

**Protégé™
LD-34
Owner's Manual**

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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.

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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.

<u>Principal Voices:</u> 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.
<u>Flute Voices - Open:</u> Harmonic Flute, Koppelflöte, flute mutation stops <u>Flute Voices - Stopped:</u> 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.
<u>String Voices:</u> Gamba, Salicional, Viole Celeste	Mildly imitative and brighter harmonic development than Principals. Usually appear at 8’ first; can be 4’ & 16’ ranks.
<u>Compound Voices:</u> Mixture, Fourniture	Voices produced by more than one rank sounding simultaneously. Best registered with other stops.
<u>Hybrid Voices:</u> 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:

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

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.

Great to Pedal	Connects all Great stops to the Pedal.
Swell to Pedal	Connects all Swell stops to the Pedal.
Swell to Great	Intermanual coupler connecting all Swell stops to the Great manual.
Tremulant	This stop provides a vibrato effect, natural in the human voice and wind instruments.
Tuba Unenclosed Uncoupled	When activated the Solo Tuba 8 (2 nd Voice) on the Swell and Great manuals will be full volume and unaffected by the expression shoes. Also, the Swell stop will <u>not</u> couple to the Great manual when using the Swell To Great coupler. This allows the Swell Solo Tuba 8 to be used as an actual solo stop.
Harp (piston)	Actuates a Harp voice on the Swell manual which can be used with other Swell stops.
Piano Only (piston)	Actuates a Piano voice on the Great manual, but also disables all other stops in <u>all</u> divisions on the organ, including the pedals.
2 nd Voice Stop Control	The Swell, Great and Pedal divisions each have a separate stop control which actuates a set of secondary voices engraved in red on applicable tabs. The use of the 2 nd Voice stop actuates the voice in lieu of the main voice listed on the stop.
Piano Damper (toe stud)	Actuates sustain for the Piano voice. This control also actuates the Sostenuto function assigned to the Great manual. <i>See Section B4 in the Console Controller section later in this manual on Sostenuto settings.</i>

Melody Coupler	When playing on the Great manual, the highest key played on the Great will automatically play all stops drawn on the Swell, in addition to those drawn on the Great. By choosing a Swell 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 within the Console Controller™. See the Console Controller Guide, later in this Manual, for more information relating to Alternate Tunings.
All Swells To Swell	Couples the Gt-Pd expression shoe to the Swell expression shoe.

IIa. PIANO AND HARP

Using Allen's advanced MIDI system, dedicated Piano and Harp voices are uniquely assigned to the LD-34's keyboards. The Piano voice is exclusive to the Great manual and when turned on will automatically deactivate all other organ voices on the organ. The Piano is designed to be a "solo" instrument and is velocity sensitive so that the musician can control the playing dynamic, similar to that of an acoustic piano. The Harp voice is exclusive to the Swell manual and may be played in tandem with other Swell organ voices, especially appropriate with the softer Viola and Viola Celeste stops.

Note: To facilitate the custom assignments of the Piano and Harp sounds and avoid the potential of conflict with external MIDI devices, the standard MIDI system connections typically used for an external MIDI sound module control on the LD-34 have been disabled. Controlling external MIDI voices would require the reactivation of these connections and will disable the organ's Piano and Harp voices functionality. For more information on this subject, contact Allen Organ Company or your local Allen representative.

Note: The standard MIDI recording/playback connections, MIDI OUT #1 and MIDI IN, may be used as connections to external MIDI devices for recording/playback purposes only.

III. EXPRESSION & CRESCENDO SHOES

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

- The left-hand side expresses the Great and Pedal Divisions.
- The center shoe expresses the Swell Division. It affects the loudness of Swell Division voices.
- The right-hand 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, much louder registration, than Tutti I. The Tutti's 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 Tutti's can be programmed by the organist. Like the Crescendo, indiscriminate use of Tutti's should be avoided. See the Console Controller™ Guide later in this manual for more information relating to changing secondary Tutti's settings.

V. SETTING PISTONS

SETTING GENERAL PISTONS

Your Allen Organ's capture system lets you set stop registration combinations in each of its memories. The LD-34 contains ten General pistons, 5 of which are duplicated on toe studs; six divisional pistons for both Swell and Great divisions and four Pedal divisional toe studs. The LD-34 contains a (16) memory combination action. This means you have a total of 160 possible General piston combinations as well as 256 possible divisional combinations (Swell/Great/Pedal).

To set a General 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 "remember" 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™ guide later in this manual.

SETTING DIVISIONAL PISTONS

The piston setting process for divisional pistons 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 and Pedal stops with the Pedal divisional toe studs.

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.

***Note:** 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 accompaniment 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.

SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

Swell: Viola 8', Viola Celeste 8'
Great: Chimes
Pedal: Lieblichgedackt 16', Swell to Pedal

Play solo on Great.

SOLO CORNET COMBINATION

Swell: Gedackt 8', Nachthorn 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5'
Great: Harmonic Flute 8'; or Erzähler Celeste II 8'
Pedal: Lieblichgedackt 16', Flute 8'

Play solo on Swell.

FLUTE SOLO

Swell: Gedackt 8', Orchestral Flute 4'
Great: Erzähler Celeste II 8'
Pedal: Lieblichgedackt 16', Swell to Pedal

Play solo on Swell

TRUMPET SOLO

Swell: French Trumpet 8'
Great: Diapason 8', Octave 4'; Fifteenth 2'
Pedal: Diapason 16', Octave 8', Choralbass 4'

Play solo on Swell.

FESTIVAL TRUMPET SOLO

Swell: Gedackt 8', Viola 8', Octave 4', Piccolo 2' Fourniture IV, Swell 2nd Voices
Great: Diapason 8', Harmonic Flute 8', Octave 4', Spitzflöte 4', Fifteenth 2', Mixture IV, Swell to Great
Pedal: Diapason 16', Octave 8', Choralbass 4', Mixture III, Waldhorn 16', Tromba 8', Great to Pedal, Swell to Pedal

General: Tuba Unenclosed Uncoupled

Play solo on Swell

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 Waldhorn 16' and French Trumpet 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 and Great manuals:

GREAT

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

SWELL

1. Gedackt 8', Viola 8'
2. Gedackt 8', Viola 8', Nachthorn 4'
3. Gedackt 8', Viola 8', Nachthorn 4', Piccolo 2'
4. Gedackt 8', Viola 8', Octave 4', Nachthorn 4', Piccolo 2'
5. Gedackt 8', Viola 8', Octave 4', Nachthorn 4', Piccolo 2', Fourniture IV
6. Gedackt 8', Viola 8', Octave 4', Nachthorn 4', Piccolo 2', Fourniture IV, French Trumpet 8'

The use of the *Swell 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*.

Allen Organ Company. Video Materials, 1996/1997.

AOC P.N: 031-0047, 031-0065, 031-0112.

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 flashing 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.

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™

Allen Organ 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! The LD-34 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.

See the Console Controller™ guide later in this manual for more information relating to Acoustic Portrait™.

IX. MULTIPLE VOICE SETS

The LD-34 provides the versatility of two separate and distinct organs in one console. Choose from American Classic or French Romantic for the stop list that perfectly complements your music. The 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! The active voice specification can be viewed in the Console Controller window. See the Console Controller™ guide later in this manual for more information about this feature.

X. REAL XPRESSION™

The LD-34 is equipped with Real Xpression™. Real Xpression™ not only changes the organ's volume, but also its 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. Real Expression 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.

XI. 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 are 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!

XII. SAFETY INFORMATION

USA ONLY

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.

Warning: This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been type tested and found to comply with the limits for a Class B Computing Device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. Should this equipment cause interference to radio communications, the user at his own expense will be required to take whatever measures may be necessary to correct the interference. Whether this equipment actually causes the interference to radio communications can be determined by turning the equipment off and on. The user is encouraged to attempt to correct the interference by one or more of the following measures:

Reorient the receiving antenna.

Relocate the organ with respect to the receiver.

Move the organ away from the receiver.

Plug the organ into a different electrical outlet, so that the organ and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio technician for additional suggestions.

CE mark shows compliance with the EMC Directive.

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INTRODUCTION

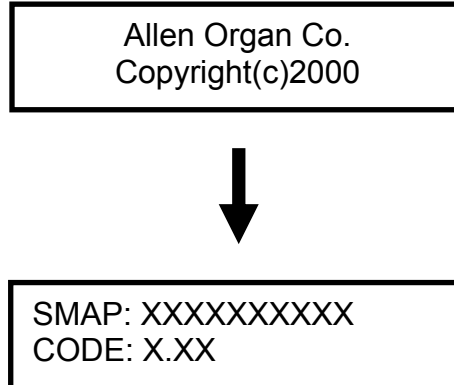
The Console Controller™ is an interface that controls many organ functions. The Console Controller is pictured below (*console drawer version*) and includes a window that displays functions, one at a time, as well as an integrated Rotary Dial with push buttons used to make selections.

A. BASIC OPERATION



1. Start-Up Sequence

Open the Console Controller drawer before turning the organ on. Turn on the organ's main power switch. The LCD window in the drawer will display, in sequence:



Note: The LCD will display the current stopmap level (SMAP) and operating software base code level (CODE) currently installed in the organ.

Then finally the *Main Window* function is displayed:

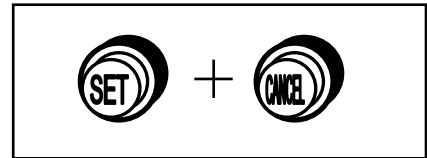


Important: The Allen Organ includes several self-testing features. If a warning is displayed in this sequence, you should contact your Allen authorized representative immediately!

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:



3. Selecting the Capture Memories

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 **MEM 2**, to **MEM 3**. Or, turn the **ROTARY DIAL** counter-clockwise to select the memories sequentially from **MEM 1**, to **MEM 16** (*see Note 2 below*), to **MEM 15**.

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: The LD-34 includes an LDS specified set of registration examples stored on each piston of the last available capture memory. You may re-program these registrations to your own registrations. See Section XIV later in this manual for a listing of the programmed registrations.

Note 2: The LD-34 is equipped with 16 capture memories.

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 on the organ. These are located on the left side, underneath the keyboards on the piston rails.

Divisional Pistons affect only those stops associated with the particular manual above them. They are located in the center of the piston rails below the keyboards.

Located just above the pedalboard are **Toe Studs**. 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.).

To Save 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-16, 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 you want General Piston 1 to remember. Once the stops are selected, 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 you selected.

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

To Save 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 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 you selected.

Intermanual Couplers/Reversibles

The intermanual coupler's, (e.g., Swell to Great, Great to Pedal, etc.) settings can be remembered by both the General pistons and Divisional pistons on the LD-34.

Reversible pistons 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 Studs/Toe Pistons

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

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

5. Locking Capture Memories

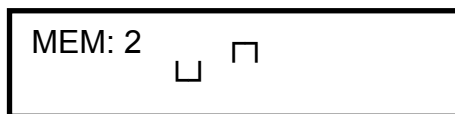
All memories, except Memory 1, may be locked or unlocked individually to prevent unintentional or unauthorized changes to that memory's contents. Memory 1 remains unlocked as a convenience to visiting or substitute organists. The Console Controller must display the *Main Window* function in the drawer (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. 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.



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 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.



7. Unlocking All Memories If You Forget Your Code

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 indicators will light on and off consecutively. *If any stop does not light, 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. Multiple Voice Sets (two voicing specifications)

The LD-34 includes two voicing specifications: American Classic and French Romantic (without second voices). A new voicing specification can be selected from the Console Controller™ at any time. To change a voicing specification, advance to the Sound Library window function (*see Section A-2*).

SOUND LIBRARY
AMERICAN CLASSIC

The display will indicate the current voicing specification loaded. To change to a different voicing specification, press the **CURSOR** button on the Console Controller to position the flashing cursor on the voicing specification name. Turn the **ROTARY DIAL** to select a different voicing specification. When the desired voicing specification is displayed, press and hold the **SET** piston. Then press the **MEMORY** button on the Console Controller. Release both.

Once the new specification is loaded, the capture system will automatically cancel all stops currently lit on the stopboard. The organ is now ready to play. To return to the *Main Window* function, press and hold the **SET** piston then press the **CANCEL** piston. Release both.

Important: The organ will not be able to be played while a new voicing specification is loading.

Note: It is a normal condition for the organ's power indicator to flash when turning the organ on. This action indicates the start-up voicing specification is loading. When the power indicator stops flashing the capture system will automatically cancel all stops indicating that the voicing specification is loaded and the organ is ready to play.

10. Acoustic Portrait™ Settings

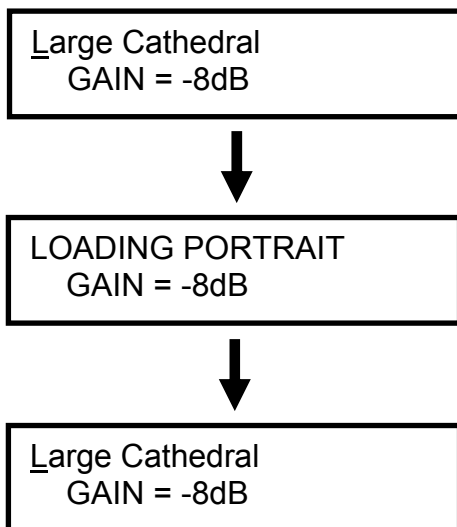
There are 10 available Acoustic Portrait™ pallets to select from. The rocker switch labeled ACOUSTIC PORTRAIT™ in the Console Controller™ drawer must be ON to hear the Acoustic Portrait™ selection. The Acoustic Portrait™ gain (volume) can be adjusted. The gain is indicated in dB (decibels). The Acoustic 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:



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 minus 35dB to +6 db. Minus 35db is the least amount of gain while +6 dB is the maximum amount of gain.

Large Cathedral
GAIN = 8dB

Large Cathedral
GAIN = 3dB

B. ADVANCED OPERATION

1. Selecting an Alternate Tuning

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

ALTERNATE TUNING
XXXXXXXXXXXXXXXXXX

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



Select *all* of the stops. Any stops not lit, will not be able to be registered later. While holding in 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 reconfigure a Divisional Piston so it controls only the Tremulant stops/drawknobs:

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



Select *all* of the organ's Tremulant stops. Next press and hold **SET**. 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 will become accessible by the reconfigured pistons; *they will not change previously saved registrations*.

3. Modifying the Crescendo and Tutti's

The original factory settings include a second set of Tutti's 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 registered on the second (B) TUTTI I or TUTTI II, press either TUTTI. This will cause all associated stops 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.

The word "step xx" indicates that you are now editing or viewing (*dependent if SET or*

CRESC/TUTTI B SET step --

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 light 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 NOT USE THE CRESCENDO SHOE TO MOVE BETWEEN STEPS WHILE PROGRAMMING 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 always 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 NOT 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 all 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 Tuttiis

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. 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. Keep in mind that the Sustain function will operate in tandem with the *Sostenuto* function.

5. 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.

6. Hymn Player

1. Move cursor to **MEM** in the Console Controller window.
2. Scroll to “**Hymn Player**”.
3. Press the **CURSOR** button.
4. Scroll to the desired hymn title. (Hymns are arranged in alphabetical order)
5. **T**empo: Increase or decrease tempo, if desired, by moving the cursor to **T** and scrolling up or down by increments of 10.
6. **V**erses: Change the number of verses, if desired, by moving the cursor to **V** and scrolling up or down.
7. **I**ntroduction: Move the cursor to **I** and select (+) for yes, or (-) for no introduction.
8. **P**itch: Raise or lower the pitch, if desired, by moving the cursor to **P** and scrolling up or down by half-steps.
9. Press the **MEM** button to start the hymn.
10. Press the **MEM** button to start each verse.
11. Press the Cancel piston on the organ console to stop the hymn at any time.
12. Press and hold the “**SET**” and “**CANCEL**” pistons on the organ console to return to the main window.

Note: You can change the organ’s registration at any time 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

Important! To facilitate the custom assignments of the Piano and Harp sounds and avoid the potential of conflict with external MIDI devices, the standard MIDI system connections typically used for an external MIDI sound module control on the LD-34 have been disabled. Controlling external MIDI voices would require the reactivation of these connections and will disable the organ’s Piano and Harp voices functionality.

Because of this, it is suggested that **NO** changes be made within any of the MIDI specific function windows within the Console Controller. Any changes made within the MIDI window functions may cause the Piano and Harp voices to not operate correctly. If changes are inadvertently made, please contact Allen Organ Company or your local Allen representative for the procedure to have these settings restored.

For more information on this subject, contact Allen Organ Company or your local Allen representative.

Note: The standard MIDI recording/playback connections, MIDI OUT #1 and MIDI IN, may be used as connections to external MIDI devices for recording/playback purposes only.

1. Standard MIDI Channel Assignments

These are the Allen Organs' standard MIDI channels settings for the LD-34:

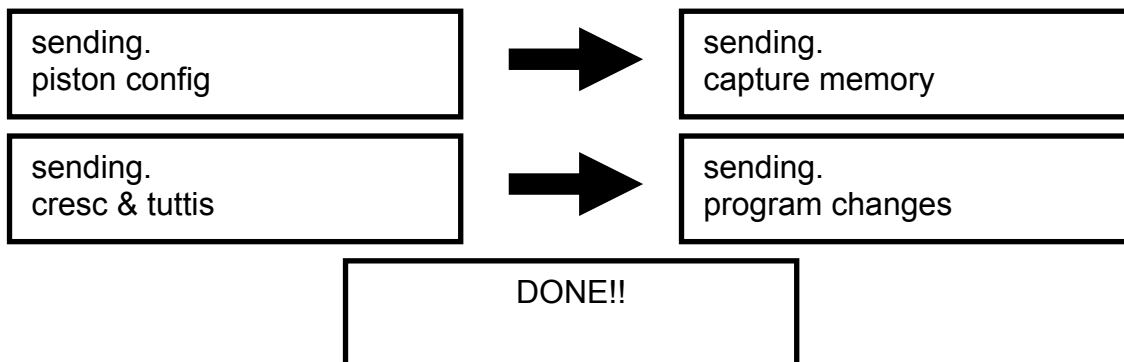
LD-34		
Channel		Organ Division
1	=	Swell
2	=	Great
3	=	Pedal
8	=	General

2. 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:
The 'dot' behind the word 'SENDING' on line one of the display will move as the data is transmitted.



Note: This procedure can take an extended period of time because of the number of capture memories, so 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.

3. 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.

4. Transmission/Reception of Individual Stop Data

Note: This function is listed specifically for the recording/playback of MIDI sequences using an external MIDI sequence recorder.

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".

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

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

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**

TRANSMIT/RECEIVE
STOPS ON

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:

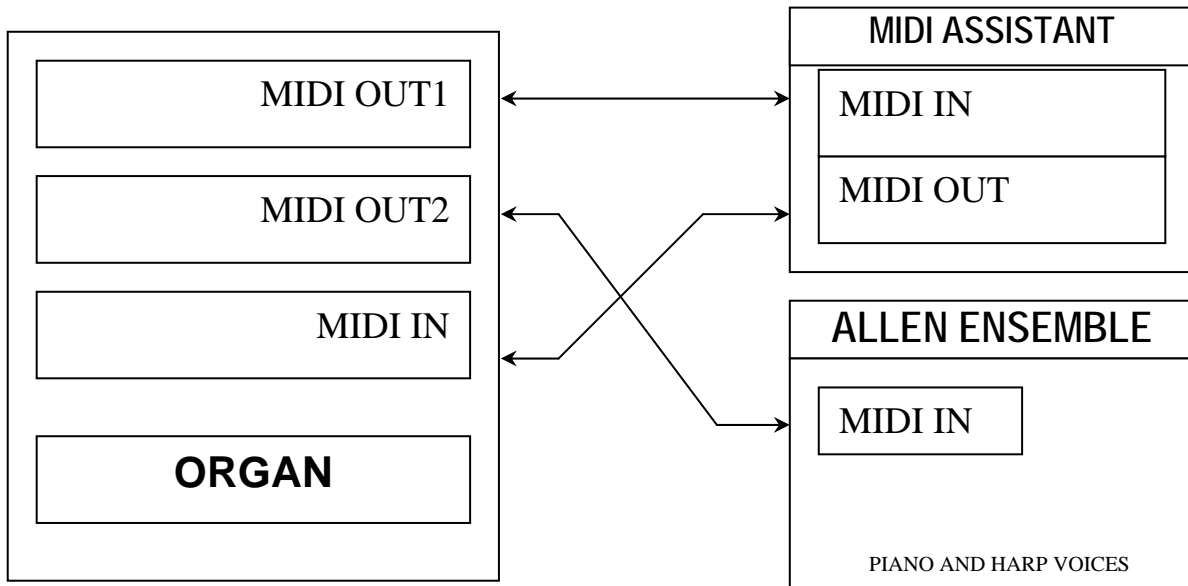
Advance to display: "Set Cresc B and Tutti B". Press Tutti piston you want to program. Select/Adjust Stops. Use **MEMORY** button in conjunction with the **SET** piston to set the Tutti pistons.

E. MIDI GUIDE

1. Connecting a MIDI Sequence Recorder

The LD-34 may be connected to an external MIDI sequence recorder for the purpose of recording/playback of MIDI sequences or songs, such as the MIDI Assistant™. A connecting diagram is located below. If more specific information is required, please consult the owners' manuals of the external devices being connected to the organ.

MIDI sequencers must be connected to the unswitched MIDI port labeled MIDI OUT 1. The drawing below illustrates the proper procedure for connecting the Allen MIDI Assistant™ to the LD-34.



2. 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. The LD-34 transmits MIDI information on several channels.

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. 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.

3. Allen Organ Company Hymn Player Song List (LDS Version)

Console Controller	Full Title	Console Controller	Full Title
68 MightyFortress	A Mighty Fortress Is Our God	306 GodsDailyCare	God's Daily Care
29 PoorManGrief	A Poor Wayfaring Man of Grief	83 GuideUsJehovah	Guide Us, O Thou Great Jehovah
166 AbidewithMe	Abide with Me!	209 HarkAngelsSng	Hark! The Herald Angels Sing
165 AbidewithMeEv	Abide with Me; 'Tis Eventide	264 HarkYeNations	Hark, All Ye Nations!
62 AllCreatureGod	All Creatures of Our God and King	223 HaveDoneGood	Have I Done Any Good?
69 AllGloryLaud	All Glory, Laud, and Honor	199 HeIsRisen	He Is Risen!
13 AngelfromHigh	An Angel from on High	281 TeachInspirat	Help Me Teach with Inspiration
203 AngelsonHigh	Angels We Have Heard on High	5 HighMountTop	High on the Mountain Top
277 ISearchScript	As I Search the Holy Scriptures	298 HomeBeHeaven	Home Can Be a Heaven on Earth
309 AsSistersZion	As Sisters in Zion (Women)	85 FirmFoundation	How Firm a Foundation
149 HeavenDistill	As the Dew from Heaven Distilling	125 GentleCommand	How Gentle God's Commands
259 ZionLatterDay	As Zion's Youth in Latter Days	195 GrtWisdomLove	How Great the Wisdom and the Love
8 AwakeandArise	Awake and Arise	86 HowGreatArt	How Great Thou Art
17 AwakeYeSaints	Awake, Ye Saints of God, Awake!	267 HowWondrousGt	How Wondrous and Great
206 AwayinaManger	Away in a Manger	301 ChildofGod	I Am a Child of God
130 BeThouHumble	Be Thou Humble	134 BelieveChrist	I Believe in Christ
219 BeenGivenMuch	Because I Have Been Given Much	214 BellsXmasDay	I Heard the Bells on Christmas Day
191 GtRedeemerDie	Behold the Great Redeemer Die	302 MyFatherLives	I Know My Father Lives
251 BhldRoyalArmy	Behold! A Royal Army	136 IKnowMyRedemr	I Know That My Redeemer Lives
249 CalledtoServe	Called to Serve	98 INeedTheeHour	I Need Thee Every Hour
255 CarryOn	Carry On	15 ISawAngelFly	I Saw a Mighty Angel Fly
299 ChildrenHeavn	Children of Our Heavenly Father	193 StndAllAmazed	I Stand All Amazed
239 ChooseRight	Choose the Right	270 GoWhereWantGo	I'll Go Where You Want Me to Go
200 LrdRisenToday	Christ the Lord Is Risen Today	226 ImproveMoment	Improve the Shining Moments
117 ComeUntoJesus	Come unto Jesus	172 HumiltySavior	In Humility, Our Savior
322 ComeYeSonsGod	Come, All Ye Sons of God (Men)	190 MemryCrucifyd	In Memory of the Crucified
30 ComeYeSaints	Come, Come, Ye Saints	307 LovelyDeseret	In Our Lovely Deseret
116 ComeFollowMe	Come, Follow Me	7 IsraelGodCallng	Israel, Israel, God Is Calling
21 ProphetVoice	Come, Listen to a Prophet's Voice	207 MidnightClear	It Came upon the Midnight Clear
59 ComeThouKing	Come, O Thou King of Kings	269 JehovahEarth	Jehovah, Lord of Heaven and Earth
9 ComeRejoice	Come, Rejoice	181 JesusNazareth	Jesus of Nazareth, Savior and King
10 ComeSingLord	Come, Sing to the Lord	102 JesusLovrSoul	Jesus, Lover of My Soul
50 ThouDayPromise	Come, Thou Glorious Day of Promise	196 JesusHblBirth	Jesus, Once of Humble Birth
119 ComeLoveLord	Come, We That Love the Lord	141 JesusThought	Jesus, the Very Thought of Thee
58 ChildrenofLord	Come, Ye Children of the Lord	26 JSFirstPrayer	Joseph Smith's First Prayer
94 ComeYeThankful	Come, Ye Thankful People	201 JoytotheWorld	Joy to the World
241 CountBlessing	Count Your Blessings	303 KeepComandmnt	Keep the Commandments

Console Controller	Full Title	Console Controller	Full Title
221 HeartShepherd	Dear to the Heart of the Shepherd	97 LeadKindLight	Lead, Kindly Light
96 DearestChildrn	Dearest Children, God Is Near You	143 LetHolySpirit	Let the Holy Spirit Guide
140 ThinktoPray	Did You Think to Pray?	243 LetAllPressOn	Let Us All Press On
237 DoWhatIsRight	Do What Is Right	232 LetSpeakKind	Let Us Oft Speak Kind Words
293 EachLifeTouch	Each Life That Touches Ours for Good	163 LordDismissUs	Lord, Dismiss Us with Thy Blessing
300 FamilyForever	Families Can Be Together Forever	220 LordFolloThee	Lord, I Would Follow Thee
212 OnJudeaPlains	Far, Far Away on Judea's Plains	153 AskEreWePart	Lord, We Ask Thee Ere We Part
133 FathernHeaven	Father in Heaven	294 LoveatHome	Love at Home
92 ForBeautyEarth	For the Beauty of the Earth	308 LoveOneAnothr	Love One Another
35 StrengthHills	For the Strength of the Hills	105 TempestRaging	Master, the Tempest Is Raging
146 RaiseSacStran	Gently Raise the Sacred Strain	131 MoreHoliness	More Holiness Give Me
67 GlorytoGodHigh	Glory to God on High	135 RedeemerLives	My Redeemer Lives
263 GoForthFaith	Go Forth with Faith	100 NearerMyGod	Nearer, My God, to Thee
152 WeMeetAgain	God Be with You Till We Meet Again	3 NowLetUsRejoice	Now Let Us Rejoice
24 BlessProphet	God Bless Our Prophet Dear	159 NowDayIsOver	Now the Day Is Over
87 GodIsLove	God Is Love	25 NowSingAccord	Now We'll Sing with One Accord
187 GodLovedSent	God Loved Us, So He Sent His Son	31 HelpinAgesPast	O God, Our Help in Ages Past
78 GodFathersHand	God of Our Fathers, Whose Almighty Hand	175 EternalFather	O God, the Eternal Father
20 GodPowerRight	God of Power, God of Right	208 TownBethlehem	O Little Town of Bethlehem
170 GodHearUsPray	God, Our Father, Hear Us Pray	295 LoveGlorifies	O Love That Glorifies the Son
292 OMyFather	O My Father	1 MorningBreaks	The Morning Breaks
150 GraciousFathr	O Thou Kind and Gracious Father	2 SpiritofGod	The Spirit of God
272 OhWhatIsTruth	Oh Say, What Is Truth?	266 TimeFarSpent	The Time Is Far Spent
202 ComeFaithful	Oh, Come, All Ye Faithful	18 VoiceGodHeard	The Voice of God Again Is Heard
246 OnwardSoldier	Onward, Christian Soldiers	194 GreenHillAway	There Is a Green Hill Far Away
113 OurSaviorLove	Our Savior's Love	227 SunshineSoul	There Is Sunshine in My Soul Today
242 PraseBlessing	Praise God, from Whom All Blessings Flow	122 DeepningTrial	Though Deepening Trials
27 PraisetotheMan	Praise to the Man	157 SpiritStrSoul	Thy Spirit, Lord, Has Stirred Our Souls
145 PrayerDesire	Prayer Is the Soul's Sincere Desire	229 TodaySunShine	Today, While the Sun Shines
93 PrayerThanxvgv	Prayer of Thanksgiving	254 TruetoFaith	True to the Faith
81 PressForwardSt	Press Forward, Saints	4 TruthEternal	Truth Eternal
252 ShoulderWheel	Put Your Shoulder to the Wheel	273 TruthReflects	Truth Reflects upon Our Senses
6 RedeemerIsrael	Redeemer of Israel	291 TurnYourHeart	Turn Your Hearts
66 RejoiceIsKing	Rejoice, the Lord Is King!	12 WitnessMornSky	Twas Witnessed in the Morning Sky
287 TemplesEnter	Rise, Ye Saints, and Temples Enter	184 CrossCalvary	Upon the Cross of Calvary
28 BeholdJehovah	Saints, Behold How Great Jehovah	250 WeAllEnlisted	We Are All Enlisted
230 ScatrSunshine	Scatter Sunshine	225 MarchingGlory	We Are Marching On to Glory
144 SecretPrayer	Secret Prayer	216 WeAreSowing	We Are Sowing
204 SilentNight	Silent Night	23 WePrayforThee	We Ever Pray for Thee
156 SingWeNowPart	Sing We Now at Parting	22 WeListenVoice	We Listen to a Prophet's Voice
160 NowLightofDay	Softly Now the Light of Day	19 ThankGodPropht	We Thank Thee, O God, for A Prophet

Console Controller	Full Title	Console Controller	Full Title
142 SwtHourPrayer	Sweet Hour of Prayer	280 SabbathMorn	Welcome, Welcome, Sabbath Morning
14 SweetPeaceGosp	Sweet Is the Peace the Gospel Brings	182 SingHailJesus	We'll Sing All Hail to Jesus' Name
147 SweetIsWork	Sweet Is the Work	16 GloriousScenes	What Glorious Scenes Mine Eyes Behold
304 TeachMetoWalk	Teach Me to Walk in the Light	11 WitnessHeavens	What Was Witnessed in the Heavens?
137 Testimony	Testimony	128 FaithEndures	When Faith Endures
52 DawnIsBreaking	The Day Dawn Is Breaking	129 ITurnforPeace	Where Can I Turn for Peace?
213TheFirstNoel	The First Noel	174 EmblemPartake	While of These Emblems We Partake
274 TheIronRod	The Iron Rod	210 WonderingAwe	With Wondering Awe
305 TheLightDvine	The Light Divine	319 YeElderIsrael	Ye Elders of Israel (Men)
89 LordIsMyLight	The Lord Is My Light	321 YeCalltoLabor	Ye Who Are Called to Labor (Men)
108 LordIsShephrd	The Lord Is My Shepherd	228 PathwayBright	You Can Make the Pathway Bright

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