

SPSComms PC Communication
Specifications

(ASCII format)

Suitable for

SPS-3xx *v01.011 and later*

1st: 2014-08-31

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1. Commands List

	Command	Number	Description	Remark
REPORT	-x1	0	FINANCIAL X1	
	-x2	0	FINANCIAL X2	
	-z1	0	FINANCIAL Z1	
	-z2	0	FINANCIAL Z2	
	-x1	1	TIME X1	
	-x2	1	TIME X2	
	-z1	1	TIME Z1	
	-z2	1	TIME Z2	
	-x1	2	PLU X1	
	-x2	2	PLU X2	
	-z1	2	PLU Z1	
	-z2	2	PLU Z2	
	-x1	3	CLERK X1	
	-x2	3	CLERK X2	
	-z1	3	CLERK Z1	
	-z2	3	CLERK Z2	
	-x1	4	GROUPS X1	
	-x2	4	GROUPS X2	
	-z1	4	GROUPS Z1	
	-z2	4	GROUPS Z2	
	-x2	5	DAY X2	
	-z2	5	DAY Z2	
	-x1	6	STOCK X1	
	-z1	6	STOCK Z1	
	-x1	7	CLERK TIME X1	Only Reg#1
	-z1	7	CLERK TIME Z1	Only Reg#1
	-x1	8	OPEN TABLE X1	
	-z1	8	OPEN TABLE Z1	
	-x1	9	EJ X1	
	-z1	9	EJ Z1	
	-x1	10	MIX & MATCH X1	
	-x2	10	MIX & MATCH X2	
	-z1	10	MIX & MATCH Z1	
	-z2	10	MIX & MATCH Z2	
	-x1	11	NOT FOUND PLU X1	Only Reg#1
	-z1	11	NOT FOUND PLU Z1	Only Reg#1
	-x1	12	DRAWER TOTAL X1	Only Reg#1

	Command	Number	Description	Remark
PROGRAM DOWN	-d	0	PLU	
	-d	1	GROUP	
	-d	2	TAX	
	-d	3	SYSTEM OPTION	
	-d	4	PRINT OPTION	
	-d	5	FUNCTION KEY	
	-d	6	CLERK	
	-d	7	LOGO DESCRIPTION	
	-d	8	REPORT LOGO	
	-d	9	STOCK	
	-d	10	TIME&DATE / MISC	
	-d	11	MACRO	
	-d	12	PLU LOOKUP	
	-d	13	MIX & MATCH	
PROGRAM UP	-u	0	PLU	
	-u	1	GROUP	
	-u	2	TAX	
	-u	3	SYSTEM OPTION	
	-u	4	PRINT OPTION	
	-u	5	FUNCTION KEY	
	-u	6	CLERK	
	-u	7	LOGO DESCRIPTION	
	-u	8	REPORT LOGO	
	-u	9	STOCK	
	-u	10	TIME&DATE / MISC	
	-u	11	MACRO	
	-u	12	PLU LOOKUP	
	-u	13	MIX & MATCH	
	-u	14	MEMORY ALLOCATION	
	-u	15	MODEL INFORMATION	

2. Report Commands

COMMAND	NUMBER	DESCRIPTION	REMARK
X1,X2,Z1,Z2	0	FINANCIAL (X1, X2, Z1, Z2)	
X1,X2,Z1,Z2	1	TIME (X1, X2, Z1, Z2)	
X1,X2,Z1,Z2	2	PLU (X1, X2, Z1, Z2)	
X1,X2,Z1,Z2	3	CLERK (X1, X2, Z1, Z2)	
X1,X2,Z1,Z2	4	GROUPS (X1, X2, Z1, Z2)	
X2,Z2	5	DAY (X2, Z2)	
X1,Z1	6	STOCK (X1, Z1)	
X1,X2,Z1,Z2	7	CLERK TIME (X1, X2, Z1, Z2)	Only Reg#1
X1,Z1	8	OPENTABLE (X1, Z1)	
X1,Z1	9	EJ (X1, Z1)	
X1,Z1	10	MIX & MATCH (X1, Z1)	
X1,Z1	11	NOT FOUND PLU (X1, Z1)	Only Reg#1
X1	12	DRAWER TOTAL (X1)	Only Reg#1

2.1. BASIC REPORT TABLE

	Count	Total's sign	Total
Length	8 digits	'+' or '-'	16 digits

2.2. FINANCIAL REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Index	Description	Data Type	Length
1	+PLU TTL	BASIC REPORT TABLE	25
2	-PLU TTL	BASIC REPORT TABLE	25
3	ADJST TTL	BASIC REPORT TABLE	25
4	NONTAX	BASIC REPORT TABLE	25
5	GST SALES	BASIC REPORT TABLE	25
6	TAX2 SALES	BASIC REPORT TABLE	25
7	TAX3 SALES	BASIC REPORT TABLE	25
8	TAX4 SALES	BASIC REPORT TABLE	25
9	GST	BASIC REPORT TABLE	25
10	TAX2	BASIC REPORT TABLE	25
11	TAX3	BASIC REPORT TABLE	25
12	TAX4	BASIC REPORT TABLE	25
13	XMPT1 SALES	BASIC REPORT TABLE	25
14	XMPT2 SALES	BASIC REPORT TABLE	25
15	XMPT3 SALES	BASIC REPORT TABLE	25
16	XMPT4 SALES	BASIC REPORT TABLE	25
17	EATIN TTL	BASIC REPORT TABLE	25
18	TAKEOUT TTL	BASIC REPORT TABLE	25
19	DRTHRU TTL	BASIC REPORT TABLE	25
20	% 1	BASIC REPORT TABLE	25
21	% 2	BASIC REPORT TABLE	25
22	% 3	BASIC REPORT TABLE	25
23	% 4	BASIC REPORT TABLE	25
24	% 5	BASIC REPORT TABLE	25
25	NET SALE	BASIC REPORT TABLE	25
26	CREDIT GST	BASIC REPORT TABLE	25
27	CREDIT TAX2	BASIC REPORT TABLE	25
28	CREDIT TAX3	BASIC REPORT TABLE	25
29	CREDIT TAX4	BASIC REPORT TABLE	25
30	FD/S CREDIT	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
31	RETURN	BASIC REPORT TABLE	25
32	ERROR CORR	BASIC REPORT TABLE	25
33	PREVIOUS VD	BASIC REPORT TABLE	25
34	MODE VOID	BASIC REPORT TABLE	25
35	CANCEL	BASIC REPORT TABLE	25
36	GROSS SALES	BASIC REPORT TABLE	25
37	CASH SALES	BASIC REPORT TABLE	25
38	EFTPOS SALES	BASIC REPORT TABLE	25
39	R/A 1	BASIC REPORT TABLE	25
40	R/A 2	BASIC REPORT TABLE	25
41	R/A 3	BASIC REPORT TABLE	25
42	P/O 1	BASIC REPORT TABLE	25
43	P/O 2	BASIC REPORT TABLE	25
44	P/O 3	BASIC REPORT TABLE	25
45	HASH TTL	BASIC REPORT TABLE	25
46	AUDACTION	BASIC REPORT TABLE	25
47	NOSALE	BASIC REPORT TABLE	25
48	CASH-IN-D	BASIC REPORT TABLE	25
49	EFTPOS-IN-D	BASIC REPORT TABLE	25
50	FD/S-IN-D	BASIC REPORT TABLE	25
51	CHG1-IN-D	BASIC REPORT TABLE	25
52	CHG2-IN-D	BASIC REPORT TABLE	25
53	CHG3-IN-D	BASIC REPORT TABLE	25
54	CHG4-IN-D	BASIC REPORT TABLE	25
55	CHG5-IN-D	BASIC REPORT TABLE	25
56	CHG6-IN-D	BASIC REPORT TABLE	25
57	CHG7-IN-D	BASIC REPORT TABLE	25
58	CHG8-IN-D	BASIC REPORT TABLE	25
59	CHG1 SALES	BASIC REPORT TABLE	25
60	CHG2 SALES	BASIC REPORT TABLE	25
61	CHG3 SALES	BASIC REPORT TABLE	25
62	CHG4 SALES	BASIC REPORT TABLE	25
63	CHG5 SALES	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
64	CHG6 SALES	BASIC REPORT TABLE	25
65	CHG7 SALES	BASIC REPORT TABLE	25
66	CHG8 SALES	BASIC REPORT TABLE	25
67	FOREIGN 1	BASIC REPORT TABLE	25
68	FOREIGN 2	BASIC REPORT TABLE	25
69	FOREIGN 3	BASIC REPORT TABLE	25
70	FOREIGN 4	BASIC REPORT TABLE	25
71	DRWR TTL	BASIC REPORT TABLE	25
72	MIX&MATCH	BASIC REPORT TABLE	25
73	PROMO	BASIC REPORT TABLE	25
74	WASTE	BASIC REPORT TABLE	25
75	TIP	BASIC REPORT TABLE	25
76	TRAIN TTL	BASIC REPORT TABLE	25
77	BAL FORWARD	BASIC REPORT TABLE	25
78	GUESTS	BASIC REPORT TABLE	25
79	P/BAL	BASIC REPORT TABLE	25
80	CHECKS PAID	BASIC REPORT TABLE	25
81	SERVICE	BASIC REPORT TABLE	25
82	PAYMENT	BASIC REPORT TABLE	25
83	CASH OUT	BASIC REPORT TABLE	25
84	ROUND TTL	BASIC REPORT TABLE	25
85	Reserved	BASIC REPORT TABLE	25
86	GRAND	BASIC REPORT TABLE	25

2.3. TIME REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Index	Description	Data Type	Length
1	0 – 1 Time	BASIC REPORT TABLE	25
2	1 – 2 Time	BASIC REPORT TABLE	25
3	2 – 3 Time	BASIC REPORT TABLE	25
4	3 – 4 Time	BASIC REPORT TABLE	25
5	4 – 5 Time	BASIC REPORT TABLE	25
6	5 – 6 Time	BASIC REPORT TABLE	25
7	6 – 7 Time	BASIC REPORT TABLE	25
8	7 – 8 Time	BASIC REPORT TABLE	25
9	8 – 9 Time	BASIC REPORT TABLE	25
10	9 – 10 Time	BASIC REPORT TABLE	25
11	10 – 11 Time	BASIC REPORT TABLE	25
12	11 – 12 Time	BASIC REPORT TABLE	25
13	12 – 13 Time	BASIC REPORT TABLE	25
14	13 – 14 Time	BASIC REPORT TABLE	25
15	14 – 15 Time	BASIC REPORT TABLE	25
16	15 – 16 Time	BASIC REPORT TABLE	25
17	16 – 17 Time	BASIC REPORT TABLE	25
18	17 – 18 Time	BASIC REPORT TABLE	25
19	18 – 19 Time	BASIC REPORT TABLE	25
20	19 – 20 Time	BASIC REPORT TABLE	25
21	20 – 21 Time	BASIC REPORT TABLE	25
22	21 – 22 Time	BASIC REPORT TABLE	25
23	22 – 23 Time	BASIC REPORT TABLE	25
24	23 – 24 Time	BASIC REPORT TABLE	25
25	Total	BASIC REPORT TABLE	25

2.4. PLU REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Index	1 ~ 18	19 ~ 32	33 ~ 57
Description	PLU Description	PLU Code	BASIC REPORT TABLE
Length	18 char	14 digits	25 digits
Total: 57 digits			

2.5. CLERK REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Index	Description	Data Type	Length
1	CLERK DESC	CHAR	18
2	NET SALE	BASIC REPORT TABLE	25
3	NON TAX	BASIC REPORT TABLE	25
4	GST SALES	BASIC REPORT TABLE	25
5	TAX2 SALES	BASIC REPORT TABLE	25
6	TAX3 SALES	BASIC REPORT TABLE	25
7	TAX4 SALES	BASIC REPORT TABLE	25
8	GST	BASIC REPORT TABLE	25
9	TAX2	BASIC REPORT TABLE	25
10	TAX3	BASIC REPORT TABLE	25
11	TAX4	BASIC REPORT TABLE	25
12	XMPT1 SALES	BASIC REPORT TABLE	25
13	XMPT2 SALES	BASIC REPORT TABLE	25
14	XMPT3 SALES	BASIC REPORT TABLE	25
15	XMPT4 SALES	BASIC REPORT TABLE	25
16	EATIN TTL	BASIC REPORT TABLE	25
17	TAKEOUT TTL	BASIC REPORT TABLE	25
18	DRTHRU TTL	BASIC REPORT TABLE	25
19	% 1	BASIC REPORT TABLE	25
20	% 2	BASIC REPORT TABLE	25
21	% 3	BASIC REPORT TABLE	25
22	% 4	BASIC REPORT TABLE	25
23	% 5	BASIC REPORT TABLE	25
24	CREDIT GST	BASIC REPORT TABLE	25
25	CREDIT TAX2	BASIC REPORT TABLE	25
26	CREDIT TAX3	BASIC REPORT TABLE	25
27	CREDIT TAX4	BASIC REPORT TABLE	25
28	FD/S CREDIT	BASIC REPORT TABLE	25
29	RETURN	BASIC REPORT TABLE	25
30	ERROR CORR	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
31	PREVIOUS VD	BASIC REPORT TABLE	25
32	VOID MODE	BASIC REPORT TABLE	25
33	CANCEL	BASIC REPORT TABLE	25
34	GROSS	BASIC REPORT TABLE	25
35	CASH SALES	BASIC REPORT TABLE	25
36	CHECK SALES	BASIC REPORT TABLE	25
37	R/A 1	BASIC REPORT TABLE	25
38	R/A 2	BASIC REPORT TABLE	25
39	R/A 3	BASIC REPORT TABLE	25
40	P/O 1	BASIC REPORT TABLE	25
41	P/O 2	BASIC REPORT TABLE	25
42	P/O 3	BASIC REPORT TABLE	25
43	HASH TTL	BASIC REPORT TABLE	25
44	CASH-IN-D	BASIC REPORT TABLE	25
45	CHECK-IN-D	BASIC REPORT TABLE	25
46	FD/S-IN-D	BASIC REPORT TABLE	25
47	CHG1-IN-D	BASIC REPORT TABLE	25
48	CHG2-IN-D	BASIC REPORT TABLE	25
49	CHG3-IN-D	BASIC REPORT TABLE	25
50	CHG4-IN-D	BASIC REPORT TABLE	25
51	CHG5-IN-D	BASIC REPORT TABLE	25
52	CHG6-IN-D	BASIC REPORT TABLE	25
53	CHG7-IN-D	BASIC REPORT TABLE	25
54	CHG8-IN-D	BASIC REPORT TABLE	25
55	CHG1 SALES	BASIC REPORT TABLE	25
56	CHG2 SALES	BASIC REPORT TABLE	25
57	CHG3 SALES	BASIC REPORT TABLE	25
58	CHG4 SALES	BASIC REPORT TABLE	25
59	CHG5 SALES	BASIC REPORT TABLE	25
60	CHG6 SALES	BASIC REPORT TABLE	25
61	CHG7 SALES	BASIC REPORT TABLE	25
62	CHG8 SALES	BASIC REPORT TABLE	25
63	FOREIGN 1	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
64	FOREIGN 2	BASIC REPORT TABLE	25
65	FOREIGN 3	BASIC REPORT TABLE	25
66	FOREIGN 4	BASIC REPORT TABLE	25
67	DRWR TTL	BASIC REPORT TABLE	25
68	PROMO	BASIC REPORT TABLE	25
69	WASTE	BASIC REPORT TABLE	25
70	TIP	BASIC REPORT TABLE	25
71	TRAIN TTL	BASIC REPORT TABLE	25
72	BAL FORWARD	BASIC REPORT TABLE	25
73	GUESTS	BASIC REPORT TABLE	25
74	P/BAL	BASIC REPORT TABLE	25
75	CHECKS PAID	BASIC REPORT TABLE	25
76	SERVICE	BASIC REPORT TABLE	25
77	CASH OUT	BASIC REPORT TABLE	25
78	NOSALE	BASIC REPORT TABLE	25

2.6. GROUP REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Description	GROUP DESCRIPTION	BASIC REPORT TABLE
Length	12 char	25 digits
Total: 37 digits		

2.7. DAY REPORT (X2, Z2)

Receive Data Structure

Index	Description	Data Type	Length
1	1 Day	BASIC REPORT TABLE	25
2	2 Day	BASIC REPORT TABLE	25
3	3 Day	BASIC REPORT TABLE	25
...
27	27 Day	BASIC REPORT TABLE	25
28	28 Day	BASIC REPORT TABLE	25
29	29 Day	BASIC REPORT TABLE	25
30	30 Day	BASIC REPORT TABLE	25
31	31 Day	BASIC REPORT TABLE	25
32	Total	BASIC REPORT TABLE	25

2.8. STOCK REPORT (X1, Z1)

Receive Data Structure

Index	1 ~ 18	19 ~ 32	33	34 ~ 41
Description	PLU Description	PLU Code	Count's sign	Count
Length	18 char	14 digits	'+' or '-'	8 digits
Total: 41 digits				

2.9. CLERK TIME REPORT (X1, Z1)

Receive Data Structure

Index	Name	Length	Count
1 ~ 20	Time In/Out Record	10	20
21	Total Work Time	6	1
22	Time In/Out Counter	2	1

Time In/Out Data Structure

Index	1 ~ 6	7 ~ 10
Description	Date (YYMMDD)	Time (HHMM)
Length	6 digits	4 digits

Total Work Data Structure

Index	6
Description	Time (HHHHMM)
Length	6 digits

2.10. OPEN TABLE REPORT (X1, Z1)

Receive Data Structure

Index	1 ~ 12	13 ~ 20	21 ~ 22	23	24 ~ 32
Description	Clerk Description	Check #	Clerk #	Amount's sign	Amount
Length	12 char	8 digits	2 digits	'+' or '-'	8 digits
Total: 32 digits					

2.11 EJ REPORT (X1, Z1)

Receive Data Structure

Index	1 ~ 32	33 ~ 38
Description	Description	Status
Length	32 char	6 digits
Total: 38 digits		

2.12 MIX & MATCH REPORT (X1, X2, Z1, Z2)

Receive Data Structure

Index	Description	Data Type	Length
1	Mix & Match 1 Total	BASIC REPORT TABLE	25
2	Mix & Match 2 Total	BASIC REPORT TABLE	25
...
98	Mix & Match 98 Total	BASIC REPORT TABLE	25
99	Mix & Match 99 Total	BASIC REPORT TABLE	25
100	Total	BASIC REPORT TABLE	25

2.13. NOT FOUND PLU REPORT (X1, Z1)

Receive Data Structure

Index	1 ~ 18	19 ~ 33
Description	PLU Description	PLU Code
Length	18 char	14 digits
Total: 32 digits		

2.14. DRAWER TOTAL REPORT (X1)

Receive Data Structure

Index	Description	Data Type	Length
48	CASH-IN-D	BASIC REPORT TABLE	25
49	CHECK-IN-D	BASIC REPORT TABLE	25
50	FD/S-IN-D	BASIC REPORT TABLE	25

3. Program Download & Upload Commands

COMMAND	NUMBER	DESCRIPTION	REMARK
d or u	0	PLU	
d or u	1	GROUP	
d or u	2	TAX	
d or u	3	SYSTEM OPTION	
d or u	4	PRINT OPTION	
d or u	5	FUNCTION KEY	
d or u	6	CLERK	
d or u	7	LOGO DESCRIPTION	
d or u	8	FINANCIAL REPORT LOGO	
d or u	9	CLERK REPORT LOGO	
d or u	10	STOCK	
d or u	11	MACRO	
d or u	12	TIME&DATE / MISC	
d or u	13	MIX & MATCH	
u	14	MEMORY ALLOCATION	
u	15	MODEL INFORMATION	

3.1. PLU PROGRAM

Data Structure

Index	1 ~ 14	15 ~ 32	33 ~ 38	39 ~ 46	47 ~ 48	49 ~ 50	51 ~ 64	65 ~ 104
Description	PLU Code	Description	Link Group (1~3)	Status	Auto Tare	Link M&M	Link PLU	Price (1 ~ 5)
Length	14 digits	18 char	2 digits * 3	8 digits	2 digits	2 digits	14 digits	8 digits * 5
Total: 104 digits								

Status Structure

B0 is lowest bit. B3 is highest bit. Combine as a Hexadecimal number (0 ~ F).

Index	Name	Length	Range
1	B0: TAXABLE BY TABLE 3 B1: TAXABLE BY TABLE 4 B2: FOOD STAMP ELIGIBLE B3: NEGATIVE ITEM	1	0 ~ F
2	B0: PRESET B1: PRESET OVERRIDE B2: TAXABLE BY TABLE 1 B3: TAXABLE BY TABLE 2	1	0 ~ F
3	B0: INVENTORY ITEM B1: DISABLE B2: SCALABLE B3: AUTO SCALE	1	0 ~ F
4	B0: HASH B1: SINGLE ITEM B2: NON-ADD # COMPULSORY B3: GALLONAGE ITEM	1	0 ~ F
5	B0: PRINT ON CHECK B1: PRINT PRICE ON RECEIPT B2: PRINT PRICE ON CHECK B3: DISABLE PROMO	1	0 ~ F

Index	Name	Length	Range
6	B0: CONDIMENT B1: COMPULORY CONDIMENT B2 : PRINT ON RECEIPT B3 : PRINT ON DISPLAY	1	0 ~ F
7	Reserved	1	0
8	B0: COUNTER NOT RESET B1 : PRESET OVERRIDE IN MGR CONTROL B2 : DISABLE VOID MODE & RETURN	1	0 ~ 7
9 ~ 10	Auto Tare(1 - 5)	2	00 ~ 05
11 ~ 12	MIX & MATCH	2	00 ~ 99

Group Structure

Index	Name	Length	Range
1	Group #1	2	0 ~ 99
2	Group #2	2	0 ~ 99
3	Group #3	2	0 ~ 99

Price Structure

Index	Name	Length	Range
1	Price1	8	0 ~ 9999999
2	Price2	8	0 ~ 9999999
3	Price3	8	0 ~ 9999999
4	Price4	8	0 ~ 9999999
5	Price5	8	0 ~ 9999999

The length is 8 digits, but range is up to 7 digits.

3.2. GROUP PROGRAM

Data Structure

Index	1 ~ 12	13 ~ 24
Description	Description	Status
Length	12 char	12 digits
Total: 24 digits		

Group Status Structure

Index	Name	Length	Range
1	B0 : (SAT.) KP PORT# 3 B1 : (SAT.) KP PORT# 4 B2 : KP PORT# RECEIPT	1	0 ~ 7
2	B0 : ADD TO GROUP TTL B1 : SEND TO KP B2 : (SAT.) KP PORT# 1 B3 : (SAT.) KP PORT# 2	1	0 ~ F
3 ~ 4	KV GROUP# (0-16)	2	00 ~ 10
5 ~ 6	KV COLOR(0-16)	2	00 ~ 10
7	B0 : (SER.) KP PORT# 3 B1 : (SER.) KP PORT# 4	1	0 ~ 3
8	B0 : PRINT RED ON KP B1 : SEND KP TO KV B2 : (SER.) KP PORT# 1 B3 : (SER.) KP PORT# 2	1	0 ~ F
9 ~ 10	AGE VERIFICATION (0-5)	2	00 ~ 05
11 ~ 12	Reserved	2	00

3.3. TAX PROGRAM

Data Structure

Index	1 ~ 12	13 ~ 20	21 ~ 22
Description	Description	Tax Rate	Status
Length	12 char	8 digit	2 digit
Total: 22 digits			

Tax Status Structure

Index	Name	Length	Range
1	TAX TYPE: 0 : ADD-ON 1 : TAX TABLE 2 : VAT	1	0 ~ 2
2	B0 : GST IS TAXABLE YB RATE1 B1 : GST IS TAXABLE YB RATE2 B2 : GST IS TAXABLE YB RATE3	1	0 ~ 7

3.4. SYSTEM OPTION PROGRAM

Status Structure

B0 is lowest bit. B3 is highest bit. Combine as a Hexadecimal number (00 ~ FF).

Index	Name	Length	Range
1	B0 : Beeper Active	2	00 ~ 01
2	Clock Entry: 0: Push 1:Code	2	00 ~ 01
3	Clock assigned when Clerk key is pushed (1-)	2	01 ~ 99
4	B0 : Clerk is: Y : Pop up, N : Stay down B1 : Drawer needs to be shut to operate B2 : Activate Drawer open alarm	2	00 ~ 07
5	Seconds to allow drawer open	2	00 ~ 63
6	B0 : Allow Post Tender B1 : Open Drawer on Post Tender B2 : Allow Multiple Receipts	2	00 ~ 07
7	B0 : Cash Declaration Required Before Reports. B1 : Manager Control to Tendered Negative Balance. B2 : Manager Control to Tendered Zero Balance B3 : Reset Transaction No. on Z report	2	00 ~ 0F
8	B0 : Reset Grand Total after Z report B1 : Open Drawer when reports run B2 : Open Drawer during Train Mode	2	00 ~ 07
9	Decimal Place (0-3)	2	00 ~ 03
10	Date Format is: 0 : MDY 1 : DMY 2 :YMD	2	00 ~ 02
11	Modifier is 0 : pop up after item 1 : pop up after sale 2 : stay-down	2	00 ~ 02

Index	Name	Length	Range
12	% and Tax Calculation 0 : round up at 0.50 1 : round up 2 : round down	2	00 ~ 02
13	Spilt Price Calculation 0 : round up at 0.50 1 : round up 2 : round down	2	00 ~ 02
14	B0 : Compulsory Eat-In T-Out D-Thru before Tendering B1 : Hash is Y : Normal (Add Net Sale) N : NON-ADD# B2 : Allow Print Screen on X/TIME key	2	00 ~ 07
15	Reset Z counter After Z1 report B0 : Financial Report B1 : Time Report B2 : PLU Report B3 : Clerk Report B4 : Group Report	2	00 ~ 1F
16	B0 : Reset Z counter After Z2 Report - Daily Sales Report B1 : Printer Paper Sensor Active B2 : Deactivate Spilt Pricing	2	00 ~ 07
17	B0 : Allow Direct Mult B1 : Inventory Level Program, the Amount Programmed is Y : Add to Current Level N : Replace Current Level	2	00 ~ 03
18	Global Entry Limit (0 – 14) (0 : No Limit (15 digits))	2	00 ~ 0E
19	Reserved	2	00
20	Price level is 0 : pop up after item 1 : pop up after sale 2 : stay-down	2	00 ~ 02
21	B1 : Electronic Journal Enable	2	00 / 02
22	B0 : Prompt Operator when E.J. buffer is full B2 : Stop operations when E.J. buffer is full	2	00 ~ 05

Index	Name	Length	Range
23	B0 : Send Only negative entries to E.J. B1 : Send reset report to E.J. B2 : Direct Multiplication More than one digit B3 : Tender Validation 1 : AMT Tendered 0 : AMT of sale B4 : X Report & Declaration to E.J.	2	00 ~ 1F
24	Embedded Price Barcode Type (0/1/2/3/4/7)	2	00 ~ 07
25	B0 : Rounding System (ROUND_OPT) B1 : Disable Not Found PLU B2 : Clerk Interrupt B3 : Program Descriptor by code	2	00 ~ 0F
26	B0 : Display add Price of Linked Items B1 : Allow Sale with 0 stock B2 : Allow Price Level only mgr mode B4 : Allow Z Stock Report B5 : Reset GST after Service on Hard Check	2	00 ~ 37
27	B1 : Use Spool B2 : Use MCR B3 : Mix & Match is Taxable	2	00 ~ 0E
28	Back light Color (0-7) 0:ON 1:RED 2:GREEN 3:BLUE 4:RED + GREEN 5:GREEN + BLUE 6:RED + BLUE 7:OFF	2	00 ~ 07
29	Use Track 0 : 1&2 1 : 2&3	2	00 ~ 01
30	B0 : Use Dallas B1 : Auto Cutter B2 : TAX1 SHIFT	2	00 ~ 07
31	Select Language 0: ENGLISH 1:SPANISH 2: GERMAN	2	00 ~ 02
32 ~ 40	Reserved	2	00
41	B0 : Allow Z Financial Report with Open Clerk Interrupt	2	00 ~ 01
42 ~ 50	Reserved	2	00
51	The High Value of the 1st Rounding Section	2	00 ~ 63

Index	Name	Length	Range
52	The Rounded Value of the 1st Rounding Section	2	00 ~ 63
53	The High Value of the 2nd Rounding Section	2	00 ~ 63
54	The Rounded Value of the 2nd Rounding Section	2	00 ~ 63
55	The High Value of the 3rd Rounding Section	2	00 ~ 63
56	The Rounded Value of the 3rd Rounding Section	2	00 ~ 63
57	The High Value of the 4th Rounding Section	2	00 ~ 63
58	The Rounded Value of the 4th Rounding Section	2	00 ~ 63
59	The High Value of the 5th Rounding Section	2	00 ~ 63
60	The Rounded Value of the 5th Rounding Section	2	00 ~ 63

3.5. PRINT OPTION PROGRAM

Status Structure

B0 is lowest bit. B3 is highest bit. Combine as a Hexadecimal number (00 ~ FF).

Index	Name	Length	Range
1	B0 : Print Media Totals on Clerk Report B1 : Print Tax Symbol B2 : Print VOID Mode And Return on Report B3 : Print Audaction on Report	2	00 ~ 0F
2	B0 : Skip Zero Totals on Financial Report B1 : Skip Zero Totals on Clerk Report B2 : Print Clerk Report After Financial Report B3 : Print Sale Item No.	2	00 ~ 0F
3	B0 : Print PLU with Zero Totals On Report B1 : Print Subtotals when pressed B2 : Print % of Sales on PLU Report B3 : Print Consecutive No.	2	00 ~ 0F
4	B0 : Print Date B1 : Print Time B2 : Print Machine No. B3 : Print Clerk Name	2	00 ~ 0F
5	Reserved	2	00
6	B0 : Print Z counter	2	00 ~ 01
7	B0 : Print Receipt When Sign On/Off B1 : Print Grand total On X Report B2 : Print Grand total On Z Report B3 : Print PLU# On EJ	2	00 ~ 0F
8	B0 : Print Gross total On X Report B1 : Print Gross total On Z Report B2 : Print Subtotal without Tax B3 : Tax Amount : Y:Combine N:Itemize	2	00 ~ 0F

Index	Name	Length	Range
9	B0 : Print Tax Amount B1 : Print Taxable Total B2 : Print Tax % Rate B3 : VAT Break Down B4 : Print Train Mode title in Training Mode	2	00 ~ 1F
10	Reserved	2	00
11	Reserved	2	00
12	Reserved	2	00
13	Reserved	2	00
14	Reserved	2	00
15	B0 : Print KP Order# on Receipt B1 : Print Price on KP B2 : Send to KP in void mode B3 : Send to KP in train mode	2	00 ~ 0F
16	B0 : Combine like items on KP B1 : Consolidation on Check Track	2	00 ~ 03
17	Volume unit 0 : GAL 1 : LTR	2	00 ~ 01
18	B0 : Print Preamble Message on Receipt B1 : Print Postamble Message on Receipt B2 : Print Preamble on the guest check B3 : Print Postamble on the guest check	2	00 ~ 0F
19	B1 : Print on Financial Report - Average Item/Cust B2 : Print on Financial Report - Average \$ Cust B3 : Buffer Receipt issue When receipt is on B4 : Priority Print By Group on KP	2	00 ~ 0F
20	B0 : Print PLU # on Receipt B2 : Pre-Prn Graphic Logo on Receipt B3 : Post-Prn Graphic Logo on Receipt B6 : Pre Prn Graphic Logo on Guest Check B7 : Post Prn Graphic Logo on Guest Check	2	00 ~ FF

Index	Name	Length	Range
21	B0 : GRAND TOTAL IS Y:NET N:GROSS B1 : Print E.J FROM Y:OLDEST N:NEWEST B2 : SEND ORDER TO KP AT SUBTOTAL B3 : Print Tax charged for last serviced Items B4 : Not print when polling reports B5 : Print when Program up/down	2	00 ~ 3F
22	Report Port (0-4)	2	00 ~ 04
23	B2 : Print PLU# on PLU Report B5 : Print Date on Service on Hard Check	2	00 ~ 3F
24	E.J. Port (0-4)	2	00 ~ 04
25	Edit Pre Feeding Line (0-5)	2	00 ~ 05
26	Edit End Feeding Line (0-5)	2	00 ~ 05
27	B0 : Print in High Density B2 : Print Journal is Small	2	00 ~ 07
28	B0 : DISABLE LINE FIND ON SLIP PRINTER B1 : Print Check# line on Guest Check B2 : Print Round Amount on KP	2	00 ~ 07
29	Reserved	2	00
30	PRINT LAST LINE OF EJ (0-99)	2	00 ~ 63
31	ADJUSTABLE CUT (0-70)	2	00 ~ 46
32 ~ 50	Reserved	2	00
51	Home Currency Symbol – ASCII Code Hexadecimal Value	2	00 ~ FF
52 ~ 55	Reserved	2	00
56	The 1 st Foreign Currency Symbol – ASCII Code Hexadecimal Value	2	00 ~ FF
57 ~ 60	Reserved	2	00
61	The 2 nd Foreign Currency Symbol – ASCII Code Hexadecimal Value	2	00 ~ FF
62 ~ 65	Reserved	2	00
66	The 3 rd Foreign Currency Symbol – ASCII Code Hexadecimal Value	2	00 ~ FF

Index	Name	Length	Range
67 ~ 70	Reserved	2	00
71	The 4 th Foreign Currency Symbol – ASCII Code Hexadecimal Value	2	00 ~ FF
72 ~ 75	Reserved	2	00

3.6. FUNCTION KEY PROGRAM

Data Structure

Index	1 ~ 12	13 ~ 20	21 ~ 30
Description	Description	HALO	Status
Length	12 char	8 digits	10 digits
Total: 30 digits x 150 keys			

The HALO length is 8 digits, but range is up to 7 digits.

Status Structure

B0 is lowest bit. B3 is highest bit. Combine as a Hexadecimal number (0 ~ F).

Order	Function Key	Index	Name	Length	Range
1 (& 94)	NOSALE (# NOSALE) NONADD # / No Sale Non-Add #	1	B0 : PRINT ON N/S B1 : NON-ADD# PROHIBIT B2 : COMPULSORY NON-ADD# MUST MATCH MAX DIGIT B3 : PRINT NONADD ON GUEST CHECK	1	0 ~ F
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : INHIBIT NO SALE AFTER NON-ADD# B3 : ENFORCE NON-ADD# ENTRY AT START OF SALE	1	0 ~ F
		3	Reserved	1	0
		4	MAX DIGIT (0- 8)	1	0 ~ 8

Order	Function Key	Index	Name	Length	Range
2 ~ 6	% 1 ~ 5	1	B0 : % Apply to : Y : SALE N : ITEM B1 : OVERRIDEABLE B2 : % Charges as : Y : POSITIVE N : NEGATIVE B3 : Taxable BY TAX1	1	0 ~ F
		2	B0 : % Type is : Y : AMOUNT N : % B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : % Value is : Y : OPEN N : PRESET	1	0 ~ F
		3	B0 : ALLOW ONLY ONE TIME AFTER SUBTOTAL ENTERED B1 : ALLOW MULTIPLE AMOUNT DISCOUNT (COUPON) WITHOUT PRESSING SUBTOTAL B2 : PRESET OVERRRIDE IN MGR ONLY B3 : VALIDATION COMPULSORY	1	0 ~ F
		4	B0 : Taxable BY TAX2 B1 : Taxable BY TAX3 B2 : Taxable BY TAX4 B3 : F/S ELIGIBLE	1	0 ~ F
		5	Reserved	1	0
		6	B0 : NON-ADD # COMPULSORY	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
8	ADDCHK / (Add Check)	1	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
		2	B0 : KEY DISABLE B1 : COMPULSORY BEFORE TENDERING B2 : CONSECUTIVE NUMBER ADVANCED B3 : RECEIPT CONDENCING	1	0 ~ F
		3	Reserved	1	0
		4	B0 : VALIDATION COMPULSORY	1	0 ~ 1
9	CANCEL	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : COMPULSORY VALIDATION	1	0 ~ 7
10	CASH	1	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
		2	B0 : AMOUNT TENDER COMPULSORY B1 : OVER/UNDER TENDER IN MGR CONTROL B2 : DISABLE UNDER TENDER B3 : DOES DRAWER OPEN	1	0 ~ F
		3	Reserved	1	0
		4	B1 : COMPULSORY VALIDATION	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
11 ~ 18	CHARGE1 ~ 8 (Misc tend 1 ~ 8)	1	B0 : ALLOW OVER TENDER B1 : NON-ADD # COMPULSORY B2 : EXEMPT TAX 1 B3 : EXEMPT TAX 2	1	0 ~ F
		2	B0 : AMOUNT TENDER COMPULSORY B1 : OVER/UNDER TENDER IN MGR CONTROL B2 : DISABLE UNDER TENDER B3 : DOES DRAWER OPEN	1	0 ~ F
		3	Reserved	1	0
		4	B0 : EXEMPT TAX 3 B1 : EXEMPT TAX 4 B2 : VALIDATION COMPULSORY B3 : SEND TO EFT	1	0 ~ F
		5	Reserved	1	0
		6	EFT PORT (0 - 4)	1	0 ~ 4
19	CHKCASH (Check Cashing)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : VALIDATION COMPULSORY B3 : COMPULSORY CHECK ENDORSEMENT	1	0 ~ F
20	CHKENDOR (Check Endorsement)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : PRINT CHECK AMT IN THE ENDORSEMENT	1	0 ~ 3

Order	Function Key	Index	Name	Length	Range
21	CHECK (Cheque)	1	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
		2	B0 : AMOUNT TENDER COMPULSORY B1 : OVER/UNDER TENDER IN MGR CONTROL B2 : DISABLE UNDER TENDER B3 : DOES DRAWER OPEN	1	0 ~ F
		3	Reserved	1	0
		4	B1 : COMPULSORY CHECK ENDORSEMENT B2 : COMPULSORY VALIDATION	1	0 ~ 3
22	CHECK # (Account #)	1	B0 : PRINT ON REMOTE B1 : ALLOW ONLY ONE CHECK PER TABLE B2 : CHECK# ASSIGNED BY REGISTER B3 : DRIVE THROUGH FEATURE ENABLED	1	0 ~ F
		2	B0 : KEY DISABLE B1 : COMPULSORY FOR ALL SALES B2 : OPENING CLERK HAS EXCLUSIVE ACCESS B3 : PRINT ON RECEIPT	1	0 ~ F
		3	Reserved	1	0
		4	LENGTH OF CHECK (0 - 9)	1	0 ~ 9
		5	Reserved	1	0
		6	B0 : SCAN CHECK # B1 : SHARE CHECK FILE B2 : PRINT CHECK TO THE SERVER B3 : PRINT CHECK TO THE SATELLITE	1	0 ~ F

Order	Function Key	Index	Name	Length	Range
25 ~ 28	CONV1 ~ 4 (Currency Conversion 1 ~ 4)	1	Reserved	1	0
		2	B0 : NUMBER OF DECIMAL	1	0 ~ 7
29	DVTHR (Drive Through)	1	B0 : VALIDATION COMPULSORY	1	0 ~ 1
		2	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
30	EATIN (EAT IN) (Eat In)	1	B0 : VALIDATION COMPULSORY	1	0 ~ 1
		2	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
31	ERRCORR (Error Correction)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL	1	0 ~ 3
33	F/S SUB (Food Stamp Subtotal)	1	Reserved	1	0
		2	B0 : KEY DISABLE	1	0 ~ 1
34	F/S TEND (Food Stamp Tendered)	1	B0 : ALL DECIMAL FOOD STAMP PROG. B1 : CHANGE IS ISSUED IN CASH B2 : DOES DRAWER OPEN B3 : COMPULSORY VALID	1	0 ~ F
		2	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
		3	Reserved	1	0
		4	B0 : ALLOW OVER TENDER	1	0 ~ 1
37	GUEST	1	Reserved	1	0
		2	B0 : COMPULSORY FOR GUEST CHECK B1 : COMPULSORY FOR ALL SALES B2 : PRINT AT REMOTE PRINTER	1	0 ~ 7

Order	Function Key	Index	Name	Length	Range
39 ~ 43	LEVEL 1 ~ 5 (PRICE LEVEL 1 ~ 5)	1	B0: SEND DESCRIPTION TO CHECK	1	0 ~ 1
		2	B0: SEND DESCRIPTION TO KP B1: UNDER MGR CONTROL B2: KEY DISABLE B3: SEND DESCRIPTION TO RECEIPT	1	0 ~ F
44 ~ 53, 98 ~ 107	MACRO1 ~ 10, (11 ~ 20)	1	Reserved	1	0
		2	B1 : UNDER MGR CONTROL	1	0 ~ 1
54	MDSE RETURN (RETURN)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL	1	0 ~ 3
55 ~ 59	MOD 1 ~ 5 (MODIFIER 1 ~ 5)	1	B0 : PRINT ON KP	1	0 ~ 1
		2	B0 : UNDER MGR CONTROL B1 : AFFECT PLU# B2 : PRINT ON CHECK B3 : PRINT ON RECEIPT	1	0 ~ F
		3 ~ 4	AFFECT DIGIT 1 - 14 OF PLU#	2	00 ~ 0E
		5	Reserved	1	0
		6	VALUE OF AFFECTED DIGIT (0 - 9)	1	0 ~ 9
60	PBAL (<i>Previous Balance</i>)	1	Reserved	1	0
		2	B0 : ENTER ANY TIME B1 : REQUIRE AT START OF SALE B2 : PRINT ON GUEST CHECK & HARD CHECK	1	0 ~ 7
63 ~ 65	PO1 ~ 3 (Paid Out 1 ~ 3)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : VALIDATION COMPULSORY	1	0 ~ 7
68	PRINT CHK (PRINT CHECK)	1	Reserved	1	0
		2	COM PORT (0 - 4)	1	0 ~ 4
		3	Reserved	1	0
		4	B0 : AUTO SERVICE CHECK B1 : PRINT CHECK ON RECEIPT B2 : SKIP PRT OF CONSECUTIVE# ON CHECK	1	0 ~ 7

Order	Function Key	Index	Name	Length	Range
69	PROMO (Promotion)	1	B0 : TAXABLE BY TAX 3 B1 : TAXABLE BY TAX 4	1	0 ~ 3
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : TAXABLE BY TAX 1 B3 : TAXABLE BY TAX 2	1	0 ~ F
70 ~ 72	RA1 ~ 3 (Receive on Account 1 ~ 3)	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : VALIDATION COMPULSORY	1	0 ~ 7
73	SUBTOTAL	1	Reserved	1	0
		2	B0 : KEY DISABLE	1	0 ~ 1
74	SCALE	1	B1 : ALLOW DOLLAR ENTRY W/O SCALE ON SCALEABLE ITEM	1	0 ~ 3
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : KEY IS MANUAL ENTRY B3 : TARE-WEIGHT COMPULSORY	1	0 ~ F
		3	Reserved	1	0
		4	B0 : WEIGHT SYM FOR MAN. N : lb Y : kg	1	0 ~ 1
75	SERVICE (New Balance)	1	B0 : CALCULATE TAX 2 B1 : CALCULATE TAX 3 B2 : CALCULATE TAX 4 B3 : VALIDATION COMPULSORY	1	0 ~ F
		2	B0 : NON-ADD # COMPULSORY B1 : PRINT ON RECEIPT B2 : NEGATIVE BALANCE IN MGR CONTROL B3 : CALCULATE TAX 1	1	0 ~ F
		3	Reserved	1	0
		4	HARD CHECK PRITNER PORT (0 - 4)	1	0 ~ 4

Order	Function Key	Index	Name	Length	Range
76	TABLE (TABLE No.)	1	Reserved	1	0
		2	B0 : ENFORCE ON CHECK TRACK B1 : ENFORCE ON ALL SALES B2 : PRINT AT REMOTE PRINTER	1	0 ~ 7
77	TARE	1	Reserved	1	0
		2	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : #5 IS MANUAL TARE	1	0 ~ 7
78	TKOUT (TAKE OUT)	1	B0 : VALIDATION COMPULSORY	1	0 ~ 1
		2	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
79	TAXEXMT (Tax Exempt)	1	B0 : NON-ADD# COMPULSORY B1 : VALIDATION COMPULSORY	1	0 ~ 3
		2	B0 : EXEMPT TAX 1 B1 : EXEMPT TAX 2 B2 : EXEMPT TAX 3 B3 : EXEMPT TAX 4	1	0 ~ F
85	TIP	1	Reserved	1	0
		2	TIP TYPE IS : 1 : % 0 : AMOUNT	1	0 ~ 1
		3	B0 : ADD TAX RATE 3 B1 : ADD TAX RATE 4 B2 : AMOUNT ADDED TO NET&GROSS TOTAL	1	0 ~ 7
		4	B0 : KEY DISABLE B1 : UNDER MGR CONTROL B2 : ADD TAX RATE 1 B3 : ADD TAX RATE 2	1	0 ~ F
86	VOID (Void Item)	1	Reserved	1	0
		2	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : COMPULSORY VALID	1	0 ~ 7

Order	Function Key	Index	Name	Length	Range
87	WASTE	1	Reserved	1	0
		2	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATION COMPULSORY	1	0 ~ 7
89	VALIDATION	1	Reserved	1	0
		2	COM PORT #(0 – 4)	1	0 ~ 4
		3	Reserved	1	0
		4	B0 : KEY DISABLE	1	0 ~ 1
90	FINALISE (Close "Account #")	1	Reserved	1	0
		2	B0 : REQUIRE TO CLOSE CHECK	1	0 ~ 1
108 ~ 122	PLU LOOKUP 1 ~ 15	1	Reserved	1	0
		2	B0 : UNDER MGR CONTROL	1	0 ~ 1

FUNCTION ORDER

NO	FUNC	NO	FUNC	NO	FUNC	NO	FUNC
1	NOSALE	33	F/S SUB	65	PO3	97	NOT USED
2	% 1	34	F/S TEND	66	PFEED	98	MACRO11
3	% 2	35	FUNCLK1	67	PRICEINQ	99	MACRO12
4	% 3	36	FUNCLK2	68	PRINT CHK	100	MACRO13
5	% 4	37	GUEST	69	PROMO	101	MACRO14
6	% 5	38	PLU	70	RA1	102	MACRO15
7	X/TIME	39	LEVEL1	71	RA2	103	MACRO16
8	ADDCHK	40	LEVEL2	72	RA3	104	MACRO17
9	CANCEL	41	LEVEL2	73	SUBTOTAL	105	MACRO18
10	CASH	42	LEVEL2	74	SCALE	106	MACRO19
11	CHARGE1	43	LEVEL2	75	SERVICE	107	MACRO20
12	CHARGE2	44	MACRO1	76	TABLE	108	PLU LOOKUP1
13	CHARGE3	45	MACRO2	77	TARE	109	PLU LOOKUP2
14	CHARGE4	46	MACRO3	78	TKOUT	110	PLU LOOKUP3
15	CHARGE5	47	MACRO4	79	TAXEXMT	111	PLU LOOKUP4
16	CHARGE6	48	MACRO5	80	GST	112	PLU LOOKUP5
17	CHARGE7	49	MACRO6	81	TAX2	113	PLU LOOKUP6
18	CHARGE8	50	MACRO7	82	TAX3	114	PLU LOOKUP7
19	CHKCASH	51	MACRO8	83	TAX4	115	PLU LOOKUP8
20	CHKENDOR	52	MACRO9	84	TIME IN/OUT	116	PLU LOOKUP9
21	CHECK	53	MACRO10	85	TIP	117	PLU LOOKUP10
22	CHECK #	54	MDSE RETURN	86	VOID	118	PLU LOOKUP11
23	CLEAR	55	MOD1	87	WASTE	119	PLU LOOKUP12
24	CLERK	56	MOD2	88	YESNO	120	PLU LOOKUP13
25	CONV1	57	MOD3	89	VALIDATION	121	PLU LOOKUP14
26	CONV2	58	MOD4	90	FINALISE	122	PLU LOOKUP15
27	CONV3	59	MOD5	91	RCPT ON/OFF	123 ~ 135	NOT USED
28	CONV4	60	PBAL	92	JFEED	136 ~ 150	Reserved
29	DVTHR	61	PAGEDOWN	93	INACTIVE		
30	EATIN	62	PAGEUP	94	NONADD #		
31	ERRCORR	63	PO1	95	CASH OUT		
32	FSHIFT	64	PO2	96	NOT USED		

3.7. CLERK PROGRAM DOWN

Data Structure

Index	1 ~ 12	13 ~ 21	22 ~ 37	38 ~ 39
Description	Description	Code	Dallas	Drawer Assign (0 ~ 2)
Length	12 char	9 digits	16 digits	2 digits
Total: 39 digits				

3.8. LOGO DESCRIPTION PROGRAM DOWN

Send Data Structure

Description	Pre-amble	Post-amble	Endorse	Reserved
Length	32 char	32 char	32 char	32 char
Count	6	6	10	4

3.9. REPORT LOGO PROGRAM DOWN

Send Data Structure

Description	Financial Report Description	Clerk Report Description
Length	12 char	12 char
Count #	100	80

3.10. STOCK PROGRAM DOWN

Send Data Structure

14 digit PLU version

Index	1 ~ 14	15 ~ 22
Description	PLU Code	Total
Length	14 digits	8 digits
Total: 22 digits		

3.11. TIME&DATE/ MISC PROGRAM DOWN

Data Structure

Index	Name	Length	Count
1 ~ 300	NLU	14	300
301 ~ 305	Tare Weight	4	5
306	Drawer Limit	8	1
307	Schedule	8	1
308	Train Password	8	1
309	Cheque Change	8	1
310	EFT Password Port 1	8	1
311	EFT Password Port 2	8	1
312	EFT Password Port 3	8	1
313	EFT Password Port 4	8	1
314 ~ 330	Communication Option for Port 1	2	17
331 ~ 347	Communication Option for Port 2	2	17
348 ~ 364	Communication Option for Port 3	2	17
365 ~ 381	Communication Option for Port 4	2	17
382 ~ 531	Program Keyboard*	4	150
532 ~ 536	Age Verification	2	5
537	Date	6	1
538	Time	4	1

NOTE : For ER-900 series, the flat keyboard has the larger layout - 150 keys (15 column x 10 rows); the raised keyboard is only 98 keys (14 column x 7 rows). The raised keyboard models will share the same 150 key counter which listed as first down, then left. The data listed like...

Program Keyboard Line #	150 Key KB location	98 Key KB Location	Program Keyboard Line #	150 Key KB location	98 Key KB Location	Program Keyboard Line #	150 Key KB location	98 Key KB Location
1	(1, 1)	(1, 1)	11	(2, 1)	(2, 4)	21	(3, 1)	(3, 7)
2	(1, 2)	(1, 2)	12	(2, 2)	(2, 5)	22	(3, 2)	(4, 1)
3	(1, 3)	(1, 3)	13	(2, 3)	(2, 6)	23	(3, 3)	(4, 2)
4	(1, 4)	(1, 4)	14	(2, 4)	(2, 7)
5	(1, 5)	(1, 5)	15	(2, 5)	(3, 1)	97	(10, 7)	(14, 6)
6	(1, 6)	(1, 6)	16	(2, 6)	(3, 2)	98	(10, 8)	(14, 7)
7	(1, 7)	(1, 7)	17	(2, 7)	(3, 3)	99	(10, 9)	000
8	(1, 8)	(2, 1)	18	(2, 8)	(3, 4)
9	(1, 9)	(2, 2)	19	(2, 9)	(3, 5)	149	(15, 9)	000
10	(1, 10)	(2, 3)	20	(2, 10)	(3, 6)	150	(15, 10)	000

Communication Option Structure

Index	Name	Length	Range
1	Baud Rate	2	00 ~ 07
2	Parity Check	2	00 ~ 02
3	Data Bits	2	00 ~ 01
4	Stop Bit	2	00 ~ 01
5	Device Function	2	00 ~ 09
6	Initial Feeding Line on KP	2	00 ~ 20
7	Ending Feeding Line on KP	2	00 ~ 20
8	Initial Feeding Line on Slip	2	00 ~ 20
9	Printing Line on Guest Check	2	00 ~ 50
10	Scale Type	2	00 ~ 01
11	Printer Type	2	00 ~ 17
12	Pole Display Type	2	00 ~ 01
13	EFT Type	2	00 ~ 01
14 ~ 17	Reserved	2	00
Total: 17 bytes			

3.12. MACRO PROGRAM DOWN

Data Structure

Index	Name	Length	Count
1 ~ 50	Macro Key 1	4 + 4	50
51 ~ 100	Macro Key 2	4 + 4	50
...
901 ~ 950	Macro Key 19	4 + 4	50
951 ~ 1000	Macro Key 20	4 + 4	50

NOTE : The length of each count is a 8 digit number. The first 4 digit is used as indicator, which is only 0000 in **SPS-300 Series**.

3.13. PLU LOOKUP PROGRAM DOWN

Data Structure

Index	Name	Length	Count
1 ~ 8	PLU Look Up 1	14	8
9 ~ 16	PLU Look Up 2	14	8
...
105 ~ 112	PLU Look Up 14	14	8
113 ~ 120	PLU Look Up 15	14	8

3.14. MIX&MATCH DOWN

Send Data Structure

Index	1 ~ 12	13 ~ 15	16 ~ 20
Description	Description	Trip Level	Price
Length	12 char	3 digits	5 digits
Total : 20 digits			

3.15. MEMORY ALLOCATION UP (UPLOAD ONLY)

Send Data Structure

Name	Length
PLU #	8
Clerk #	8
Group #	8
Check #	8
Check Line	8
Check Type	8
Price Level	8
Mix & Match #	8
EJ Line	8
Total Memory	8
Used Memory	8

3.16. MODEL INFORMATION UP (UPLOAD ONLY)

Data Structure

Name	Length
Description	10 CHAR
VERSION	15 CHAR

4. Appendix

[illegible]