



TouchTunes

INTERACTIVE NETWORKS



JCB+ for JCB / MJS Installation Guide

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1

Introduction

This section introduces this guide, contains basic information about the JCB+ package, provides important safety information, and describes how to get customer support.

Topics

[About This Guide](#)
[Package Contents](#)
[Important Safety Instructions](#)
[Contacting TouchTunes](#)

About This Guide

This guide is intended for Operators of TouchTunes digital jukeboxes and TouchTunes technical support and field service personnel. It explains how to install and use the TouchTunes JCB+ jukebox computer.

Package Contents

The JCB+ package (*TouchTunes P/N 600185-001 for JCB or 600184-001 for MJS*) contains the following components:

Part No.	Description	Quantity
300791-001 or 300792-001	JCB+ for MJS or JCB+ for JCB	1
300875-012	VGA cable extension, right-angle connectors <i>Included only in 600185-001 JCB+ for JCB</i>	1
900745-001	This document	1

Important Safety Instructions

Please read the following important safety instructions before proceeding with product installation.



The Lightning Flash with arrow head symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons".



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product".

WARNING: Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS

DO NOT USE THIS APPARATUS NEAR WATER.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, THIS APPARATUS SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

WARNING: Do not remove the cover or back. There are no user-serviceable parts inside. Servicing must be performed by qualified personnel only.

CAUTION: Do not use the JCB+ immediately after transferring the unit from a cold place to a warm place as condensation may have occurred on internal components. Wait for the unit to reach room temperature before using it.

IMPORTANT: See product enclosure for safety related markings.

TO COMPLETELY DISCONNECT THIS APPARATUS FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

**THE MAINS PLUG OF THE POWER SUPPLY CORD OR APPLIANCE
COUPLER SHALL REMAIN READILY ACCESSIBLE**

No serviceable parts inside, please contact TouchTunes Customer Support for service.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Contacting TouchTunes

If you need help with or have questions about this document, contact TouchTunes by:

- Using the email links on the Contacts page on the TouchTunes Dashboard at <https://operator.touchtunes.com>.
- Calling TouchTunes 24/7 Service Hotline at 847-419-3300.

To help us assist you more effectively with problem reports, the following information may be required when contacting TouchTunes Support:

- Jukebox ID and model (e.g., Virtuo, Allegro MX-1, Allegro, Ovation, Maestro II).
- The serial number of any component you believe to be defective.
- The date/time of the problem.
- Actions performed immediately before the problem occurred.
- Any additional comments.

If you require assistance with this or any other TouchTunes product, please call or email technical support. We value your comments.

Hardware Overview



This section provides an overview of the JCB+ jukebox computer, and presents the computer's various interface panels.

Topics

[Overview](#)

[Specifications](#)

[Features](#)

[Connectors and Controls](#)

Overview

The TouchTunes JCB+ jukebox computer is a drop-in replacement for both of TouchTunes' popular previous jukebox computers, JCB and MJS.

It is offered in two versions: JCB+ for JCB or JCB+ for MJS. Each version replicates the port configuration of the computer it is meant to replace. JCB+ for MJS also includes an internal power supply, like the MJS it replaces, while JCB+ for JCB is designed to use the external JCB power supply. Otherwise, the internals are identical.

Specifications

Weight:

- ▶ JCB+ for MJS: 3.8 lbs
- ▶ JCB+ for JCB: 3.4 lbs

Dimensions:

- ▶ Height: 9"
- ▶ Width: 8"
- ▶ Depth: 3"

Features

- Low power consumption
- Runs cooler
- Same footprint as the JCB and MJS computers it is designed to replace
- Same port configuration as the JCB and MJS computers for easy reconnection
- Does not include a separate DSP; instead, all audio processing is done by the CPU
- Supports Gen3 and Gen3+

Connectors and Controls

There are two versions of the JCB+ computer: one version to replace existing JCB computers, and one to replace MJS computers. Both versions use the same internal components; the only differences are the layout of the ports and connectors on the outside of the case and the power supply that is internal for the JCB+ for MJS, but external for the JCB+ for JCB.

JCB Version

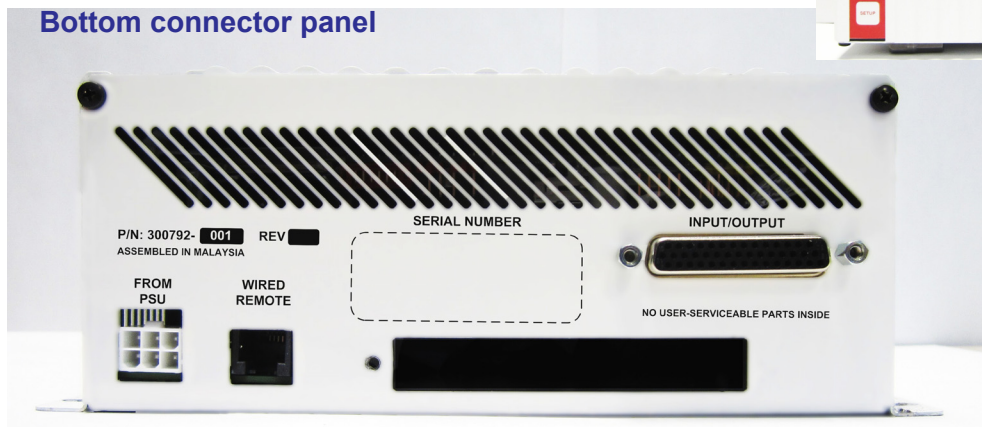
Front of JCB+ for JCB

I/O strip is on the left

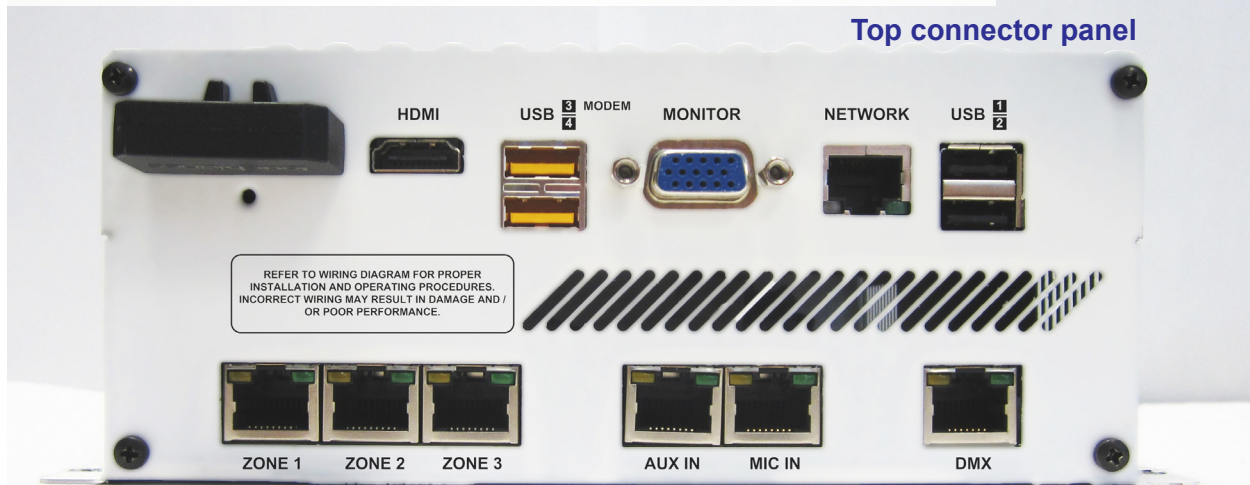
(RED)



Bottom connector panel



Top connector panel



MJS Version

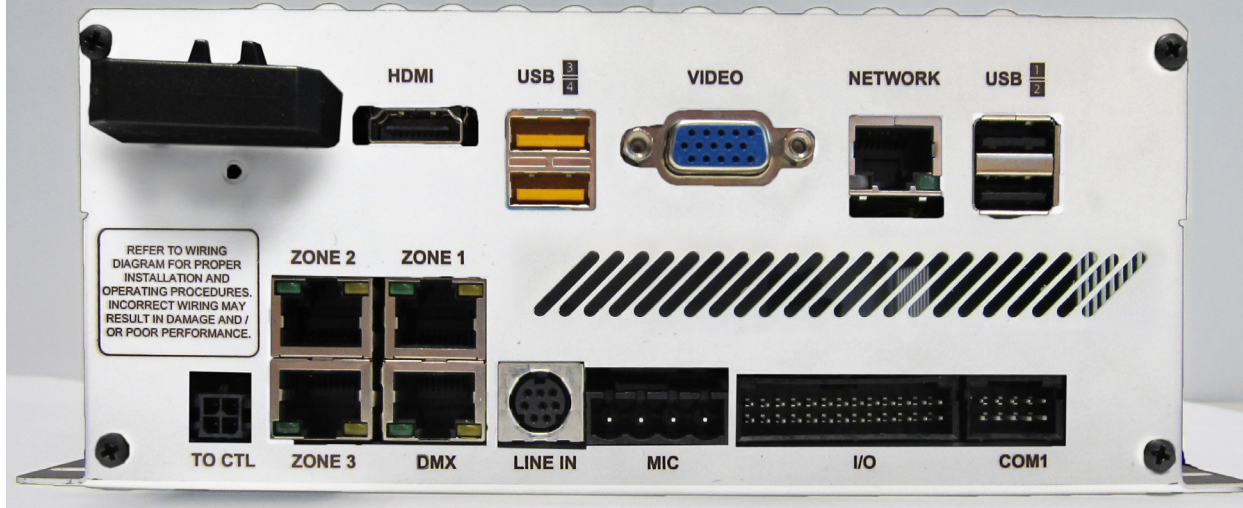
Front of JCB+ for MJS
I/O strip is on the left
(BLACK)



Bottom connector panel



Top connector panel



3

Configurations

This section presents each of the configurations where a JCB+ jukebox computer can be used, and covers the required procedures in each case.

Topics

[General Considerations](#)

[Allegro MX-1 / MX-1v](#)

[Ovation & Ovation II](#)

[Allegro](#)

[Maestro & Maestro II](#)

[Genesis & Rhapsody](#)

[Conversion Kits](#)

General Considerations



- When replacing an existing jukebox computer, ensure that you obtain the correct version of JCB+: use the JCB version to replace an existing JCB computer, or use the MJS version to replace an existing MJS computer.
- JCB+ is designed to fit in the exact same place as a JCB or MJS computer. If you are attempting to install it, and it does not fit, the JCB+ probably has not been positioned correctly.

Allegro MX-1 / MX-1v

The Allegro MX-1 shipped with a JCB computer, so you need to ensure that you order the JCB+ for JCB jukebox computer.

When Replacing this jukebox's Computer with a JCB+ for JCB

- We recommend that you pull the MX-1 away from the wall, in order to access its internals from the back. You can then open up the back and access the computer more easily.
- You will need to use the VGA extension cable that is provided in your kit, to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.

Ovation & Ovation II

Ovation originally shipped with an MJS computer, which may or may not have been replaced with a JCB since then. Ovation II originally shipped with a JCB.

When Replacing this jukebox's Computer with a JCB+

- It is important to identify which computer model you will be replacing, so you can order the correct JCB+ model as a replacement.
- **If you are replacing a JCB computer with a JCB+ for JCB:**
 - ▶ Your upgrade kit comes VGA cable extension with right-angle connectors. Use this cable to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.
 - ▶ You can transfer the hard drive from the JCB to the JCB+ for JCB. It will work as-is.
- **If you are replacing an MJS computer with a JCB+ for MJS:**
 - ▶ No special adapters or cable extensions are needed; you will be able to re-connect everything as it was before.




- ▶ The hard drive you will remove from the MJS cannot be used in the JCB+ for MJS. Use the replacement hard drive provided in your kit, and follow the instructions in Chapter 5: Software Upgrade.

Allegro

The Allegro jukebox originally shipped with an MJS computer, but may or may not have been updated to a JCB computer.

When Replacing this jukebox's Computer with a JCB+

- It is important to identify which computer model you will be replacing, so you can order the correct JCB+ model as a replacement.
- **If you are replacing a JCB computer with a JCB+ for JCB:**
 - ▶ Your upgrade kit comes VGA cable extension with right-angle connectors. Use this cable to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.
 - ▶ You can transfer the hard drive from the JCB to the JCB+ for JCB. It will work as-is.
- **If you are replacing an MJS computer with a JCB+ for MJS:**
 - ▶ No special adapters or cable extensions are needed; you will be able to re-connect everything as it was before.
 - ▶  The hard drive you will remove from the MJS cannot be used in the JCB+ for MJS. Use the replacement hard drive provided in your kit, and follow the instructions in Chapter 5: Software Upgrade.

Maestro & Maestro II

The original Maestro jukebox shipped with what was known then as a “cassette” computer. In order to support Gen3, most of those jukeboxes were upgraded to use the MJS computer, and later, some were updated to use a JCB computer.

If your Maestro jukebox still contains a “cassette” computer, you will have to contact TouchTunes in order to obtain all the necessary parts and instructions to properly upgrade the jukebox’s computer.

If you are running either an MJS or a JCB, you can use the procedures described in the present document to replace the computer with a JCB+.

The Maestro II jukebox originally shipped with an MJS computer, which may have been upgraded to a JCB since then. In both cases, upgrading to JCB+ can be done using the procedures in this document.

When Replacing this jukebox’s Computer with a JCB+

- It is important to identify which computer model you will be replacing, so you can order the correct JCB+ model as a replacement.
- **If you are replacing a JCB computer with a JCB+ for JCB:**
 - ▶ Your upgrade kit comes VGA cable extension with right-angle connectors. Use this cable to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.
 - ▶ You can transfer the hard drive from the JCB to the JCB+ for JCB. It will work as-is.
- **If you are replacing an MJS computer with a JCB+ for MJS:**
 - ▶ No special adapters or cable extensions are needed; you will be able to re-connect everything as it was before.
 - ▶ The hard drive you will remove from the MJS cannot be used in the JCB+ for MJS. Use the replacement hard drive provided in your kit, and follow the instructions in Chapter 5: Software Upgrade.



Genesis & Rhapsody

Genesis and Rhapsody jukeboxes originally shipped with computers that have not been officially supported by TouchTunes for many years. You may have already upgraded these jukeboxes to an MJS or JCB in the past. This document assumes you are replacing either of those, and does not provide any information about replacing the older computer models.

If you still have one of the pre-MJS computers, contact TouchTunes for information in replacing this computer.

When Replacing this jukebox's Computer with a JCB+

- It is important to identify which computer model you will be replacing, so you can order the correct JCB+ model as a replacement.
- **If you are replacing a JCB computer with a JCB+ for JCB computer:**
 - ▶ Your upgrade kit comes VGA cable extension with right-angle connectors. Use this cable to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.
 - ▶ You can transfer the hard drive from the JCB to the JCB+ for JCB. It will work as-is.
- **If you are replacing an MJS computer with a JCB+ for MJS:**
 - ▶ No special adapters or cable extensions are needed; you will be able to re-connect everything as it was before.



- ▶ The hard drive you will remove from the MJS cannot be used in the JCB+ for MJS. Use the replacement hard drive provided in your kit, and follow the instructions in Chapter 5: Software Upgrade.

Conversion Kits

Over the years, TouchTunes has offered many different conversion kits for turning other jukeboxes into TouchTunes jukeboxes. Each of these jukeboxes and conversion kits comes with its own special characteristics, and it is beyond the scope of this guide to cover each and every one of these.

Fortunately, two things make upgrading these jukeboxes to JCB+ straightforward:

- ▶ All those conversion kits used either an MJS computer, or a JCB computer
- ▶ The JCB+ computer's two variants are designed to replace either an MJS or a JCB computer, without any major changes to the wiring layout.

Regardless of the original jukebox model that was converted, as long as it was converted to use a JCB or MJS computer, upgrading to JCB+ is a simple matter of replacing the computer itself, which will be compatible with the rest of the jukebox hardware, as-is.

When Replacing this jukebox's Computer with a JCB+

- Identify which computer model you have, so you can order the correct JCB+ replacement.
- **If you are replacing a JCB computer with a JCB+ for JCB:**
 - ▶ Your upgrade kit comes VGA cable extension with right-angle connectors. Use this cable to ensure that the monitor can be connected into the JCB+, without any undue tension on the cable.
 - ▶ You can transfer the hard drive from the JCB to the JCB+. It will work as-is.
- **If you are replacing an MJS computer with a JCB+ for MJS:**
 - ▶ No special adapters or cable extensions are needed; you will be able to re-connect everything as it was before.



- ▶ The hard drive you will remove from the MJS cannot be used in the JCB+ for MJS. Use the replacement hard drive provided in your kit, and follow the instructions in Chapter 5: Software Upgrade.

Other Jukebox Models and Non-Standard Configurations

If the jukebox you are planning on upgrading does not correspond to any of the configurations described earlier in this chapter, you may still be able to replace its computer with a JCB+.

If the jukebox in question contains either an MJS or a JCB, the steps in this guide should still apply. You may come across situations where cables that were precisely the right length for the previous computer now come a bit short. Otherwise, the JCB+ was designed as a drop-in replacement for either an MJS or a JCB (as long as you order the right model.)

If the jukebox in question does not contain either an MJS or a JCB, contact TouchTunes for help in addressing your particular case.

Replacing the Jukebox Computer

4

This section describes the process and steps required for replacing either a JCB or an MJS computer with a JCB+ computer.

Topics

[Preliminary Steps](#)

[Removing the JCB or MJS](#)

[Installing the JCB+ Computer](#)

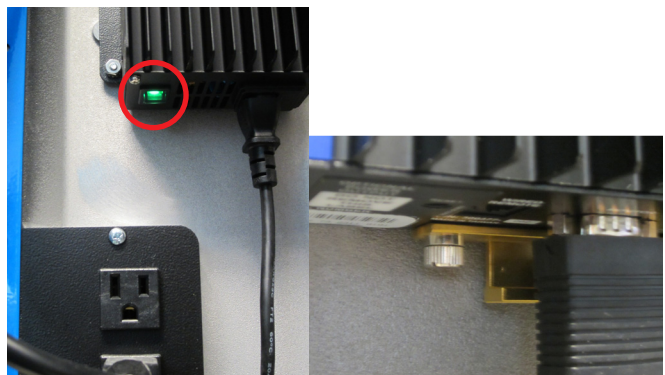
[Final Steps](#)

Preliminary Steps

Before you start replacing your jukebox computer, there are a few things you need to do to ensure that the process goes smoothly and that you avoid damaging the jukebox and the replacement computer.

NOTE: The pictures in this chapter are of a JCB being replaced with a JCB+ for JCB. The text indicates where the process differs in the case of an MJS being replaced with a JCB+ for MJS. In general, the latter involves fewer steps, but requires a new hard drive.

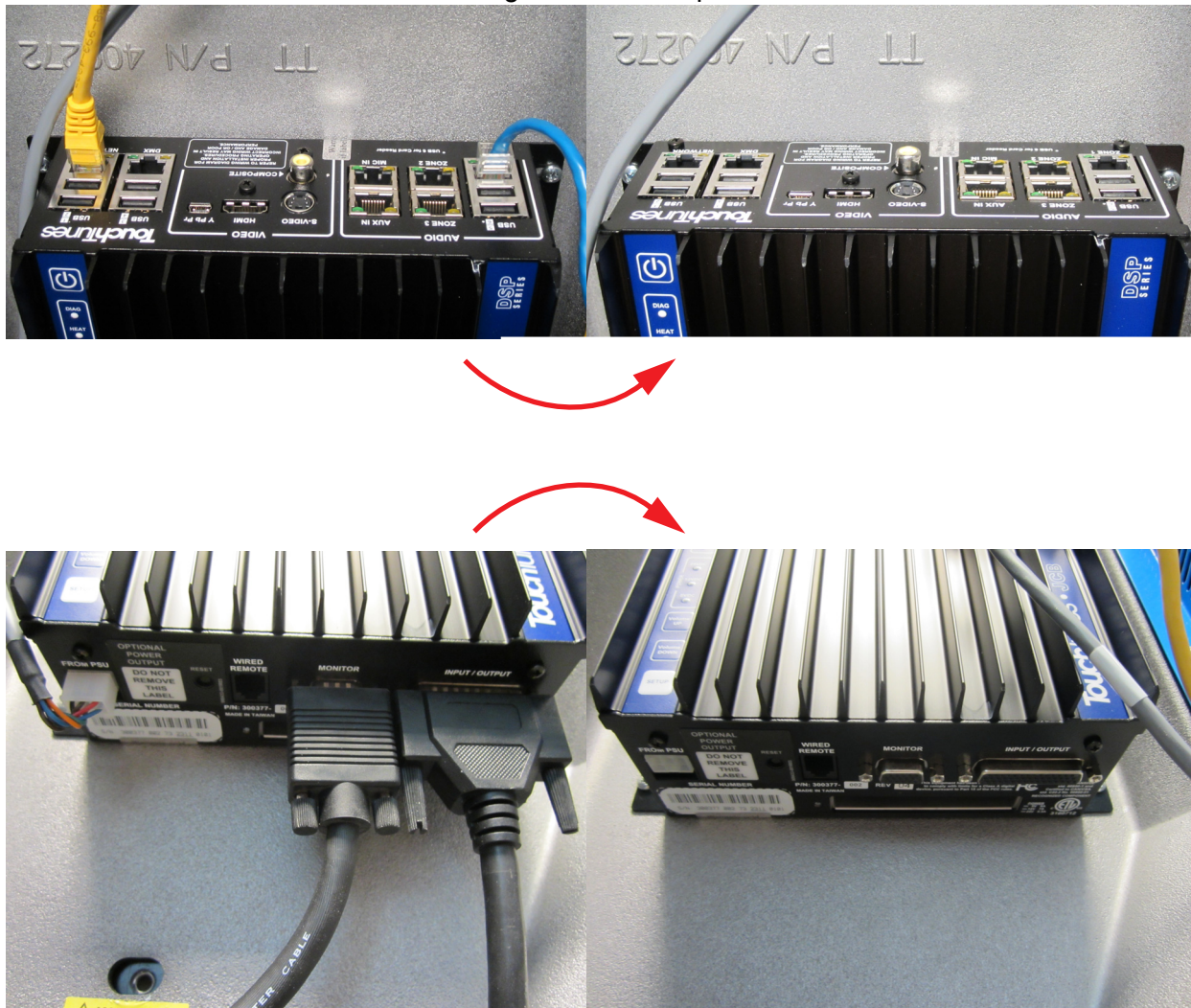
1. Turn off the jukebox computer.
On an MJS computer, the power switch is on top. On a JCB, the power switch is on the power supply, next to the computer.
2. Unscrew the thumbscrew that holds the hard drive, then pull out the hard drive and set it aside.



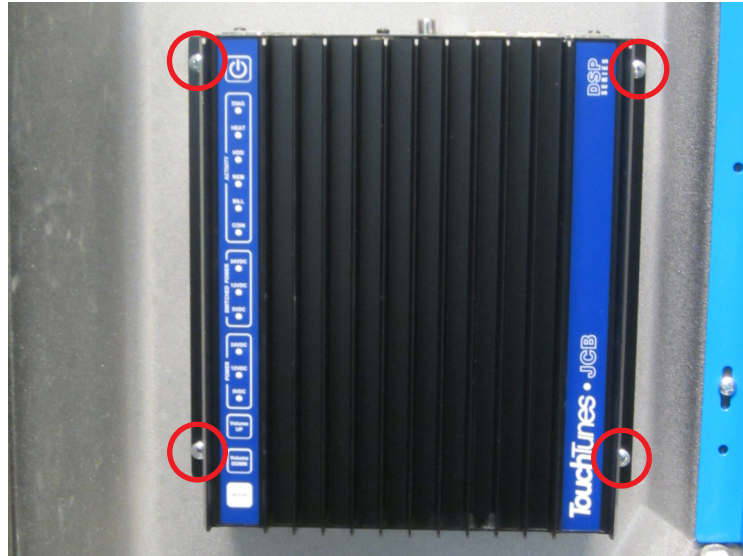
NOTE: At this point, it is a good idea to use cable flags (or just pieces of tape) to tag each cable that connects to the jukebox computer, indicating which socket it goes into on the Computer. At a minimum, you should label all the Ethernet cables (network, Zones 1 to 3, MIC and AUX IN, DMX) as these are very easy to mix up.

Removing the JCB or MJS

1. Disconnect all the cables that go into the computer.



2. Find the four screws that hold the computer in place, and remove each one (holding the computer in place while removing the last two screws to avoid it moving or falling). Set the screws aside for later.



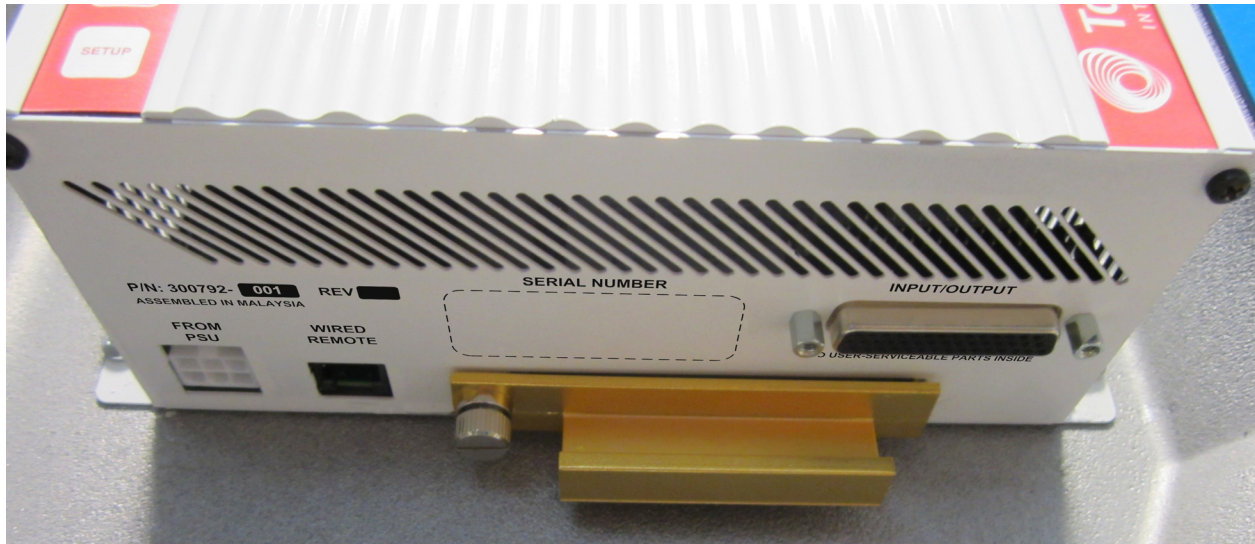
3. Pull out the computer and set it aside.

Installing the JCB+ Computer

1. Position the JCB+ computer into the space left when you took out the previous computer, ensuring that the power button on the control membrane is on the top-left, to get the proper orientation.
2. Using the screws you set aside, fasten the JCB+ computer to your jukebox.

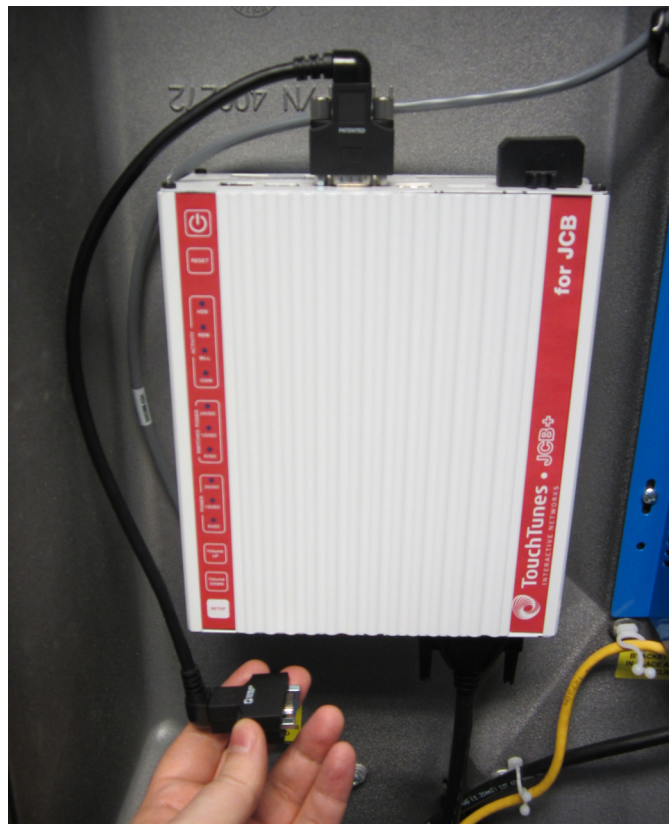


3. Insert the hard drive you removed earlier (or, if you are replacing an MJS, insert the hard drive that came with your JCB+ for MJS kit) then fasten it using the attached thumbscrew.

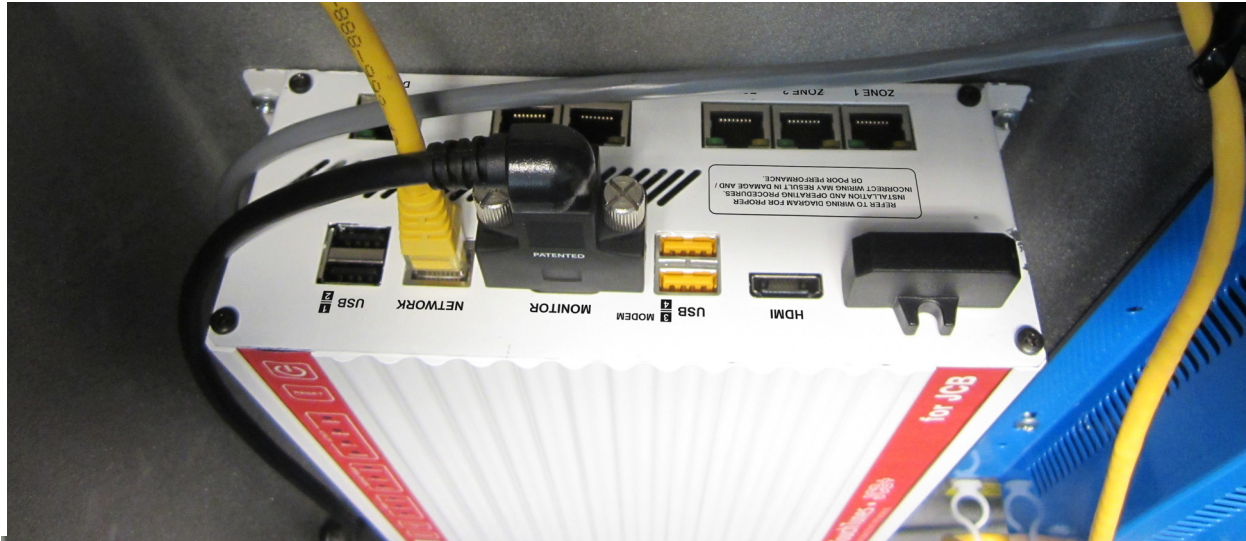


NOTE: Do not attempt to insert a hard drive that was removed from an MJS computer. If you are upgrading an MJS computer, you should have obtained a replacement hard drive. See Chapter 5 for more on the contents of this new hard drive, and how to correctly configure the software upon first activation.

4. If you are replacing a JCB, your JCB+ kit contains a VGA extension cable with right-angle connectors. Insert the connector with all the pins into the VGA socket on top of the JCB+. Then, orient the extension cable to route it over the side of the JCB, bringing the other end of the extension near the bottom of the JCB+, near where the VGA connector used to be on the JCB you are replacing.



5. Re-connect all the cables, using the cable flags or bits of tape you applied to help you reconnect everything as it was on the previous computer.



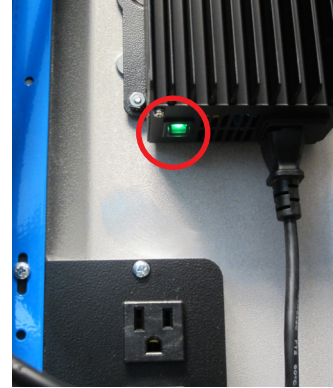
If you are replacing a JCB: connect the VGA cable coming from the monitor to the VGA extension cable you connected to the JCB+ earlier.

If you are replacing an MJS: connect the VGA cable from the monitor to the VGA socket on top of the JCB+.



Final Steps

1. Review all the cables and connections going into the JCB+ computer, and ensure that there are no cables left disconnected.
2. Flip the power switch on the JCB+ computer (in the case of the JCB+ for MJS) or on the external power supply (in the case of the JCB+ for JCB) to the ON position.



3. If you just replaced a JCB with a JCB+ for JCB, watch the jukebox power up and ensure it goes through the normal booting process. Congratulations, you have successfully completed the installation of your new JCB+ jukebox computer!
4. If you replaced an MJS with a JCB+ for MJS, proceed to Chapter 5 for the software configuration steps.

5 Software Upgrade

This section provides the software-related steps to follow when upgrading an MJS to a JCB+ for MJS, and shows what the final results will look like, introducing Gen3+ in the process.

Topics

[Hard Drives](#)

[Music and Settings](#)

[Jukebox Activation](#)

Hard Drives

The MJS computer came out before SATA drives were the standard, so its hard drives use an IDE connection. These are incompatible with the JCB+ for MJS computer, which requires a hard drive with a SATA connection. That is why upgrading your MJS to a JCB+ for MJS computer requires replacement of the hard drive.

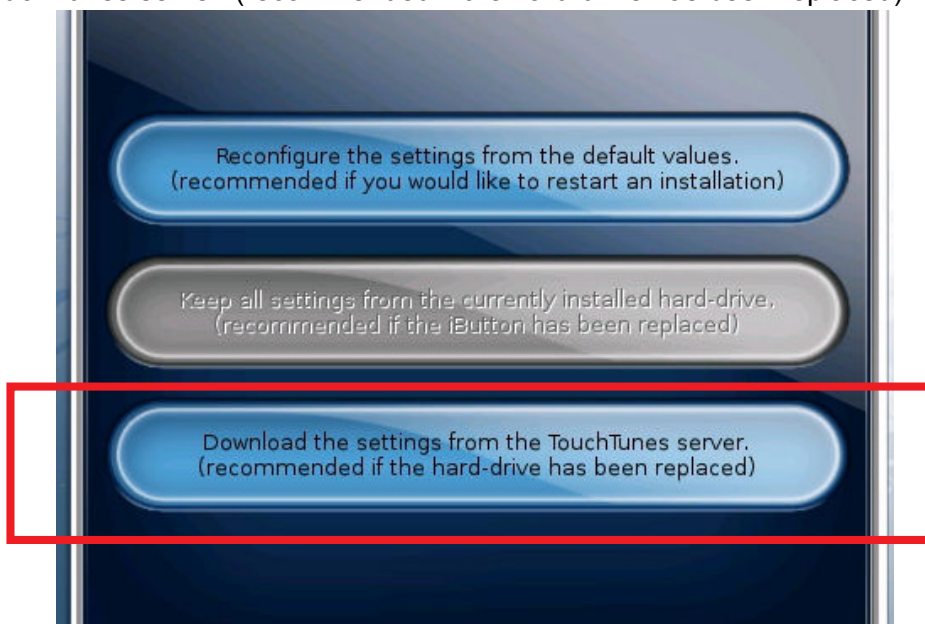
Music and Settings

Assuming you want to keep all the settings the jukebox had before replacing its computer, as well as keep the same Local Content (or “Local Favorites”, as they are referred to on Gen3+) and music filters as before the replacement, you must download this location’s settings to the new hard drive in order to preserve this location’s distinctiveness.

Jukebox Activation

The basic steps in the process, after you have inserted the new drive into the JCB+ computer are as follows:

1. Power on the jukebox by flipping the power switch on the JCB+ for MJS computer.
2. Watch the boot process for any errors. If no problems occur, you will be able to proceed with the activation.
3. Calibrate the touchscreen by following the instructions and prompts on the screen.
4. Select the jukebox's languages when prompted to do so.
5. You will be presented with three large buttons (one of which is likely to be greyed-out.) In order to ensure that all your settings and music selections carry over to this new hard drive, you must select the third option, which reads: "Download the settings from the TouchTunes server. (recommended if the hard-drive has been replaced)"

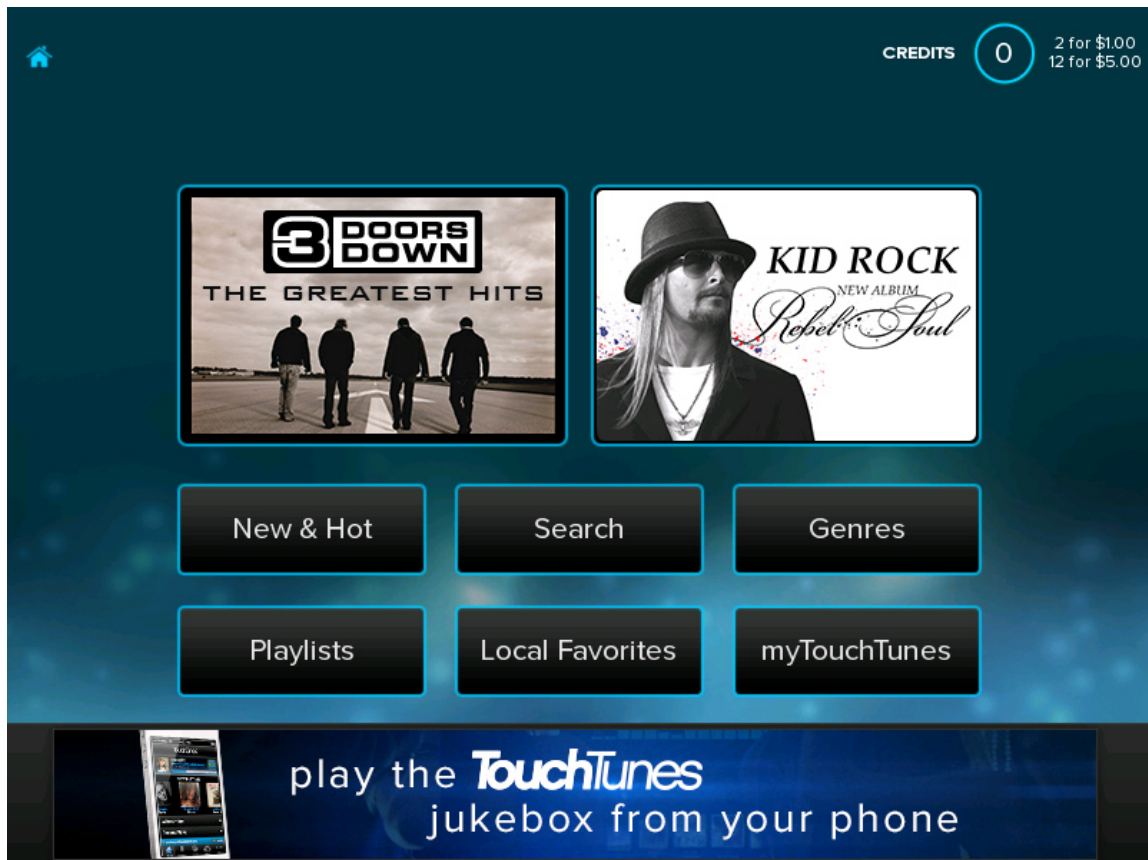


Note: If you select the first option, all the settings and music selections that were attributed to that particular jukebox will be lost. This is useful if you are preparing a jukebox for a new location, but for an existing location that has its own music selection and settings, choose the third option.

6. Set the connection type and calling window. Remember that Gen3+ (like OpenStage, the software running on Virtuo jukeboxes) is designed with a broadband Internet connection in mind. If this jukebox is to be set up with a dial-up connection, please contact TouchTunes for more help.
7. Once the connection information is set, you must monitor the communications as the jukebox attempts to connect to the TouchTunes servers. Make sure that all the lights in the top-right are green (with one exception: if you are connecting via wireless

broadband, the “Local Ethernet” light will remain red.) Any error conditions will be highlighted in RED in the log window.

8. Once activation is complete, you will see the new Gen3+ home screen, which looks like this:



If your jukebox is now displaying this screen, it means you successfully completed the activation process. Take the time to review the music selection under Local Favorites to confirm that the previous music selection has been transferred to the new hard drive.

TouchTunes Interactive Networks, Inc.	TouchTunes Interactive Networks, Inc.	Technical Support
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Montreal, Quebec,	Arlington Heights, IL 60005	www.touchtunes.com
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