

# Protégé AP~15

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## ALLEN ORGAN COMPANY

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

In 1939, Allen built and marketed the world's first purely electronic oscillator organ. The tone generators for this first 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 the oscillator organs with transistors. Thousands of transistorized instruments were built, including some of the largest, most sophisticated oscillator organs.

Only a radical technological breakthrough could improve upon the fine performance of Allen's solid-state oscillator organs. Such a breakthrough came in conjunction with the U.S. Space Program in the form of highly advanced digital microcircuits.

Your Protégé organ is the product of years of refinement in digital techniques by Allen engineers. It represents the apex of computer technology applied to exacting musical tasks. The result is an 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 modern computer to create and control beautiful organ tones.

Familiarize yourself with the instrument by reading through this booklet. The sections on stop description and organ registration are intended for immediate use as well as for future reference.

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# DESCRIPTION OF STOPS

## PITCH FOOTAGE

The number appearing on each stop along with its name indicates the “pitch” or “register” of the particular stop. It is characteristic of the organ that notes of different pitches may be sounded from a single playing key. When this sound corresponds to the actual pitch of the playing key, the note (or stop) is referred to as being of 8’ pitch; therefore, when an 8’ stop is selected and Middle C is depressed, the pitch heard will be Middle C. If it sounds an octave higher, it is called 4’ or octave pitch. If it sounds two octaves higher, it is called 2’ pitch, while a stop sounding three octaves higher is at 1’ pitch. Likewise, a 16’ stop sounds an octave lower, and a 32’ stop sounds two octaves lower.

Stops of 16’, 8’, 4’, 2’, and 1’ pitch all have octave relationships; that is, these “even numbered” stops all sound octaves of whatever key is depressed. Pitches other than octaves are also used in organ playing. Their footage number always contains a fraction, and they are referred to as mutations. Among these are the Nasard  $2\text{-}2/3\text{'}$  and Tierce  $1\text{-}3/5\text{'}$ . Because they introduce unusual pitch relationships with respect to the fundamental (8’) tone, they are most effective when combined with other stops, and are used either in solo passages or in small ensembles of flutes (see explanation of Cornet in Section III).

## TONAL FAMILIES

Organ tones divide into two main categories: flues and reeds. In a pipe organ, 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 diapason, principal, flute, and string tones. Compound stops and hybrid stops are “variations” within these three families.

The term “imitative” means that the organ stop imitates the sound of the corresponding orchestral instrument; for example, an imitative Viola 8 would be a stop voiced to sound like an orchestral viola. Below is a brief summary of various organ voices, some or all of which may be on your particular Allen organ.

<b>Principal Voices</b> Principal Diapason Octave Superoctave Quinte	Characteristic organ tone, not imitative of orchestral instruments. Usually present at many pitch levels, as well as in all divisions. Rich, warm, and harmonically well developed, these voices form the backbone of the organ.
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TONAL FAMILIES: continued

<p><b>Flute Voices</b>  <i>Open:</i>          Harmonic Flute          Spitzflöte          flute mutations  <i>Stopped:</i>          Gedackt          Bourdon          Quintadena          Rohr Bourdon</p>	<p>Voices of lesser harmonic development than Diapason or Principal. Open flutes somewhat imitative; stopped flutes not. Present at many pitch levels and in all divisions.</p>
<p><b>String Voices</b>          Salicional          Viola Pomposa          Voix Céleste</p>	<p>Mildly imitative voices of brighter harmonic development than Principal. Usually appear at 8' pitch.</p>
<p><b>Compound Voices</b>          Mixture          Cornet</p>	<p>Voices produced by more than one pitch sounding simultaneously.</p>
<p><b>Hybrid Voices</b>          Gemshorn          Erzähler</p>	<p>Voices that combine the tonal characteristic of two families of sound, e.g., flutes and principals, or strings and principals.</p>

In *reed* pipes, a metal tongue vibrates against an opening in the side of a metal tube called a shallot. The characteristic sounds of different reeds are produced through resonators of varying shape. The family of reeds subdivides as follows:

<p><b>Reed Voices</b>  <i>Chorus or Ensemble:</i>          Trompette          Posaune          Clairon  <i>Solo:</i>          Hautbois          Clarinet          Krummhorn</p>	<p>Voices of great harmonic development; some imitative, others not.</p>
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TONAL FAMILIES: continued

The Allen Protégé Organ provides authentic examples of various types of voices as listed previously. Some of these are protected by copyrights owned by the Allen Organ Company. The voices are stored in memory devices, each having affixed to it a copyright notice; e.g., © 1992 AOCO, © 1993 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

### **EXPRESSION PEDALS**

The AP-15 features two expression pedals. The pedal on the left expresses the Great and Pedal divisions, while the center expression pedal affects the Swell.

### **CRESCENDO PEDAL**

One master Crescendo, for all divisions, gradually adds stops as this pedal is opened. Indicator lights show the relative position of the pedal. Crescendo B is a secondary Crescendo that can be programmed by the organist. Indiscriminate use of the Crescendo pedal, in lieu of careful registration, should be avoided.

### **TUTTI**

The Tutti is a setting of full organ registration. The Tutti is turned on by using the manual piston located beneath the Swell manual directly above the Cancel button. The piston is reversible. Pressing it will turn the corresponding Tutti on or off. The Cancel button will also turn off the Tutti. A Red signal light, appropriately labeled and located on the right side of the console to the left of the expression indicators, turns on when Tutti I is in operation. Like the Crescendo, indiscriminate use of this device should be avoided.

### **“R” RECALL PISTON**

The Recall Piston, when pressed, will return the organ to the combination used just before the current combination.

## AP~15 STOPLIST

### PEDAL ORGAN

Diapason 16'	The 16' member of the Pedal principal chorus. Strongest pedal flue stop.
Bourdon 16'	Stopped flute tone of weight and solidity.
Lieblichgedackt 16' (Swell expression)	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required.
Octave 8'	8' member of the Pedal principal chorus.
Flute 8' (Gt)	Stopped flute tone of 8' pitch, useful in adding clarity to a pedal line in combination with the Bourdon 16' or Lieblichgedackt 16'.
Choralbass 4' (Gt)	Pedal 4' principal tone.
Posaune 16'	Sixteen foot reed that lends strength and "snarl" to the Pedal line.
Tromba 8' (Gt)	Harmonically full, more like trombone tone than trumpet tone. Excellent reed chorus voice. Works very well as a solo reed voice of medium brightness.
Great to Pedal	Connects all Great stops to the Pedal.
Swell to Pedal	Connects all Swell stops to the Pedal.
MIDI on Pedal	Opens MIDI channel to the Pedal.

## SWELL ORGAN

Lieblich Gedackt 16'	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required.
Gedackt 8'	Stopped flute tone of moderate harmonic development. Provides the 8' member of the Swell flute chorus and is useful by itself or with other flutes and mutations in creating solo voices.
Viola Pomposa 8'	String tone.
Viole Celeste 8'	String tone, slightly detuned, used with the Viola Pomposa 8' to create a warm string celeste.  Celestes are created by using two sounds, one tuned slightly sharp or flat of the other, creating a warm, undulating, "celestial" effect. The combination of the Viola Pomposa 8' and Viola Celeste 8' will create beautiful celeste sounds.
Octave Geigen 4'	Principal tone with a string like edge.
Traverse Flute 4'	Distinctive stopped flute voice that works well in ensembles of flutes or strings, or as a solo voice.
Nasard 2-2/3'	Flute mutation that sounds one octave and a fifth above the keys played. Always used with other stops (usually beginning with 8') for coloration.
Piccolo 2'	A delicate, clear open flute at 2' pitch.
Tierce 1-3/5'	Flute mutation that causes the pitch to sound a seventeenth (two octaves and a third) higher than played. Used with 8' stops or flute ensembles.
Furniture IV	Compound stop, or mixture comprised of principal tones. Each note played produces four distinct pitches at octave and fifth relationships to the key being pressed. The Mixture IV should never be used without stops of lower pitches. The Mixture IV is typically added to diapason or flute ensembles, or to a reed chorus.
Waldhorn 16'	Chorus reed tone at the 16' pitch level, designed to supplement the other chorus reeds. Also usable as a distinctive solo reed.

## SWELL ORGAN: continued

French Trumpet 8'	Chorus reed stop of rich harmonic development. Can also be used as a solo voice.
Oboe 8'	A solo reed of nasal timber and medium power. It will also give definition to the flute chorus when added.
Tremulant	Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Swell division.
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 Swell	Opens MIDI channel to the Swell

## GREAT ORGAN

Diapason 8'	Foundation stop of the Great principal chorus, which consists of the Diapason 8', Octave 4', and Fifteenth 2'.
Harmonic Flute 8'	Tone quality of solo stature. Basic tone of the flute chorus.
Flute Celeste (Sw)	Two soft flute tones, one slightly detuned from the other to create a warm celeste.
Octave 4'	The 4' member of the Great principal chorus.
Spitzflöte 4'	Partially stopped flute tone.
Fifteenth 2'	An open metal stop that produces foundation tone at the 2' pitch level.
Mixture IV	A compound stop of principal tones. Four notes in octave and fifth relationships sound together when a single key is depressed. As pitches progress upward, they “break” back to the next lower octave or fifth. Used to cap the Great principal chorus, adding brilliance and pitch definition.
Tromba 8'	Harmonically full, more like trombone tone than trumpet tone. Excellent reed chorus voice. Works very well as a solo reed voice of medium brightness.

Krummhorn 8'	The tone quality of the shawm, a medieval ancestor of the clarinet, is the basis for this light, bright, nasal reed. It can be used alone as a solo or combined with light flues for a somewhat rounder reed solo effect.
Chimes	Typical chimes.
Tremulant	Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Swell division.
Swell to Great	Intermanual coupler connecting all Swell stops to the Great manual.
MIDI on Great	Opens MIDI channel to Great.

### GENERALS

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 in operation. In this case, however, 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 Section II.A. of the Console Controller™ Guide for more information about alternate tunings.
Tremulants Full	When activated along with one or more of the organ's tremulants, this control causes the tremulants to become much deeper than normal classical tremulants. Useful for Gospel music, etc. Also known as "Vibrato."
Console Speakers OFF	Used to switch off the Console Speakers.
External Speakers OFF	Switches off all external speakers (if installed)

## ARTISTIC REGISTRATION

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.

## SUGGESTED SOLO REGISTRATIONS

### CHIMES SOLO [*Play solo on Great*]

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

### SOLO CORNET COMBINATION [*Play solo on Swell*]

Swell: Gedackt 8', Traverser Flute 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5'  
Great: Harmonic Flute 8', Spitzflöte 4'  
Pedal: Lieblichgedackt 16', Flute 8'

### FLUTE SOLO [*Play solo on Great*]

Swell: Viola Pomposa 8', Viola Celeste 8'  
Great: Harmonic Flute 8'  
Pedal: Lieblichgedackt 16', Swell to Pedal

### TRUMPET SOLO [*Play solo on Swell*]

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

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.

Much has been written about ensemble registration. The major points are.

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. If you have questions as to whether a specific reed is a solo or ensemble stop, refer to the Description of Stops in Section I.

The Swell Reed chorus of Contre Trompette 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 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 Pomposa 8'
2. Gedackt 8', Viola Pomposa 8', Travers Flute 4'
3. Gedackt 8', Viola Pomposa 8', Travers Flute 4', Piccolo 2'
4. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Travers Flute 4', Piccolo 2'
5. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Travers Flute 4', Piccolo 2', Fourniture IV
6. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Travers Flute 4', Piccolo 2', Fourniture IV, French Trompete 8'

The use of the Swell to Great couplers allows these separate ensembles to be combined on the Great manual. For example, the Great #5 and Swell #3 coupled together and played on the Great produce a nice round hymn combination. A brighter, more robust sound can be obtained by coupling Swell #5 to Great #5.

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 with ensembles.

### FULL ORGAN

Due to the immense capabilities of the Allen Protégé Organ, every stop and coupler on the instrument could be used simultaneously without distortion, if the organ is adjusted properly. 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.

## TRANSPOSER

Vast computer capability makes it possible to perform the sometimes difficult task of transposing, while allowing the organist to play in the notated key. Operation of the Transposer is controlled by the Transposer knob, found inside the Console Controller™ drawer underneath the left side of the console. Neutral (no transposition) position for the knob is marked “●.” To shift the music to a higher key, move the knob counter-clockwise. The key can be raised a maximum of five half-steps. To shift to a lower key, move the Transposer knob clockwise from “●.” The key can be lowered a total of seven half-steps. A RED INDICATOR LIGHT COMES ON WHEN THE TRANSPOSER KNOB IS MOVED FROM THE “●” POSITION.

### WHY TRANSPOSE?

1. Because the written range of a song will not always suit the vocal range of a particular singer. By adjusting the transposer, the piece can be sung more comfortably and effectively.
2. Because music for some instruments is not written in the same key as organ music. A trumpet or clarinet in B $\flat$ , for example, can read the same music as the organist, if the Transposer knob is set two half-steps lower.
1. Because hymn singing can sometimes be improved by a more favorable key selection. Hymn singing can also be enhanced by playing all but the final verse of a hymn in its original key, followed by a short modulation to the key one half-step higher. After changing the Transposer, the organist will then play the final verse in the original key, but it will sound one half-step higher. If a hymn is already in a fairly high key, it may be preferable to play the first few stanzas in the written key with the Transposer set *down* one half- or one whole-step; then modulate up to the original key and return the Transposer to neutral for the final stanza (again played in the written key).

## SETTING PISTONS

Allen's Lumitech™ capture system allows the organist to set ten stop combinations in each of eight memories.

### SETTING PISTONS ON THE AP-15

The General pistons are on the left of the console under the Swell manual. Draw the stops you wish to save. Press and hold the Set Piston; then press and release the desired General piston. Release the Set Piston Remember that General pistons are customarily set from soft to loud using graduated stop combinations. The pistons you have set will remember the combinations you have assigned and draw them each time a General Piston is pressed. You can change your stop combinations at any time by repeating the above procedure.

The AP-15 has Divisional as well as General pistons. The piston setting process in all cases is the same as Setting General Pistons described above. Only Swell stops can be set with the Swell Divisional

pistons. Only Great stops can be set with the Great Divisional pistons. The MIDI on Pedal, MIDI on Swell, and MIDI on Great stops can be set on either Divisional or General pistons. The Swell to Pedal and Great to Pedal as well as Swell to Great couplers can only be set on General Pistons.

### **“R” RECALL PISTON**

The “R” Recall Piston, when pressed, will cause the stops to return to the combination used just before the current combination.

**NOTE:** The capture action is not fully operable until approximately six seconds after the organ is turned on.

### **VIRTUAL ACOUSTICS™ SETTINGS**

Virtual Acoustics™ provides the spatial ambiance of reverberant rooms of various sizes. Although most effective in poor (non-reverberant) acoustic environments, it enhances the sound even in excellent acoustic settings.

There are 21 selectable Virtual Acoustics™ pallets. One of these, the DEFAULT setting, is not adjustable. The other 20 pallets are adjustable. They allow an organist to modify the sound of the organ to accommodate a room’s changing acoustical properties. For example, a room’s reverberation characteristics change as the number of people present changes. Differences in reverberation time also occur when a room’s windows are opened or closed.

The rocker switch labeled VIRTUAL ACOUSTICS™ in the Console Controller™ drawer must be ON to hear the selected reverb pallet. The amount of reverb can be changed on the 20 adjustable pallets. The selected reverb level, measured in dB (decibels), is shown in the Console Controller™ window. The range of control in each pallet is from 0 dB to -30 dB. Minus 30 dB is the least amount of reverb. Zero (0) dB provides the most reverb available in that pallet.

When you change the Virtual Acoustics™ setting, you must turn the rocker switch OFF and ON again for the new setting to take effect.

## **INSTALLATION, VOICING, AND CARE OF THE ORGAN**

### **INSTALLATION**

Wherever your Protégé 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**

The Protégé organ enjoys unprecedented accuracy in the scaling and voicing of each note of every stop. This musical breakthrough is an inherent part of the engineering design of the instrument. Final adjustments in scaling and voicing involve controls within the console and are best left to an expert. These adjustments are normally a part of installation and, once done, should not require changes, unless the instrument is moved to a new location.

Bass frequency projection is strongly affected by tone cabinet location. Although none of the tone cabinets should be moved once the installation has been completed, extra care should be exercised to prevent inadvertent movement of the bass tone cabinet

### **BATTERY BACKUP SYSTEM**

The memory for the capture system on your Protégé organ is sustained by a Lithium battery. This allows capture settings and related items to be retained in memory when the organ is switched off or unplugged. Under normal circumstances, the Lithium battery should last for several years. A built-in warning system will alert you when the battery becomes weak and needs to be replaced. The green power light will flash for about ten seconds after the organ is switched on if the battery is in need of replacement.

Should the battery in your Protégé organ require replacement, contact your local Allen authorized service representative.

## CARE OF THE ORGAN

Your Allen Protégé 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, then polish immediately with the dry cloth. Do not use soap or detergent on keys or stop tablets.

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!

### CAUTION

Do not plug the instrument into any current source other than 105-128 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 adapter.

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

In churches where circuit breakers are turned off between worship services, the circuit breaker affecting the organ console AC power should have a guard installed to prevent its being accidentally switched off.

Read and comply with all instructions and labels that may 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.