

MDB Protocol for Simplifying Your Vending Business



MDB-RS232: Connect RS232 TO MDB

<http://www.mdb-rs232.com>

MDB Protocol Explained

The MDB stands for "[multi-drop bus](#)" and describes the computing language used by most vending machines. The MDB protocol operates the VMC or vending machine control board. This language transfers information from the vending machine itself to the coin counting mechanism, the bill validator and the credit or debit card reader. These three things are considered peripherals. The MDB protocol ensures that payments are processed correctly and efficiently and that they trigger the appropriate response in the vending machine i.e. releasing the chosen snack.

Benefits of MDB Protocol for Vending Businesses

If one of the payment processors attached to a vending machine malfunctions, identifying the problem, repairing or replacing it becomes much easier in machines with MDB protocol. This gives the coin counter and bill validator the same type of "plug-and-play" capability as a computer mouse or keyboard. Because switching the old one out for a new one is so quick and easy, the vending machine experiences little to no downtime.

Not only is the machine offline for mere minutes, there is also no technical ability needed to replace broken peripherals. This saves time and plenty of money over hiring a repair person or training employees more extensively.

Many vending machine companies only send their route managers out with spare bill validators and coin mechanisms just in case one happens to be out of order.

Replacing a smaller coin mechanism with a four or five tube model can benefit the vending business greatly because the machine will never run out of change between visits and more transactions can be completed. MDB protocol makes this possible as well.

MDB protocol not only makes it easy to swap out payment processing hardware, but it can also transmit reports about sales, inventory and maintenance schedules. This automatic process speeds up each vending machine visit because the service person will not have to enter anything manually on route cards or charts. The more efficient each stop on the route is, the greater profits can be realized.

How Do You Know if MDB Protocol Is on Your Machines Control Board?

The vast majority of vending machines that were manufactured within the last decade have MDB protocol and enabled control board. If you purchase refurbished vending machines from before this time, there is one easy way to check to see if MDB is used.

Open up the machine and look at the coin mechanism. If it is attached to the control board with a six-pin plug, you have an MDB protocol mechanism. This plug-in is usually white and fashioned from plastic. If the coin mech has a different type of plug, such as one with nine or 15 pins and of a different color, the machine is not MDB enabled.

What to do if your vending machine's control board is not MDB protocol enabled?

If you find a non-white plug with nine or 15 pins, do not worry. Quite a lot of vending machines still being used in business today are not MDB protocol enabled. Luckily, you do not have to buy a new machine. You can fix an old one without much trouble or expense.

What if Your Vending Machine Control Board is "Logic" Based?

If an MDB protocol control board is not installed in your vending machine, that means it uses a logic-based board instead. People in the industry sometimes call these Micromech or Dumbmech interfaces. It is possible to buy an MDB conversion kit and install it yourself in all of your vending machines or hire an experienced technician to do it for you. This kit will let you easily plug-in a new card reader, bill validator or coin mechanism that can be read as easily by the machines existing logic control board.

Before you plug any old payment processing peripheral into the machine, you need to check that the wiring harness has the same voltage requirements. It is possible to have a vending machine that operates at 24 volts while a coin counter or card reader operates at 110 volts. If these do not match, hooking them up together can cause rather severe electrical problems. The safest way to ensure no mistakes is to use voltage stickers on the vending machine and peripherals in your parts collection.

What if Your Vending Machine is a “Single Price” Model With No Control Board

If you have been in the vending business for a very long time or saved money at startup by purchasing older machines, you may not have a control board at all. These are often called single price machines because you can only sell items for one price. In general, trying to install an MDB protocol control board into one of these old machines is not cost-effective. If you have a particular reason for doing so rather than replacing the machines as needed, you will need to hire a certified vending machine tech to do the work for you.

Not only will an MDB protocol-enabled control board need to be installed inside the vending machine, the tech will also need to install a specific wiring harness before continuing. Then, much like retrofitting a logic-based board

with an MDB device, the voltages of various peripherals must be checked against the vending machine before installation.