smartTouch™ Tap User Manual

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Version 1

embedcard.com

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Notice
All images presented in this document are for illustration purposes only.

All procedures in this document assume a degree of technical knowledge, only persons with the appropriate qualifications and experience should implement these procedures.

Acronym	Description
STT	smartTouch Tap
Wi-Fi	Wireless Fidelity / IEEE 802.11b Direct Sequence
AC	Alternating Current
DC	Direct Current

List of Acronyms

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 smartTouch Tap 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 smartTouch Tap. Please observe electrostatic discharge precautions for handling or installing this equipment.

Other information and warnings:

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

Introduction

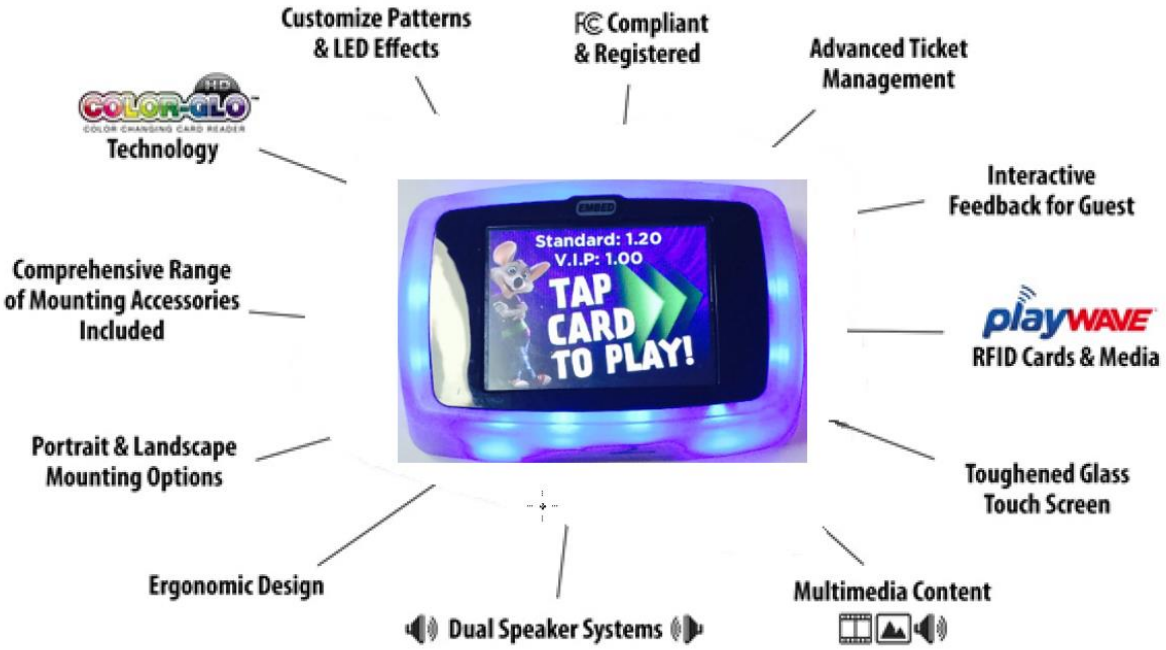
This manual describes the requirements and steps needed to successfully install the smartTouch Tap. The scope of this document covers the hardware installation and the interface to common Video game type.

Major Components

The smartTouch Reader

The smartTouch is the guest facing device that features a touchscreen display with a dedicated contactless type cards type reader. Guests will tap their card for the primary purpose of transacting at games and attractions.

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



Recommended Installation Hardware

The following is a recommended range of hardware to securely install and mount the smartTouch Tap reader. The smartTouch Tap reader uses 4mm brass inserts in the base of the enclosure so the appropriate length 4mm metric screws must be used to properly secure the smartTouch Tap reader. 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 smartTouch 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.

M4 metric, zinc coated steel full width nuts

6g Wood Screws used for mounting the IOC inside a wooden cabinet.

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.

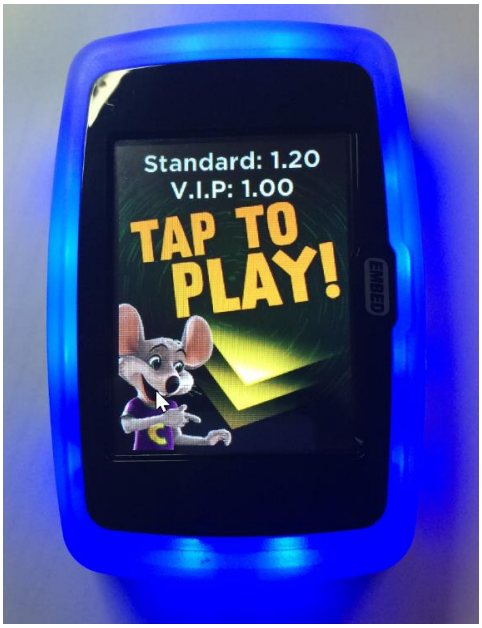
You will need some tools and hardware for the equipment installation and recommend the following as a minimum.

- 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

smartTouch Tap Reader Installation

The smartTouch Tap reader 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 smartTouch Tap reader over the existing coin entry point as it is readily accessible and allows use of the existing hole for cable entry.
The smartTouch Tap reader display can be adjusted to accommodate a portrait or landscape display orientation.

Landscape Orientation



Portrait Orientation

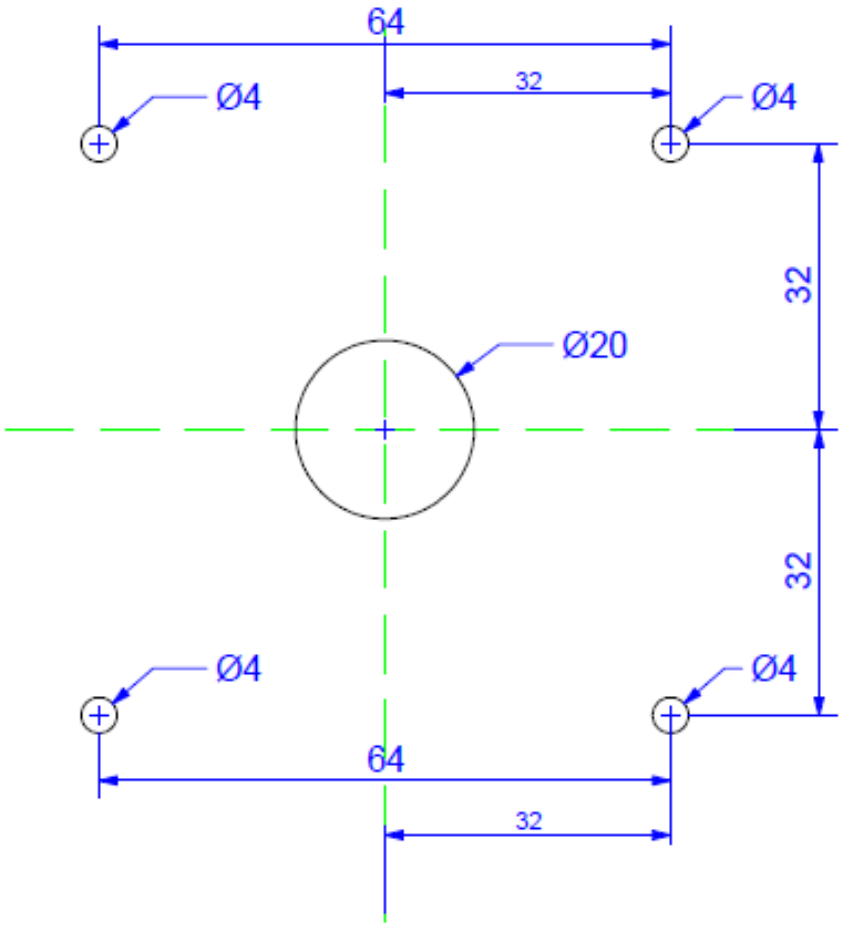
Step 1: Locate the ideal position to mount the smartTouch Tap reader.

Step 2: Mark the spots for drilling. Use the smartTouch Tap reader 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 a harness connection hole with a 12.5mm step drill-bit. Clear the holes of sharp edges to protect the harness.

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

Template for the smartTouch Tap reader mount point drill holes. NOT TO 1:1 SCALE

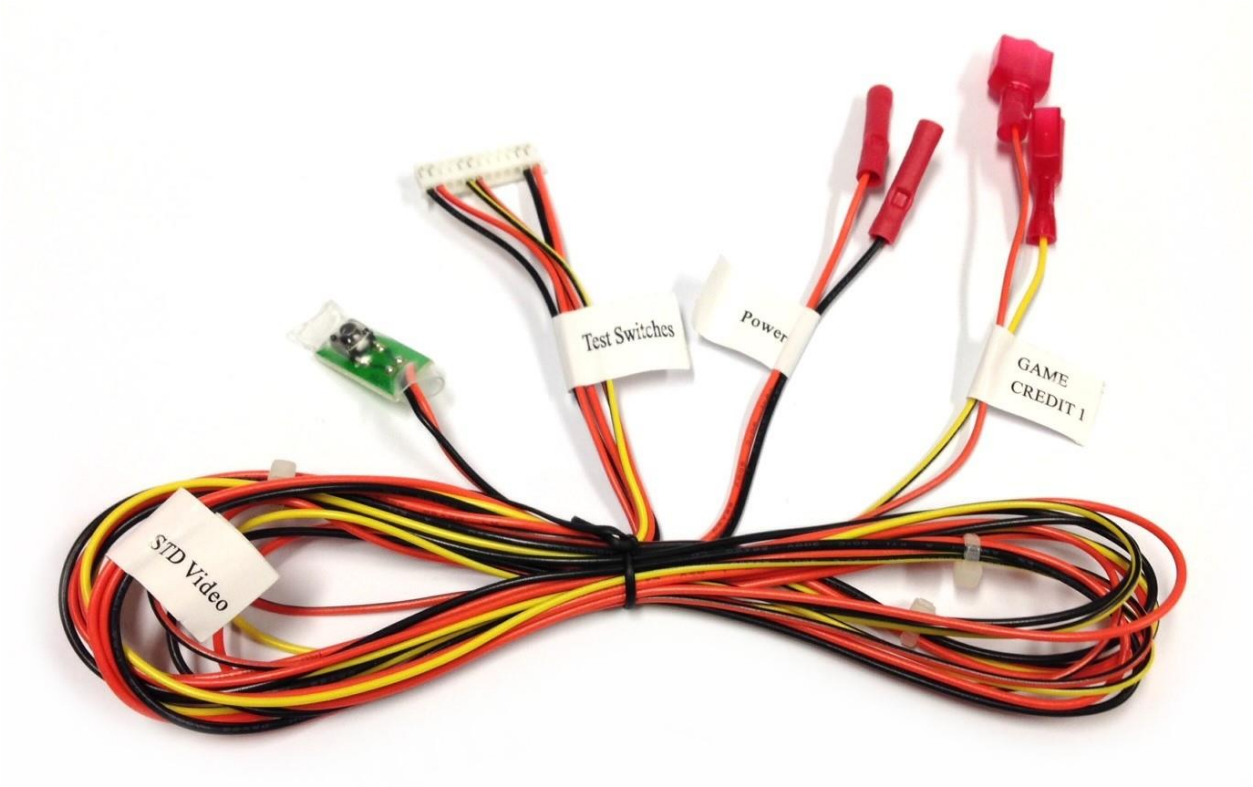


This template is available in scale PDF format from support@embedcard.com

Video Game Installation

Standard type Video Games are typically strait forward to install with connections to the 12v DC Power Supply and Credit Input only. From start to finish you can expect to take 25-35 minutes.

Harness Required
The harness required for this installation is the “Standard Video Harness”.



Standard Video Harness – Part # IOC-005

Harness Connections

Power – 12 volt DC
Power to the IOC is supplied via the 12-way connector through the following pins:

Pin number	Wire Colour	Wire Function
1	ORANGE	DC +12 v
2	BLACK	DC Ground

Start by locating the game’s power supply, these are typically located in the base of the cabinet. Identify and measure the 12v DC output ensure it is stable and ideally between 12-13v DC. Splice in the Orange wire to +12v DC and the Black wire to DC Ground.

It is important for long term reliability that this this connection is made at, or as close as possible to the Power Supply and not at a mid-point in the game harness or coin door.

If +12 v DC is not available from the game or is unstable then you will need to install a dedicated +12v DC 1000mA supply. Note: it's very important the DC Ground of the new power supply is commoned with the existing DC Ground of the existing in game power supply. Without this common ground ant ticket or coin monitoring will not operate correctly.

Game Credit Connections

Pin number	Wire Colour	Wire Function
7	ORANGE/BLACK	CREDIT 1 N.O.
8	YELLOW/BLACK	CREDIT 1 COM.

Note "N.O. means "Normally Open", "COM." Means "Common"

On the selected player station you can typically disconnect the common and normally open connectors from the existing coin switch and plug them directly into the pre fitted harness connectors.

Connect the other end of the harness to the smartTouch Tap at connector J7.

Basic Configuration of the smartTouch Tap

As with any configurable electronic device, the smartTouch Tap contains settings that either control or change its behaviour without modifying hardware or software associated with the device.

The smartTouch Tap has an integrated Wi-Fi module. The smartTouch is configured to attach to the networking and security information with the use of a special staff card.

How it works

The smartTouch Tap is very simple to use . User simply present their cards over the display to transact. The user only needs to ensure the card is tapped within the display area of the smartTouch Tap. The card can be tapped in either face up or face down.

The functions available to the user include :

- E-Ticket collection
- Start/ Play game
- Check Card balance

Note : The smartTouch Tap is a smart interactive device and will display messages dianamically to a user to enhance gaming experience. The game configuration is independent of the smartTouch Tap reader and varies from game type to game type. The user descriptions for interactive gaming messages fall outside the scope of this manual.

FCC Part 15B Compliance Statement

RADIO AND TELEVISION INTERFERENCE

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 device.
- Increase the separation between the equipment and the 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.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Any Changes or Modifications not expressly approved by Embed International or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commissions rules.

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
To comply with FCC RF exposure compliance requirements, this grant is applicable to only mobile configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CE – Declaration of Conformity

The smartTouch Tap equipment meets the requirement of EC dircetives for CE certification R&TTE 1999/5/EC the following standards are applied :

Standard	EN 60950-1: 2006+A11: 2009+A1:2010+A12:2011+A2:2013 ETSI EN 301 489-1 V1.9.2, ETSI EN 301 489-3 V1.6.1, ETSI EN 301 489-17 V2.2.1, ETSI EN 300 328 V1.8.1, ETSI EN 300 330-1 V1.7.1, ETSI EN 300 330-2 V1.5.1, EN 62479:2010

Version History

V 0.0	Initial document	T Venter	20/01/2016
V 1.0	Upate smartTouch errors	T Venter	28/01/2016