SHARP

XE-A147 SD Card PC-Link Programming Software for:

XE-A147BK / XEA147WH

MANUAL

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1. Outline

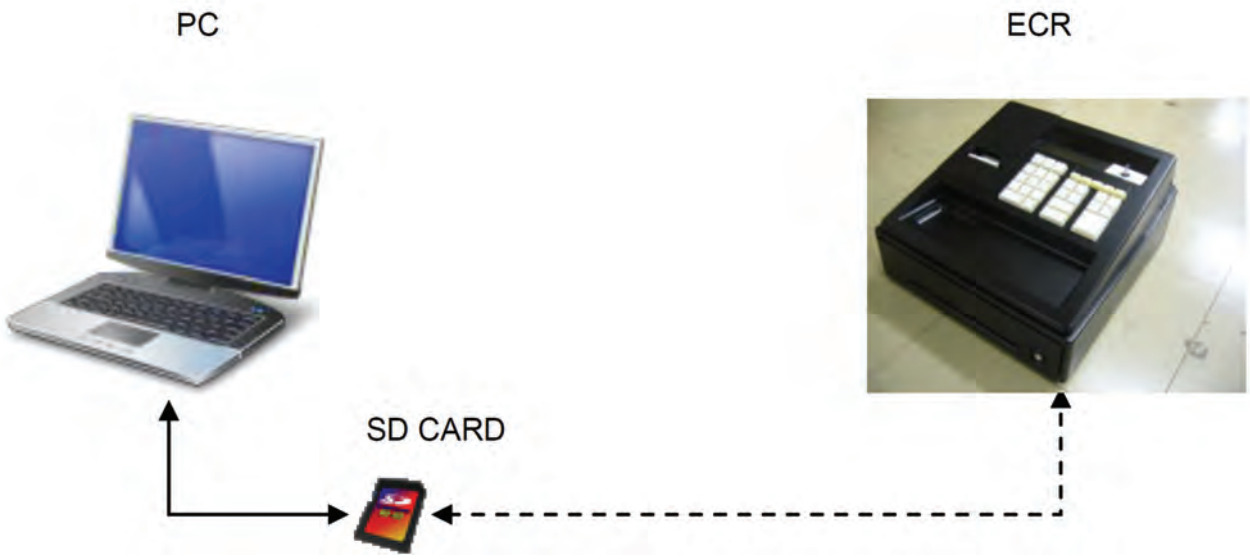
This software allows editing and storage of preset data from an XEA147. The data is transferred to and from the XEA147 via SD Card.

2. System Requirements

Operating System:	Windows XP Professional (Service Pack 3, 32-bit edition) Windows Vista Ultimate (Service Pack 2, 32-bit edition or 64 bit edition) Windows 7 Ultimate (32-bit edition or 64 bit edition)
Runtime Environment:	.NET Framework version 3.5 or later must be installed.

3. System Configuration

This software works under the following system configuration.



Data is saved to the SD Card on the ECR. This data can be loaded to the PC-Link software on a PC for editing, and storage.

Data edited on with PC-Link on the PC can be saved to the SD Card and loaded into the XEA147 with the SD Card.

4. Functions

The table below sets out the functions of the XEA147 SD Card PC-Link

4.1 Setting and Communication Functions:

DATA	FUNCTION	DIRECTION	MEDIA	FILE NAME
DEPT (Department)	DATA ENTRY			
	IMPORT	SD -> PC	SD CARD	DEPTDT
	EXPORT	PC -> SD	SD CARD	DEPTDT
PLU	DATA ENTRY			
	IMPORT	SD -> PC	SD CARD	PLUDT
	EXPORT	PC -> SD	SD CARD	PLUDT
LOGO (Graphic logo)	EXPORT	PC -> SD	SD CARD	TMLOG1TB
LOGO TEXT	DATA ENTRY			
	IMPORT	SD -> PC	SD CARD	LOGODT
	EXPORT	PC -> SD	SD CARD	LOGODT
TAX (VAT/TAX rate)	DATA ENTRY			
	IMPORT	SD -> PC	SD CARD	TAXTB
	EXPORT	PC -> SD	SD CARD	TAXTB
VAT ID	DATA ENTRY			
	IMPORT	SD -> PC	SD CARD	VATIDTB
	EXPORT	PC -> SD	SD CARD	VATIDTB

DATA
The data of setting

FUNCTION
The following data can be controlled.

Function	
DATA ENTRY	Add, delete , edit, store, read the data Please refer Data Control Function.
IMPORT	Read the data from SD CARD.
EXPORT	Write the data onto SD CARD.

DIRECTION
The direction of data movement.

MEDIA
The media for each function.

4.2 Plural data set management.

The SD Card PC-Link for XEA147 can keep data sets for different XEA147 presets by saving data in different directories.

5. Installation

The XEA147 SD Card PC-Link is installed by extracting the contents of XEA147PCLink.zip. There is no installer programme required. The XEA147PCLink.zip file contains the following files:

List of Programme Files

PC-LINK_A147V.exe
CustomControlLibrary.dll
ECR_Lib.dll
EcrDataCtrl.dll
ELMid.dll
pictcnv.dll
logoconv.ini
logo/blank.bmp
charTable.ini

The XEA147 SD Card PC-Link is launched by running: PC-LINK_A147.exe

Place a shortcut to this file on your PC's desktop for convenience.

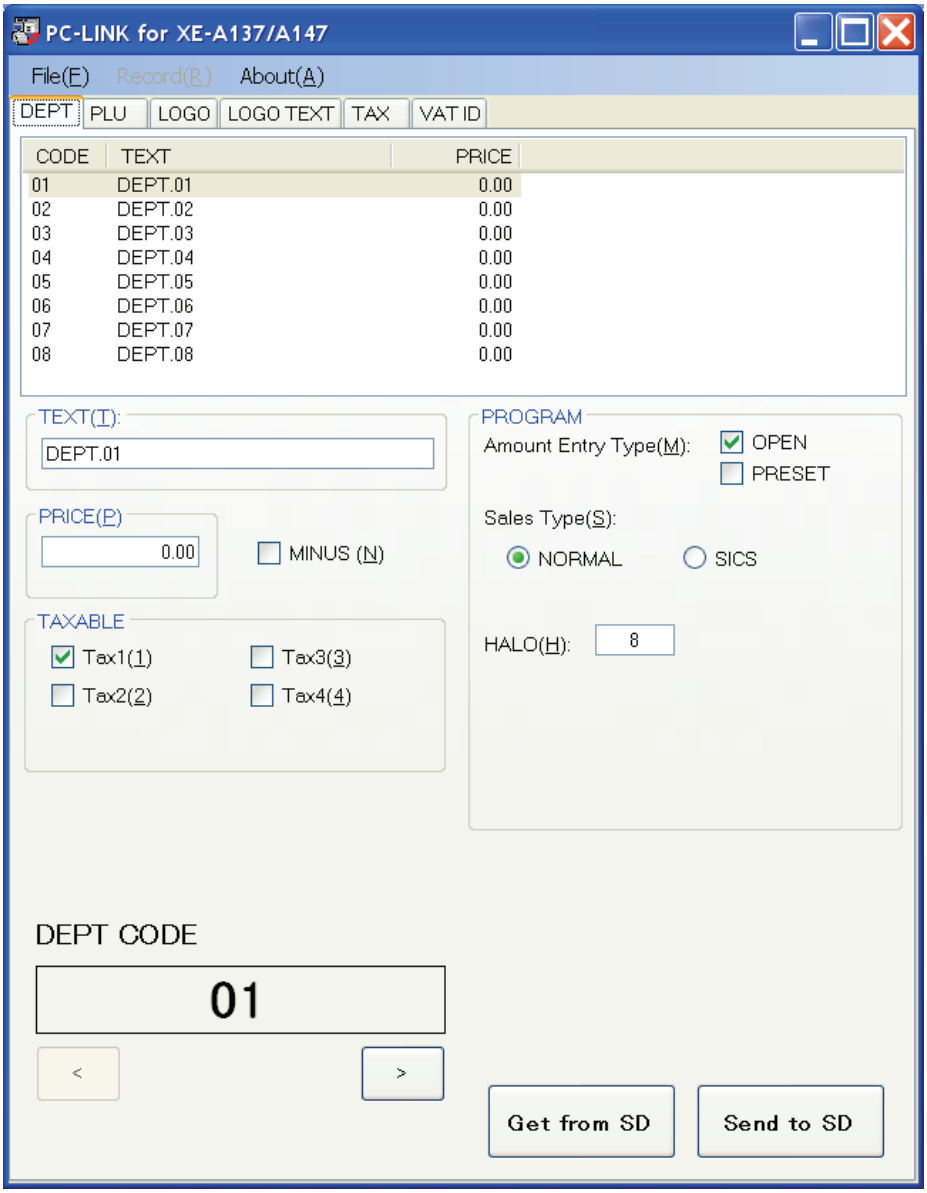
6. Each Function

6.1. Start Up

When the PC-LINK_A147.exe file is run, the data which was saved when the file was last run is loaded.
If there is no ECR data on the PC, default data is set, as per the table below:

Item	Default
DEPT	Generate default data. (Dept code 1-8 : The default value is: see MRS of Specification "chapter 6")
PLU	PLU is not created.
LOGO	No default data
LOGO TEXT	All text are filled by space.
VAT ID	0

The Dept screen is always displayed just after start up.
It is not possible to run more than one instance of the XEA147 SC Card PC-link on the PC.



Termination:

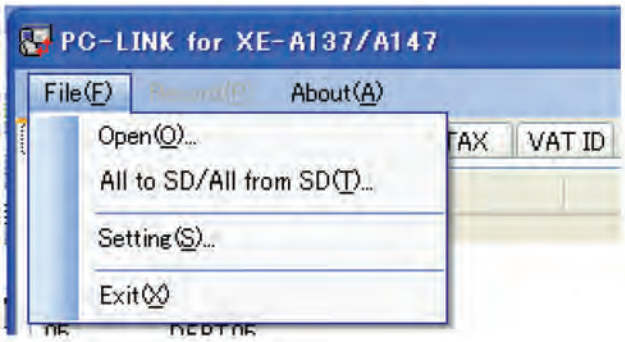
At programme termination ECR data is saved automatically into a folder that has been preselected. The SC Card PC-Link's window size and position is saved. The window will be shown in the same position when it is next opened.

6.2 Menu Bar

The Menu Bar's functions are listed in the table below:

	Title	List	Contents
1	File(F)	Open(O) ...	You can select the folder which the data base are stored.
		All to SD/All from SD(T) ...	Control SD data: Export and Import ECR data into/from SD card.
		Setting(S) ...	You can set general setting of this software.
		Exit(X)	Terminate the software.
2	Record(R)	New(N)	You can add new PLU.
		Delete(D)	You can delete PLU.
3	About(A)		This shows software name and version information.

6.3 File

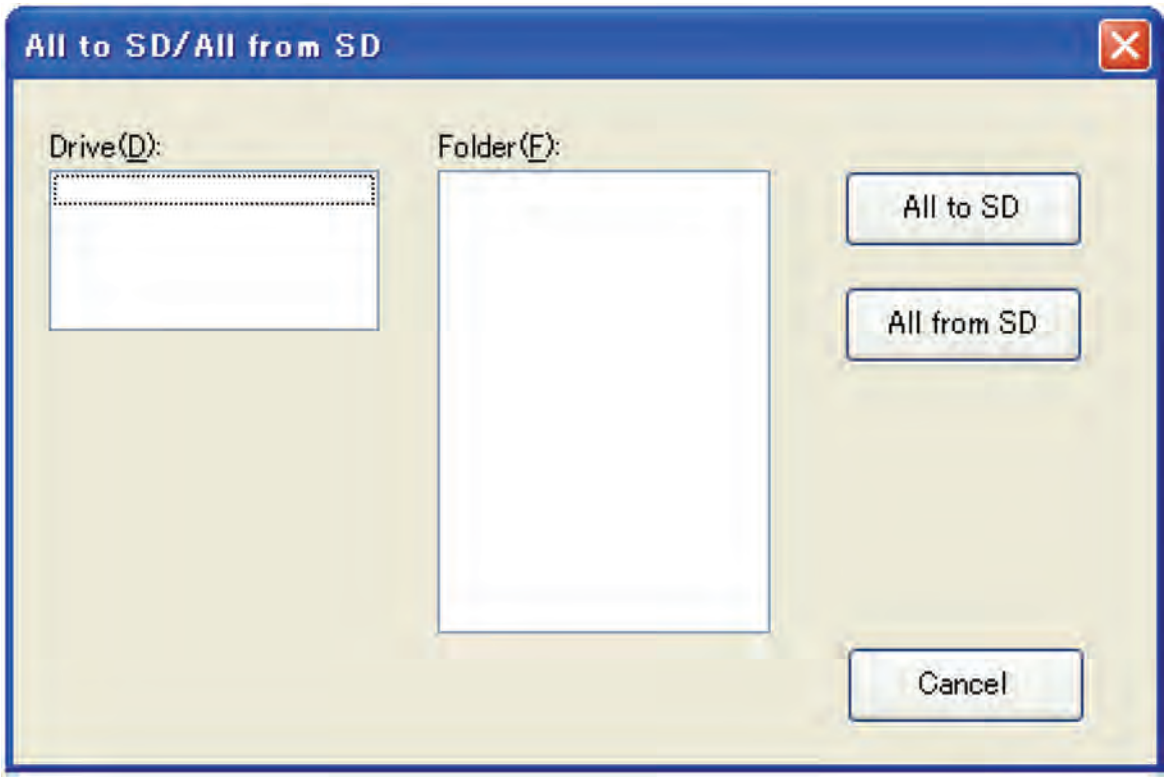


The File menu can be opened when any programme TAB is open.

The File menu options are:

Open: Load ECR data from a selected folder.
The selected folder is set as the current DATA FOLDER.

All to SD/All from SD: The window shown below when you select this File menu item.



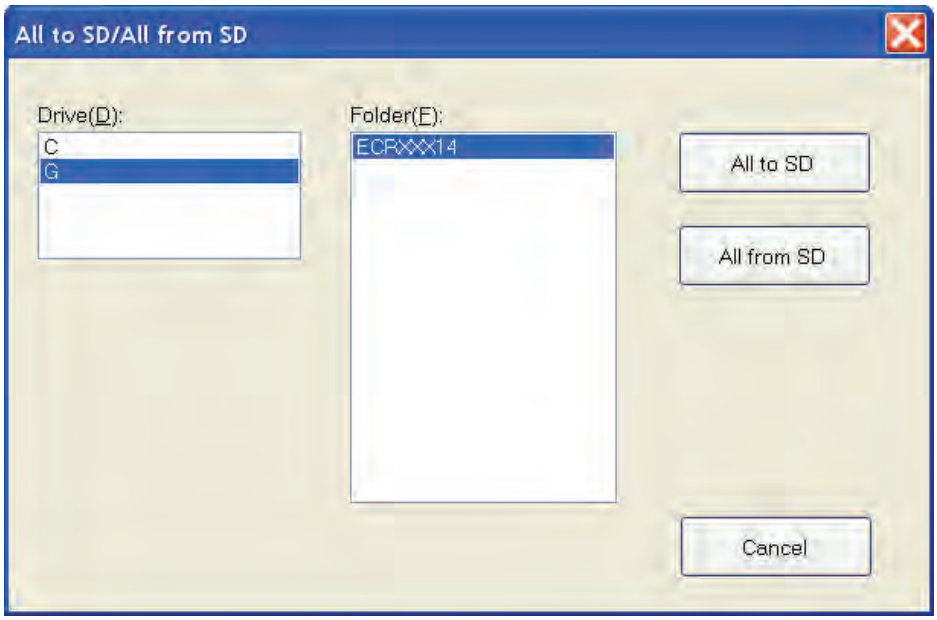
The following functions can be executed from this window:

Button	Functionality
All to SD	Programming data is saved into specified folder on SD CARD.
All from SD	Programming data is loaded from specified folder on SD CARD.

All to SD: DEPT, PLU TAX, LOGO TEXT, and LOGO data are saved to the SD Card
If no record is displayed on the DEPT tab, then no DEPT data are saved
If no record is displayed on the PLU tab, then no PLU data are saved
If no record is displayed on the LOGO tab, then no LOGO data are saved

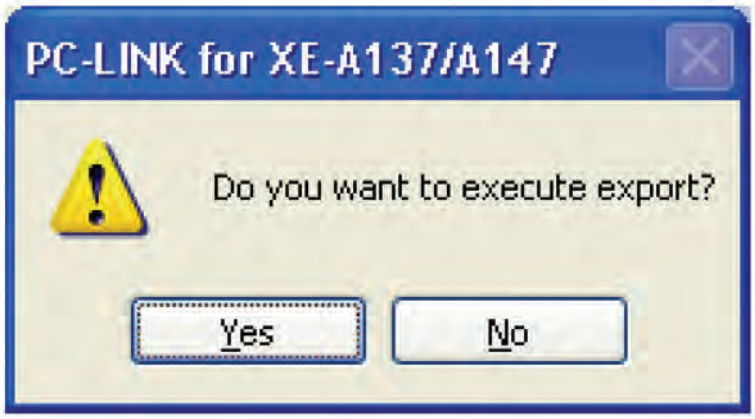
All from SD: DEPT, PLU, TAX, and LOGO TEXT are loaded from the SD Card

All to SD operation: Please follow the steps below to execute the All to SD operation.

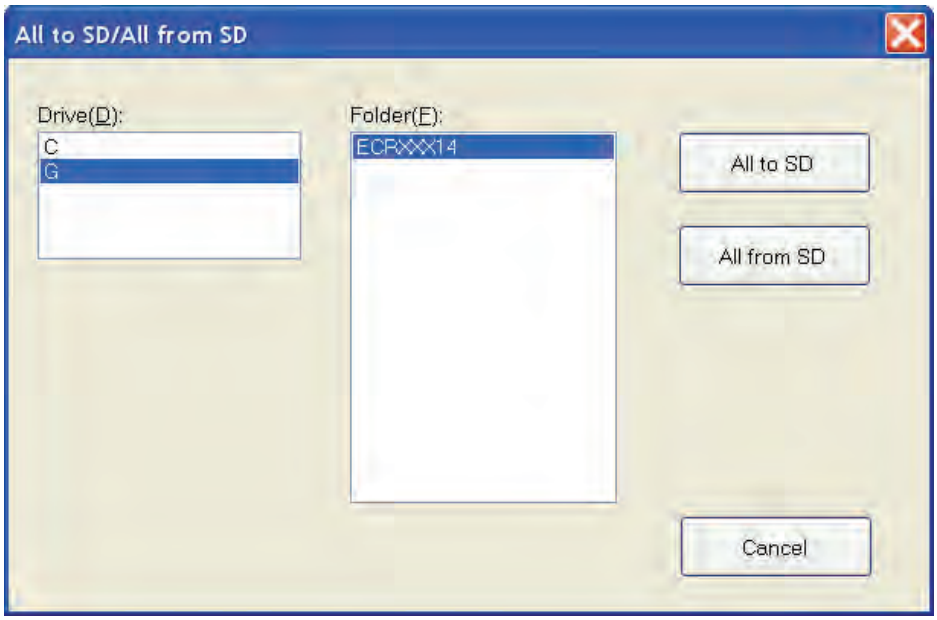


6.4 Select the SD Card Drive

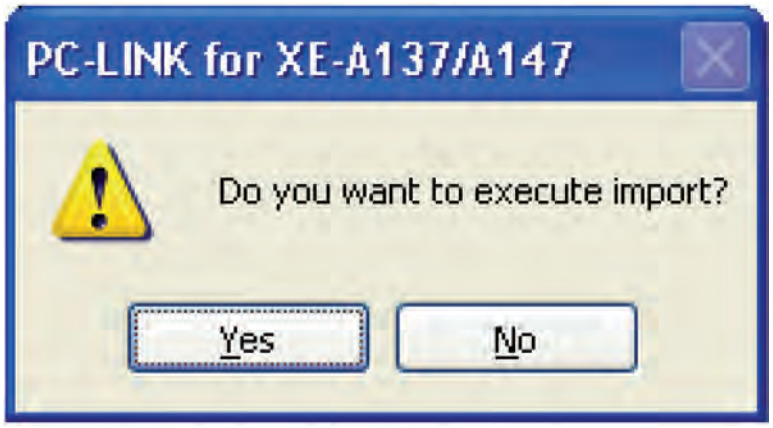
Select “ECRXXX14” this is the directory created on the SD card by the XEA147. Then click “All to SD” button



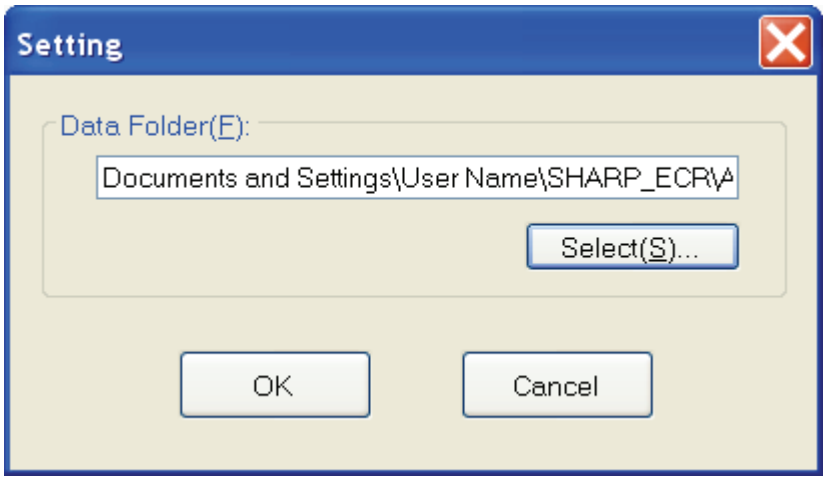
All from SD operation: Please follow the steps below to execute the All from SD operation.



a. Select the SD Card Drive
b. Select “ECRXXX14” this is the directory created on the SD card by the XEA147
c. The click “All from SD” button



Setting**:** The following window is shown when you select the Setting option on the file menu.



You may set the Data Folder path as follows:

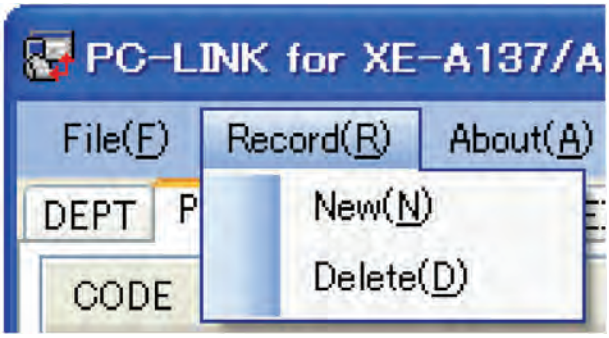
Group	Item	Explanation	Default Value
Data Folder(F)		Data folder to save each data set.	(*1)

(*1) XP:Documents and Settings\(user name)\My Documents\SHARP_ECR\A147V\SHOP_NAME1
Vista: Users\(user name)\Documents\SHARP_ECR/A147V\SHOP_NAME1
Windows 7: Users\(user name)\Documents\SHARP_ECR/A147V\SHOP_NAME1

Exit**:** Close down the SD Card PC-Link software.

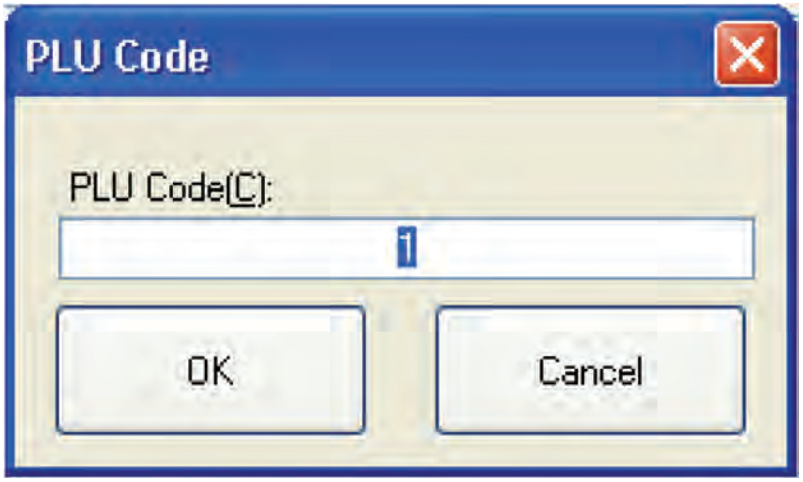
6.5 Record

This menu item is used when the PLU tab is selected. It allows for creation and deletion of PLU records.



New**:** Use this Record menu option to create a new PLU record.

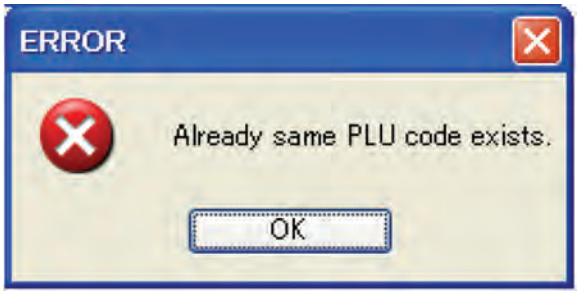
A code entry window when this Record menu option is selected.



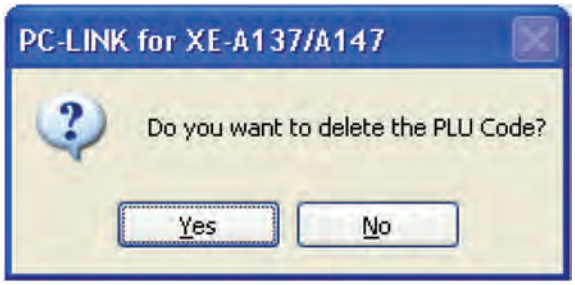
If [OK] is clicked a new PLU record is created with the following data:

Group	Item		Value
TEXT			PLU.xxx
PRICE			0
PROGRAM	Dept No.		1
	Amount Entry Type	OPEN	Not selected
		PRESET	Selected

If the code already exists, the error message: “Already same PLU code exists.” is displayed.



Delete**:** Deletes the selected PLU record



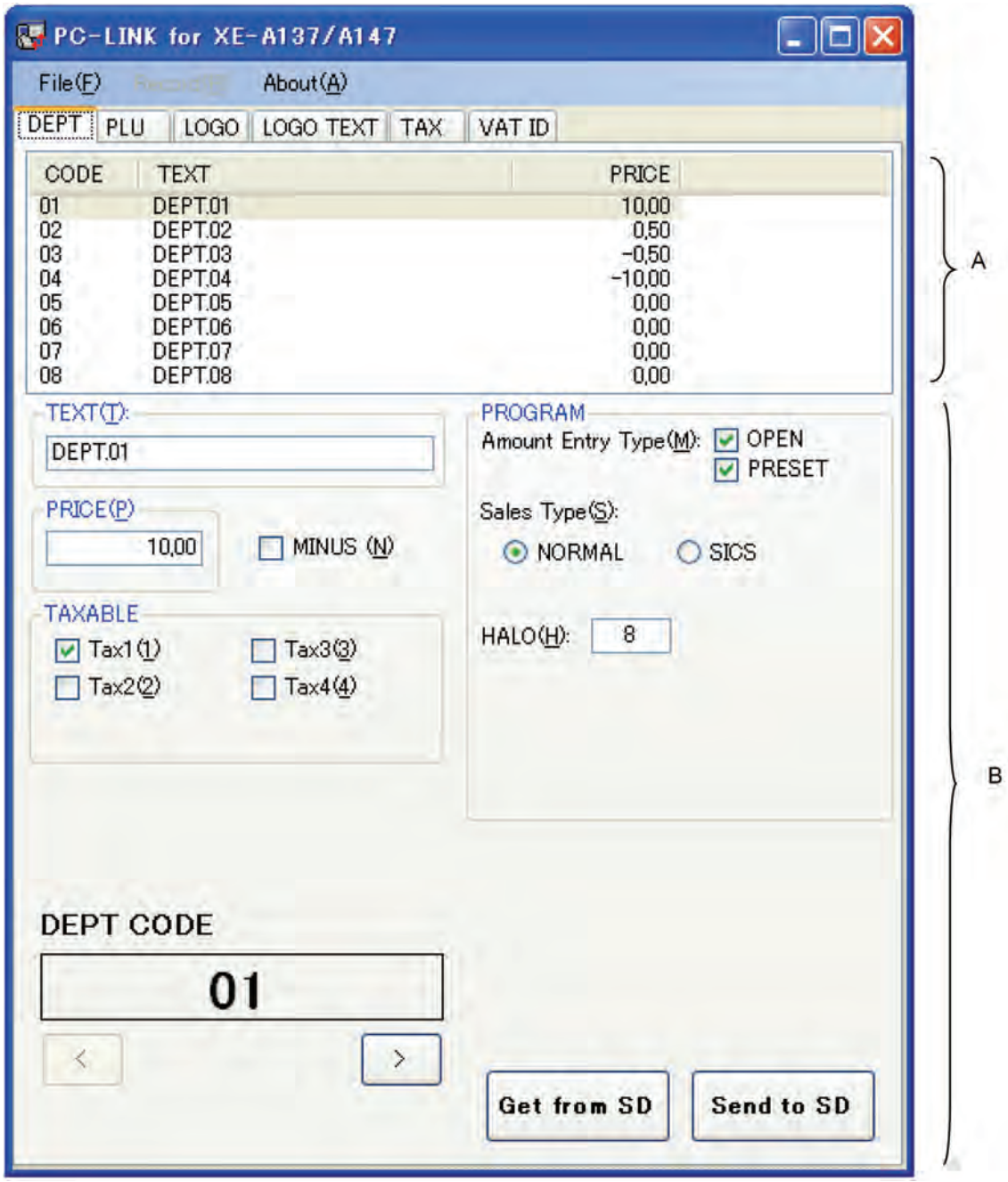
6.6 About

This menu item can be accessed whichever Tab is selected.

A window which shows the software name and version information is displayed.

6.7 Department Programming

Click on the DEPT tab to access the department programming form.



Screen Construction:

The DEPT tab is constructed of 2 panes
Pane A shows the list of departments
Pane B shows detail of the currently selected department.

The number of departments is fixed. You cannot add or delete departments.

Programming Department Details:

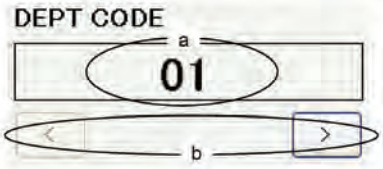
The table below shows the department details that can be programmed.

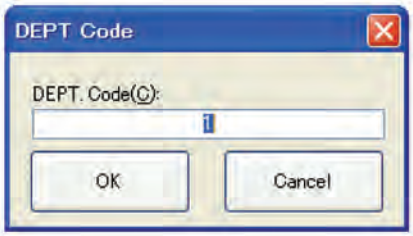
Item	Explanation
Text	Max 12 characters can be entered.
Price	Max 8 digits can be entered. Tab position is determined by regional setting of Windows.
MINUS	Please check this box if the department is minus department.
Taxable	Maximum 4 taxable can be set. Please check the taxable number that should be set.
Amount Entry Type	You can choose "OPEN" and "PRESET". If you check both of "OPEN" and "PRESET", it means "OPEN&PRESET" If both checks are excluded, it means "INHIBIT"
Sales Type	"NORMAL", "SICS" can be selected.
HALO	Range is from 0 to 8.

Selecting A Department:

The table below shows the ways you can select a department:

Method	Operation
By selecting from list	Click the department on the list(Pane A).
By entering department code	1. Click the department code (See below, "a" is department code display.) then code entry window comes up. 2. Enter department code.
By increasing/decreasing operation.	See below, "b" is increase/decrease button. Click "<" to select smaller code from current code. Click ">" to select bigger code from current code.

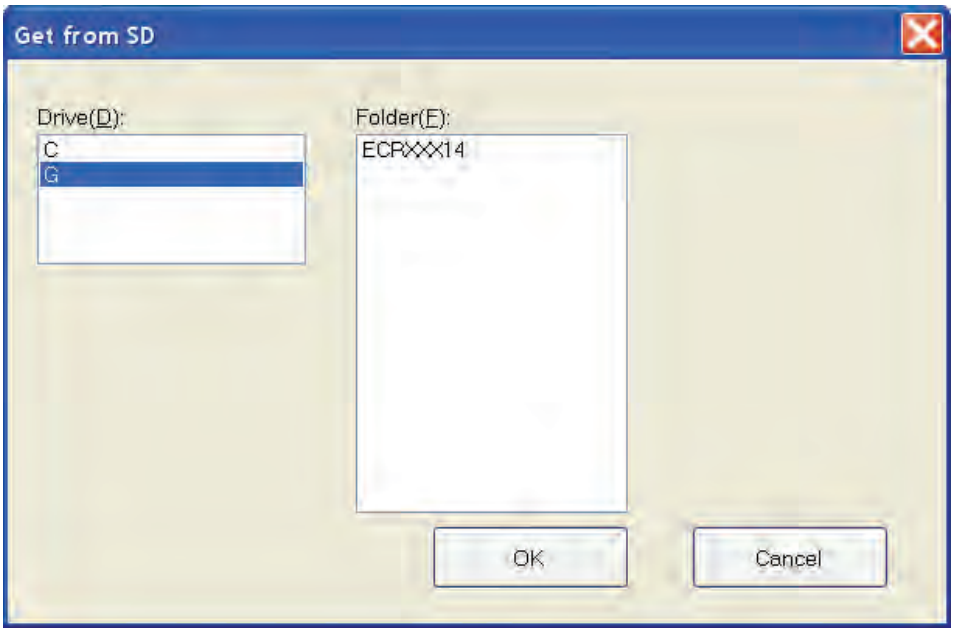


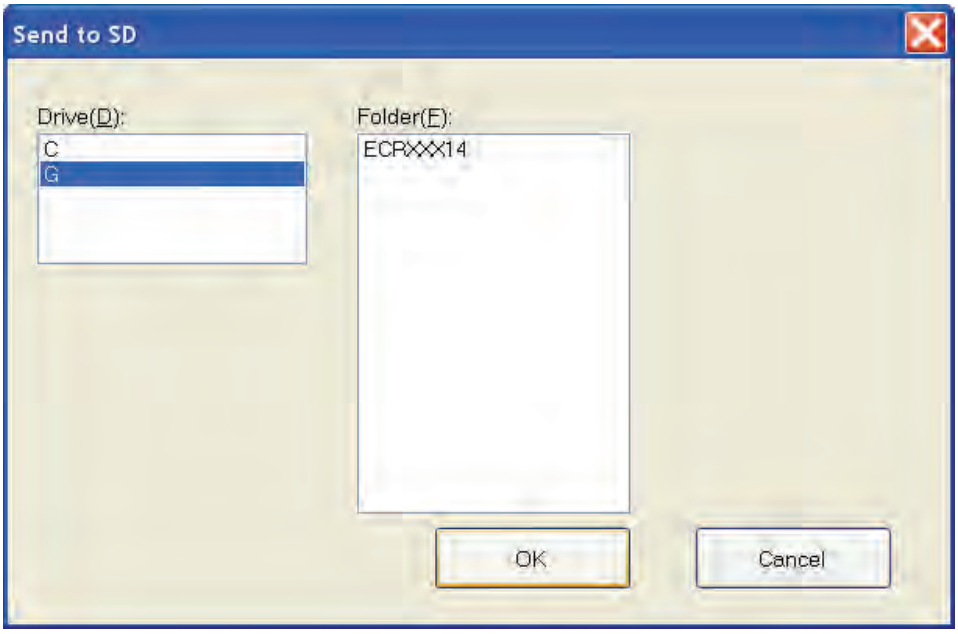


Department Data Transmission to or from the SD Card:

Department data transmission to, or from the SD card, is started by clicking “Get from SD” or “Send to SD”

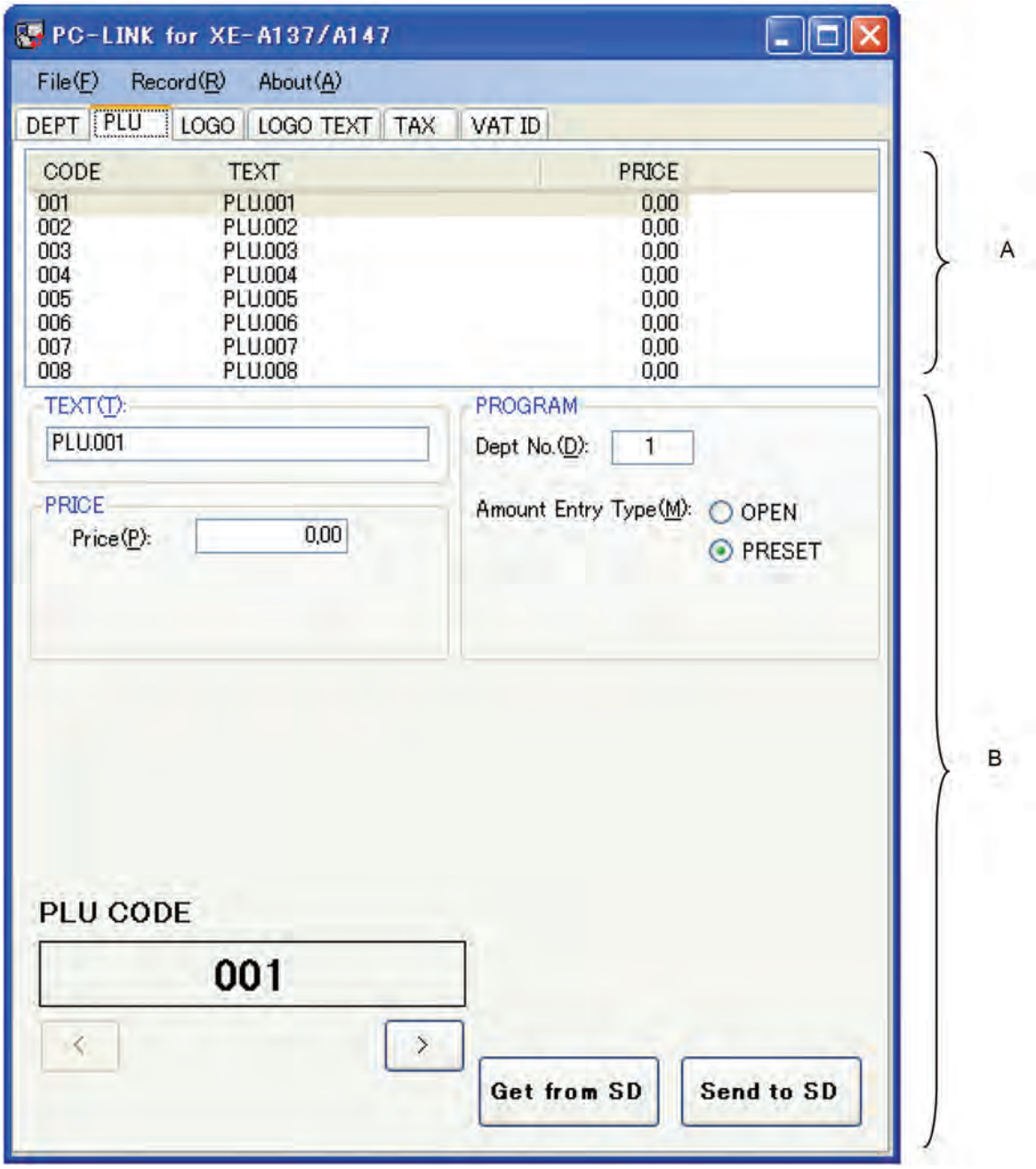
Button	Functionality
Get from SD	Import all department preset data from SD card.
Send to SD	Export all department preset data to SD card.





6.8 PLU Programming

Click on the PLU tab to access the PLU programming form.



Screen Construction:

The PLU tab is constructed in 2 panes.
Pane A shows the list of PLUs.
Pane B shows the detail of the selected PLU.

Programming PLU details:

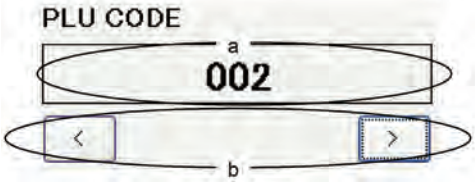
The table below shows the PLU details that can be programmed.

Item	Explanation
Text	Max 12 characters can be entered.
Price	Max 8 digits can be entered. Tab position is determined by regional setting of Windows.
Dept. No.	1 – 8 can be entered.
Amount Entry Type	"OPEN", "PRESET" can be selected.

Selecting a PLU:

The table below shows the ways you can select a PLU.

Method	Operation
By selecting from list	Click the PLU on the list (Pane A).
By entering PLU code	1. Click the PLU code (See below, "a" is PLU code display.) then code entry window comes up. 2. Enter PLU code.
By increasing/decreasing operation	See below, "b" is increase/decrease button. Click "<" to select smaller code from current code. Click ">" to select bigger code from current code.



Creating a PLU code:

The table below shows the ways you can create a PLU code.

Method	Operation
From context menu on the list	1. Somewhere on Pane A, click the right mouse button to open shortcut menu. Then select "New" on the shortcut menu. 2. Code entry window comes appear. 3. Enter PLU code.
From menu bar	1. Select "Exec" menu on the menu bar. 2. Select "New" in "Record" menu 3. Code entry window comes appear. 4. Enter PLU code.

(Available number is 1 to 200.)
(Available number is the number which does not exist in PLU file.)

Deleting a PLU code:

The table below shows the ways you can delete a PLU code.

Method	Operation
From context menu on the list	1. Select the PLU code which is to delete on the Pane A. 2. Click the right mouse button on the Pane A to open shortcut menu. Then select "Delete Record" on the shortcut menu. 3. Confirmation dialog comes appear and select "YES", then assigned PLU code is deleted.
From menu bar	1. Select the PLU code which is to delete on the Pane A. 2. Select "Exec" menu on the menu bar. 3. Select "Delete in "Record" menu. 4. Confirmation dialog comes appear and select "YES", then assigned PLU code is deleted.

PLU Data Transmission to or from the SD Card:

PLU data transmission to, or from the SD card, is started by clicking “Get from SD” or “Send to SD”

Button	Functionality
Get from SD	Import all PLU preset data from SD card.
Send to SD	Export all PLU preset data to SD card.

6.9 LOGO programming (Graphical Logo)

A graphical logo can be downloaded from the LOGO tab.

Screen Construction:

This tab is constructed with only Graphical Logo image file select, and Send to SD Card.

Programming Graphic Logo image:

The XEA147 SC Card PC-Link does not support creation and editing of Graphical Logo data. The LOGO image must be created with a graphics tools such as Paint.exe. The graphical logo file must be a monochrome bitmap of exactly 360 pixels wide, and 130 pixels high. No other settings can be used. Invalidly set-up files cannot be sent to the SD Card for transfer to the XEA147.

Specification of Graphical Logo Bitmap:

The table below sets out the specification for the Graphical Logo bitmap.

Color	Monochrome (Black and White)
Size	Width 360pixel Height 130 pixel

If assigned Bitmap does not satisfy above requirement, error message will be shown.

Selection of Graphical Logo Data:

The table below shows the ways you can select the Graphical Logo data file.

Method	Operation
By entering file path	Enter or select location of logo data file.
By Drag & Drop	**Logo data can be set by Drag & Drop operation into C area.** **(See screen sample of previous page.)**

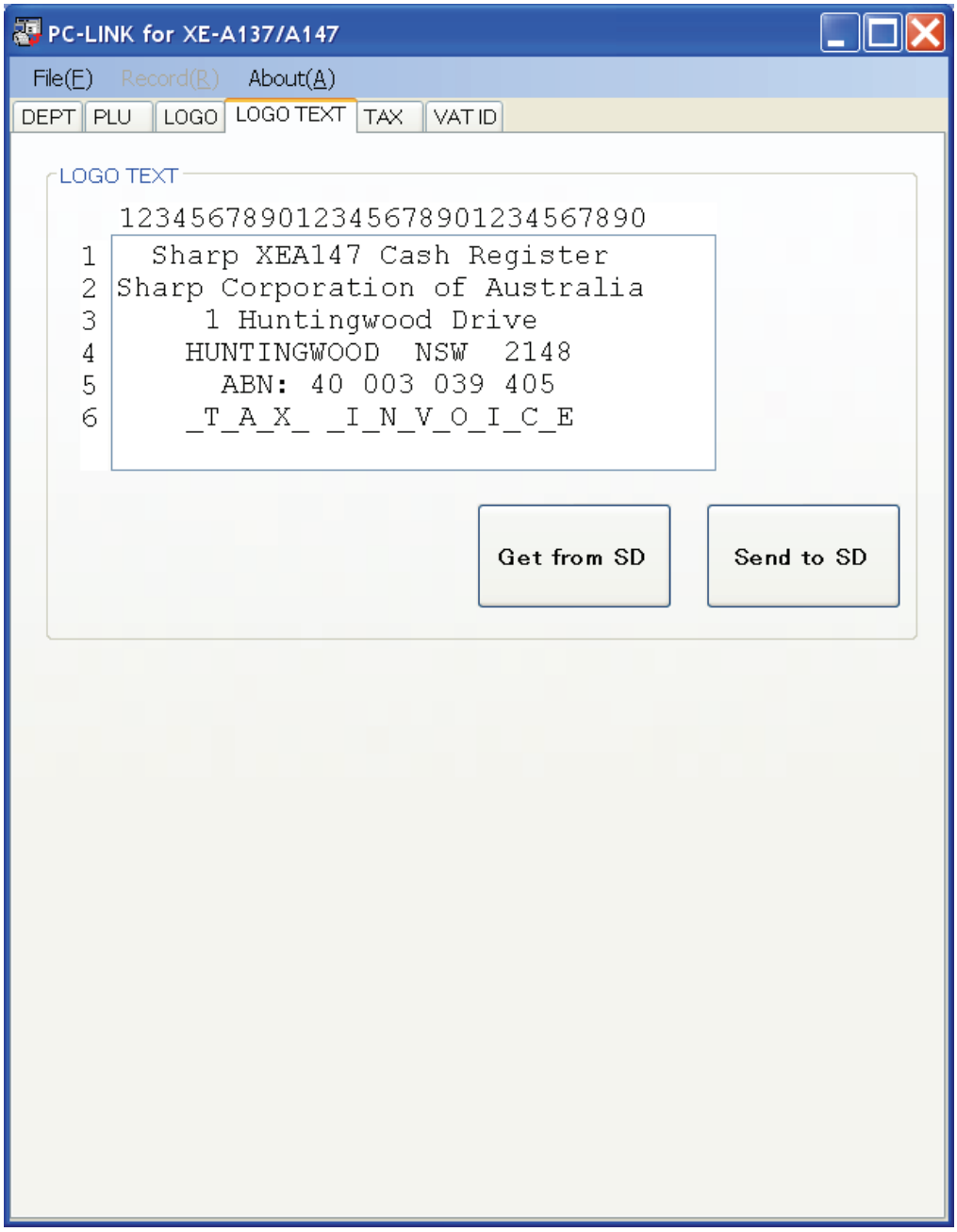
Data Transmission:

Data transmission can be made by clicking “Send to SD”

Button	Functionality
Send to SD	Export logo data to SD card.

6.10 LOGO text programming

Click the LOGO TEXT tab to access LOGO text programming. You can enter your store details such as address, and ABN here.



Screen Construction:

The LOGO TEXT tab only allows for entry of LOGO text.

Programming LOGO text details:

The table below shows the specification for the LOGO text.

Item	Explanation
Logo Text	30characters / line and Max. 6lines of Logo text can be programmed.

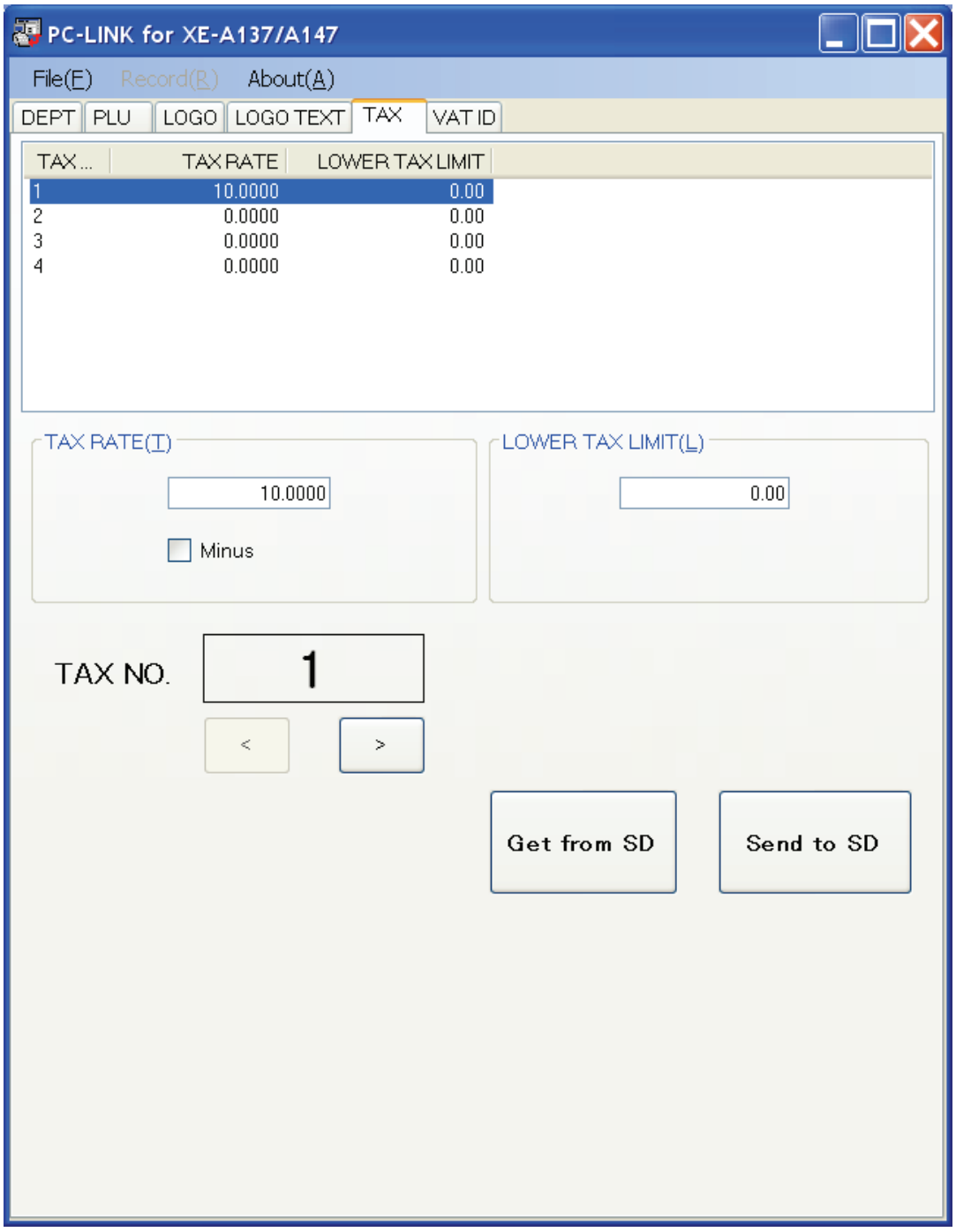
Data transmission:

Data transmission of LOGO text to or from the SD Card can be made by clicking “Get from SD” or “Send to SD”.

Button	Functionality
Get from SD	Import all Logo text data from SD card.
Send to SD	Export all Logo text data to SD card.

6.11 GST rate programming

GST rate programming is available on the TAX tab.



Screen Construction:

The TAX tab is only used for GST rate entry.

Programming GST rate details:

The table below lists the details which can be programmed on the TAX tab.

Item	Explanation
Tax rate	3 digits integer + 4 digits decimal can be programmed for each rate. Rate range is from 0 to 100.0000. Minus sign can be programmed.
Lower Tax Limit	Max 5 digits value can be programmed.

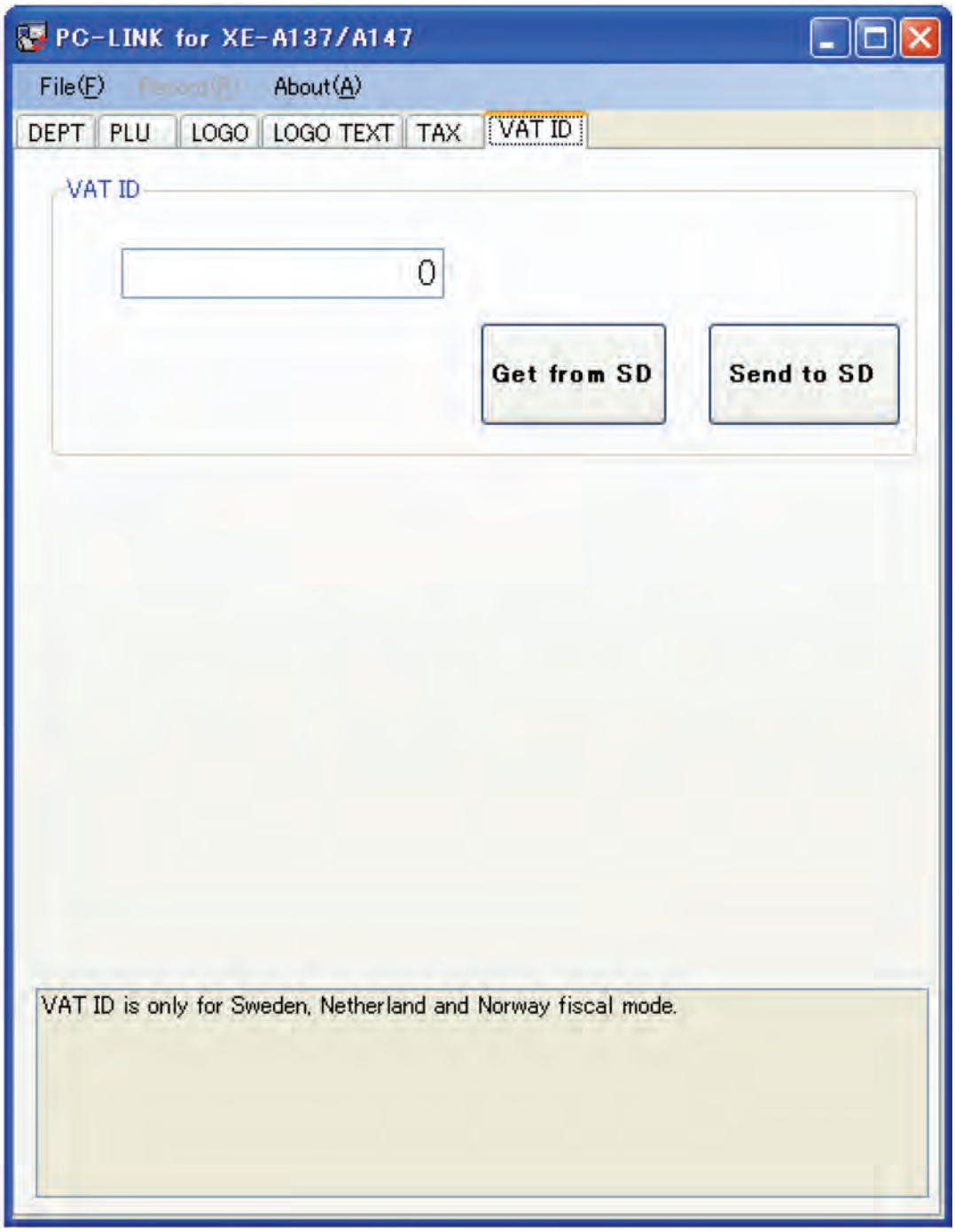
Data transmission:

Data transmission of TAX rate settings to or from the SD Card can be made by clicking “Get from SD” or “Send to SD”.

Button	Functionality
Get from SD	Import TAX setting data from SD card.
Send to SD	Export TAX setting data to SD card.

6.12 VAT ID

The VAT ID tab is not used in Australia.

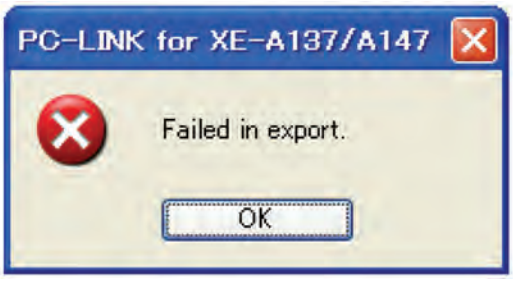


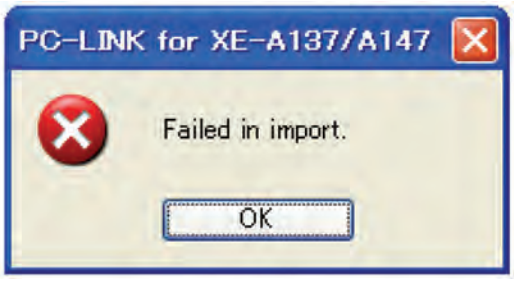
7. Data Transmission

The XEA147 SC Card PC-Link does not support RS232C communication with the XEA147 cash register.

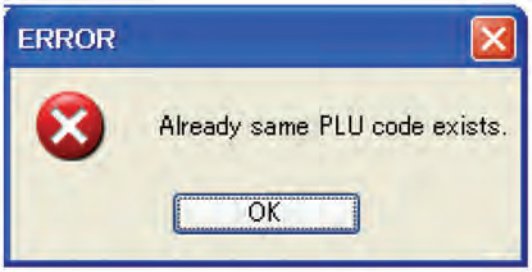
8. Display Samples

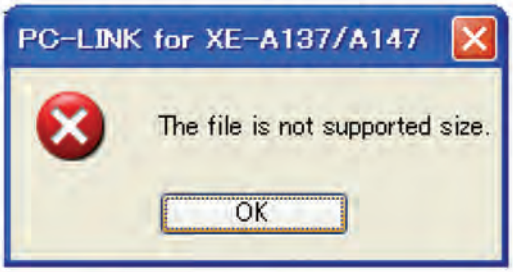
There is no display indication when data is transmitted to or from the SD card. There are error messages if the transmission is not successful. They are shown below:

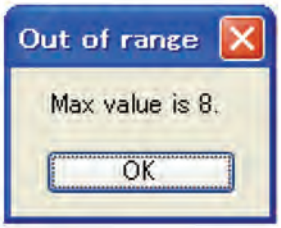


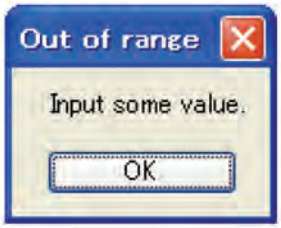


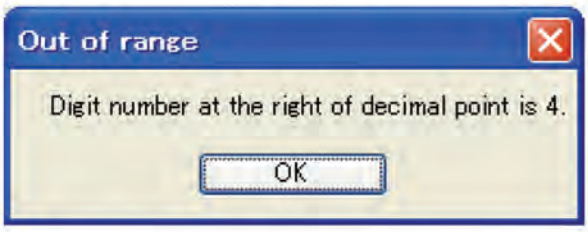
There are also error messages if you enter data that is invalid. Samples are shown below:











9. Available Characters

The following table sets out the characters which are available for use with the XEA147 SD Card PC-Link. These characters are converted to those that the XEA147 uses when exported to the SD Card for loading into the XEA147. The table shows the PC code for a character and the XEA147's equivalent.

Code table for alpha descriptor programming

ECR	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047
		!	″	#	$	%	&	'	(	)	*	+	,	−	.	/
PC	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
ECR	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063
	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
PC	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
ECR	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079
	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
PC	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
ECR	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095
	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
PC	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	0020
ECR	096	097	098	099	100	101	102	103	104	105	106	107	108	109	110	111
	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
PC	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
ECR	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	⌂
PC	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	2302
ECR	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	Ì	Ä	Å
PC	00C7	00FC	00E9	00E2	00E4	00E0	00E5	00E7	00EA	00EB	00E8	00EF	00EE	00EC	00C4	00C5
ECR	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	ƒ
PC	00C9	00E6	00C6	00F4	00F6	00F2	00FB	00F9	00FF	00D6	00DC	00F8	00A3	00D8	00D7	0192
ECR	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
	á	í	ó	ú	ñ	Ñ	ª	º	¿	®	č	½	¼	¡	«	»
PC	00E1	00ED	00F3	00FA	00F1	00D1	00AA	00BA	00BF	00AE	010D	00BD	00BC	00A1	00AB	00BB
ECR	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
	▒	▓	▉	|	ď	Á	Â	À	©	ě	|	ň	Ř	ø	¥	š
PC	2591	2592	2593	2502	010F	00C1	00C2	00C0	00A9	0115	2551	0148	0159	00A2	00A5	0161
ECR	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
	ť	ů	ž	Č	—	Ď	ã	Ã	Ě	Ň	Ř	Š	Ť	−	Ů	¤
PC	0165	016F	017E	010C	2500	010E	00E3	00C3	011A	0147	0158	0160	0164	2550	016E	00A4
ECR	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
	ð	Đ	Ê	Ë	È	€	Í	Î	Ï	Ž	⌐	▉	▃	¦	Ì	▀
PC	00F0	00D0	00CA	00CB	00C8	20AC	00CD	00CE	00CF	017D	250C	2588	2584	00A6	00CC	2580
ECR	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Þ	Ú	Û	Ù	ý	Ý	¯	´
PC	00D3	00DF	00D4	00D2	00F5	00D5	00B5	00FE	00DE	00DA	00DB	00D9	00FD	00DD	00AF	00B4
ECR	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
	−	±	=	¾	¶	§	÷	¸	°	¨	·	¹	³	²	▮	(DC)
															■	_
PC	00AD	00B1	003D	00BE	00B6	00A7	00F7	00B8	00B0	00A8	00B7	00B9	00B3	00B2	25A0	005F

The 3 digit code is the XEA147 code. The 4 digit code is Unicode used by the XEA147 SD Card PC-Link. (DC) stands for Double Size (width) Character. The DC character in the XEA147 SD Card PC-Link will be shown as an underscore '_'. An underscore from the XEA147 will be shown as a space in the XEA147 SD Card PC-Link. This means: an underscore entered into the XEA147 SD Card PC-Link is converted to a space when it is exported to the SD Card, and a DC character is converted to underscore and character when it is imported from the SD card to the XEA147 SD Card PC-Link. For example a DC letter T, will display as '_T' in the XEA147 SC Card PC-Link.

10. List of Messages

Below is a list of messages that can be displayed by the XEA147 SD Card PC-Link.

User folder cannot be added.
Application error. ({x})
BMP file has too much black. Reduce the black to under 35% of total area.
The file doesn't exist, or path is illegal.
The file is not bitmap file.
The file is not found.
The file format is not supported color.
The file is not supported size.
Failed to save the file. Do you want to exit PC-LINK?
Input the folder path.
Folder cannot be make.
PC-LINK for XE-A137/A147 has already started.
Export folder is not specified.
Import folder is not specified.
Picture convert DLL is not found.
Already same PLU code exists.
The file cannot be preserved.
Failed in export.
Failed in import.
Do you want to change this setting?
Do you want to execute export?
Do you want to execute import?
ERROR
Do you want to load data from the new folder?
Do you want to delete the PLU Code?
Max value is {x}.
Min value is {x}.
Digit number at the right of decimal point is {x}.
Out of range
Input some value.
XML file is broken. PC-LINK operates in the initial state.
Invalid PLU code
VAT ID is only for Sweden, Netherland and Norway fiscal mode.

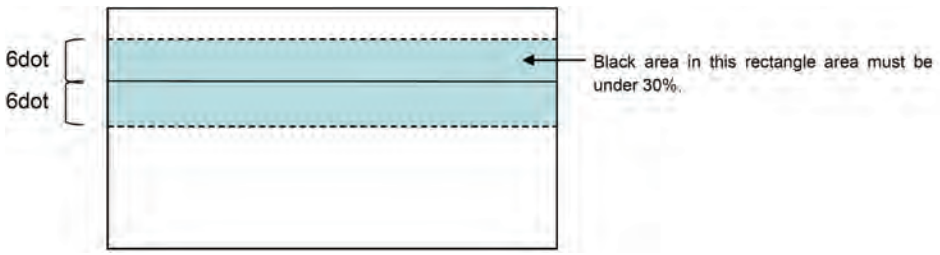
11. Restrictions

The following operations are restricted and cannot be performed.

1. Power standby is disabled during data transmission to or from the SD Card.
   The Windows stand-by function is disabled during data transmission to or from the SD Card.

2. Graphical Logo data must meet the following specification.

   The graphical logo height in pixels must be exactly 130 pixels
   The graphical logo width in pixels must be exactly 360 pixels
   The graphical logo must be a monochrome bitmap. Gray scales cannot be used.
   Black must be less than 35% of the total area of the graphical logo (360 x 130).
   If the number of dots in a rectangle, like the one shown below, is more than 55% of the total length of the graphical logo, its total black area must be less than 30% of the total area of the rectangle.



If your graphic logo data has a total black area of 35% or greater, or has a rectangle of the type shown above which is more that 55% of the width of the graphical logo (360), and has a black area greater than 30% of its area, the error message shown below will be seen.

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