

# Renaissance

## R-280

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Most recently, Allen Organ Company advanced past another technological milestone. Your Renaissance™ 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 Renaissance 280 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, while a 32’ stop sounds two octaves lower.

Stops of 32’, 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  $2\text{-}2/3$ ’ and Tierce  $1\text{-}3/5$ ’. 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 Diapason Octave Fifteenth Montre	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 foundation of the organ.
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TONAL FAMILIES: continued

<p>Flute Voices  <i>Open:</i>                  Flute Harmonique                  Spitzflöte                  flute mutations  <i>Stopped:</i>                  Gedackt Flûte                  Bourdon doux                  Rohrbourdon</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>String Voices                  Salicional                  Violone                  Gambas                  Voix Céleste</p>	<p>Mildly imitative voices of brighter harmonic development than Principal. Usually appear at 8' pitch.</p>
<p>Compound Voices                  Mixtures                  Cornet</p>	<p>Voices produced by more than one pitch sounding simultaneously.</p>
<p>Hybrid Voices                  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>Reed Voices  <i>Chorus or Ensemble:</i>                  Trompette                  Posaune                  Clarion - 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

Your Allen Renaissance Organ provides authentic examples of various types of voices as listed above. 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., © 1999 AOCO, © 2000 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

### EXPRESSION PEDALS

The R-280 features two expression pedals. The pedal on the left expresses the Great and Pedal divisions, while the center expression pedal affects the Swell division stops.

### 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 (see Console Controller™ and MIDI Guide, section "B"). Indiscriminate use of the Crescendo pedal, in lieu of careful registration, should be avoided.

### TUTTI I & II

The Tutti I and II are settings of full organ registration. Tutti II is a fuller registration than Tutti I. The Tuttis are turned on by using manual pistons located beneath the Swell manual directly above the Cancel button. The pistons are reversible. Pressing them will turn the corresponding Tutti on or off. The Cancel button will also turn off the Tuttis. Pressing Tutti II will cancel Tutti I. Red signal lights, appropriately labeled and located on the right side of the console to the left of the expression indicators, will illuminate when Tutti I or II is in operation. The organist can program a second set of Tuttis (see Console Controller™ and MIDI Guide, section "B"). Like the Crescendo, indiscriminate use of these devices should be avoided.

### "R" RECALL PISTON

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

## R-280 STOPLIST

### PEDAL ORGAN

32' Contre Violone	String tone at 32' pitch.
16' Diapason	The 16' member of the Pedal Principal Chorus. Strongest pedal flue stop.
16' Violone	String tone at 16' pitch.
16' Bourdon	Stopped flute tone of weight and solidity.
16' Bourdon doux (Swell expression)	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required.
8' Octave	Eight foot member of the Pedal Principal Chorus.
8' Gedackt	Stopped flute tone of 8' pitch, useful in adding clarity to a pedal combination with either the 16' Bourdon or the 16' Bourdon doux.
4' Choralbass	Pedal 4' principal tone.
Mixture IV	Compound stop of principal tone. One pedal produces four distinct pitches at octave and fifth relationships to the pedal being pressed. Used to crown the Pedal principal chorus.
32' Contre Posaune	Strong reed that lends strength and definition to the Pedal line.
16' Posaune	Sixteen foot reed that lends strength and "snarl" to a Pedal line.
16' Contre Trompette (Swell expression)	Pedal reed of less power and harmonic development than the Posaune. Excellent reed chorus voice.
8' Tromba	Harmonically full, more like trombone tone than the brighter trumpet tone. Excellent reed chorus voice. Works very well as a solo reed voice of medium brightness.
4' Clarion	Bright 4' chorus reed. Combines with 16' Contra Trompette and 8' Tromba to form the full Pedal Reed Chorus. Also useful as a solo voice.
8' Great to Pedal	This intermanual coupler allows Great stops to be played with the Pedal manual.

## PEDAL ORGAN: continued

8' Swell to Pedal	This intermanual coupler allows Swell stops to be played with the Pedal manual.
4' Swell to Pedal	This intermanual coupler allows Swell stops to be played with the Pedal manual at a pitch an octave higher than the 8' Swell to Pedal pitch.
Ancillary on Pedal	When selected, this Intermanual Coupler enables stops in the Ancillary Division to be played from the Pedal manual. See FLOATING ANCILLARY DIVISION page 9 of this manual.
MIDI on Pedal	Opens MIDI channel to the Pedal.

## SWELL ORGAN

16' Bourdon doux	Stopped flute voice of delicacy and definition. Useful where soft 16' pitch is required.
8' Salicional	Soft string tone.
8' Voix Celeste	String tone, slightly detuned, used with the 8' Salicional to create a warm string celeste. Celestes are created when two sounds are played together, one tuned slightly sharp or flat of the other, creating a warm, undulating, "celestial" effect.
8' Rohr Bourdon	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.
4' Prestant	Principal tone with a bright, lively and a slight string edge.
4' Flûte	Distinctive stopped flute voice that works well in ensembles of flutes or strings or even as a solo voice.
2-2/3' Nasard	Flute mutation that sounds one octave and a fifth above the key played. Always used with other stops (usually beginning with 8') for color variations.
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.

## SWELL ORGAN: continued

Furniture IV	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. It is typically added to diapason or flute ensembles, or to a reed chorus.
16' Contre Trompette	Chorus reed tone at the 16' pitch level, designed to supplement the other chorus reeds. Also usable as a distinctive solo reed.
8' Trompette	Chorus reed stop of rich harmonic development. Can also be used as a solo voice.
8' Basson-Hautbois	A somewhat haunting reed of nasal timbre and medium power. Imitative of both the orchestral Basson and Oboe when played at the appropriate keyboard register. 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.
16' Swell to Swell	Swell Sub-octave Coupler. Swell voices speak one octave lower than the pitch indicated on the stop, when played from the Swell Manual.
Swell Unison Off	Turns OFF stops in the Swell division at their indicated pitch level, while allowing them to speak at octave and sub-octave pitch levels when octave and sub-octave couplers are drawn.
4' Swell to Swell	Swell Octave Coupler. Swell voices speak one octave above the pitch indicated on the stop, when played from the Swell Manual.
Ancillary on Swell	When selected, this Intermanual Coupler enables stops in the Ancillary division to be played from the Swell manual. See FLOATING ANCILLARY DIVISION page 9 of this manual.
MIDI on Swell	Opens MIDI channel to the Swell.

SOLO ORGAN VOICES See Page 10 referring to SWELL SOLO SECOND VOICES.

## Swell Percussion Voices

Celesta	Delicate percussive sounds of the same orchestral instrument.
Harpsichord	Typical sound of stringed harpsichord.

## GREAT ORGAN

16' Violone	Rich string tone. Adds 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' Gamba	Moderate string tone. Useful melody as well as ensemble stop.
8' Flûte Harmonique	Tone quality of solo stature. Basic voice of the Flute Chorus.
8' Flute Celeste II	Two soft flute tones, one slightly de-tuned from the other to create a warm celeste.
4' Octave	The 4' member of the Great Principal Chorus.
4' Spitzflöte	Partially stopped flute tone. A member of the Flute Chorus that speaks an octave higher than the 8' Flûte Harmonique.
2' Fifteenth	An open metal pipe stop that produces foundation tone at 2' pitch.
Mixture IV	A compound stop of principal tone. 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.
Cymbale III	Three rank mixture of principal tone. Each note produces three pitches at octave and fifth relationships to the key depressed. Typically drawn after the principal chorus, including the Mixture IV, has been drawn.
16' Posaune	Sixteen foot reed that lends strength and "snarl" to a Pedal line.
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' Krummhorn	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.

## GREAT ORGAN: continued

4' Clarion	Bright 4' chorus reed. Combines with 16' Posaune and 8' Tromba to form the Great Reed Chorus. It is also useful as a solo reed voice.
Tremulant	Same as Tremulant in Swell, but affects stops in the Great division.
Chimes	Typical Tubular Chimes.
16' Swell to Great	An intermanual coupler that enables Swell stops to be played from the Great manual an octave below their pitch.
8' Swell to Great	An intermanual coupler that enables Swell stops to be played from the Great manual at their pitch.
4' Swell to Great	An intermanual coupler that enables Swell stops to be played from the Great manual an octave higher than their pitch.
Ancillary on Great	When selected, this Intermanual Coupler enables stops in the Ancillary division to be played from the Great manual. See FLOATING ANCILLARY DIVISION page 9 of this manual.
MIDI on Great	Opens MIDI channel to Great manual.
French Voicing Gt-Pd	See Page 11 "GREAT-PEDAL FRENCH SECOND VOICES"

## GENERAL STOP CONTROLS

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 manual will also play all stops drawn in the Pedal Division. This allows voices normally played from the pedal manual to be heard without using the pedal-board.
Alternate Tuning	When activated, the organ's tuning will change to the alternate tuning selected from the Console Controller™. See Section B 1 of the Renaissance Console Controller™ and MIDI Guide for more information about alternate tunings.

## GENERAL STOP CONTROLS: continued

Tremulants Full	When activated along with one or more of the organ's tremulants, this control causes the tonal vibrations to become much deeper than normal classical tremulants. This sound is useful for playing Gospel music or theatre organ style, etc. Also known as "Vibrato."
Swell Main OFF, Gt-Pd Main OFF	Used in conjunction with the Swell to Antiphonal and Gt-Pd to Antiphonal stop-tablets. These controls disable the Main speakers. If either of these controls is engaged and the corresponding division's Antiphonal control is not engaged, the division will not sound.
Swell to Antiphonal, Gt-Pd to Antiphonal	These cause the appropriate division's voices to speak from Antiphonal speakers. When drawn, those divisions will speak from both Antiphonal and Main speakers. When the corresponding Main OFF controls are also drawn, the division's Antiphonal speakers will sound alone.

## FLOATING ANCILLARY DIVISION

16' Gamba Celeste II	Two string tones, one slightly de-tuned from the other to create a deep string celeste tone. Sounds an octave below the 8' Gamba Celeste II and contributes tonal depth when used with it.
8' Gamba Celeste II	Two string tones, one slightly de-tuned from the other to create a lush celeste. Sounds at the 8' pitch.
8' Lieblich Flute	Soft, round Flute tone that speaks at the 8' pitch. Useful as an ensemble voice.
4' Gamba Celeste II	Two string tones, one slightly de-tuned from the other to add brightness when used with the 8' Gamba Celeste II. Sounds an octave higher the 8' Gamba Celeste II
4' Lieblich Flute	Soft, light Flute tone that speaks at the 4' pitch. Useful as an ensemble voice and will add brightness to the 8' Lieblich Flute.
16' Vox Humana	Sounds an octave below the 8' Vox Humana with the same tone color.
8' Vox Humana	Imitates human voices as distant choral "Ah" sounds. A gentle reed voice with many overtones. Can be used with flutes or strings.

## FLOATING ANCILLARY DIVISION: continued

- 16' Trompeta Real      Large solo reed with Spanish style trumpet tone that sounds an octave below the 8' Trompeta Real.
- 8' Trompeta Real      Large solo reed with Spanish style trumpet tone capable of being heard above a full ensemble of voices.
- Tremulant              Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with stops in the Ancillary Division. This stop will affect the voices of the Ancillary Division any time it is engaged along with one of the Ancillary stops. The other divisional tremulant stops will not affect the Ancillary division's voices.
- Ancillary Unenclosed      Use of this stop causes the voices of the Ancillary Division to sound at full loudness. It is useful when used with the 16' or 8' Trompeta Real for dominating solo melody lines.

## SWELL SOLO SECOND VOICES

In addition to the comprehensive stop specification of the R-280, there are a variety of Solo Second Voices that can be accessed from the Swell manual. The Solo Second Voices stop names are printed on primary voice drawknobs in red superscript as follows: Orchestral Flute, Clarinet, French Horn, Cor Anglais and Hautbois. These Solo Second Voices are all imitative voices of instruments heard in an orchestra. They all speak at the 8' pitch.

The Swell Solo Second Voices are activated by first depressing the Solo Organ Voices rocker tablet and then selecting the desired Solo Second Voice stop in the Swell Division.

- 8' Orchestral Flute      An open wood or metal Flute of 8' manual pitch.
- 8' Clarinet              An imitative reed stop with somewhat wooden tone.
- 8' French Horn          An imitative reed stop with solid brass tone.
- 8' Cor Anglais          Similar to the English Horn of an orchestra.

## GREAT - PEDAL FRENCH SECOND VOICES

The characteristics of several stops in the Great and Pedal Divisions can be changed using the French Voicing Gt-Pd control that is located in the Great Division's rocker tablet section. The French Voicing Second Voices are accessed from certain stops in the Great and Pedal draw-knob sections. Notice that some drawknobs have the names of two voices, the primary voices are engraved in black while the French Second Voices are in red. French Voicing Second Voices are accessed by first engaging the French Voicing Gt-Pd stop and then selecting the desired Great and Pedal Division stops.

### PEDAL DIVISION FRENCH SECOND VOICES

32'	Subbass	Deep bass flute tone. This voice is a flute tone while the Contra Violone is a string tone. Appropriate to the French organ tonal design.
16'	Montre	French style foundation voice. Articulate initial tone, then warmth. Blends well with French Reeds and the French Montre Chorus of the Great Division.
16'	Flûte	French style flute tone an octave below the 8' pitch.
8'	Flûte	French style flute tone.
32'	Bombarde	A powerful penetrating Chorus Reed deep in pitch.
8'	Trompette	French style Chorus Reed.
4'	Clairon	French style Chorus Reed that sounds an octave higher than the 8' Trompette

### GREAT DIVISION FRENCH SECOND VOICES

16'	Montre	French style foundation voice that speaks an octave below the 8'.
8'	Montre	French style foundation voice. Articulate initial tone, then warmth. Blends well with French Reeds and is the foundation of the French Montre Chorus of this Division.
8'	Bourdon	Stopped flute tone of weight and solidity.
4'	Prestant	French style foundation stop that is brighter and more articulate than its 4' Octave counterpart.

Progressive Harmonics French style four rank mixture. The name Cavallé-Coll organ builders gave their mixture pitched at 16' instead of 8'.

## ARTISTIC REGISTRATION

Organ registrations fall into two broad categories: solo combination registrations and ensemble registrations.

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). Using Swell flute stops at these pitches creates the Cornet: 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: Salicional 8', Voix Celeste 8'  
Great: Chimes  
Pedal: Bourdon doux 16', Swell to Pedal  
*Play solo on Great.*

### SOLO CORNET COMBINATION

Swell: Rohrbourdon 8', Flûte 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5'  
Great: Flûte Harmonique 8'; or Flute Celeste II 8'  
Pedal: Bourdon doux 16', Gedackt 8'  
*Play solo on Swell.*

### FLUTE SOLO

Swell: Rohrbourdon 8'; or Solo Organ Voices plus Orchestral Flute 4'  
Great: Flute Celeste II 8'  
Pedal: Bourdon doux 16', Great to Pedal  
*Play solo on Swell*

### BASSON, FRENCH HORN, CLARINET, COR ANGLAIS SOLO

Swell: Basson 8', or Solo Organ Voices plus one of French Horn, Clarinet, or Cor Anglais  
Great: Diapason 8', Octave 4'  
Pedal: Diapason 16', Octave 8'  
*Play solo on Swell.*

### TRUMPET REAL SOLO

Swell: Rohrbourdon 8', Salicional 8', Prestant 4', Flûte 4', Piccolo 2', Swell Unison Off, Ancillary on Swell  
Ancillary Trompeta Real 8'  
Great: Diapason 8', Gamba 8', Flûte Harmonique 8', Octave 4', Spitzflöte 4', Fifteenth 2', Mixture IV, Swell to Great  
Pedal: Diapason 16', Octave 8', Choralbass 4', Mixture IV, Contre Trompette 16', Tromba 8', Great to Pedal, Swell to Pedal  
*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.

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. 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 when building up an ensemble. Not all reed voices are ensemble tones. A Hautbois, for example, is usually a solo stop. The various Trompettes, Clarions, 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. Flûte Harmonique 8', Spitzflöte 4'
2. Flûte Harmonique 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', Flûte Harmonique 8', Octave 4', Spitzflöte 4', Fifteenth 2', Mixture IV

### SWELL

1. Rohrbourdon 8', Salicional 8'
2. Rohrbourdon 8', Salicional 8', Flûte 4'
3. Rohrbourdon 8', Salicional 8', Flûte 4', Piccolo 2'
4. Rohrbourdon 8', Salicional 8', Prestant 4', Flûte 4', Piccolo 2'
5. Rohrbourdon 8', Salicional 8', Prestant 4', Flûte 4', Piccolo 2', Fourniture IV
6. Rohrbourdon 8', Salicional 8', Prestant 4', Flûte 4', Piccolo 2', Fourniture IV, Trompette 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 the Renaissance™ 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 put on every stop on the instrument. This would be similar to adding all of the spices in a kitchen to a dish they were preparing! 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. Since 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.
3. 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, an organist can 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. The organist can then modulate up to the original key and return the Transposer to neutral for the final stanza (again played in the written key).

## 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 Renaissance™ 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 Renaissance™ 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.

VOICING continued:

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

## CARE OF THE ORGAN

Your Allen digital 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!

## BATTERY BACKUP SYSTEM

A Lithium battery sustains the memory for the capture system on your Renaissance™ organ. 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. It is important to view the display of the Console Controller™ during the start-up sequence. A message will be displayed to alert you if the battery is in need of replacement. Should this occur, you will need to contact your local Allen Organ authorized service representative.

### 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.