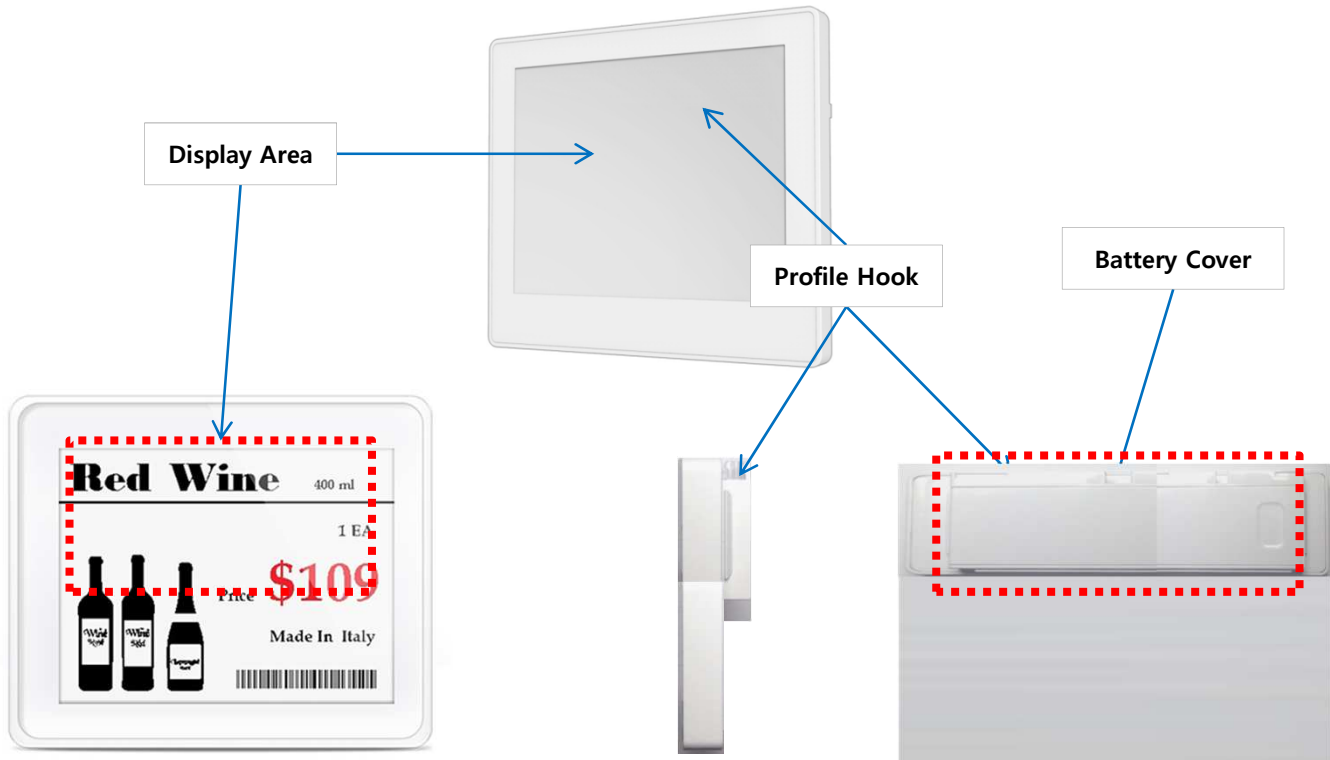


4.2 " 3-color Graphic type ESL

User manual

1. Overview

- Remote control device provides customer with several functions as below
 - ✓ Waking Tag up from sleep mode
 - ✓ Updating new purchase image on Tag
 - ✓ Deleting purchase image on Tag
 - ✓ Returning a Tag to be factory settings

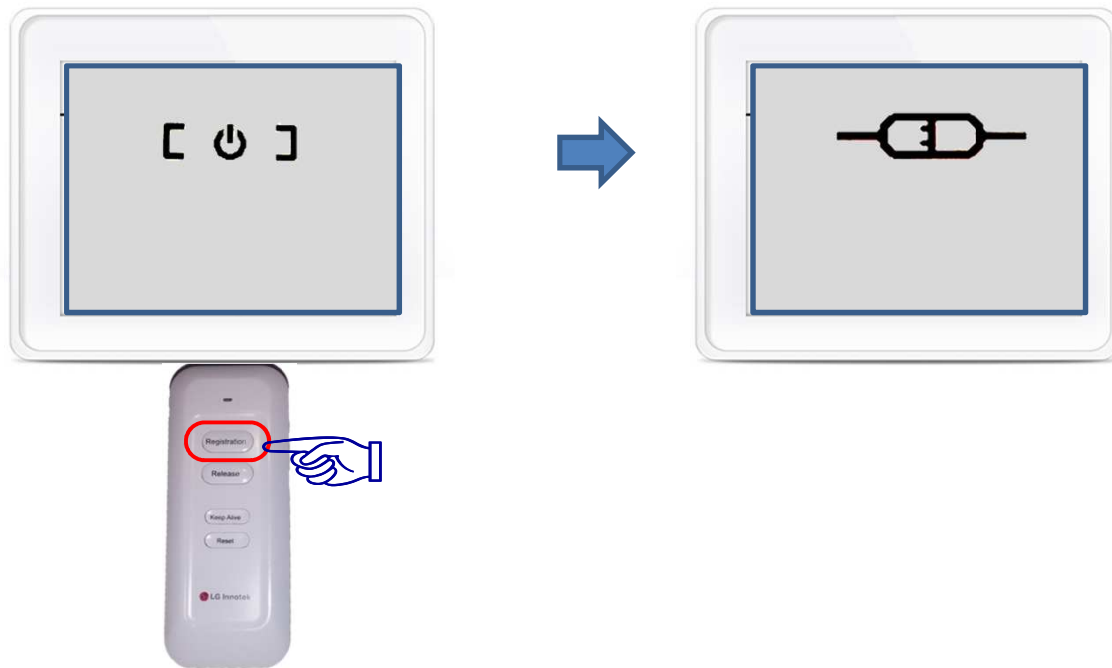


Remo-con description



- LED : One of any buttons is pushed, red led turns on. After sending some data to a Tag, red led will turn off.
- Registration : Updating New Purchase Information on Tag
- Release : Deleting Purchase Information on Tag
- Reset : Returning a Tag to be factory settings
- Keep Alive : Waking Tag up from sleep mode

2. Updating new purchase image on Tag



To change purchase information on Tag, perform the following steps :

1. Put remote controller near center of Tag's display
2. Press and hold '**Registration**' button on remote controller until Red LED off (about 0.5 seconds)
3. When Tag is successfully received 'Registration' data from remote controller, Tag's display will be changed to "**Connected**" for a few minutes. That means Tag hides purchase image to read Tag's IEEE MAC address through the Barcode scanner.
4. In NMS Client, download new purchase image to the Tag in registration status
5. When image downloading is finished successfully, Tag's display will be changed to new purchase image

Case1) If image downloading is failed, Tag's display will be changed to "**Busy**".

After "**Alive Time**", this Tag will be download new purchase image again

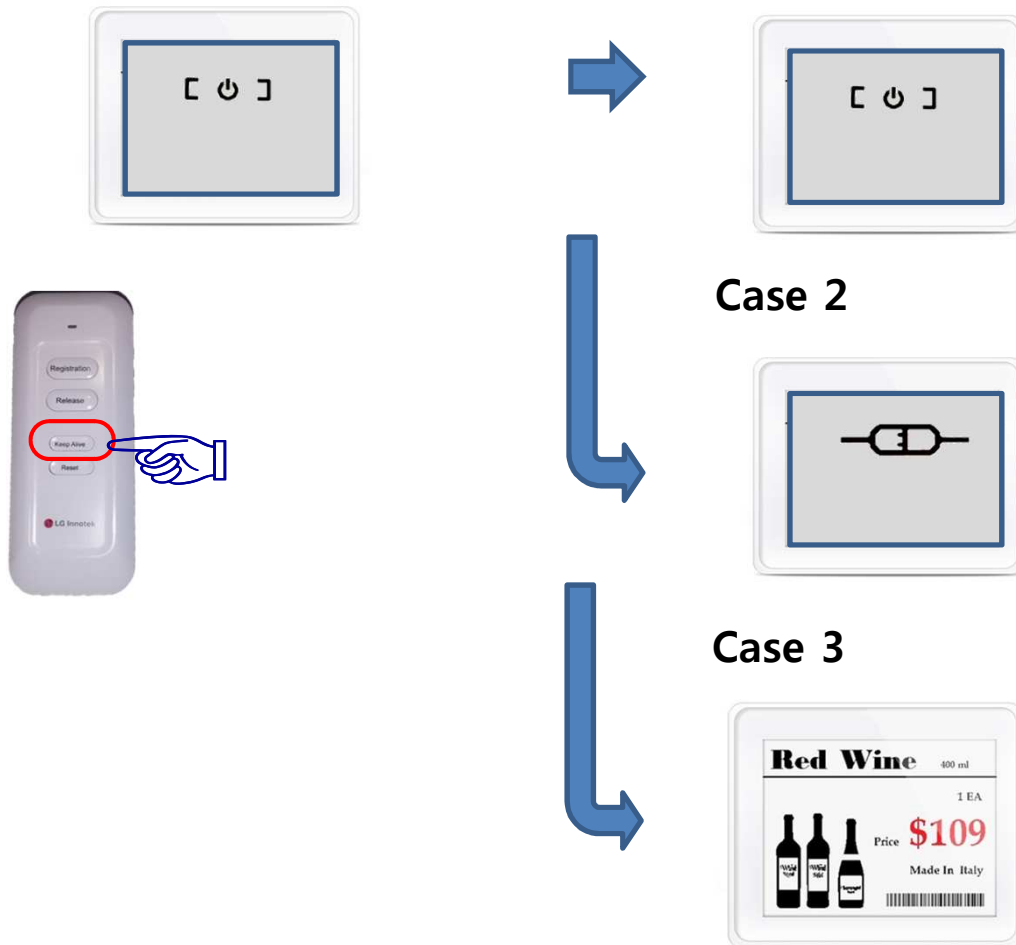
3. Deleting purchase information on Tag



To release(delete) purchase information on Tag, perform the following steps :

1. Put remote controller near center of Tag display
2. Press and hold '**Release**' button until red LED off (about 0.5 seconds)
3. If Tag was received 'Reset' command from remote controller, Tag will delete purchase information and Tag's display will be changed to "**Ready**"
4. After step.3, Tag goes to deep sleep mode and doesn't communicate with gateway until receiving 'Keep Alive' or 'Registration' data from remote controller

4. Waking Tag up



To wake Tag up from sleep mode, perform the following steps :

1. Put remote controller near center of Tag display
2. Press and hold '**Keep Alive**' button until Red LED off (about 0.5 seconds)
3. Tag will wake up and goes to next step. It's depends on connection information with gateway
case1) If this Tag wasn't connected with a gateway before sleep mode, go to 4-1
case2) If this Tag was connected with a gateway before sleep mode, go to 4-2
- 4-1. Searching gateway and goes to the next step. it's depends on searching results
case1) If Tag was successfully connected, Tag's display will be changed to "**Ready**"
case2) If Tag wasn't connected, Tag's display(may be "Ready") will be refreshed
- 4-2. Sending 'Keep Alive' packet to gateway and Tag will go to sleep mode again
case1) If Tag was received response from gateway, this Tag will go to "sleep mode" until the specified time in gateway. After "sleep mode", this Tag will send "Keep Alive" Packet to gateway again.
case2) If Tag wasn't received response from Gateway, this Tag will retry three times. After that, Tag's display will be changed to "Disconnected". Also, this Tag will perform a whole channel scan every five minutes.

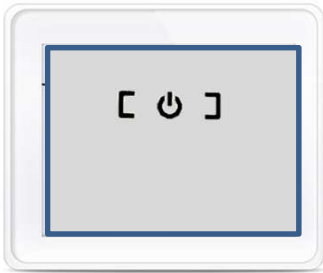
5. Returning a Tag to be factory settings



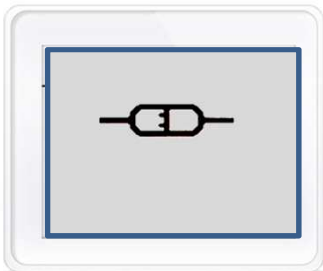
To make a Tag to be factory reset status, perform the following steps :

1. Put remote controller near center of Tag display
2. Press and hold '**Reset**' button until Red LED off (about 0.5 seconds)
3. If Tag was received 'Reset' command from remote controller, Tag goes back to factory settings and Tag's display will be changed to "**Ready**"
4. After step.3, Tag goes to deep sleep mode and doesn't communicate with gateway until receiving 'Keep Alive' or 'Registration' data from remote controller
case1) If Tag was received "Keep Alive" or "Registration" command from remote controller, this Tag will perform a whole channel scan.
case2) If Tag was received "Reset" or "Release" command from remote controller, Tag's display will be changed to "Ready" again

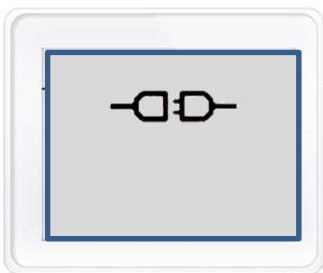
6. Tag status



Deep Sleep Mode



Connected with Gateway



Disconnected with Gateway

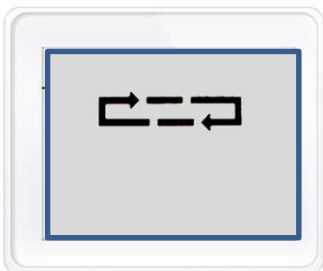
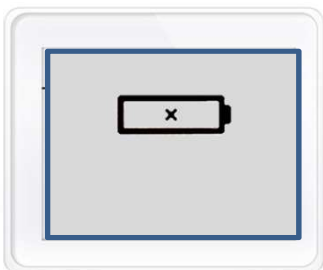


Image download Failure("Busy")



Battery discharge
(The battery needs to be replaced)

7. Regulation Information

INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment. This appliance and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

A minimum separation distance of 20 cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirement