

Protégé

AP~2, ~3, ~4, ~6, & ~8

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ALLEN ORGAN COMPANY

Congratulations on the purchase of your new Allen Protégé organ! You have acquired a most advanced electronic organ, 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 Nasat $2\text{-}2/3'$, Terz $1\text{-}3/5'$, and Quintflöte $1\text{-}1/3'$. 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 a later portion of this manual).

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.

Principal Voices Spitzprinzipal Diapason Octave Superoctave Choralbass	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 Koppelflöte Flute mutation stops <i>Stopped:</i> Gedackt Bourdon 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 Viola Viola 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 pitch sounding simultaneously.
Hybrid Voices 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:

Reed Voices <i>Chorus or Ensemble:</i> Trompette Basson Clairon Posaune <i>Solo:</i> Hautbois Krummhorn	Voices of great harmonic development; some imitative, others not.
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The Allen Protégé 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., © 1992 AOCO, © 1993 AOCO, etc., pursuant to Title 17 of the United States Code, Section 101 et seq.

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

AP-2, -3, & -4 STOPLISTS

NOTES: **(3,4)** = AP-3 & -4 only. **(4)** = AP-4 only. Reverb on AP-2 is permanently wired on.

PEDAL 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.
Mixture IV (4)	A compound stop of principal tones. Used to add brilliance and pitch.
Posaune 16' (Sw Exp.)	A strong Pedal reed that lends strength and "snarl" to Pedal line.
Trompete 8' (3,4)	Chorus reed of rich harmonic development. Can also be a solo voice.
Great to Pedal	Connects all Great stops to the Pedal.
Swell to Pedal	Connects all Swell stops to the Pedal.
MIDI on Pedal	Opens MIDI channel to the Pedal. (For AP-2, see Note on Page 20.)

SWELL ORGAN

Gedackt 8'	Stopped flute tone of moderate harmonic development. Provides the 8' member of the Swell flute chorus and is useful by itself or with other flutes and mutations in creating solo voices.
Viola 8'	Soft string tone.
Viola Celeste 8'	String tone, slightly detuned, used with Viola 8' to create string celeste. Celestes are created by using two sounds, one tuned slightly sharp or flat of the other creating "celestial" effect. The combination of Viola 8' and Viola Celeste 8' will create beautiful celeste sounds.
Spitzprinzipal 4'	Hybrid stop, 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.

SWELL ORGAN: continued

Nasat 2-2/3'	Flute mutation that sounds one octave and a fifth above 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 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 (mixture) comprised of principal tones. Each note produces four distinct pitches at octave and fifth relationships to key pressed. Fourniture should never be used without lower pitched stops and is typically added to diapason or flute ensembles, or 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 of rich harmonic development. Can also be a solo voice.
MIDI on Swell	Opens MIDI channel to the Swell. (For AP-2, see Note on Page 20.)
Tremulant (3,4)	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.

GREAT ORGAN

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.
Flute Celeste 8' (Sw Exp.) (3,4)	Two soft flute tones, one slightly detuned from the other
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.
Mixture IV	A compound stop of principal tone. Four notes in octave and fifth relationships sound together when a key is depressed. As pitches progress upward, they "break" back to the next lower octave or fifth. Used to cap the principal chorus, adding brilliance and pitch.
Chimes	Typical Tubular Chimes.
Swell to Great	Intermanual coupler connecting all Swell stops to the Great manual.
MIDI on Great	Opens MIDI channel to Great. (For AP-2, see Note on Page 20.)
Tremulant (3,4)	Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Great division.

GREAT ORGAN: continued

Tremulant General (AP-2)	Use of this stop provides vibrato effect, natural in the human voice and wind instruments, when used with Swell or Great stops.
Bass Coupler	When drawn, 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.
Memory B (piston)	Provides access to five additional general combinations that are independent of those in the “A” memory.

GENERALS (AP-3 & 4 only)

Gt-Pd Unenclosed (AP-4 only)	Disables the expression for Great and Pedal divisions. Great and Pedal stops will be at full volume regardless expression pedal position.
Tremulants Full (AP-4 only)	When activated with the Swell or Great Tremulant, this control causes the tremulant to become deeper in its oscillation than a normal classical tremulant. Useful for gospel music, etc.
Melody Coupler	When playing on the Great manual, the highest key played on the Great will automatically play all stops drawn on the Swell in addition to those drawn on the Great. By choosing a Swell stop such as the Festival Trumpet, the melody played by the top note on the Great is accentuated.
Bass Coupler	Similar to the Melody coupler in operation. In this case, however, the lowest note played on the Great will also play all stops drawn in the Pedal Division. This allows voices normally played from the pedalboard to be heard without using the pedalboard.
Reverb *	Engages reverberation system.
Antiphonal Controls	Turn console speakers and external speakers (if installed) on and off.
Memory B *	Provides access to five additional general combinations that are independent of those in the “A” memory.

* NOTE: These controls are not on the Capture Action.

EXPRESSION PEDAL - The AP-2, 3, & 4 include one pedal which expresses all divisions.

AP-6 STOPLIST

PEDAL 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.
Mixture IV	A compound stop of principal tones. Used to add brilliance and pitch.
Posaune 16' (Sw Exp.)	A strong Pedal reed that lends strength and "snarl" to Pedal line.
Trompete 8'	Chorus reed of rich harmonic development. Can also be a solo voice.
Great to Pedal	Connects all Great stops to the Pedal.
Swell to Pedal	Connects all Swell stops to the Pedal.
MIDI on Pedal	Opens MIDI channel to the Pedal.

SWELL ORGAN

Lieblichgedackt 16'	Soft stopped flute voice.
Gedackt 8'	Moderate stopped flute tone; the 8' member of the Swell flute chorus. Used by itself or with other flutes & mutations in creating solo voices.
Viola 8'	Soft string tone.
Viola Celeste 8'	String tone, slightly detuned, used with Viola 8' to create a celeste. Celestes are created by using two sounds, one tuned slightly sharp or flat of the other. Use the Viola 8' and Viola Celeste 8' together.
Spitzprinzipal 4'	Hybrid stop, 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 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 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

Mixture IV	Compound stop comprised of principal tone. Each note produces four distinct pitches at octave and fifth relationships to key pressed. This stop should never be used without lower pitched stops and is typically added to diapason or flute ensembles, or the 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 of rich harmonic development. Can also be a solo voice.
Clairon 4'	A bright 4' chorus reed. Can also be used as a solo reed.
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.
MIDI on Swell	Opens MIDI channel to the Swell

GREAT ORGAN

Diapason 8'	Foundation stop of the Great principal chorus.
Rohrflöte 8'	Full-bodied, partially stopped flute tone.
Flute Celeste II 8' (Sw Exp.)	Two soft flute tones, one slightly detuned from the other.
Octave 4'	The 4' member of the Great principal chorus, which consists of the Diapason 8', Octave 4', and Superoctave 2'.
Spitzflöte 4'	Partially stopped flute tone.
Superoctave 2'	An open metal stop that produces foundation tone at the 2' pitch level.
Mixture IV	Compound stop of principal tones. Four notes in octave and fifth relationships sound together when key is depressed. As pitches progress upward, they "break" back to the next lower octave or fifth. Used to cap Great principal chorus, adding brilliance and pitch.
Chimes	Typical Tubular Chimes.
Tremulant	Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Great division.
Swell to Great	Intermanual coupler connecting all Swell stops to the Great manual.
MIDI on Great	Opens MIDI channel to Great.

GENERALS

Melody Coupler	When playing on the Great manual, the highest key played on the Great will automatically play all stops drawn on the Swell in addition to those drawn on the Great. By choosing a Swell stop such as the Festival Trumpet, the melody played by the top note on the Great is accentuated.
Bass Coupler	Similar to the Melody coupler in operation. In this case, however, the lowest note played on the Great will also play all stops drawn in the Pedal Division. This allows voices normally played from the pedalboard to be heard without using the pedalboard.
Alternate Tuning On	When activated, the organ's tuning will change to the alternate tuning selected from the Console Controller™. See Section II.A. of the Console Controller™ Guide for more information about alternate tunings.
Tremulants Full	When activated with the Swell or Great Tremulant, this control causes the tremulant to become deeper in its oscillation than normal classical tremulant. Useful for gospel music, etc.
Console Speakers Off	Used only with external speaker cabinets. Turns off console speakers.
External Speakers Off	Used only with external speaker cabinets. Turns off external speakers.

EXPRESSION PEDALS

The AP-6 has two expression pedals. The pedal on the left expresses the Great and Pedal divisions. The expression pedal on the right affects the Swell.

AP-8 STOPLIST

PEDAL ORGAN

Contra Violone 32'	Rich string tone. The lowest pitch in the Pedal division.
Diapason 16'	The 16' member of Pedal principal chorus. Strongest pedal flue stop.
Bourdon 16'	Stopped flute tone of weight and solidity.
Lieblichgedackt 16' (Swell expression)	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required.
Octave 8'	8' member of the Pedal principal chorus.
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'.
Viola 8' (Sw Exp.)	Soft string tone, useful in light combinations.
Choralbass 4'	Pedal 4' principal tone.
Posaune 16' (Sw Exp.)	A strong Pedal reed that lends strength and "snarl" to Pedal line.
Trompette 8' (Sw Exp.)	Clear Pedal reed useful in adding definition to a full pedal combination, or as a solo Pedal trumpet.
Great to Pedal	Connects all Great stops to the Pedal.
Swell to Pedal	Connects all Swell stops to the Pedal.
MIDI on Pedal	Opens MIDI channel to Pedal.

SWELL ORGAN

Gedackt 8'	Moderate stopped flute tone; provides 8' member of Swell flute chorus. Useful by itself or with other flutes and mutations in creating solo voices.
Viola 8'	Soft string tone.
Viola Celeste 8'	Slightly detuned; used with Viola 8' to create string celeste. Celestes are created by using two voices, one tuned slightly sharp of the other. Combining Viola 8' and Viola Celeste 8' creates a beautiful celeste.
Spitzprinzipal 4'	Hybrid stop, predominantly principal tone with a string-like edge.
Traversflöte 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 key played. Always used with other stops, usually beginning with 8'.
Blockflöte 2'	A delicate, clear open flute at 2' pitch.
Terz 1-3/5'	Flute mutation which sounds a seventeenth (two octaves and a third) higher than played. Used with 8' stops or flute ensembles.

SWELL ORGAN: continued

Furniture IV	Compound stop, or mixture comprised of principal tone. Each note produces four distinct pitches at octave and fifth relationships. It should never be used without stops of lower pitch. It is typically added to diapason or flute ensembles, or to a reed chorus.
Contre Trompette 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 of rich harmonic development. Can be a solo voice.
Hautbois 8'	Solo reed with the pungent nasal timbre of an Oboe.
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.
MIDI on Swell	Opens MIDI channel to the Swell

GREAT ORGAN

Lieblichgedackt 16'	Softer stopped flute. Useful where a soft 16' pitch is required.
Diapason 8'	Foundation stop of the Great principal chorus, which consists of the Diapason 8', Octave 4', and Superoctave 2'.
Harmonic Flute 8'	Open flute with a full-voiced quality. An excellent solo stop.
Viola 8' (Sw Exp.)	Soft string 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.
Mixture IV	Compound stop of principal tone. Four notes in octave and fifth relationships sound together when a key is depressed. As pitches progress upward, they "break" back to next lower octave or fifth. Used to cap Great principal chorus, adding brilliance and pitch.
Chimes	Typical Tubular Chimes.
Tremulant	Same as Tremulant in Swell, but affects stops in the Great and Pedal, except for the bottom octave in both divisions.
MIDI on Great	Opens MIDI channel to Great.

POSITIV

Holzgedackt 8'	Chiffing, stopped wood flute. Provides the 8' member of the Positiv flute chorus and is useful by itself or with other flutes or mutations in creating solo voices.
Quintadena 8'	Stopped flute tone characterized by an extremely strong third harmonic that sounds an octave and a fifth above note played.
Prinzipal 4'	Bright classical principal.
Koppelflöte 4'	Distinctive stopped flute voice that works well in ensembles of flutes or strings, or as a solo voice.
Oktave 2'	Open metal stop that produces foundation tone at 2' pitch.
Quintflöte 1-1/3'	Open flute mutation sounding a nineteenth (two octaves and a fifth) higher than played. Used with 8' stops or flute ensembles.
Cymbal III	Compound principal tone. One key produces three distinct pitches at octave and fifth relationships to the key being pressed. The Cymbal is never used without lower pitched stops.
Krummhorn 8'	The tone quality of the shawm, a medieval ancestor of the clarinet, is the basis for this nasal reed. It can be used alone or combined with light flutes for a rounder solo effect.
Tremulant	Provides vibrato effect, natural in the human voice and wind instruments, when used with stops in the Positiv division.
Swell to Positiv	Connects all Swell stops to the Positiv.
Gt -Po Manual Transfer	When activated, this reverses the function of the Great and Positiv keyboards. The lowest manual becomes the Great. The middle manual becomes the Positiv.
MIDI on Positiv	Opens MIDI channel to the Positiv.

GENERALS

Alternate Tuning On	When activated, the organ's tuning will change to the alternate tuning selected from the Console Controller™. See Section II.A. of the Console Controller™ Guide for more information about alternate tunings.
Bass Coupler	When drawn, 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.
Tremulants Full	When activated with one or more of the organ's tremulants, it causes tremulants to become deeper in oscillation than normal classical

tremulants. Useful for Gospel music, and other situations where the effect of a theatre organ is desired.

EXPRESSION PEDALS

The AP-8 has two expression pedals. The pedal on the left expresses the Great, Positiv, and Pedal divisions. The center pedal affects the Swell. Indicator lights on the right end of the center panel show the relative position of each pedal.

CRESCENDO PEDAL

The Crescendo Pedal, on the far right, gradually draws stops in all divisions as the pedal is opened. Green, yellow, and red indicator lights on the right end of the center panel show the relative position of this pedal. Indiscriminate use of the Crescendo pedal, in lieu of careful registration, should be avoided.

TUTTI I

Tutti I is a piston which draws a full organ registration. This piston is located to the right of the Great divisional pistons. A red signal light, appropriately labeled and located to the left of the expression indicators, will turn on when Tutti I is in operation. This piston is reversible. Pressing it once will turn Tutti I on; pressing it again will turn the function off. Like the Crescendo, indiscriminate use of this device should be avoided. Tutti I is turned off when the Cancel button is pressed.

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. The pedal provides the 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 solo and accompaniment without covering them.

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 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' or Traversflöte 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. 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. 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. Try to seek a "natural" balance of volume between solo and accompaniment.

SUGGESTED SOLO REGISTRATIONS (AP-2, -3, -4, -6, & -8)

CHIMES SOLO

Swell: Gedackt 8', Viola 8', Viola Celeste 8'

Great: Chimes

Pedal: Lieblichgedackt 16', Swell to Pedal

Play solo on Great.

SOLO CORNET COMBINATION

Swell: Gedackt 8' or Harmonic Flute 8', Koppelflöte 4', Nasat 2-2/3', Blockflöte 2',
Terz 1-3/5'
Great: Rohrflöte 8', Spitzflöte 4'
Pedal: Lieblichgedackt 16', Gedacktflöte 8'
Play solo on Swell.

FLUTE SOLO [*Play solo on Great.*]

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

TRUMPET SOLO [*Play solo on Swell.*]

Swell: Trompette 8'
Great: Rohrflöte 8' or Harmonic Flute 8', Spitzflöte 4'
Pedal: Bourdon 16', Octave 8', Choralbass 4'

SUGGESTED SOLO REGISTRATIONS (AP-8)

FLUTE SOLO [*Play solo on Great or Positiv.*]

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

TRUMPET SOLO [*Play solo on Swell.*]

Swell: Trompette 8'
Great: Diapason 8', Octave 4', Superoctave 2', Positiv to Great
Positiv: Quintadena 8', Prinzipal, Cymbal III
Pedal: Diapason 16', Octave 8', Choralbass 4'

These few combinations demonstrate basic techniques of solo registration. In creating registrations of your own, remember these three simple rules:

1. Seek tonal contrast between solo and accompaniment.
2. Be sure the solo is louder than the accompaniment.
3. Choose a solo whose character is appropriate to the specific piece.

ENSEMBLE REGISTRATIONS

Ensemble registrations involve groups of stops that are played together, usually, but not always, with both hands on one keyboard. They are characterized by compatibility of tone, clarity, and occasionally power. Such registrations are used in hymn singing, choir accompaniments, and much of the contrapuntal organ literature.

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' 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 groups or "choruses":

The Principal chorus is the most fully developed with representation in various divisions of the organ and at many pitches from 16' (Diapason or Bourdon) 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 compared to principals.

The Reed chorus includes those reed tones designed to be used in an ensemble. Not all reed voices are ensemble tones. The Hautbois, for example, is usually a solo stop. The Trumpet, Clairon, and Basson 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 stop list in the preceding section.

The Swell Reed chorus of Basson 16' or 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 richly harmonic sounds that tops off both flue choruses.

Another special ensemble combination important in French music is the Cornet, which was discussed in the section on Artistic 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 registrations.

(AP-2, -3, -4, & -6)

GREAT

1. Rohrflöte 8', Spitzflöte 4'
2. Rohrflöte 8', Spitzflöte 4', Superoctave 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', Spitzflöte 4', Superoctave 2', 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 or Mixture IV
6. Gedackt 8', Viola 8', Spitzprinzipal 4', Koppelflöte 4', Blockflöte 2', Fourniture IV or Mixture IV, Trompette 8'

(AP-8)

GREAT

1. Harmonic Flute 8', Spitzflöte 4'
2. Harmonic Flute 8', Spitzflöte 4', Superoctave 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', Harmonic Flute 8', Octave 4', Spitzflöte 4', Superoctave 2', Mixture IV

SWELL

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

POSITIV

1. Holzgedacket 8', Koppelflöte
2. Holzgedackt 8', Koppelflöte, Oktave 2'
3. Holzgedackt 8', Prinzipal 4', Koppelflöte 4', Oktave 2', Cymbal III

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

The Pedal ensemble is created in much the same way as the manual ensembles, starting at 16' pitch instead of 8'. Be careful that the volume of the pedals is not greater than that of the manuals. Although the manual-to-pedal couplers are useful in bringing clarity to the pedal line, especially on softer registrations, avoid the temptation to rely constantly on one or two 16' stops and a coupler. Please note that the softest stops and flute mutations are normally not used with ensembles.

FULL ORGAN

Due to the immense capabilities of the 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 draw every stop on the instrument. For best results, listen and include only those stops that noticeably contribute to the fullness and brilliance of the ensemble. Eliminate soft stops and solo stops that make no audible 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 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 to the left side of the console (AP-2 through -4) or in the Console Controller™ drawer (AP-6 and -8). Neutral (no transposition) position for the knob is marked “N.” 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 “N.” 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 “N” POSITION.

WHY TRANSPOSE?

1. Because the written range of a song will not always suit the vocal range of a particular singer. By adjusting the transposer, the piece can be sung more comfortably and effectively.
2. Because music for some instruments is not written in the same key as organ music. A trumpet or clarinet in B \flat for example, can read the same music as the organist, if the Transposer knob is set two half-steps lower.
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 CAPTURE SYSTEM PISTONS

AP-2, -3, and -4

Allen’s Lumitech™ capture system allows the organist to set five stop combinations on Pistons 1 through 5 in each of two memories on the AP-2, -3, & -4. If two organists play the organ, one can use Memory A, the other Memory B. To use the second capture memory, press the Memory B piston on the AP-2, or the rocker tablet on the AP-3 or -4.

AP-6 and -8

The AP-6 has four capture action memories. The AP-8 has six. These memories are accessible in the Console Controller. See *Console Controller™ and MIDI Guide, Version 22*, Part Number 033-0098, for further information about selection of capture memories and setting pistons.

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

SETTING GENERAL PISTONS ON THE AP-2, -3, & -4

The General pistons are in the center 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 ON THE AP-6 AND -8

The AP-6 and AP-8 have 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. Only Positiv stops can be set with the Positiv Divisional pistons. The MIDI on Pedal, MIDI on Swell, MIDI on Positiv and MIDI on Great stops can be set on either Divisional or General pistons. The intermanual and manual-to-pedal couplers can only be set on General Pistons.

On the AP-6, the General Pistons are on the left under the Swell keyboard. The Swell Divisional Pistons, are in the center below the Swell manual. The Great Divisional Pistons, are in the center below the Great manual.

On the AP-8, stop combinations may be set and drawn by toe studs as well as by pistons. Toe Studs, on each side of the Expression and Crescendo shoes, are set in the same manner as pistons. The six Toe Studs on the left are duplicates of General Pistons 5 through 10. The Toe Studs on the right are Pedal Divisional Toe Studs. To set a Pedal Divisional Toe Stud, select the desired Pedal stops, hold the Set button, and momentarily press the desired Pedal Toe Stud. When you set a General Piston, that combination is set automatically on the Toe Stud of the same number. That is, setting General Piston 5 also places the same combination on General Toe Stud 5.

“R” RECALL PISTON

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

MIDI GUIDE

NOTE for AP-2 Only: Optional kit must be added by your Allen Organ dealer for MIDI to be implemented.

I. MIDI FOR ORGANISTS

A. WHAT IS MIDI?

The term MIDI is an acronym for Musical Instrument Digital Interface. MIDI has been adopted by the music industry as a standard means of communication between digital musical devices. This enables devices of different types and manufacturers to communicate with ease. It is not necessary to understand all of the technical aspects of MIDI in order to take advantage of the benefits it offers. It is important to explore the potential MIDI holds for musicians, as well as the various MIDI applications available today.

B. TYPES OF MIDI DEVICES

MIDI devices fall into two categories. The first category consists of musical instruments such as organs and synthesizers, which transmit and receive MIDI data. The second category includes controllers and processors, that, as their name implies, can transmit, receive, or manipulate MIDI data but do not necessarily produce sound themselves. Sequencers, which are MIDI recording devices, fall into this category. Although the technical nature of their recording and editing processes differs from those of a tape recorder, many operate in similar fashion. Most are equipped with record, playback, fast forward and reverse controls, that function in the same way as their tape recorder counterparts.

C. TYPES OF MIDI DATA

There are several types of MIDI messages that can be sent from one device to another. The most common is keying information, allowing one device to sense which keys have been played on another. This means that an organ equipped with MIDI can send information to other MIDI devices, e.g., synthesizers or sequencers, and can play those devices simultaneously or record information to be played back later.

Allen organs incorporate a total MIDI system (optional on AP-2), allowing the transmission of volume, registrations, and more. It is even possible to control several devices from one manual simultaneously, or control different devices from each manual of the console.

D. MIDI AS A PRACTICE TOOL

For the organist/choir director, the MIDI organ console and sequencer are valuable rehearsal tools for both choral and organ works. Anthem accompaniments may be recorded in advance and played back by the sequencer during choir rehearsal, freeing the director from the role of accompanist, and allowing him to concentrate on directing the choir. The sequencer may even play the music back at a slower tempo without affecting pitch, or at a lower pitch without affecting tempo, features that are useful in rehearsing difficult choral passages. If the sequencer allows multi-tracking, each vocal section's part may be recorded on a different track, and then played back individually, or in any combination, for increased flexibility.

MIDI GUIDE: continued

Multi-tracking can also be used in teaching and learning new organ works. The teacher may record each hand or pedal part on a different track, allowing the student to “mute” or turn off any part being practiced while still being able to hear the sequencer play the rest of the composition. The student’s ability to hear the piece in its entirety and to become aware of, from the earliest stage of learning a composition, the interrelationship of its voices, is especially valuable in learning contrapuntal works.

E. MIDI AS A REGISTRATION TOOL

In some churches and auditoriums it is difficult to judge the effectiveness of a registration from the organ console. Due to the acoustics of the room, or positioning of the console, the sound of the instrument may be different when listened to from the congregation’s or audience’s vantage point. MIDI allows the organist to check registrations by recording his playing and registration to a sequencer and then listening from different locations in the room during the music’s playback.

F. OTHER USES FOR MIDI

The MIDI organ console’s ability to control external keyboards or sound modules puts an ever increasing array of non-traditional sounds at the organist’s fingertips, with a degree of control only possible through the flexibility of an organ console. The ability to record MIDI data with the use of a sequencer opens a variety of new possibilities, both in practice and performance situations. Computer programs are even available that allow musicians to play MIDI devices connected to a computer and have their performance printed out as conventional five line musical notation. Because MIDI is an industry-wide standard, today’s MIDI instruments will be compatible with tomorrow’s MIDI innovations.

II. CONNECTING THE ALLEN ORGAN TO OTHER MIDI DEVICES

The MIDI-capable Allen Organ consoles may be connected to a variety of MIDI devices. A diagram for connecting the Allen organ to a variety of MIDI devices can be found at the end of this section of the manual. Although the diagram is not meant to be an exhaustive list of possibilities, they illustrate the most commonly used combinations of MIDI devices. If more specific information is required, please consult the owner’s manuals of the external devices being connected to the Allen Organ.

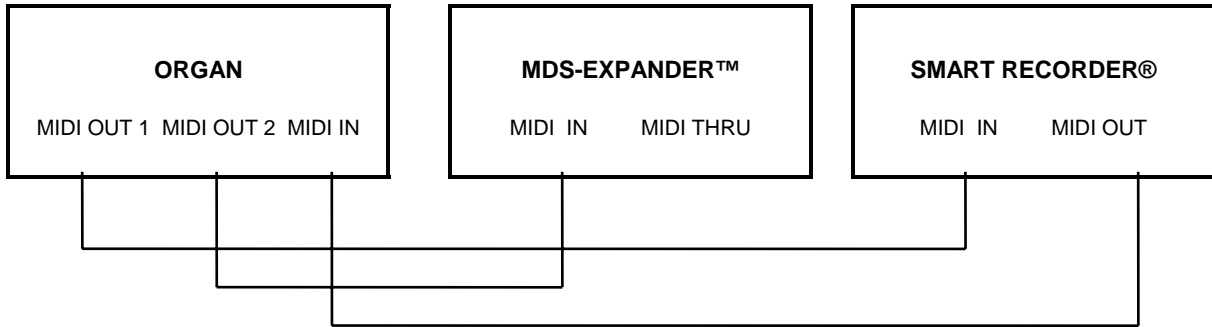
III. SmartMIDI™

Your Allen Protégé™ organ features SmartMIDI™ (optional board required for AP-2 model only), an expanded MIDI system with increased flexibility. Allen’s SmartMIDI™ provides a comprehensive interface between MIDI sound modules such as the Allen MDS-Expander™, and digital sequencers such as the Allen Smart Recorder™. Two MIDI OUT ports, one switched and one unswitched, allow unprecedented control over external MIDI devices attached to the organ.

Under normal circumstances, MIDI sound modules should be connected to the switched MIDI port labeled MIDI OUT 2. Doing so allows the organist to disable the sending of MIDI data

MIDI GUIDE: continued

from the organ to the sound module. Devices such as MIDI sequencers should be connected to the unswitched MIDI port labeled MIDI OUT 1, eliminating the necessity of having to draw the MIDI stop controls before recording a digital sequence. The drawing below illustrates the proper procedure for connecting the Allen MDS-Expander™ and Allen Smart Recorder™ to an Allen Protégé™ organ equipped with SmartMIDI™



IV. MIDI Transmission Channels

MIDI information may be broadcast on several different channels simultaneously. This allows many channels of information to be sent through one cable and used independently of one another, similar to the way many television broadcasts can be sent through one cable. In order to receive the intended information, a MIDI device must be tuned to the same channel as the device which is sending the information. Your Allen organ transmits MIDI information on several channels. When external MIDI devices are connected to the organ, it is important to make sure that the devices' channels of transmission and reception match the MIDI channels of the Allen organ divisions to which they are assigned.

Your Allen Protégé™ transmits MIDI on the following channels:

Swell = Channel 1	Pedal = Channel 3
Great = Channel 2	Choir = Channel 4 (AP-8 only)

MIDI Program Change Messages are transmitted from the organ's General Pistons on MIDI Channel 1. These program change messages can be used to change the setting of MIDI sound modules or synthesizers which are connected to the organ. Please consult the owner's manual of your MIDI device(s) for more information on how MIDI Program Change Messages are handled by that particular device.

In addition to note information, MIDI Volume Messages are sent on MIDI channels 1, 2, and 3 by the organ's expression pedal. In this manner, the volume of connected MIDI devices may be controlled. Please consult the owner's manual of your MIDI device(s) for more information on how MIDI Volume information is handled by that device.

If any external MIDI device is used to transmit information to the Allen organ, the same assignment of MIDI channels must be used as outlined above.

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 for this.

VOICING

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

REVERBERATION

The Digital Reverberation System provides the spatial ambiance of a large reverberant auditorium. Adjustments to the Digital Reverberation System must be made by your service technician or sales representative.

BATTERY BACKUP SYSTEM

The Lumitech™ capture system memory 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 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. (AP-2, -3, & -4) For the AP-6 & -8, a notice will appear in the Console Controller. Should the battery in your Protégé™ organ require replacement, contact your local Allen authorized service representative.

CARE OF THE ORGAN

Your Allen organ constitutes a major advance in long-term maintenance-free operation. There are no regular maintenance procedures required. 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.

CARE OF THE ORGAN: continued

You have purchased a remarkable organ that not only faithfully reproduces the organ traditions of the past but also anticipates the innovations of the future. Should you have questions that are not addressed in this manual, please do not hesitate to contact your local Allen Organ representative. Welcome to the family of satisfied Allen Organ owners!

CAUTION

Do not plug the instrument into any current source other than 105-128 volts, 50/60 Hertz alternating current (AC). A verified grounded outlet is essential to proper operation and protection of the instrument. Proper polarity should be checked with an AC circuit analyzer before connecting the organ.

Do not change the cable plug or remove the ground pin or connect with a two-pole adapter.

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

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

Read and comply with all instructions and labels that may be attached to the instrument.

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

Reorient the receiving antenna.

Relocate the organ with respect to the receiver.

Move the organ away from the receiver.

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

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