One Leader. One System.

EMBED

Insert Card Reader Color LCD Service Mode User Manual

Model: ICR-001

Manual version: V1.0
Last amended 15 October, 2014

www.embedcard.com

Notice of Rights

Notice of Liability

The information in this document is distributed on an “as is” basis, without warranty. While every precaution has been taken in the preparation of this document, neither the author or Embed shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the instructions contained in this document or by the computer software or hardware products described herein.

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Contents

1 List of Acronyms

Acronym	Description
ICR	Insert Card Reader
USB	Universal Serial Bus
Wi-Fi	Wireless Fidelity / IEEE 802.11b Direct Sequence
AC	Alternating Current
DC	Direct Current

2 Safety Information

This guide assumes that the installer is qualified to work on electrical devices, with electronic skills and experience working with arcade machines.

Do not use in life critical or applications requiring high reliability
The Insert Card Reader is not intended for use in systems that may affect human life or that require a very high degree of reliability such as medical equipment, nuclear facilities, aerospace equipment or transportation equipment. Embed does not assume any liability for accidents resulting in injury or death, or for any damages to property that may occur as a result of using the product in such facilities, equipment, or control systems.

Protecting against electrostatic discharge
Electrostatic discharge can damage electronic components including the Embed Insert Card Reader. Please observe electrostatic discharge precautions for handling or installing this equipment.

Power Supply Details Range
In some markets the Insert Reader includes a recommended universal power supply requiring mains input of 100-240VAC, 50/60Hz, 0.5A.

Other information and warnings:

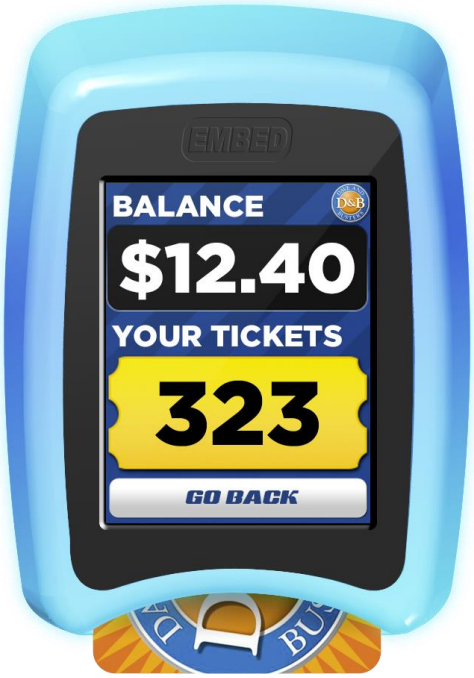
- Embed Insert Card Reader is intended for operation between 55 ^{0}C and -20 ^{O}C (131 ^{0}F and -4 ^{O}F).
- Embed Insert Reader is not intended for domestic use.

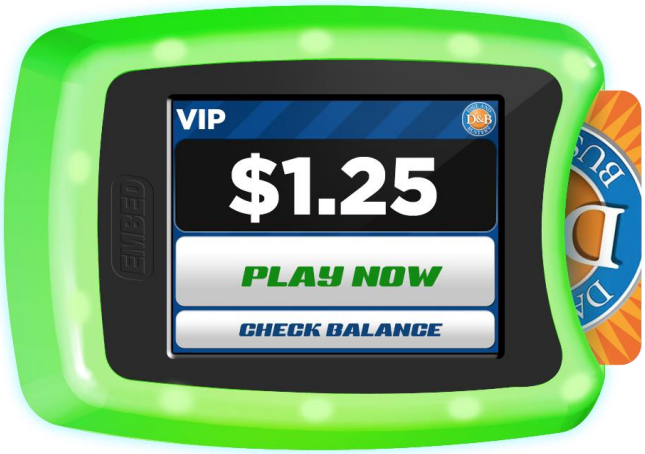
3 Product Overview:

The ICR is a facing device that features a touchscreen display and is capable of accepting both traditional magnetic and contactless type cards. Guests insert their card and interact with the touchscreen for the primary purpose of transacting at games and attractions.

The device can be mounted in portrait or landscape orientations to best suited the game and guest accessibility.

Communications with external hardware and servers is accomplished via a connector on the underside of the ICR which has provision for power and data via unshielded twisted pair/USB.





Recommended Installation Hardware

The following is a recommended range of hardware to securely install and mount the ICR. The ICR uses 4mm brass inserts in the base of the enclosure so the appropriate length 4mm metric screws must be used to properly secure the ICR. All other hardware can be adjusted to what is most appropriate and available in your area.

M4 metric, pan head, Philips drive, and zinc coated steel screws.

- Used to secure the ICR to the surface of the game or attraction.
- Recommended you have lengths of 10mm, 20mm and 25mm available as a minimum.

M4 metric, zinc coated steel washers.

- Recommended these are used under every screw.

4 Pre-Installation

Before the installation of any hardware, verify the following:

- An adequate earth connection point exists in the game cabinet.
- If the mounting surface is metal, that it is adequately earthed.
- The game credits when a coin is inserted
- The game accurately dispenses tickets
- The coin and ticket meters increment correctly
- Correct any identified faults and retest
- Disconnect the power from the game

It is vital that you are certain the game is in proper working order before beginning the installation of the Embed hardware. This will prevent confusion later in the process.

Never source and use wire taps or wire nuts. Wire taps cut into the wire and make a minimal connection that will deteriorate over time leading to game credit and power supply related problems. Wire nuts also offer a less-than-desirable connection on the small gauge wire used in games.

Wire Tap

Wire Nut

Butt Connector

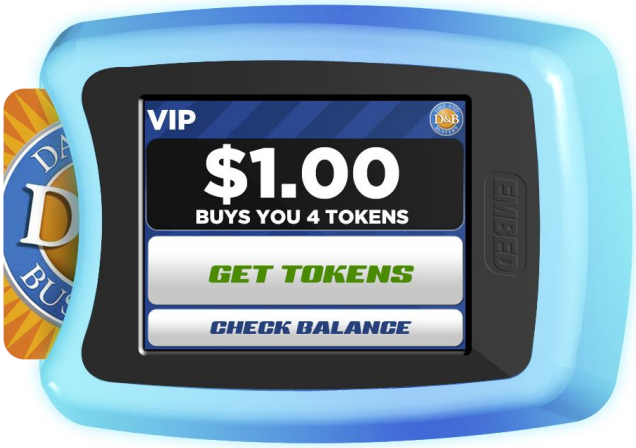
We recommends that crimp type butt connectors be used for wire joins and splicing.

You will need some tools and hardware for the equipment installation and recommend the following as a minimum.

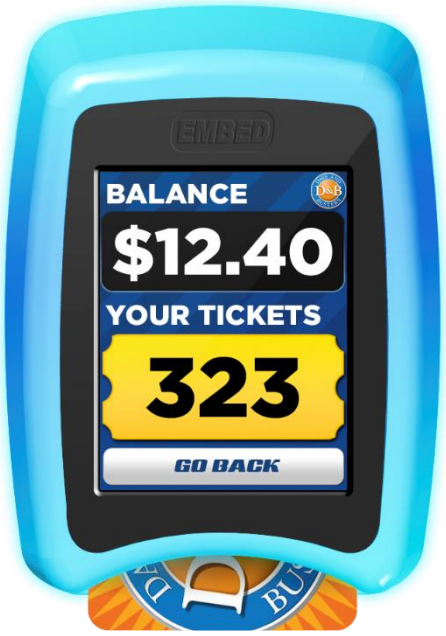
- Multi-meter
- Drill
- 5 mm drill bit
- Step drill bit up to 20mm
- Phillips screwdriver
- Wire stripper
- Crimp tool for connectors
- Butt connectors
- Cable ties

5 ICR Installation

The ICR is best mounted and fixed to a location on the game that ensures it's easily accessible to guests. In many cases it's recommended to mount the ICR over the existing coin entry point as it is readily accessible and allows use of the existing hole for cable entry.
The ICR display can be adjusted to accommodate a horizontal (with left or right card entry) or vertical orientation. The default setting for the display orientation is vertical.



Horizontal/Landscape Orientation



Vertical/Portrait Orientation

Step 1: Locate the ideal position to mount the ICR.

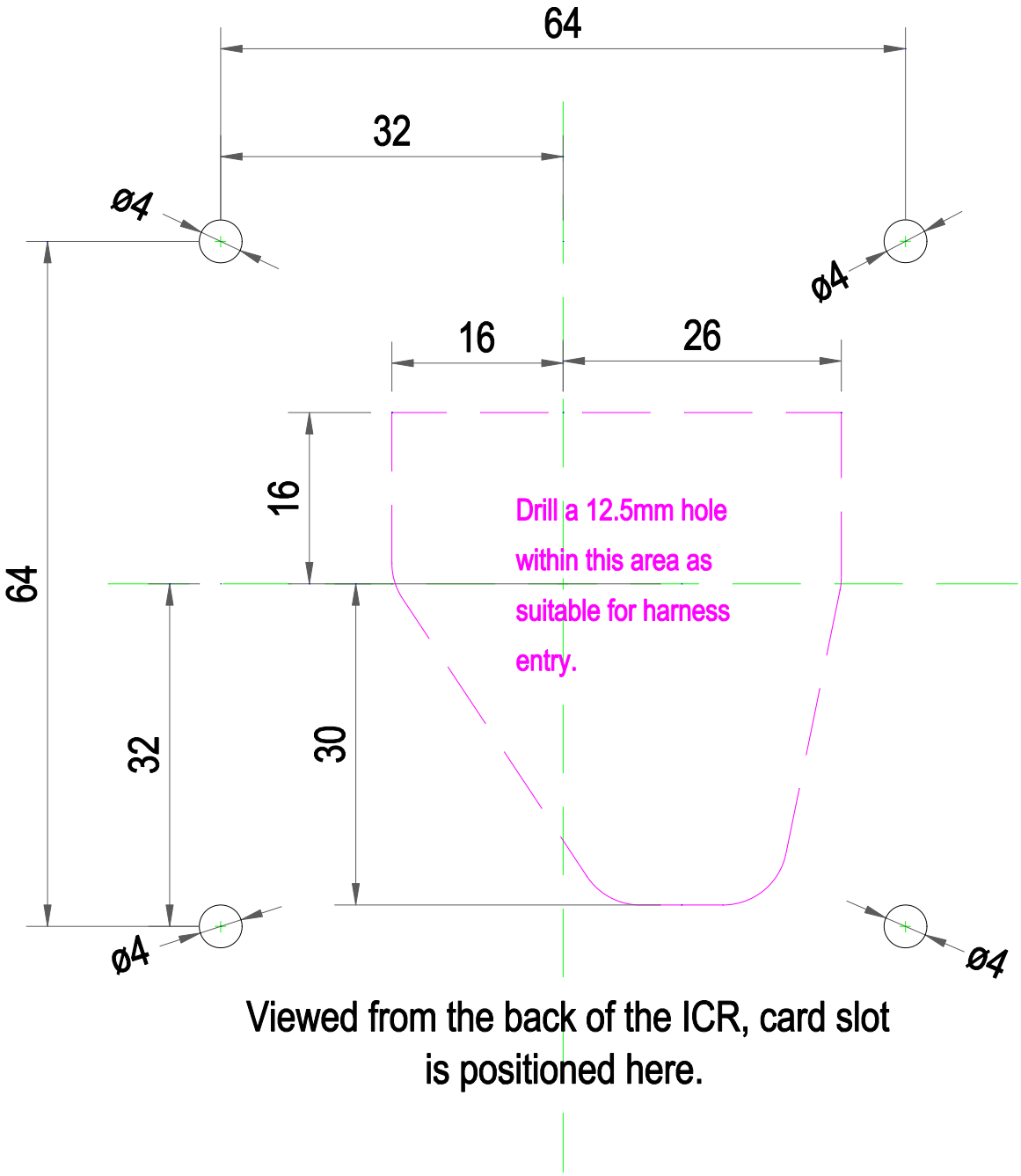
Step 2: Mark the spots for drilling. Use the ICR mounting template to mark the four mounting points and the cable connection point.

Step 3: Drill the four mounting points with a 5mm drill-bit. Drill the ICR to IOC Interface Harness connection hole with a 12.5mm step drill-bit. Clear the holes of sharp edges to protect the harness.

Step 4: Connect the ICR to IOC Interface harness to the connector in the bottom of the ICR. Feed this through the hole in the cabinet and position the ICR to line up with the screw mounting holes. Insert the correct length 4mm screws into the base of the ICR and tighten.

Step 5: If the mounting surface is metal such as coin door, ensure there is an adequate earth connection in place. Install an extra earth connection if necessary using earth wire and a ring terminal secured under one of the ICR mounting screws. Be sure to remove any surface coating as required to guarantee an adequate electrical connection.

Template for the ICR mount point drill holes. NOT TO 1:1 SCALE



This template is available in scale PDF format

Network Interface

The ICR interfaces to a network server in a number of ways and this will generally be determined by the client system.

Via an IO Controller:

At the top of the IOC is a USB port, this accepts an optional Ethernet Dongle for cabled connections or a Wi-Fi dongle for wireless 802.11N (Wireless support is pending).

Configuration of the network devices is done through the ICR service menu.

Via a Data-Port Controller

If used with a Data-Port Controller, the interface is purely USB. The ICR is configured from the Data-Port Controller and the Data-Port Controller is responsible for communicating with the system server.

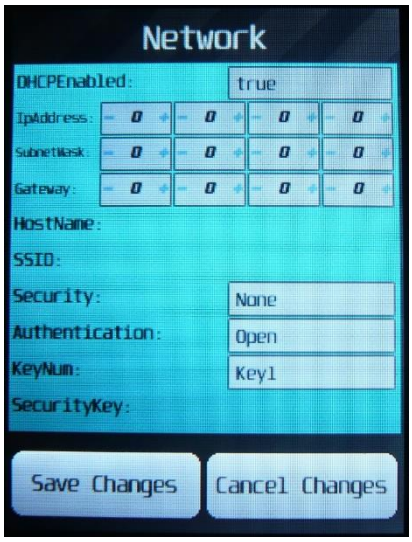
Via Dongle

The ICR can be configured to communicate directly through a Wi-Fi or Ethernet dongle via a modified harness.

Network Configuration

Configure the network settings by following these steps

1. Press and hold the service button on the harness connected to access the “Service Mode”.
2. Select the following buttons, Configure -> Network Settings
3. Using the touchscreen configure the settings as advised by your system administrator.



NOTE: Support for Wi-Fi related setting such as SSID, Security is pending final development and release.

6 CE – Declaration of Conformity

According to ISO/IEC Guide 22 and EN????

Manufacturer Name: Embed International

Manufacturer's Address: 2 Neil Street
Osborne Park
Western Australia, 6017

Declares that the product (s):

Product Name: Embed Insert Reader

Product Options: All

Conforms to the following Product Specifications:

EMC:

Fulfils the essential requirements of the R&TTE directive 1999/5/EC as attested by conformity with the following harmonized standards:

Health & Safety - ETSI EN 60950-1
: 2006+A11 :2009+A12
:2011+A1 : 2010+AC :2011

ETSI EN 62311:2008 MPE

EMC - ETSI EN 301 489-17 v2.2.1

Radio - ETSI EN 300 440-1
ETSI EN 300 440-2

The conformity assessment procedure referred to in Article 10.4 and Annex III of Directive 1999/5/EC has been followed.

In addition, complies with Low Voltage Directive 2006/95/EC.

Supplementary Information:

The product(s) herewith comply with the requirements of the EMC Directive 2006/95/EEC. The product(s) were tested in a typical configuration.

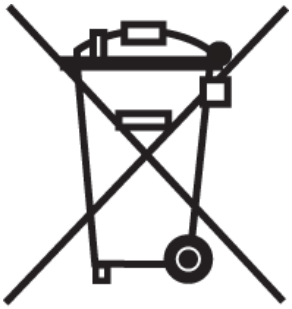
Date: 1 April 2014

Mark Easte
Managing Director

7 Waste Electrical and Electronic Equipment (WEEE) Statement

Embed complies with Directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE).

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed. In order to avoid dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems for product disposal. Those systems will reuse or recycle most of the materials of the product you are dispensing in a sound way.



For proper disposal instructions go to,

http://www.embedcard.com/recycle

For more information about the disposal of Waste electrical and Electronic Equipment (WEEE), please go to,

http://ec.europa.eu/environment/waste/weee/index_en.htm

Please retain this for future reference.

FCC Warning

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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.