

Installation Guide

ZON ZMP-3 Doorbell Module



The ZON ZMP-3 Doorbell module enables triggering of custom audio for doorbells, driveway sensors, motion detectors and other similar devices. The custom audio, when triggered, is routed to the ZON system's page bus, which plays back at the default paging volume of connected ZON Audio Controller Amplifiers (controllers). Only one ZMP-3 per system is required.

Custom audio (in the form of MP3 files) is stored on an SD Card (not included). The length of the audio file(s) is determined only by the size of the SD card used. A maximum of five MP3 files can be stored on the SD Card at one time.

Triggering of the audio is accomplished by two-conductor, dry contact closures. A phoenix-type connector (provided with each module) is integrated onboard the ZMP-3 module.

For the latest information about the ZMP-3, check our website: <http://www.zonaudio.com>.

Installing the ZMP-3 Expansion Module

1. Disconnect the AC power cord from the ZON router. **WARNING!** Installing any expansion module with the power connected will damage the module, the ZR-98 (or both) and voids your product warranty.
2. Remove an expansion bay cover plate on the ZON router. Using a #2 Phillips screwdriver, remove the cover screw and remove the cover plate.
3. Connect the 40-pin ribbon cable to the module. The cable provided with the module is the proper length type for the ZON system. The cable is "keyed" to allow proper pin placement.
4. Connect the other end of the ribbon cable to the router, making sure the key on the cable is aligned with the key slot on the router's expansion bay connector.
5. Insert the module into the router. Align the tab on the module's top with the tab opening on the router's frame. Slide the module in and up. This should hold the module in place.
6. Re-install the screw removed in step 1 above. When the module is properly installed, the screw hole on the bottom tab of the module will be aligned with the threaded hole on the router's frame.
7. It is recommended that you not re-connect power to the ZON router until after you have prepared your SD Card and completed your trigger connections. Instructions for doing so are below.

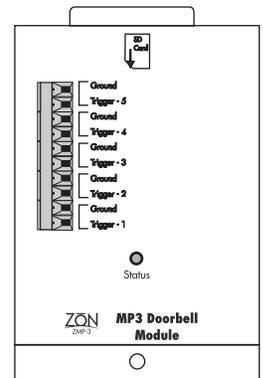


Figure 1

Working with SD Cards for the ZMP-3

You will need an SD Card, an SD Card Reader/Writer and software (needed for creating and editing audio files).

Any capacity SD card will work with the ZMP-3 module. Formatting the SD Card is not normally required as these cards are pre-formatted by the manufacturer.

If your computer is not equipped with an SD Card reader port, you will need additional hardware to be able to connect your SD card. One such device is the SanDisk Mobile Mate™ SD+. Check with your local computer hardware supplier for pricing and availability.

There are numerous freeware programs available that will help you create, edit and convert audio files to MP3 format. Audacity, a free program, is available from <http://audacity.sourceforge.net>. ZON provides a free utility that will check file compatibility and naming. You can download this file from our website: <http://www.zonaudio.com/support/files>.

Up to five MP3 files can be stored on a properly formatted SD card. The naming convention for these files must be as follows:

1.mp3, 2.mp3, 3.mp3, 4.mp3 and 5.mp3. "Trigger 1" corresponds to 1.mp3, "Trigger 2" corresponds to 2.mp3 and so on.

File names other than these, or saving additional files other than these on the card will result in the ZMP-3 not being able to recognize the contents of the card. Audio file formats other than MP3 cannot be processed by the ZMP-3 module.

Note: There is a default doorbell sound that will play if no SD Card is inserted.

Installing Contact Closure Triggers

1. For ease of installation, remove the phoenix-type connector from the module.
2. Figure 2 shows a typical contact closure connection. With the screw terminals to your left, Trigger 1 is at the bottom, and Trigger 5 is at the top. Each of the five triggers have a positive and a negative (or ground) connection.

Note: The trigger contacts are for "Dry" contacts only. There must be no voltage presented by the device which triggers the ZMP-3. Do not trigger other devices with the same ZMP-3 trigger.

3. Connect your contact closure wires for each trigger to the phoenix-type connector. You will need a small screwdriver to open and close the wire traps in the connector. For proper operation, do not ground the "ground terminal" of contact input externally.
4. Re-connect the phoenix-type connector to the ZMP-3 Module.

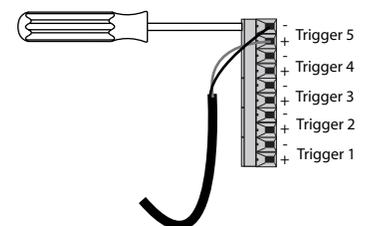


Figure 2

How to Connect a Doorbell to the ZMP-3

1. To integrate a typical residential doorbell (one with a AC transformer and lighted doorbell button), you will need a doorbell detector device such as the Elk 930-A. Doorbell detectors allow you to create a dry contact closure that is required for use with a ZMP-3. **WARNING!** There must be no voltage presented by the device which triggers the ZMP-3.
2. Figure 3 below shows a line diagram of a typical doorbell system and how it integrates with a ZMP-3. Note the use of a doorbell detector, which should be located close to the ZR-98 Router's location. Consult your doorbell detector's operation and installation guide for proper wiring.
3. Wiring a doorbell in this fashion will make the ZMP-3 generate the tone(s) announcing a doorbell button press.

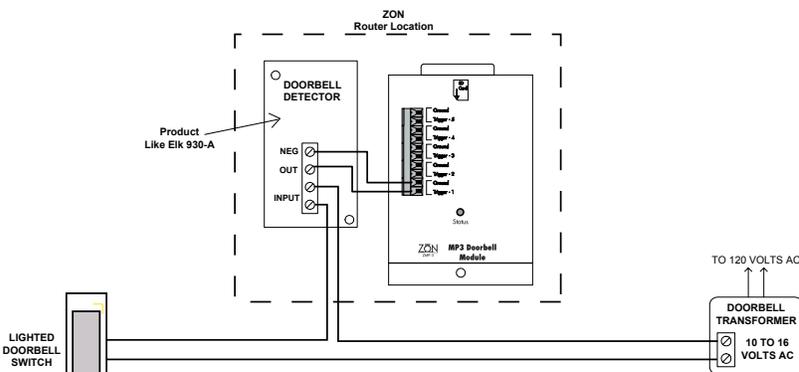


Figure 3

Power Up and Use of the ZMP-3 Module

1. Before connecting AC Power to the ZON Router, make sure that you have inserted a properly formatted and populated SD Card into the module. Also make sure that you have completed your trigger connections.
2. When power to the ZON router is connected, the ZMP-3 module turns on, and initializes. You will see the status light flash green during the time the SD card is being read. If you see a solid green light following the initialization, the module is ready for use. Should you see a solid red light after initialization, there is an SD Card error.
3. Most SD Card errors are the result of improperly formatted cards, or wrong audio files/file naming. Only MP3 files can be processed by the module, and the names of the files must be 1.mp3, 2.mp3 and so on through 5.mp3.
4. Eject the SD Card and check the format and contents. After correcting any errors, insert the card into the module. This will cause the module to re-initialize. If your card is formatted and populated correctly, you should receive a solid green status light on the module.
5. Test your contact closures. You will need working controllers connected to your ZON router(s) to hear the MP3 files generated by the module. You should also check that your controllers are set to receive pages, and that their default paging volume is set properly to hear the audio. Consult the ZON Serial Configuration User's Guide for more information on working with controller paging settings.

Additional Information

1. If you find that the paging audio from the module is too low, you may want to adjust the amplification settings of your MP3 file. Use your audio file software to make these settings.
2. The ZMP-3 module will not process a new trigger while a file is playing. There is a slight delay after the conclusion of a file before the module will respond to a subsequent trigger.
3. Controllers that are "off" will not respond to incoming pages. The ZON System Installation and User's Guide has detailed information on how controllers work with the ZON system paging functions.
4. Only one ZMP-3 module is required for each ZON system, regardless of how many routers are used. Proper router-to-router linking is required to tie the one module throughout the system. Refer to the ZON System Installation and User's Guide for more information on how to properly link routers together in a multiple router system.

For the latest information on the ZMP-3, as well as answers to Frequently Asked Questions (FAQs), application guides, and other helpful documents, please visit the official ZON website: <http://www.zonaudio.com>.