



Technicalities

Volume VII

1994 - 2005



Foreword

Early in 1972, Founding Member **Mel Luchetti** compiled and published the first **AMICA Technicalities**, Volume I, containing technical articles written by **AMICAns** and published in the early issues of the **AMICA Bulletin**. Since then, a number of **AMICA Technicalities** have been compiled and published over the years, all containing the technical achievements of **AMICA** members around the world.

This Volume VII carries on the tradition of assembling into a single volume, many of the technical articles written or contributed by **AMICA** members for the **AMICA Bulletin** in the years 1994 to 2005. The spirit and intent is to aid others in the restoration of their own instruments.

It should be noted that within these 7 volumes, some technical processes and materials will have changed with expanded knowledge, and identification and acquisition of improved materials. The techniques and materials recommended in the earlier articles are not necessarily absolute truth for all time. They simply reflect the knowledge, materials and achievements at a moment of time. Normal evolution inevitably produces refinements.

Consequently, the articles contained within all volumes should be considered in the spirit of informed guidance, rather than absolute direction. For those connected to the InterNet, the process of filtering most current knowledge relative to anything proclaimed herein, will be significantly enhanced and accelerated. The use of the InterNet is strongly encouraged.

One of **AMICA's** aims is "To encourage the restoration of automatic musical instruments to a condition consistent with the original intent of their manufacture."

We have many positive opportunities of great significance to further our aims and objectives, and nourish a magnificent slice of musical heritage. What better way than to contribute to our aims than by our members documenting their achievements through the pages of the **AMICA Bulletin**. Please, care enough to share!



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Ampico

AMPICO Modification Systems

By Jeffrey Morgan

System	Type	Production Period	MFR.	Misc. Equipment	Modifier +
Stoddard-Ampico (all three no amplifier)	1A	late 1912-very early 1913	APA		None
	1B	early 1913-mid 1913	APA	Pneumatically assisted hammer rail lock.	None
	early 2A	mid 1913-mid 1915[?]	APA	Pneumatically assisted hammer rail lock.	SNL
Early Ampico	late 2A	mid 1915[?]-late 1915	APA	HR lock; amplifier appears	SNL
	2B	late 1915-mid 1917	APA	HR lock; amplifier	SNL
	3	mid 1917-early 1920	A	HR lock phased-out; amplifier remains	SNL
Model A Ampico	4	early 1920-early 1922	A	All five equipped with amplifier	SMB
	5	early 1922-early 1923	APC		SMB
	6	early 1923-mid 1924	APC		SMB
	7	mid 1924-mid 1925	APC		SMB
	8	late 1925-early 1929*	APC		SMB
Model B Ampico	N/A	early 1929-late 1941	APC	to May 8, 1930, then to Sept., 1932, then after Sept., 1932	SN
			AC		
			AAC		

* Some Model A components used beyond 1929 on a selective basis.

+ See text below for elaboration

Key: A = Amphion Piano Player Company
AC = Ampico Corporation
AAC = Aeolian American Corporation
APA = Auto Pneumatic Action Company
APC = American Piano Company

N/A = not applicable
SNL = Soft-Normal-Loud (three variations)
SMB = Subdued-Medium-Brilliant
SN = Subdued-Normal

While the dates above are approximate, they are believed to be reasonably accurate. They are based on examination of surviving instruments and literature. This is further supported by the Werolin notebook and recent research. Some overlap does occur.

There are three modification systems utilized by the Ampico. The three systems are as follows:

The early Ampico modification system uses the terms: **Soft - Normal - Loud**. It was employed from mid-1913 through 1919. During this period it underwent two significant revisions. In this system:

1. **Soft** - denotes employment of two (bass and treble) "re-regulator pneumatics" (peak limiters in technical terms). These are throttling devices. Operation in this mode limits, to a large extent, the loud effects indicated by coding on the roll.

2. **Normal** - denotes unfettered operation with the amplifier active (exception, early 2As with no amplifier). In this mode, one can hear the widest possible dynamic range of the early Ampico.

3. **Loud** - denotes employment, in addition to the amplifier, of "loudening pneumatics" (bass and treble "bootstrap-style" dynamic expanders). These devices expand volume levels beyond those indicated by coding on the roll. However, in this mode, maximum suction available to the stack does NOT exceed that available in the "Normal" mode. The effect is somewhat similar to the "Dance" position on a Duo-Art.

The Ampico Model A modification system uses the terms: **Subdued - Medium - Brilliant**. It was employed exclusively

from 1920 through 1928 and beyond 1928, on a selective basis. In this system:

1. **Subdued** - denotes employment of "re-regulator pneumatics." Operation in this mode limits, to a large extent, the loud effects indicated by coding on the roll.

2. **Medium** - denotes operation without benefit of the amplifier. Such operation limits, to a certain extent, the loud effects indicated by coding on the roll.

3. **Brilliant** - denotes unfettered operation with the amplifier active. In this mode, one can hear the widest possible dynamic range of the Ampico Model A.

Many Ampico Model Bs were equipped with a modification system; some were not. The Model B modification system uses the terms: **Subdued - Normal**. This system was employed from 1929 to 1941. In this system:

1. **Subdued** - denotes employment of two (bass and treble) solid-state (i.e., no moving parts) pneumatic peak limiters. Operation in this mode limits, to a large extent, the loud effects indicated by coding on the roll.

2. **Normal** - denotes unfettered operation. In this mode, one can hear the widest possible dynamic range of the Ampico Model B.