

# **Learning about the Theatre Pipe Organ (TPO) and How the MIDITZER simulates a TPO**

**Before we can discuss the Miditzer you must have at least a basic understanding of the components of a TPO and how they relate to one another. If you have never seen or played a TPO your first encounter with all of the tabs, buttons and keys will be somewhat intimidating and overwhelming. Though it may seem confusing at first things are actually arranged quite logically.**

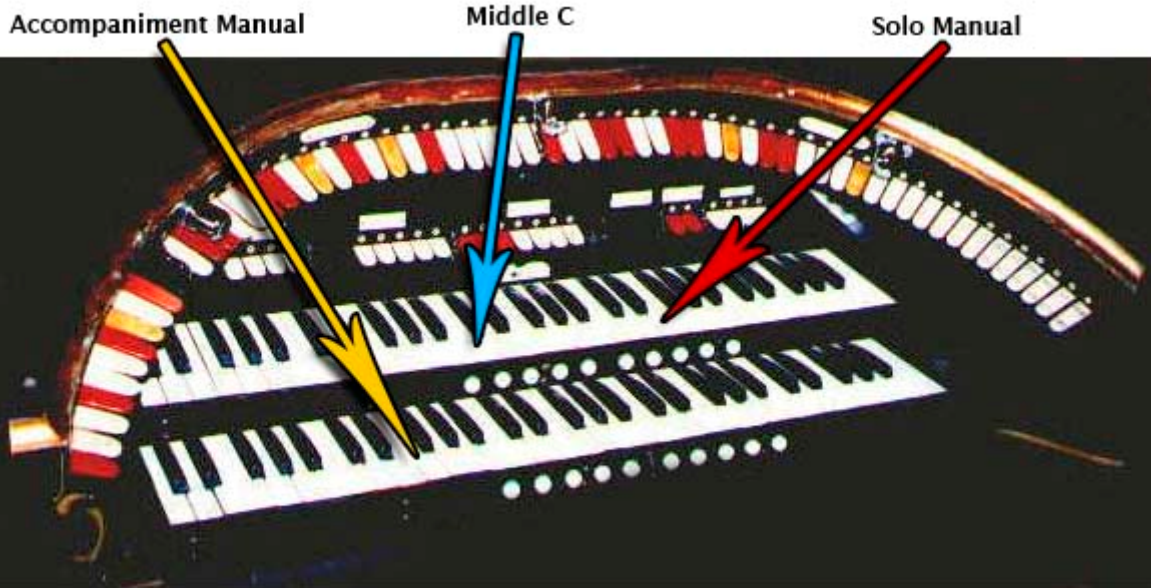
**The objective of the first part of this document is to familiarize you with the elements of a TPO and their relationship to one another. If you have played an electronic or a classical organ some of these elements will already be familiar to you. However, there are differences. The experienced player can review the portions of this section that are of interest. The novice should read the entire document. Once you understand TPO elements and the relationship between them, you will have an understanding of the terminology used to describe Miditzer.**

**There are a number of elements that makeup a TPO that are implemented in Miditzer and these must be understood before Miditzer functions will make a great deal of sense. Here is an inventory of components to be discussed:**

<b>Keyboards</b>	<b>Pedalboard</b>
<b>Stops</b>	<b>Non-Speaking stop</b>
<b>Pipes</b>	<b>Chambers</b>
<b>Swell Pedals</b>	<b>Swell Shutters</b>
<b>Unification</b>	<b>Combination Action</b>

## **The Keyboards and Pedalboard**

**Almost all organs have more then one keyboard. One of these keyboards, with the keys arranged similarly to the piano style keyboards, is a large keyboard played with the feet and is called the pedalboard. The piano like keyboards played with the hands, are referred to as manuals.**



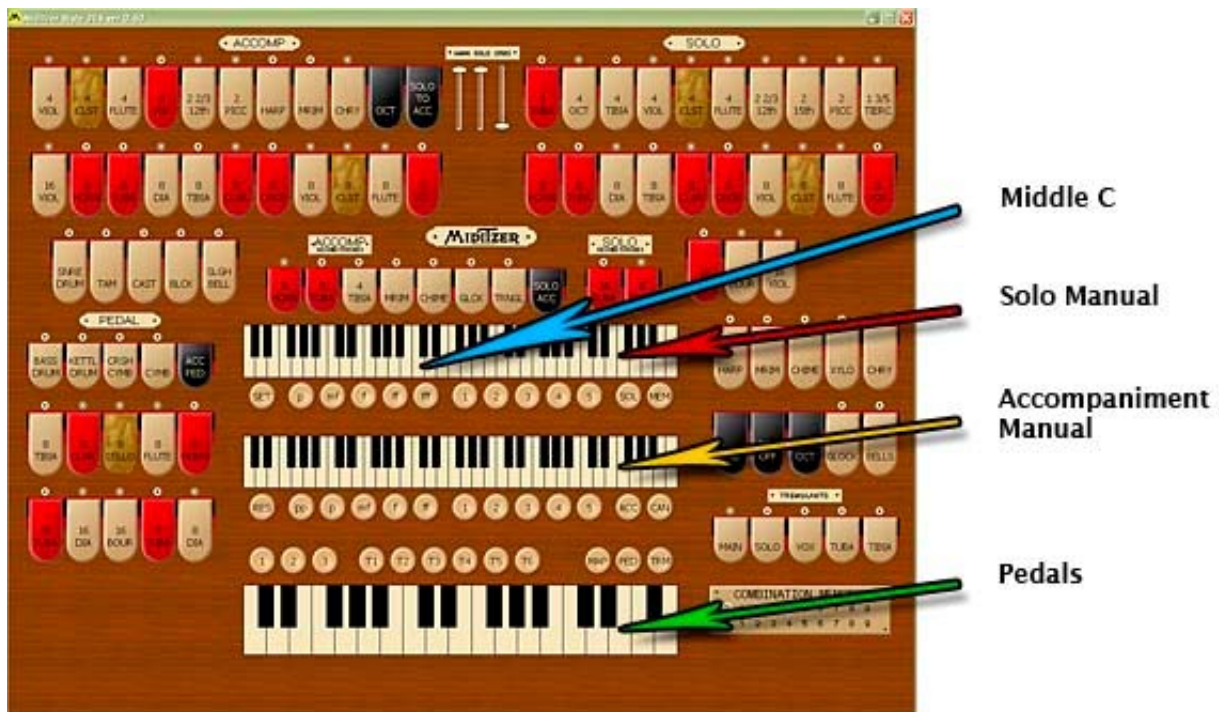
Wurlitzer Style 216 Console from the South Pasadena Rialto Theatre

The above Organ is the one used as a prototype for the Miditzer. It has two manuals of 61 keys each. Their range is from two octaves below middle C to three octaves above middle C. The blue arrow points to middle C. When a key is depressed a tone will sound if one or more stops are engaged. The keyboards or manuals in two manual organs are named:

Solo – The upper manual, the red arrow

Accompaniment – The lower manual, the orange arrow

The Solo manual is sometimes referred to as the Upper manual. The Accompaniment manual is sometime referred to as the Lower manual.



Miditzer Style 216 Console

The screenshot above shows the Miditzer's virtual console and indicates the manuals that correspond to the TPO's manuals. The designation for the Accompaniment Manual is abbreviated ACCOMP on the organ and in MIDITZER.

The Pedalboard is situated below the organ manuals and are played with the feet. Green arrow in the Miditzer screen shot. The pedalboard is not visible in the above picture of the TPO. The following picture shows a pedalboard.



Pedalboard of a Wurlitzer Console

The pedalboard on a TPO and Miditzer is 32 keys long beginning two octaves below middle C. The pedal boards on electronic organs may be shorter consisting of either 25 or on smaller organs 13 pedals.

Once the Miditzer is installed, the manuals are played in any of three different ways.

- **The Computer Mouse** - Left click one or more stops for the manual to be played to turn them on. The stops will change color, become brighter, when they are turned on. Point at a key with the mouse and left click. The note will sound as long as the left mouse button is held down.
- **The PC Keyboard** – The PC keyboard may be used to play the upper manual only. More than one note can be played at a time but the maximum number varies with different keyboards. Nothing fancy but sounds of different stop combinations can be heard. The keys on the screen will “light up” to show which notes are being played. The tones available are C to E for a range of one octave and a third. The keys of the PC keyboard that correspond to keyboard notes are:
  - **The white keys** – Middle C through E one octave above – the entire Z row.
  - **The black keys** – On the ASDF row - C# = S, D# = D, F# = G, G# = H, A# = J, C#2 = L, D#2 = ;
  - **The pitch range** – On the numeric keypad 1-5 control the pitch range of the computer keys. 3 will place the Z key at middle C.
- **One or more MIDI keyboards** – These may be individual keyboards or an organ with MIDI capability. The number of keyboards available determines how many of the Miditzer's manuals can be played.