

Arranging Music for the Gem Roller Organ

Charles Moore

The following items make up a fact sheet for Gem Roller Organ or Concert Roller Organ new music production.

Organ: Hand-crank organette with a 20-note scale playing single brass reeds. Plays a pinned wooden roller that is 1 3/4" in diameter by 6 3/8" long, pinned in 3 revolutions along a spiral path, one song per roller.

Data File: Single channel MIDI file.

Music Scale for Gem: (from the bass notes up, this scale or any transposition of this scale)

1. D	6. C#	11. G#	16. D
2. G	7. D	12. A	17. E
3. A	8. E	13. B	18. F#
4. B	9. F#	14. C	19. G
5. C	10. G	15. C#	20. A

Playing Time: 32 to 47 seconds depending on the arrangement. The repetition rate is faster at the shorter playing times (see below). For most arrangements a playing time of 35 to 40 seconds will result in a faithful rendition on a variety of instruments. Longer playing times should be considered only when the arrangement does not have a lot of notes with short duration, in particular, notes that are not in the melody.

Repeated Notes: There is a limit to how fast a note can be repeated with a noticeable break in the sounding of the note. The limit is between 0.18 and 0.25 seconds. Back-to-back notes not needing to sound distinctly separate, as with a trill, where a noticeable break in volume is sufficient, can be repeated at a slightly faster rate. If possible, tunes with rapidly repeated

notes, quick runs or rolled cords should be arranged to a shorter playing time. The repetition rate varies with playing time approximately as follows:

Playing time	Repetition rate
32 sec	0.18 sec
37 sec	0.20 sec
43 sec	0.23 sec
47 sec	0.25 sec

Simultaneous Notes: "Thin air" due to too many simultaneous notes in an arrangement is generally not a problem. The organs normally can easily play four or five of the lowest notes and eight or nine of the highest notes simultaneously. There is a volume leveling effect with the organ where the overall volume tends to be roughly the same no matter how many notes are on. This occurs because the air supply is set by the cranking speed which is constant rather than having a regulated air pressure. The reservoir on the unit tends to smooth out the dynamics, that is attempting to sustain a constant pressure, but it operates over a very short interval. For example, if there is a stretch of music with only a few notes followed by a held chord, the chord may initially sound at a higher volume and then level quickly back to the average volume.

Thin air will become an issue on weaker organs if the playing time is on the long side and there are a lot of simultaneous sustained notes.

Music Selection: New arrangements, not duplicating original titles. Original titles for the Gem Roller Organ can be found in a list maintained by Todd Augsburg at: www.rollerorgans.com/Roller_Organ_List.htm

New Gem Roller Organ Tune List

5001 <i>I'm Looking Over a Four Leaf Clover</i>	5020 <i>Maple Leaf Rag</i>	5038 <i>We Wish You a Merry Christmas</i>
5002 <i>O Holy Night</i>	5021 <i>Pomp And Circumstance</i>	5039 <i>Deck the Halls</i>
5003 <i>Bye, Bye, Blackbird</i>	5022 <i>God Save the Queen</i>	5040 <i>Music Box Dancer</i>
5004 <i>Over the Rainbow</i>	5023 <i>Syncopated Clock</i>	5041 <i>Bolero</i>
5005 <i>When You Wish Upon a Star</i>	5024 <i>She'll Be Comin' 'Round The Mountain</i>	5042 <i>The Band Played On</i>
5006 <i>Bridge Over Troubled Waters</i>	5025 <i>Palm Leaf Rag</i>	5043 <i>Leichtes Blut</i> (for continuous play, very fast)
5007 <i>Scarborough Fair</i>	5026 <i>Peacherine Rag</i>	
5008 <i>The Entertainer</i>	5027 <i>Weeping Willow</i>	5008,9,10,11 adapted by Jessie Moore
5009 <i>Seventy-Six Trombones</i>	5028 <i>Wiener Blut Waltz</i>	
5010 <i>You Can't Be True Dear</i>	5029 <i>Angels We Have Heard on High</i>	
5011 <i>Fascination</i>	5030 <i>Chim Chim Cheree</i>	5012,13,17,18,19,30,31,32,40,41 adapted by Wayne Holton
5012 <i>Stars and Stripes Forever</i>	5031 <i>Zippity Do Dah</i>	
5013 <i>Beer Barrel Polka</i>	5032 <i>Ding Dong the Witch is Dead</i>	
5014 <i>Ragtime Jim</i>	5033 <i>The Favorite</i>	
5015 <i>The Entertainer</i>	5034 <i>The Chrysanthemum</i>	5014,15,20,21,22,25,26,27,28,33,34,35,36,43 adapted by Harald Mueller
5016 <i>That Toddlin' Town (Chicago)</i>	5035 <i>The Strenuous Life</i>	
5017 <i>Santa Claus is Coming to Town</i>	5036 <i>Radetzky March</i> (for continuous play)	
5018 <i>Frosty the Snowman</i>	5037 <i>What Child is This? (Green Sleeves)</i>	
5019 <i>Rudolph the Red Nose Reindeer</i>		