

## **American Theatre Organ Society Restoration Guidelines**

### **PREFACE**

These guidelines establish that a true restoration returns a pipe organ to its original state of existence, or to some appropriate later state, through repair of original parts and replacement of missing parts with replications made from identical materials. This includes replacement of original perishable materials. Good theatre organ conservation or maintenance requires these same principles. The interpretation of these tenets and execution by, or under the direct supervision of, a competent restorer of theatre pipe organs (recognized as such by his peers), sympathetic to these Guidelines and the requirements of the installation, is the determinant of success in making a good musical instrument remain musical. Which theatre organs are appropriate for restoration is sometimes a perplexing question. Generally, any pipe organs built under the "unit" principles of an orchestral nature and installed originally for public entertainment purposes are candidates. Additionally, instruments which may have been augmented at a later date, but which are marked by great mechanical craftsmanship and musical integrity shall be possible candidates, although they may be more selectively appropriate. The basic requirements of a restored theatre organ are that it must work well and it must fit the musical needs of its users.

### **GUIDELINES**

1. To be regarded as Historic or Significant:
  - A. Any theatre organ which remains with all of its original parts in unaltered condition is considered Historic. Its significance increases with its age, its rarity, and condition. A complete organ, no matter how small, should never be broken up for parts.
  - B. Any substantially unaltered theatre organ which is an outstanding example of a particular style or builder's work, or is unique in some other way, such as the only remaining example of a particular builder's work is considered Historic.
  - C. The criteria may be applied to theatre organs which have been rebuilt or augmented if they represent important periods or milestones in the development of the theatre organ as a continually evolving instrument of modern performance. Such instruments are considered Significant and possibly Historic.
  - D. Instruments which have been so radically altered tonally and/or mechanically that they no longer represent the style of a period or the original builder may be regarded as having minimal historic importance or significance, even though the instrument may contain earlier, or potentially significant components. An example might be an organ assembled from parts of several famous theatre organs.
2. Historic or Significant theatre organs should be considered as worthy of preservation and restoration as any other fine antique or piece of art.
3. Restoration may be defined as the process of returning an organ to its original state, provided that sufficient original material remains to make this feasible. In some cases, a totally unaltered theatre organ may be in such basically good condition that simple repair and cleaning will

accomplish this. If a substantial number of original components are missing or in bad condition and must be made new or replaced, the process is more properly termed reconstruction.

- A. In general, all existing original components should be preserved and properly repaired. Severely damaged components may be replaced by new if incapable of being put into reliable working order, and missing parts replaced with exact duplicate parts of the same builder or reproductions made of the same construction and materials as the originals.
- B. Pipework should be carefully repaired by a professional pipemaker. Several pipe organ companies and supply houses are recognized for their ability to repair or replace theatre organ pipework. Replacements for missing pipes are to be made of the same material and construction details as the originals. The original means of tuning should be preserved wherever possible. An effort should be made to ascertain the original pitch and voicing. Voicing should be limited to the re-regulation of repaired pipes, correction of speech deficiencies which may have occurred through improper handling or deterioration with age. Re-regulation may also be dictated by acoustical changes to the original auditorium or installation in a new acoustical environment. Voicing of any replacement pipes should be in the style of remaining originals or other examples of the specific builder's work. Voicing and re-regulation as covered herein should be considered as Tonal Finishing and should include regulation of an instrument to fit its acoustical environment.
- C. Keyboards, stop controls, and other console components should be kept in, or restored to, their original condition. Key and stop action should always be restored in such a way that any new materials should conform to the operation and appearance of the original materials. Replacement of the stop actions, combination action, or relay system for purposes of augmentation or economics of rebuilding or maintenance shall be considered as major alterations. If major alterations are necessary in order to fulfill the requirements of the end use of the instrument as a contemporary musical instrument, it is recognized that solid-state combination actions or relay systems may be necessary to feasibly meet requirements of the installation. These non-historic devices may be necessary to provide a full range of organist control (General Pistons for example) or movability and multiple console locations (requiring cable disconnects.). In these situations, careful thought should be given to retaining the original stopkey actuation system. Original setter boards could be left installed for historic purposes, but carefully disconnected for reason of practicality. To be considered as a significant instrument, any use of solid-state, electric stop actions, computer control or MIDI devices must be designed and installed to equal the aesthetic appearance, feel, and functionality of original console controls, and their implementation. Rewiring with plastic insulated cable of approved type should be considered acceptable if necessitated by National Electric Code requirements which do not allow the use of original DCC wire when an organ is moved or modified.
- D. Windchests should be very carefully restored and checked for soundness. Materials and operating dimensions should be carefully checked and should correspond to those of the original builder. In cases where original materials were of an inferior nature or are no longer available, similar materials as used by other builders and recognized as suitable for the purpose may be substituted.

- E. The original style of chest should be restored using original techniques of design, construction, compatible materials and replacement parts. Replacement of pneumatics with electric actions or modular pneumatic actions of a different builder, even though the chest structure is retained, shall be regarded as inappropriate.
- F. Original regulators, wind trunks, and other components which determine the wind characteristics of a theatre organ should always be retained and releathered. If missing they should be replaced with new components conforming to the originals. Tremulants should be restored and adjusted. It is considered acceptable to improve winding by providing separate wind systems for offset basses or to provide additional separate complete wind systems where more than four or five ranks may have been winded together originally, or where ranks requiring different wind characteristics may have been originally winded from the same regulator for economic purposes. This is an artistic judgment and should be done under the consultation of a sympathetic restorer having experience in this area. Additional regulators, tremulants, and winding should be in the style of the original builder. It is considered acceptable to modify winding practices in order to achieve a musically acceptable tremulant in cases where the original winding proved to be unsuccessful. In a new installation, it is acceptable to use PVC or similar pipe, provided that care is given to appropriate aesthetic installation of this material. Schedule 40 pipe with mitered joints or 1/8" wall pipe (Schedule 20) with its fittings may be affixed to pipe organ components with appropriate pipe organ type flanges. If done by a careful workman, plastic pipe can be as functional and visually appropriate as galvanized or zinc wind lines.
- G. If the original console finish has been altered, an effort should be made to determine the original finish and restore it wherever feasible. In repairing damaged wood or veneer, care should be taken to match new wood to old.
- H. In instances where financial or artistic considerations dictate that some original part of the organ be removed or left unrestored, these should be carefully packed up and stored in a safe part of the building, properly labeled as to their significance. In cases where appearance is modified, such as in refinishing a console to fit the architecture of a new installation, photographs and accurate records of original color and detail should be kept. If the restoration or owner requires the inclusion of a self-playing device, any original such device should be restored if paper rolls exist. Modern devices may be wired to an original relay system and do not necessarily dictate disposal of the original relay system. If the requirements of a new installation dictate the replacement of the original relay system, the original relay should be retained for preservation.
- I. It is highly desirable that a restorer keep detailed records, measurements, photographs, etc. during the course of the restoration work. Recordings of the sound of individual ranks and pipes should be made using high quality recording equipment. Copies of such records sent to the ATOS Archives are always appreciated and may provide valuable information to future researchers and restorers.
- J. Restoration of historic or significant theatre organs should always be done by an experienced professional restorer (recognized as such by his peers) specializing in work on the particular type of organ involved, and never entrusted to unsupervised amateurs. Any work undertaken by volunteers or amateurs must be under the close supervision and direction of a qualified professional. For the sake of the owner's own financial investment as well as the preservation of the theatre organ, it is incumbent upon the

owners of historic or significant instruments to thoroughly investigate the reputation, previous work, and references of any prospective restorer. Quality of work, rather than price, should be the criterion in the choice of a restorer. A fine and historic organ may be irreparably altered or damaged by incompetent or unqualified workers, but a well-restored historic organ can be a musical treasure and a legacy to future generations.

*Based on the Guidelines for Conservation and Restoration adopted by the Organ Historical Society*

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