

HUBBARD HARPSICHORDS INCORPORATED

This document contains the stringing schedules from both versions of Harpsichord and Regulating and Repairing. The original 1963 lists have been superseded but are appended as reference for the many instruments that were strung to their schedules. Unsurprisingly, they were very much products of their time and assumed the use of hard wire pulled up to modern pitch. The current stringing lists (given immediately below) assume the use of softer wire tuned to a'=415 Hz. The North European list may be used in all our kit doubles at that pitch. For a'=440 Hz, please observe the accommodations given in the following list, titled Old Instruments at Modern Pitch.

TYPICAL STRINGING OF NORTHERN EUROPEAN HARPSICHORD

Notes	8'			4'	
	# Courses	Diameter	Material	# Courses	Notes
f'''-c'''	6	.008", .21 mm	Steel or Iron	30	f'''-c'
b''-d''	10	.009", .23 mm	Steel or Iron	12	b-c
c#''-c#'	13	.010", .25 mm	Steel or Iron	5	B-G
c'-a	4	.011", .28 mm	Steel or Iron	3	F#-E
g#-e	5	.012", .30 mm	Steel or Iron	4	D#-C
d#-B	5	.014", .36 mm	Steel or Iron	x	x
A#-A	2	.014", .36 mm	Yellow Brass	4	BB-GG#
G#-F	4	.016", .40 mm	Yellow Brass	3	GG-FF
E-C	5	.018", .45 mm	Yellow Brass	x	x
BB-GG#	4	.020", .50 mm	Yellow Brass	x	x
FF-FF	3	.022", .55 mm	Yellow Brass	x	x

AN ALTERNATIVE BASS STRINGING

E-D	3	.018", .45 mm	Red Brass	x	x
C#-AA#	4	.020", .50 mm	Red Brass	x	x
AA-GG	3	.022", .55 mm	Red Brass	x	x
FF#-FF	2	.024", .60 mm	Red Brass	x	x

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OLD INSTRUMENTS AT MODERN PITCH

This list will enable Hubbard French Doubles produced before 1980 to be pitched at $a' = 440$ hz. The alternative bass stringing given above may also be used in this instance. Please note that these are accommodations only - we highly recommend that modern pitch be achieved by means of adapting the keyboard to slide one jack position to the treble. Though the difference between any two frequencies a semitone apart is 6%, the difference in stress is virtually 12%. This is a substantial increase in tension that will be reflected by a proportional decrease in the time until structural failure. The reduced stress of pitching the instrument down a semitone fully repays the effort with a more focused, larger sound.

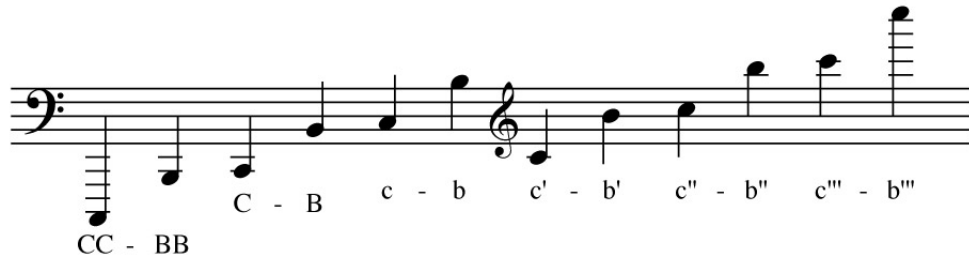
Notes	8'			4'	
	# Courses	Diameter	Material	# Courses	Notes
f'''-a#''	8	.008", .21 mm	Spring Steel	30	f'''-c'
a''-c''	10	.009", .23 mm	Spring Steel	12	b-c
b'-b	13	.010", .25 mm	Spring Steel	5	B-G
a#-g	4	.011", .28 mm	Steel or Iron	3	F#-E
f#-d#	4	.012", .30 mm	Steel or Iron	4	D#-C
d-A#	5	.014", .36 mm	Steel or Iron	x	x
A-G#	2	.014", .36 mm	Yellow Brass	4	BB-GG#
G-F	3	.016", .40 mm	Yellow Brass	3	GG-FF
E-C	5	.018", .45 mm	Yellow Brass	x	x
BB-GG#	4	.020", .50 mm	Yellow Brass	x	x
FF-FF	3	.022", .55 mm	Yellow Brass	x	x

TYPICAL STRINGING OF ITALIAN HARPSICHORD (8' ONLY)

d'''-d''	13	.009"	Yellow Brass
c#''-d'	12	.010"	Yellow Brass
c#'-a	5	.011"	Yellow Brass
g#-f	4	.012"	Yellow Brass
e-G#	9	.014"	Yellow Brass
G-D#	5	.016"	Yellow Brass
D-C	3	.018"	Yellow or Red Brass

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Pitch names



These are the conventions we use in specifying the range of our instruments. Please note that we assume that the central C on the keyboard will be named c' with any octave transpositions indicated by the modifiers 4' or 16'. This allows us, for example, to specify the ottavino's range as C-c''' at 4' pitch even though the actual pitches (taken as frequencies) exhibit the range c-c''''.

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TYPICAL STRINGING OF NORTHERN EUROPEAN HARPSICHORD ORIGINAL

Notes	8'			4'	
	# Courses	Diameter	Material	# Courses	Notes
x	x	<u>.008"</u>	Spring Steel	30	f'''-c'
f'''-g'	23	<u>.009"</u>	Spring Steel	12	b-c
f#'-c'	7	<u>.010"</u>	Spring Steel	5	B-G
b-a	3	<u>.011"</u>	Spring Steel	x	x
g#-f#	3	<u>.012"</u>	Spring Steel	3	F#-E
f-G#	10	<u>.014"</u>	Spring Steel	4	D#-C
G-D#	5	<u>.014"</u>	Yellow Brass	4	BB-GG#
D-C	3	<u>.016"</u>	Yellow Brass	3	GG-FF
BB-AA#	2	<u>.018"</u>	Yellow Brass	x	x
AA-GG#	2	<u>.020"</u>	Yellow Brass	x	x
GG-FF	3	<u>.022"</u>	Yellow Brass	x	x

TYPICAL STRINGING OF ITALIAN HARPSICHORD - ORIGINAL

d'''-f'	10	.008"	Spring Steel
e''-a#	19	.009"	Spring Steel
a-g	3	.010"	Spring Steel
f#-f	2	.011"	Spring Steel
e-d#	2	.012"	Spring Steel
d-G#	7	.013"	Spring Steel
G-F#	2	.014"	Spring Steel
F-D#	3	.014"	Yellow Brass
D-C	3	.016"	Yellow Brass

The stringing lists on this page date from 1963 and are included for reference purposes only.