command not transmited

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
B0	Communicaton Sub CPU SYSTEM STATUS Command receive possible: 00H Command receive not possible: FFH							
B1	Communication Sub CPU Command STATUS(Out of Regulation		ANL-Reagent	ANL-STAT		ANL-S.ID /Rack ID	ANL-ISE	CMD issued during ISE stop
B2	ANL- > ISE Communication STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
B3	ANL<- ISE Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
B4			ANL- > ISE Transmit Error Information	Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
AC	Duplication Received		ANL < - ISE Receive Error Information Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
B6	ANL- > S.ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
B7	ANL<- S.ID Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
B8			ANL- > S.ID Transmission Error Information					
				Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
B9	ANL<- S.ID Receive Error Information							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
BA	ANL- > Rack ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
BB	ANL<- Rack ID Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
BC			ANL- > Rack ID Transmission Error					
				Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
BD	ANL<- Rack ID Receive Error Information							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
BE	ANL- > STAT ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
8F	ANL<- STAT ID Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C0			ANL- > STAT ID Transmission Error					
				Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
C1	ANL<- Rack ID Receive Error Information							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
C2	**ANL- > R1 Reagent ID Transmission STATUS** At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
C3	**ANL<- R1 Reagent ID Receive STATUS** Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C4			**ANL- > R1 Reagent ID Transmission Error**					
				Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
C5	**ANL<- R1 Reagent ID Receive Error**							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
C6	**ANL- > R2 Reagent ID Transmission STATUS** Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C7	**ANL<- R2 Reagent ID Receive STATUS** Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C8			**ANL- > R2 Reagent ID Transmission Error**					
				Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
C9	**ANL<- R2 Reagent ID Receive Error**							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
CA	**Temperature STATUS**							
				A/D Time Out				

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
CC	Ethernet Communication/Connection STATUS (Lower							
	Connection ID #7 Connected	Connection ID #6 Connected	Connection ID #5 Connected	Connection ID #4 Connected	Connection ID #3 Connected	Connection ID #2 Connected	Connection ID #1 Connected	Connection ID #0 Connected
CD	Ethernet Communication/Connection STATUS (Higher							
	Connection ID #F Connected	Connection ID #E Connected	Connection ID #D Connected	Connection ID #C Connected	Connection ID #B Connected	Connection ID #A Connected	Connection ID #9 Connected	Connection ID #8 Connected
CE	Ethernet Communication/Connection STATUS2 (Lower							
					Connection ID #83 Connected	Connection ID #82 Connected	Connection ID #81 Connected	Connection ID #80 Connected
D0	Ethernet Communication/Connection ID Information#0 : To IP							
D1	Ethernet Communication/Connection ID Information#0 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D2	Ethernet Communication/Connection ID Information#1 : To IP							
D3	Ethernet Communication/Connection ID Information#1 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D4	Ethernet Communication/Connection ID Information#2 : To IP							
D5	Ethernet Communication/Connection ID Information#2 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D6	Ethernet Communication/Connection ID Information#3 : To IP							
D7	Ethernet Communication/Connection ID Information#3 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D8	Ethernet Communication/Connection ID Information#4 : To IP							
D9	Ethernet Communication/Connection ID Information#4 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DA	Ethernet Communication/Connection ID Information#5 : To IP							
DB	Ethernet Communication/Connection ID Information#5:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DC	Ethernet Communication/Connection ID Information#6 : To IP							
DD	Ethernet Communication/Connection ID Information#6:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DE	Ethernet Communication/Connection ID Information#7 : To IP							
DF	Ethernet Communication/Connection ID Information#7:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
E0		Ethernet Communication/Connection ID Information#8 : To IP						
E1	Connection Installed	Waiting for Connection	Server / Client					
E2		Ethernet Communication/Connection ID Information#9 : To IP						
E3	Connection Installed	Waiting for Connection	Server / Client					
E4		Ethernet Communication/Connection ID Information#A : To IP						
E5	Connection Installed	Waiting for Connection	Server / Client					
E6		Ethernet Communication/Connection ID Information#B : To IP						
E7	Connection Installed	Waiting for Connection	Server / Client					
E8		Ethernet Communication/Connection ID Information#C : To IP						
E9	Connection Installed	Waiting for Connection	Server / Client					
EA		Ethernet Communication/Connection ID Information#D : To IP						
EB	Connection Installed	Waiting for Connection	Server / Client					
EC		Ethernet Communication/Connection ID Information#E : To IP						
ED	Connection Installed	Waiting for Connection	Server / Client					
EE		Ethernet Communication/Connection ID Information#F : To IP						
EF	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
F0	10ms Interrupt (WT_TI_CNT)							
F1	50ms Interrupt (TI_CNT)							
F2	Task being executed (CNOL)							
F3	10ms Interrupt return destination (CS [H])							
F4	10ms Interrupt return destination (CS [L])							
F5	10ms Interrupt return destination (IP [H])							
F6	10ms Interrupt return destination (IP [L])							
F7	50ms Interrupt return destination (CS [H])							
F8	50ms Interrupt return destination (CS [L])							
F9	50ms Interrupt return destination (IP [H])							
FA	50ms Interrupt return destination (IP [L])							
FB	Debugger stsrt Information						TSK MODE	DBG MODE
FC	STACK NEST LEVEL [NESTL (CNOL)]							
FD	Mode (ANL_MODE)							
FE	ANL- > DPR Communication Status (FACT_NO)							
FF	DPR- > ANL Communication Status (FACT_NO)							

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
			ARC NET STATUS					
00	Receive Completed	-	-	Reset Occurred	TEST	Connection Cut off	Transmission Normal End	Transmission Completed
			ARC NET DIAG Register					
01	Self Node Cut off	Duplication ID being	Employment right transfer	Transmission right transfer	Transmission Error	Check ID being	-	-
			ARC NET ADDRESS Register (Higher)					
02	READ/WRITE	ADR AUTO INC	-	-	-	A10	A9	A8
			ARC NET ADDRESS Register (Lower)					
03	A7	A6	A5	A4	A3	A2	A1	A0
			ARC NET Received DATA					
-	D7	D6	D5	D4	D3	D2	D1	D0
			ARC NET Configuration					
04	RESET	COMMAND CHAIN	Transmission possible/not	Delay time b1	Delay time b0	DRV wide/exclusive	Sub ADR b1	Sub ADR b0
			ARC NET SET UP Register (TEND-ID/NODE-ID)					
05								
-	D7	D6	D5	D4	D3	D2	D1	D0
06	DSR	BREAK Detection	Flaming ERROR	Over run ERROR	Parity Error	TxEMP	RxRDY	TxRDY
07	ANL - > ISE1 Sync Signal (SYNC1)	ANL - > ISE2 Sync Signal (SYNC2)	STAT SET LED (DIAG)	(No connect) (STAT ROT)	START END LED (STAT)	(No connect) (START)	RACK REV LED (RACK REV)	RACK SET LED (SET DIS)
08	LA Signal (LA to AU) (REQUESTR)	LA Signal (LA to AU) (MOVER)	ISE-2 ISE READY (ISERDY)	ISE POWER ON (ISEON)	Cover. (COVER)	BUFFER Empty (BUFF)	REF Empty (REF)	MID Empty (MID)
09	-	-	Water Temp Error (WTR_TMP)	Diluton Temp Error (DIL_TMP)	Belt Move Enable (BLTEN)	LA Signal (LA to AU) (RESERVEDS)	(EXISTS)	(ENABLES)
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
0A	Sample Counter (S.COUNT)	-	-	-	-	Degassed water supply valve **(DCV35)**	Detergent B dilution valve **(DCV34)**	Deionized water bubble without **(DCV33)**
0B	(Not use) (BLTDIS)	Phtometer Cont PCB reset (PHRST)	Lamp power supply P.D ($\overline{\text{PTLIGHT}}$)	LA Signal (AU to LA) ($\overline{\text{REQUESTS}}$)	($\overline{\text{MOVES}}$)	($\overline{\text{RESERVEDR}}$)	($\overline{\text{EXISTR}}$)	($\overline{\text{ENABLER}}$)
0C	?	?	(Not use)	Pure detergent A supply pump **(DCP08)**	(Not use)	(Not use)	(Not use)	(Not use)
-								
0D	UDCD42 Rotary SW ($\overline{\text{USW7}}$)	($\overline{\text{USW6}}$)	($\overline{\text{USW5}}$)	($\overline{\text{USW4}}$)	($\overline{\text{USW3}}$)	($\overline{\text{USW2}}$)	($\overline{\text{USW1}}$)	($\overline{\text{USW0}}$)
0E	UDCD42 8bit LED (ULED7)	(ULED6)	(ULED5)	(ULED4)	(ULED3)	(ULED2)	(ULED1)	(ULED0)
0F	DIAG/STAT ROT SW ($\overline{\text{DIAG}}$)	(No connect) ($\overline{\text{STAT ROT}}$)	STAT SW ($\overline{\text{STAT}}$)	(No connect) ($\overline{\text{STOP}}$)	(No connect) ($\overline{\text{START}}$)	Power failure detected ($\overline{\text{BLKOUT}}$)	RACK REV SW ($\overline{\text{RACK REV}}$)	FEEDER SW ($\overline{\text{FEED}}$)
-								
10	Vacuum Tank Standard presure (PRESURE)	Waste Full (WATER)	Pure detergent Tank Pure detergent B Empty (b_EMPTY)	Pure detergent A Empty (a_EMPTY)	-	-	Deionized water Tank Overflow (OVERFL)	Empty (EMPTY)
11	Detergent Tank(B) Overflow (A_OVERFL)	Upper limit or over ($\overline{\text{A\_Upper}}$)	Lower limit or less ($\overline{\text{A\_Lower}}$)	Empty (A_EMPTY)	Detergent Tank(A) Overflow (A_OVERFL)	Upper limit or over ($\overline{\text{A\_Upper}}$)	Lower limit or less ($\overline{\text{A\_Lower}}$)	Empty (A_EMPTY)
12	-	-	ISE-1 ISE READY (ISERDY)	ISE POWER ON (ISEON)	Cover. (COVER)	BUFFER Empty (BUFF)	REF Empty (REF)	MID Empty (MID)
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
13	Inner wash water return valve 2 **(DCV37)**	Inner wash water return valve **(DCV07)**	R22 inner wsah valve **(DCV06)**	R21 inner wsah valve **(DCV05)**	R12 inner wsah valve **(DCV04)**	R11 inner wsah valve **(DCV03)**	S2 inner wsah valve **(DCV02)**	S1 inner wash valve **(DCV01)**
14	Liquid dripping drain valve **(DCV15)**	Mixture drain valve **(DCV14)**	Overflow drain valve **(DCV13)**	Wash water drain valve **(DCV12)**	-	Detergent A dilution valve **(DCV32)**	S2/R12/R22 outer wash valve **(DCV09)**	S1/R11/R12 outer wash valve **(DCV08)**
15	Detergent A dispense valve **(DCV30)**	Detergent B dispense valve **(DCV29)**	Wash water dispense valve 2 **(DCV28)**	Wash water dispense valve 1 **(DCV27)**	-	Detergent A drip prevention valve **(DCV26)**	Detergent B drip prevention valve **(DCV25)**	Wash water drip prevention valve **(DCV24)**
16	Drip air release valve **(DCV23)**	Mixture air release valve **(DCV22)**	Overflow air release valve **(DCV21)**	Aspiration air release valve **(DCV20)**	Liquid dripping aspiration valve **(DCV19)**	Mixture aspiration valve **(DCV18)**	Overflow aspiration valve **(DCV17)**	Wash water aspiration valve **(DCV16)**
17	-	DI water supply pump **(DCP09)** [M253] DI water rotation pump (DCP01) [M255]	Detergent B supply pump **(DCP10)** [M253] Detergent rotation pump (DCP04) [M255]	Detergent A supply pump **(DCP07)**	-	-	Mix detergent valve **(DCV11)**	Mix wash valve **(DCV10)**
18	Pure detergentB pump **(DCP11)**	- [M253] Degassed water rotation pump (DCP12) [M255]	Vacuum tank waste valve **(ACV31)**	Waste pump **(ACP13)**	Degasser (DEGASSOR)		Vacuum pump 2 **(ACP06)**	Vacuum pump 1 **(ACP05)**
	-	-	-	-	-	-	-	-
19	-	-	Concentrate waste overflow (CW_0F)	Non-concentrate waste overflow (NCW_0F)	ANL UNIT No. (AND_D3)	(AND_D2)	(AND_D1)	(AND_D0)
20					Re loading	ANL Cont PCB POWER ON	Reserve DIP SW SW2	SW1

● Sampler

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
00			**ARC NET STATUS**					
	Receive Completed	-	-	Reset Occurred	TEST	Connection Cut off	Transmission Normal End	Transmission Completed
01			**ARC NET DIAG Register**					
	Self Node Cut off	Duplication ID being	Employment right transfer	Transmission right transfer	Transmission Error	Check ID being	-	-
02			**ARC NET ADDRESS Register (Higher)**					
	READ/$\overline{\text{WRITE}}$	ADR AUTO INC	-	-	-	A10	A9	A8
03			**ARC NET ADDRESS Register (Lower)**					
	A7	A6	A5	A4	A3	A2	A1	A0
-			**ARC NET Received DATA**					
	D7	D6	D5	D4	D3	D2	D1	D0
04			**ARC NET Configuration**					
	RESET	COMMAND CHAIN	Transmission possible/not	Delay time b1	Delay time b0	DRV wide/exclusive	Sub ADR b1	Sub ADR b0
05			**ARC NET SET UP Register (TEND-ID/NODE-ID)**					
-	D7	D6	D5	D4	D3	D2	D1	D0
06	DSR	BREAK Detection	Flaming ERROR	Over run ERROR	Parity Error	TxEMP	RxRDY	TxRDY
07				(No connect)	AUTO/STOP LED (STAT)	(No connect)		
08	LA signal (LA to AU)							
	($\overline{\text{REQUESTR}}$)	($\overline{\text{MOVER}}$)						
09	-	-	Water Temp Error ($\overline{\text{WTR\_TMP}}$)	Dilution Temp Error ($\overline{\text{DIL\_TMP}}$)	Belt Move Enable ($\overline{\text{BLTEN}}$)	LA signal (LA to AU) ($\overline{\text{RESERVEDS}}$)	($\overline{\text{EXISTS}}$)	($\overline{\text{ENABLES}}$)
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
0A	Sample Counter (S.COUNT)	-	-	-	-	Degassed water supply valve **(DCV35)**	Detergent B dilution valve **(DCV34)**	Deionized water bubble without **(DCV33)**
0B	(Not use) (BLTDIS)			LA signal (AU to LA) ($\overline{\text{REQUESTS}}$)	($\overline{\text{MOVES}}$)	($\overline{\text{RESERVEDR}}$)	($\overline{\text{EXISTR}}$)	($\overline{\text{ENABLER}}$)
0C	-	-	(Not use)	(Not use)	(Not use)	(Not use)	(Not use)	(Not use)
-								
0D	UDCD42 Rotary SW ($\overline{\text{USW7}}$)	($\overline{\text{USW6}}$)	($\overline{\text{USW5}}$)	($\overline{\text{USW4}}$)	($\overline{\text{USW3}}$)	($\overline{\text{USW2}}$)	($\overline{\text{USW1}}$)	($\overline{\text{USW0}}$)
0E	UDCD42 8bit LED (ULED7)	(ULED6)	(ULED5)	(ULED4)	(ULED3)	(ULED2)	(ULED1)	(ULED0)
0F	DIAG SW ($\overline{\text{DIAG}}$)	(No connect)	STOP SW ($\overline{\text{STOP}}$)	AUTO SW ($\overline{\text{AUTO}}$)	(No connect)			
-								
10	Vacuum Tank Standard presure (PRESURE)	Waste Full (WATER)	Pure detergent Tank Pure detergent B Empty (b_EMPTY)		-	-	Deionized water Tank Overflow (OVERFL)	Empty (EMPTY)
11	Detergent Tank(B) Overflow (A_OVERFL)	Upper limit or over ($\overline{\text{A\_Upper}}$)	Lower limit or less ($\overline{\text{A\_Lower}}$)	Empty (A_EMPTY)				
12	-	-						
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
13	Inner wash water return valve2 (DCV37)	Inner wash water return valve1 (DCV07)	R22 inner wsah valve (DCV06)	R21 inner wsah valve (DCV05)	R12 inner wsah valve (DCV04)	R11 inner wsah valve (DCV03)	S2 inner wsah valve (DCV02)	S1 inner wash valve (DCV01)
14	Liquid dripping drain valve (DCV15)	Mixture drain valve (DCV14)	Overflow drain valve (DCV13)	Wash water drain valve (DCV12)	-	Detergent A dilution valve (DCV32)	S2/R12/R22 outer wash valve (DCV09)	S1/R11/R12 outer wash valve (DCV08)
15	Detergent A dispense valve (DCV30)	Detergent B dispense valve (DCV29)	Wash water dispense valve 2 (DCV28)	Wash water dispense valve 1 (DCV27)	-	Detergent A drip prevention valve (DCV26)	Detergent B drip prevention valve (DCV25)	Wash water drip prevention valve (DCV24)
16	Drip air release valve (DCV23)	Mixture air release valve (DCV22)	Overflow air release valve (DCV21)	Aspiration air release valve (DCV20)	Liquid dripping aspiration valve (DCV19)	Mixture aspiration valve (DCV18)	Overflow aspiration valve (DCV17)	Wash water aspiration valve (DCV16)
17	-	DI water rotation pump (DCP01)	Detergent rotation pump (DCP04)	Detergent A supply pump (DCP07)	-	-	Mix detergent valve (DCV11)	Mix wash valve (DCV10)
18	Pure detergentB pump (DCP11)	Degassed water rotation pump (DCP12)	Vacuum tank waste valve (ACV31)	Waste pump (ACP13)	Degasser (DEGASSOR)		Vacuum pump 2 (ACP06)	Vacuum pump 1 (ACP05)
	-	-	-	-	-	-	-	-
19	-	Degassed water float switch (DGAS_EMPTY)	-	-	-	-	-	-
20					Re loading	ANL Cont PCB POWER ON	Reserve DIP SW SW2	SW1

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
40	**Rack Supply PCB Error Information**					OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
41	**Rack Supply Sensor Information** M1 BUSY	M2 BUSY			Reverse Prohibition CBS06	Forward Prohibition CBS05	Feed Pos CBS01	Receptacl Pos CBS02
42	**Rack Retrieval Sensor Information** Retrieval BUSY CES19	Carry-out BUSY CES29	Carry-Out LA Pos CES05	Carry-out Repeat Pos CES04	Carry-Out Origin CES03		Retrieval Stop Pos CES02	Retrieval Origin CES01
43	**Rack Storage Sensor Information** Retrieval BUSY			Rack Full CAS08			Stop Pos CFS02	Origin CFS01
44	**Rack Type Detection Sensor Information**			Rack Present CBS03		d2	Rack Type CBS04 d1	d0
45	**Rack Pass Detection Sensor Information**				CE Rack Pass 2 CAS07	CE Rack Pass 1 CAS06	CC Rack Pass 2 CAS05	CC Rack Pass 1 CAS04
46	**LA Feed-in/Carry-out Sensor Information**		Rack Reverse Prohibition CBS07	Carry-out Detection CBS10			Rack Pass CBS09	Rack Detection CBS08
47	**Rack Storage PCB Error Information**					OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
48	**Rack Send-in Sensor Information** Send-in BUSY	Carry-out BUSY	Carry-out Stop Pos CCS04	Carry-out Origin CCS03		Cup Detection CAS03	Send-in Stop Pos CCS02	Send-in Origin CCS01
49	**Rack Buffer Sensor Information** M1 BUSY	M2 BUSY	Reverse Prohibition CDS09	Forward Prohibition CDS08			Feed Pos CDS02	Receptacle Pos CDS01
4A	**Rack Return Sensor Information** Return BUSY					LA Manual Rack CBS11	Stop Pos CLS02	Origin Pos CLS01
4B	**Rack Type Detection Sensor Information**		Rack Present 2 CDS04	Rack Present 1 CDS03		d2	Rack Type CAS10 d1	d0
4C	**Rack Pass Detection Sensor Information**					ANL Rack Pass3 CDS07	ANL Rack Pass2 CDS06	ANL Rack Pass1 CDS05
4D	**ANL1 Rack Control1 (CH) PCB Error Information**					OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
4E	**ANL1 Retrieval Lane (CH3) Information** Belt BUSY		Lane Rack Pass CHS14	Rack Present CHS15				Synchronizing Signal Input
4F	**ANL1 Passing Lane (CH1) Information** Belt BUSY	Lever BUSY	Lane Rack Pass CHS04		Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS02	Origin CHS01

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
			ANL1 Dispensing Lane (CH2)					
50	Belt BUSY	Lever BUSY	Rack present After Dispense CHS13	Rack present Pre.Dispence CHS07	Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS09	Origin CHS08
			ANL1 Lever Open/Close Information					
51		Open/Close BUSY	Stop Pos CHS17	Origin CHS16	Lane1 Rack Passing	Lane2 Rack Passing	Lane1 Rack Step CHS03	Lane2 Rack Step CHS10
			ANL1 Rack Control2 (CJ.CK) PCB Error					
52						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
			ANL1 Retrieval Lane (CJ3) Information					
53	Belt BUSY					Left side Rack Pass CJS07		Right side Rack Pass CJFS06
			ANL1 Passing Lane (CJ1) Information					
54	Belt BUSY					Left side Rack Pass CJS02		Right side Rack Pass CJFS01
			ANL1 Dispensing Lane (CJ2)					
55	Belt BUSY					Waiting Pos.2 Rack CJS05	Waiting Pos.3 Rack CJS04	Right side Rack Pass CJFS03
			ANL1 Lane change. Stopper					
56	Lane change BUSY	CJ Stopper BUSY	CJ Stopper Stop Pos. CJS09	CJ Stopper Origin CJS08	Retrieval Lane Rack CKS04	CK Retrieval Lane Pos. CKS03	CK Dispensing Lane Pos. CKS02	CK Origin CKS01
			ANL1 Rack Control3 (CH) PCB Error					
57						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
			ANL1 Stopper Information					
58	Stopper After Dispense BUSY	Stopper Pre. Dispense BUSY	Stopper Stop Pos. After Dispense CHS12	Stopper Origin After Dispense CHS11			Stopper Stop Pos. Pre. Dispense CHS06	Stopper Origin Pre. Dispense CHS05
			ANL2 Rack Control1 (CH) PCB Error					
59						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
			ANL2 Retrieval Lane (CH3) Information					
5A	Belt BUSY		Lane Rack Pass CHS14	Rack Present CHS15				Synchronizing Signal Input
			ANL2 Passing Lane (CH1) Information					
5B	Belt BUSY	Lever BUSY	Lane1 Rack Pass CHS04		Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS02	Origin CHS01
			ANL2 Dispensing Lane (CH2)					
5C	Belt BUSY	Lever BUSY	Rack present After Dispense CHS13	Rack present Pre.Dispence CHS07	Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS09	Origin CHS08
			ANL2 Lever Open/Close Information					
5D		Open/Close BUSY	Stop Pos CHS17	Origin CHS16	Lane1 Rack Passing	Lane2 Rack Passing	Lane1 Rack Step CHS03	Lane2 Rack Step CHS10
			ANL2 Rack Control2 (CJ.CK) PCB Error					
5E						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
			ANL2 Retrieval Lane (CJ3) Information					
5F	Belt BUSY					Left side Rack Pass CJS07		Right side Rack Pass CJFS06

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
60	ANL2 Passing Lane (CH1) Information							
	Belt BUSY					Left side Rack Pass CJS02		Right side Rack Pass CJFS01
61	ANL2 Dispensing Lane (CJ2)							
	Belt BUSY					Waiting Pos.2 Rack CJS05	Waiting Pos.3 Rack CJS04	Right side Rack Pass CJFS03
62	ANL2 Lane change. Stopper Information							
	Lane change BUSY	CJ Stopper BUSY	CJ Stopper Stop Pos. CJS09	CJ Stopper Origin CJS08	Retrieval Lane Rack CKS04	CK Retrieval Lane Pos. CKS03	CK Dispensing Lane Pos. CKS02	CK Origin CKS01
63	ANL2 Rack Control3 (CH) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
64	ANL2 Stopper Information							
	Stopper After Dispense BUSY	Stopper Pre. Dispense BUSY	Stopper Stop Pos. After Dispense CHS12	Stopper Origin After Dispense CHS11			Stopper Stop Pos. Pre. Dispense CHS06	Stopper Origin Pre. Dispense CHS05
65	ANL3 Rack Control1 (CH) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
66	ANL3 Retrieval Lane (CH3)							
	Belt BUSY		Lane Rack Pass CHS14	Rack Present CHS15				Synchronizing Signal Input
67	ANL3 Passing Lane (CH1) Information							
	Belt BUSY	Lever BUSY	Lane1 Rack Pass CHS04		Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS02	Origin CHS01
68	ANL3 Dispensing Lane (CH2)							
	Belt BUSY	Lever BUSY	Rack present After Dispense CHS13	Rack present Pre.Dispence CHS07	Lever Step F.F	Rack Step Rack detection Operation	Stop Pos CHS09	Origin CHS08
69	ANL2 Lever Open/Close Information							
		Open/Close BUSY	Stop Pos CHS17	Origin CHS16	Lane1 Rack Passing	Lane2 Rack Passing	Lane1 Rack Step CHS03	Lane2 Rack Step CHS10
6A	ANL3 Rack Control2 (CJ.CK) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
6B	ANL3 Retrieval Lane (CJ3) Information							
	Belt BUSY					Left side Rack Pass CJS07		Right side Rack Pass CJFS06
6C	ANL3 Passing Lane (CJ) Information							
	Belt BUSY					Left side Rack Pass CJS02		Right side Rack Pass CJFS01
6D	ANL3 Dispensing Lane (CJ2)							
	Belt BUSY					Waiting Pos.2 Rack CJS05	Waiting Pos.3 Rack CJS04	Right side Rack Pass CJFS03
6E	ANL3 Lane change. Stopper Information							
	Lane change BUSY	CJ Stopper BUSY	CJ Stopper Stop Pos. CJS09	CJ Stopper Origin CJS08	Retrieval Lane Rack CKS04	CK Retrieval Lane Pos. CKS03	CK Dispensing Lane Pos. CKS02	CK Origin CKS01
6F	ANL3 Rack Control3 (CH) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
70	ANL3 Stopper Information							
	Stopper After Dispense BUSY	Stopper Pre. Dispense BUSY	Stopper Stop Pos. After Dispense **CHS12**	Stopper Origin After Dispense **CHS11**			Stopper Stop Pos. Pre. Dispense **CHS06**	Stopper Origin Pre. Dispense **CHS05**
71	ISE Rack Control1 (CM) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
72	ISE Retrieval Lane (CM3) Information							
	Belt BUSY		Lane3 Rack Pass **CMS09**	Rack Present **CMS10**				Synchronizing Signal Input
73	ISE Dispensing Lane (CM1)							
	Belt BUSY	Lever BUSY	Lane1 Rack Pass **CMS04**		Lever Step F.F	Rack Step Rack detection Operation	Stop Pos **CMS02**	Origin **CMS01**
74	ISE Dispensing Lane (CM2)							
	Belt BUSY	Lever BUSY	Rack present After Dispense **CMS08**		Lever Step F.F	Rack Step Rack detection Operation	Stop Pos **CMS06**	Origin **CMS05**
75	QC Rack Control PCB Error							
							OPMC#2 Error	OPMC#1 Error
76	QC Rack Horizontal feed Sensor							
	ack Send BUSY			Cover Open **OPCS11**	Rack pass **OPCS10**		Feed lever stop **OPCS08**	eed lever origin **OPCS07**
77	QC Rack receive Sensor Information							
	ack Receive BUSY			Rack detection **OPCS06**	Stop pos. 3 **OPCS09**	Stop pos. 2 **OPCS05**	Stop pos. 1 **OPCS04**	Receive origin **OPCS03**
78	QC Rack Vertical feed Sensor							
		Rack feed BUSY		ACAL/RB SET SW	QC SET SW		Feed lever stop **OPCS02**	eed lever origin **OPCS01**
79	Rack fedd remaining pulse (Lower)							
7A	Rack fedd remaining pulse (Higher)							
7B	Rack Control4 (CN) PCB Error							
						OPMC#3 Error	OPMC#2 Error	OPMC#1 Error
7C	Rack receive,Rack vertical feed							
	Belt BUSY	Vertical feed BUSY		Arrival detection **CNS01**	ackward prohibitio **CNS10**	Forward prohibition **CNS11**	Feed pos. **CNS09**	Receive pos. **CNS08**
7D	Rack push remaining step count							
7E	Rack push remaining step count							
7F	Rack push Information							
	ack push BUSY				Rack pass **CNS07**	Rack detection **CNS04**	Stop pos. **CNS03**	Origin **CNS02**

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
			Horizontal feed Rack Information					
80	Horizontal feed BUSY		Horizontal feed Rack Information				Stop Pos CNS06	Origin CNS05
			Rack carry out Information					
81	Carry out BUSY		Carry out Rack Information			Carry out Rack pass CNS12	Stop Pos CNS14	Origin CNS13
			Diag SW Information					
82								SW ON
			Rack Buffer Error STATUS					
83					Operation Abnormal (Receptacle Pos)	Operation Abnormal (Feed Pos)	Rack reverse prohibition ON CDS09	Rack forward prohibition ON CDS08
			ISE Lane STATUS					
84					Lane1 Rack Passing	Lane2 Rack Passing	Lane1 Rack Step CMS03	Lane2 Rack Step CMS07
			QC Refrigerator Temperature STATUS					
85				A/D Timeout				
86								
87								
88								
89								
8A								
8B								
8C								
8D								
8E								
8F								

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
90			Com Master STATUS					
	READY	BUSY	DOWN LOAD		PCB ERROR	Transmit ERROR	Receive ERROR	Circuit Cut off
91	Com Master Error Information-							
					COMMUNICATION ERROR	DP-RAM ERROR	S-RAM ERROR	ROM ERROR
92	Com Master Error Information-							
				Number of response Com Slave				
93	Com Slave STATUS (Rack Supply-							
	READY	BUSY						Receive ERROR
94	Com Slave STATUS (Rack Storage-							
	READY	BUSY						Receive ERROR
95	Com Slave STATUS (ANL1 Rack							
	READY	BUSY						Receive ERROR
96	Com Slave STATUS (ANL1 Rack							
	READY	BUSY						Receive ERROR
97	Com Slave STATUS (ANL1 Rack							
	READY	BUSY						Receive ERROR
98	Com Slave STATUS (ANL2 Rack							
	READY	BUSY						Receive ERROR
99	Com Slave STATUS (ANL2 Rack							
	READY	BUSY						Receive ERROR
9A	Com Slave STATUS (ANL2 Rack							
	READY	BUSY						Receive ERROR
9B	Com Slave STATUS (ANL3 Rack							
	READY	BUSY						Receive ERROR
9C	Com Slave STATUS (ANL3 Rack							
	READY	BUSY						Receive ERROR
9D	Com Slave STATUS (ANL3 Rack							
	READY	BUSY						Receive ERROR
9E	Com Slave STATUS (ISE Rack Control1-							
	READY	BUSY						Receive ERROR
9F	Com Slave STATUS (QC Rack Control-							
	READY	BUSY						Receive ERROR
9F	Com Slave STATUS (Rack Control4-CN)							
	READY	BUSY						Receive ERROR

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
A1	Com Slave Semaphore (Rack Supply-							Command not transmited
A2	Com Slave Semaphore (Rack Storage-							Command not transmited
A3	Com Slave Semaphore (ANL1 Rack Control1-							Command not transmited
A4	Com Slave Semaphore (ANL1 Rack Control2-							Command not transmited
A5	Com Slave Semaphore (ANL1 Rack Control3-							Command not transmited
A6	Com Slave Semaphore (ANL2 Rack Control1-							Command not transmited
A7	Com Slave Semaphore (ANL2 Rack Control2-							Command not transmited
A8	Com Slave Semaphore (ANL2 Rack Control3-							Command not transmited
A9	Com Slave Semaphore (ANL3 Rack Control1-							Command not transmited
AA	Com Slave Semaphore (ANL3 Rack Control2-							Command not transmited
AB	Com Slave Semaphore (ANL3 Rack Control3-							Command
AC	Com Slave Semaphore (ISE Rack Control-CM)							Command
AD	Com Slave Semaphore (QC Rack Control-DE)							Command
AE	Com Slave Semaphore (Rack Control4-CN)							Command

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
B0	Communicaton Sub CPU SYSTEM STATUS Command receive possible: 00H Command receive not possible: FFH							
B1	Communication Sub CPU Command STATUS(Out of Regulation					ANL-S.ID /Rack ID		
B6	ANL- > S. ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
B7	ANL- > S. ID Transmission STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
B8	ANL- > S. ID Transmission STATUS			Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
B9	ANL- > S. ID Transmission STATUS							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
BA	ANL- > Rack ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
BB	ANL- > Rack ID Transmission STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
BC	ANL- > Rack ID Transmission STATUS			Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
BD	ANL- > Rack ID Transmission STATUS							
	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
CC	Ethernet Communication/Connection STATUS (Lower							
	Connection ID #7 Connected	Connection ID #6 Connected	Connection ID #5 Connected	Connection ID #4 Connected	Connection ID #3 Connected	Connection ID #2 Connected	Connection ID #1 Connected	Connection ID #0 Connected
CD	Ethernet Communication/Connection STATUS (Higher							
	Connection ID #F Connected	Connection ID #E Connected	Connection ID #D Connected	Connection ID #C Connected	Connection ID #B Connected	Connection ID #A Connected	Connection ID #9 Connected	Connection ID #8 Connected
CE	Ethernet Communication/Connection STATUS2 (Lower							
					Connection ID #83 Connected	Connection ID #82 Connected	Connection ID #81 Connected	Connection ID #80 Connected
D0	Ethernet Communication/Connection ID Information#0 : To IP							
D1	Ethernet Communication/Connection ID Information#0 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D2	Ethernet Communication/Connection ID Information#1 : To IP							
D3	Ethernet Communication/Connection ID Information#1 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D4	Ethernet Communication/Connection ID Information#2 : To IP							
D5	Ethernet Communication/Connection ID Information#2 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D6	Ethernet Communication/Connection ID Information#3 : To IP							
D7	Ethernet Communication/Connection ID Information#3 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D8	Ethernet Communication/Connection ID Information#4 : To IP							
D9	Ethernet Communication/Connection ID Information#4 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DA	Ethernet Communication/Connection ID Information#5 : To IP							
DB	Ethernet Communication/Connection ID Information#5:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DC	Ethernet Communication/Connection ID Information#6 : To IP							
DD	Ethernet Communication/Connection ID Information#6:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DE	Ethernet Communication/Connection ID Information#7 : To IP							
DF	Ethernet Communication/Connection ID Information#7:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
E0		Ethernet Communication/Connection ID Information#8 : To IP						
E1	Connection Installed	Waiting for Connection	Server / Client					
E2		Ethernet Communication/Connection ID Information#9 : To IP						
E3	Connection Installed	Waiting for Connection	Server / Client					
E4		Ethernet Communication/Connection ID Information#A : To IP						
E5	Connection Installed	Waiting for Connection	Server / Client					
E6		Ethernet Communication/Connection ID Information#B : To IP						
E7	Connection Installed	Waiting for Connection	Server / Client					
E8		Ethernet Communication/Connection ID Information#C : To IP						
E9	Connection Installed	Waiting for Connection	Server / Client					
EA		Ethernet Communication/Connection ID Information#D : To IP						
EB	Connection Installed	Waiting for Connection	Server / Client					
EC		Ethernet Communication/Connection ID Information#E : To IP						
ED	Connection Installed	Waiting for Connection	Server / Client					
EE		Ethernet Communication/Connection ID Information#F : To IP						
EF	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
F0	10ms Interrupt (WT_TI_CNT)							
F1	50ms Interrupt (TI_CNT)							
F2	Task being executed (CNOL)							
F3	10ms Interrupt return destination (CS [H])							
F4	10ms Interrupt return destination (CS [L])							
F5	10ms Interrupt return destination (IP [H])							
F6	10ms Interrupt return destination (IP [L])							
F7	50ms Interrupt return destination (CS [H])							
F8	50ms Interrupt return destination (CS [L])							
F9	50ms Interrupt return destination (IP [H])							
FA	50ms Interrupt return destination (IP [L])							
FB			Debugger stsrt Information				TSK MODE	DBG MODE
FC	STACK NEST LEVEL [NESTL (CNOL)]							
FD	Mode (ANL_MODE)							
FE	ANL- > DPR Communication Status (FACT_NO)							
FF	DPR- > ANL Communication Status (FACT_NO)							

● ANL

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
00			ARC NET STATUS					
	Receive Completed	-	-	Reset Occurred	TEST	Connection Cut off	Transmission Normal End	Transmission Completed
01			ARC NET DIAG Register					
	Self Node Cut off	Duplication ID being	Employment right transfer	Transmission right transfer	Transmission Error	Check ID being	-	-
02			ARC NET ADDRESS Register (Higher)					
	READ/WRITE	ADR AUTO INC	-	-	-	A10	A9	A8
03			ARC NET ADDRESS Register (Lower)					
	A7	A6	A5	A4	A3	A2	A1	A0
-			ARC NET Received DATA					
	D7	D6	D5	D4	D3	D2	D1	D0
04			ARC NET Configuration					
	RESET	COMMAND CHAIN	Transmission possible/not	Delay time b1	Delay time b0	DRV wide/exclusive	Sub ADR b1	Sub ADR b0
05			ARC NET SET UP Register (TEND-ID/NODE-ID)					
-	D7	D6	D5	D4	D3	D2	D1	D0
06	DSR	BREAK Detection	Flaming ERROR	Over run ERROR	Parity Error	TxEMP	RxRDY	TxRDY
07	(No connect)	(No connect)	(No connect)	(No connect)	AUTO/STOP LED (AUTO/STOP)	(No connect)	(No connect)	(No connect)
08								
09	-	-	Water Temp Error (WTR_TMP)	Diluton Temp Error (DIL_TMP)	Belt Move Enable (BLTEN)			
-								

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0A	Sample Counter (S.COUNT)	-	-	-	-	Degassed water supply valve **(DCV35)**	Detergent B dilution valve **(DCV34)**	Deionized water bubble without **(DCV33)**
0B	(Not use) (BLTDIS)	Phtometer Cont PCB reset (PHRST)	Lamp power supply P.D ($\overline{PTLIGHT}$)					
0C	-	-	(Not use)	Pure detergent A supply pump **(DCP08)**	(Not use)	(Not use)	(Not use)	(Not use)
-								
0D	UDCD42 Rotary SW							
	($\overline{USW7}$)	($\overline{USW6}$)	($\overline{USW5}$)	($\overline{USW4}$)	($\overline{USW3}$)	($\overline{USW2}$)	($\overline{USW1}$)	($\overline{USW0}$)
0E	UDCD42 8bit LED							
	(ULED7)	(ULED6)	(ULED5)	(ULED4)	(ULED3)	(ULED2)	(ULED1)	(ULED0)
0F	DIAG SW ($\overline{DIAG}$)	(No connect)	STOP SW ($\overline{STOP}$)	AUTO SW ($\overline{AUTO}$)	(No connect)	(No connect)	(No connect)	(No connect)
-								
10	Vacuum Tank		Pure detergent Tank		-	-	Deionized water Tank	
	Standard presure (PRESURE)	Waste Full (WATER)	Pure detergent B Empty (b_EMPTY)	Pure detergent A Empty (a_EMPTY)			Overflow (OVERFL)	Empty (EMPTY)
11	Detergent Tank(B)				Detergent Tank(A)			
	Overflow (A_OVERFL)	Upper limit or over ($\overline{A\_Upper}$)	Lower limit or less ($\overline{A\_Lower}$)	Empty (A_EMPTY)	Overflow (A_OVERFL)	Upper limit or over ($\overline{A\_Upper}$)	Lower limit or less ($\overline{A\_Lower}$)	Empty (A_EMPTY)
12								
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
13	Inner wash water return valve2 **(DCV37)**	Inner wash water return valve1 **(DCV07)**	R22 inner wsah valve **(DCV06)**	R21 inner wsah valve **(DCV05)**	R12 inner wsah valve **(DCV04)**	R11 inner wsah valve **(DCV03)**	S2 inner wsah valve **(DCV02)**	S1 inner wash valve **(DCV01)**
14	Liquid dripping drain valve **(DCV15)**	Mixture drain valve **(DCV14)**	Overflow drain valve **(DCV13)**	Wash water drain valve **(DCV12)**	-	Detergent A dilution valve **(DCV32)**	S2/R12/R22 outer wash valve **(DCV09)**	S1/R11/R12 outer wash valve **(DCV08)**
15	Detergent A dispense valve **(DCV30)**	Detergent B dispense valve **(DCV29)**	Wash water dispense valve 2 **(DCV28)**	Wash water dispense valve 1 **(DCV27)**	-	Detergent A drip prevention valve **(DCV26)**	Detergent B drip prevention valve **(DCV25)**	Wash water drip prevention valve **(DCV24)**
16	Drip air release valve **(DCV23)**	Mixture air release valve **(DCV22)**	Overflow air release valve **(DCV21)**	Aspiration air release valve **(DCV20)**	Liquid dripping aspiration valve **(DCV19)**	Mixture aspiration valve **(DCV18)**	Overflow aspiration valve **(DCV17)**	Wash water aspiration valve **(DCV16)**
17	-	DI water rotation pump **(DCP01)**	Detergent rotation pump **(DCP04)**	Detergent A supply pump **(DCP07)**	-	-	Mix detergent valve **(DCV11)**	Mix wash valve **(DCV10)**
18	Pure detergentB pump **(DCP11)**	Degassed water rotation pump **(DCP12)**	Vacuum tank waste valve **(ACV31)**	Waste pump **(ACP13)**	Degasser (DEGASSOR)		Vacuum pump 2 **(ACP06)**	Vacuum pump 1 **(ACP05)**
	-	-	-	-	-	-	-	-
19	-	-	Concentrate waste overflow (CW_0F)	Non-concentrate waste overflow (NCW_0F)	ANL UNIT No. (AND_D3)	(AND_D2)	(AND_D1)	(AND_D0)
20					Re loading	ANL Cont PCB POWER ON	Reserve DIP SW SW2	SW1

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
	Cuv.Wheel System Status							
40			Rotation not possible		Resetting	Rotation BUSY **M18**	Photometry BUSY	System BUSY
	Cuv.Wheel Error Information							
41	Lamp Bright	Gain Error	Offset Error	A/D Error	Error Channel Outside Main	Error Channel Outside Sub	Error Channel Inside Main	Error Channel Inside Sub
	Cuv.Wheel Rotation.I/F							
42			Parameter Error		Undefined command received	No Wheel operation	Operation not possible because of stop Sens OFF	Operation not possible because of Origin Sens OFF
	Cuv.Wheel Sensor.Flag.INT							
43		Pulse Output Completed	A/D Convert Completed	ARC NET Interrupt			Stop Pos **GAS01**	Origin **GAS00**
	Sample Probe Prohibition Signal							
44	Wheel rotation not possible because of lower sens ON							
	Sample Probe PCB Error							
45								OPMC#1 Error
	Sample Probe Sensor Information 1							
46	Rotation BUSY **FAS09**	Up/Down BUSY **FAS19**	Stop Pos Pos **FAS01**	Origin Pos Pos **FAS00**	Rotation Pos Pos **FAS02**	Crash Detection **FAS21**	Level Detection **FAS12**	Upper Pos **FAS10**
	Sample Probe Sensor Information 2							
47								Middle Pos **FAS11**
	Sample Probe Error Information							
48	Down not possible because of Cuv wheel stop off	Stop for Crash Detection limit		Down not possible because of Rotation Sens OFF		Level Detection Latch		Rotation not Possible because of Upper/Middle Sens OFF
	R11 Probe Prohibition Signal							
49	Wheel rotation not possible because of lower sens ON							R1 Compartment rotation prohibition
	R11 Probe PCB Error Information							
4A								OPMC#1 Error
	R11 Probe Sensor Information 1							
4B	Rotation BUSY **FD11S09**	Up/Down BUSY **FD11S19**	Stop Pos **FD11S01**	Origin Pos (Dsp.) **FD11S00**	Rotation Pos Pos (Asp.) **FD11S02**	Crash Detection **FD11S21**	Level Detection **FD11S12**	Upper Pos **FD11S10**
	R11 Probe Sensor Information 2							
4C								Middle Pos **FD11S11**
	R11 Probe Error Information							
4D	Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
4E	R12 Probe Prohibition Signal Wheel rotation not possible because of lower sens ON							R1 Compartment rotation prohibition
4F	R12 Probe PCB Error							OPMC#1 Error
50	R12 Probe Sensor Information Rotation BUSY **FD01S09**	Up/Down BUSY **FD01S19**	Stop Pos **FD01S01**	Origin Pos (Dsp.) **FD01S00**	Rotation Pos Pos (Asp.) **FD01S02**	Crash Detection **FD01S21**	Level Detection **FD01S12**	Upper Pos **FD01S10**
51	R12 Probe Sensor Information							Middle Pos **FD01S11**
52	R12 Probe Error Information Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF
53	R12 Probe Prohibition Signal Wheel rotation not possible because of lower sens ON			R2 Compartment rotation prohibition				
54	R21 Probe PCB Error							OPMC#1 Error
55	R21 Probe Sensor Information Rotation BUSY **FD31S09**	Up/Down BUSY **FD31S19**	Stop Pos **FD31S01**	Origin Pos (Dsp.) **FD31S00**	Rotation Pos Pos (Asp.) **FD31S02**	Crash Detection **FD31S21**	Level Detection **FD31S12**	Upper Pos **FD31S10**
56	R21 Probe Sensor Information							Middle Pos **FD31S11**
57	R21 Probe Error Information Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF
58	R21 Probe Prohibition Signal Wheel rotation not possible because of lower sens ON			R2 Compartment rotation prohibition				
59	R22 Probe PCB Error							OPMC#1 Error
5A	R22 Probe Sensor Information Rotation BUSY **FD21S09**	Up/Down BUSY **FD21S19**	Stop Pos **FD21S01**	Origin Pos (Dsp.) **FD21S00**	Rotation Pos Pos (Asp.) **FD21S02**	Crash Detection **FD21S21**	Level Detection **FD21S12**	Upper Pos **FD21S10**
5B	R21 Probe Sensor Information							Middle Pos **FD21S11**
5C	R22 Probe Error Information Wheel rotation not possible because of lower sens ON	Stop for Crash Detection limit		Rotation Stop Pos OFF		Level Detection Latch	R1 Compartment access prohibition	Rotation not Possible because of Upper Sens OFF

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
5D	Reagent Compartment Prohibition							
			R21/R22 Down prohibition				R11/R12 Down prohibition	
5E	Reagent Compartment PCB Error							
							OPMC#2 Error	OPMC#1 Error
5F	R1 Compartment Sensor							
	Rotation BUSY **DA01S09**			Bottle Detection **DA01S21**	Cover **DA01S11**	Stop Pos **DA01S01**		Roatation Origin **DA01S00**
60	R2 Compartment Sensor							
	Rotation BUSY **DA11S09**			Bottle Detection **DA11S21**	Cover **DA11S11**	Stop Pos **DA11S01**		Roatation Origin **DA11S00**
61	Reagent Compartment Error							
				R2 Compartment rotation prohibition				R1 Compartment rotation prohibition
62	S1/R11/R21 Dispenser PCB Error							
						OMSC#1(R21) Error	OMSC#1(S1) Error	OMSC#1(R11) Error
63	S1/R11/R21 Dispenser Sensor							
			R21 Lower Pos **SA21S01**	R21 Upper Pos **SA21S00**	S1 Lower Pos **SA01S01**	S1 Upper Pos **SA01S00**	R11 Lower Pos **SA11S01**	R11 Upper Pos **SA11S00**
64	S1/R11/R21 Dispenser Sensor							
						R21 BUSY **SA21S09**	S1 BUSY **SA01S09**	R11 BUSY **SA11S09**
65	S1/R11/R21 Dispenser Clog Sensor							
							Detection (Neg.) **SA01S21**	Detection (Pos.) **SA01S22**
66	S1/R11/R21 Dispenser Sensor							
						R21 Waiting for operation	S1 Waiting for operation	R11 Waiting for operation
67	S2/R12/R22 Dispenser PCB Error							
						OMSC#1(R22) Error	OMSC#1(S2) Error	OMSC#1(R12) Error
68	S2/R12/R22 Dispenser Sensor							
			R22 Lower Pos **SA22S01**	R22 Upper Pos **SA22S00**	S2 Lower Pos **SA02S01**	S2 Upper Pos **SA02S00**	R12 Lower Pos **SA12S01**	R12 Upper Pos **SA12S00**
69	S2/R12/R22 Dispenser Sensor							
						R22 BUSY **SA22S09**	S2 BUSY **SA02S09**	R12 BUSY **SA12S09**
6A	S2/R12/R22 Dispenser Clog Sensor							
							Detection (Neg.) **SA02S21**	Detection (Pos.) **SA02S22**
6B	S2/R12/R22 Dispenser Sensor							
						R22 Waiting for operation	S2 Waiting for operation	R12 Waiting for operation

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
6C	**MIX Prohibition Signal**							
	Cuv.Wheel rotation prohibition							
6D	**MIX PCB Error Information**							
							OPMC#2 Error	OPMC#1 Error
6E	**MIX Sensor Information 1**							
	Rotation BUSY **FCS09**	Up/Down BUSY **FCS19**	Rotation Stop Pos **FCS01**	Rotation Origin **FCS00**				Upper Pos **FCS10**
6F	**MIX Sensor Information 2**							
		Mixing BUSY **FCS29**						
70	**Degassed Water Pump 2 Status**							
	Degassed Water Pump2 BUSY							
71	**MIX Error Information**							
		Down not possible because of Cuv wheel stop off		Rotation Sens OFF				Rotation not possible because of Upper Sens OFF
72	**DIP SW Information**							
	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW0
73	**Cuv.Washer Prohibition Signal**							
	Cuv.Wheel rotation prohibition							
74	**Cuv.Washer PCB Error**							
							OPMC#2 Error	OPMC#1 Error
75	**Cuv.Washer Sensor**							
	Up/Down BUSY **FBS09**	FA Rotation Pos 2 **FAS02**					Lower Pos **FBS01**	Upper Pos **FBS00**
76	**Degassed Water Pump 1 Status**							
	Degassed Water Pump2 BUSY							
77	**Cuv.Washer Error Informaton**							
		Down not possible because of Cuv wheel stop off						

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
				Com Master STATUS				
90	READY	BUSY	DOWN LOAD		PCB ERROR	Transmit ERROR	Receive ERROR	Circuit Cut off
				Com Master Error Information-				
91					COMMUNICATION ERROR	DP-RAM ERROR	S-RAM ERROR	ROM ERROR
				Com Master Error Information-				
92				Number of response Com Slave				
				Com Slave STATUS (Sample Probe)				
93	READY	BUSY						Receive ERROR
				Com Slave STATUS (R11 Probe)				
94	READY	BUSY						Receive ERROR
				Com Slave STATUS (R12 Probe)				
95	READY	BUSY						Receive ERROR
				Com Slave STATUS (R21 Probe)				
96	READY	BUSY						Receive ERROR
				Com Slave STATUS (R22 Probe)				
97	READY	BUSY						Receive ERROR
				Com Slave STATUS (Reagent				
98	READY	BUSY						Receive ERROR
				Com Slave STATUS (S1/R11/R21				
99	READY	BUSY						Receive ERROR
				Com Slave STATUS (S2/R12/R22				
9A	READY	BUSY						Receive ERROR
				Com Slave STATUS (Mix)				
9B	READY	BUSY						Receive ERROR
				Com Slave STATUS (Cuv.Washer)				
9C	READY	BUSY						Receive ERROR

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
A0			Com Slave Semaphore (Sample Probe)					Command not transmited
A1			Com Slave Semaphore (R11 Probe)					Command not transmited
A2			Com Slave Semaphore (R12 Probe)					Command not transmited
A3			Com Slave Semaphore (R21 Probe)					Command not transmited
A4			Com Slave Semaphore (R22 Probe)					Command not transmited
A5			Com Slave Semaphore (Reagent					Command not transmited
A6			Com Slave Semaphore (S1/R11/R21					Command not transmited
A7			Com Slave Semaphore (S2/R12/R22					Command not transmited
A8			Com Slave Semaphore (Mix)					Command not transmited
A9			Com Slave Semaphore (Cuv.Washer)					Command not transmited

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
B0	Communicaton Sub CPU SYSTEM STATUS Command receive possible: 00H Command receive not possible: FFH							
B1	Communication Sub CPU Command STATUS(Out of Regulation		ANL-Reagent					
C2	ANL- > R1 Reagent ID Transmission STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
C3	ANL<- R1 Reagent ID Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C4			ANL- > R1 Reagent ID Transmission Error	Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
C5	Duplication Received		ANL<- R1 Reagent ID Receive Error Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
C6	ANL- > R2 Reagent ID Transmission STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C7	ANL<- R2 Reagent ID Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
C8			ANL- > R2 Reagent ID Transmission Error	Character Transmission Time Out		Transmission response Time Out	ENQ Time Out	
C9	Duplication Received		ANL<- R2 Reagent ID Receive Error Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
CA			Temperature STATUS	A/D Time Out				

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
CC	Ethernet Communication/Connection STATUS (Lower							
	Connection ID #7 Connected	Connection ID #6 Connected	Connection ID #5 Connected	Connection ID #4 Connected	Connection ID #3 Connected	Connection ID #2 Connected	Connection ID #1 Connected	Connection ID #0 Connected
CD	Ethernet Communication/Connection STATUS (Higher							
	Connection ID #F Connected	Connection ID #E Connected	Connection ID #D Connected	Connection ID #C Connected	Connection ID #B Connected	Connection ID #A Connected	Connection ID #9 Connected	Connection ID #8 Connected
CE	Ethernet Communication/Connection STATUS2 (Lower							
					Connection ID #83 Connected	Connection ID #82 Connected	Connection ID #81 Connected	Connection ID #80 Connected
D0	Ethernet Communication/Connection ID Information#0 : To IP							
D1	Ethernet Communication/Connection ID Information#0 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D2	Ethernet Communication/Connection ID Information#1 : To IP							
D3	Ethernet Communication/Connection ID Information#1 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D4	Ethernet Communication/Connection ID Information#2 : To IP							
D5	Ethernet Communication/Connection ID Information#2 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D6	Ethernet Communication/Connection ID Information#3 : To IP							
D7	Ethernet Communication/Connection ID Information#3 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D8	Ethernet Communication/Connection ID Information#4 : To IP							
D9	Ethernet Communication/Connection ID Information#4 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DA	Ethernet Communication/Connection ID Information#5 : To IP							
DB	Ethernet Communication/Connection ID Information#5:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DC	Ethernet Communication/Connection ID Information#6 : To IP							
DD	Ethernet Communication/Connection ID Information#6:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DE	Ethernet Communication/Connection ID Information#7 : To IP							
DF	Ethernet Communication/Connection ID Information#7:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
E0		Ethernet Communication/Connection ID Information#8 : To IP						
E1	Connection Installed	Waiting for Connection	Server / Client					
E2		Ethernet Communication/Connection ID Information#9 : To IP						
E3	Connection Installed	Waiting for Connection	Server / Client					
E4		Ethernet Communication/Connection ID Information#A : To IP						
E5	Connection Installed	Waiting for Connection	Server / Client					
E6		Ethernet Communication/Connection ID Information#B : To IP						
E7	Connection Installed	Waiting for Connection	Server / Client					
E8		Ethernet Communication/Connection ID Information#C : To IP						
E9	Connection Installed	Waiting for Connection	Server / Client					
EA		Ethernet Communication/Connection ID Information#D : To IP						
EB	Connection Installed	Waiting for Connection	Server / Client					
EC		Ethernet Communication/Connection ID Information#E : To IP						
ED	Connection Installed	Waiting for Connection	Server / Client					
EE		Ethernet Communication/Connection ID Information#F : To IP						
EF	Connection Installed	Waiting for Connection	Server / Client					

● ISE

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
00								
01								
02								
03								
-								
04								
05								
-								
06								
07	ANL - > ISE2 Sync Signal (SYNC2)	ANL - > ISE1 Sync Signal (SYNC1)	DIAG SW (DIAG)		AUTO/STOP LED (AUTO/STOP)	Waste pump		
08	LA Signal (REQUESTR)	LA Signal (MOVER)	ISE-2 ISE READY (ISERDY)	ISE-2 ISE POWER ON (ISEON)	ISE-2 Cover. (COVER)	ISE-2 BUFFER Empty (BUFF)	ISE-2 REF Empty (REF)	ISE-2 MID Empty (MID)
09					Belt Move Enable (BLTEN)			
-								

ADDR	Contents DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0A								
0B								
0C						Washer pump **(DCV03)**	S outerr wsah valve **(DCV02)**	S inner wash valve **(DCV01)**
-								
0D	UDCD42 Rotary SW (USW7)	(USW6)	(USW5)	(USW4)	(USW3)	(USW2)	(USW1)	(USW0)
0E	UDCD42 8bit LED (ULED7)	(ULED6)	(ULED5)	(ULED4)	(ULED3)	(ULED2)	(ULED1)	(ULED0)
0F	DIAG SW (DIAG)		STOP SW (STOP)	AUTO SW (AUTO)	Waste pump			
-								
10								
11								
12	-	-	ISE-1 ISE READY (ISERDY)	ISE POWER ON (ISEON)	Cover. (COVER)	BUFFER Empty (BUFF)	REF Empty (REF)	MID Empty (MID)
-								

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
13								
14								
15								
16								
17								
18								
19	-	-	Concentrate waste overflow (CW 0F)	Non-concentrate waste overflow (NCW 0F)	ISE UNIT No. (AND D3)	(AND D2)	(AND D1)	(AND D0)
20					Re loading	ANL Cont PCB POWER ON	Reserve DIP SW SW2	SW1

ADDR	Contents							
	DB7	**DB6**	**DB5**	**DB4**	**DB3**	**DB2**	**DB1**	**DB0**
40	**Sample Probe Prohibition Signal**							
	Wheel rotation not possible because of lower sens ON							
41	**Sample Probe PCB Error**							
								OPMC#1 Error
42	**Sample Probe Sensor Information 1**							
	Rotation BUSY **FAS09**	Up/Down BUSY **FAS19**	Stop Pos Pos **FAS01**	Origin Pos Pos **FAS00**	Rotation Pos Pos **FAS02**	Crash Detection **FAS21**	Level Detection **FAS12**	Upper Pos **FAS10**
43	**Sample Probe Sensor Information 2**							
								Middle Pos **FAS11**
44	**Sample Probe Error Information**							
	Down not possible because of Cuv wheel stop off	Stop for Crash Detection limit		Down not possible because of Rotation Sens OFF		Level Detection Latch		Rotation not Possible because of Upper/Middle Sens OFF
45	**ISE Dispenser PCB Error Information**							
						OMSC#1(R21) Error	OMSC#1(S1) Error	OMSC#1(R11) Error
46	**ISE Dispenser Sensor Information 2**							
			R21 Lower Pos **SA21S01**	R21 Upper Pos **SA21S00**	S1 Lower Pos **SA01S01**	S1 Upper Pos **SA01S00**	R11 Lower Pos **SA11S01**	R11 Upper Pos **SA11S00**
47	**ISE Dispenser Sensor Information 1**							
						R21 BUSY **SA21S09**	S1 BUSY **SA01S09**	R11 BUSY **SA11S09**
48	**ISE Dispenser Clog Sensor Information**							
							Detection (Neg.) **SA01S21**	Detection (Pos.) **SA01S22**
49	**ISE Dispenser Sensor Information 3**							
						R21 Waiting for operation	S1 Waiting for operation	R11 Waiting for operation

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
90	Com Master STATUS							
	READY	BUSY	DOWN LOAD		PCB ERROR	Transmit ERROR	Receive ERROR	Circuit Cut off
91	Com Master Error Information-							
					COMMUNICATION ERROR	DP-RAM ERROR	S-RAM ERROR	ROM ERROR
92	Com Master Error Information-							
	Number of response Com Slave							
93	Com Slave STATUS (Sample Probe)							
	READY	BUSY						Receive ERROR
94	Com Slave STATUS (Dispenser)							
	READY	BUSY						Receive ERROR
A0	Com Slave Semaphore (Sample Probe)							
								Command not transmited
A1	Com Slave Semaphore (S1/R11/R21							
								Command not transmited

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
B0	Communicaton Sub CPU SYSTEM STATUS Command receive possible: 00H Command receive not possible: FFH							
B1	Communication Sub CPU Command STATUS(Out of Regulation		ANL-Reagent	ANL-STAT		ANL-S.ID /Rack ID	ANL-ISE	CMD issued during ISE stop
B2	ANL- > ISE1 Communication STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
B3	ANL<- ISE1 Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
B4			ANL- > ISE1 Transmit Error Information		Character Transmission Time Out		Transmission response Time Out	ENQ Time Out
B5	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
			ANL < - ISE1 Receive Error Information					
B6	ANL- > ISE2 Communication STATUS At the time of Transmission Request:FFH During Transmission:80H Transmission Normal End:00H Transmission Abnormal End:F0H Transmission Stop:01H							
B7	ANL<- ISE2 Receive STATUS Text Connection Completion:00H During Receive:80H Receive Normal End:FFH Receive Abnormal End:F0H							
B8			ANL- > ISE2 Transmit Error Information		Character Transmission Time Out		Transmission response Time Out	ENQ Time Out
B9	Duplication Received		Flaming ERROR	Over run ERROR	Without ETX	BCC Error	Receive Time Out	Text Length Error
			ANL < - ISE2 Receive Error Information					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
CC	Ethernet Communication/Connection STATUS (Lower							
	Connection ID #7 Connected	Connection ID #6 Connected	Connection ID #5 Connected	Connection ID #4 Connected	Connection ID #3 Connected	Connection ID #2 Connected	Connection ID #1 Connected	Connection ID #0 Connected
CD	Ethernet Communication/Connection STATUS (Higher							
	Connection ID #F Connected	Connection ID #E Connected	Connection ID #D Connected	Connection ID #C Connected	Connection ID #B Connected	Connection ID #A Connected	Connection ID #9 Connected	Connection ID #8 Connected
CE	Ethernet Communication/Connection STATUS2 (Lower							
					Connection ID #83 Connected	Connection ID #82 Connected	Connection ID #81 Connected	Connection ID #80 Connected
D0	Ethernet Communication/Connection ID Information#0 : To IP							
D1	Ethernet Communication/Connection ID Information#0 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D2	Ethernet Communication/Connection ID Information#1 : To IP							
D3	Ethernet Communication/Connection ID Information#1 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D4	Ethernet Communication/Connection ID Information#2 : To IP							
D5	Ethernet Communication/Connection ID Information#2 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D6	Ethernet Communication/Connection ID Information#3 : To IP							
D7	Ethernet Communication/Connection ID Information#3 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
D8	Ethernet Communication/Connection ID Information#4 : To IP							
D9	Ethernet Communication/Connection ID Information#4 :STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DA	Ethernet Communication/Connection ID Information#5 : To IP							
DB	Ethernet Communication/Connection ID Information#5:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DC	Ethernet Communication/Connection ID Information#6 : To IP							
DD	Ethernet Communication/Connection ID Information#6:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					
DE	Ethernet Communication/Connection ID Information#7 : To IP							
DF	Ethernet Communication/Connection ID Information#7:STATUS1							
	Connection Installed	Waiting for Connection	Server / Client					

ADDR	Contents							
	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
E0		Ethernet Communication/Connection ID Information#8 : To IP						
E1	Connection Installed	Waiting for Connection	Server / Client					
E2		Ethernet Communication/Connection ID Information#9 : To IP						
E3	Connection Installed	Waiting for Connection	Server / Client					
E4		Ethernet Communication/Connection ID Information#A : To IP						
E5	Connection Installed	Waiting for Connection	Server / Client					
E6		Ethernet Communication/Connection ID Information#B : To IP						
E7	Connection Installed	Waiting for Connection	Server / Client					
E8		Ethernet Communication/Connection ID Information#C : To IP						
E9	Connection Installed	Waiting for Connection	Server / Client					
EA		Ethernet Communication/Connection ID Information#D : To IP						
EB	Connection Installed	Waiting for Connection	Server / Client					
EC		Ethernet Communication/Connection ID Information#E : To IP						
ED	Connection Installed	Waiting for Connection	Server / Client					
EE		Ethernet Communication/Connection ID Information#F : To IP						
EF	Connection Installed	Waiting for Connection	Server / Client					

1. I / O Port Table (ANL)

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	1	R1 REF (DA01) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
0	2	R1 REF (DA01) / Rotation	SENSOR_STATUS							
				Stop sensor DAS02				Bottle sensor DAS04	Cover sensor DAS03	Origin sensor DAS01
0	3	R1 REF (DA01) / Rotation	SENSOR REVERSE_STATUS							
				Stop position Latch						
0	4	R1 REF (DA01) / Rotation	SENSOR_PASSING NUMBER 1 R1 REF stop position monitor							
0	5	R2 REF (DA11) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
0	6	R2 REF (DA11) / Rotation	SENSOR_STATUS							
				Stop sensor DSA12				Bottle sensor DSA14	Cover sensor DSA13	Origin sensor DSA11
0	7	R2 REF (DA11) / Rotation	SENSOR REVERSE_STATUS							
				Stop position Latch						
0	8	R2 REF (DA11) / Rotation	SENSOR_PASSING NUMBER 1 Stop position monitor							

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	9	INNER S transfer unit (FA01) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
0	A	INNER S transfer unit (FA01) / Up down	SENSOOR_STATUS							
						S probe Liquid detection sensor FAS10	S probe crash detection sensor FAS09	Upper sensor FAS01		Middle 1 sensor FAS02
0	B	INNER S transfer unit (FA01) / Up down	EXTERNAL SENSOR_STATUS							
			Down inhibition	Rotation Busy	Up down Busy					
0	C	INNER S transfer unit (FA01) / Up down	SENSOR REVERSE_STATUS							
						S Probe liquid detection Latch	S Probe crash detection Latch			
0	D	INNER S transfer unit (FA01) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
0	E	INNER S transfer unit (FA01) / Rotation	SENSOR_STATUS							
						Rotation area 2 sensor FAS08	Rotation area 1 sensor FAS07	Rotation stop 2 sensor FAS06	Rotation stop 1 sensor FAS05	Rotation origin sensor FAS04
0	F	OUTER S Transfer unit (FA11) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	0	OUTER S Transfer unit (FA11) / Up down	SENSOR_STATUS			S Probe liquid detection sensor FAS20	S Probe crash detection sensor FAS19	Upper sensor FAS11		Middle 1 sensor FAS12
1	1	OUTER S Transfer unit (FA11) / Up down	EXTERNAL SENSOR_STATUS							
			Down inhibition	Rotation Busy	Up down Busy					
1	2	OUTER S Transfer unit (FA11) / Up down	SENSOR REVERSE_STATUS			S Probe liquid detection Latch	S Probe crash detection Latch			
1	3	OUTER S Transfer unit (FA11) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
1	4	OUTER S Transfer unit (FA11) / Rotation	SENSOR_STATUS			Rotation area 2 sensor FAS18	Rotation area 1 sensor FAS17	Rotation stop 2 sensor FAS16	Rotation stop 1 sensor FAS15	Rotation origin sensor FAS14
1	5	Sample Shutter unit (CJ01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Busy		
1	6	Sample Shutter unit (CJ01)	SENSOR_STATUS					Stop sensor 2 (Passing lane) CJS03	Stop sensor 1 (Dispensing lane) CJS02	Origin sensor (Refuge position) CJS01
1	7	Cuvette Wash unit (FB01) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	8	Cuvette Wash unit (FB01) / Up down	SENSOR_STATUS						Lower sensor FBS02	Upper sensor FBS01
1	9	Cuvette Wash unit (FB01) / Up down	EXTERNAL SENSOR_STATUS Down inhibition							
1	A	S/R Mix unit (FC01) / Up down	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
1	B	S/R Mix unit (FC01) / Up down	SENSOR_STATUS						Lower sensor FCS02	Upper sensor FCS01
1	C	S/R Mix unit (FC01) / Up down	EXTERNAL SENSOR_STATUS Down inhibition	Rotation Busy						
1	D	S/R Mix unit (FC01) / Rotation	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
1	E	S/R Mix unit (FC01) / Rotation	SENSOR_STATUS	Rotation stop sensor FCS04						Rotation origin sensor FCS03
1	F	S/R Mix unit (FC01) / Rotation	SENSOR REVERSE_STATUS	Rotation stop Latch						
2	0	S/R Mix unit (FC01) / Mix rotation	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Mix Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	1	S/R Mix unit (FC01) / Mix rotation	SENSOR_STATUS							
				Monitor sensor FCS05						
2	2	S/R Mix unit (FC01) / Mix rotation	SENSOR_PASSING NUMBER 1 S/R Mix monitor							
2	3	R2 Mix unit (FC11) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
2	4	R2 Mix unit (FC11) / Up down	SENSOR_STATUS							
									Lower sensor FCS12	Upper sensor FCS11
2	5	R2 Mix unit (FC11) / Up down	EXTERNAL SENSOR_STATUS							
			Down inhibition	Rotation Busy						
2	6	R2 Mix unit (FC11) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
2	7	R2 Mix unit (FC11) / Rotation	SENSOR_STATUS							
				Rotation stop sensor FCS14						Rotation origin sensor FCS13
2	8	R2 Mix unit (FC11) / Rotation	SENSOR REVERSE_STATUS							
				Rotation stop Latch						
2	9	R2 Mix unit (FC11) / Mix rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Mix Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	A	R2 Mix unit (FC11) / Mix rotation	SENSOR_STATUS							
				Mix monitor sensor FCS15						
2	B	R2 Mix unit (FC11) / Mix rotation	SENSOR_PASSING NUMBER 1 R2 Mix monitor							
2	C	INNER R1 Transfer unit (FD01) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
2	D	INNER R1 Transfer unit (FD01) / Up down	SENSOR_STATUS							
						R1 Probe liquid detection sensor FDS10	R1 Probe crash detection sensor FDS09	Upper sensor FDS01	Middle 2 sensor FDS03	Middle 1 sensor FDS02
2	E	INNER R1 Transfer unit (FD01) / Up down	EXTERNAL SENSOR_STATUS							
			Down inhibition	Rotation Busy	Up down Busy					
2	F	INNER R1 Transfer unit (FD01) / Up down	SENSOR REVERSE_STATUS							
						R1 Probe liquid detection Latch	R1 Probe crash detection Latch			
3	0	INNER R1 Transfer unit (FD01) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
3	1	INNER R1 Transfer unit (FD01) / Rotation	SENSOR_STATUS							
						Rotation area 2 sensor FDS08	Rotation area 1 sensor FDS07	Rotation stop 2 sensor FDS06	Rotation stop 1 sensor FDS05	Rotation origin sensor FDS04

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	2	OUTER R1 Transfer unit (FD11) / Up down	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
3	3	OUTER R1 Transfer unit (FD11) / Up down	SENSOR_STATUS			R1 Probe liquid detection sensor FDS20	R1 Probe crash detection sensor FDS19	Upper sensor FDS11	Middle 2 sensor FDS13	Middle 1 sensor FDS12
3	4	OUTER R1 Transfer unit (FD11) / Up down	EXTERNAL SENSOR_STATUS Down inhibition	Rotation Busy	Up down Busy					
3	5	OUTER R1 Transfer unit (FD11) / Up down	SENSOR REVERSE_STATUS			R1 Probe liquid detection Latch	R1 Probe crash detection Latch			
3	6	OUTER R1 Transfer unit (FD11) / Rotation	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
3	7	OUTER R1 Transfer unit (FD11) / Rotation	SENSOR_STATUS			Rotation area 2 sensor FDS18	Rotation area 1 sensor FDS17	Rotation stop 2 sensor FDS16	Rotation stop 1 sensor FDS15	Rotation origin sensor FDS14
3	8	INNER R2 Transfer unit (FD21) / Up down	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	9	INNER R2 Transfer unit (FD21) / Up down	SENSOR_STATUS			R2 Probe liquid detection sensor FDS30	R2 Probe crash detection sensor FDS29	Upper sensor FDS21	Middle 2 sensor FDS23	Middle 1 sensor FDS22
3	A	INNER R2 Transfer unit (FD21) / Up down	EXTERNAL SENSOR_STATUS							
			Down inhibition	Rotation Busy	Up down Busy					
3	B	INNER R2 Transfer unit (FD21) / Up down	SENSOR REVERSE_STATUS							
						R2 Probe liquid detection Latch	R2 Probe crash detection Latch			
3	C	INNER R2 Transfer unit (FD21) / Rotation	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
3	D	INNER R2 Transfer unit (FD21) / Rotation	SENSOR_STATUS							
						Rotation area 2 sensor FDS28	Rotation area 1 sensor FDS27	Rotation stop 2 sensor FDS26	Rotation stop 1 sensor FDS25	Rotation origin sensor FDS24
3	E	OUTER R2 Transfer unit (FD31) / Up down	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Up down Busy		
3	F	OUTER R2 Transfer unit (FD31) / Up down	SENSOR_STATUS							
						R2 Probe liquid detection sensor FDS40	R2 Probe crash detection sensor FDS39	Upper sensor FDS31	Middle 2 sensor FDS33	Middle 1 sensor FDS32

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	0	OUTER R2 Transfer unit (FD31) / Up down	EXTERNAL SENSOR_STATUS Down inhibition	Rotation Busy	Up down Busy					
4	1	OUTER R2 Transfer unit (FD31) / Up down	SENSOR REVERSE_STATUS 			R2 Probe liquid detection Latch	R2 Probe crash detection Latch			
4	2	OUTER R2 Transfer unit (FD31) / Ratation	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Rotation Busy		
4	3	OUTER R2 Transfer unit (FD31) / Rotation	SENSOR_STATUS 			Rotation area 2 sensor FDS38	Rotation area 1 sensor FDS37	Rotation stop 2 sensor FDS36	Rotation stop 1 sensor FDS35	Rotation origin sensor FDS34
4	4	INNER S Dispenser (SA02)	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
4	5	INNER S Dispenser (SA02)	SENSOR_STATUS 					Pressure sensor	Lower sensor SAS02	Upper sensor SAS01
4	6	INNER R1 Dispenser (SA01)	OPMC_STATUS OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
4	7	INNER R1 Dispenser (SA01)	SENSOR_STATUS 						Lower sensor SAS06	Upper sensor SAS05

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	8	INNER R2 Dispenser (SA01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
4	9	INNER R2 Dispenser (SA01)	SENSOR_STATUS							
									Lower sensor SAS10	Upper sensor SAS09
4	A	OUTER S Dispenser (SA02)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
4	B	OUTER S Dispenser (SA02)	SENSOR_STATUS							
								Pressure sensor	Lower sensor SAS04	Upper sensor SAS03
4	C	OUTER S Dispenser (SA02)				Pressure				
			Clot aspiration 1	Clot aspiration 2	Clot aspiration 3	Bubble aspiration		Illegal order		
4	D	OUTER S Dispenser (SA02)	Clot COM error							
4	E	OUTER R1 Dispenser (SA01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
4	F	OUTER R1 Dispenser (SA01)	SENSOR_STATUS							
									Lower sensor SAS08	Upper sensor SAS07

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	0	OUTER R2 Dispenser (SA01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
5	1	OUTER R2 Dispenser (SA01)	SENSOR_STATUS							
									Lower sensor SAS12	Upper sensor SAS11
5	2	INNER inside wash Dispenser (SA01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
5	3	INNER inside wash Dispenser (SA01)	SENSOR_STATUS							
									Lower sensor SAS14	Upper sensor SAS13
5	4	OUTER inside wash Dispenser (SA01)	OPMC_STATUS							
			OPMC.READY	OPMC.BUSY	OPMC.ILL_PRM	OPMC.ERR	CMD.END	Dispenser Busy		
5	5	OUTER inside wash Dispenser (SA01)	SENSOR_STATUS							
									Lower sensor SAS16	Upper sensor SAS15
5	6	Cuvette Wheel (GA01) / Rotation	Arcnet_INT							
			RI	Cuvette Wheel		POR/DMA_END	TEST/NAK	RECON	TMA/NextID	TA
5	7	Cuvette Wheel (GA01) / Rotation	Arcnet_Diag/Cmd							
			MyRecon	DupID	Rcvact	TOKEN/D4	NAK	TentID	NextID	
5	8	Cuvette Wheel (GA01) / Rotation	Arcnet_Config							
			RESET	CCHEN	TXEN	ET1	ET2	BackPlane	SubA1	SubA0

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	9	Cuvette Wheel (GA01) / Rotation	(10R)GA Cmd Response							
			In Error			Wheel rotation inhibition	In initilyzing	Wheel rotation Busy	Meaureing Busy	SystemBusy
5	A	Cuvette Wheel (GA01) / Rotation	(10R)GA rewriting response							
			DL mode	In Rewriting CPLD	Time out	Erase failure	Compare failure	Upper limt of rewriting	Rewrite failure	Normal end
5	B	Cuvette Wheel (GA01) / Rotation	(10R)GA Error Information (1)							
				ROM rewrite error	CPLD rewrite error	A/Derror	Lamp bright error		Command error	Parameter error
5	C	Cuvette Wheel (GA01) / Rotation	(10R)GA Error Information (3)							
							Error at rotation inhibition	Error at rotation start	Wheel stop Latch	Initialize error
5	D	Cuvette Wheel (GA01) / Rotation							Stop sensor GAS02	Origin sensor GAS01
5	E	Cuvette Wheel (GA01) / Rotation	REF Error				Wheel rotation inhibition	GA access inhibition		
5	F	ANL Main body (AA01)	Mixture aspiration valve (V31) AAV31	Air release valve for mixture (V30) AAV30	Overflow aspiration valve (V29) AAV29	Air release valve for overflow (V28) AAV28	Vacuum tank drain valve (V32) AAV32	Overflow drain valve (V25) AAV25	OUTER S probe inside wash valve (V2) AAV02	INNER S probe inside wash valve (V1) AAV01
6	0	ANL Main body (AA01)	OUTER R2 probe inside wash valve (V6) AAV06	INNER R2 probe inside wash valve (V5) AAV05	OUTER R1 probe inside wash valve (V4) AAV04	INNER R1 probe inside wash valve (V3) AAV03	OUTER R probe inside switch valve (V40) AAV40	INNER R probe inside switch valve (V39) AAV39	S/R probe inside wash return valve (V38) AAV38	Detergent dilution valve (V34) AAV34

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	1	ANL Main body (AA01)	D.I. water supply valve 1 CAV01 (V28)	D.I water supply option valve OPDV01	Vacuum pump 2 (P12) AAP12	Vacuum pump 1 (P11) AAP11	Waste water pump (P8) AAP08		Degasser pump (P14) AAP14	D.I water supply valve 2 (V33) AAV33
6	2	ANL Main body (AA01)	OUTER cuvette wash detergent valve 1 (V18) AAV18	INNER cuvette wash water valve 3 (V15) AAV15	INNER cuvette wash water valve 1 (V13) AAV13	INNER cuvette wash detergent valve 1 (V11) AAV11				
6	3	ANL Main body (AA01)	Wash water drain valve V26) AAV26	S probe outside wash valve 2 for HbA1c (V37) AAV37	S probe outside wash peservoir valve for HbA1c (V36) AAV36	S probe outside wash valve 1 for HbA1c (V35) AAV35	OUTER cuvette wash water valve 5 (V24) AAV24	INNER cuvette wash water valve 5 (V17) AAV17	OUTER cuvette wash water valve 3 (V22) AAV22	OUTER cuvette wash water valve 1 (V20) AAV20
6	4	ANL Main body (AA01)			R1 probe cold water valve (V41) AAV41	Mixing bar detergent valve (V10) AAV10	Mixing bar wash water valve (V9) AAV09	OUTER S/R probe outside wash valve (V8) AAV08	INNER S/R probe outside wash valve (V7) AAV07	Mixture drain valve (V27) AAV27
6	5	ANL Main body (AA01)			Replenishment detergent pump (P7) AAP07	Detergent pump (P6) AAP06		Diluted detergent pump (P5) AAP05	Detergent dilution water pump (P4) AAP04	D.I water pump (P1) AAP01
6	6	ANL Main body (AA01)				INI_ARC				ARC_RES
6	8	ANL Main body (AA01)			LED in AUTO/STOP Switch PLED5		Not in use	LED in front diag switch PLED2		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	9	ANL Main body (AA01)				Inhibition signal for passing lane	Output 3 for LA I/O	Inhibition signal for dispensing lane	Trigger signal for passing lane	Trigger signal for dispensing lane
6	A	ANL Main body (AA01)	Degassed water supply pump (P2) AAP02							
6	B	ANL Main body (AA01)	CD42_LED7	CD42_LED6	CD42_LED5	CD42_LED4	CD42_LED3	CD42_LED2	CD42_LED1	CD42_LED0
6	C	ANL Main body (AA01)	Detection of REFpower failure	ANL power ON						
6	D	ANL Main body (AA01)					ANL unit number input			
6	E	ANL Main body (AA01)	Diluted detergent tank float SW (Empty) AAFS02-4	Diluted detergent tank float SW (Lower) AAFS02-3	Diluted detergent tank float SW (Upper) AAFS02-2	Diluted detergent tank float SW (Overflow) AAFS02-1	D.I. water tank float SW (Empty) AAFS01-4	D.I. water tank float SW (Lower) AAFS01-3	D.I. water tank float SW (Upper) AAFS01-2	D.I. water tank float SW (Overflow) AAFS01-1
6	F	ANL Main body (AA01)				Vacuum tank float SW AAFS06	Detergent tank float SW (Empty) AAFS03-4	Detergent tank float SW (Lower) AAFS03-3	Detergent tank float SW (Upper) AAFS03-2	Detergent tank float SW (Overflow) AAFS03-1
7	0	ANL Main body (AA01)							Washing waste water tank float SW AAFS04	Concentrated waste water tank float SW AAFS05

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	1	ANL Main body (AA01)					STOP_SW PSW3	AUTO_SW PSW2	Not in use	DIAG SW (Front) PSW0
7	2	ANL Main body (AA01)				LA_IN 4 LA14	LA_IN 3 LA13	LA_IN 2 LA12	LA_IN 1 LA11	LA_IN 0 LA10
7	3	ANL Main body (AA01)								Abnormal vacuum pressure
7	4	ANL Main body (AA01)	Status of D.I. water supply valve 1 (CAV01) SSR1	Status of D.I water supply option valve (OPD) SSR2						Status of D.I water supply valve 2 (V33) ACD2
7	5	ANL Main body (AA01)	Debug DIP_SW Data							

2. I / O Port Table (Standard Sampler)

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	1	Rack loading unit (CB01) / Pusher movement	Out put					Sample counter	Loading try 1 (Orange LED) CALED03	Loading try 1 (Green LED) CALED02
0	2	Rack loading unit (CB01) / Pusher movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB1 Pusher Busy		
0	3	Rack loading unit (CB01) / Pusher movement	SENSOR_STATUS				CA unloading tray 1 detect sensor CAS11	CB1 pusher sensor CBS03		CB1 pusher origin sensor CBS01
0	4	Rack loading unit (CB01) / Receiver movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB1 Receiver Busy		
0	5	Rack loading unit (CB01) / Receiver movement	SENSOR_STATUS	Priority rack 1 rack detect sensor 2 CAS03	Priority rack 1 rack detect sensor 1 CAS02				CB1 Receiver stop position sensor CBS05	CB1 receiver origin sensor CBS04
0	6	Rack loading unit (CB02) / Pusher movement	Out put						Loading try 2 (Orange LED) CALED05	Loading try 2 (Green LED) CALED04
0	7	Rack loading unit (CB02) / Pusher movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB2 Pusher Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	8	Rack loading unit (CB02) / Pusher movement	SENSOR_STATUS				CA unloading tray 2 detect sensor CAS12	CB2 pusher sensor CBS13		CB2 pusher origin sensor CBS11
0	9	Rack loading unit (CB02) / Receiver movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB2 Receiver Busy		
0	A	Rack loading unit (CB02) / Receiver movement	SENSOR_STATUS	Priority rack 2 rack detect sensor 2 CAS16	Priority rack 2 rack detect sensor 1 CAS15				CB2 Receiver stop position sensor CBS15	CB2 receiver origin sensor CBS14
0	B	ID read unit (CC01) / Lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CC Lever1 Busy		
0	C	ID read unit (CC01) / Lever 1 movement	SENSOR_STATUS CC lever 1 stop position sensor CCS02	Cup detect 5 CCS11	Cup detect 4 CCS10	Cup detect 3 CCS09	Cup detect 2 CCS08	Cup detect 1 CCS07	CA loading rack detect sensor CAS17	CC lever 1 origin sensor CCS01
0	D	ID read unit (CC01) / Lever 1 movement	SENSOR REVERSE_STATUS CC lever 1 stop position sensor CCS02							
0	E	ID read unit (CC01) / Lever 1 movement	SENSOR_PASSING NUMBER 2 CC lever 1 stop position sensor monitor CCS02							
0	F	ID read unit (CC01) / Lever 2 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CC Lever 2 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	0	ID read unit (CC01) / Lever 2 movement	SENSOR_STATUS							
			Rack type CCS05					CC rack detect sensor CCS06	CC lever 2 stop position sensor CCS04	CC lever 2 origin sensor CCS03
1	1	Unloading rack feed unit (CF01) / Lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CF Lever Busy		
1	2	Unloading rack feed unit (CF01) / Lever movement	SENSOR_STATUS							
								CF lever stop position sensor 2 CFS03	CF lever stop position sensor 1 CFS02	CF lever origin sensor CFS01
1	3	Rack unloading unit (CG01) / Lver movement	Out put							
							Power control of rack detection 2 on CA unit	Power control of rack detection 1 on CA unit		Unloading tray 1 LED CALED06
1	4	Rack unloading unit (CG01) / Lver movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CG Lever Busy		
1	5	Rack unloading unit (CG01) / Lver movement	SENSOR_STATUS							
				CA unloading tray 2 detect sensor CAS14	CA unloading tray 1 detect sensor CAS13	CG rack detect sensor CGS05	CA unloading rack detect sensor 2 CAS10	CA unloading rack detect sensor 1 CAS09	CG lever stop position sensor CGS02	CG lever origin sensor CGS01
1	6	Passing lane feed unit (CE01) / Passing lane lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CE Passing lane lever Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	7	Passing lane feed unit (CE01) / Passing lane lever movement	SENSOR_STATUS					CA passing lane rack detect sensor CAS06	CE passing lane lever stop position sensor CES02	CE passing lane lever origin sensor CES01
1	8	Dispensing lane feed unit (CE11) / Dispensing lane lever movement	OPMC_STATUS					CE dispensing lane lever Busy		
1	9	Dispensing lane feed unit (CE11) / Dispensing lane lever movement	SENSOR_STATUS					CA dispensing lane rack detect sensor CAS07	CE dispensing lane lever stop position sensor CES12	CE dispensing lane lever origin sensor CES11
1	A	Recovery rack feed unit (CL01) / Lever movement	OPMC_STATUS					CL Lever Busy		
1	B	Recovery rack feed unit (CL01) / Lever movement	SENSOR_STATUS					CA recovery lane rack detect sensor CAS08	CL lever stop position sensor CLS02	CL lever origin sensor CLS01
1	C	ISE rack transport unit (CM01) / Dispensing lane belt movement	OPMC_STATUS					ISE dispensing lane belt Busy		
1	D	ISE rack transport unit (CM01) / Dispensing lane belt movement	SENSOR_STATUS					Dispensing lane step sensor CMS08		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	E	ISE rack transport unit (CM01) / Dispensing lane lever movement	Out put							
									FA movement inhibition to dispensing lane lever	
1	F	ISE rack transport unit (CM01) / Dispensing lane lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Dispensing lane lever Busy		
2	0	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR_STATUS							
				Dispensing lane lever stop position sensor CMS07		Dispensing lane lever movement inhibition				Dispensing lane lever origin sensor CMS06
2	1	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever stop position sensor Latch CMS07						
2	2	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR_PASSING NUMBER 1 ISE Dispensing lane lever stop monitor CMS07							
2	3	ISE rack recovery unit (CM11) / Recovery lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Recovery lane belt Busy		
2	4	ISE rack recovery unit (CM11) / Recovery lane belt movement	SENSOR_STATUS							
								Recovery lane rack present sensor CMS11		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	5	ISE rack transport unit (CM01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
2	6	ISE rack transport unit (CM01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Passing lane belt Busy		
2	7	ISE rack transport unit (CM01) / Passing lane belt movement	SENSOR_STATUS			Passing lane rack pass detect sensor CMS05	Passing lane over step sensor CMS04	Passing lane step sensor CMS03		
2	8	ISE rack transport unit (CM01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
2	9	ISE rack transport unit (CM01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Passing lane lever Busy		
2	A	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CMS02		ISE Passing lane lever inhibition				Passing lane lever origin sensor CMS01

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	B	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR REVERSE_STATUS							
				Passing lane lever stop position sensor Latch CMS02						
2	C	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ISE Passing lane lever stop monitor CMS02							
2	D	ANL1 rack transfer unit (CH01) / Passing lane belt movement	Out put							
									FA movement inhibition to passing lane belt	
2	E	ANL1 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
2	F	ANL1 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS							
				Passing lane rack pass detect sensor 1 CHS05						
3	0	ANL1 rack transfer unit (CH01) / Passing lane lever movement	Out put							
									FA movement inhibition to passing lane lever	

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	1	ANL1 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
3	2	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
3	3	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CHS02						
3	4	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL1 passing lane lever stop monitor CHS02							
3	5	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
3	6	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS	Dispensing lane rack pass detect sensor 1 CHS23						
3	7	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	8	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
3	9	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
3	A	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		
3	B	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
3	C	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
3	D	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS	Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	E	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						
3	F	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL1 dispensing lane lever 1 stop monitor CHS08							
4	0	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put							
							FA movement inhibition to dispensing lane lever 2			
4	1	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
4	2	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS							
			Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
4	3	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 2 stop position sensor Latch CHS15						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	4	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL1 dispensing lane lever 2 stop monitor CHS15							
4	5	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
4	6	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS				Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
4	7	ANL1 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
4	8	ANL1 rack transfer unit (CH01) / Dispensing lane stopper movement	SENSOR_STATUS						Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
4	9	ANL 1 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	A	ANL 1 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
4	B	ANL1 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
4	C	ANL1 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
4	D	ANL 1 Lane change unit (CK01) / Lane change movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
4	E	ANL 1 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
4	F	ANL 1 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	0	ANL 1 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
5	1	ANL2 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
5	2	ANL2 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
5	3	ANL2 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS							
				Passing lane rack pass detect sensor 1 CHS05						
5	4	ANL2 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
5	5	ANL2 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	6	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS							
				Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
5	7	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS							
				Passing lane lever stop position sensor Latch CHS302						
5	8	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL2 passing lane lever stop monitor CHS02							
5	9	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
5	A	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS							
				Dispensing lane rack pass detect sensor 1 CHS23						
5	B	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS							
				Dispensing lane rack pass detect sensor 1 Latch CHS23						
5	C	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	D	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS							
						Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
5	E	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS							
						Dispensing lane lever 1 rack present sensor Latch CHS313	Dispensing lane lever 1 error step sensor Latch CHS312	Dispensing lane lever 1 step sensor Latch CHS311		
5	F	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put							
									FA movement inhibition to dispensing lane lever 1	
6	0	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
6	1	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
6	2	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	3	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL2 dispensing lane lever 1 stop monitor CHS08							
6	4	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put				FA movement inhibition to dispensing lane lever 2			
6	5	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
6	6	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
6	7	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS	Dispensing lane lever 2 stop position sensor Latch CHS15						
6	8	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL2 dispensing lane lever 2 stop monitor CHS15							
6	9	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	A	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS				Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
6	B	ANL2 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
6	C	ANL2 rack transfer unit (CH01) / Dispensing lane stopper movement	SENSOR_STATUS							
									Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
6	D	ANL 2 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
6	E	ANL 2 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS							
			Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
6	F	ANL2 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	0	ANL2 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
7	1	ANL 2 Lane change unit (CK01) / Lane change movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
7	2	ANL 2 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
7	3	ANL 2 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
7	4	ANL 2 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
7	5	ANL3 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	6	ANL3 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
7	7	ANL3 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						
7	8	ANL3 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
7	9	ANL3 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
7	A	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
7	B	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CHS02						
7	C	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL3 passing lane lever stop monitor CHS02							

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	D	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
7	E	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS	Dispensing lane rack pass detect sensor 1 CHS23						
7	F	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						
8	0	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
8	1	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
8	2	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
8	3	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
8	4	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
8	5	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
8	6	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS408						
8	7	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL3 dispensing lane lever 1 stop monitor CHS408							
8	8	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put				FA movement inhibition to dispensing lane lever 2			
8	9	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
8	A	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
8	B	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS	Dispensing lane lever 2 stop position sensor Latch CHS15						
8	C	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL3 dispensing lane lever 2 stop monitor CHS15							
8	D	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
8	E	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS				Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
8	F	ANL3 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
			SENSOR_STATUS							
9	0	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement							Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
			OPMC_STATUS							
9	1	ANL 3 rack recovery unit (CH11) / Recovery lane belt movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
			SENSOR_STATUS							
9	2	ANL 3 rack recovery unit (CH11) / Recovery lane belt movement	Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
			OPMC_STATUS							
9	3	ANL3 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
			SENSOR_STATUS							
9	4	ANL3 rack transfer unit (CH01) / Dispensing lane transfer belt movement		Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
			OPMC_STATUS							
9	5	ANL 3 Lane change unit (CK01) / Lane change movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
9	6	ANL 3 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
9	7	ANL 3 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
9	8	ANL 3 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
9	9	ANL4 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
9	A	ANL4 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
9	B	ANL4 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
9	C	ANL4 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
9	D	ANL4 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
9	E	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
9	F	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CHS02						
A	0	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL4 passing lane lever stop monitor CHS02							
A	1	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
A	2	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS	Dispensing lane rack pass detect sensor 1 CHS23						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
A	3	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						
A	4	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
A	5	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
A	6	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		
A	7	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
A	8	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
A	9	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
A	A	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						
A	B	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL4 dispensing lane lever 1 stop monitor CHS08							
A	C	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put							
							FA movement inhibition to dispensing lane lever 2			
A	D	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
E	5	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS							
			Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
E	6	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 2 stop position sensor Latch CHS15						
B	0	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL4 dispensing lane lever 2 stop monitor CHS15							
B	1	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
B	2	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS							
							Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
B	3	ANL4 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
B	4	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS							
									Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
B	5	ANL 4 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
B	6	ANL 4 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
B	7	ANL4 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
B	8	ANL4 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
B	9	ANL 4 Lane change unit (CK01) / Lane change movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
B	A	N/A								
B	B	ANL 4 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
B	C	ANL 4 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
B	D	ANL 4 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS							
									Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
B	E	Rack x axis transfer unit (CD01) / X direction movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD X direction Busy		
B	F	Rack x axis transfer unit (CD01) / X direction movement	SENSOR_STATUS							
				X-axis stop position sensor CDS02	Buffer side rack detect 2 sensor CDS07	Buffer side rack detect 1 sensor CDS06	Rack detect sensor CDS08	Set side rack detect sensor CDS05		X-axis origin sensor CDS01
C	0	Rack x axis transfer unit (CD01) / X direction movement	SENSOR REVERSE_STATUS							
				X-axis stop position sensor Latch CDS02						
C	1	Rack x axis transfer unit (CD01) / X direction movement	SENSOR_PASSING NUMBER 1 CD X direction stop monitor CDS02							
C	2	Rack x axis transfer unit (CD01) / Up down movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD Up down lever Busy		
C	3	Rack x axis transfer unit (CD01) / Up down movement	SENSOR_STATUS							
									Up/down stop position sensor CDS03	Up/down origin sensor CDS04

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
C	4	Rack Y axis transfer unit (CD11) / Y direction movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD Y direction Busy		
C	5	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR_STATUS	Y-axis stop position sensor CDS12			CA Buffer cover close sensor CAS05	Priority rack cover close sensor CAS04		Y-axis origin sensor CDS11
C	6	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR REVERSE_STATUS	Y-axis stop position sensor Latch CDS12						
C	7	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR_PASSING NUMBER 1 CD Y direction stop monitor CDS12							
C	8	SMP Rack set DIAG LED						Rack Set/DIAG SW & LED CALED01		Priority rack orange LED CALED08
C	9	SMP Unit Address								
C	A	SMP REPLENISHMENT DETERGENT TANK FLOAT SW	UDCD42 switch data S4(U_SW)							
C	B	SMP RACK SET/DIAG SW & LED					Unit address D3 ANL_D3	Unit address D2 ANL_D2	Unit address D1 ANL_D1	Unit address D0 ANL_D0

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
C	C	SMP REPLENISHMENT DETERGENT TANK FLOAT SW								Replenishment detergent tank float SW CAF01
C	D	SMP RACK SET/DIAG SW & LED							Reserve S3(RSV01)	Rack set/DIAG SW & LED CASW05
C	E	SMP Trigger status								
C	F	SMP Trigger status	ANL4 Trigger (Passing lane) S16(SYC1_IN2)	ANL4 Trigger (Dispensing lane) S16(SYC1_IN2)	ANL3 Trigger (Passing lane) S16(SYC1_IN2)	ANL3 Trigger (Dispensing lane) S16(SYC1_IN2)	ANL2 Trigger (Passing lane) S16(SYC1_IN2)	ANL2 Trigger (Dispensing lane) S16(SYC1_IN2)	ANL1 Trigger (Passing lane) S16(SYC1_IN2)	ANL1 Trigger (Dispensing lane) S16(SYC1_IN2)
E	9	ISE Trigger status							iSE Trigger (Passing lane) SYC2_IN1	ISE Trigger (Dispensing lane) SYC2_IN0

3. I / O Port Table (ISE)

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	1	S Dispenser unit (SA02) / Up dowm movement	Out put					Pressure reset	0 Adjust	
0	2	S Dispenser unit (SA02) / Up dowm movement	OPMC_STATUS OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	S Dispenser Busy		
0	3	S Dispenser unit (SA02) / Up dowm movement	SENSOR_STATUS					Pressure sensor check IAS11	Lower point sensor SAS22	Upper point sensor SAS21
0	4	Sample inside wash dispenser (SA01) / Up down movement	OPMC_STATUS OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	S inside wash dispenser Busy		
0	5	Sample inside wash dispenser (SA01) / Up down movement	SENSOR_STATUS						Lower point sensor SAS32	Upper point sensor SAS31
0	6	ISE Sample Transfer unit (FA21) / Up down movement	Out put							Sample liquid HOLD
0	7	ISE Sample Transfer unit (FA21) / Up down movement	OPMC_STATUS OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	Up down Busy		
0	8	ISE Sample Transfer unit (FA21) / Up down movement	SENSOR_STATUS				Sample level detection sensor FAS30	Sample probe crash detection sensor FAS29	Upper position sensor FAS21	

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	9	ISE Sample Transfer unit (FA21) / Up down movement	SENSOR REVERSE_STATUS				Sample level detection sensor Latch FAS30	Sample probe crash detection sensor Latch FAS29		
0	A	ISE Sample Transfer unit (FA21) / Rotation movement	OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	Rotation Busy		
0	B	ISE Sample Transfer unit (FA21) / Rotation movement	SENSOR_STATUS					Rotation stop position sensor 2 FAS27	Rotation stop position sensor 1 FAS25	Origin sensor FAS24
0	C	ISE Sample Transfer unit (FA21) / Rotation movement	SENSOR REVERSE_STATUS							
0	D	ISE 1 MID peristaltic pump 1 (IB01)	OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	MID pump Busy		
0	E	ISE 1 Bottle / Cover Status	SENSOR_STATUS				Reserved 1	MID bottle detection sensor 1 IAS02	Buffer bottle detection sensor 1 IAS03	Cover open reed SW IAS09
0	F	ISE 1 Sample peristaltic pump 1 (IB01)	OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	Sample pump Busy		
1	0	ISE 1 Buffer Dispenser 1 (SA01) / Up down movement	OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END	Buffer dispenser Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	1	ISE 1 Buffer Dispenser 1 (SA01) / Up down movement	SENSOR_STATUS					REF b bottle detection sensor 1 IAS01	Lower point sensor SAS02	Upper point sensor SAS01
1	2	ISE 1 MIX motor (IA11) / Rotation movement	OPMC_STATUS					Mix motor Busy		
1	3	ISE 2 MID peristaltic pump 2 (IB01)	OPMC_STATUS					MID pump Busy		
1	4	ISE 2 Bottle Status	SENSOR_STATUS					MID bottle detection sensor 2 IAS06	Buffer bottle detection sensor 2 IAS07	
1	5	ISE 2 Sample peristaltic pump 2 (IB01)	OPMC_STATUS					Sample pump Busy		
1	6	ISE 2 Buffer Dispenser 2 (SA01) / Up down movement	OPMC_STATUS					Buffer dispenser Busy		
1	7	ISE 2 Buffer Dispenser 2 (SA01) / Up down movement	SENSOR_STATUS					REF b bottle detection sensor 2 IAS05	Lower point sensor SAS12	Upper point sensor SAS11
1	8	ISE 2 MIX motor (IA11) / Rotation movement	OPMC_STATUS					Mix motor Busy		
			OPMC_READY	OPMC_BUSY	OPMC_ILL_PRM	OPMC_ERR	CMD_END			

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	9	ISE Main body（CPU）						S probe wash water refresh valve IAV03	S probe outer wash valve IAV02	S probe wash inner valve IAV01
1	A	ISE Main body（CPU）						DIAG_SW IASW02	STOP_SW IASW04	StandBy_SW IASW03
1	B	ISE Main body（CPU）						LED (DIAG_SW) IASW02		LED (StandBy_SW) IASW03
1	C	ISE Main body（CPU）				Passing lane rack movement inhibition + LA IO output 4	LA IO output 3	Dispensing lane rack movement inhibition + LA IO output 2	Passing lane trigger + LA IO output 1	Dispensing lane trigger + LA IO output 0
1	D	ISE Main body（CPU）		Unit power supply ON		_				
1	E	ISE Main body（CPU）					Unir number input			
1	F	ISE Main body（CPU）				LA_IO input 4	LA_IO input 3	LA_IO input 2	FA movement inhibition on passing lane +LA_IO input 1	FA movement inhibition on dispensing lane +LA_IO input 1

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	0	ISE 1 Main Body (IA11)	SENSOR_STATUS Liquid level detector 1 IAS04		Analog power supply 1 ON	Cable disconnect 1 IAS12				
2	1	ISE 2 Main Body (IA11)	SENSOR_STATUS Liquid level detector 2 IAS08		Analog power supply 2 ON	Cable disconnect 2 IAS13				
2	3	ISE 2 Main Body (IA11)	CMD ISE2 (E2)							

4. I / O Port Table (LA Sampler)

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	1	Rack loading unit (CB01) / Pusher movement	Out put					Sample counter	Loading try 1 (Orange LED) CALED03	Loading try 1 (Green LED) CALED02
0	2	Rack loading unit (CB01) / Pusher movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB1 Pusher Busy		
0	3	Rack loading unit (CB01) / Pusher movement	SENSOR_STATUS				CA unloading tray 1 detect sensor CAS11	CB1 pusher sensor CBS03		CB1 pusher origin sensor CBS01
0	4	Rack loading unit (CB01) / Receiver movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CB1 Receiver Busy		
0	5	Rack loading unit (CB01) / Receiver movement	SENSOR_STATUS	Priority rack 1 rack detect sensor 2 CAS03	Priority rack 1 rack detect sensor 1 CAS02				CB1 Receiver stop position sensor CBS05	CB1 receiver origin sensor CBS04
0	6	—	Out put							
0	7	—	OPMC_STATUS							

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
0	8	—	SENSOR_STATUS							
0	9	—	OPMC_STATUS							
0	A	Priority rack detect signal	SENSOR_STATUS	Priority rack 2 rack detect sensor 2 CAS16	Priority rack 2 rack detect sensor 1 CAS15					
0	B	ID read unit (CC11) / Lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CC Lever1 Busy		
0	C	ID read unit (CC11) / Lever 1 movement	SENSOR_STATUS CC lever 1 stop position sensor CCS02	Cup detect 5 CCS11	Cup detect 4 CCS10	Cup detect 3 CCS09	Cup detect 2 CCS08	Cup detect 1 CCS07	CA loading rack detect sensor CAS17	CC lever 1 origin sensor CCS01
0	D	ID read unit (CC11) / Lever 1 movement	SENSOR REVERSE_STATUS CC lever 1 stop position sensor CCS02							
0	E	ID read unit (CC11) / Lever 1 movement	SENSOR_PASSING NUMBER 2 CC lever 1 stop position sensor monitor CCS02							
0	F	ID read unit (CC11) / Lever 2 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CC Lever 2 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	0	ID read unit (CC11) / Lever 2 movement	SENSOR_STATUS Rack type CCS05					CC rack detect sensor CCS06	CC lever 2 stop position sensor CCS04	CC lever 2 origin sensor CCS03
1	1	Unloading rack feed unit (CF01) / Lever movement	OPMC_STATUS							
1	2	Unloading rack feed unit (CF01) / Lever movement	SENSOR_STATUS							
1	3	Rack unloading unit (CG01) / Lver movement	Out put							
1	4	Rack unloading unit (CG01) / Lver movement	OPMC_STATUS							
1	5	Rack unloading unit (CG01) / Lver movement	SENSOR_STATUS							
1	6	Passing lane feed unit (CE01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CE Passing lane lever Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	7	Passing lane feed unit (CE01) / Passing lane lever movement	SENSOR_STATUS					CA passing lane rack detect sensor CAS06	CE passing lane lever stop position sensor CES02	CE passing lane lever origin sensor CES01
1	8	Dispensing lane feed unit (CE11) / Dispensing lane lever movement	OPMC_STATUS					CE dispensing lane lever Busy		
1	9	Dispensing lane feed unit (CE11) / Dispensing lane lever movement	SENSOR_STATUS					CA dispensing lane rack detect sensor CAS07	CE dispensing lane lever stop position sensor CES12	CE dispensing lane lever origin sensor CES11
1	A	Recovery rack feed unit (CL01) / Lever movement	OPMC_STATUS					CL Lever Busy		
1	B	Recovery rack feed unit (CL01) / Lever movement	SENSOR_STATUS					CA recovery lane rack detect sensor CAS08	CL lever stop position sensor CLS02	CL lever origin sensor CLS01
1	C	ISE rack transport unit (CM01) / Dispensing lane belt movement	OPMC_STATUS					ISE dispensing lane belt Busy		
1	D	ISE rack transport unit (CM01) / Dispensing lane belt movement	SENSOR_STATUS			Dispensing lane rack pass detect sensor CMS10	Dispensing lane over step sensor CMS09	Dispensing lane step sensor CMS08		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
1	E	ISE rack transport unit (CM01) / Dispensing lane lever movement	Out put							
									FA movement inhibition to dispensing lane lever	
1	F	ISE rack transport unit (CM01) / Dispensing lane lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Dispensing lane lever Busy		
2	0	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR_STATUS							
				Dispensing lane lever stop position sensor CMS07		Dispensing lane lever movement inhibition				Dispensing lane lever origin sensor CMS06
2	1	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever stop position sensor Latch CMS07						
2	2	ISE rack transport unit (CM01) / Dispensing lane lever movement	SENSOR_PASSING NUMBER 1 ISE Dispensing lane lever stop monitor CMS07							
2	3	ISE rack recovery unit (CM11) / Recovery lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Recovery lane belt Busy		
2	4	ISE rack recovery unit (CM11) / Recovery lane belt movement	SENSOR_STATUS							
								Recovery lane rack present sensor CMS11		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	5	ISE rack transport unit (CM01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
2	6	ISE rack transport unit (CM01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Passing lane belt Busy		
2	7	ISE rack transport unit (CM01) / Passing lane belt movement	SENSOR_STATUS			Passing lane rack pass detect sensor CMS05	Passing lane over step sensor CMS04	Passing lane step sensor CMS03		
2	8	ISE rack transport unit (CM01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
2	9	ISE rack transport unit (CM01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	ISE Passing lane lever Busy		
2	A	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CMS02		ISE Passing lane lever inhibition				Passing lane lever origin sensor CMS01

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
2	B	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CMS02						
2	C	ISE rack transport unit (CM01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ISE Passing lane lever stop monitor CMS02							
2	D	ANL1 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
2	E	ANL1 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
2	F	ANL1 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						
3	0	ANL1 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	1	ANL1 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
3	2	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
3	3	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CHS02						
3	4	ANL1 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL1 passing lane lever stop monitor CHS02							
3	5	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
3	6	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS	Dispensing lane rack pass detect sensor 1 CHS23						
3	7	ANL1 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	8	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
3	9	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
3	A	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		
3	B	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
3	C	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
3	D	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS	Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
3	E	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						
3	F	ANL1 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL1 dispensing lane lever 1 stop monitor CHS08							
4	0	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put							
							FA movement inhibition to dispensing lane lever 2			
4	1	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
4	2	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS							
			Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
4	3	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 2 stop position sensor Latch CHS15						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	4	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL1 dispensing lane lever 2 stop monitor CHS15							
4	5	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
4	6	ANL1 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS				Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
4	7	ANL1 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
4	8	ANL1 rack transfer unit (CH01) / Dispensing lane stopper movement	SENSOR_STATUS						Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
4	9	ANL 1 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
4	A	ANL 1 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
4	B	ANL1 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
4	C	ANL1 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
4	D	ANL 1 Lane change unit (CK01) / Lane change movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
4	E	ANL 1 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
4	F	ANL 1 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	0	ANL 1 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
5	1	ANL2 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
5	2	ANL2 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
5	3	ANL2 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						
5	4	ANL2 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
5	5	ANL2 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	6	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS							
				Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
5	7	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS							
				Passing lane lever stop position sensor Latch CHS02						
5	8	ANL2 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL2 passing lane lever stop monitor CHS02							
5	9	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
5	A	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS							
				Dispensing lane rack pass detect sensor 1 CHS23						
5	B	ANL2 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS							
				Dispensing lane rack pass detect sensor 1 Latch CHS23						
5	C	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
5	D	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS							
						Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
5	E	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS							
						Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		
5	F	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put							
									FA movement inhibition to dispensing lane lever 1	
6	0	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
6	1	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
6	2	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	3	ANL2 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL2 dispensing lane lever 1 stop monitor CHS08							
6	4	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put				FA movement inhibition to dispensing lane lever 2			
6	5	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
6	6	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
6	7	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS	Dispensing lane lever 2 stop position sensor Latch CHS15						
6	8	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL2 dispensing lane lever 2 stop monitor CHS15							
6	9	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
6	A	ANL2 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS				Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
6	B	ANL2 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
6	C	ANL2 rack transfer unit (CH01) / Dispensing lane stopper movement	SENSOR_STATUS							
									Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
6	D	ANL 2 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
6	E	ANL 2 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS							
			Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
6	F	ANL2 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	0	ANL2 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS							
				Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
7	1	ANL 2 Lane change unit (CK01) / Lane change movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
7	2	ANL 2 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS							
							Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
7	3	ANL 2 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
7	4	ANL 2 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS							
									Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
7	5	ANL3 rack transfer unit (CH01) / Passing lane belt movement	Out put							
									FA movement inhibition to passing lane belt	

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	6	ANL3 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
7	7	ANL3 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						
7	8	ANL3 rack transfer unit (CH01) / Passing lane lever movement	Out put						FA movement inhibition to passing lane lever	
7	9	ANL3 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
7	A	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS	Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
7	B	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS	Passing lane lever stop position sensor Latch CHS02						
7	C	ANL3 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL3 passing lane lever stop monitor CHS02							

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
7	D	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
7	E	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS	Dispensing lane rack pass detect sensor 1 CHS23						
7	F	ANL3 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						
8	0	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
8	1	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
8	2	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
8	3	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
8	4	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		
8	5	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
8	6	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						
8	7	ANL3 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL3 dispensing lane lever 1 stop monitor CHS08							
8	8	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put				FA movement inhibition to dispensing lane lever 2			
8	9	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
8	A	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS							
			Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14
8	B	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 2 stop position sensor Latch CHS15						
8	C	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL3 dispensing lane lever 2 stop monitor CHS15							
8	D	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
8	E	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS							
							Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
8	F	ANL3 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
			SENSOR_STATUS							
9	0	ANL3 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement							Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20
			OPMC_STATUS							
9	1	ANL 3 rack recovery unit (CH11) / Recovery lane belt movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
			SENSOR_STATUS							
9	2	ANL 3 rack recovery unit (CH11) / Recovery lane belt movement	Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
			OPMC_STATUS							
9	3	ANL3 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
			SENSOR_STATUS							
9	4	ANL3 rack transfer unit (CH01) / Dispensing lane transfer belt movement		Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
			OPMC_STATUS							
9	5	ANL 3 Lane change unit (CK01) / Lane change movement	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
9	6	ANL 3 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01
9	7	ANL 3 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
9	8	ANL 3 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
9	9	ANL4 rack transfer unit (CH01) / Passing lane belt movement	Out put						FA movement inhibition to passing lane belt	
9	A	ANL4 rack transfer unit (CH01) / Passing lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane belt Busy		
9	B	ANL4 rack transfer unit (CH01) / Passing lane belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 1 CHS05						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
9	C	ANL4 rack transfer unit (CH01) / Passing lane lever movement	Out put							
									FA movement inhibition to passing lane lever	
9	D	ANL4 rack transfer unit (CH01) / Passing lane lever movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Passing lane lever Busy		
9	E	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_STATUS							
				Passing lane lever stop position sensor CHS02		Passing lane lever movement inhibition	Passing lane over step sensor CHS04	Passing lane step sensor CHS03		Passing lane lever origin sensor CHS01
9	F	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR REVERSE_STATUS							
				Passing lane lever stop position sensor Latch CHS02						
A	0	ANL4 rack transfer unit (CH01) / Passing lane lever movement	SENSOR_PASSING NUMBER 1 ANL4 passing lane lever stop monitor CHS02							
A	1	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane belt Busy		
A	2	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR_STATUS							
				Dispensing lane rack pass detect sensor 1 CHS23						

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
A	3	ANL4 rack transfer unit (CH01) / Dispensing lane belt movement	SENSOR REVERSE_STATUS	Dispensing lane rack pass detect sensor 1 Latch CHS23						
A	4	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 refuge Busy		
A	5	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR_STATUS			Dispensing lane lever 1 rack present sensor CHS13	Dispensing lane lever 1 error step sensor CHS12	Dispensing lane lever 1 step sensor CHS11	Dispensing lane lever 1 refuge stop position sensor CHS10	Dispensing lane lever 1 refuge origin sensor CHS09
A	6	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 refuge movement	SENSOR REVERSE_STATUS			Dispensing lane lever 1 rack present sensor Latch CHS13	Dispensing lane lever 1 error step sensor Latch CHS12	Dispensing lane lever 1 step sensor Latch CHS11		
A	7	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	Out put						FA movement inhibition to dispensing lane lever 1	
A	8	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 1 Busy		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
A	9	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_STATUS							
				Dispensing lane lever 1 stop position sensor CHS08		Dispensing lane lever 1 inhibition				Dispensing lane lever 1 origin sensor CHS07
A	A	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 1 stop position sensor Latch CHS08						
A	B	ANL4 rack transfer unit (CH01) / Dispensing lane lever 1 movement	SENSOR_PASSING NUMBER 1 ANL4 dispensing lane lever 1 stop monitor CHS08							
A	C	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	Out put							
							FA movement inhibition to dispensing lane lever 2			
A	D	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 Busy		
E	5	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_STATUS							
			Dispensing lane post-dispensing stopper rack detect sensor CHS22	Dispensing lane lever 2 stop position sensor CHS15	Dispensing lane lever 2 access inhibition	Dispensing lane lever 2 movement inhibition				Dispensing lane lever 2 origin sensor CHS14

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
E	6	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR REVERSE_STATUS							
				Dispensing lane lever 2 stop position sensor Latch CHS15						
B	0	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 movement	SENSOR_PASSING NUMBER 1 ANL4 dispensing lane lever 2 stop monitor CHS15							
B	1	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane lever 2 refuge Busy		
B	2	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS							
							Dispensing lane lever 2 error step sensor CHS19	Dispensing lane lever 2 step sensor CHS18	Dispensing lane lever 2 refuge stop position sensor CHS17	Dispensing lane lever 2 refuge origin sensor CHS16
B	3	ANL4 rack transfer unit (CH01) / Dispensing lane stopper movement	OPMC_STATUS							
			OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane stopper Busy		
B	4	ANL4 rack transfer unit (CH01) / Dispensing lane lever 2 refuge movement	SENSOR_STATUS							
									Dispensing lane post-dispensing stopper stop position sensor CHS21	Dispensing lane post-dispensing stopper origin sensor CHS20

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
B	5	ANL 4 rack recovery unit (CH11) / Recovery lane belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Recovery lane belt Busy		
B	6	ANL 4 rack recovery unit (CH11) / Recovery lane belt movement	SENSOR_STATUS Recovery lane rack present sensor CHS25	Recovery lane rack pass detect sensor CHS24						
B	7	ANL4 rack transfer unit (CH01) / Dispensing lane transfer belt movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Dispensing lane transfer belt Busy		
B	8	ANL4 rack transfer unit (CH01) / Dispensing lane transfer belt movement	SENSOR_STATUS	Passing lane rack pass detect sensor 2 CHS06				Dispensing lane rack pass detect sensor 2 CHS26		
B	9	ANL 4 Lane change unit (CK01) / Lane change movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change Busy		
B	A	N/A								
B	B	ANL 4 Lane change unit (CK01) / Lane change movement	SENSOR_STATUS				Lane change guide sensor CKS04	Lane change stop position sensor 2 (On recovery lane) CKS03	Lane change stop position sensor 1 (On dispensing lane) CKS02	Lane change origin sensor (On passing lane) CKS01

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
B	C	ANL 4 Lane change unit (CK01) / Lane change stopper movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	Lane change stopper Busy		
B	D	ANL 4 Lane change unit (CK01) / Lane change stopper movement	SENSOR_STATUS						Lane change stopper stop position sensor CKS06	Lane change stopper origin sensor CKS05
B	E	Rack x axis transfer unit (CD01) / X direction movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD X direction Busy		
B	F	Rack x axis transfer unit (CD01) / X direction movement	SENSOR_STATUS	X-axis stop position sensor CDS02	Buffer side rack detect 2 sensor CDS07	Buffer side rack detect 1 sensor CDS06	Rack detect sensor CDS08	Set side rack detect sensor CDS05		X-axis origin sensor CDS01
C	0	Rack x axis transfer unit (CD01) / X direction movement	SENSOR REVERSE_STATUS	X-axis stop position sensor Latch CDS02						
C	1	Rack x axis transfer unit (CD01) / X direction movement	SENSOR_PASSING NUMBER 1 CD X direction stop monitor CDS02							
C	2	Rack x axis transfer unit (CD01) / Up down movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD Up down lever Busy		
C	3	Rack x axis transfer unit (CD01) / Up down movement	SENSOR_STATUS						Up/down stop position sensor CDS03	Up/down origin sensor CDS04

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
C	4	Rack Y axis transfer unit (CD11) / Y direction movement	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CD Y direction Busy		
C	5	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR_STATUS	Y-axis stop position sensor CDS12			CA Buffer cover close sensor CAS05	Priority rack cover close sensor CAS04		Y-axis origin sensor CDS11
C	6	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR REVERSE_STATUS	Y-axis stop position sensor Latch CDS12						
C	7	Rack Y axis transfer unit (CD11) / Y direction movement	SENSOR_PASSING NUMBER 1 CD Y direction stop monitor CDS12							
C	8	SMP Rack set DIAG LED						Rack Set/DIAG SW & LED CALED01		Priority rack orange LED CALED08
C	9	SMP Unit Address				Rack send demand REQUESTs I43(LA0_D4)	Rack sending MOVEs I42(LA0_D3)	LA Connection enaled READYr I41(LA0_D2)	Rack receive completed EXISTr I40(LA0_D1)	Rack receive permission ENABLEr I39(LA0_D0)
C	A		UDCD42 switch data S4(U_SW)							

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
C	B	SMP					Unit AddressD3 S8(ANL_D3)	Unit AddressD2 S8(ANL_D2)	Unit AddressD1 S8(ANL_D1)	Unit AddressD0 S8(ANL_D0)
C	C	SMP								Tank float SW CAF01
C	D	SMP							Reserve S3(RSV01)	Rack Set &DIAG SW CASW05
C	E	LA signal				LA Connection Enabled READYs S382(LA1_D4)	Rack receive completed EXISTs S381(LA1_D3)	Rack receive permission ENABLEs S380(LA1_D2)	Rack send demand REQUESTr S379(LA1_D1)	Rack sending MOVEr S378(LA1_D0)
C	F	ANL Trigger signal	ANL 4 Trigger (Passing lane) SYC1_IN3	ANL 4 Trigger (Dispensing lane) SYC1_IN2	ANL 3 Trigger (Passing lane) SYC1_IN1	ANL 3 Trigger (Dispensing lane) SYC1_IN0	ANL 2 Trigger (Passing lane) SYC0_IN3	ANL 2 Trigger (Dispensing lane) SYC0_IN2	ANL 1 Trigger (Passing lane) SYC0_IN1	ANL 1 Trigger (Dispensing lane) SYC0_IN0
E	9	ISE Trigger signal							ISE Trigger (Passing lane) SYC2_IN1	ISE Trigger (Dispensing lane) SYC2_IN0
E	A	LA rack feed unit (CN01)	OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC_STATUS OPMC ERR	CMD END	CN Lecer Busy S383(CNS00)		

DIP SW2	DIP SW1	Unit / Function	DS8	DS7	DS6	DS5	DS4	DS3	DS2	DS1
E	B	LA rack feed unit (CN01)						CN Rack detect sensor CNS03	CN Lever Stop CNS02	CN Lever Origin CNS01
E	C	LA signal					CA LA Rack detection Power control I45(SNSPW4)	CA LA Rack Arrival I45(SNSPW5)		LA Unloading Tray LED I44(CALED9)
E	D	LA rack unloading unit (CP01)	OPMC_STATUS OPMC READY	OPMC BUSY	OPMC_ILL_PRM	OPMC ERR	CMD END	CP Lever Busy S387(CPS00)		
E	E	LA rack unloading unit (CP01)			CA LA Rack detect sensor CAS19	LA Unloading Rack detect sensor CAS20	CA LA Rack Present CAS18	CA LA Unloding Tray detection CAS21	CP Lever Stop position sensor CPS02	CP Lever Origin sensor CPS01