iBonus Display^{TM} User's Manual

Manual For:

iBonus Display^{TM}   version 3.6

1. Installation

Determine the location(s) for installing iBonus Display. iBonus can be mounted on the wall using 4 screws.

iBonus Display comes with a power supply with 110-220 V input. Connect the power supply to iBonus Display.

iBonus Display can be connected directly to your corporate network via standard RJ-45 cable & TCP/IP protocols. If you want to connect iBonus Display to a computer directly, you have to use Crossover RJ-45 cable. Please see the section Configuration for more detail.

iBonus Display requires initialization of the setting by presenting a Master Card supplied by the factory.

2. Configuration

2.1. Built-in Web Server

iBonus has a built in web server. By typing the iBonus Display's IP address in the browser, you can configure and administrate it. You can choose either normal login or secure (SSL) login. Enter user name (default: admin) and password (default: 123). (If you have chosen secure login, you have to accept the certificate by clicking yes.) Then you can get to the web admin page.

2.2. LCD Control Panel

iBonus has an on screen set up program which is called LCD Control Panel. It is made for you to do some on-site configurations and settings on the iBonus

Display. To use the LCD Control Panel, press the touch screen for 5 seconds when the iBonus Display is idle or playing advertisement. Enter password (Default: 123). Then you can get to the LCD Control Panel.

2.3. Touch Screen Panel Calibration

When the iBonus is used the first time, it requests you to calibrate the touch screen. Simply press on the center of the circle one by one.

To recalibrate the touch screen:
- Click "Touch Screen" in the menu of the web server page.
- Click Calibrate.
- The calibration process will be carried out in the next reboot.

2.4. Network Configuration

You should consult your IT department, network engineer or consultant. You can also study this link http://www.oreilly.com/catalog/coreprot/chapter/appb.html for explanation of IP address.

Here is a simplest network in a small office using network hub/switch.

IP address is an identifier of the location/address of device or computer in a network. The communication of devices/computers in the network relies on the IP address. Subnet Mask defines the range of IP addresses in a network. For example, we can setup an IP address ranges from 192.168.0.1, 192.168.0.2 ... to 192.168.0.254 with a Subnet Mask setting of 255.255.255.0.

The default IP address of iBonus Display is 192.168.1.100. All computers in the network have to set with IP address within the range of 192.168.1.xxx and Subnet Mask of 255.255.255.0 .To test the connectivity, you can use the Ping command in DOS mode. In Windows, you can choose the DOS command, and then type ping 192.168.1.100. If successful, it will shows the time such as <10ms.

```
C:\>ping 192.168.1.100
Pinging 192.168.1.100 with 32 bytes of data:
Reply from 192.168.1.100: bytes=32 time<10ms TTL=128
Reply from 192.168.1.100: bytes=32 time<10ms TTL=128
Reply from 192.168.1.100: bytes=32 time<10ms TTL=128
```

```
Reply from 192.168.1.100: bytes=32 time<10ms TTL=128
```

Once you have setup the computers, you can use any Internet browser to access the administration page of iBonus Display by typing their IP address.

2.4.1. On Web

To change the IP configuration of the iBonus Display click "Network" in the menu. You can change the followings in that page:

2.4.1.1. General Network Settings

To setup the network:
- Click "Network" in the menu
- Enter or select the parameters explained below.
- Click "Save"

Host Name	The name of this unit for you to identify this unit when you have launched a lot of them. Master iBonus Display can use this to identify the slaves.
Primary/ Secondary DNS	The domain name server used by this unit.
Only Allow SSL Connection	Determines whether this unit only uses SSL connection for web administration program and master/ slave connection.
Webserver Port	The port number of unencrypted web server service. Default value: 80
SSL Webserver Port	The port number of secure web server service. Default value: 443

2.4.1.2. Network Interface Settings

Every iBonus unit has a network interface, the internal network interface. If it is equipped with a wireless LAN interface, you can configure both internal network interface and wireless LAN interface on the web-page. The following parameters are common for all network interfaces.

Enabled	Determines whether this interface is turned on. If you have more than one network interface, it is suggested that you enable only one of them.
IP Address	Internet Protocol address of this interface.
Network Mask	The subnet mask of this interface.
Gateway	The IP address of the device which connect this unit to the outside world.

The followings are particular of wireless LAN interface.

ESSID	It has to match the ESSID of the network it is connected with.
Connect With	Wireless router : Also known as Infrastructure mode or Managed mode Another Computer or iBonus using wireless interface : Also known as Ad-Hoc Mode or Peer to Peer Mode
Channel	The channel to which this network interface is connected.

It is suggested that you enable only one network interface in an iBonus Display.

2.4.1.3. Master/ Slave Settings

Imagine you are going to deploy a group of iBonus Display in different locations. To keep the content of the display units up to day, you might have thought you need to browse each unit and do the update one by one. Master/ Slave feature saves up the tedious steps mentioned above and the update procedure can be done in just one click.

There are more functions which comes with the master/ slave features

● Monitoring the update progress and the health of the slaves units.
● Authenticating the connecting slaves.
● Scheduling the time of updating.

● Sending alert email to a designated email address when there is something wrong.

Parameters:

Master Unit	Select the radio button when it is a master unit or a stand-alone unit.
Slave Unit	Select the radio button when it is a slave unit
Master Unit IP	Required when Slave Unit is selected. It is the IP address of the Master.
Synchronization Hours	The hour in which the slave can start synchronization with master.
Need Password to Login Master	The Master/ Slave service of the master may be protected by password. A valid password must be types here in a slave order to login to the master.
Master's Webserver Port	A slave is connected to the master thru the master's web server. This port number has to be the corresponding number of master's.
Master's SSL Webserver Port	If either master or slave has been chosen to use SSL for web server connection. The connection between master/ slave will use SSL. This port number has to be the corresponding number of master's.

Points to note:

If you have only one unit of iBonus Display or the unit which is not networked with other iBonus Display units, simply choose Master Unit.

If you have more than one unit of iBonus Display and you want all units having the same advertisement content, advertisement schedule, and reward scheme, configure one unit as a Master Unit, and the rest as Slave Unit. In the Slave Unit, you have to fill in the IP address of the Master Unit.

It is suggested that you set up the master unit in a place which can be physically accessed easily, for example, your office. You can see what the content will look like before broadcasting them to the slaves.

If you have several groups of iBonus Displays which have different content between the groups (but the content are the same among the same group), you need divide the slave in several groups and connect each group to one master, thus forming several groups of master and slaves.

To establish a connection between a master and a slave, a master has to have an IP-address or, at least, a web server port connectable by the slaves. A slave, however, can hide in a subnet without exposing an IP address to the outside world (If you don't mind not having the web administration function of the slaves). At any time, only 20 slaves are allowed to be connected to a master.

Step of performing data synchronization after updating the content in master:

- Click "File Sync" in the menu. You can see the status of the units connected to this unit.
- Click the "Sync" button.

After clicking the Sync button, the master sends a notification signal to its slaves. If the master cannot connect to the slave's web server, slave can still notice the master's has commanded a synchronization request by polling the master. As soon as the slave finishes its current advertisement, it will start downloading content from the master. At most 5 slaves can download content from the master at a time. When the download procedure is in progress, content modification is not allowed in the master. The information on the browser shows the progress of synchronization.

2.4.1.3.1.   Topology

One master can be shared by at most 20 slaves. A slave itself can be a master relative to its slaves.
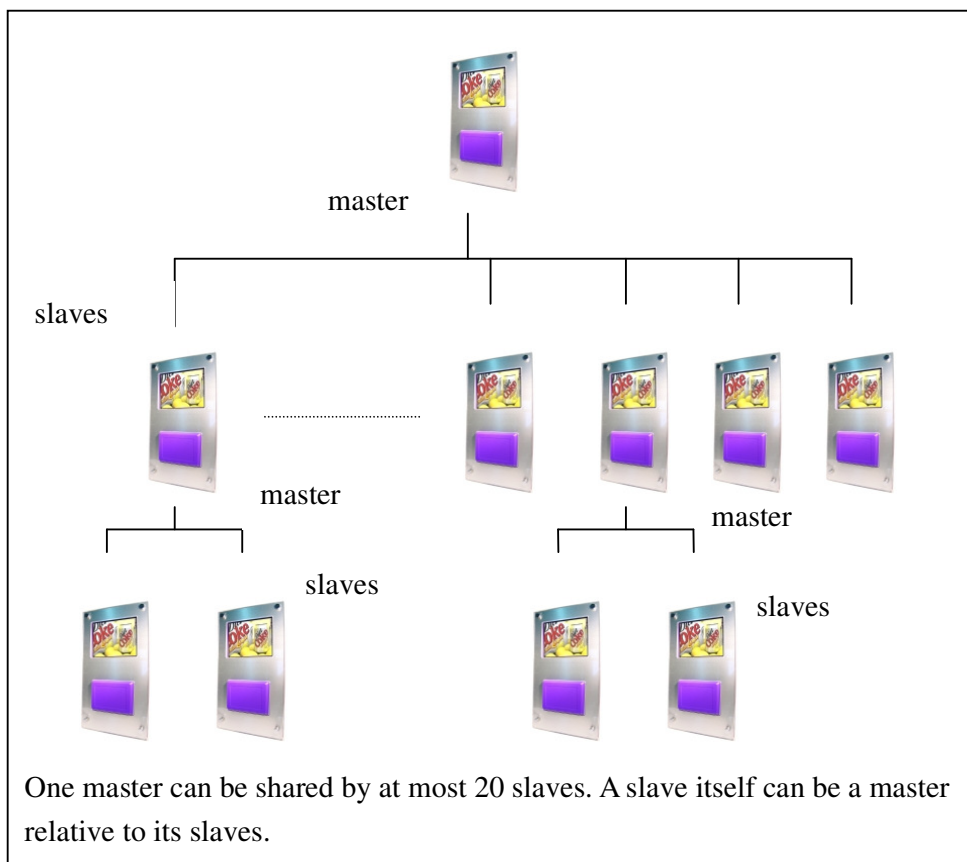
2.4.1.3.2.   Monitoring the updating progress

Steps:
- Click "File Sync" in the menu. You can see the status of the units connected to this unit.
- Click the hyper link "Keep refreshing this page" if you wish to keep the list updated.

The list shows the slaves which is online. If you want the list to tell you which slaves are supposed to be connected, and monitor if there is any slave which cannot connect to the master, follow the steps below:

- Give each of each slave a host name in their network settings. (Max 10 Characters)
- In the master web page, click "Network" in the menu.

- Make sure the check box "Only slaves with designated host names can be connected to this unit" is checked. Click "Save" if you have changed this setting.
- Click the link named "Click here to define the host names, with which slaves can connect to this unit". A new window is shown.
- In the text field named "Add Host Name", enter the name which you have assigned to the slaves. Multiple host name can be separated by ",". After clicking the button "Add" the host names are added to the list. Only the slaves with their host name in the list can connect to this master unit.
- Click "File Sync" in the menu on the left. If there is a slave which host name is added but it is offline, the problem will be shown on the list where the corresponding slave is marked as offline.

2.4.1.3.3.   Authenticating the connecting

slaves

2.4.1.3.3.1. Password protection

Master can setup a password for the slave to login; So that the content won't be "stolen" by an unauthorized party.

Steps for setting up the password in master:
- In the master's web page. Click "Password" in the menu.
- In the text field named "Password for accessing master" key in the password. (Max 10 characters)
- Click "Save".
- In the slaves' web page. Click "Network" in the menu.
- Check the check box named "Need password to login master"
- Enter the password you have just entered into the field "Password"
- Click "Save"

2.4.1.3.4.   Scheduling the Time of Updating

You might not want you audience notice that the Display is downloading

content from the master while the advertisement is supposed to be on air. You might not want your customer to wait for the download progress before being able select their gift or product items from the Display. As an administrator, however, the most painstaking thing is that you are allowed to update your company's computer systems only when every one is off duty, having their chilled beer in front of a TV. If you don't want to wait till every one is gone before you can update the display's content, the update scheduler is made for you.

To tell the time slot in which the slave can perform synchronization:
● In each slave's web page, click network.
● Change the value of the "Synchronization Hour". The time value here can cross a day boundary. For example, 23:00 to 06:00 means the slave can start downloading content between 11pm and 6am of the next day. Each slave can have different time slots.
● In master's web page, after updating the content, you still need to click the "Sync" button in page "File Sync". The slaves will start downloading as soon as the clock turns to their synchronization hours.
Make sure the clocks in the master and slaves are adjusted properly.

2.4.1.3.5.   Sending Alert Email

Network connections between master and slaves may go wrong sometimes. (Murphy says it will!)
For a master, alert email can be sent to a designated email address when:
● A slave is not connecting
● A slave does not start downloading from master even it is supposed to
● A slave can never finish downloading
For a slave, alert email can be sent when:
● It cannot connect to a master.

Steps:
● In the menu, click "Network"
● Check the check box "Enabled" underneath Email Fault Alert
● Enter SMTP server domain name. (Make sure you have entered the DNS)
● Enter Port and recipient email addresses. Multiple recipients can be separated by space.
● Check the check box in any of the alert items below and enter the value. In particular the second item "Send email alert when a slave does not start

downloading after placing the synchronization command after certain duration." If the slave is restricted to download in a certain time slot, you have to enter a value larger than 24 in that text field.
- Click "Save"

2.4.2. On Touch Screen

The network general setting, interface settings and master/ slave setting can be done in the LCD touch screen control panel. However, there are some parameters you cannot change on the LCD control panel:
- The host name with which slave can connect to this unit.
- Email fault alert

2.5. Date and Time

You can adjust the date and time of iBonus.

2.5.1. On Web

- Select menu "Set Clock".
- If "Auto DateTime" is turned on the date and time on the text field will follow the time of your computer.
- If you want to enter the date and time manually, switch off the "Auto DataTime"
- Click "Save"

2.5.2. On Touch Screen

- In the LCD control panel click "date/time"
- Adjust the date and time by clicking the arrow in the spin box.
- Click "Ok" or "Apply"

2.6. Administrator's User Name and

Password

The administrator's password and username should be altered from its default value before it is launched to the public. Please note that the password set in

the webpage is not corresponding to that set in the LCD control panel. They are individual passwords. The web administrator password can only be changed in the web page. The LCD control panel password can only be changed on the LCD control panel.

> The password set in the webpage is not corresponding to that set in the LCD control panel

2.6.1. On Web

To set the web administrator password:
- Click "Password" from the menu.
- Enter username to the field "System Administrator's Username". (Max 10 char)
- Enter new administration password in both of the remaining fields. (Max 10 char)
- Click "Save".

2.6.2. On Touch Screen

To set the LCD control panel's password:
- Click the tab "Password" in the control panel
- Enter the password in both fields. (Max 10 char)
- Click "Apply" or "Ok".

3. Administration

3.1. Member Profile / Questionnaire

The user's profile is collected when the customer tries to do his first redemption on iBonus Display. Customers are more willing to submit accurate answer when they see the benefit ahead.

Customers can also input or edit their profile by touching the person icon in the page showing his/her bonus point.

The involved information includes:

- Privacy agreement
- Language Preference
- Date of birth
- Administrator defined questionnaire

3.1.1. Privacy Agreement

Right after the customer first confirmed his redemption item, he will see a page which tells the customer that he/she is about to answer a series or questions. The words in the page can be modified in language settings. Please refer to the chapter Multi-lingual Support in the Advanced Features topics for knowing how to change the words.

3.1.2. Administrator Defined Questionnaire

There are 12 binary bits of memory in the Member Card assigned for membership profile. The 12 bits store the answer of several multiple choice questions. The number of questions which the 12 bit can store determines by the number of choice of each question. The larger number of choice in a question, the more space of the 12 bit it occupies.

The answers of the multiple choice questions can be used to define the redemption scheme. The order of display of the reward item can be determined by the answer. You can set up the display to show your customer the reward items which they would probably like most at the beginning. We will go back to this in the chapter Addition of Reward Items.

The general equation of calculating how many bits that a question occupies is as follows:

$$\text{bit} = \text{ceiling}(\log_2(\text{no. of choice}))$$

Following is an example of questions, choices and how they occupy the 12 bit:

No.	Question	Choices	No. of bit	data stored
1	Gender	1. Male,	1	Choice 1: 0

		2. Female		Choice 2: 1
2	Monthly Salary	1. 0-7,999	2	Choice 1: 00
		2. 8,000-13,999		Choice 2: 01
		3. 14,000-19,999		Choice 3: 10
		4. 20,000 or above		Choice 4: 11

If the user has chosen "Male" in question 1 and "14,000-19,999" in question 2. The 12 bit in the card is stored as follows:

001000 000000

Reading from right to the left, the second zero above is the least significant bit of question 2.

In the above example, it has only used 3 bits and leaves 9 bits for more questions.

Maximum number of choices of a question is 16.

Since the 12 bit of the member card has to combine with the questionnaire in order to form the profile. You cannot change the questionnaire after the iBonus Display is launched to public and used. Otherwise, the 12 bit may match to a wrong question.

To add a new question:

● Click Questionnaire in the menu under Reward Scheme
● In the session Adding New Session, select the Number of choice and the question number for the new question.
● Click "Add".
● Enter the question and choices in all languages.
● Click "Save". The new question is inserted into the questionnaire.

To delete a question:

● Click Questionnaire in the menu under Reward Scheme
● Check the checkbox next to the question.

- Click "remove"

To modify a question:

- Click Questionnaire in the menu under Reward Scheme
- Click the "edit" button next to the question.
- After the modification, click "Save".

3.2. Membership Class

You can define and name up to 5 different classes of Membership based on accumulative spending.

For example,

- Basic Membership started from 0 accumulative spending.
- VIP Membership started from 5,000 accumulative spending.

To add a membership class:

- Click Membership Class in the menu under Reward Scheme
- Underneath "You can add a new membership class here:" enter the starting accumulative spending and the membership class name in different languages.
- Click "add".

3.3. Redemption Scheme

Redemption is one of the core functions of iBonus Display. When a customer presents their member card to the Display, it shows the bonus points in the card. Then the customer can select one or more bonus items from the scheme.

3.3.1. Changing to Bonus Mode

If you wish to use iBonus Display for gift redemption, please make sure that your iBonus Display is operating in Bonus Mode.

To switch back to Bonus Mode from Shopping Mode:

- Underneath Shopping Scheme, click To Bonus Mode
- Click the radio button named Bonus Mode in the page at the right hand side.
- Click the button change mode.

Before changing mode, it is recommended that you delete all your shopping or reward items.

3.3.2. Addition of Reward Items

To add a new reward item:
- Click Add Reward Item in the menu of the web page.
- Enter the item code, select the image file and enter redemption points.

The mandatory setting of a reward item includes:

Item Code	The code name of item which will be shown in iBonus Terminal during redemption. Accepted characters: {0-9, a-z, A-Z, '_', '.'}. Max 10 Characters.
JPEG File	The image shown on redemption catalog on LCD display. The JPEG file has to be smaller then 1MB. The JPEG file will be resized to 640x480 if it is too big.
Redemption Bonus Point	The cost of this bonus item. By default the bonus will be shown to the customer only if the customer has enough bonus point balance.

- Enter the optional detail.

Optional detail includes:

Minimum Display Bonus Point	If you wish this item to be viewable to those members who do not have enough bonus points to redeem this item, enter a value lower then the Redemption Bonus Point here.
Availability period.	After the last day of availability period, the reward item will not be redeemable
Redeemable age	Only the customer at a certain age can redeem the item.
Birthday gift	The reward item is redeemable only on the customer's birthday.
Profile match	The reward item can be displayed first if the member

recommendation	has chosen a certain answer in the questionnaire,
Membership Class Availability	The item can be available to certain membership classes.

- Click "save"

3.3.3. Preview

- Click Preview Reward Item in the menu of the web page.
- Then you can see the preview page of reward items.

3.3.4. Modification

- In the preview page of reward items.
- Click the button "modify" underneath the detail of the item you want to edit.
- After changing the detail, click "save".

3.4. Shopping Scheme

Letting customers to choose shopping items is one of the core functions of iBonus Display. When a customer presents their member card to the Display, it shows the stored value balance in the card. Then the customer can select one or more shopping items from the menu.

3.4.1. Changing to Shopping Mode

If you wish to use iBonus Display for selling products, please make sure that your iBonus Display is operating in Shopping Mode.

To switch to Shopping Mode from Bonus Mode:
- Underneath Reward Scheme, click To Shopping Mode
- Click the radio button named Shopping Mode in the page at the right hand side.
- Click the button change mode.

Before changing mode, it is recommended that you delete all your shopping or reward items.

3.4.2. Addition of Shopping Items

To add a new shopping item:

● Click Add Shopping Item in the menu of the web page.
● Enter the item code, select the image file and enter the value of price.

The mandatory setting of a shopping item includes:

Item Code	The code name of item which will be shown in iBonus Terminal during shopping. Accepted characters: {0-9, a-z, A-Z, '_', '.'}. Max 10 Characters.
JPEG File	The image shown on shopping item catalog on LCD display. The JPEG file has to be smaller then 1MB. The JPEG file will be resized to 640x480 if it is too big.
Price	The cost of this bonus item. By default the bonus will be shown to the customer regardless of the customer card's stored value.

● Enter the optional detail.

Optional detail includes:

Minimum Display Bonus Point	If you wish this item to be viewable to those members whose stored value is not 0, enter another value.
Availability period.	After the last day of availability period, the shopping item will not be purchasable.
Purchasable age	Only the customer at a certain age can purchase this item.
Birthday product	The shopping item is purchasable only on the customer's birthday.
Profile match recommendation	The shopping item can be displayed first if the member has chosen a certain answer in the questionnaire,
Membership Class Availability	The item can be available to certain membership classes.

● Click "save"

3.4.3. Preview

● Click Preview Shopping Item in the menu of the web page.
● Then you can see the preview page of shopping items.

3.4.4. Modification

● In the preview page of shopping items.
● Click the button "modify" underneath the detail of the item you want to edit.
● After changing the detail, click "save".

3.5. Advertisements

The iBonus Display shows MPEG 1 movies and JPEG still pictures when it is idle. It stores up to 200 movies or pictures. The capacity depends on the compact flash installed in the Display. Normally, 128 MB of storage space can store 15 minutes of movies.

3.5.1. Mode Change

The advertisement has two scheduling mode. 1, Simple Mode, 2, Advanced Mode.

3.5.1.1. Simple Mode

In Simple Mode, the advertisements i.e. the uploaded movies and pictures are played either in sequence or randomly. The duration of every JPEG still picture can be set individually or in a whole. iBonus Display is set to Simple Mode by default.

To change to simple mode:
● Click "To Simple Mode" or "To Advanced Mode" in the menu
● Click the radio button "Simple Mode"
● Choose either sequential or random. (The sequence is based on the file name, and it is case sensitive.)
● Enter the default duration of each advertisement. The duration of individual advertisement can be set at the preview page.
● Click "Save".

3.5.1.2. Advanced Mode

In Advanced Mode, the advertisements can be scheduled.

- Click "To Simple Mode" or "To Advanced Mode" in the menu
- Click the radio button "Advanced Mode"
- Click "Save".

3.5.2. Uploading

To upload advertisement:
- Click "Upload" under Advertisement in the menu.
- You can see there are 10 file selection boxes for you to type in the file name. You can upload up to 10 files at a time.
- Click "browse" next to a file selection box and choose the JPEG or MPEG file you want to upload.
  - The JPEG file has to be smaller than 1MB. If it is bigger than 640 x 480, it will be resized to that size.
  - The MPEG file is required to have sound track. It is recommended to be in the resolution of 320x240 pixels and 25 frames per second.
- Click "upload".

3.5.3. Scheduling

With the scheduling function, you can set how many times (and for how long each time for JPEG) an advertisement should be shown in a session. Scheduling an advertisement involves three procedures.
- Uploading an advertisement as normal
- Defining Sessions and Holidays
- Defining frequency of display and duration.

3.5.3.1. Defining Sessions and Holidays

A session can be defined as a time period (Starting hour to Ending hour) in EVERDAY (everyday of a week), SATURDAY (Saturday of a week), SUNDAY (Sunday of a week), or HOLIDAY (defined by administrator). The time period of different sessions cannot be overlapped.

To add a new session:
- Click "Session" in the menu.
- Select the day of the session, select the start time and end time of the session.

- Click "Add".

Too add a new holiday
- Click "Holiday" in the menu.
- In the text field name "Date", enter the holiday in the format of YYYY-MM-DD.
- Click "Add".

3.5.3.2. Defining Frequency of Display and

Duration

Frequency of display and the duration of each display have to be determined for each advertisement. The total duration (Frequency of Display x duration of each display of all advertisements) in one session is not allowed to exceed the total time defined in that session.
For example, a session defined as 14:00-15:00 of SUNDAY. The total time in this session is 3600 seconds. There are 2 advertisements (A) and (B) to be scheduled. Advertisement (A) scheduled for 60 in Frequency of Display for duration of 40 seconds, and then the remaining Advertisement (B) will only be allowed for 1200 seconds. Advertisement (B) may be scheduled for 60 in Frequency of Display for a duration of 20 seconds.

To define duration and frequency of display:
- Click preview in the menu.
- Click schedule button next to the advertisement that you want to schedule.
- Check the check box of the session you want to put the advertisement to.
- Enter the value of the frequency of display and duration in seconds. Please note that the multiple of the two values cannot exceed the value of seconds left.
- Click "Save".

3.5.4. Tutorial Wizard

Wizard can guide you through the progress of schedule Advertisement in Advanced Mode:
- Click "Tutorial Wizard" in the Menu under Advertisement.

3.6. Adjusting Audio Volume

3.6.1. On Web

To adjust sound volume on the web:
- Click "Audio" in the Menu
- Select the value sound volume in the combo box.
- Click "Save"

3.6.2. On Touch Screen

To adjust sound volume on the LCD display:
- In the LCD control panel, click "sound volume".
- Adjust the sound volume by the scroll bar.
- Click "Ok" or "Apply".

3.7. Resetting

There are four options of resetting the iBonus Display:
- Reset database
- Reset database, advertisement files and reward scheme
- Reset network settings, sound volume and other configuration
- Reset everything, i.e. back to factory default. If this option is chosen, Master Card has to be presented to this device before it can operate again.

To reset the iBonus Display
- Click "Reset" in the menu
- Choose any of the options for resetting.
- Click the button "Reset".

3.8. Rebooting

3.8.1. On Web

To reboot the iBonus Display

- Click "Reboot" in the menu
- Click the button "Reboot".

3.8.2. On Touch Screen

To reboot the iBonus Display at the LCD control panel
- Click "Restart" in the menu
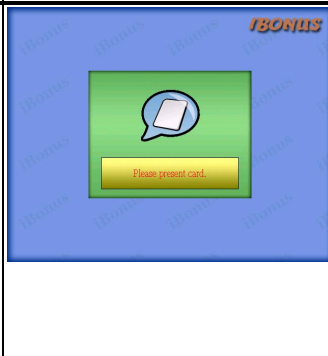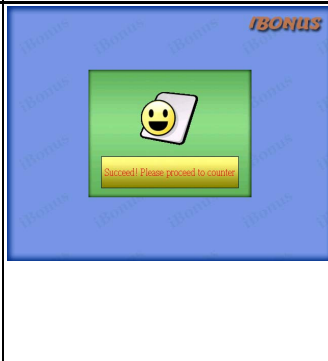- Click the button "Restart".
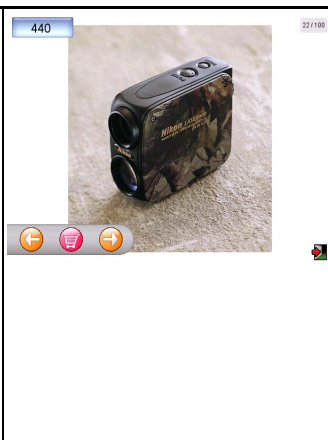
4. Bonus Mode Operation

4.1. Checking Bonus Point

By presenting Member smart card to the iBonus Display, the current bonus point and the accumulated spending are displayed.

4.2. Selecting Reward Items

After checking the bonus point, member can see the redemption items displayed in the next screen. Member can start selecting the reward items by touching the shopping cart.	
Member can view more selections by touching the right arrow button or can view the preceding selections by touching the left arrow button.	

● If the customer card is a Classic Card, they can make multiple selections of the reward items.
● To do so:
  ■ Touch the star button.
  ■ Touch the basket button to select the item. Touch the right arrow key to view more selection.
  ■ Touch the basket button to make selection again. When finishing the selection, touch the check button to check out.	

The display will prompt you to confirm the selection by presenting customer's smart card.	
After the customer's smart card is presented, the display will show confirmation. At this stage, the selection is written on the smart card and the bonus point is not deducted yet. The customer can make a new selection whenever they change their mind. The old selection is overridden. The customer can now bring the smart card to an iBonus Terminal (in bonus mode) to make the real redemption.	
If the customer's smart card is not presented within a period of time, the display shows time out. The customer has to start over again for redemption process.	

4.3. Entering/ Editing Member's Info

When the Member first makes a confirmation of the selection of a reward item, the iBonus Display prompts for inputting the administrator defined member profile and the language preference.

Also, the member profile can be edited by touching the person icon at the bottom of the first displayed page after presenting the member card
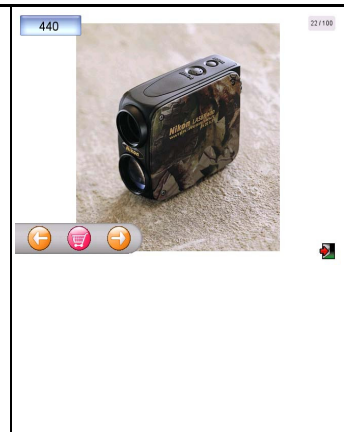
5. Prepaid Mode Operation

5.1. Checking Balance

By presenting Member smart card to the iBonus Display, the current prepaid stored value and the accumulated spending are displayed.

5.2. Selecting Shopping Items

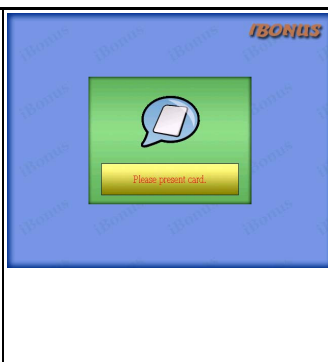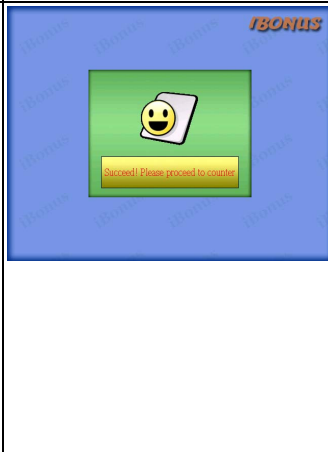|	
After checking the stored value balance, member can see the shopping items displayed in the next screen. Member can start selecting the shopping items by touching the shopping cart.	
Member can view more selections by touching the right arrow button or can view the preceding selections by touching the left arrow button.	

● If the customer card is a Classic Card, they can make multiple selections of the shopping items.
● To do so:
  ■ Touch the star button.
  ■ Touch the basket button to select the item. Touch the right arrow key to view more selection.
  ■ Touch the basket button to make selection again. When finishing the selection, touch the check button to check out.	

The display will prompt you to confirm the selection by presenting customer's smart card.	
After the customer's smart card is presented, the display will show confirmation. At this stage, the selection is written on the smart card and the prepaid stored value is not deducted yet. The customer can make a new selection whenever they change their mind. The old selection is overridden. The customer can now bring the smart card to an iBonus Terminal (in prepaid mode) to perform the transaction of purchasing.	
If the customer's smart card is not presented within a period of time, the display shows time out. The customer has to start over again for the shopping progress.	

5.3. Entering/ Editing Member's Info

When the Member first makes a confirmation of the selection of a shopping item, the iBonus Display prompts for inputting the administrator defined member profile and the language preference.

Also, the member profile can be edited by touching the person icon at the bottom of the first displayed page after presenting the member card

6. Advanced Features

6.1. Multi-lingual Support

iBonus Display supports multi-lingual in two areas.
1. Language to be shown on LCD for customers
2. Language to be shown on Webpage and LCD control panel for administrator.

A new language can be easily created in the webpage of iBonus Display. All the language settings can be replicated thru master/ slave synchronization.

6.1.1. Choosing Languages

iBonus Display supports up to four languages to be displayed on the LCD display for customers. Customers can choose their language preference after they have presented their member's card.

The language preference is recorded in member card in the following format:

0 – default language

1 – alternative language 1

2 – alternative language 2

3 – alternative language 3

Changing the order of the four languages, the member may not see the correct language in the display.

To change languages:
●   Click "Languages" in the menu.
●   Underneath "The four languages selectable to members", choose default language and alternative languages. Default language is displayed when the customer has not yet chosen their language preferences.
●   Underneath Language for administration, choose the language for administrator.
●   Click "Save".

6.1.2. Adding New Languages

To add a new language, which does not exist in iBonus Display:

- Click "Languages" in the menu.
- Underneath "Add new language", choose the one you want to add language for.
- Click "Add". A translation table will be displayed. It may take seconds to be generated.
- Enter all translation and click "Save".

6.1.3. Editing Existing Languages

- Click "Languages" in the menu.
- Underneath "All languages for members" or "All language for administration", click "Edit" on the language you want to edit. A translation table will be displayed. It may take seconds to be generated.
- Enter all translation and click "Save".

6.1.4. Uploading/ Downloading Language Files

Each set of translation of a language is saved in a language files. You can replicate the translation to other iBonus Display or backup/restore the translation file by downloading and restoring the translation file.
To download the translation file:
- Click "Languages" in the menu.
- Underneath "All languages for members" or "All language for administration", click "Download" on the language you want to download.
- Save the language file.

To upload the translation file:
- Click "Languages" in the menu.
- Underneath "Upload Language File", choose the language file download before in the file selection box. Click browse to help locate the file.
- Choose whether the file is to be applied on the "user interface for member" or "user interface for administration".
- Click "upload".

6.1.5. Resetting Language Default

To reset the language setting to factory default:
- Click "Languages" in the menu.

- Underneath "Reset locale setting default", choose the area which you want to reset.
- Click "Reset".

6.2. Backup / Restore

You can backup all the settings e.g. language, reward scheme and advertisements by using the backup function.

To backup all the settings:
- Click "Backup" in the menu.
- Click the "Backup" button.
- Save the backup file.

To restore the settings:
- Click "Backup" in the menu.
- Choose the backup file in the file selection box.
- Click "Send".

During restoration, the version of the backup file has to be the same as the backup file.

6.3. Uploading Firmware Patch

To upgrade the system by patching:
- Please make sure you have about 10MB in the flash memory before patching.
- Click "Sys Patch" in the menu.
- In the file selection box, choose the patch file in your computer. Click the browse button to help you to do so.
- Click "Send".
- The patch file will be applied after rebooting. Do not turn off the power or reset the system when it is in progress.