

ERComms PC Communication Specifications **(ASCII format)**

14 digit PLU Number - v3.30 and earlier

15 digit PLU Number - v3.40 and later

ER-900 Series - v3.90 and later

Suitable for

ER-230 *All Versions*

ER-380/M *v 2.2 and later*

ER-390M *v 1.001 and later*

ER-420M *v 1.5 and later*

ER-430M *v 1.4 and later*

ER-52xx/M *v 3.5R and later*

ER-9xx *All Versions*

1st: 2011-02-01

2nd: 2014-05-31

3rd: 2014-08-21

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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	EJ X1	
	-z1	7	EJ Z1	
	-x1	8	OPENTABLE X1	
	-z1	8	OPENTABLE Z1	
	-x1	10	NOT FOUND PLU X1	ER-9xx
	-z1	10	NOT FOUND PLU Z1	ER-9xx
	-x1	11	DRAWER TOTAL X1	ER-9xx

	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	FINANCIAL REPORT LOGO	
	-d	9	CLERK REPORT LOGO	
	-d	10	STOCK	
	-d	11	MACRO	
	-d	12	TIME&DATE / MISC	
	-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	FINANCIAL REPORT LOGO	
	-u	9	CLERK REPORT LOGO	
	-u	10	STOCK	
	-u	11	MACRO	
	-u	12	TIME&DATE / MISC	
	-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,Z1	7	EJ (X1, Z1)	
X1,Z1	8	OPENTABLE (X1, Z1)	
X1,Z1	10	NOT FOUND PLU (X1, Z1)	ER-9xx
X1	11	DRAWER TOTAL (X1)	ER-9xx

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

For ER-230

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	% 1	BASIC REPORT TABLE	25
18	% 2	BASIC REPORT TABLE	25
19	% 3	BASIC REPORT TABLE	25
20	% 4	BASIC REPORT TABLE	25
21	% 5	BASIC REPORT TABLE	25
22	NET SALE	BASIC REPORT TABLE	25
23	CREDIT GST	BASIC REPORT TABLE	25
24	CREDIT TAX2	BASIC REPORT TABLE	25
25	CREDIT TAX3	BASIC REPORT TABLE	25
26	CREDIT TAX4	BASIC REPORT TABLE	25
27	FD/S CREDIT	BASIC REPORT TABLE	25
28	RETURN	BASIC REPORT TABLE	25
29	ERROR CORR	BASIC REPORT TABLE	25

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

Index	Description	Data Type	Length
63	CHG8 SALES	BASIC REPORT TABLE	25
64	FOREIGN 1	BASIC REPORT TABLE	25
65	FOREIGN 2	BASIC REPORT TABLE	25
66	FOREIGN 3	BASIC REPORT TABLE	25
67	FOREIGN 4	BASIC REPORT TABLE	25
68	DRWR TTL	BASIC REPORT TABLE	25
69	PROMO	BASIC REPORT TABLE	25
70	WASTE	BASIC REPORT TABLE	25
71	TRAIN TTL	BASIC REPORT TABLE	25
72	MIX&MATCH	BASIC REPORT TABLE	25
73	ROUND TTL	BASIC REPORT TABLE	25
74	CASH OUT	BASIC REPORT TABLE	25 (ER-9xx)

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

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	NON TAX	BASIC REPORT TABLE	25
5	TAX1 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	TAX1 AMT	BASIC REPORT TABLE	25
10	TAX2 AMT	BASIC REPORT TABLE	25
11	TAX3 AMT	BASIC REPORT TABLE	25
12	TAX4 AMT	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

Index	Description	Data Type	Length
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 TAX1	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
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	CHECK 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	CHECK – IN – D	BASIC REPORT TABLE	25
50	FD/S-IN-D	BASIC REPORT TABLE	25
51	CHG1 DRAWER	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
52	CHG2 DRAWER	BASIC REPORT TABLE	25
53	CHG3 DRAWER	BASIC REPORT TABLE	25
54	CHG4 DRAWER	BASIC REPORT TABLE	25
55	CHG5 DRAWER	BASIC REPORT TABLE	25
56	CHG6 DRAWER	BASIC REPORT TABLE	25
57	CHG7 DRAWER	BASIC REPORT TABLE	25
58	CHG8 DRAWER	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
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	PROMO	BASIC REPORT TABLE	25
73	WASTE	BASIC REPORT TABLE	25
74	TIP	BASIC REPORT TABLE	25
75	TRAIN TTL	BASIC REPORT TABLE	25
76	BAL FORWARD	BASIC REPORT TABLE	25
77	GUESTS	BASIC REPORT TABLE	25
78	P/BAL AMT	BASIC REPORT TABLE	25
79	CHECKS PAID	BASIC REPORT TABLE	25
80	SERVICE	BASIC REPORT TABLE	25
81	MIX&MATCH	BASIC REPORT TABLE	25
82	ROUND TTL	BASIC REPORT TABLE	25
	PAYMENT TOTAL	BASIC REPORT TABLE	25 (ER-9xx)
83	Negative Grand	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
	ROUND TOTAL	BASIC REPORT TABLE	25 (ER-9xx)
84	Grand Total	BASIC REPORT TABLE	25
	CASH OUT	BASIC REPORT TABLE	25 (ER-9xx)
85	Negative Grand	BASIC REPORT TABLE	25 (ER-9xx)
86	Grand Total	BASIC REPORT TABLE	25 (ER-9xx)

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

14 digit PLU version

For ER-230

Index	1 ~ 12	13 ~ 26	27 ~ 51
Description	PLU Description	PLU Code	BASIC REPORT TABLE
Length	12 char	14 digits	25 digits

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

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

15 digit PLU version

For ER-230

Index	1 ~ 12	13 ~ 27	28 ~ 52
Description	PLU Description	PLU Code	BASIC REPORT TABLE
Length	12 char	15 digits	25 digits

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	1 ~ 18	19 ~ 33	34 ~ 58
Description	PLU Description	PLU Code	BASIC REPORT TABLE
Length	18 char	15 digits	25 digits

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

Receive Data Structure

For ER-230

Index	Description	Data Type	Length
1	CLERK DESC	CHAR	18
2	NET SALE	BASIC REPORT TABLE	25
3	GROSS SALES	BASIC REPORT TABLE	25
4	CASH – IN – D	BASIC REPORT TABLE	25
5	CHECK – IN – D	BASIC REPORT TABLE	25
6	CHG1 SALES	BASIC REPORT TABLE	25
7	CHG2 SALES	BASIC REPORT TABLE	25
8	CHG3 SALES	BASIC REPORT TABLE	25
9	CHG4 SALES	BASIC REPORT TABLE	25
10	CHG5 SALES	BASIC REPORT TABLE	25
11	CHG6 SALES	BASIC REPORT TABLE	25
12	CHG7 SALES	BASIC REPORT TABLE	25
13	CHG8 SALES	BASIC REPORT TABLE	25
14	DRWR TTL	BASIC REPORT TABLE	25

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

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	TAX1 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	TAX1	BASIC REPORT TABLE	25
9	TAX2	BASIC REPORT TABLE	25
10	TAX3	BASIC REPORT TABLE	25
11	TAX4	BASIC REPORT TABLE	25

Index	Description	Data Type	Length
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 TAX1	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
31	PREVIOUS VD	BASIC REPORT TABLE	25
32	MODE VOID	BASIC REPORT TABLE	25
33	GROSS SALES	BASIC REPORT TABLE	25
34	CASH SALES	BASIC REPORT TABLE	25
35	CHECK SALES	BASIC REPORT TABLE	25
36	CANCEL	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

Index	Description	Data Type	Length
45	CHECK – IN – D	BASIC REPORT TABLE	25
46	FD/S-IN-D	BASIC REPORT TABLE	25
47	CHG1 SALES	BASIC REPORT TABLE	25
48	CHG2 SALES	BASIC REPORT TABLE	25
49	CHG3 SALES	BASIC REPORT TABLE	25
50	CHG4 SALES	BASIC REPORT TABLE	25
51	CHG5 SALES	BASIC REPORT TABLE	25
52	CHG6 SALES	BASIC REPORT TABLE	25
53	CHG7 SALES	BASIC REPORT TABLE	25
54	CHG8 SALES	BASIC REPORT TABLE	25
55	FOREIGN 1	BASIC REPORT TABLE	25
56	FOREIGN 2	BASIC REPORT TABLE	25
57	FOREIGN 3	BASIC REPORT TABLE	25
58	FOREIGN 4	BASIC REPORT TABLE	25
59	DRWR TTL	BASIC REPORT TABLE	25
60	PROMO	BASIC REPORT TABLE	25
61	WASTE	BASIC REPORT TABLE	25
62	TIP	BASIC REPORT TABLE	25
63	TRAIN TTL	BASIC REPORT TABLE	25
64	BAL FORWARD	BASIC REPORT TABLE	25
65	GUESTS	BASIC REPORT TABLE	25
66	P/BAL	BASIC REPORT TABLE	25
67	CHECKS PAID	BASIC REPORT TABLE	25
68	SERVICE	BASIC REPORT TABLE	25
69	NOSALE	BASIC REPORT TABLE	25
70	MIX&MATCH	BASIC REPORT TABLE	25
71	CASH OUT	BASIC REPORT TABLE	25 (ER-9xx)
72	PAYMENT TTL	BASIC REPORT TABLE	25 (ER-9xx)

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

Receive Data Structure

For ER-230

Description	GROUP DESCRIPTION	BASIC REORT TABLE
Length	12 char	25 digits

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Description	GROUP DESCRIPTION	BASIC REORT TABLE
Length	18 char	25 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
4	4 Day	BASIC REPORT TABLE	25
5	5 Day	BASIC REPORT TABLE	25
6	6 Day	BASIC REPORT TABLE	25
7	7 Day	BASIC REPORT TABLE	25
8	8 Day	BASIC REPORT TABLE	25
9	9 Day	BASIC REPORT TABLE	25
10	10 Day	BASIC REPORT TABLE	25
11	11Day	BASIC REPORT TABLE	25
12	12 Day	BASIC REPORT TABLE	25
13	13 Day	BASIC REPORT TABLE	25
14	14 Day	BASIC REPORT TABLE	25
15	15 Day	BASIC REPORT TABLE	25
16	16 Day	BASIC REPORT TABLE	25
17	17 Day	BASIC REPORT TABLE	25
18	18 Day	BASIC REPORT TABLE	25
19	19 Day	BASIC REPORT TABLE	25
20	20 Day	BASIC REPORT TABLE	25
21	21 Day	BASIC REPORT TABLE	25
22	22 Day	BASIC REPORT TABLE	25
23	23 Day	BASIC REPORT TABLE	25
24	24 Day	BASIC REPORT TABLE	25
25	25 Day	BASIC REPORT TABLE	25
26	26 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

Index	Description	Data Type	Length
31	31 Day	BASIC REPORT TABLE	25
32	Total	BASIC REPORT TABLE	25

2.8. STOCK REPORT (X1, Z1)

Receive Data Structure

14 digit PLU version

For ER-230

Index	1 ~ 12	13 ~ 26	27	28 ~ 35
Description	PLU Description	PLU Code	Count's sign	Count
Length	12 char	14 digits	'+' or '-'	8 digits

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

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

15 digit PLU version

For ER-230

Index	1 ~ 12	13 ~ 27	28	29 ~ 36
Description	PLU Description	PLU Code	Count's sign	Count
Length	12 char	15 digits	'+' or '-'	8 digits

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	1 ~ 18	19 ~ 33	34	35 ~ 42
Description	PLU Description	PLU Code	Count's sign	Count
Length	18 char	15 digits	'+' or '-'	8 digits

2.9. EJ (X1, Z1)

Receive Data Structure

For ER-230, ER-380/M, ER-390M and **ER-9xx**

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

2.10. OPEN TABLE REPORT (X1, Z1)

Receive Data Structure

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

Index	1 ~ 18	19 ~ 26	27 ~ 28	29	30 ~ 37
Description	Clerk Description	Check #	Clerk #	Amount's sign	Amount
Length	18 char	8 digits	2 digits	'+' or '-'	8 digits

For **ER-9xx**

Index	1 ~ 18	19 ~ 26	27 ~ 28	29	30 ~ 37	38 ~ 41
Description	Clerk Description	Check #	Clerk #	Amount's sign	Amount	Table #
Length	18 char	8 digits	2 digits	'+' or '-'	8 digits	4 digits

2.11. NOT FOUND PLU REPORT (X1, Z1) (ER-9xx)

Receive Data Structure

For **ER-9xx**

Index	1 ~ 18	19 ~ 33
Description	PLU Description	PLU Code
Length	18 char	15 digits

2.12. DRAWER TOTAL REPORT (X1) (ER-9xx)

Receive Data Structure

For **ER-9xx**

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

14 digit PLU version

For ER-230

Index	1 ~ 14	15 ~ 26	27 ~ 32	33 ~ 40	41 ~ 42	42 ~ 56	57 ~ 58	59 ~ 74
Description	PLU Code	Description	Link Group (1~3)	Status	Auto Tare	Link PLU	Link M&M	Price (1 ~ 2)
Length	14 digits	12 char	2 digits * 3	8 digits	2 digits	14 digits	2 digits	8 digits * 2
Total: 74 digits								

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

Index	1 ~ 14	15 ~ 32	33 ~ 38	39 ~ 46	47 ~ 48	49 ~ 62	63 ~ 64	65 ~ 80
Description	PLU Code	Description	Link Group (1~3)	Status	Auto Tare	Link PLU	Link M&M	Price (1 ~ 2)
Length	14 digits	18 char	2 digits * 3	8 digits	2 digits	14 digits	2 digits	8 digits * 2
Total: 80 digits								

15 digit PLU version

For ER-230

Index	1 ~ 15	16 ~ 27	28 ~ 33	34 ~ 41	42 ~ 43	44 ~ 58	59 ~ 60	61 ~ 76
Description	PLU Code	Description	Link Group (1~3)	Status	Auto Tare	Link PLU	Link M&M	Price (1 ~ 2)
Length	15 digits	12 char	2 digits * 3	8 digits	2 digits	15 digits	2 digits	8 digits * 2
Total: 76 digits								

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	1 ~ 15	16 ~ 33	34 ~ 39	40 ~ 47	48 ~ 49	50 ~ 64	65 ~ 66	67 ~ 82
Description	PLU Code	Description	Link Group (1~3)	Status	Auto Tare	Link PLU	Link M&M	Price (1 ~ 2)
Length	15 digits	18 char	2 digits * 3	8 digits	2 digits	15 digits	2 digits	8 digits * 2
Total: 82 digits								

Status Structure

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

Index	Name	Length	Range
1	B0: PRESET B1: PRESET OVERRIDE B2: TAXABLE BY TABLE 1 B3: TAXABLE BY TABLE 2	1	0 ~ F
2	B0: TAXABLE BY TABLE 3 B1: TAXABLE BY TABLE 4 B2: FOOD STAMP ELIGIBLE B3: NEGATIVE ITEM	1	0 ~ F
3	B0: HASH B1: SINGLE ITEM B2: NON-ADD # COMP B3: GALLONAGE ITEM	1	0 ~ F
4	B0: INVENTORY ITEM B1: DISABLE B2: SCALABLE B3: AUTO SCALE	1	0 ~ F
5	B0: CONDIMENT B1: COMP. CONDMNT B2 : PRINT ON RECEIPT B3 : PRINT ON DISPLAY PRINT ON JOURNAL (ER-9xx)	1	0 ~ F
6	B0: PRINT ON CHECK[#] B1: PRT PRICE ON RCPT B2: PRT PRICE ON CHK[#] B3: DISABLE PROMO	1	0 ~ F
7	B0: COUNTER NOT RESET B1 : PRESET OVERRIDE IN MGR CONTROL[#] B2 : PRINT ON JOURNAL* DISABLE VOID & RETURN (ER-9xx)*	1	0 ~ 7
8	Auto Tare(1 - 5)	1	0 ~ 5

* ER-420M, ER-430M. ER-52xx/M and ER-9xx ONLY

[#] Not available on ER-230

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

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

3.2. GROUP PROGRAM

Data Structure

For ER-230

Index	1 ~ 12	13 ~ 20
Description	Description	Status
Length	12 char	7
Total: 20 digits		

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	1 ~ 18	19 ~ 26
Description	Description	Status
Length	18 char	8
Total: 26 digits		

Group Status Structure

Index	Name	Length	Range
1	B1 : ADD TO GROUP TTL B2 : SEND TO KP B3 : KP PORT# 1 B4 : KP PORT# 2	1	0 ~ F
2	B1 : KP PORT# RCPT KP PORT# 3 (ER-9xx) B2 : PRINT RED ON KP KP PORT# 4 (ER-9xx) B3 : KP PORT# RCPT (ER-9xx) B4 : PRINT RED ON KP (ER-9xx)	1	0 ~ 3 (0 ~ F (ER-9xx))

3.3. TAX PROGRAM

Data Structure

For ER-230

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

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	1 ~ 18	19 ~ 26	27 ~ 28
Description	Description	Tax Rate	Status
Length	18 char	8 digit	2 digit
Total: 28 digits			

Tax Status Structure

Index	Name	Length	Range
1	B1 : GST IS TAXABLE YB RATE1 B2 : GST IS TAXABLE YB RATE2 B3 : GST IS TAXABLE YB RATE3	1	0 ~ 7
2	0 : ADD-ON 1 : TAX TABLE 2 : VAT	1	0 ~ 2

3.4. SYSTEM OPTION PROGRAM

Status Structure

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

For ER-230

Index	Name	Length	Range
1	B1 : Beeper Active	2	00 ~ 03
2	Clerk Entry : 0: Push 1:Code	2	00 ~ 01
3	B1 : Clerk is : Y : POP-UP N : STAY-DOWN	2	00
4	B1 : Drawer need to be shut to operate B2 : Activate Drawer open alarm	2	00 ~ 07
5	Seconds to allow drawer open	2	00 ~ 63
6	B1 : Allow Post Tender B2 : Open Drawer on Post Tender B3 : Allow Multiple Receipts	2	00 ~ 07
7	B1 : Cash Declaration Req. Before Reports	2	00 ~ 0F
8	B1 : Reset Transaction No. on Z report		
9	B1 : Reset Grand Total after Z report B2 : Open Drawer when reports run B3 : Open Drawer during Train Mode	2	00 ~ 07
10	Decimal Place	2	00 ~ 03
11	Date Format 0 : MDY 1: DMY 2 :YMD	2	00 ~ 02
12	% and Tax cal. 0 : round up at 0.50 1 : round up 2 : round down	2	00 ~ 01
13	Spilt Price Calculation 0 : round up at 0.50 1 : round up 2 : round down	2	00 ~ 01
14	B1 : Hash is Y : Normal (Add Net Sale) N : NON-ADD#	2	00 ~ 07
15	Reset Z counter After Z1 report B1 : Financial Report B2 : Time Report B3 : PLU Report	2	00 ~ 1F

Index	Name	Length	Range
16	Reset Z counter After Z1 report B1 : Clerk Report B2 : Group Report		
17	Reset Z counter After Z2 report B1 : Daily Sales Report B2 : Printer Paper Sensor Active B3 : Deactivate Spilt Pricing	2	00 ~ 07
18	B1 : Allow Direct Mult B2 : Inventory Count Program Y : Add to Curr. Lvl N : Counter Replace Curr. Lvl	2	00 ~ 03
19	Global Entry Limit (0 – 14)	2	00 ~ 0E
20	B1 : Direct Mult More than One digit B2 : Tender Validation 1 : AMT Tendered 0 : AMT of sale	2	00 ~ 1F
21	B1 : Display add price of linked items B2 : Allow sale with 0 stock		
22	B1 : Allow Australian round on SUB B2 : Allow Australian round on CASH B3 : Allow Z Stock Report	2	00 ~ 00
23	Training Mode Enter	2	00 ~ 0F
24	B1 : Use Spool		
25	B1 : Overlay Descriptor B2 : Percent Not Affect to Net Sale B3 : Disable Cash Declare		
26	Disable Price level key B1 : Level 1 B2 : Level 2	2	00 ~ 1F
27	Price level is 0 : pop up after item 1 : pop up after sale 2 . stay-down	2	00 ~ 02
28	Modifier is 0 : pop up after item 1 : pop up after sale 2 : stay-down	2	00 ~ 02
29	Embedded Price Barcode Type (0/1/2/3/4/7)		

Index	Name	Length	Range
30	B1 : Electronic Journal Enable B2 : Prompt Operator when E.J. buffer is full		
31	Print Density		
32	B1 : New Zealand Round on SUB B2 : New Zealand Round on CASH B3 : Active Beep Sound for Saving Battery	2	00
33 ~ 40	Reserved	2	00

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	Name	Length	Range
1	ER-380/M ER-390M ER-420M ER-430M	2	00 ~ 01
	ER-52xx/M ER-9xx		00 ~ 03
2	Clock Entry: 0: Push 1:Code	2	00 ~ 01
3	Reserved	2	00
4	B1 : Pop up , Stay down B2 : Drawer need to be shut to operate B3 : Activate Drawer open alarm	2	00 ~ 07
5	Seconds to allow drawer open	2	00 ~ 63
6	B1 : Allow Post Tender B2 : Open Drawer on Post Tender B3 : Allow Multiple Receipts	2	00 ~ 07
7	B1 : Cash Declaration Req. B2 : Negative Balance B3 : Zero Balance B4 : Reset Transaction No. on Z report	2	00 ~ 0F
8	B1 : Reset Grand Total after Z report B2 : Open Drawer when reports run B3 : Open Drawer during Train Mode	2	00 ~ 07
9	Decimal Place	2	00 ~ 03
10	Date Format 0 : MDY 1: DMY 2 :YMD	2	00 ~ 02

Index	Name	Length	Range
11	Modifier is 0 : pop up after item 1 : pop up after sale 2 : stay-down	2	00 ~ 02
12	% and Tax cal. 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	B1 : Compulsory Eat-In B2 : Hash is Y : Normal (Add Net Sale) N : NON-ADD#	2	00 ~ 03
15	Reset Z counter After Z1 report B1 : Financial Report B2 : Time Report B3 : PLU Report B4 : Clerk Report B5 : Group Report	2	00 ~ 1F
16	Reset Z counter After Z2 report B1 : Daily Sales Report B2 : Printer Paper Sensor Active B3 : Deactivate Spilt Pricing	2	00 ~ 07
17	B1 : Allow Direct Mult B2 : Inventory Count Program Y : Add to Curr. Lvl N : Counter Replace Curr. Lvl	2	00 ~ 03
18	Global Entry Limit (0 – 14)	2	00 ~ 0E
19	Disable Price level key B1 : Level 1 B2 : Level 2	2	00 ~ 1F
20	Price level is 0 : pop up after item 1 : pop up after sale 2 : stay-down	2	00 ~ 02

Index	Name		Length	Range
21	ER-380/M ER-390M ER-9xx	B2 : Electronic Journal Enable	2	00 / 02
	ER-420M ER-430M ER-52xx/M	Embedded Price Barcode Type (0/1/2/3/4/7)		00 ~ 04 / 07
22	ER-380/M ER-390M ER-9xx	B1 : Prompt Operator when E.J. buffer is full B3 : Stop operations when E.J. buffer is full	2	00 ~ 01 / 04 ~ 05
	ER-420M ER-430M	B1 : Reset GST after Service on HARD CHK		00 ~ 01
	ER-52xx/M	B1 : KBD PLU Function B2 : Reset GST after Service on HARD CHK B3 : Use standard check digit calculation		00 ~ 07
23	ER-380/M ER-390M ER-9xx	B1 : Send Only negative entries to E.J. B2 : Send reset report to E.J. B3 : Direct Multi More than one digit B4 : Tender Validation 1 : AMT Tendered 0 : AMT of sale	2	00 ~ 0F
	ER-420M ER-430M ER-52xx/M	B3 : Direct Multi More than One digit B4 : Tender Validation 1 : AMT Tendered 0 : AMT of sale		00 / 04 / 08 / 0F
24	ER-380/M ER-390M ER-52xx/M ER-9xx	B2 : Not Count in memory in void mode	2	00 / 02
	ER-420M ER-430M	Reserved		00
25	ER-420M ER-430M	B6 : Clerk Interrupt	2	00 ~ 22
	ER-380/M ER-390M ER-52xx/M ER-9xx	B2 : VAT shift affect the whole receipt B6 : Clerk Interrupt		
26	B1 : Display add price of linked items B2 : Allow sale with 0 stock B3 : Allow Australian round on SUB B4 : Allow Australian round on CASH B5 : Allow Z Stock Report		2	00 ~ 3F

Index	Name		Length	Range
27	ER-380/M ER-390M	B1 : Use Spool B2 : Reset GST Service on Hard Chk B3 : Overlay Descriptor	2	00 ~ 07
	ER-52xx/M	B1 : Allow Z-Rpt with Open CLK Interrupt B2 : Allow New Zealand Round on Subtotal B3 : Allow New Zealand Round on Cash		
	ER-9xx	B1 : Overlay Descriptor B2 : Use Spool B3 : Use MCR		
	ER-420M ER-430M	Reserved		00
28	ER-380/M ER-390M ER-9xx	B2 : Percent Affect to Net Sale B3 : Disable Cash Declare	2	00 / 02 / 04 / 06
	ER-420M ER-430M ER-52xx/M	B1 : Overlay Descriptor B2 : Percent Not Affect to Net Sale B3 : Disable Cash Declare		00 ~ 07
29	ER-380/M ER-390M	Embedded Price Barcode Type (0/1/2/3/4/7)	2	00 ~ 04 / 07
	ER-52xx/M	B1 : Disable Line Find on Slip Printer		00 ~ 01
	ER-9xx	Use Track 1&2 : 0 2&3 : 1		
	ER-420M ER-430M	Reserved		00
30	ER-380/M ER-390M ER-420M ER-430M	B1 : New Zealand Round on SUB B2 : New Zealand Round on CASH B3 : Allow Z Report with Open Clerk Interrupt Sales	2	00 ~ 07
	ER-9xx	B1 : Use Dallas B2 : Auto Cutter B3 : M & M is Taxable		
	ER-52xx/M	Reserved		
				00

Index	Name		Length	Range
31	ER-380/M ER-390M ER-420M ER-430M	B1 : Disable Line Find On Slip Printer	2	00 ~ 01
	ER-52xx/M	B1 : Auto Cutter		
	ER-9xx	Language 0 : English 1 : Spanish 2 : German		00 ~ 02
32	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Reserved	2	00
	ER-9xx	Embedded Price Barcode Type (0/1/2/3/4/7)		00 ~ 04 / 07
33 ~ 35	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M ER-9xx	Reserved	2	00
36	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	B1 : MGR Required to Open Finalise Checks B2 : Charge Posting Use B3 : Send Reports to Remote Printer	2	00 ~ 07
37	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	B1 : Disable Not Found PLU	2	00 ~ 01
38	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	Reserved	2	00

Index	Name		Length	Range
39	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	B1 : KBD PLU Function	2	00 ~ 01
40	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	B1 : Allow Z-Report with Open Clerk Interrupt Sale B2 : Allow New-Zealand Round on Subtotal B3 : Allow New-Zealand Round on Cash	2	00 ~ 07
41	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	B1 : Disable Line Find on Slip Printer	2	00 ~ 01
42 ~ 50	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	Reserved	2	00
51	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
52	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
53	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			

Index	Name		Length	Range
54	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
55	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
56	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
57	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
58	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
59	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			
60	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx			

3.5. PRINT OPTION PROGRAM

Status Structure

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

For ER-230

Index	Name	Length	Range
1	B1 : Print Tax Symbol	2	00 ~ 0F
2	B1 : Print VD Mode And Return on Report B2 : Print Audaction on Report		
3	B1 : Skip Zero Totals on Financial Report B2 : Skip Zero Totals on Clerk Report B3 : Print Clerk Report After Financial Report	2	00 ~ 0F
4	B1 : Print Sale Item No B2 : Print PLU with Zero B3 : Print Subtotals when pressed	2	00 ~ 0F
5	B1 : Print % of Sales on PLU Report B2 : Print Cons. No. B3 : Print Machine No.		
6	B1 : Print Date B2 : Print Time	2	00 ~ 0F
7	B1 : Print Clerk Name B2 : Print Z counter		
8	Home Currency Symbol	2	00 ~ FF
9	B1 : Print Receipt When Sign On/Off B2 : Print Grand total On X Report B3 : Print Grand total On Z Report	2	00 ~ 07
10	B1 : Print Gross total On X Report B2 : Print Gross total On Z Report		
11	B3 : Print Subtotal W/O Tax B4 : Combine, Itemise (Tax Amount)	2	00 ~ 0F
12	B1 : Print Tax Amount B2 : Print Taxable Total B3 : Print Tax % Rate	2	00 ~ 1F
13	B1 : VAT Break Down B2 : Print Train Mode title when train mode		

Index	Name	Length	Range
14	Conv. #1	2	00 ~ 01
15	Conv. #2	2	00 ~ 01
16	Conv. #3	2	00 ~ 01
17	Conv. #4	2	00 ~ 01
18	B1 : Print KP Index # on Receipt B2 : Print Price on KP		
19	B1 : Send to KP in void mode B2 : Send to KP in train mode	2	00 ~ 0F
20	B1 : Combine like items on KP B2 : Volume unit 0 : GAL 1 : LTR	2	00 ~ 03
21	B1 : Print Preamble Message on Receipt B2 : Print Post-amble Message on Receipt	2	00 ~ 01
22	B1 : Average Item/Cust B2 : AVG \$ Cust	2	00 ~ 0F
23	B1 : Buffer Receipt issue When receipt is on B2 : Priority Print By Group on KP B3 : Print PLU # on Receipt		
24	B1 : Not Print When Polling Data B2 : Print PLU# on PLU Report B3 : Grand Total is N : Gross Y : NET		
25	B1 : Send Order to KP at SUB		
26	B1 : Pre-Prn Graphic Logo on Receipt		
27	B1 : Pre-Printing Logo is Default		
28	Edit Pre Feeding Line (0-5)	2	00 ~ 05
29	Edit End Feeding Line (0-5)	2	00 ~ 05
30 ~ 40	For Future Use	2	00 ~ 00

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	Name	Length	Range
1	B1 : Medial Totals on Clerk Report B2 : Print Tax Symbol B3 : Print VD Mode And Return on Report B4 : Print Audaction on Report	2	00 ~ 0F
2	B1 : Skip Zero Totals on Financial Report B2 : Skip Zero Totals on Clerk Report B3 : Print Clerk Report After Financial Report B4 : Print Sale Item No.	2	00 ~ 0F
3	B1 : Print PLU with Zero B2 : Print Subtotals when pressed B3 : Print % of Sales on PLU Report B4 : Print Cons. No.	2	00 ~ 0F
4	B1 : Print Date B2 : Print Time B3 : Print Machine No. B4 : Print Clerk Name	2	00 ~ 0F
5	Home Currency Symbol	2	00 ~ FF
6	B1 : Print Z counter	2	00 ~ 01
7	B1 : Print Receipt When Sign On/Off B2 : Print Grand total On X Report B3 : Print Grand total On Z Report	2	00 ~ 07
8	B1 : Print Gross total On X Report B2 : Print Gross total On Z Report B3 : Print Subtotal W/O Tax B4 : Combine, Itemise (Tax Amount)	2	00 ~ 0F
9	B1 : Print Tax Amount B2 : Print Taxable Total B3 : Print Tax % Rate B4 : VAT Break Down B5 : Print Train Mode title when train mode	2	00 ~ 1F
10	Reserved	2	00 ~ 00
11	Conv. #1	2	00 ~ 01
12	Conv. #2	2	00 ~ 01

Index	Name		Length	Range
13	Conv. #3		2	00 ~ 01
14	Conv. #4		2	00 ~ 01
15	B1 : Print KP Index # on Receipt B2 : Print Price on KP B3 : Send to KP in void mode B4 : Send to KP in train mode B5 : Print Round Amount on KP		2	00 ~ 0F
16	B1 : Combine like items on KP B2 : Consolidation on Check Track		2	00 ~ 03
17	Volume unit 0 : GAL 1 : LTR		2	00 ~ 01
18	ER-380/M ER-390M ER-9xx	B1 : Print Preamble B2 : Print Post-amble Message on Receipt B3 : Print Preamble B4 : Print Post-amble on the guest check	2	00 ~ 1F
	ER-420M ER-430M ER-52xx/M	B1 : Print Preamble B2 : Print Post-amble Message on Receipt B3 : Print Preamble B4 : Print Post-amble on the guest check B5 : Print Pre/Post Message on Journal		
19	B1 : Average Item/Cust B2 : AVG \$ Cust B3 : Buffer Receipt issue When receipt is on B4 : Priority Print By Group on KP		2	00 ~ 0F

Index	Name		Length	Range
20	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	B1 : Print PLU # on Receipt B3 : Pre-Prn Graphic Logo on Receipt B4 : Post-Prn Graphic Logo on Receipt B5 : Pre-Printing Logo is Default B6 : Post-Printing Logo is Default B7 : Pre Prn Graphic Logo on Guest Check B8 : Post Prn Graphic Logo on Guest Check	2	00 ~ FF
	ER-9xx	B1 : Print PLU # on Receipt B3 : Pre-Prn Graphic Logo on Receipt B4 : Post-Prn Graphic Logo on Receipt B7 : Pre Prn Graphic Logo on Guest Check B8 : Post Prn Graphic Logo on Guest Check		
21	Reserved		2	00
22	B1 : Print Check# Line on the Guest Check		2	00
23	B2 : Not Print When Polling Data B3 : Print PLU# on PLU Report B4 : Grand Total is N : Gross Y : NET B5 : Send Order to KP at SUB B6 : Print Date on Service on Hard Check		2	00 ~ 3F
24	ER-380/M ER-390M ER-9xx	Reserved	2	00 ~ 00
	ER-420M ER-430M ER-52xx/M	B1 : Journal is normal B2 : Journal is Reverse B3 : Journal is OFF	2	00 ~ 03
25	Edit Pre Feeding Line (0-5)		2	00 ~ 05
26	Edit End Feeding Line (0-5)		2	00 ~ 05

Index	Name		Length	Range
27	ER-380/M ER-390M	B1 : Register Printing is To Set To Journal	2	00 ~ 01
	ER-9xx	B1 : PRN in High Density B3 : Journal is Off B4 : Journal is Small		00 ~ 01 / 04 ~ 05 / 08 ~ 09 / 12 ~ 13
	ER-420M ER-430M ER-52xx/M	Reserved		
28	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Reserved	2	00
	ER-9xx	B1 : Print E.J. from 1 : Oldest 0 : Newest		00 ~ 01
29	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M ER-9xx	Reserved	2	00
30	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Reserved	2	00
	ER-9xx	Adjustable Cut		
31	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	Print Last Line of EJ	2	00 ~ 63
32 ~ 50	ER-380/M ER-390M ER-420M ER-430M ER-52xx/M	Not Applicable	n/a	n/a
	ER-9xx	Reserved	2	00

3.6. FUNCTION KEY PROGRAM

For ER-230

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			

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 (& 136)	NOSALE (NONADD #) / No Sale (Non-Add #)	1	B1 : KEY DISABLE B2 : RESERVED B3 : INHIBIT NO SALE B4 : ENFORCE# ENTRY	1	0 ~ F
		2	B5 : PRINT ON N/S B6 : NON-ADD# PROHIBIT B7 : COMP. NON-ADD# MUST MATCH MAX DIGIT B8 : PRINT NONADD ON GUEST CHECK	1	0 ~ F
		3	MAX DIGIT (0- 8)	1	0 ~ 8

Order	Function Key	Index	Name	Length	Range
2 ~ 6	1% ~ 5% / % 1 ~ % 5	1	B1 : AMOUNT:Y %:N. B2 : KEY DISABLE B3 : RESERVED B4 : OPEN:Y PRESET:N	1	0 ~ F
		2	B5 : SALE:Y ITEM:N B6 : OVERRIDEABLE B7 : POS.:Y NEG.:N B8 : Taxable BY TAX1	1	0 ~ F
		3	B1 : Taxable BY TAX2 B2 : Taxable BY TAX3 B3 : Taxable BY TAX4 B4 : F/S ELIGIBLE	1	0 ~ F
		4	B5 : ALLOW ONLY AFTER SUBTOTAL ENTRY B6 : ALLOW MULTIPLE AMT DISCOUNT (COUPON) WITHOUT PRESSING SUBTOTAL B7 : RESERVED B8 : VALIDATION COMP.	1	0 ~ F
8	ADD CHK / Add Check	1	B1 : KEY DISABLE B2 : COMPULSORY FEFORE TENDERING B3 : CONSECUTIVE NUMBER ADVANCED B4 : RCPT CONDENCING ADD CHECK PROG.	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 1 B7 : EXEMPT TAX 1 B8 : EXEMPT TAX 1	1	0 ~ F
		3	B1 : VALIDATION COMP.	1	0 ~ F

Order	Function Key	Index	Name	Length	Range
9	CANCEL	1	B1 : KEY DISABLE B2 : RESERVED B3 : COMPULOSRY VALID.	1	0 ~ 3
10	CASH	1	B1 : AMOUNT TEND COMP. B2 : RESERVED B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 2 B7 : EXEMPT TAX 3 B8 : EXEMPT TAX 4	1	0 ~ 5
		3	B1 : COMPULOSRY VALID.	1	0 ~ F
11 ~ 18	CHARGE1 ~ 8 / Misctend 1 ~ 8	1	B1 : AMOUNT TEND COMP. B2 : RESERVED B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : ALLOW OVER TEND B6 : NON-ADD # COMP. B7 : EXEMPT TAX 1 B8 : EXEMPT TAX 2	1	0 ~ F
		3	B7 : EXEMPT TAX 3 B8 : EXEMPT TAX 4 B3 : VALIDATION COMP. B4 : SEND TO EFT	1	0 ~ F
		4	EFT PORT (0-2)		
19	CHKCASH / Check Cashing	1	B1 : KEY DISABLE B2 : RESERVED B3 : VALIDATIONCOMP.	1	0 ~ F

Order	Function Key	Index	Name	Length	Range
20	CHKENDOR / Check Endorsement	1	B1 : KEY DISABLE B2 : PRINT CHECK AMT IN THE ENDORSEMENT B3 : PRINT DATE B4 : PRINT TIME	1	0 ~ F
		2	B5 : PRINT CLERK B6 : CONSECUTIVE NO.	1	
21	CHECK	1	B1 : AMOUNT TEND COMP. B2 : RESERVED B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 2 B7 : EXEMPT TAX 3 B8 : EXEMPT TAX 4	1	0 ~ F
		3	B1 : COMPULSORY CHECK ENDORSE. B2 : COMPULSORY VALID.	1	0 ~ F
25 ~ 28	CONV1 ~ 4 / Currency Conversion 1 ~ 4	1	NUMBER OF DECIMAL	1	0 ~ F
31	ERRCORR / Error Correct	1	B1 : KEY DISABLE B2 : RESERVED B3 : VALIDATION COMP.	1	0 ~ 3
33	F/S SUB Food Stamp Subtotal	1	B1 : KEY DISABLE	1	0 ~ F

Order	Function Key	Index	Name	Length	Range
34	F/S TEND / Food Stamp Tend	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : ALL DECIMAL FOOD STAMP PROG. B6 : CHANGE IS ISSUED IN CASH B7 : DOES DRAWER OPEN B8 : COMPULSORY VALID	1	0 ~ F
39 ~ 40	LEVEL 1 ~ 2 / Price Level 1 ~ 2	1	B1 : SEND DESCRIPTION TO KP	1	0 ~ 3
54	RETURN / Merchandise Return	1	B1 : KEY DISABLE B2 : RESERVED B3 : COMPULSORY VALID	1	0 ~ 3
55 ~ 59	MOD1 ~ 5 / Modifier 1 ~ 5	1	B1 : RESERVED B2 : AFFECT PLU# B3 : PRINT ON CHECK B4 : PRINT RECEIPT	1	0 ~ F
		2	AFFECT DIGIT 1 – 14 OF PLU#	1	0 ~ E
		3	VALUE OF AFFECTED DIGIT (0 – 9)	1	0 ~ 9
63 ~ 65	PO1 ~ 3 Paid Out 1 ~ 3	1	B1 : KEY DISABLE B2 : RESERVED B3 : VALIDATIONCOMP.	1	0 ~ 7
69	PROMO / Promotion	1	B1 : KEY DISABLE B2 : RESERVED B3 : TAXABLE BY TAX 1 B4 : TAXABLE BY TAX 2	1	0 ~ F
		2	B5 : TAXABLE BY TAX 3 B6 : TAXABLE BY TAX 4	1	0 ~ F
70 ~ 72	RA1 ~ 3 / Receive on Account 1 ~ 3	1	B1 : KEY DISABLE B2 : RESERVED B3 : VALIDATIONCOMP.	1	0 ~ F
73	SUBTOTAL	1	B1 : KEY DISABLE	1	0 ~ F

Order	Function Key	Index	Name	Length	Range
74	SCALE	1	B1 : KEY DISABLE B2 : RESERVED B3 : KEY IS MAN. ENTRY B4 : TARE-WEIGHT COMP	1	0 ~ F
		2	B5 : WEIGHT SYM FOR MAN. N : lb Y : kg B6 : ALLOW DOLLAR ENTRY W/O SCALE ON SCALEABLE ITEM	1	0 ~ F
69	TARE / Tare Weight	1	B1 : KEY DISABLE B2 : RESERVED B3 : #5 IS MANUAL TARE	1	0 ~ F
79	TAXEXMT / Tax Exempt	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : NON – ADD# COMP. B6 : VALIDATION COMP.	1	0 ~ F
86	VOID / Void Item	1	B1 : KEY DISABLE B2 : RESERVED B3 : COMPULSORY VALID	1	0 ~ F
87	WASTE	1	B1 : KEY DISABLE B2 : RESERVED B3 : VALIDATION COMP.	1	0 ~ F
89	VALIDATION	1	COM PORT #(0 – 2)	1	0 ~ F
		2	B1 : KEY DISABLE B2 : MULTIPLE VALID.	1	0 ~ F

FUNCTION ORDER (ER-230)

NO	FUNC	NO	FUNC	NO	FUNC	NO	FUNC
1	NOSALE	26	CONV2	51	MACRO8	76	NOT USED
2	% 1	27	CONV3	52	MACRO9	77	TARE
3	% 2	28	CONV4	53	MACRO10	78	NOT USED
4	% 3	29	NOT USED	54	RETURN	79	TAXEXMT
5	% 4	30	NOT USED	55	MOD 1	80	GST
6	% 5	31	ERRCORR	56	MOD 2	81	TAX 2
7	X/TIME	32	FSHIFT	57	MOD 3	82	TAX 3
8	ADDCHK	33	F/S SUB	58	MOD 4	83	TAX 4
9	CANCEL	34	F/S TEND	59	MOD 5	84	NOT USED
10	CASH	35	NOT USED	60	NOT USED	85	NOT USED
11	CHARGE1	36	NOT USED	61	NOT USED	86	VOID
12	CHARGE2	37	NOT USED	62	NOT USED	87	WASTE
13	CHARGE3	38	PLU	63	PO1	88	NOT USED
14	CHARGE4	39	LEVEL 1	64	PO2	89	VALIDATION
15	CHARGE5	40	LEVEL 2	65	PO3	90	PRICE INQ
16	CHARGE6	41	NOT USED	66	PFEED	91	CASH OUT
17	CHARGE7	42	NOT USED	67	NOT USED	92 ~ 132	NOT USED
18	CHARGE8	43	NOT USED	68	NOT USED		
19	CHKCASH	44	MACRO1	69	PROMO	133	RCPT ON/OFF
20	CHKENDOR	45	MACRO2	70	RA1	134	MODE KEY
21	EFTPOS	46	MACRO3	71	RA2	135	INACTIVE
22	NOT USED	47	MACRO4	72	RA3	136	NONADD #
23	CLEAR	48	MACRO5	73	SUBTOTAL	137	NOT USED
24	CLERK	49	MACRO6	74	SCALE	138 ~ 140	Reserved
25	CONV1	50	MACRO7	75	NOT USED		

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Data Structure

Index	1 ~ 18	19 ~ 26	27 ~ 36
Description	Description	HALO	Status
Length	18 char	8 digits	10 digits
Total: 36 digits x 100 keys			
Total: 36 digits x 150 keys (ER-9xx)			

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 (& 84) / 1 (& 94)	NOSALE (# NOSALE) NONADD # / No Sale Non-Add #	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : INHIBIT NO SALE B4 : ENFORCE# ENTRY	1	0 ~ F
		2	B5 : PRINT ON N/S B6 : NON-ADD# PROHIBIT B7 : COMP. NON-ADD# MUST MATCH MAX DIGIT B8 : PRINT NONADD ON GUEST CHECK	1	0 ~ F
		3	MAX DIGIT (0- 8)	1	0 ~ 8

Order	Function Key	Index	Name	Length	Range
2 ~ 6 / 2 ~ 6	% 1 ~ 5	1	B1 : AMOUNT:Y %:N. B2 : KEY DISABLE B3 : UNDER MGR CONTROL B4 : OPEN:Y PRESET:N	1	0 ~ F
		2	B5 : SALE:Y ITEM:N B6 : OVERRIDEABLE B7 : POS.:Y NEG.:N B8 : Taxable BY TAX1	1	0 ~ F
		3	B1 : Taxable BY TAX2 B2 : Taxable BY TAX3 B3 : Taxable BY TAX4 B4 : F/S ELIGIBLE	1	0 ~ F
		4	B5 : ALLOW ONLY AFTER SUBTOTAL ENTRY B6 : ALLOW MULTIPLE AMT DISCOUNT (COUPON) WITHOUT PRESSING SUBTOTAL B7 : PRESET OVERRRIDE IN X MODE B8 : VALIDATION COMP.	1	0 ~ F
8 / 8	ADDCHK / (Add Check)	1	B1 : KEY DISABLE B2 : COMPULSORY FEFORE TENDERING B3 : CONSECUTIVE NUMBER ADVANCED B4 : RCPT CONDENCING ADD CHECK PROG.	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 1 B7 : EXEMPT TAX 1 B8 : EXEMPT TAX 1	1	0 ~ F
		3	B1 : VALIDATION COMP.	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
9 / 9	CANCEL	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : COMPULSORY VALID.	1	0 ~ 7
10 / 10	CASH	1	B1 : AMOUNT TEND COMP. B2 : OVER/UNDER TENDER B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 2 B7 : EXEMPT TAX 3 B8 : EXEMPT TAX 4	1	0 ~ F
		3	B1 : COMPULSORY VALID.	1	0 ~ 1
11 ~ 18 / 11 ~ 18	CHARGE1 ~ 8 (Misc tend 1 ~ 8)	1	B1 : AMOUNT TEND COMP. B2 : OVER/UNDER TENDER B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : ALLOW OVER TEND B6 : NON-ADD # COMP. B7 : EXEMPT TAX 1 B8 : EXEMPT TAX 2	1	0 ~ F
		3	B1 : EXEMPT TAX 3 B2 : EXEMPT TAX 4 B3 : VALIDATION COMP. B4 : SEND TO EFT	1	0 ~ F
		4	EFT PORT (0 - 2) EFT PORT (0 - 4) (ER-9xx)	1	0 ~ 2 0 ~ 4
19 / 19	CHKCASH (Check Cashing)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATIONCOMP. B4 : CHECK ENDORSEMENT IS COMPULSORY (ER-9xx)	1	0 ~ 7

Order	Function Key	Index	Name	Length	Range
20 / 20	CHKENDOR (<i>Check Endorsement</i>)	1	B1 : KEY DISABLE B2 : PRINT CHECK AMT IN THE ENDORSEMENT B3 : PRINT DATE B4 : PRINT TIME	1	0 ~ F
		2	B5 : PRINT CLERK B6 : CONSECUTIVE NO.	1	0 ~ 3
21 / 21	CHECK (<i>Cheque</i>)	1	B1 : AMOUNT TEND COMP. B2 : OVER/UNDER TENDER B3 : DISABLE UNDER TND. B4 : DOES DRAWER OPEN	1	0 ~ F
		2	B5 : EXEMPT TAX 1 B6 : EXEMPT TAX 2 B7 : EXEMPT TAX 3 B8 : EXEMPT TAX 4	1	0 ~ F
		3	B1 : COMPULSORY CHECK ENDORSE. B2 : COMPULSORY VALID.	1	0 ~ 3
22 / 22	CHECK # (<i>Account #</i>)	1	B1 : KEY DISABLE B2 : COMPULSORY FOR ALL SALES B3 : OPENING CLERK HAS EXCLUSIVE ACCESS B4 : PRINT ON RECEIPT CHECK TRACK PROG.	1	0 ~ F
		2	B5 : PRINT ON REMOTE B6 : ALLOW ONLY ONE CHK PER TABLE B7 : CHECK# ASSIGNED BY REGISTER B8 : DRIVE THRU FEATURE ENABLED	1	0 ~ F
		3	LENGTH OF CHECK (0 - 9)	1	0 ~ 9
25 ~ 28 / 25 ~ 28	CONV1 ~ 4 (CURR CONV1 ~ 4) (<i>Currency Conversion 1 ~ 4</i>)	1	NUMBER OF DECIMAL	1	0 ~ 7

Order	Function Key	Index	Name	Length	Range
29 / 29	DVTHR (Drive Through)	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : VALIDATION COMP.	1	0 ~ 1
30 / 30	EATIN (EAT IN) (Eat In)	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : VALIDATION COMP.	1	0 ~ 1
31 / 31	ERRCORR (Error Correction)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATION COMP.	1	0 ~ 7
33 / 33	F/S SUB (Food Stamp Subtotal)	1	B1 : KEY DISABLE	1	0 ~ 1
34 / 34	F/S TEND (Food Stamp Tendered)	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : ALL DECIMAL FOOD STAMP PROG. B6 : CHANGE IS ISSUED IN CASH B7 : DOES DRAWER OPEN B8 : COMPULSORY VALID	1	0 ~ F
		3	B1 : ALLOW OVER TENDER (ER-9xx)	1	0 ~ 1
35 / 37	GUEST	1	B1 : COMPULSORY FOR GUEST CHECK B2 : COMPULSORY FOR ALL SALES B3 : PRINT AT REMOTE PRINTER	1	0 ~ 7
37 ~ 38 / 39 ~ 40	LEVEL 1 ~ 2 (PRICE LEVEL 1 ~ 2)	1	B1 : SEND DESCRIPTION TO KP	1	0 ~ 1
39 ~ 48 / 44 ~ 53, 98 ~ 107	MACRO1 ~ 10, (11 ~ 20)	1	B1 : UNDER MGR CONTROL	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
49 / 54	MDSE RETURN (RETURN)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : COMPULSORY VALID	1	0 ~ 7
50 ~ 54 / 55 ~ 59	MOD 1 ~ 5 (MODIFIER 1 ~ 5)	1	B1 : UNDER MGR CONTROL B2 : AFFECT PLU# B3 : PRINT ON CHECK B4 : PRINT RECEIPT	1	0 ~ F
		2	AFFECT DIGIT 1 - 14 OF PLU#	1	0 ~ E
		3	VALUE OF AFFECTED DIGIT (0 - 9)	1	0 ~ 9
55 / 60	PBAL (Previous Balance)	1	B1 : ENTER ANY TIME B2 : REQUIRE AT START OF SALE B3 : PRINT ON GUEST CHECK & HARD CHECK (ER-9xx)	1	0 ~ 3 0 ~ 7
56 ~ 58 / 63 ~ 65	PO1 ~ 3 (PAID OUT1 ~ 3)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATIONCOMP.	1	0 ~ 7
60 / 68	PRINT CHK (PRINT CHECK)	1	COM PORT (0 - 2) COM PORT (0 - 4) (ER-9xx)	1	0 ~ 2 0 ~ 4
		2	B1 : AUTO SERVICE CHECK B2 : PRT CHECK ON RECP B3 : SKIP PRT OF CONSEC# ON CHECK	1	0 ~ 7
61 / 69	PROMO (Promotion)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : TAXABLE BY TAX 1 B4 : TAXABLE BY TAX 2	1	0 ~ F
		2	B5 : TAXABLE BY TAX 3 B6 : TAXABLE BY TAX 4	1	0 ~ 3
62 ~ 64 / 70 ~ 72	RA1 ~ 3 (RA 1 ~ 3) (Receive on Account 1 ~ 3)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATIONCOMP.	1	0 ~ 7
65 / 73	SUBTOTAL	1	B1 : KEY DISABLE	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
66 / 74	SCALE	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : KEY IS MAN. ENTRY B4 : TARE-WEIGHT COMP	1	0 ~ F
		2	B5 : WEIGHT SYM FOR MAN. N : lb Y : kg B6 : ALLOW DOLLAR ENTRY W/O SCALE ON SCALEABLE ITEM	1	0 ~ 3
67 / 75	SERVICE (New Balance)	1	B1 : NON-ADD # COMP. B2 : PRINT ON RECEIPT B3 :NEGATIVE BALANCE B4 : CALCULATE TAX 1.	1	0 ~ F
		2	B5 : CALCULATE TAX 2 B6 : CALCULATE TAX 3 B7 : CALCULATE TAX 4 B8 : VALIDATION COMP	1	0 ~ F
		3	HARD CHECK PRITNER PORT (0 - 2) (0 - 1) for ER-380 (0 - 4) (ER-9xx)	1	0 ~ 1 / 2 / 4
68 / 76	TABLE (TABLE No.)	1	B1 : ENFORCE ON CHECK TRACK B2 : ENFORCE ON ALL SALES B3 : PRINT AT REMOTE PRINTER	1	0 ~ 7
69 / 77	TARE	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : #5 IS MANUAL TARE	1	0 ~ 7
70 / 78	TKOUT (TAKE OUT)	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : VALIDATION COMP.	1	0 ~ 1

Order	Function Key	Index	Name	Length	Range
71 / 79	TAXEXMT (Tax Exempt)	1	B1 : EXEMPT TAX 1 B2 : EXEMPT TAX 2 B3 : EXEMPT TAX 3 B4 : EXEMPT TAX 4	1	0 ~ F
		2	B5 : NON – ADD# COMP. B6 : VALIDATION COMP.	1	0 ~ 3
76 / 85	TIP	1	% : 1 AMOUNT : 0	1	0 ~ 1
		2	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : ADD TAX RATE 1 B4 : ADD TAX RATE 2	1	0 ~ F
		3	B5 : ADD TAX RATE 3 B6 : ADD TAX RATE 4 B7 : AMOUNT ADDED TO NET&GROSS TOT.	1	0 ~ 7
77 / 86	VOID (Void Item)	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : COMPULSORY VALID	1	0 ~ 7
78 / 87	WASTE	1	B1 : KEY DISABLE B2 : UNDER MGR CONTROL B3 : VALIDATION COMP.	1	0 ~ 7
79 / 89	VALIDATION	1	COM PORT #(0 – 2) (0 - 1) for ER-380 (0 - 4) (ER-9xx)	1	0 ~ 1 / 2 / 4
		2	B1 : KEY DISABLE B2 : MULTIPLE VALID.	1	0 ~ 3
80 / 90	PAYMENT / FINALISE (Close "Account #")	1	B1 : REQUIRE TO CLOSE CHECK	1	0 ~ 1
87	KBD SHIFT (Keyboard Level Shift)	1	B1 : 0 : POP UP 1 : STAY DOWN B2 : ACTIVATE IN X MODE ONLY	1	

FUNCTION ORDER

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

NO	FUNC	NO	FUNC	NO	FUNC	NO	FUNC
1	NOSALE (# NOSALE - <i>ER-420M</i>)	24	CLERK	47	MACRO9	70	TKOUT (TAKE OUT - <i>ER-420M</i>)
2	% 1	25	CONV1 (CURR CONV1 - <i>ER-420M</i>)	48	MACRO10	71	TAXEXMT
3	% 2	26	CONV2 (CURR CONV2 - <i>ER-420M</i>)	49	MDSE RETURN (RETURN - <i>ER-380M</i>)	72	GST
4	% 3	27	CONV3 (CURR CONV3 - <i>ER-420M</i>)	50	MOD 1 (MODIFIER 1 - <i>ER-420M</i>)	73	TAX 2
5	% 4	28	CONV4 (CURR CONV4 - <i>ER-420M</i>)	51	MOD 2 (MODIFIER 2 - <i>ER-420M</i>)	74	TAX 3
6	% 5	29	DVTHR (DRIVE THRU - <i>ER-420M</i>)	52	MOD 3 (MODIFIER 3 - <i>ER-420M</i>)	75	TAX 4
7	X/TIME	30	EATIN (EAT IN - <i>ER-420M</i>)	53	MOD 4 (MODIFIER 4 - <i>ER-420M</i>)	76	TIP
8	ADDCHK	31	ERRCORR	54	MOD 5 (MODIFIER 5 - <i>ER-420M</i>)	77	VOID
9	CANCEL	32	FSHIFT	55	PBAL	78	WASTE
10	CASH	33	F/S SUB	56	PO1 (PAID OUT 1 - <i>ER-420M</i>)	79	VALIDATION
11	CHARGE1	34	F/S TEND	57	PO2 (PAID OUT 2 - <i>ER-420M</i>)	80	PAYMENT
12	CHARGE2	35	GUEST	58	PO3 (PAID OUT 3 - <i>ER-420M</i>)	81	RCPT ON/OFF
13	CHARGE3	36	PLU	59	PFEED	82	JFEED (JOURNAL FEED - <i>ER-420M</i>) (blank - <i>ER-390M</i>) (INACTIVE - <i>ER-380M</i>)
14	CHARGE4	37	LEVEL 1 (PRICE LEVEL 1 - <i>ER-420M</i>)	60	PRINT CHK		
15	CHARGE5	38	LEVEL 2 (PRICE LEVEL 2 - <i>ER-420M</i>)	61	PROMO	83	INACTIVE
16	CHARGE6	39	MACRO1	62	RA1 (RA 1 - <i>ER-420M</i>)	84	NONADD #
17	CHARGE7	40	MACRO2	63	RA2 (RA 2 - <i>ER-420M</i>)	85	PRICE INQ
18	CHARGE8	41	MACRO3	64	RA3 (RA 3 - <i>ER-420M</i>)	86	CASH OUT
19	CHKCASH	42	MACRO4	65	SUBTOTAL	87	Reserved (KBD SHIFT - <i>ER-420M</i>)
20	CHKENDOR	43	MACRO5	66	SCALE	88 ~ 100	Reserved
21	CHECK	44	MACRO6	67	SERVICE		
22	CHECK # (CHECK No. - <i>ER-420M</i>)	45	MACRO7	68	TABLE (TABLE No. - <i>ER-420M</i>)		
23	CLEAR	46	MACRO8	69	TARE		

For **ER-9xx**

NO	FUNC	NO	FUNC	NO	FUNC	NO	FUNC
1	NOSALE	29	DVTHR	57	MOD 3	85	TIP
2	% 1	30	EATIN	58	MOD 4	86	VOID
3	% 2	31	ERRCORR	59	MOD 5	87	WASTE
4	% 3	32	FSHIFT	60	PBAL	88	NOT USED
5	% 4	33	F/S SUB	61	NOT USED	89	VALIDATION
6	% 5	34	F/S TEND	62	NOT USED	90	FINALISE
7	X/TIME	35	NOT USED	63	PO1	91	RCPT ON/OFF
8	ADDCHK	36	NOT USED	64	PO2	92	JFEED
9	CANCEL	37	GUEST	65	PO3	93	INACTIVE
10	CASH	38	PLU	66	PFEED	94	NONADD #
11	CHARGE1	39	LEVEL 1	67	PRICE INQ	95	CASH OUT
12	CHARGE2	40	LEVEL 2	68	PRINT CHK	96	NOT USED
13	CHARGE3	41	NOT USED	69	PROMO	97	NOT USED
14	CHARGE4	42	NOT USED	70	RA1	98	MACRO11
15	CHARGE5	43	NOT USED	71	RA2	99	MACRO12
16	CHARGE6	44	MACRO1	72	RA3	100	MACRO13
17	CHARGE7	45	MACRO2	73	SUBTOTAL	101	MACRO14
18	CHARGE8	46	MACRO3	74	SCALE	102	MACRO15
19	CHKCASH	47	MACRO4	75	SERVICE	103	MACRO16
20	CHKENDOR	48	MACRO5	76	TABLE	104	MACRO17
21	CHECK	49	MACRO6	77	TARE	105	MACRO18
22	CHECK #	50	MACRO7	78	TKOUT	106	MACRO19
23	CLEAR	51	MACRO8	79	TAXEXMT	107	MACRO20
24	CLERK	52	MACRO9	80	GST	108 ~ 128	NOT USED
25	CONV1	53	MACRO10	81	TAX2	129 ~ 150	Reserved
26	CONV2	54	RETURN	82	TAX3		
27	CONV3	55	MOD 1	83	TAX4		
28	CONV4	56	MOD 2	84	NOT USED		

3.7. CLERK PROGRAM DOWN

Data Structure

For ER-230

Index	1 ~ 12	13 ~ 21	22 ~ 23	24 ~ 25
Description	Description	Code	Training Clerk	Drawer Assign (0 ~ 2)
Length	12 char	9 digits	2 digits	2 digits
Total: 25 digits				

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

Index	1 ~ 18	19 ~ 27	28 ~ 29	30 ~ 31
Description	Description	Code	Training Clerk	Drawer Assign (0 ~ 2)
Length	18 char	9 digits	2 digits	2 digits
Total: 31 digits				

For ER-9xx

Index	1 ~ 18	19 ~ 27	28 ~ 43	44 ~ 45	46 ~ 47
Description	Description	Code	Dallas	Training Clerk	Drawer Assign (0 ~ 4)
Length	18 char	9 digits	16 digits	2 digits	2 digits
Total: 47 digits					

3.8. LOGO DESCRIPTION PROGRAM DOWN

Send Data Structure

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

3.9. FINANCIAL REPORT LOGO PROGRAM DOWN

Send Data Structure

For ER-230

Description	Financial Report Description
Length	12 char
Count #	76

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Description	Financial Report Description
Length	18 char
Count *	85 100 (ER-9xx)

3.10. CLERK REPORT LOGO PROGRAM DOWN

Send Data Structure

For ER-230

Description	Clerk Report Description
Length	12 char
Count	13

For ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Description	Clerk Report Description
Length	18 char
Count *	70 71 (ER-9xx)

3.11. STOCK PROGRAM DOWN

Send Data Structure

14 digit PLU version

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

15 digit PLU version and **ER-9xx**

Index	1 ~ 15	16 ~ 23
Description	PLU Code	Total
Length	15 digits	8 digits

3.12. MACRO PROGRAM DOWN

Data Structure

For ER-230, ER-380/M, ER-390M, ER-420M, ER-430M, ER-52xx/M and **ER-9xx**

Index	Name	Length	Count
1 ~ 50	Macro Key 1	3 + 3	50
51 ~ 100	Macro Key 2	3 + 3	50
101 ~ 150	Macro Key 3	3 + 3	50
151 ~ 200	Macro Key 4	3 + 3	50
201 ~ 250	Macro Key 5	3 + 3	50
251 ~ 300	Macro Key 6	3 + 3	50
301 ~ 350	Macro Key 7	3 + 3	50
351 ~ 400	Macro Key 8	3 + 3	50
401 ~ 450	Macro Key 9	3 + 3	50
451 ~ 500	Macro Key 10	3 + 3	50

For **ER-9xx Only**

Index	Name	Length	Count
501 ~ 550	Macro Key 11	3 + 3	50
551 ~ 600	Macro Key 12	3 + 3	50
601 ~ 650	Macro Key 13	3 + 3	50
651 ~ 700	Macro Key 14	3 + 3	50
701 ~ 750	Macro Key 15	3 + 3	50
751 ~ 800	Macro Key 16	3 + 3	50
801 ~ 850	Macro Key 17	3 + 3	50
851 ~ 900	Macro Key 18	3 + 3	50
901 ~ 950	Macro Key 19	3 + 3	50
951 ~ 1000	Macro Key 20	3 + 3	50

NOTE : The length of each count is a 6 digit number. The first 3 digit is used as indicator, which will be either 000 or 255. When the first 3 digit is 255, combine with 001, 002, 003, 004, 005, 006 means the “steps” programmed are VOID Mode, REG Mode, X Mode, Z Mode, PGM Mode or S Mode.

3.13. TIME&DATE/ MISC PROGRAM DOWN

Data Structure

ER-230

Index	Name	Length	Count
1 ~ 50	NLU	14/15	50
51 ~ 55	Tare Weight	4	5
56	Drawer Limit	8	1
57	Machine Number	5	1
58	Cheque Change Limit	8	1
59	EFT Password Port 1	8	1
60	EFT Password Port 2	8	1
61 ~ 75	Communication Option for Port 1	2	15
76 ~ 90	Communication Option for Port 2	2	15
91 ~ 188	Program Keyboard	3	98
189	Date	6	1
190	Time	4	1

ER-380/M (New Version)

Index	Name	Length	Count
1 ~ 117	NLU	14/15	117
118 ~ 122	Tare Weight	4	5
123	Drawer Limit	8	1
124	Machine Number	5	1
125	Cheque Change Limit	8	1
126	EFT Password Port 1	8	1
127	EFT Password Port 2	8	1
128 ~ 142	Communication Option for Port 1	2	15
143 ~ 157	Communication Option for Port 2	2	15
158 ~ 201	Program Keyboard	3	44
202	Date	6	1
203	Time	4	1

ER-390M and ER-430M

Index	Name	Length	Count
1 ~ 100	NLU	14/15	100
101 ~ 105	Tare Weight	4	5
106	Drawer Limit	8	1
107	Machine Number	5	1
108	Cheque Change Limit	8	1
109	EFT Password Port 1	8	1
110	EFT Password Port 2	8	1
111 ~ 125	Communication Option for Port 1	2	15
126 ~ 140	Communication Option for Port 2	2	15
141 ~ 230	Program Keyboard	3	90
231	Date	6	1
232	Time	4	1

ER-420M

Index	Name	Length	Count
1 ~ 50	NLU	14/15	50
51 ~ 55	Tare Weight	4	5
56	Drawer Limit	8	1
57	Machine Number	5	1
58	Cheque Change Limit	8	1
59	EFT Password Port 1	8	1
60	EFT Password Port 2	8	1
61 ~ 75	Communication Option for Port 1	2	15
76 ~ 90	Communication Option for Port 2	2	15
91 ~ 138	Program Keyboard	3	48
139	Date	6	1
140	Time	4	1

ER-5200/M

Index	Name	Length	Count
1 ~ 117	NLU	14/15	117
118 ~ 122	Tare Weight	4	5
123	Drawer Limit	8	1
124	Machine Number	5	1
125	Cheque Change Limit	8	1
126	EFT Password Port 1	8	1
127	EFT Password Port 2	8	1
128 ~ 142	Communication Option for Port 1	2	15
143 ~ 157	Communication Option for Port 2	2	15
158 ~ 317	Program Keyboard	3	160
318	Date	6	1
319	Time	4	1

ER-5240/M

Index	Name	Length	Count
1 ~ 117	NLU	14/15	117
118 ~ 122	Tare Weight	4	5
123	Drawer Limit	8	1
124	Machine Number	5	1
125	Cheque Change Limit	8	1
126	EFT Password Port 1	8	1
127	EFT Password Port 2	8	1
128 ~ 142	Communication Option for Port 1	2	15
143 ~ 157	Communication Option for Port 2	2	15
158 ~ 247	Program Keyboard	3	90
248	Date	6	1
249	Time	4	1

ER-9xx

Index	Name	Length	Count
1 ~ 300	NLU	15	300
301 ~ 305	Tare Weight	4	5
306	Drawer Limit	8	1
307	Machine Number	5	1
308	Cheque Change Limit	8	1
309	EFT Password Port 1	8	1
310	EFT Password Port 2	8	1
311	EFT Password Port 3	8	1
312	EFT Password Port 4	8	1
313 ~ 327	Communication Option for Port 1	2	15
328 ~ 342	Communication Option for Port 2	2	15
343 ~ 357	Communication Option for Port 3	2	15
358 ~ 372	Communication Option for Port 4	2	15
373 ~ 522	Program Keyboard*	3	150
523	Date	6	1
524	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 ~ 04
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	EFT Config Byte	2	
15	EFT Currency	2	
Total: 15 bytes			

3.14. MIX&MATCH DOWN

Send Data Structure

For ER-230

Index	1 ~ 12	13 ~ 17	18 ~ 24
Description	Description	Trip Level	Price
Length	12 char	5 digits	7 digits

For ER-380/M, ER-390M, ER-420M, ER-430M and ER-52xx/M

Index	1 ~ 18	19 ~ 23	24 ~ 30
Description	Description	Trip Level	Price
Length	18 char	5 digits	7 digits

For **ER-9xx**

Index	1 ~ 18	19 ~ 21	22 ~ 26
Description	Description	Trip Level	Price
Length	18 char	3 digits	5 digits

3.15. MEMORY ALLOCATION UP (UPLOAD ONLY)

Data Structure - ER-230, ER-380/M, ER-390M and **ER-9xx**

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

Data Structure - ER-420M, ER-430M and ER-52xx/M

Name	Length
PLU #	8
Clerk #	8
Group #	8
Check #	8
Check Line	8
Check Type	8
Price Level	8
Mix & Match #	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]