

MDS-51-S

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IMPORTANT SAFETY INSTRUCTIONS

These safety instructions are provided to reduce the risk of fire, electric shock and injury. **WARNING** -- When using electric products, basic precautions should always be followed, including the following:

1. Read and understand all instructions and warnings.
2. This product may be equipped with a polarized line plug (one blade wider than other). This is a safety feature. If you are unable to insert plug into outlet, contact an electrician to replace obsolete outlet. Do not defeat the safety purpose of the plug.
3. Do not overload wall outlets and extension cords. This can increase the risk of fire or electric shock.
4. Do not allow anything to rest on the power cord.
5. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
6. Unplug the organ from the wall outlet and consult qualified service personnel in any of the following situations.
 - The power supply cord is frayed or damaged.
 - Liquid has been spilled into the product.
 - The product has been exposed to water.
 - The product does not appear to operate normally or exhibits a marked change in performance.
 - The product has been dropped, or the enclosure damaged.
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8. Do not attempt to service the product beyond that described in the owners manual. All other servicing should be referred to qualified service personnel.

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SAVE THESE INSTRUCTIONS

ALL WARNING AND SAFETY INSTRUCTIONS PERTAIN
TO THE ORGAN AND THE AMP RACK (IF REQUIRED)

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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.

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Your MDS 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 Digital Computer 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 and Quinte 2-2/3’, Tierce 1-3/5’, and Quintflöte 1-1/3’. 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 II).

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 principal tones, flute tones, 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.

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

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 different shapes. The family of reeds subdivides as follows:

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| Reed Voices <i>Chorus or Ensemble:</i> Trumpet Posaune Clairon <i>Solo:</i> Hautbois Clarinet Krummhorn | Voices of great harmonic development; some imitative, others not. |
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MDS-51-S STOPLIST

Following is a discussion of individual stops and how they are generally used. Please note that slight variations in specifications may be encountered.

PEDAL ORGAN:

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| Contre Violone 32' | Rich string tone at the bottom of the Pedal division. |
| Diapason 16' | The 16' member of the Pedal principal chorus. Strongest Pedal flue stop. |
| Gemshorn 16' | Useful hybrid stop that blends well with all tone families of the organ. |
| 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. |
| Gedacktflöte 8' | 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' | Pedal 4' principal tone. |
| Flûte ouverte 4' | Open Flute tone at 4' pitch. |
| Mixture IV | Compound stop of principal tones. One pedal produces four distinct pitches at octave and fifth relationships to the pedal being pressed. Used to crown the Pedal principal chorus. |
| Contre Bombarde 32' | A deep, rumbling reed of 32' pitch. |
| Posaune 16' (Swell Expression) | A strong Pedal reed that lends strength and "snarl" to the Pedal line. |
| Trompète 8' | Clear Pedal reed useful in adding definition to a full pedal combination, or as a solo Pedal trumpet. |
| Clairon 4' (Swell Expression) | A bright 4' chorus reed. Combines with the Bombarde 16' and Trompète 8' to form the full Pedal reed chorus. Particularly useful as a solo voice. |

SWELL ORGAN:

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| Viola 8' | Soft string tone. |
| Viola Celeste 8' | String tone, slightly detuned, used with the Viola 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 8' and Viola Celeste 8' will create beautiful celeste sounds. |
| 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. |
| Spitzprinzipal 4' | Hybrid stop which is predominantly principal tone with a string like edge. |
| Koppelflöte 4' | Distinctive stopped flute voice that works well in ensembles of flutes or strings, or as a solo voice. |
| Nasat 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. |
| Blockflöte 2' | A delicate, clear open flute at 2' pitch. |
| Terz 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. |
| 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. |
| Basson 16' | Chorus reed tone at the 16' pitch level, designed to supplement the other chorus reeds. Also usable as a distinctive solo reed. |
| Trompette 8' | Chorus reed stop of rich harmonic development. Can also be |

used as a solo voice.

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| Hautbois 8' | Solo reed with the pungent nasal timbre of an Oboe. |
| Clairon 4' | A bright 4' chorus reed. Combines with the Basson 16' and Trompette 8' to form the Swell reed chorus. Particularly useful as a solo voice. |
| 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. |
| Solo Organ Voices | See separate section on Second Voices. |
| GREAT ORGAN: Gemshorn 16' | Hybrid stop that combines tonal characteristics of the string and flute families, resulting in a light Diapason quality. Useful as an accompaniment voice. |
| Diapason 8' | Foundation stop of the Great principal chorus, which consists of the Diapason 8', Octave 4', and Superoctave 2'. |
| Rohrflöte 8' | Full-bodied, partially stopped flute tone. |
| Octave 4' | The 4' member of the Great principal chorus. |
| Spitzflöte 4' | Partially stopped flute tone. |
| Superoctave 2' | An open metal stop that produces foundation tone at the 2' pitch level. |
| Waldflöte 2' | Open flute tone at 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 throughout the entire compass. |
| Trompete 8' | German trumpet useful as a smooth solo voice or chorus reed. |
| Chimes | Typical Tubular Chimes. |

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| Tremulant | Same as Tremulant in Swell, but affects stops in the Great and Pedal, except for the bottom octave in both divisions. |
| Classic Voicing Gt-Pd | See separate section on Second Voicing. |
| Gt-Ch Manual Transfer | Transposes stops in the Great and Choir divisions so that the stops from the Great division are played from the bottom manual and the stops from the Choir division are played from the second manual. |

CHOIR ORGAN

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| Flûte Harmonique 8' | Open flute, very full-bodied. Excellent solo flute. |
| Erzähler 8' | Hybrid stop that combines the tonal characteristics of the string and flute families, resulting in a small-scale Gemshorn. Useful accompanimental voice. |
| Erzähler Celeste 8' | Stop used in combination with the Erzähler 8' to create a warm celeste. |
| Prinzipsal 4' | Bright classical Principal |
| Traversflöte 4' | An open wood flute intended to simulate the full fluid sound of the orchestral instrument. |
| Erzähler Celeste II (4') | Two soft hybrid tones, one slightly detuned from the other to create a warm celeste. |
| Oktav 2' | An open metal stop that produces foundation tone at the 2' pitch. |
| Quintflöte 1-1/3' | Open flute mutation that causes the pitch to sound a nineteenth (two octaves and a fifth) higher than played. Used with 8' stops or flute ensembles. |
| Cymbale III | Compound stop of principal tones. One key produces three distinct pitches at octave and fifth relationships to the key being pressed. The Cymbale should never be used without stops of lower pitch. |

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| Rankett 16' | A nasal-sounding reed stop of considerable harmonic development. The Rankett carries very little fundamental and adds character both as a solo and ensemble stop. |
| Festival Trumpet 8' | Large, powerful solo reed. Becomes a softer chorus reed when other Choir stops are added. |
| 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. |
| Tremulant | Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Choir division. |
| Percussion Voices | See separate section on Second Voices |
| COUPLERS | |
| Swell to Swell 16' | Swell sub-octave coupler. See separate section on octave couplers. |
| Swell Unison Off | Turns off stops in the Swell division at the pitch level at which they are drawn, while allowing them to speak at octave and sub-octave pitch levels when octave and sub-octave couplers are drawn. See separate section on octave couplers. |
| Swell to Swell 4' | Swell octave coupler. See separate section on octave couplers. |
| Great to Pedal 8' | Connects all Great stops to the Pedal. |
| Swell to Pedal 8' | Connects all Swell stops to the Pedal. |
| Swell to Pedal 4' | Octave coupler from the Swell to the Pedal. See separate section on octave couplers |
| Choir to Pedal 8' | Connects all Choir stops to the Pedal |

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| Swell to Great 16' | Intermanual sub-octave coupler connecting all Swell stops to the Great manual. See separate section on octave couplers. |
| Swell to Great 8' | Intermanual coupler connecting all Swell stops to the Great manual. |
| Swell to Great 4' | Intermanual octave coupler connecting all Swell stops to the Great manual. See separate section on octave couplers. |
| Choir to Great 8' | Intermanual coupler connecting all Choir stops to the Great manual. |
| Swell to Choir 16' | Intermanual sub-octave coupler connecting all Swell stops to the Choir manual. See separate section on octave couplers. |
| Swell to Choir 8' | Intermanual coupler connecting all Swell stops to the Choir manual. |
| Swell to Choir 4' | Intermanual octave coupler connecting all Swell stops to the Choir manual. See separate section on octave couplers. |
| MIDI on Pedal | Opens MIDI channel to the Pedal. |
| MIDI on Swell | Opens MIDI channel to the Swell. |
| MIDI on Great | Opens MIDI channel to the Great. |
| MIDI on Choir | Opens MIDI channel to the Choir. |

GENERALS

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| Great-Pedal Unenclosed | When used, the expression for the Great and Pedal divisions is disabled, i.e., the Great and Pedal stops will sound at full volume regardless of the position of the Great-Choir-Pedal expression pedal. The Choir division will continue to be under expression using the Great-Choir-Pedal expression pedal. |
| Choir Unenclosed | When used, the expression for the Choir division is disabled, i.e., |

the Choir stops will sound at full volume regardless of the position of the Great-Choir-Pedal expression pedal. The Great and Pedal divisions will continue to be under expression using the Great-Choir-Pedal expression pedal.

- Bass Coupler** When this coupler is used, the lowest note played on the Great manual will automatically key the appropriate Pedal note, playing those stops that have been drawn in the Pedal division as well as those in the Great division.
- Melody Coupler
Ch-Gt** When used, with an appropriate Choir stop, such as the Festival Trumpet or Krummhorn, this feature will automatically key the highest note played on the Great, allowing accentuation of the melody.
- Alternate Tuning On** When activated, the organ's tuning will change to the alternate tuning selected from the Console Controller™. See Section I.B. of the Console Controller™ Guide in this manual 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 in their oscillation than normal classical tremulants. Useful for Gospel music, etc. Also known as "Vibrato."
- Reverb** Engages reverberation system.
(Activated using toggle switch in Console Controller™ drawer.)
- Antiphonal Controls
(optional)** These stops will control Main and Antiphonal speakers.

EXPRESSION PEDALS

The MDS-51-S features three expression pedals. The pedal on the left expresses the Great-Choir-Pedal divisions, while the center expression pedal affects the Swell. The one on the far right is the Crescendo Pedal.

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 I & II

The Tutti I and II are settings of full organ registration. Tutti II is a fuller registration than Tutti I, most noticeably in the Pedal division. The Tuttis are turned on by using manual pistons located beneath the Swell manual directly above the Cancel button. The pistons are reversible, meaning that 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, turn on when Tutti I or II is in operation. A second set of Tuttis can be programmed by the organist. Like the Crescendo, indiscriminate use of these devices should be avoided.

RECALL PISTON

The "R" Piston, when activated, will recall the last combination set prior to using any general or divisional piston.

SOLO VOICES AND SECOND VOICES

SOLO ORGAN VOICES

In addition to the comprehensive stop specification of the MDS-51-S, there are a variety of solo stops that can be accessed from the Swell manual using the **Solo Organ Voices**. These second voices are accessed from drawknobs in the Swell division. The stopnames are printed on the drawknobs in red superscript as follows: Tuba Mirabilis, Open Flute, Clarinet, and Cor Anglais. The **Solo Organ Voices** are activated by first drawing the Solo Organ Voices drawknob and then drawing the desired stop in the Swell division.

SWELL

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| Tuba Mirabilis 8' | An unusually brass-like and intensely loud Tuba. A brilliant fanfare stop. |
| Open Flute 8' | An open wood or metal Flute of 8' manual pitch. |
| Clarinet 8' | An imitative reed stop of 8' pitch. |
| Cor Anglais 8' | An imitative reed stop of 8' pitch sounding like its orchestral counterpart. |

CLASSIC SECOND VOICES

The characteristics of several stops in the Great and Pedal divisions can be changed using the **Classical Voicing Gt-Pd** control. As in the Swell division, the second voices in the Great and Pedal divisions are accessed from drawknobs. The **Classical Second Voices** are accessed by first drawing the **Classical Voicing Gt-Pd** drawknob and then drawing the desired stops in the Great and Pedal divisions.

GREAT

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| Quintadena 16' | A stopped metal flute of 16' pitch. |
| Prinzpal 8' | Foundation stop of 8' pitch. |
| Metal Gedackt 8' | A stopped metal Flute of 8' pitch. |
| Harmonic Flute 4' | A 4' Flute of metal or wood construction. |
| Carillon | Suggests the sounding of small bells. |

PEDAL

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|----------------|---|
| Quintadena 16' | A stopped metal flute of 16' pitch. |
| Subbass 16' | Principal stopped Bass of the organ. |
| Oktav 8' | Foundation stop of Diapason tone quality. |

There are several percussion voices available from the Choir division. The percussion stopnames are printed on the drawknobs in red superscript as follows: **Handbells**, **Celesta**, and **Harp**. The percussion voices are activated by first drawing the "Percussion Voices" drawknob and then drawing the desired percussion stop in the Choir division.

OCTAVE COUPLERS

Octave couplers, when properly designed, can greatly expand an organ's ensemble and flexibility. The dynamic capabilities of the MDS-51-S are significantly enhanced through the use of octave and suboctave couplers in the Swell division. An octave coupler "couples down" the octave of notes above the pitch level of the stops drawn. For example, when the Swell to Swell 4' coupler is drawn with the Trompette 8' in the Swell division, the Trompette 8' will speak at both 8' and 4' pitch levels. A suboctave coupler, by comparison, "couples up" the octave of notes below the pitch level of the stops drawn. Consequently, when the Swell to Swell 16' coupler is drawn with the Trompette 8' in the Swell division, the Trompette 8' will speak at both 8' and 16' pitch levels.

The Swell Unison Off control can be used in conjunction with the octave and suboctave couplers to further expand the tonal resources of the MDS-51-S. It allows the organist to turn off stops at the pitch level drawn, while permitting those stops to play at their octave and suboctave pitch levels. For example, if the Swell Unison Off and the Swell to Swell 4' coupler are drawn with the Swell Trompette 8', the Trompette 8' will speak only at the 4' pitch level. The Swell Unison Off works in a similar fashion with the suboctave couplers, in this case allowing the Trompette 8' to speak only at the 16' pitch level.

The intermanual octave and suboctave couplers, e.g. Swell to Great 4', Swell to Choir 16', etc., allow stops from the Swell division to be coupled to other manuals at octave and suboctave pitch levels.

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., Nasat or Terz) 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 the following Swell stops: Gedackt 8', Koppelflöte 4', Nasat 2-2/3', Blockflöte 2', and Terz 1-3/5'. This solo 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.

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

SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

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

Play solo on Great and accompaniment on either Swell or Choir.

SWELL SOLO COMBINATION

Swell: Gedackt 8', Koppelflöte 4', Nasat 2-2/3', Blockflöte 2', Terz 1-3/5'
Great: Rohrflöte 8', Traversflöte 4'
Pedal: Lieblichgedackt 16', Gedacktflöte 8'

Play solo on Swell and accompaniment on Great.

FLUTE SOLO

Swell: Viola 8', Viola Celeste 8'
Choir: Flûte Harmonique 8'
Pedal: Lieblichgedackt 16', Swell to Pedal

Play solo on Choir and accompaniment on Swell.

TRUMPET SOLO

Swell: Gedackt 8', Koppelflöte 4', Blockflöte 2', Fourniture IV
Great: Diapason 8', Octave 4', Superoctave 2', Swell to Great, Classic Voicing Gt-Pd
Choir: Festival Trumpet 8'
Pedal: Diapason 16', Octave 8', Choralbass 4', Mixture IV

Play solo on Choir and accompaniment on Great.

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.

Volumes have been written on the subject of ensemble registration. Following is a summary of the major points.

Ensembles are created by combining stops. Two factors are always to be considered: tone quality and pitch. Ensembles begin with a few stops at the 8' and/or 4' pitch and expand "outward" in pitch as they build up. New pitches are usually added in preference to another 8' stop.

Ensembles are generally divided into three tonal groupings or "choruses":

The Principal chorus is the most fully developed with representation in various divisions of the organ and at every pitch 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, Bassons, etc., are usually 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 stoplist in Section I.

The Swell Reed chorus of Basson 16' and Trompette 8' represents an entity important to French organ music and the full ensemble of the organ. These stops create a "blaze" of richly harmonic sounds that top off both flue 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. Rohrflöte 8', Spitzflöte 4'
2. Rohrflöte 8', Spitzflöte 4', Waldflöte 2'
3. Diapason 8', Octave 4'
4. Diapason 8', Octave 4', Superoctave 2'
5. Diapason 8', Octave 4', Superoctave 2', Mixture IV
6. Diapason 8', Rohrflöte 8', Octave 4', Superoctave 2', Trompete 8', Mixture IV

Swell

1. Gedackt 8', Viola 8'
2. Gedackt 8', Viola 8' Koppelflöte 4'
3. Gedackt 8', Viola 8' Koppelflöte 4', Blockflöte 2'
4. Gedackt 8', Viola 8' Spitzprinzipal 4', Koppelflöte 4', Blockflöte 2'
5. Gedackt 8', Viola 8' Spitzprinzipal 4', Koppelflöte 4', Blockflöte 2', Fourniture IV
6. Gedackt 8', Viola 8' Spitzprinzipal 4', Koppelflöte 4', Blockflöte 2', Fourniture IV, Trompete 8'

The use of the Swell to Great coupler allows these separate ensembles to be combined on the Great manual. For example, the #5 Great and #3 Swell registrations coupled together and played on the Great 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 with ensembles.

FULL ORGAN

Due to the immense capabilities of the Allen Digital Computer 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 that really contribute to the fullness and brilliance of the ensemble. Eliminate soft stops and solo stops that make no purposeful contribution.

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

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.

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. 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 WHENEVER THE TRANSPOSER KNOB IS MOVED FROM THE “●” POSITION.

WHY TRANSPOSE?

1. Because the 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 some instruments are non-concert pitch. A trumpet in B^b, for example, can play the same music as the organist, if the Transposer knob is set two half-steps lower.
3. Because hymn singing can sometimes be improved by a more favorable key selection. Hymn singing can also be enhanced by playing the hymn in its original key, and then playing a short modulation at the end of the stanza that leads into the key one-half step above the key in which the hymn is written. If the hymn is already in a fairly high key, it may be preferable to play the first few stanzas with the Transposer set *down* one-half or one whole step, then modulate up to the original key for the final stanza.

INSTALLATION, VOICING, AND CARE OF THE ORGAN

INSTALLATION

Wherever your MDS organ may be situated, careful installation is a prerequisite to successful results. Your Allen representative is well qualified to guide you in planning for this.

Factory assistance in planning the installation is also available and may, in fact, be sought by your Allen Organ representative.

VOICING

The MDS 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 cabinets.

REVERBERATION

The Digital Reverberation System provides the spatial ambiance of a large reverberant auditorium. Although most effective in poor acoustic environments, it even enhances the tones in optimal acoustic settings. The Digital Reverb is on all the time.

Adjustments to the Digital Reverberation System must be made by your service technician or sales representative.

BATTERY BACKUP SYSTEM

The memory for the capture system on your MDS 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 MDS organ require replacement, contact your local Allen authorized service representative.

CARE OF THE ORGAN

Your Allen Digital Computer 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!

USA ONLY

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.

CE mark shows compliance with the EMC Directive.

INTERNATIONAL ONLY

CAUTION

Do not plug the instrument into any current source other than that stated by the selling dealer. 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 (if applicable).

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.