Protégé™
Two & Three-Manual Classical
L-122, L-226t/e, L-321t/e

ALLEN ORGAN COMPANY

For more than sixty years--practically the entire history of electronic organs-- Allen Organ Company has built the finest organs that technology would allow.

In 1939, Allen built and marketed the world's first electronic oscillator organ. The tone generators for this instrument used two hundred forty-four vacuum tubes, contained about five thousand components, and weighed nearly three hundred pounds. Even with all this equipment, the specification included relatively few stops.

By 1959, Allen had replaced vacuum tubes in oscillator organs with transistors. Thousands of transistorized instruments were built, including some of the largest, most sophisticated oscillator organs ever designed.

Only a radical technological breakthrough could improve upon the performance of Allen's oscillator organs. Such a breakthrough came in conjunction with the United States Space Program in the form of highly advanced digital microcircuits. In 1971, Allen produced and sold the world's first musical instrument utilizing digitally sampled voices!

Your organ is significantly advanced since the first generation Allen digital instrument. Organs with Renaissance™ technology are the product of years of advancements in digital sound and control techniques by Allen Organ Company. This system represents the apex of digital technology applied to exacting musical tasks. The result is a musical instrument of remarkably advanced tone quality and performance.

Congratulations on the purchase of your new Allen Organ! You have acquired the most advanced electronic organ ever built, one that harnesses a sophisticated custom computer system to create and control beautiful organ sound. Familiarize yourself with the instrument by reading through this booklet.

Contents

I. ORGAN STOPS

PITCH FOOTAGE

The number appearing on each stop, along with its name, indicates the "pitch" or "register" of the particular stop. Organs can produce notes of different pitches from a single playing key. When this sound corresponds to the actual pitch of the played key, the stop is referred to as being of 8' (eight foot) pitch; therefore, when an 8' stop is selected and Middle C is depressed, the pitch heard is Middle C. If the sounds are an octave higher, it is called 4' or octave pitch. If two octaves higher, it is called 2' pitch. A stop sounding three octaves higher is at a 1' pitch. Similarly, a 16' stop sounds an octave lower and a 32' stop two octaves lower.

Stops of 16', 8', 4', 2' and 1' pitch all have octave relationships, that is, these whole numbered stops all sound at octaves of whatever key is depressed. Non-octave pitches are also used in organs. Their footage numbers contain a fraction and they are referred to as *Mutations*. Among these are the *2-2/3' Nasard*, *1-3/5' Tierce*, *1-1/3 Quintflöte* and *2-2/3 Twelfth*. Because they introduce unusual pitch relationships with respect to the 8' tone, they are most effective when combined with other stops and used either in solo passages or in small ensembles of flutes.

TONAL FAMILIES

1. Flues

Organ tones divide into two main categories: *flues* and *reeds*. In pipe organs, flue pipes are those in which the sound is set in motion by wind striking directly on the edge of the mouth of the pipe. Flues include principal, flute and string tones. Compound stops and hybrid stops are variations within these three stop families.

The term "imitative" means that the organ stop imitates the sound of a corresponding orchestral instrument; for example, an imitative 8' Viola stop sounds like an orchestral viola.

Principal Voices:
      Principal, Diapason,
      Octave, Fifteenth,
      Quinte
	Characteristic organ tones, not imitative of any orchestral instruments. Usually present at many pitches and in all divisions. Rich, warm and harmonically well developed.

Flute Voices - *Open:*
      Harmonic Flute,
      Koppelflöte,
      flute mutation stops
Flute Voices - *Stopped:*
      Holzgedackt, Bourdon,
      Lieblichgedackt,
      Rohr Bourdon
	Lesser harmonic development than Principals. Open flutes are somewhat imitative; stopped flutes are not. Present at all pitch levels and in all divisions.

String Voices:
      Gamba, Salicional,
      Viole Celeste
	Mildly imitative and brighter harmonic development than Principals. Usually appear at 8' first; can be 4' & 16' ranks.

Compound Voices: Mixture, Fourniture	Voices produced by more than one rank sounding simultaneously. Best registered with other stops.
Hybrid Voices: Erzähler, Spitzflöte	Voices that combine the tonal characteristic of two families of sound, e.g., flutes and principals, or strings and principals.

2. Reeds

In *reed* pipes, a metal tongue vibrates against an open flattened side of a metal tube called a shallot. The characteristic sounds of different reeds are produced through resonators of different shapes. The family of reeds subdivides as follows:

Chorus or Ensemble: 　　Double Trumpet, Tromba, 　　Posaune, Clarion, 　　Bombarde *Solo:* 　　Hautbois, Clarinet, 　　Krummhorn	Voices of great harmonic development; some are imitative of their orchestral counterparts.

Your Allen Organ provides authentic, digitally sampled voices. They are protected by copyrights owned by the Allen Organ Company and are stored in memory devices, each having affixed to it a copyright notice; e.g., © 2003 AOCO, © 2001 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

II.　SPECIALIZED STOP CONTROLS

Some organ stop controls do not turn voices on/off, but instead turn on/off console functions such as outlined in this Section.

<u>*Note*</u>: *This Section includes a general listing of stop controls. Not all of these controls are included in every Allen Organ model.*

Swell Unison Off	Turns off stops in the Swell Division at their normal pitch, while allowing them to speak at octave and sub-octave pitch when the octave and sub-octave couplers are drawn.
MIDI on Pedal	Opens MIDI channel to the Pedal.
MIDI on Swell	Opens MIDI channel to the Swell
MIDI on Great	Opens MIDI channel to the Great.
MIDI on Positiv	Opens MIDI channel to the Positiv.
Tremulant	This stop provides a vibrato effect, natural in the human voice and wind instruments.
Tremulants Full	When activated with one or more of the organ's tremulants, it causes the tremulants to become much deeper than normal classical tremulants. Useful for Gospel music. Also known as "Vibrato".
Melody Coupler	When playing on the Great manual, the highest key played on the Great will automatically play all stops drawn on the Swell or Positiv *(based on the stop engraving)*, in addition to those drawn on the Great. By choosing a Swell or Positiv stop such as the Festival Trumpet, the melody played by the top note on the Great is accentuated.
Bass Coupler	Similar to the Melody coupler, however, in this case the lowest note played on the Great will also play all stops drawn in the Pedal Division. This allows voices normally played from the pedalboard to be heard without using the pedalboard.

Alternate Tuning	When activated, the organ's tuning will change to the alternate tuning selected from the Console Controller™. See the Console Controller Guide, later in this Manual, for more information relating to Alternate Tunings.
Swell Main Off *(Gt/Pd, Positiv, Swell)*	Used in conjunction with Antiphonal controls. This control disables the specified divisional Main speakers. If engaged and the Antiphonal controls are not engaged, the organ will not sound.
Swell To Antiphonal *(Gt/Pd, Positiv, Swell)*	Causes the organ to speak from the Antiphonal speakers. The organ will speak from both Antiphonal and Main speakers. When the divisional specific *Main Off* control is also drawn, the Antiphonal speakers will sound alone.
8' Great to Pedal	Connects all Great Division voices to the pedalboard at the pitch indicated on the Great stops.
8' Swell to Pedal	Connects all Swell Division voices to the pedalboard at the pitch indicated on the Swell stops.
8' Swell to Great	Intermanual coupler connecting most Swell stops to the Great manual at the Swell stop's indicated pitch.
8' Positiv to Great	Intermanual coupler connecting all Choir stops to the Great manual at the Positiv stop's indicated pitch.
8' Swell to Positiv	Intermanual coupler connecting most Swell stops to the Positiv manual at the Swell stop's indicated pitch.
Manual Transfer	Exchanges stops and Divisional Pistons in the Great and Positiv Divisions so the stops from the Great Division are played from the bottom Positiv Manual and the stops from the Positiv Division are played from Great manual.

III.   EXPRESSION & CRESCENDO SHOES

The organ's control pedals (called "shoes") control expression and crescendo.

❑ The left-most shoe expresses the Great, Pedal, and Positiv Divisions.

❑ The next shoe expresses the Swell Division.

❑ The right-most shoe is the Crescendo shoe. It is a master Crescendo for all divisions. It gradually adds stops as it is opened. Sequential green, yellow, and red lights on the organ's bar graph indicator display relative pedal position. Indiscriminate use of the Crescendo, in lieu of careful registration, should be avoided.

The Crescendo B thumb piston is associated with the Crescendo shoe. Crescendo B accesses a second set of Crescendo registrations that can be different from the standard Crescendo registrations. See the Console Controller™ Guide later in this Manual for more information relating to changing the registration settings of this secondary Crescendo.

IV.   TUTTI I and TUTTI II

The Tutti I and II pistons are sets for full organ registrations. Tutti II has a larger, louder registration, than Tutti I. The Tuttis are turned on and off by pressing manual thumb pistons TUTTI I or TUTTI II. The pistons are "toggled" meaning that pressing them a second time reverses the ON or OFF setting of the corresponding Tutti. Only one Tutti can be turned ON at a time. Pressing the other Tutti piston that is not turned ON will turn OFF the Tutti that was ON and turn ON the Tutti that was OFF. The *Cancel* piston button will turn OFF the Tuttis.

Red signal lights illuminate when Tutti I or II is in operation. These lights are labeled and located on the Bar Graph Indicator. A second set of Tuttis can be programmed by the organist. Like the Crescendo, indiscriminate use of Tuttis should be avoided. See the Console Controller™ section later in this Manual for more information relating to changing secondary Tuttis settings.

V.   SETTING PISTONS

SETTING GENERAL PISTONS

Your Allen Organ's capture system lets you set stop registration combinations in each of its memories. Each Allen Organ model has different piston layouts to accommodate organ size. The maximum number of available capture memories is 8.

To set a capture combination:

❑   First, select and depress the stops you wish to save.

❑   Press and hold the SET Piston.

❑   Press and release the desired GENERAL piston.

❑   Finally, release the SET Piston.

Remember, the General pistons are customarily set from soft to loud using graduated stop combinations. The pistons you have set "remembers" the registration combinations that you have assigned to each of them. Each time a General piston is pressed, the registration assigned to it is activated. You can change stop registration combinations at any time by repeating the above procedures.   For more advanced information on setting capture combinations in multiple memories see the Console Controller™ section later in this manual.

SETTING DIVISIONAL PISTONS

If your Allen Organ has Divisional pistons in addition to General pistons. The piston setting process in each case is the same as SETTING GENERAL PISTONS described above. Only Swell stops can be set with the Swell Divisional pistons, Great stops with the Great Divisional pistons.

The *MIDI on Pedal*, *MIDI on Swell, MIDI on Great* and *MIDI on Positiv* stops can be set on either Divisional or General pistons. The *Swell to Pedal*, *Great to Pedal* and *Positiv to Pedal,* as well as *Swell to Great* and *Positiv to Great* couplers can only be set on General Pistons. These rules can be modified if you wish to reconfigure the pistons. See the Console Controller™ section later in this Manual for more information relating to reconfiguring pistons.

SETTING TOE PISTONS (STUDS)

Stop registration combinations may be set and drawn by toe studs, as well as by pistons. Toe Studs, located on each side of the Expression and Crescendo shoes, are set in the same manner as thumb pistons. The Toe Studs on the left are duplicates of General Pistons. The Toe Studs on the right are Pedal Divisional Toe Studs.

To set a Pedal Divisional Toe Stud...

     ❑ Select the desired Pedal stops.

❑ Hold the SET button, and momentarily press the desired Pedal Toe Stud.

❑ Finally, release the SET button.

When you set a General Piston, that combination is set automatically on the Toe Stud of the same number. That is, setting General Piston 3 also places its combination on General Toe Stud 3.

<u>Note</u>: The organ's capture system is not operable until about six seconds after the organ is turned on.

RECALL PISTON

The "R" Piston recalls the last combination set prior to using any General or Divisional piston.

VI. ARTISTIC REGISTRATION
(Trained organists might not need to review this section.)

Organ registrations fall into two broad categories: solo combinations and ensembles. A solo combination is one in which a melody is played on one keyboard, the accompaniment on another keyboard, and the pedal often provides a light bass line. Almost any stop or combination of stops will sound good as a solo voice. A contrasting tone quality should be chosen for the accompaniment, so that the accompaniment is softer than the solo voice. The pedal stops must provide a foundation for the sound without covering it.

Most 8' reed stops make interesting solo voices. The addition of a 4' flute or a flute mutation (e.g., Nasard or Tierce) to a reed such as the Trompette colors the sound further and increases its volume slightly. Adding an 8' flute to a reed will add body to the sound.

Flutes can be used alone or in combinations as solo voices. One special combination of flutes that creates an appealing and historically significant solo combination is the Cornet (pronounced kor-NAY). The Cornet is created by using Swell flute stops at these pitches: 8', 4', 2-2/3', 2' and 1-3/5'. This combination was used widely in Baroque organ music, but it is just as appropriate for some modern music. Useful variations of the Cornet may be achieved by eliminating the 4', the 2', or both.

When choosing stops for a solo voice, it is not always necessary to include an 8' stop. For example, since the 4' flute has a tone quality different from that of the 8' flute, the 4' flute can be used as an independent solo voice. By playing the solo an octave lower than written, the notes will sound at the correct pitch. In similar fashion, a 16' stop can be selected and the notes played an octave higher than written. Tonal variety will be gained, because each stop has its own tone color.

For accompaniment, the most desirable voices are the 8' flutes or strings on each manual. Celestes often make effective accompaniments. The correct choice depends on the volume of the solo tone (a soft solo voice requires the softest accompanimental stop), the element of contrast, and the location of the solo stop. A bright, harmonically rich solo reed, for example, can be accompanied by either a string or flute, but the flute will often contribute greater interest because of its greater contrast.

Seek a "natural" balance of volume between solo and accompaniment. This will be especially easy to accomplish if the solo and accompaniment are under separate expression.

TWO-MANUAL SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

Swell: Viola Pomposa 8' or Viole 8', Viola Celeste 8' or Voix Celeste 8'
Great: Chimes
Pedal: Lieblich Gedackt 16' or Lieblich Bourdon 16', Swell to Pedal
Play solo on Great.

SOLO CORNET COMBINATION

Swell: Rohr Bourdon 8' or Gedackt 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2',
                Tierce 1-3/5'
Great: Harmonic Flute 8' or Flute Celeste II 8'
Pedal: Lieblich Gedackt 16' or Lieblich Bourdon 16', Flute 8'
Play solo on Swell.

FLUTE SOLO

Swell: Viola Pomposa 8' or Viole 8', Viola Celeste 8' or Voix Celeste 8'
Great: Harmonic Flute 8'
Pedal: Lieblich Gedackt 16' or Lieblich Bourdon 16', Swell to Pedal
Play solo on Great.

TRUMPET SOLO

Swell: Trompette 8'
Great: Diapason 8' or Principal 8', Octave 4', Fifteenth 2'
Pedal: Principal 16' or Bourdon 16', Octave 8', Choralbass 4' or Super Octave 4'
Play solo on Swell.

THREE-MANUAL SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

Swell: Viole 8', Voix Celeste 8'
Great: Chimes
Positiv: Holz Gedackt 8', Swell to Positiv 8'
Pedal: Bourdon Doux 16', Swell to Pedal 8'
Play solo on Great and accompaniment on Swell or Positiv.

SOLO CORNET COMBINATION

Swell: Rohr Bourdon 8', Flûte 4', Nasard 2-2/3', Octavin 2', Tierce 1-3/5'
Great: Viole 8'
Positiv: Holz Gedackt 8'
Pedal: Bourdon Doux 16', Gedackt 8'
Play solo melody on Swell and accompaniment on Great or Positiv.

TRUMPET SOLO

Swell: Trompette 8'
Great: Principal 8', Viole 8', Octave 4', Positiv to Great 8'
Positiv: Holz Gedackt 8', Koppelflöte 4'
Pedal: Contre Violone 32', Bourdon 16', Octave 8', Positiv to Pedal 8'
Play solo melody on Swell and accompaniment on Great or Positiv.

These few combinations demonstrate basic techniques of solo registration. In creating registrations of your own, remember these three simple rules:

1. Seek tonal contrast between solo and accompaniment.

2. Be sure the solo is louder than the accompaniment.

3. Choose a solo whose character is appropriate to the specific piece.

These few combinations demonstrate basic techniques of solo registration. In creating registrations of your own, remember these three simple rules:

1. Seek tonal contrast between solo and accompaniment.

2. Be sure the solo is louder than the accompaniment.

3. Choose a solo whose character is appropriate to the specific piece.

ENSEMBLE REGISTRATIONS

Ensemble registrations involve groups of stops that are played together, usually, but not always, with both hands on one keyboard. They are characterized by compatibility of tone, clarity, and occasionally power. Such registrations are used in hymn singing, choir accompaniments, and much of the contrapuntal organ literature.

Ensembles are created by combining stops. Two factors to be considered are: tone quality and pitch. Ensembles begin with a few stops at 8' pitch and expand "outward" in pitch as they build up. New pitches are usually added in preference to additional 8' stops.

Ensembles are generally divided into three groups or "choruses":

> **The Principal Chorus**, the most fully developed, is represented in most divisions of the organ and at pitches from 16' (Diapason) to high mixtures. The Principal chorus is sometimes called the narrow-scale flue chorus, a reference to the relative thinness of principal pipes in relation to their length.

> **The Flute Chorus** is also well represented with a diversity of stops at various pitches. Generally speaking, the Flute chorus is composed of less harmonically developed tones, and is smoother and of lesser volume than the Principal chorus. The Flute chorus is sometimes called the wide-scale flue chorus, owing to the generally "fatter" look of Flute pipes as compared to Principals.

> **The Reed Chorus** includes those reed tones designed to be used in the ensemble buildup. Not all reed voices are ensemble tones. An Hautbois, for example, is usually a solo stop. The various Trumpets, Clairons, Posaunes, etc., are ensemble voices that add brilliance, power, and incisiveness to the sound.

> **The Swell Reed Chorus** of Basson 16' and Trompette 8' represents an entity important to French organ music and the full ensemble of the organ. These stops create a "blaze" of harmonic richness that tops off the Principal and Flute choruses.

Another special ensemble combination important in French music is the **Cornet**, which was discussed in the section on solo registration. This combination can be used with the chorus reeds and mutations to create the "Grand Jeu." The Cornet is also useful in Romantic ensembles to add weight and thickness to the sound.

Here are typical ensemble combinations for the Swell, Great and Positiv manuals:

GREAT

1. Harmonic Flute 8', Spire Flute 4'
2. Harmonic Flute 8', Spire Flute 4', Fifteenth 2'
3. Principal 8', Octave 4'
4. Principal 8', Octave 4', Fifteenth 2'
5. Principal 8', Octave 4', Fifteenth 2', Mixture IV
6. Principal 8', Harmonic Flute 8', Octave 4', Spire Flute 4', Fifteenth 2', Mixture IV

SWELL

1. Rohr Bourdon 8', Viole 8'
2. Rohr Bourdon 8', Viole 8', Flûte 4'
3. Rohr Bourdon 8', Viole 8', Flûte 4', Octavin 2'
4. Rohr Bourdon 8', Viole 8', Geigen Octave 4', Flûte 4', Octavin 2'
5. Rohr Bourdon 8', Viole 8', Geigen Octave 4', Flûte 4', Octavin 2', Plein-jeu IV
6. Rohr Bourdon 8', Viole 8', Geigen Octave 4', Flûte 4', Octavin 2', Plein-jeu IV, Trompette 8'

POSITIV

1. Holzgedackt 8'
2. Holzgedackt 8', Koppelflöte 4'
3. Holzgedackt 8', Koppelflöte 4', Prinzipal 4'
4. Holzgedackt 8', Koppelflöte 4', Prinzipal 4', Oktav 2'
5. Holzgedackt 8', Koppelflöte 4', Prinzipal 4', Oktav 2', Mixture III

The use of the *Swell to Great* and/or *Positiv to Great* coupler allows these separate ensembles to be combined on the Great manual. For example, the Great #5 and Swell #4 registrations coupled together and played on the Great combine to form a nice round hymn combination.

The Pedal ensemble is created in much the same way as the manual ensembles, starting at 16' pitch instead of 8'. Be careful that the volume of the pedals is not greater than that of the manuals. Although the manual to pedal couplers are useful in bringing clarity to the pedal line, especially on softer registrations, avoid the temptation to rely constantly on one or two 16' stops and a coupler. Please note that the softest stops and flute mutations are normally not used in ensembles.

FULL ORGAN

Due to the immense capabilities of your Allen Organ, every stop and coupler on the instrument could be used simultaneously. In good registration practice, however, the organist would not haphazardly put on every stop on the instrument. For best results, listen and include only those stops whose contribution to the fullness and brilliance of the ensemble you can hear when they are added. Eliminate soft stops and solo stops that make no audible contribution.

This short treatment barely scratches the surface of organ registration. For those interested in gaining further insight into this vital area of organ playing, we recommend the following resources:

Audsley, George Ashdown. *Organ Stops and their Artistic Registration.*
Hialeah, FL: C.P.P. Belwin, 1985.

Irwin, Stevens. *Dictionary of Pipe Organ Stops.* 2nd ed.
New York: Macmillan Books, 1983.

Cherrington, Dr. Sally. *A Church Organist's Primer. Volumes I, II, & III on a single DVD.*
Allen Organ Company.
AOC P.N: 031-00092.

VII. TRANSPOSER

The organ can perform the difficult task of transposing, while allowing the organist to play in the noted key. Operation of the Transposer is controlled by the Transposer function, found in the Console Controller. Neutral (no transposition) position is indicated by the number "0" in the Console Controller's display.   To shift the music to a different key, position the cursor on the transposer value (press the **CURSOR** button on the Console Controller) and then turn the **ROTARY DIAL** in either direction. The key can be raised a maximum of five half steps and can be lowered a total of seven half steps.

A RED INDICATOR LIGHT COMES ON WHENEVER THE TRANSPOSER IS OUT OF NEUTRAL ("0") POSITION. This is to warn the organist that the instrument is not ready to play in the same key as when in the Neutral position. It is a good habit to operate the organ with the Console Controller drawer open (if applicable).

Why Transpose?

❑ Because a song's range does not always suit the vocal range of a particular singer. By adjusting the Transposer, the piece can be sung more comfortably and effectively.

❑ Because some instruments are non-concert pitch. A trumpet in B^b, for example, can play the same music as the organist, if the Transposer knob is set two half steps lower.

❑ Because hymn singing can sometimes be improved by a more favorable key selection.

VIII. ACOUSTIC PORTRAIT™

Acoustic Portrait™ — Quantum™ instruments are the only digital organs to bring the science of sampling to acoustics! Ordinary electronic reverb is a synthetic imitation of acoustics "applied to" the sound, not created as an integral part of it. Acoustic Portrait™ produces the real thing in exacting detail!

Acoustic Portrait™ begins with a sampling process using impulse responses that measure an actual room's acoustic properties. These measurements are then stored in the organ's computer memory. Through an advanced real-time mathematical process called convolution, the acoustics of the sampled room actually become an integral part of the organ's sound, producing a noticeably smoother, more natural result than synthetic reverb. Allen engineers have recorded the acoustics of cathedrals and other acoustically desirable buildings throughout the world. With advanced processors (DSP) and patented low-latency convolution algorithms, Acoustic Portrait™ reproduces the true acoustic response of each original room with stunning realism! Each Quantum™ organ features 10 different Acoustic Portraits™, ranging from intimate rooms to cavernous cathedrals.

The switch labeled ACOUSTIC PORTRAIT™ on the Console Controller™ must be ON to hear the selected Acoustic Portrait™. The overall Acoustic Portrait™ gain can be changed. The selected Acoustic Portrait™ gain, measured in dB (decibels), is shown in the Console Controller™ window. The range of control for each Acoustic Portrait™ is from +6dB to minus 35dB. Minus 35dB is the least amount of gain. +6dB is the maximum amount of gain.

When changing to a different Acoustic Portrait™, the new selection will automatically load in 3 seconds.

Note: This Allen Organ contains convolution know-how and algorithms licensed from Lake Technology Limited, Australia.

IX.   ACOUSTIC DIMENSION™

Acoustic Dimension™ provides dedicated "presence projection" speakers installed on the organ console to enhance the effect of Acoustic Portrait™. These speakers include their own separate amplification system. A separate volume adjustment is included to control the amount of Acoustic Dimension. Since Acoustic Dimension operates in tandem with the Acoustic Portrait, if the Acoustic Portrait switch is in the OFF position, the Acoustic Dimension speakers will not produce any sound.

X.   QUAD SUITE™ / STOPLIST LIBRARY™

QuadSuite™ provides the versatility of four separate and distinct organs in one console. Choose from Classic Allen, English Cathedral, Cavaillé-Coll, or Schlicker for the stop list that perfectly complements your music. Organs with the Stoplist Library™ option also include Aeolian-Skinner, Arp Schnitger and Orchestral specification. These specifications are comprised of unique pipe samples from the world's finest examples of each major organ-building style. The touch of a button changes the entire organ to the stop list of your choice! To change Voice Suites refer to the Quad Suite™ / Stoplist Library™ section of the Console Controller Guide later in this manual.

XI.   REAL XPRESSION™

Your Allen Organ is equipped with Real Xpression™. Real Xpression™ not only changes the organ's volume, but also it's response. This is the same thrilling feeling you get when you hear a pipe organ really open up. Real Xpression™ faithfully recreates how expression shutters affect a pipe organ's sound. The Real Xpression™ is always active and may be adjusted to suit the room's acoustics the organ is installed in. Please contact your Allen Organ representative to complete adjustments.

XII. INSTALLATION, VOICING, AND CARE OF THE ORGAN

INSTALLATION

Wherever your organ may be situated, careful installation is a prerequisite to successful results. Your Allen representative is well qualified to guide you in planning the finest possible installation. Factory assistance in planning the installation is also available and may, in fact, be sought by your Allen Organ representative.

VOICING

Your organ presents unprecedented accuracy in the scaling and voicing of each note of every stop. Should you require that these parameters be changed, your Allen Organ representative is able to help make such changes. Final adjustments in scaling and voicing involve procedures that are best left to an expert. These adjustments normally are a part of installation, and once done, should not require changes. If the organ is moved to a new location or major changes are made to the acoustical properties of the room the organ resides in, the instrument may need to be tonally finished again.

MEMORY SYSTEM

The memory for the capture system and other miscellaneous settings on your Allen Organ utilizes revolutionary "flash" technology for storage. This allows capture settings and related items to be retained in memory when the organ is switched off or unplugged. No batteries are ever required which means that regular battery maintenance, normally required every few years, has been eliminated.

CARE OF THE ORGAN

Your Allen Organ constitutes a major advance in long-term maintenance-free operation. There is no regular maintenance procedures required and, therefore, no periodic maintenance schedules to be observed.

Reasonable care will keep the instrument looking beautiful for years to come. The wood surfaces may be cleaned using a soft cloth dampened with lukewarm water. A mild solution of lukewarm water and dish detergent may be used to remove fingerprints, etc. Polish dry with a soft cloth. Do not use wax, sprays or oils on the finish. Satin finished surfaces will take on a semi-gloss appearance when waxed and will eventually become yellowed.

Keys and stop tablets should be cleaned in the following manner: Use two clean cloths. Immerse one in clear, lukewarm water and wring it thoroughly damp dry. Loosen the dirt with this cloth, and then polish immediately with the dry cloth. Do not use soap or detergent on keys or stop tablets.

To polish the clear music rack, a furniture wax polish may be sprayed on a soft dry cloth and rubbed on the front of the music rack. Keep the wax off of the wood finishes. This will help keep the music rack clear.

You have purchased a remarkable organ that not only faithfully reproduces the organ traditions of the past but also anticipates the innovations of the future. Should you have questions that are not addressed in this manual, please do not hesitate to contact your local Allen Organ representative. Welcome to the family of satisfied Allen Organ owners!

XIII. SAFETY INFORMATION

<u>USA ONLY</u>

CAUTION

Never plug the instrument into any current source other than 110 to 120 volts, 50/60 Hertz alternating current (AC). A verified grounded outlet is essential to proper operation and protection of the instrument. Proper polarity should be checked with an AC circuit analyzer before connecting the organ.

Do not change the cable plug or remove the ground pin or connect with a two-pole ground lift adapter.

If you are in doubt about your electrical connection, consult your local electrician or power company.

In facilities where circuit breakers are turned off between uses (as for example, between worship services), the circuit breaker affecting the organ console AC power should have a guard installed to prevent it from accidentally being switched off.

It is important that you read and comply with all instructions and labels that might be attached to the instrument.

XIV. CONSOLE CONTROLLER™ GUIDE

> **Note:** This Guide is designed to serve various Console Controller™ software versions. As a result, there may be variations in the way a particular Console Controller™ operates.

INTRODUCTION

The Console Controller™ is an interface that controls many organ functions and a variety of MIDI functions. The Console Controller is pictured below and includes a window that displays functions, one at a time, as well as an integrated Rotary Dial with push buttons used to make selections. Each window function is described in detail in this booklet.

A.   BASIC OPERATION

1. Start-Up Sequence

Upon turning on the organ's main power switch the Console Controller™ will display **"Allen Organ Co. Copyright (©) 20xx"** in its display window for several seconds.

During this start-up period <u>do not</u> press any keys, pedals, stops or move the expression shoe(s). You may also notice that the power LED will blink momentarily as well as the stop indicators. The organ's computer is booting up during this time period and this is considered a NORMAL condition. The organ will be ready to play when the Main window function appears on the Console Controller™ and the power LED glows steadily.

The Main window function is the window that indicates the current capture memory as well as the current Transposer value. The capture memory value is on the first line at the upper left of the display. The Transposer value is located on the right side of the display. The Transposer value actually encompasses both lines.

```
MEM: 1                0
```

WARNING: If a warning is displayed in the start-up sequence, contact your authorized Allen representative immediately.

2. Advancing Through the Windows

The Allen Organ operating software contains many settings that are user-programmable. Each setting can be programmed via the Console Controller's™ display. These settings are divided up into many window functions. To advance the Console Controller's™ display to the next window function, press the **CURSOR** button until the blinking **CURSOR** is over the abbreviation **MEM** in the display. Once the cursor is positioned, slowly turn the **ROTARY DIAL** clockwise, the display will advance to the next window function. When the second window function is displayed, rotate the **ROTARY DIAL** counter-clockwise, the window will return to the Main window display function. Turn the **ROTARY DIAL** counter-clockwise again and the last window function will display. The window functions "wrap around" for ease of accessing parameters quickly.

Remember: You may return to the *Main Window* function at any time by pressing and holding the **SET** piston. Then, while holding **SET**, press the **CANCEL** piston, then release both pistons. This procedure will always return the Console Controller's display to the *Main Window* function.
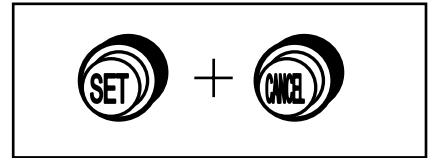
Repeat this procedure to advance through all of the windows. The last window function will display:

> UNLOCK ALL
> CAPTURE MEMORIES

3. Selecting the Capture Memories

The *Main Window* function must be displayed *(See Section A-2).* Locate the **CURSOR** button on the face of the Console Controller™. Press this button to move the cursor to the first number to the right of the abbreviation **"MEM"** on the display. Once the cursor is positioned on the memory number, turn the **ROTARY DIAL** clockwise to select the memories sequentially from **MEM 1 to 8.** Or, turn the **ROTARY DIAL** counter-clockwise to select the memories sequentially from **MEM 1 to MEM 8** *(see Note 2 below)*, **to MEM 7.**

The capture memories allow you to save different registrations on each piston/toe piston. This means **General Piston 1** on **MEM-1** may be totally different from **General Piston 1** on **MEM-2, MEM-3, etc.**

Note 1: Standard model Allen Organs include a factory set of registration examples stored on each piston of the last available capture memory. You may re-program factory registrations to your own registrations. To restore the factory registrations to the original settings, please see **RESTORING FACTORY SETTINGS** referenced later in this manual.

Note 2: The number of available memories is dependent on the Allen Organ model you have. There may be as many as 8 memories in the organ.

4. Saving Registrations Using Pistons and Toe Studs

A **registration** is any combination of stop tabs and/or drawknobs. These registrations can be stored (remembered) by the organ's capture memory system. The pistons and toe studs/toe pistons provide a way to make changes quickly from one registration to another.

General Pistons are those that affect all stops and drawknobs on the organ. These are located on the left side, underneath the keyboards on the piston rails.

Divisional Pistons (not available on all models) affect only those stops associated with the particular manual above them. They are located in the center of the piston rails below the keyboards.

Toe Pistons/Studs (not available on all models) are located just above the pedalboard. Toe Studs to the left of the expression shoes duplicate the General Pistons (GEN-10, GEN-9, GEN-8, etc.). Those to the right of the shoes are Pedal Divisional Pistons (PED-1, PED-2, PED-3, etc.).

Saving a Registration to a General Piston

The *Main Window* function in the Console Controller™ drawer must be displayed (*See Section A-2*). Select any memory number (MEM-1, MEM-2 ... MEM-8, etc.)*(see section A-3 and Note 2 above regarding capture memory levels)*; however, for this example use MEM-1. Next, select the desired stops/drawknobs you want General Piston 1 to remember. Once the stops/drawknobs are drawn, press and hold the **SET** piston, the press and release General Piston 1. Finally, release the **SET** piston. General Piston 1 will now store in memory the stops/drawknobs you selected.

Note: *General Pistons are often set gradually from soft to loud with General 1 the softest and General 10 the loudest.*

Saving a Registration to a Divisional Piston

The *Main Window* function must be displayed, (*See Section A-2*). Select a memory (MEM-1, MEM-2, etc.)*(see section A-3 and Note 2 above regarding capture memory levels)*. Select the division stops/drawknobs you want the associated Divisional piston to remember. While holding the **SET** piston, press and release a **Divisional Piston** you want to save to. Finally, release the **SET** piston. The Divisional Piston pressed will now store the stops and/or drawknobs selected.

Saving Intermanual Couplers/Reversibles

The Intermanual coupler's, (e.g., Swell to Great, Great to Pedal, etc.) settings can be remembered only by the General pistons, not Divisional pistons unless Divisional pistons are reconfigured. (s*ee Section B-2).*

Reversible pistons (not available on all models) may also control Intermanual couplers. These pistons reverse the condition or "toggle" the associated stop. If a stop is ON when the associated Reversible piston is pressed, that stop will turn OFF. If the stop is OFF when pressed, it will turn ON.

To Save Registrations using Toe Pistons/Toe Studs

Toe Pistons/Toe Studs can store registrations similar to General and Divisional pistons. Toe Pistons allow stored registrations to be addressed using feet instead of hands.

Note: Setting a General Toe Piston/Stud will change the registration for BOTH the toe piston and the corresponding hand piston, i.e. General Piston 10 is identical to General Toe Piston 10, while General Piston 6 is identical to General Toe Piston 6.

5. **Locking Capture Memories**

All memories, except Memory 1, may be locked or unlocked individually to prevent unintentional or unauthorized changes to that memory's contents. Memory 1 remains unlocked as a convenience to visiting or substitute organists. The Console Controller must display the *Main Window* function in the drawer (*See Section A-2).* Select a capture memory to lock. After registrations are stored to pistons, (*See Section A-4)* choose three digits you can easily remember (e.g., 1-2-3, 0-0-7, etc.). Use General Piston 1 for the 1 digit and General Piston 10 for the zero digits. In the Console Controller™ locate the **MEMORY** button (The button is labeled **MEM** in some versions of the Console Controller™). Press and hold the **MEMORY** button. While holding **MEMORY**, press the General Pistons that correspond to your three-digit code. Release the **MEMORY** button and an "L" will appear next to the MEM number in the display, indicating this memory is now locked.

```
MEM: 2L        0
```

As long as the memory remains locked, the piston registrations on that memory cannot be changed. Other organists will still be able to use the locked registrations; however they cannot be changed. Remember; choose an easy to remember three-digit code.

6. **Unlocking Capture Memories Using Your Code**

The *Main Window* function must be displayed (*See Section A-2).* To unlock a memory, select the capture memory to be unlocked. Remember, locked capture memories will have an "L" behind the number. Once a capture memory is selected, press and hold the **MEMORY** button in the Console Controller™. While pressing **MEMORY**, enter the same three-digit code that was used to lock this memory (*See Section A-5),* using General Pistons 1 through 10 (Piston 10 = zero). Release the **MEMORY** button. The "L" will disappear, indicating that this memory is now unlocked.

```
MEM: 2         0
```

7. Unlocking All Capture Memories

Advance to the 'UNLOCK ALL CAPTURE MEMORIES' window function *(see section A-2)*.

```
┌─────────────────────────┐
│       UNLOCK ALL        │
│    CAPTURE MEMORIES     │
└─────────────────────────┘
```

Press and hold the **MEMORY** button on the Console Controller™ and press General Pistons 2-5-5. Release the **MEMORY** button. The display will automatically return to the *Main Window* function. All capture memories are now unlocked, including those memories other organists may have locked. Registrations remain unchanged.

8. Stop Action and Capture Self Check

This feature self-checks the capture system. It tests to insure each stop is functioning properly and controllable by the capture system. Advance to the 'SELF CHECK' window function *(see Section A-2)*.

```
┌─────────────────────────┐
│       SELF CHECK        │
│          OFF            │
└─────────────────────────┘
```

To start the self-check, press the **CURSOR** button on the Console Controller to position the flashing cursor on the word "OFF". Turn the **ROTARY DIAL** to start the Self Check function. The display will indicate that the Self Check function is now "ON". The stop tablets will illuminate on and off consecutively (drawknobs out and in). *If a stop does not illuminate or move, notify your Allen service technician.* During the testing process you can interrupt and return to the *Main Window* function at any time by turning the **ROTARY DIAL** until "OFF" appears in the display or by using the **SET** and **CANCEL** pistons to return to the *Main Window* function *(see Section A-2)*.

9. QuadSuite™ (Protégé organs) and Stoplist Library™ (Quantum organs)

QuadSuite™ and Stoplist Library™ provide the versatility of multiple distinct organs in one console. Allen Protégé organs with QuadSuite™ allow you to choose from American Classic, English, French, or Baroque stop lists. Allen organs with Stoplist Library™ provide a choice of Classic Allen, Aeolian-Skinner, English Cathedral, Orchestral, Cavaillé-Coll, Schlicker and Arp Schnitger specifications. These specifications are comprised of unique pipe samples from the world's finest examples of each major organ-building style. The touch of a button changes the entire organ to the stop list of your choice!

Quad Suite™ Display Window *(Protégé models except L5, L10)*

The Quad Suite™ Display Window is located on the left hand panel above the Console Controller™ near the power switch.
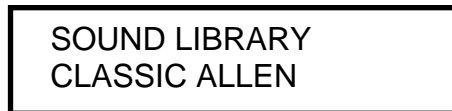
Stoplist Library™ Display Window

The Stoplist Library™ Display Window is located on the left hand panel above the Console Controller™ near the power switch.

Selecting Voice Suites with the Console Controller™

While holding the **SET** piston, press the **CANCEL** piston. This will return the Console Controller to the *Main Window*. The cursor will flash at the current capture memory level. Press the **CURSOR** button. The cursor will now flash under the first "M" of [MEM].

Rotate the **ROTARY DIAL** clockwise until [SOUND LIBRARY] appears on the top line.

```
SOUND LIBRARY
CLASSIC ALLEN
```

Press the **CURSOR** button. The cursor will move to left end of the bottom row. The bottom row indicates the currently selected voice set.

Rotate the **ROTARY DIAL** until the suite name you want appears.

```
SOUND LIBRARY
ENGLISH CATHEDRL
```

While holding the **SET** piston, press the **MEMORY** button (The button is labeled **MEM** in some versions of the Console Controller™).

The top row of the CONSOLE CONTROLLER LCD will indicate that the suite is loading. The Quad Suite™/Stoplist Library™ Display Window (if installed) will also flash the new name of the loading suite.

```
LOADING SUITE
ENGLISH CATHEDRL
```

When loaded (in about three seconds) flashing will cease and any stops that were ON will be cancelled.

```
SOUND LIBRARY
ENGLISH CATHEDRL
```

The organ is now ready to be played in the new voice suite.
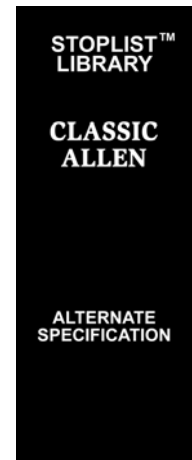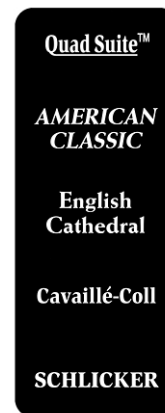
The default voice suite at turn-on is American Classic. This selection is not user settable.

To view and/or print the complete stop lists, visit the Allen Organ Company website:
www.allenorgan.com

10. Acoustic Portrait™ Settings (Quantum, and Protégé organs)

There are 10 available Acoustic Portrait™ pallets to select from. The rocker switch labeled ACOUSTIC PORTRAIT™ in the Console Controller™ drawer must be ON to hear the Acoustic Portrait™ selection. The Acoustic Portrait™ gain (volume) can be adjusted. The gain is indicated in dB (decibels). The Acoustic Portrait™ gain range is adjustable from +6dB to minus 35dB. Minus 35dB is the least amount of gain while +6dB is the most available.

To change the active Acoustic Portrait™ or adjust the Acoustic Portrait™ gain, advance to the 'ACOUSTIC PORTRAIT' window function *(see Section A-2)*. The window will display the name of the currently selected Acoustic Portrait™ pallet on line 1 with the Gain setting on line 2.

```
Pipe Chamber
  GAIN = -8dB
```

To change the Acoustic Portrait pallet, press the **CURSOR** button on the Console Controller until the flashing cursor is positioned on the Acoustic Portrait pallet name. Turn the **ROTARY DIAL** on the Console Controller to select a different pallet name.

Note: The change will not be immediate. You must wait 3 seconds for the newly selected Acoustic Portrait pallet to load. The display will indicate that the newly selected pallet is loading:

```
Large Cathedral
  GAIN = -8dB
```
↓
```
LOADING PORTRAIT
  GAIN = -8dB
```
↓
```
Large Cathedral
  GAIN = -8dB
```
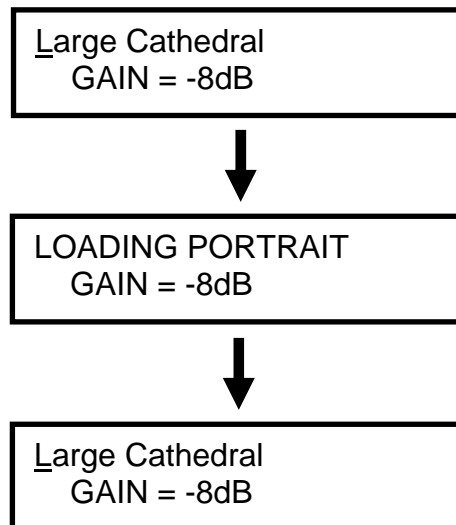
If the organ is equipped with a Quad Suite™/Stoplist Library™ Display Window, it will also flash while the new pallet is loading. Once the newly selected pallet is loaded the display will change back to the Acoustic Portrait™ pallet name and the Quad Suite™/Stoplist Library™ Display Window will stop flashing.

Acoustic Portrait Gain (Volume) Adjustment:

To change the Acoustic Portrait Gain setting, press the **CURSOR** button on the Console Controller until the flashing cursor is positioned on the Acoustic Portrait gain setting. Turn the **ROTARY DIAL** on the Console Controller to change the gain setting. Gain adjustment range is from -35dB to +6 db. -35db is the least amount of gain while +6 dB is the maximum amount of gain.

```
┌─────────────────────────┐        ┌─────────────────────────┐
│  Large Cathedral        │        │  Large Cathedral        │
│     GAIN = -8dB         │        │     GAIN = -3dB         │
└─────────────────────────┘        └─────────────────────────┘
```

11. Transposer

The organ can perform the difficult task of transposing, while allowing the organist to play in the noted key. Operation of the Transposer is controlled by the Transposer function, found in the *Main Window* of the Console Controller. Neutral (no transposition) position is indicated by the number "0" in the Console Controller's display.

```
┌─────────────────────────┐
│  MEM: 2                 │
│                  0      │
└─────────────────────────┘
```

To shift the music to a different key, press the **CURSOR** button until a box appears around the transposer value.

```
┌─────────────────────────┐
│  MEM: 2            ┌───┐ │
│                   │ 0 │ │
│                   └───┘ │
└─────────────────────────┘
```

The key can now be raised a maximum of five half steps or lowered a total of seven half steps by turning the **ROTARY DIAL** in either direction.

A RED INDICATOR LIGHT COMES ON WHENEVER THE TRANSPOSER IS OUT OF NEUTRAL ("0") POSITION. This is to warn the organist that the instrument is not ready to play in the same key as when in the Neutral position. It is a good habit to operate the organ with the Console Controller drawer open (if applicable).

B. ADVANCED OPERATION

1. Selecting an Alternate Tuning

Advance to the 'ALTERNATE TUNING' window function *(see section A-2).*

```
ALTERNATE TUNING
xxxxxxxxxxxxxxx
```
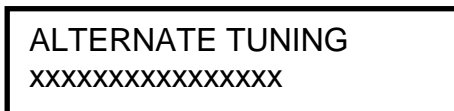
(The current Alternate Tuning will appear on line 2 of the display)

Allen Organs offer seven *Alternate Tunings,* plus one standard tuning. These tunings are accessible from the Console Controller™. To select an *Alternate Tuning,* press the **CURSOR** button on the Console Controller until the flashing cursor is positioned on the Alternate Tuning name *(line 2)*. Turn the **ROTARY DIAL** to select one of the seven available tunings. The organ's overall tuning will be changed to the selected *Alternate Tuning*, by actuating the drawknob, or stop tablet engraved ALTERNATE TUNING.

The selected tuning will remain the *Alternate Tuning* until:

❑   Either another *Alternate Tuning* in the Console Controller is selected,

❑   Or, the stop/drawknob is turned off.

Any time the ALTERNATE TUNING stop is off, the organ is tuned to a standard general purpose tuning. *Note: The remaining tunings are of historical interest, but are limited in application to modern music. When selected, it is normal for some intervals to sound out of tune.*

2. Configuring Divisional Pistons and General Pistons

This procedure enables pistons to control stops/drawknobs that are normally not controlled by those pistons.

Note: The Piston Configuration is common to all capture memories.

For example:

(1) Divisional Pistons can be configured to respond like General Pistons.

(2) Divisional Pistons normally *will not remember* the settings (on/off) of the Intermanual Couplers, (i.e., Swell to Great, Great to Pedal). Divisional Pistons can be configured such that the Divisional Pistons will control the Intermanual Couplers' settings.

(3) A Divisional Piston can be configured so that it will only affect the Tremulant stops in all divisions.

(4) A General Piston can be configured to respond like a Divisional Piston.

Note 1: Changing the configuration of a piston *will not affect the registrations* previously remembered by that piston prior to its reconfiguration.

Note 2: Reconfiguring a piston does not change its MIDI channel assignment.

Configuring Divisional Pistons to become General Pistons:

Advance to the 'CONFIGURE PISTONS' window function *(see section A-2).*

```
CONFIGURE
PISTONS
```
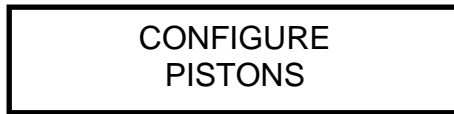
Select *all* of the stops and drawknobs. Any stops/drawknobs not engaged, will not be able to be registered later. While holding the **SET** piston, press the Divisional piston that you want to respond like a General Piston. Return to the *Main Window* to store General registrations to the Divisional pistons you pressed *(See Section A-4).*

To add the SWELL TO GREAT Intermanual Coupler to the Great Divisional Pistons:

Advance to the 'CONFIGURE PISTONS' window function *(see section A-2).*

```
CONFIGURE
PISTONS
```

Select *all* of the Great Division stops/drawknobs and the SWELL TO GREAT intermanual coupler. Press and hold the **SET** piston. While holding **SET**, press the Divisional Piston(s) you wish to have the Swell to Great coupler register on. Return to the *Main Window* and save registrations to these Divisional Pistons, using combinations of stops/drawknobs and the SWELL TO GREAT coupler.

To reconfigure a Divisional Piston so it controls only the Tremulant stops/drawknobs:

Advance to the 'CONFIGURE PISTONS' window function *(see section A-2).*

```
CONFIGURE
PISTONS
```

Select *all* of the organ's Tremulant Stops/Drawknobs. Press and hold the **SET** piston. While holding **SET,** press a Divisional piston. Return to the *Main Window*. You can use this reconfigured divisional piston to control just the Tremulant Stops without affecting any other stops.

The use of the CONFIGURE PISTONS function is only limited by one's creative imagination.

Remember: The above examples only determine which stops/drawknobs will become accessible by the reconfigured pistons; *they will not change previously saved registrations.*

To Restore Original Factory Piston Configuration Settings:

See Section B-4 for the window function that displays:

```
RE-INITIALIZE
PISTON CONFIG.
```

3. Modifying the Crescendo and Tuttis

The original factory settings include a second set of Tuttis and a second set of Crescendo settings that can be altered to suit the organist's needs.

Advance to the 'CRESC/TUTTI B' window function *(see section A-2)*. There are two modes available in this window function, "SET" and "SHOW".

SET Mode: Set mode allows the organist to create or edit a Crescendo B sequence.

SHOW Mode: Show mode allows the organist to view the Crescendo B sequence using the **ROTARY DIAL** on the Console Controller or by using the Crescendo Shoe.

To toggle between modes press the **CURSOR** button on the Console Controller until the flashing cursor is positioned on the mode name *(Set or Show)*. Turn the **ROTARY DIAL** to change modes. The display will indicate which mode is activated.

```
CRESC/TUTTI B
SET     step --
```

```
CRESC/TUTTI B
SHOW     step --
```

To view the stops/drawknobs registered on the second (B) TUTTI I or TUTTI II, press either TUTTI. This will cause all associated stops/drawknobs programmed on the TUTTI selected to turn on.

Setting a Crescendo B Sequence:

The Crescendo includes 22 positions evenly dispersed along the Crescendo shoe's range of travel. To set a Crescendo B sequence, advance to the 'CRESC/TUTTI B' window function *(see Section A-2)*. Press the **CURSOR** button until the flashing cursor is positioned on the word "step" on line two. Turn the **ROTARY DIAL** to change the step positions.

```
CRESC/TUTTI B
SET     step --
```

The word "step xx" indicates that you are now editing or viewing *(dependant if SET or SHOW mode is active)* the Crescendo B sequence. The "step xx" indicator will display either "step --" to indicate position 0 *(Crescendo shoe off)* or any step between 1 and 22. As in previous software versions, any stops/controls associated with a particular Crescendo step will move to indicate their status **when using the Crescendo Shoe only**. While in 'SET' mode, turning the **ROTARY DIAL** will not cause the stops/controls to indicate their status.

To set a Crescendo B sequence, turn the **ROTARY DIAL** to select step 1. Adjust the stops to a suitable registration for step 1. *(Note: You can play the organ at any time to hear your selected registration)* Press and hold the **SET** piston, then while holding **SET** press the **MEMORY** button in the Console Controller. "DONE!!" will briefly flash on the first line of the display to indicate the step has been programmed. Release both the **SET** piston and **MEMORY** button. Step 1 is now programmed. Repeat the above procedure to set all available crescendo step positions.

Important! DO <u>NOT</u> USE THE CRESCENDO SHOE TO MOVE BETWEEN STEPS <u>WHILE PROGRAMMING</u> CRESCENDO B STEP POSITIONS. Crescendo B data in other step positions will cause the current stop registration on the stopboard to change, i.e. a blank step position would turn all stops off or another subsequent step position with data *(not yet re-programmed)* will change the current stop registration on the stopboard. When programming Crescendo steps <u>always</u> use the **ROTARY DIAL** to move between steps.

To copy the current Crescendo step's stop registration to another step, use the **ROTARY DIAL** on the Console Controller to select a different step. Press and hold the **SET** piston, then while holding **SET** press the **MEMORY** button on the Console Controller. The display will briefly flash the word "DONE!!" on the first line. Release both the **SET** piston and **MEMORY** button. The previous step has now been copied to the step position indicated in the display.

Editing a Crescendo B Sequence

Advance to the 'CRESC/TUTTI B' window function *(see section A-2)*. To enter the "SHOW" mode, press the **CURSOR** button until the flashing cursor is positioned on the mode name in the Console Controller. Turn the **ROTARY DIAL** until the word "SHOW" appears in the display. Press the **CURSOR** button until the flashing cursor is positioned on the word "step" in the display. As before, the display will indicate which step is currently activated. Use the **ROTARY DIAL** to move through the step positions one by one while observing the stops/controls. The stops/controls will change accordingly as to which step position is currently active.

To make a change to a step position you must re-enter the "SET" mode by pressing the **CURSOR** button until the flashing cursor is positioned on the mode name "SHOW". Turn the **ROTARY DIAL** until the word "SET" appears in the display.

Note: The step position indicator will remain at the current step position that was selected in "SHOW mode. Adjust the stop registration for that step.

Important: DO <u>NOT</u> MOVE THE CRESCENDO SHOE AT THIS TIME.

Once changes to the registration are complete, save the step by pressing and holding the **SET** piston. Then, while holding **SET** press the **MEMORY** button in the Console Controller. The display will briefly flash the word "DONE!!" on the first line. Release both the **SET** piston and **MEMORY** button. The step is now saved to the step position indicated in the display. To continue viewing steps you must return to "SHOW" mode by pressing the **CURSOR** button until the flashing cursor is positioned on the word "step" in the display. Turn the **ROTARY DIAL** to view additional crescendo steps.

Shortcut: While in "SET" mode you can view the Crescendo B sequence without having to enter the "SHOW" mode by using the Crescendo shoe. However, it is important that <u>all</u> Crescendo step positions be programmed before doing this. By depressing the Crescendo shoe, the stops/controls will move accordingly as to the step displayed. You may play the organ while moving the crescendo shoe to hear the Crescendo sequence.

Manually disabling Celestes and Tremulants:

To manually disable the celestes and/or tremulants at any of the available Crescendo B steps positions, advance to the 'CRESC B CUTOUT' window function *(see section A-2)*.

```
┌─────────────────────────────┐
│  CRESC B CUTOUT             │
│  LEVEL: DISABLED            │
└─────────────────────────────┘
```

Press the **CURSOR** button until the flashing cursor is positioned on the 'LEVEL' setting located on line two of the display. If the LEVEL setting is set to DISABLED, turn the **ROTARY DIAL** counter-clockwise to select a specific step position on which the cutout is to occur. Otherwise, turning the **ROTARY DIAL** either direction will raise or lower the step position number. To disable the Crescendo B cutout, turn the **ROTARY DIAL** clockwise until the word "DISABLED" appears.

Note: Registrations and/or the memory settings for the PISTONS are not affected by resetting the Crescendo B.

Play Organ Using Secondary Crescendo B

The *Main Window* function must be displayed *(see Section A-2)*. Press the **CRES. B** piston. On the bar-graph display, the green CRESC-B indicator will illuminate. Push open the Crescendo shoe and play.

Editing Tutti B Registrations

Advance to the 'CRESC/TUTTI B' window function *(see Section A-2)*. The display will automatically revert to "SET" mode when pressing either Tutti piston if in the "SHOW" mode.

To view a Tutti registration, press either Tutti piston. The display will indicate which Tutti was selected.

```
┌─────────────────────────────┐
│  CRESC/TUTTI B              │
│  SET     step --            │
└─────────────────────────────┘
```

You may now view/edit the Tutti registration. To save any changes press and hold the **SET** piston. Then, while holding **SET**, press the **MEMORY** button in the Console Controller. The display will briefly flash the word "DONE!!" on the first line. Release both the **SET** piston and **MEMORY** button. The new Tutti registration is now stored as the Tutti number indicated in the display.

Playing the organ Using Secondary Tuttis

The *Main Window* function must be displayed *(see Section A-2)*. Press the **CRES. B** piston. On the bar-graph display, the green CRESC-B indicator will illuminate. Press the **Tutti** piston of your choice. The bar-graph's red Tutti indicators will light to indicate which Tutti is active. The Tutti pistons function like General Pistons and customarily have large registrations. However, the registered stops/drawknobs will not move to their ON positions when a Tutti piston is selected.

4. Restoring Original Factory Settings

Advance to the 'RE-INITIALIZE' window function *(see Section A-2).* The window will display...

```
RE-INITIALIZE
 Piston Config.
```

Certain functions can be restored to the original factory settings. They are:

```
RE-INITIALIZE
 Piston Config.
```

```
RE-INITIALIZE
 MIDI Settings
```

```
RE-INITIALIZE
 Capture Mem. XX
```

```
RE-INITIALIZE
 Crescendo B
```

```
RE-INITIALIZE
 Tutti/Ventil B
```

The Piston Configuration re-initialization includes all the Configure Piston settings. The MIDI Settings re-initialization includes all MIDI program change mapping. The Capture Memory re-initialization will reset the last available capture memory to factory default registrations. The Crescendo B and Tutti/Ventil B re-initialization will reset those functions back to factory default settings.

Each of these functions can be restored individually. To select the factory settings you wish to restore press the **CURSOR** button until the flashing cursor is positioned on the command function which is location on the 2nd line of the display. Press and hold the **MEMORY** button on the Console Controller. Then, while holding the **MEMORY** button, press General Pistons 2-5-5 in sequence. The display will briefly flash the word "WORKING" on the first line of the display to indicate that the current command function is being re-initialized.

Notice the term <u>VENTIL B</u> on the TUTTI/VENTIL B initialize window. This is a function that is used on an Allen custom organ. On most Allen Organs you can disregard the term VENTIL B as it does not apply. If you are playing a custom model, the RE-INITIALIZE procedure described above will return the secondary TUTTI B as well as the VENTIL B settings to the original factory settings.

Note: The Crescendo B functions are applicable only to organs with a Crescendo Pedal.

5. Sostenuto

Sostenuto is an Italian word meaning "sustained." Unlike the sustain switch, which sustains any notes played as long as the sustain switch is held on, the *Sostenuto* switch sustains only the notes being held at the very moment it is pressed. Sostenuto is actuated by the organ's Sustain switch (which is optional on some organs) located to the left of the Great/Pedal expression shoe. The Sostenuto function must first be enabled before using it.

Advance to the 'SOSTENUTO' window function *(see Section A-2)*.

```
      SOSTENUTO
       GT = ON
```

The LCD will indicate what keyboard Sostenuto is assigned to and show the current on/off status. The keyboard that Sostenuto is assigned to cannot be changed, but the on/off status can. To turn the Sostenuto function on or off, press the **CURSOR** button until the flashing cursor is positioned on the status value (on/off). Turn the **ROTARY DIAL** to enable or disable the Sostenuto feature. Sostenuto will affect the internal voices of the organ as well as an external MIDI sound device connected to the organ's MIDI output. Keep in mind that the Sustain function will operate in tandem with the Sostenuto function.

Note 1: Check your specific MIDI instrument's owner's manual to verify that it will receive and/or respond to MIDI Sostenuto messages.

Note 2: This function is not applicable to the Allen Protégé L-9.

6. **Global Tuning**

   Global Tuning allows the organist to adjust the pitch of the entire organ. This tuning adjustment allows the organ to be tuned to another instrument more easily. Tuning can be adjusted either ± 100 cents from A-440 pitch. To adjust Global Tuning, advance to the 'GLOBAL TUNING' window function *(see Section A-2)*.

```
   GLOBAL TUNE:
            0
```

   Press the **CURSOR** button until the flashing cursor is positioned on the current tuning value. Turn the **ROTARY DIAL** in either direction to raise or lower the pitch of the organ. The Global Tuning adjustment will be retained in memory when the organ is powered off.

7. **Hymn Player™**

   The Allen Hymn Player™ automatically plays over 150 traditional hymns. Advance to the 'HYMN PLAYER' window function *(see section A-2)*:

```
    Press <CURSOR>
    for Hymnplayer
```

   Press the **CURSOR** button.
   Scroll to the desired hymn title using the **ROTARY DIAL**. (Hymns are arranged in alphabetical order.)

```
    AMightyFortress
    T+00 V=2 I- P +0
```

Prior to playing the hymn, the following four parameters may be adjusted:

Tempo: Increase or decrease the tempo, if desired. Press **CURSOR** to move the cursor to **T** and scroll up or down by increments of 10 using the **ROTARY DIAL**.

Verses: Selects the number of verses. Press **CURSOR** to move the cursor to **V** and scrolling up or down using the **ROTARY DIAL**.

Introduction: An introduction can be played at the beginning of the hymn. Press **CURSOR** to move the cursor to **I** and select (**+**) for yes, or (**-**) for no introduction using the **ROTARY DIAL**.

Pitch: Raise or lower the pitch, if desired. Press **CURSOR** to move the cursor to **P** and scrolling up or down by half-steps using the **ROTARY DIAL**.

Press the **MEMORY** button to start playback of the hymn.

Press the **CANCEL** piston on the organ console to stop the hymn at any time.

To exit the Hymn Player™ and return to the *Main Window* of the Console Controller™, press and hold the **SET** piston while pressing the **CANCEL** piston.

Note: You can change the organ's registration at anytime during playback, either manually or by using pistons. However, the registration will return to the hymn player default at the beginning of each verse.

C. MIDI FUNCTIONS

This section explains the MIDI capabilities of your Allen Organ. Knowledge of this section is **not** required for everyday use of the organ, normal service playing, or use of Allen SmartMIDI™ devices. This information's usefulness will ultimately be determined by your needs, along with the type and capabilities of any external MIDI devices you choose to use--e.g., sequencers, voice/sound modules and external MIDI keyboards. The MIDI topics covered by this manual are limited in scope. You need to understand the terms MIDI IN, OUT and THRU and their basic functions.   To increase your understanding of MIDI you will need to read books that describe how to use MIDI.

Note: You must also consult the owner's manual that covers the external MIDI device(s) you are using for more details of their operation.

1. Standard MIDI Channel Assignments

These are the Allen Organs' standard MIDI channels settings:

Classical Organs		
Channel	**Organ Division**	
1	=	Swell
2	=	Great
3	=	Pedal
4	=	Choir
5	=	Solo
6	=	Not Used
7	=	G1/G2
8	=	General

Theatre Organs		
Channel	**Organ Division**	
1	=	Great
2	=	Accomp
3	=	Pedal
4	=	Solo
5	=	Acc. 2nd T
6	=	Not Used
7	=	T1/T2
8	=	General

Note: The Base Channel always resets to Channel 1 whenever the organ is turned on *(see section C-5).*

2. Selecting Program Change Modes, Viewing Program Numbers or General Midi Sound Names

Program change modes establish how MIDI program changes will be sent from the organ when a piston is pressed and what the resulting display will be in the Console Controller window. Once a particular program change mode is selected, the organ will retain this same program change mode (even when the organ is turned off) until a new program change mode is selected.   These three mode options determine how the organ sends program change information to MIDI devices.

Selecting a Program Change Mode

Advance to the 'PROG CHG' window function *(see Section A-2).* It will display:

```
PROG CHG:   USER
DISPLAY: NUMBERS
```

Press the **CURSOR** button until the flashing cursor is positioned on the Program Change mode value. Turn the **ROTARY DIAL** to change and select either "Preset", "User" or "No" modes. **Note**: You must understand how to operate and when to use each of these modes before you change them!

"P" is for PRESET MODE**: This mode causes the organ to send a program change number equal to the piston number that is pressed. The General Pistons will send program changes 1-10 on MIDI Channel 8, the organ's General Piston control the channel. The Divisional Pistons (1-6) for each division will send program changes 1-6 on the channels as shown on the previous page. For example, Swell Piston 1 will send Program Change 1 on Channel 1. Great Piston 2 will send Program Change 2 on Channel 2, etc., (*See Section C-6*).

"U" is for USER MODE**: In this mode the organ is capable of sending any program change number on any piston that will select voices, change banks, or change program "patch" numbers on another MIDI device. Any MIDI program change number from 1 through 128 can be assigned to any General or Divisional Piston (blank or no digit may also be selected). Any MIDI bank switch number between 0 and 127 can be assigned to any Divisional Piston. As in PRESET mode, General Pistons will send program change information on MIDI Channel 8. Divisional Pistons will send information on their respective MIDI channels. *(See Section C-6)*

"N" is for NO MODE**: With this mode selected, NO information is transmitted or received. This mode cancels transmission and reception of all program change information.

3. **General MIDI Sound Names or Program Numbers**

The Console Controller™ window can display MIDI program changes as either MIDI program numbers or as General MIDI sound names. Press the **CURSOR** button until the flashing cursor is positioned on the Display mode value. Turn the **ROTARY DIAL** to change and select one of the two modes.

General MIDI Sound Names

With General MIDI mode selected, the 'PROG CHG' window will display:

```
PROG CHG:  USER
DISPLAY:GEN MIDI
```

Make sure the word USER is selected as the mode and that GEN MIDI has been selected following the word DISPLAY. You must advance to the next window function then press a piston to view the sound names for any General MIDI device. The next window will display:

```
MIDI PROG CHANGE
```

As you press a General or Divisional Piston, the Console Controller™ window will now display the General MIDI sound name that corresponds to the MIDI program change selected. For example, press General Piston 1. The Console Controller™ will display the MIDI program change names.

Note: In some cases, the General MIDI sound name will be abbreviated in the Console Controller window.

```
┌─────────────────────────────┐
│  GEN 1   BANK   0            │
│  P:Ac Grand Piano           │
└─────────────────────────────┘
```

Program Numbers:

With NUMBERS selected as the display mode, the 'MIDI PROG CHANGE' window function will display:

```
┌─────────────────────────────┐
│  GEN 1    BANK   0           │
│  P:  1                      │
└─────────────────────────────┘
```

With PRESET selected as the program change mode, press a General or Divisional Piston. The Console Controller™ window will display the same MIDI program change number as the associated piston pressed. For example, pressing General Piston 1 will display:

The MIDI program change number will be displayed in PRESET mode, no matter if NUMBERS or GEN MIDI is displayed. You must select USER mode to view the GENERAL MIDI sound names. You must also select USER mode to assign MIDI program change numbers larger than 10 (the largest number of any piston).

```
┌─────────────────────────────┐
│  GEN 1    BANK   0           │
│  P:XXX                      │
└─────────────────────────────┘
```

With USER selected as the program change mode, along with NUMBERS as the display mode, you will be able to assign "- - -" (OFF) or any program change number from 1 through 128 to any General or Divisional Piston.

There may be a number or "- - -" following the "**P:**". This "**P:**" represents the Program Change Number and does not stand for PRESET in this window. If there is "- - -" following "**P:**" this means that the "ZERO" Program Change Number will be sent from the associated piston.

To change the program change numbers, press the **CURSOR** button until the flashing cursor is positioned on the program change number value. Turn the **ROTARY DIAL** to change the program number value.

Note: The Allen Organ uses MIDI Program Change Zero as a message for "MIDI OFF."

Important! MIDI Program Change 1 corresponds to the General MIDI sound "Acoustic Grand Piano." Some MIDI devices do not use Program Change zero for MIDI OFF. Consequently, Program Change Zero, ("- - -" *in the window*) when sent from the organ, will correspond to Program Change 1 on those MIDI devices. Program Change 1 sent from the Allen will correspond to Program Change 2 on those MIDI devices etc.

4. **Assigning MIDI Program Changes to Organ Pistons**

This function allows the organist to select any voice from an external MIDI device by pressing any General or Divisional piston on the organ. The "USER" program change mode <u>must</u> be selected *(See Section C-2)*. Advance to the 'MIDI PROG CHANGE' window function *(see Section A-2)*.

```
┌──────────────────────────────┐
│                              │
│      MIDI PROG CHANGE        │
│                              │
│                              │
└──────────────────────────────┘
```

For this example press the Swell Division Piston 1. The display will change to:

```
┌──────────────────────────────┐
│  SW 1    BANK  0             │
│  P:  1                       │
└──────────────────────────────┘
```

The LCD will display the last piston pressed and the MIDI program number being sent by that piston. Press the **CURSOR** button until the flashing cursor is positioned on the program change number value. Turn the **ROTARY DIAL** to change the program number value.

```
┌──────────────────────────────┐
│  SW 1    BANK  0             │
│  P:128                       │
└──────────────────────────────┘
```

A program number of (1-128) will be transmitted on the channel assigned to the division from which you selected the piston; in this case, the Swell Division on Channel 1. (*See Section C1*).

Note: Reconfiguring a Divisional Piston to become a General Piston will <u>NOT</u> change the MIDI channel it transmits on. Also, refer to the program number chart in the owner's manual of the external MIDI device you are using. Once you have assigned a MIDI program change number to a piston, that number will remain assigned to that piston even if the organ has been turned off.

Important! Once MIDI program change programming is complete the user must exit the piston programming window function, by using the **SET** and **CANCEL** pistons *(see Section A-2)*, for any changes to take effect.

5. **MIDI Bank Selecting**

Many MIDI devices permit access to a variety of sounds in addition to the General MIDI sounds. Normally these additional sounds are stored in groups called BANKS. A BANK in MIDI terminology means a group of voices or sounds. There are two levels of banks. One level offers two choices, High Bank and Low Bank. Each of these, High Bank and Low Bank, has as sub-groups other level of banks, BANK Numbers.
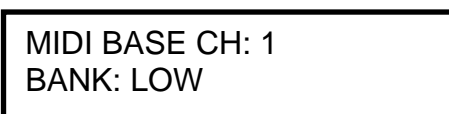
MIDI devices can have as many as 128 sounds/voices per BANK Number. There are also 128 BANK Numbers (Ø through 127). Therefore it is possible that a MIDI device that is only High Bank or Low Bank compatible. With 128 BANK Numbers, each could contain up to 128 voices/sounds, for a total of 16,384 sounds. Think of these BANK Numbers as floors or stories in a tall building. Each floor would contain 128 rooms and each room could then contain 128 voices.

There are MIDI devices that are High Bank and Low Bank compatible. It would be possible for these MIDI devices to have as many as (128 X 128 X 2 = 32,768 voices/sounds) 128 voices/sounds in each of the 128 BANK Numbers, in each of the High and Low Banks. Most MIDI devices do not use all of the locations available. It would be very expensive as well as difficult to remember the address for each sound location. There are also MIDI devices that offer only General MIDI sounds/voices. These General MIDI devices may operate using High Bank or Low Bank, but only the sub-group Ø Bank Number is used to store the 128 General MIDI sound settings. Allen Organs are able to access any of the Banks and therefore can communicate with all MIDI devices.

Note: You MUST know the capabilities of, and understand how to operate, the MIDI device you intend to use with any organ!

Selecting High Bank or Low Bank:

Advance to the 'MIDI BASE CHANNEL' window function *(see Section A-2)*.

```
MIDI BASE CH: 1
BANK: LOW
```

Press the **CURSOR** button until the flashing cursor is positioned on the BANK select value. Turn the **ROTARY DIAL** to select either HIGH or LOW Bank priority.
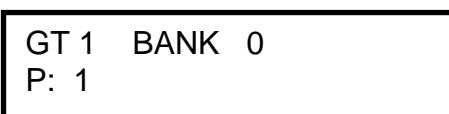
Selecting MIDI Bank Numbers:

Bank Numbers are assignable in the same way that MIDI Program Numbers are (*See Section C-3)*; except that you must only use Bank numbers on the Divisional Pistons. You MUST have USER mode selected before assigning Bank numbers! Advance to the 'MIDI PROG CHANGE' window function *(see Section A-2)*.

```
MIDI PROG CHANGE
```

For this example press the Great Division Piston 1. The display will change to:

```
GT 1   BANK  0
P:  1
```

The window displays the last piston pressed, the MIDI BANK Number, and the program number being sent by that piston. Press the **CURSOR** button until the flashing cursor is positioned on the MIDI Bank number value. Turn the **ROTARY DIAL** to select or change the MIDI BANK number value. The BANK number (Ø-127) will be transmitted on the channel assigned to the division from which you selected the piston, in this case, the Great Division on Channel 2 (*See Section C-1)*. Also, refer to the Bank selection/program number chart in the owner's manual for the external MIDI device you are using.

Once you have assigned a MIDI BANK Number to a piston, that number will remain assigned to that piston even if the organ has been turned off.

Important! Once MIDI Bank change programming is complete the user must exit the piston programming window function, by using the **SET** and **CANCEL** pistons *(see Section A-2)*, for any changes to take effect.

6. Changing the MIDI Base Channel

This function allows you to change the setting of the MIDI Base Channel. The Base Channel is a reference point to establish the positioning of the other 15 MIDI channels. On Allen Organs, the Base Channel equals the Swell Division's channel of transmission (i.e., if the Base Channel = 1, then the Swell Channel = 1, if the Base Channel = 2, then the Swell Channel = 2, etc.). Moving the Base Channel allows you to shift the organ's range of MIDI channels, this is helpful when reassigning an external MIDI device from one organ division to another.

Important! The Base Channel always resets to Channel 1 whenever the organ is turned on.

Advance to the 'MIDI BASE CH' window function *(see Section A-2)*.

```
MIDI BASE CH:  1
BANK: Low
```

Press the **CURSOR** button until the flashing cursor is positioned on the MIDI Base Channel value. Turn the **ROTARY DIAL** to change the MIDI Base Channel value. All functions associated with a particular division will transmit and receive on its assigned channel. For example, MIDI Channel 1 is normally assigned to the Swell Division and the Swell Manual. Therefore, keying velocity or on/off messages, and program changes (Swell Divisional Pistons) will be transmitted and received on Channel 1 (*See Section C-1 for Allen MIDI Channel Assignments*).

If the Base Channel is reset to 2, in the display all of the channels will shift higher by one. Now, Swell = 2, Great = 3, Pedal = 4, Choir = 5, and the General Pistons = 9. **Note:** MIDI Channel numbers will wrap, i.e. channel numbers go only to 16 and will then repeat to 1. FOR NORMAL USE, DO NOT USE A BASE CHANNEL LARGER THAN 9.

7. MIDI Expression Settings

Advance to the 'MIDI EXPRESSION' window function *(see Section A-2)*.

```
MIDI EXPRESSION
POLY-VOLUME
```

There are four modes for transmitting expression data via MIDI. To select an expression mode, press the **CURSOR** button until the flashing cursor is positioned on the expression setting value (line 2) of the display. Turn the **ROTARY DIAL** to select one of the four different expression modes.

Note: The default expression mode setting is always POLY-VOLUME.

POLY-VOLUME — This is the normal expression mode setting where the expression data is distributed among the appropriate MIDI channels. This is the proper mode to use when recording to, or playing back from, a sequencer.

POLY-VELOCITY — This setting should be selected if you are using a percussion-type voice from a sound module or an external MIDI keyboard. For example, if a digital piano sound were played from the organ keyboard through MIDI Channel 1, the piano could be made to sound more realistic. By opening the Swell expression shoe, the piano strings would appear to be struck harder than when the Swell pedal was in the closed position.

Note: This mode setting should only be used if your Allen Organ does <u>not</u> contain velocity sensitive keying (OST).

Note: In POLY-VELOCITY mode, all expression information is sent in key velocity form. Changes in velocity will occur only when a new key is struck. Consequently, if you change the position of the Swell pedal after a key is struck there will be no change in velocity until a new key is struck. Use this mode only when a velocity-sensitive external MIDI device is connected. If this mode is selected when recording to a sequencer, the expression on the organ will not function when playing back from the sequencer.

SWELL-VOLUME — This setting causes MIDI expression data to be sent only on the Swell MIDI channel. Some early sequencers can only interpret one volume message.

NO EXPRESSION — No MIDI expression (volume) data sent.

8. **MIDI Sustain Kick Switch**

A lever located to the left of the Great/Pedal expression shoe (optional in many organs) and controlled by the organist's foot, operates MIDI sustain. This function can be assigned to any one of or all of the instrument's manuals. Advance to the 'MIDI SUSTAIN' window function *(see Section A-2)*.

```
┌─────────────────────────────┐
│        MIDI SUSTAIN         │
│         GT = OFF            │
└─────────────────────────────┘
```

To select an organ keyboard (manual), press the **CURSOR** button until the flashing cursor is positioned on the manual abbreviation. Turn the **ROTARY DIAL** to select an organ keyboard. Then, to turn the MIDI Sustain function on/off on the selected manual, press the **CURSOR** button until the flashing cursor is positioned on the MIDI Sustain value. Turn the **ROTARY DIAL** to turn the selected manual **ON/OFF. OFF** will not allow MIDI Sustain messages to be transmitted, **ON** will allow MIDI sustain messages to be transmitted on a given keyboard (manual) or MIDI channel. For example, when a **PIANO** voice in an external MIDI device (voice module) is selected and the MIDI sustain for that given MIDI channel (division) is turned **ON,** and the foot controlled sustain lever is actuated, the piano sound will slowly decay.

9. **Organ Local Off**

Organ Local Off is a function that allows the user to "virtually" disconnect the organ's keyboards, pedalboard and pistons from the organ's tone generation and capture system. In essence, the organ is transformed into a sophisticated multi-manual MIDI controller. To enable/disable the Organ Local Off function, advance to the 'ORGAN LOCAL OFF' window function *(see Section A-2)*.

To enable/disable the Organ Local Off function, press the **CURSOR** button until the flashing cursor is positioned on the Local Off control value. Turn the **ROTARY DIAL** to change the enable/disable value.

```
┌─────────────────────┐     ┌─────────────────────┐
│   ORGAN LOCAL OFF   │     │   ORGAN LOCAL OFF   │
│     = DISABLED      │     │     = ENABLED       │
└─────────────────────┘     └─────────────────────┘
```

Note: When Organ Local Off is enabled, the MIDI stops do <u>not</u> need to be on to play the external MIDI device(s).

10. Transferring and Saving Capture Memory Data to a Sequencer

CAPTURE MEMORY refers to all of the piston registrations on all available memories, plus all positional secondary Crescendo "B" settings and the secondary Tutti "B" settings. With this operation, the organist can copy and save all of this stored information to a digital MIDI sequencer. Advance to the 'CAPTURE MEMORY SAVE' window function *(see Section A-2).*

```
┌─────────────────────┐
│   CAPTURE MEMORY    │
│        SAVE         │
└─────────────────────┘
```

Set your sequencer to the record mode and begin recording as you normally would. Press and hold the **MEMORY** button in the Console Controller™. While holding **MEMORY**, press General Pistons 2-5-5 in sequence. The Capture Memory information will be transmitted to the sequencer. During the memory data transfer process the window will display:

```
┌─────────────────────┐         ┌─────────────────────┐
│ sending.            │   ➤     │ sending.            │
│ piston config       │         │ capture memory      │
└─────────────────────┘         └─────────────────────┘

┌─────────────────────┐         ┌─────────────────────┐
│ sending.            │   ➤     │ sending.            │
│ cresc & tuttis      │         │ program changes     │
└─────────────────────┘         └─────────────────────┘

            ┌─────────────────────┐
            │      DONE!!         │
            └─────────────────────┘
```
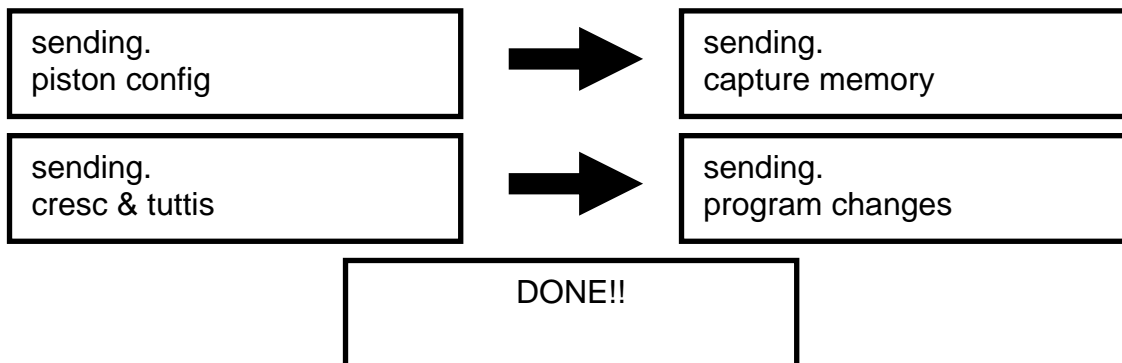
The 'dot' behind the word 'SENDING' on line one of the display will move as the data is transmitted.

Note: Depending on the number of capture memories this procedure can take an extended period of time, please be patient. Once completed, a copy of the Capture Memory information will exist in the sequencer and the original information will be retained in the Console Controller™ memory.

11. Return Capture Memory Data from a Sequencer to the Organ

To replace previously recorded Capture Memory information into the organ from your sequencer, simply press "Play" on the sequencer and the recorded capture data will automatically be transmitted to the organ. You must have a MIDI cable connected from the OUT port of the sequencer to the IN port of the Allen Organ. It does not matter what window function the Console Controller displays.

Note: The Capture Memories must be unlocked *(see section A-6)* before you press "Play" on the sequencer, allowing the organ's available memories to receive capture information. It is a good idea to first save whatever is stored in the organ's memory because, it will be erased by this procedure.

```
RECEIVING DATA
..
```

Note: The 'dot' on line two of the display will move as data is received.

12. Transmission/Reception of Individual Stop Data

This function allows the organist to turn on/off the transmission and reception of individual stop data, known in MIDI terminology as "Non-Registered Parameters". In some cases individual stop data (on/off) from the organ may conflict with data from an external MIDI device. When this occurs, select the "OFF" position.

Note: Piston changes will still be transmitted and received, because they are classified as program changes.

Advance to the 'TRANSMIT / RECEIVE STOPS' window function:

```
TRANSMIT/RECEIVE
STOPS ON
```

To change the on/off status of the Transmit/Receive Stops function, press the **CURSOR** button until the flashing cursor is positioned on the status control value. Turn the **ROTARY DIAL** to turn the transmit/receive status on/off.

D. QUICK REFERENCE GUIDE

1. Basic Operations Review

a. Advancing Through the Windows:

Use the **ROTARY DIAL** in the Console Controller.

b. Return to the Main Window function:

Hold **SET**, press **CANCEL**, release both or use the **ROTARY DIAL** in the Console Controller.

c. Setting Pistons:

Main Window. Select desired registration. Hold **SET** and press piston to remember registration.

d. Select Memory and Lock It:

Main Window. Select desired memory using **CURSOR** button and **ROTARY DIAL**. Press and hold **MEMORY** button, enter three-digit code on general pistons, release **MEMORY**, "L" will appear next to capture memory number in display.

e. Unlock a Memory:

Repeat d. above. "L" will disappear.

f. Unlock All Memories Without Code:

Advance to display "Unlock All Capture Memories". Press and hold **MEMORY**, press General Pistons 2-5-5, release **MEMORY**. Display returns to *Main Window* function.

g. Self-Check Capture and Stop Action:

Advance to display: "Self-Check". Turn ROTARY DIAL to activate/de-activate Self-Check or to de-activate, press and hold **SET**, press **CANCEL**, and then release both.

2. Advanced Operations Review

a. Reconfiguring Pistons:

Advance to display: "Configure Pistons". Select the desired stops. Press and hold **SET**, and then press the desired piston. To return to the *Main Window,* (press and hold **SET,** press **CANCEL** and then release both). Set new registrations *(see section E-1, c.).*

b. Set Secondary Crescendo "B":

Advance to display: "Set Cresc B and Tutti B". Maneuver/Set step positions using the Console Controller™ controls, **SET** piston.

c. Set Secondary Tuttis:

Advance to display: "Set Cresc B and Tutti B". Press Tutti piston you want to program. Select/Adjust Stops. Use **MEMORY** button in conjunction with the **SET** piston to set the Tutti pistons.

d. Restore Factory Settings:

Advance to display: "Re-Initialize Piston Configuration". Use **CURSOR** button and **ROTARY DIAL** to select the settings you want to restore. Press and hold **MEMORY**, press General Pistons 2-5-5.

E. MIDI GUIDE

1. MIDI for Organists

The term MIDI is an acronym for Musical Instrument Digital Interface. MIDI has been adopted by the music industry as a standard means of communication between digital musical devices enabling devices of different types and manufacturers to communicate. MIDI by itself will not make a sound. It is not necessary to understand all of the technical aspects of MIDI in order to take advantage of the benefits it offers. It is important to explore the potential MIDI holds for musicians, as well as the various MIDI applications available today.

Types of MIDI Devices

MIDI devices fall into two categories.

1. The first category consists of musical instruments such as organs and synthesizers that transmit and receive MIDI data.

2. The second category includes controllers and processors that, as their name implies, can transmit, receive or manipulate MIDI data, but do not necessarily produce sound themselves. Sequencers, which are MIDI recording devices, fall into this category. Although the technical nature of their recording and editing processes differs from those of a tape recorder, many operate in similar fashion. Most are equipped with record, playback, fast forward and reverse controls that function in the same way as their tape recorder counterparts.

Types of MIDI Data

There are several types of MIDI messages that can be sent from one device to another. The most common is keying information, allowing one device to sense which keys have been played on another device. This means an organ equipped with MIDI can send information to other MIDI devices, e.g., synthesizers or sequencers, and can play those devices simultaneously or record information to be played back later.

Allen Organs incorporate an advanced MIDI system allowing the transmission and reception of all types of MIDI information (velocity keying, volume change, sustain, registrations, Crescendo settings and more). It is even possible to control several devices from one manual simultaneously, or control a different device from each manual of the console.

MIDI as a Practice Tool

For the organist/choir director, the MIDI organ console and sequencer are valuable rehearsal tools for both choral and organ works. Anthem accompaniments may be recorded in advance and played back by the sequencer during choir rehearsal. The director, freed from the role of accompanist, can focus entirely on directing the choir. The sequencer can play the music back at a slower tempo without affecting pitch, or at a lower pitch without affecting tempo, features that are useful in rehearsing difficult choral passages.

If the sequencer allows multi-tracking, each vocal section's part may be recorded on a different track, and then played back individually, or in any combination, for more flexibility. Multi-tracking can also be used in teaching and learning new organ works. The teacher may record each hand or pedal part on a different track, allowing the student to "mute" or turn off any part being practiced while still being able to hear the sequencer play the rest of the composition. The student's ability to hear the piece in its entirety from the earliest stage of learning a composition, and to become aware of the interrelationship of its voices, is especially valuable in learning contrapuntal works.

MIDI as a Registration Tool

In some churches and auditoriums it is difficult to judge the effectiveness of a registration from the organ console. Due to the acoustics of the room, or positioning of the console, the sound of the instrument may be different when listened to from the congregation's or audience's vantage point. MIDI allows the organist to evaluate registrations by recording the music using a sequencer, and then listening from different locations in the room during the music's playback.

Other MIDI Uses

MIDI has created new possibilities for the organist. The ability of the organ console to control external keyboards or sound modules puts an ever-increasing array of non-traditional sounds at the organist's fingertips. A superior degree of control is made possible by the flexibility of an organ console. The ability to record MIDI data using a sequencer opens a variety of new possibilities during practice and performance situations.

Computer software programs are also available that allow musicians to play MIDI devices connected to a computer, and have their performance printed as conventional five-line musical notation. Because MIDI is an industry-wide standard, today's MIDI instruments will be compatible with tomorrow's MIDI innovations.

2. Connecting Allen Organs to Other MIDI Devices

Allen Organs can be connected to a variety of MIDI devices. A connecting diagram for a variety of MIDI devices can be found at the end of this section. Although the diagram is not meant to be an exhaustive list of possibilities, it illustrates the most commonly used connections of MIDI devices. If more specific information is required, please consult the owners' manuals of the external devices being connected to the organ.

3. Allen's Exclusive MIDI System

Allen Organs feature an advanced MIDI system with increased flexibility. This system provides a comprehensive interface between MIDI sound modules, such as the Allen Ensemble™, and digital sequencers such as the Allen MIDI Assistant™. Two MIDI Out ports, one switched and one unswitched, allow unprecedented control over external MIDI devices attached to the organ.

Under normal circumstances, MIDI sound modules should be connected to the switched MIDI port labeled MIDI OUT 2. Doing so allows the organist to disable the sending of MIDI data from the organ to the sound module. Devices such as MIDI sequencers should be connected to the un-switched MIDI port labeled MIDI OUT 1, eliminating the necessity of having to draw the MIDI stop controls before recording a digital sequence. The drawing below illustrates the proper procedure for connecting the Allen Ensemble™ and Allen Smart Recorder™ to an Allen Organ.

```
┌─────────────────────────────┐              ┌──────────────────────────┐
│                             │              │      MIDI ASSISTANT      │
│  ┌───────────────────────┐  │              │  ┌────────────────────┐  │
│  │  MIDI OUT1 (Seq)      │◄─┼──────────────┼─►│     MIDI IN        │  │
│  └───────────────────────┘  │              │  └────────────────────┘  │
│  ┌───────────────────────┐  │              │  ┌────────────────────┐  │
│  │  MIDI OUT2            │◄─┼──────┐  ┌─────┼─►│     MIDI OUT       │  │
│  └───────────────────────┘  │       ╳      │  └────────────────────┘  │
│  ┌───────────────────────┐  │      ╱ ╲     └──────────────────────────┘
│  │  MIDI IN             │◄─┼─────┘   └────┐┌──────────────────────────┐
│  └───────────────────────┘  │              │      ALLEN ENSEMBLE      │
│  ┌───────────────────────┐  │              │  ┌────────────────────┐  │
│  │  ORGAN               │  │              └─►│     MIDI IN        │  │
│  └───────────────────────┘  │              │  └────────────────────┘  │
└─────────────────────────────┘              └──────────────────────────┘
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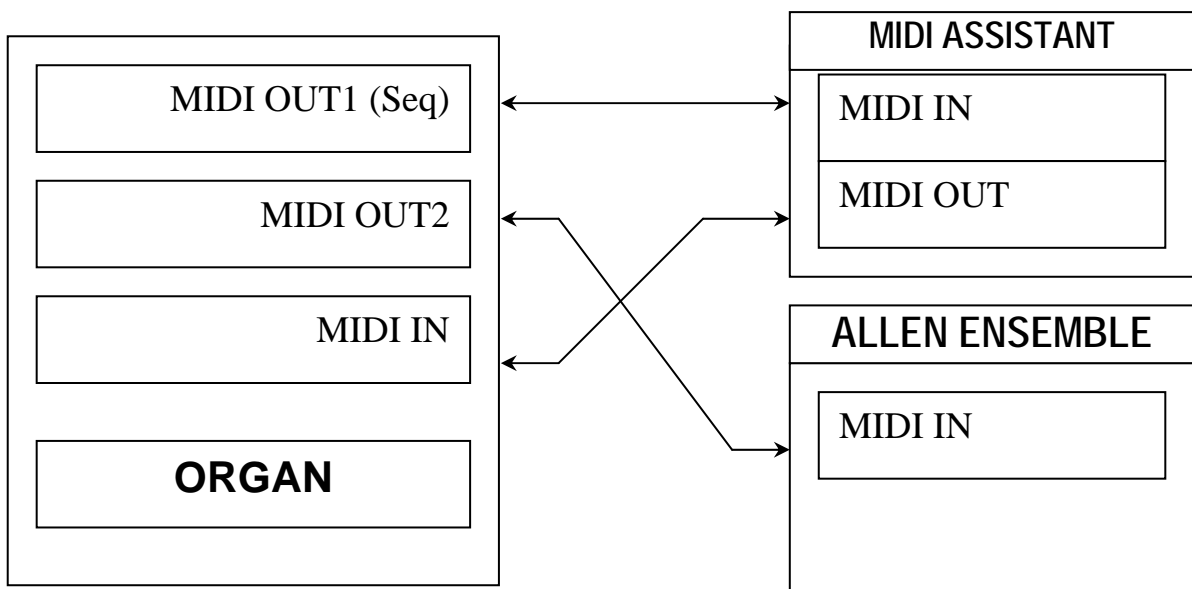
4. MIDI Transmission Channels

MIDI information may be transmitted on several different channels simultaneously. This allows many channels of information to be sent through one cable and used independently from one another, similar to the way many television broadcasts can be sent through one cable. In order to receive the intended information, a MIDI device must be tuned to the same channel as the device that is sending the information.

Your Allen Organ transmits MIDI information on several channels. When external MIDI devices are connected to the organ, it is important to make sure that the devices' channels of transmission and reception match the MIDI channels of the Allen Organ divisions to which they are assigned.

MIDI Program Change Messages are transmitted from the organ's General Pistons on MIDI Channel 8. These program change messages can be used to change the settings of MIDI sound modules or synthesizers that are connected to the organ. Please consult the owner's manual of your MIDI device(s) for more information on how MIDI Program Change Messages are handled by that particular device.

In addition to keying and divisional registration information, MIDI Volume Messages are sent on the individual MIDI channels for each division of the organ. These volume messages are controlled by the division's expression shoe. In this manner, the volume of connected MIDI devices may be controlled.

Please consult the owner's manual of your MIDI device(s) for more information on how MIDI Volume information is handled by that device. If any external MIDI device is used to transmit information to the Allen organ, the same assignment of MIDI channels must be used as described elsewhere in this manual.

5. General MIDI Sound Set

1. Acoustic Grand Piano
2. Bright Acoustic Piano
3. Electric Grand Piano
4. Honky-tonk Piano
5. Rhodes Piano
6. Chorused Piano
7. Harpsichord
8. Clavinet
9. Celesta
10. Glockenspiel
11. Music Box
12. Vibraphone
13. Marimba
14. Xylophone
15. Tubular Bells
16. Dulcimer
17. Hammond Organ
18. Percussive Organ
19. Rock Organ
20. Church Organ
21. Reed Organ
22. Accordion
23. Harmonica
24. Tango Accordion
25. Acoustic Guitar (nylon)
26. Acoustic Guitar (steel)
27. Electric Guitar (jazz)
28. Electric Guitar (clean)
29. Electric Guitar (muted)
30. Overdriven Guitar
31. Distortion Guitar
32. Guitar Harmonics
33. Acoustic Bass
34. Electric Bass (finger)
35. Electric Bass (pick)
36. Fretless Bass
37. Slap Bass 1
38. Slap Bass 2
39. Synth Bass 1
40. Synth Bass 2
41. Violin
42. Viola
43. Cello
44. Contrabass
45. Tremolo Strings
46. Pizzicato Strings
47. Orchestral Harp
48. Timpani
49. String Ensemble 1
50. String Ensemble 2
51. SynthStrings 1
52. SynthStrings 2
53. Choir Aahs
54. Voice Oohs
55. Synth Voice
56. Orchestra Hit
57. Trumpet
58. Trombone
59. Tuba
60. Muted Trumpet
61. French Horn
62. Brass Section
63. Synth Brass 1
64. Synth Brass 2
65. Soprano Sax
66. Alto Sax
67. Tenor Sax
68. Baritone Sax
69. Oboe
70. English Horn
71. Bassoon
72. Clarinet
73. Piccolo
74. Flute
75. Recorder
76. Pan Flute
77. Bottle Blow
78. Shakuhachi
79. Whistle
80. Ocarina
81. Lead 1 (square)
82. Lead 2 (sawtooth)
83. Lead 3 (caliope lead)
84. Lead 4 (chiff lead)
85. Lead 5 (charang)
86. Lead 6 (voice)
87. Lead 7 (fifths)
88. Lead 8 (brass + lead)
89. Pad 1 (new age)
90. Pad 2 (warm)
91. Pad 3 (polysynth)
92. Pad 4 (choir)
93. Pad 5 (bowed)
94. Pad 6 (metallic)
95. Pad 7 (halo)
96. Pad 8 (sweep)
97. FX 1 (rain)
98. FX 2 (soundtrack)
99. FX 3 (crystal)
100. FX 4 (atmosphere)
101. FX 5 (brightness)
102. FX 6 (goblins)
103. FX 7 (echoes)
104. FX 8 (sci-fi)
105. Sitar
106. Banjo
107. Shamisen
108. Koto
109. Kalimba
110. Bagpipe
111. Fiddle
112. Shanai
113. Tinkle Bell
114. Agogo
115. Steel Drums
116. Woodblock
117. Taiko Drum
118. Melodic Tom
119. Synth Drum
120. Reverse Cymbal
121. Guitar Fret Noise
122. Breath Noise
123. Seashore
124. Bird Tweet
125. Telephone Ring
126. Helicopter
127. Applause
128. Gunshot

6. Hymn Player™ Library of Hymns

Console Controller	Full Title	Console Controller	Full Title
AMightyFortress	A Mighty Fortress	GodofGraceGlory	God of Grace and God of Glory
AbidewithMe	Abide with Me	GodoftheAgesHand	God of the Ages, Whose Almighty Hand
AhHolyJesus	Ah! Holy Jesus	GodRestYouMerry	God Rest You Merry, Gentlemen
DidMySaviorBleed	Alas! And Did My Savior Bleed	GodTakeCareofYou	God Will Take Care of You
AllCreatures	All Creatures of Our God and King	GodHiddenMajesty	God with Hidden Majesty
GloryLaudHonor	All Glory, Laud, and Honor	GoodChristianMen	Good Christian Men, Rejoice
AllHailPower-A	All Hail the Power of Jesus' Name - A	GreatThyFaithful	Great Is Thy Faithfulness
AllHailPower-B	All Hail the Power of Jesus' Name - B	GuideGratJehovah	Guide Me, O Thou Great Jehovah
AllPeopleEarthDo	All People That on Earth Do Dwell	HarkHeraldAngels	Hark! The Herald Angels Sing
AllPraiseTheeGod	All Praise to Thee, My God, This Night	HereIAmLord	Here I Am Lord
AllThingsBright	All Things Bright and Beautiful	HolyGodPraiseNam	Holy God, We Praise Your Name
AlleluiaSing	Alleluia! Sing to Jesus!	HolySpiritTruth	Holy Spirit, Truth Divine
AmazingGrace	Amazing Grace	HolyHolyHoly	Holy, Holy, Holy
America	America	HowBrightlyBeams	How Brightly Beams the Morning Star
AngelsRealmsGlry	Angels from the Realms of Glory	HowFrmFoundation	How Firm A Foundation
AngelsHeardHigh	Angels We Have Heard on High	HowGreatThouArt	How Great Thou Art
AsWithGladness	As with Gladness Men of Old	IamBreadofLife	I Am the Bread of Life
AtCrossStation	At the Cross Her Station Keeping	MyRedeemerLives	I Know That My Redeemer Lives
AtLambsHighFeast	At the Lamb's High Feast We Sing	LoveKingdomLord	I Love Thy Kingdom, Lord
AwayinAManger-A	Away in a Manger - A	INeedEveryHour	I Need Thee Every Hour
AwayinAManger-B	Away in a Manger - B	ISingASongSaints	I Sing A Song of the Saints of God
BeJoyfulMary	Be Joyful , Mary	ISingMightyPower	I Sing the Mighty Power of God
BeStillMySoul	Be Still My Soul	TrustGodGuidThee	If Thou but Trust in God to Guide Thee
BeThouMyVision	Be Thou My Vision	ImmortaIInvisble	Immortal, Invisible, God Only Wise
BecauseHeLives	Because He Lives	ChristEastWest-A	In Christ There Is No East or West - A
BeneathCrosJesus	Beneath the Cross of Jesus	ChristEastWest-B	In Christ There Is No East or West - B
BeyondtheSunset	Beyond the Sunset	CrossChristGlory	In the Cross of Christ I Glory
BlessedAssurance	Blessed Assurance, Jesus is Mine!	IntheGarden	In the Garden
BlessedJesusWord	Blessed Jesus, at Your Word	InSweetByandBy	In the Sweet By and By
BlessingandHonor	Blessing and Honor	MidnightClear	It Came upon a Midnight Clear
BlestbetheTie	Blest Be the Tie That Binds	ItIsWellMySoul	It Is Well with My Soul
BreakThouBread	Break Thou the Bread of Life	JesusChristRisen	Jesus Christ Is Risen Today
BreatheonMeGod	Breathe on Me, Breath of God	JesusLovesMe	Jesus Loves Me!
ChristLordRisn-A	Christ the Lord Is Risen Today - A	JesusReignSun	Jesus Shall Reign Where'er the Sun
ChristLordRisn-B	Christ the Lord Is Risen Today - B	JesusLoverSoul-A	Jesus, Lover of My Soul - A
ComeChristians	Come, Christians, Join to Sing	JesusLoverSoul-B	Jesus, Lover of My Soul - B
ComeHolySpirit	Come, Holy Spirit, Heavenly Dove	JesusLordGodAll	Jesus, My Lord, My God, My All

Console Controller	Full Title	Console Controller	Full Title
ComeAlmityKing-A	Come, Thou Almighty King - A	JesusPriceTreas	Jesus, Priceless Treasure
ComeAlmityKing-B	Come, Thou Almighty King - B	JesusSaviorPilot	Jesus, Savior, Pilot Me
ComeFountBlessng	Come, Thou Fount of Every Blessing	JesusVeryThought	Jesus, The Very Thought of Thee
ComeExpectJesus-A	Come, Thou Long-Expected Jesus - A	JesusLovingHeart	Jesus, Thou Joy of Loving Hearts
ComeExpectJesus-B	Come, Thou Long-Expected Jesus - B	JoytotheWorld	Joy to the World
ComeYeFaithful-A	Come, Ye Faithful, Raise the Strain - A	JoyfulAdoreThee	Joyful, Joyful We Adore Thee
ComeYeFaithful-B	Come, Ye Faithful, Raise the Strain - B	JustAsIAm	Just As I Am, without One Plea
YeThankfulPeople	Come, Ye Thankful People, Come	LeadMetoCalvary	Lead Me to Calvary
CreatorStars	Creator of the Stars of Night	LeadKingEternal	Lead on O King Eternal
CrownHimMany	Crown Him with Many Crowns	LetMortalFlesh	Let All Mortal Flesh Keep Silence
Doxology	Doxology	LiftUpYourHeads	Lift Up Your Heads, Ye Mighty Gates
EternalFatherSav	Eternal Father, Strong to Save	LoHowARose	Lo, How a Rose E're Blooming
FairestLordJesus	Fairest Lord Jesus	LordSpeaktoMe	Lord, Speak to Me That I May Speak
FaithOurFathers	Faith of Our Fathers	LordFortyDays	Lord, Who Throughout These Forty Days
FightGoodFight	Fight the Good Fight	LoveDivine-A	Love Divine, All Loves Excelling - A
ForAllSaints	For All the Saints	LoveDivine-B	Love Divine, All Loves Excelling - B
ForBeautyofEarth	For the Beauty of the Earth	MoreLovetoThee	More Love to Thee, O Christ
GloriousThings	Glorious Things of Thee Are Spoken	MorningHasBroken	Morning Has Broken
GloryBetoFather	Glory Be to the Father	MyCountryTisThee	My Country, 'Tis of Thee
GoDarkGethsemane	Go to Dark Gethsemane	MyFaithLooksUp	My Faith Looks up to Thee
MyHopeIsBuilt	My Hope Is Built on Nothing Less	SongsThankPraise	Songs of Thankfulness and Praise
NeartoHeartofGod	Near to the Heart of God	SpiritDivinePray	Spirit Divine, Accept Our Prayers
NowThankWeAllGod	Now Thank We All Our God	SpiritGodDescend	Spirit of God, Descend Upon My Heart
NowtheDayIsOver	Now The Day Is Over	StandUpBlessLord	Stand Up and Bless the Lord
BeautifulSpacSky	O Beautiful for Spacious Skies	SweetHourPrayer	Sweet Hour of Prayer
ComeSingUntoLord	O Come and Sing Unto the Lord	TakeMyLife	Take My Life
OComeAllYeFaith	O Come, All ye Faithful	ChurchFoundation	The Church Is One Foundation
OComeEmmanuel	O Come, O Come Emmanuel	DayResurrection	The Day of Resurrection!
OGodHelpAgesPast	O God, Our Help in Ages Past	TheFirstNowell	The First Nowell
OJesusIPromised	O Jesus, I Have Promised	TheGodAbrahamAbr	The God of Abraham Praise
OTownofBethlehem	O Little Town of Bethlehem	KingLoveShepherd	The King of Love My Shepherd Is
OLoveNotLetMeGo	O Love That Wilt Not Let Me Go	LordIsMyShepherd	The Lord Is My Shepherd, I'll Not Want
OMasterLetMeWalk	O Master, Let Me Walk with Thee	OldRuggedCross	The Old Rugged Cross
OPerfectLove	O Perfect Love	TheStrifeIsOver	The Strife Is O'er
OSacredHeadNow	O Sacred Head Now Wounded	ThineIstheGlory	Thine Is the Glory
WordGodIncarnate	O Word of God Incarnate	MyFathersWorld	This Is My Father's World
OWorshiptheKing	O Worship the King	ToGodBetheGlory	To God Be the Glory
CloserWalkGod-A	O, for a Closer Walk with God - A	OurSovereignKing	To Jesus Christ Our Sovereign King
CloserWalkGod-B	O, for a Closer Walk with God - B	WakeSleepNoLong	Wake, O Wake, and Sleep No Longer
ThousandTongues	O, for a Thousand Tongues to Sing	WeGatherTogether	We Gather Together
OnJordanBankCry	On Jordan's Bank the Baptist's Cry	WeGiveTheeThine	We Give Thee but Thine Own

Console Controller	Full Title	Console Controller	Full Title
OpenMyEyesMaySee	Open My Eyes That I May See	ThreeKingsOrient	We Three Kings of Orient Are
OpenNowThyGates	Open Now Thy Gates of Beauty	WhatFriendJesus	What A Friend We Have in Jesus
PraiseMySoulKing	Praise My Soul, the King of Heaven	WhatChildIsThis	What Child Is This
PraisetotheLord	Praise to the Lord, the Almighty	WhatWondrousLove	What Wondrous Love Is This
RejoiceLordKing	Rejoice, the Lord Is King	SurveyWonCross-A	When I Survey the Wondrous Cross - A
RejoiceYePure	Rejoice, Ye Pure In Heart	SurveyWonCross-B	When I Survey the Wondrous Cross - B
RideOnInMajesty	Ride On ! Ride On in Majesty	MusicGodGlorfied	When in Our Music God Is Glorified
RockofAges	Rock of Ages	MornGuildsSkies	When Morning Gilds the Skies
SaviorShepherd	Savior, Like a Shepherd Lead Us	CrossCrowdedWays	Where Cross the Crowded Ways of Life
AmidWinterSnow	See Amid the Winter's Snow	SheprdsWatched-A	While the Shepherds Watched Their Flocks - A
WeGatherRiver	Shall We Gather at the River	SheprdsWatched-B	While the Shepherds Watched Their Flocks - B
SilentNight	Silent Night, Holy Night	MasterProclaim	Ye Servants of God, Your Master Proclaim
SingPraisetoGod	Sing Praise to God Who Reigns Above	YeWatcherHolyOne	Ye Watchers and Ye Holy Ones
SoftlyTenderly	Softly and Tenderly		

Specifications subject to change without notice or obligation.

APPENDIX A: MIDI IMPLEMENTATION CHART

FUNCTION		TRANSMITTED	RECEIVED
Basic Channel	Default	1	1
	Changed	1 – 16	1 – 16
Mode	Default	3	3
	Messages	X	X
	Altered	X	X
Note Number		O (1 – 127)	O (1 – 127)
Velocity	Note ON	9nH, v = 1 – 127	9nH, v = 1 – 127
	Note OFF	9nH, v = 0	9nH, v = 0
Aftertouch	Keys	X	X
	Channels	X	X
Pitch Bend		X	X
Control Change	0 (bank select)	O	O
	6 (data)	O	O
	7 (volume)	O	O
	64 (sustain)	O	O
	98 (NRPN MSB)	O	O
	99 (NRPN LSB)	O	O
Program Change		O (1 – 127)	O (1 – 127)
System Exclusive		O	O
System Common		X	X
System Real Time		X	X
Aux Messages		X	X

Mode 1: Omni On, Poly   Mode 2: Omni On, Mono   O: Yes
Mode 3: Omni Off, Poly   Mode 4: Omni Off, Mono   X: No