Digital Organ Preset Registrations: Allen AP-16

Issued December 1999

To Ward and Stake Organists

From Musical Instrument Selection Committee

Subject Allen AP-16 Organ - Level 2 Preset Registrations



The Allen AP-16 organ represents significant improvements in digital voicing and performance for use in our chapels. This document is to acquaint organists with preset registrations that have been designed to enhance the enjoyment and ease of use in LDS services.

Level 2 General Preset Registrations

	Piston	Pedal	Swell	Great
Prelude and soft choir accompaniment	General 1	Lieblichgedackt 16', Sw. to Ped.	Viola Pomposa 8', Viola Celeste 8'	Flute Celeste II
	General 2	Lieblichgedackt 16', Sw.to Ped.	Viola Pomposa 8', Viola Celeste 8', Flute Celeste II	Harmonic Flute 8'
soft choi	General 3	Lieblichgedackt 16', Sw. to Ped.	Gedackt 8'	Diapason 8', Harmonic Flute 8'
ide and s	General 4	Bourdon 16', Flute 8'	Gedackt 8', Piccolo 2'	Harmonic Flute 8', Spitzflöte 4'
Prelu	General 5	Contre Violone 32', Bourdon 16', Sw. to Ped.	Gedackt 8', Viola Pomposa 8', Viola Celeste 8', Flute Celeste II, Traverse Flute 4'	Diapason 8', Harmonic Flute 8', Spitzflöte 4', Sw. to Gt.
nging	General 6	Bourdon 16', Flute 8'	Gedackt 8', Traverse Flute 4'	Diapason 8', Harmonic Flute 8'
Congregational hymn singing	General 7	Bourdon 16', Octave 8'	General 6' + Piccolo 2'	Diapason 8', Octave 4'
	General 8	General 7 + Choralbass 4'	Gedackt 8', Viola Pomposa 8', Principal 4', Piccolo 2'	General 7 + Fifteenth 2'
	General 9	Diapason 16', Octave 8', Choralbass 4', Mixture III	General 8 + Oboe 8'	General 8 + Mixture IV
	General 10	General 9 + Contre Violone 32', Posaune 16', Sw. to Ped.	General 9 + Fourniture IV, Waldhorn 16', Tromba 8'	General 9 + Sw. to Gt.

Explanations/Suggestions

Digital Organ Preset Registrations: Allen AP-16

- 1. General Combinations 1-5 are examples for prelude and soft choir accompaniment.
- 2. General Combinations 6-10 are suitable for congregational hymn singing and louder choir accompaniments, being a gradual build-up from General 6 (useful for a soft congregational hymn such as "Silent Night") through General 10 (nearly full organ for the last verse of a hymn such as "Redeemer of Israel"). Postludes use either soft or louder registrations, as appropriate.
- 3. Memory Level 3 is also preset at the factory. It is identical to Level 2, except for the presence of the Bass Coupler which is set on all 10 General Combinations for the convenience of organists not yet able to use the pedals. These two levels are unalterable, but additional levels 3-8 are fully adjustable.

Level 2 <u>Divisional</u> Preset Registrations

Piston	Pedal	Swell	Great
Divisional 1	Lieblichgedackt 16	Gedackt 8', Nasard 2 2/3', Tremulant	Harmonic Flute 8', Tremulant
Divisional 2	Lieblichgedackt 16', Flute 8'	Gedackt 8', Traverse Flute 4', Nasard 2 2/3'	Harmonic Flute 8', Spitzflöte 4'
Divisional 3	Bourdon 16', Octave 8'	Gedackt 8', Nasard 2 2/3', Tierce 1 3/5', Tremulant	Diapason 8', Harmonic Flute 8', Tremulant
Divisional 4	Pedal 3 + Choralbass 4'	Clarinet 8', Swell Solo Voices	Krummhorn 8'
Divisional 5	Pedal 4 + Waldhorn 16'	Open Flute 4, Cor Anglais 8', Tremulant, Swell Solo Voices	Spitzflöte 4', Krummhorn 8', Tremulant
Divisional 6	Pedal 5 + Contre Violone 32', Bourdon 16', Lieblichgedackt 16', Flute 8', Mixture III, Posaune 16', French Trumpet 8'	Oboe 8'	French Trumpet 8'

Explanations/Suggestions

Digital Organ Preset Registrations: Allen AP-16

The Six Swell and Six Great Divisional Pistons are set with combinations for a <u>single melody line</u>, while playing the accompaniment on a separate manual. They are useful either with or without Tremulant, according to your preference. You will notice that half of the combinations have been arbitrarily preset with the Tremulant. It is most effective when used rather sparingly in soft prelude solo melody combinations. The Tremulant should never be used to accompany congregational singing or choir.

Protégé AP~16

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AOC P/N 033-00006 10-99

ALLEN ORGAN COMPANY

For more than sixty years, 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.

AP-16 i

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AP~16 STOPLIST

PEDAL ORGAN

32 Contre violone Rich string tone at the pottom of the regal Division	32' Contre Violone	Rich string tone at the bottom of the Pedal Division.
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16' Diapason The 16' member of the Pedal Principal Chorus. Strongest pedal

flue stop.

16' Bourdon Stopped flute tone of weight and solidity.

16' Lieblichgedackt (Swell expression)

Softer stopped flute of delicacy and definition. Useful where a

soft 16' pitch is required.

8' Octave 8' member of the Pedal principal chorus.

8' Flute (Gt) Stopped flute tone of 8' pitch, useful in adding clarity to a pedal

line in combination with the Bourdon 16' or Lieblichgedackt

16'.

4' Choralbass (Gt) Pedal 4' principal tone.

Mixture III Three rank mixture compound stop of principal tones. One

pedal keyed produces three distinct pitches at octave and fifth

relationships. Used to crown the Pedal Principal Chorus.

16' Posaune 16' reed that lends strength and "snarl" to the Pedal line.

16' Waldhorn Imitation of the hunting horn. Excellent reed stop to combine

with other reeds or flutes.

8' French Trumpet

(Gt)

A dominating Reed Chorus or solo voice.

Great to Pedal Connects all engaged Great stops to the Pedal.

Swell to Pedal Connects all engaged Swell stops to the Pedal.

MIDI on Pedal Opens MIDI channel to the Pedal.

SWELL ORGAN

16' Lieblich Gedackt Softer stopped flute of delicacy and definition. Useful where a

soft 16' pitch is required.

8' Gedackt 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.

SWELL ORGAN continued

8' Viola Pomposa	String tone.
8' Viole Celeste	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.
8' Flute Celeste II	Two soft flute tones, one tuned slightly sharp from the other, that create a soft accompaniement celeste.
4' Octave	Principal tone with a string like edge.
4' Traverse Flute	Distinctive stopped flute voice that works well in ensembles of flutes or strings, or as a solo voice.
2-2/3' Nasard	Flute mutation that sounds one octave and a fifth above the keys played. Always used with other stops (usually beginning with 8') for coloration.
2' Piccolo	A delicate, clear open flute at 2' pitch.
1-3/5' Tierce	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.
Fourniture 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.
16' Waldhorn	Chorus reed tone at the 16' pitch level, designed to supplement the other chorus reeds. Also usable as a distinctive solo reed.
8' Tromba	Harmonically full, more like trombone tone than trumpet tone. Excellent reed chorus voice. Works very well as a solo reed voice of medium brightness.
8' Oboe	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.

AP-16 2 SECTION I

SWELL ORGAN continued

MIDI on Swell Opens MIDI channel to the Swell

Swell Second Voices:

8' Clarinet An imitative reed stop of 8' pitch.

8' French Horn Imitative of the orchestral instrument

8' Cor Anglais Imitative of the orchestral instrument.

GREAT ORGAN

16' Violone Rich string tone, will add fullness to a chorus or can be used for

subtle melodies.

8' Diapason Foundation stop of the Great principal chorus, which consists of

the Diapason 8', Octave 4', and Fifteenth 2'.

8' Harmonic Flute Tone quality of solo stature. Basic tone of the flute chorus.

Flute Celeste II (Sw) Two soft flute tones, one slightly detuned from the other to

create a warm celeste.

4' Octave The 4' member of the Great principal chorus.

4' Spitzflöte Partially stopped flute tone.

2' Fifteenth 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.

8' French Trumpet Chorus reed stop of rich harmonic development. Can also be

used as a solo voice.

8' Krummhorn The tone quality of the Shawm, a medieval ancestor of the

Clarinet, is the basis for this light, bright, nasal reed. Usually used as a solo reed or combined with light flues for a somewhat

rounder reed solo effect.

Chimes Typical tubular chimes.

GREAT ORGAN continued

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.

GENERAL STOP TABLETS

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 manual 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 ControllerTM. See Section II.A. of the Console ControllerTM Guide for more information about

alternate tunings.

EXPRESSION PEDALS

The AP-16 features two expression pedals. The pedal on the left expresses the Great and Pedal divisions, while the expression pedal to the right affects the Swell division.

"R" RECALL PISTON

The Recall Piston, when pressed, will return the organ to the registration 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.

AP-16 4 SECTION I

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 2~2/3' and Tierce 1~3/5'. 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.

Principal Voices	
Principal	Characteristic organ tone, not imitative of orchestral instruments.
Diapason	Usually present at many pitch levels, as well as in all divisions.
Octave	Rich, warm, and harmonically well developed, these voices form
Superoctave	the backbone of the organ.
Fifteenth	
Flute Voices	
Open:	
Harmonic Flute	
Spitzflöte	Voices of lesser harmonic development than Diapason or Principal.
flute mutations	Open flutes somewhat imitative; stopped flutes not as much.
Stopped:	Present at many pitch levels and in all divisions.
Gedackt	
Bourdon	

TONAL FAMILIES continued

String Voices				
Salicional	Mildly imitative voices of brighter harmonic development than Principal. Usually appear at 8' pitch.			
Viola Pomposa				
Viola Céleste				
Violone				
Compound Voices	Y ' 1 1 1 1 1 '(1 1'			
Mixture	Voices produced by more than one pitch sounding			
Cornet	simultaneously.			

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:

Reed Voices	
Chorus or Ensemble:	
French Trompette	
Posaune	Voices of great harmonic development; some imitative, others
Waldhorn	not as much. It is common for reed voices to create brass
Solo:	instrument voices.
Oboe	
Clarinet	
Krummhorn	
Cor Angelis	
French Horn	

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., © 1998 AOCO, © 1999 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

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: Viola Pomposa 8', Viola Celeste 8'

Great: Chimes

Pedal: Lieblichgedackt 16', Swell to Pedal

SOLO CORNET COMBINATION [Play solo on Swell]

Swell: Gedackt 8', Traverse 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' Tremulant optional.
Pedal: Lieblichgedackt 16', Swell to Pedal

TRUMPET SOLO [Play solo on Swell]

Swell: Tromba 8'

Great: Diapason 8', Octave 4', Harmonic Flute 8', Spitzflöte 4'

Pedal: Bourdon 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 as follows.

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.

ENSEMBLE REGISTRATIONS continued

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 built of the Waldhorn 16' and Tromba 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 registration combinations for the Swell and Great manuals:

GREAT

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

SWELL

- 1. Gedackt 8', Viola Pomposa 8'
- 2. Gedackt 8', Viola Pomposa 8', Traverse Flute 4'

SWELL ENSEMBLE REGISTRATIONS continued

- 3. Gedackt 8', Viola Pomposa 8', Traverse Flute 4', Piccolo 2'
- 4. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Traverse Flute 4', Piccolo 2'
- 5. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Traverse Flute 4', Piccolo 2', Fourniture IV
- 6. Gedackt 8', Viola Pomposa 8', Octave Geigen 4', Traverse Flute 4', Piccolo 2', Fourniture IV, Tromba 8'

The use of the Swell to Great couplers allows these separate ensembles to be combined on the Great manual. For example, the Great #6 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 #6.

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.
Allen Orogan Co. Part Number: 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 counterclockwise. 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 $B\Box$ for example, can read the same music as the organist, if the Transposer knob is set two half-steps lower.
- 3. 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 General stop combinations in each of eight memories.

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.

SETTING PISTONS continued

The AP-16 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.

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 AcousticsTM pallets. One of these, the DEFAULT setting, is not adjustable by the organist. 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 ACOUSTICSTM in the Console ControllerTM 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 ControllerTM window. The range of control in each pallet is from \emptyset dB to $^3\emptyset$ dB. Minus $^3\emptyset$ dB is the least amount of reverb. Zero (\emptyset) dB provides the most reverb available in that pallet.

When you change the Virtual AcousticsTM 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.

VOICING

The Protégé AP-16 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 are best left to an your Allen representative.. 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. None of the tone cabinets should be moved once the installation has been completed and extra care should be exercised to prevent inadvertent movement of any 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..

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. It faithfully reproduces the organ traditions of the past and 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.