

OWNERS MANUAL

Protégé C6-C12

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ALLEN ORGAN COMPANY

For over sixty years the Allen Organ Company has built the finest organs that technology would allow. In 1939, Allen built and marketed the world's first purely electronic oscillator organ. The tone generators for this first instrument used vacuum tubes, contained about five thousand components, and weighed nearly three hundred pounds.

By 1959, Allen had replaced vacuum tubes in the oscillator organs with transistors. Thousands of transistorized instruments were built, including some of the largest, most sophisticated oscillator organs. Only a radical technological breakthrough could improve upon the fine performance of Allen's oscillator organs. Such a breakthrough came in conjunction with the U.S. Space Program in the form of highly advanced digital microcircuits.

Your **Protégé Chamber Series™** 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 Chamber Series 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 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 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 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.
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 pitch 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:

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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The Allen Protégé Chamber Series organ provides authentic examples of various voices as listed above. Some of these are protected by copyrights owned by the Allen Organ Company. Voices are stored in memory devices, each having affixed to it a copyright notice; e.g., © 1999 AOCO, © 1998 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.

C-6 & 12 STOPLISTS

PEDAL ORGAN:

Bourdon 16'	Stopped flute tone of weight and solidity.
Lieblichgedackt 16' (Swell expression on model C-12, and remains expressed when "Gt-Pd Unenclosed" is engaged on model C-6)	Delicate softer stopped flute with definition. Useful where a soft 16' pitch is required.
Octave 8'	8' member of the Pedal principal chorus.
Flûte 8'	Flute tone of 8' pitch, useful in adding clarity to a pedal line in combination with the Bourdon 16' or Lieblichgedackt 16'.
Choralbass 4' (Gt)	Pedal 4' principal tone.
Mixture IV	A compound principal tone stop. Used to add brilliance and pitch.

PEDAL ORGAN continued:

Posaune 16'	A strong Pedal reed that lends strength and “snarl” to Pedal line.
Clairon 4'	A bright 4' chorus reed. Combines with the 16' Posaune and coupled Swell 8' Trompette to form a full Pedal Reed Chorus. Particularly useful as 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. Enables Pedal Manual to transmit MIDI note on and off information.

GREAT ORGAN:

Lieblichgedackt 16' (Swell Expression)	Softer stopped flute of delicacy and definition. Useful where a soft 16' pitch is required.
Diapason 8'	Foundation stop of the Great Principal Chorus.
Harmonic Flute 8'	Full-bodied, partially stopped flute tone.
Flute Celeste II	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 Fifteenth 2'.
Spitzflöte 4'	Partially stopped flute tone.
Fifteenth 2'	An open metal foundation stop that adds brilliance to any combination of stops. The 2' Super Octave pitch of the Principal Chorus.
Mixture IV	A compound stop of Principal tones. Four notes in octave and fifth relationships sounding together when a 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.
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. Enables Great manual to transmit MIDI note on and off information.
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 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 Pomposa 8'	The loudest Viola of the organ. The greatest harmonic development of the Viola family. Good solo as well as ensemble voice.

SWELL ORGAN CONTINUED:

Viola Celeste 8'	String tone, slightly detuned, used with Viola Pomposa 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 Pomposa 8' and Viola Celeste 8' will create beautiful celeste sounds.
Octave Geigen 4'	Light principal sound, much harmonic development at 4' pitch level.
Traverse Flute 4'	Imitative of, although louder than the orchestral flute.
Nasard 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.
Piccolo 2'	A delicate, clear open flute at 2' pitch.
Tierce 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.
Clairon 4' (1) (Only on C-12)	A bright 4' chorus reed. When combine with the 16' Bombarde and 8' Trompete, this forms the Swell Reed Chorus.
MIDI on Swell	Opens MIDI channel to the Swell. Enables Swell Manual to transmit MIDI note on and off information.
Tremulant	Use of this stop provides a vibrato effect, natural in the human voice and wind instruments, when used with the stops in the Swell division.

SWELL SECOND VOICES (C-12 only):

In addition to the comprehensive stop specification of the C-12, 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 stop tablets in the Swell division. The stop names are printed on the stop tablets in red superscript as follows: Orchestral Flute, Clarinet, and Cor Anglais. The Solo Organ Voices are activated by first depressing the **Solo Organ Voices** stop tablet and then selecting the desired stop in the Swell division with names in red superscript.

Orchestral Flute 8'	An open wood or metal Flute of 8' manual pitch. Imitative of the flute found in an orchestra.
Clarinet 8'	An imitative reed stop of 8' pitch.
Cor Anglais 8'	Imitative of the orchestral instrument, The English Horn.

GENERALS:

GT-PD Unenclosed (C-6 only)	Disables the expression for Great and Pedal divisions. Great and Pedal stops will be at full volume regardless expression pedal position.
Bass Coupler	When used, lowest note played on Great will automatically key appropriate Pedal note, playing those stops that are on in the Pedal division as well as those in the Great division.
Melody Coupler	When used with an appropriate Swell stop, such as the Trompette 8', this feature will automatically key highest note played on Great, allowing accentuation of the melody.
Tremulants Full	When activated with one of the organ's tremulants, this control causes tremulants to become deeper in their oscillation than the standard classical tremulants. Useful for gospel music, theatre style, etc.
Console Speakers OFF	This stop is valid only if optional additional external speaker cabinets have been added to the instrument. It allows the self contained speakers of the console to be turned off.
External Speakers OFF	This stop allows the external speakers to be turned off and is valid only if optional additional external speaker cabinets have been added to the instrument.
Memory B	When used, this piston button allows access to a second complete memory group. For instance. This enables an additional complete set of seven (five on the C-12) general piston combinations that are independent of those stored on memory "A". It also enables a second complete set of divisional piston combinations on the C-12 model.
Virtual Acoustics™	When engaged it creates multi-spatial acoustics to the organ's sounds.
Swell Solo Voices (1)	The Swell Solo Organ Voices are activated by first depressing this Solo Organ Voices stop tablet and then selecting the desired stop in the Swell division with names in red superscript.
Alternate Tuning (1)	When this stop is selected the organ's tuning temperment becomes "tighter" thus producing a more "Classic" and less "Romantic" sounding instrument.

NOTES: (1) indicates stops found only on C-12.

EXPRESSION PEDAL(S) - The C-6 includes one pedal which expresses all divisions. It will express only Swell Division stops when the GT/PD Unenclosed stop is engaged.

The C-12 is equipped with divided expression. One pedal for the Great/ Pedal Division and the other pedal for the Swell Division.

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 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 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., Nasard or Tierce) to a reed such as the Trompette colors the sound further and increases its volume slightly. Adding an 8' flute to a reed will add body to the sound.

Flutes can be used alone or in combinations as solo voices. One special combination of flutes that creates an appealing and historically significant solo combination is the Cornet (pronounced kor-NAY). The Cornet is created by using the following Swell stops: Gedackt 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2', and Tierce 1-3/5'. This solo combination, widely used for Baroque organ music, 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 a 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, since 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.

SUGGESTED SOLO REGISTRATIONS

CHIMES SOLO

Swell: Gedackt 8', Viola Pomposa 8', Viola Celeste 8'
Great: Chimes
Pedal: Lieblichgedackt 16', Swell to Pedal
Play solo on Great.

SWELL SOLO COMBINATION

Swell: Gedackt 8', Traverse Flute 4', Nasard 2-2/3', Piccolo 2', Tierce 1-3/5'
Great: Harmonic Flute 8', Spitzflöte 4'
Pedal: Lieblichgedackt 16', Flute 8'
Play solo on Swell.

FLUTE SOLO COMBINATION

Swell: Viola Pomposa 8', Viola Celeste 8'
Great: Harmonic Flute 8'
Pedal: Lieblichgedackt 16', Swell to Pedal
[Play solo on Great.]

TRUMPET SOLO COMBINATION

Swell: Trompette 8'
Great: Diapason 8', Octave 4', Fifteenth 2', Mixture IV
Pedal: Bourdon 16', Octave 8', Choralbass 4'
[Play solo on Swell.]

SUGGESTED SWELL SOLO REGISTRATIONS (Model C-12)

[Engage Swell Solo Voices stop tablet and play solos on Swell.]

COR ANGLAIS SOLO COMBINATION

Swell: Cor Anglais
Great: Flute Celeste II
Pedal: Lieblichgedackt 16', Great to Pedal

CLARINET SOLO COMBINATION

Swell: Clarinet
Great: Diapason 8", Harmonic Flute 8', expression shoe not fully opened
Pedal: Lieblichgedackt 16', Gedacktflöte 8'

FLUTE SOLO COMBINATION

Swell: Orchestral Flute
Great: Diapason 8'
Pedal: Lieblichgedackt 16', Great to Pedal

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

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

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.

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.

ENSEMBLE REGISTRATIONS continued

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’ 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. A Clarinet, 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 stop list in the preceding section.

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 tops 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. Harmonic Flute 8’, Spitzflöte 4’
2. Harmonic Flute 8’, Spitzflöte 4’, Fifteenth 2’
3. Diapason 8’, Octave 4’
4. Diapason 8’, Octave 4’, Fifteenth 2’
5. Diapason 8’, Octave 4’, Fifteenth 2’, Mixture IV
6. Diapason 8’, Harmonic Flute 8’, Octave 4’, Spitzflöte 4’, Fifteenth 2’, Mixture IV

SWELL

1. Gedackt 8’, Viola Pomposa 8’
2. Gedackt 8’, Viola Pomposa 8’ Traverse Flute 4’
3. Gedackt 8’, Viola Pomposa 8’ Traverse Flute 4’, Piccolo 2’
4. Gedackt 8’, Viola Pomposa 8’ Spitzprinzipal 4’, Traverse Flute 4’, Piccolo 2’
5. Gedackt 8’, Viola Pomposa 8’ Spitzprinzipal 4’, Traverse Flute 4’, Piccolo 2’, Fourniture IV
6. Gedackt 8’, Viola Pomposa 8’ Spitzprinzipal 4’, Traverse Flute 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. It is also possible to combine some of these ensembles within the same division;

for example, when the #5 Great and #3 Swell registrations are coupled together and played on the Great, they 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 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 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*.

Hiialeah, FL: C.P.P. Belwin, 1985.

Irwin, Stevens. *Dictionary of Pipe Organ Stops*. 2nd ed.

New York: Macmillan Books, 1983.

TRANSPOSER/PISTON SETTINGS

12 KEY TRANSPOSER SETTINGS

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 on the front of the console. Neutral (no transposition) position for the knob is marked "N." To shift the music to a higher key, move the knob counter-clockwise; the pointer moves upward. 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 pointer moves clockwise to the right and 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 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.

SETTING GENERAL PISTONS

Allen's Lumitech™ capture system allows the organist to set two complete groups of General piston combinations covering the entire organ, or one for each of two organists to set his or her own combinations their own memory. To use the second capture memory, depress the Memory "B" rocker.

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

Choose a stop combination that you wish to place on General Piston 1, for example. 7 General pistons are found in the center of the console underneath the Swell manual of the C-6. 5 General pistons are found left of center underneath the Swell manual of the C-12. Remember that General pistons are customarily set from soft to loud using graduated stop combinations. After you have selected your stops, press and hold the "Set" Piston and then press and release General Piston 1. Release the "Set" Piston. General Piston 1 will "remember" the combination you have assigned to it and bring on that combination of stops each time General Piston 1 is pressed and the appropriate "A" or "B" memory is selected. You can change the stop combination assigned to any General piston at any time by repeating the above procedure.

SETTING DIVISIONAL PISTONS (C-12 only)

Allen's Lumitech™ capture system allows the organist to set two completely separate groups of divisional piston combinations covering the associated division. It can be used as one for each of two organists to save his or her combinations to their own separate memory. Memory "A" is automatically selected when the organ is first turned on. To use the second capture memory, depress the Memory "B" rocker.

The 4 Swell Divisional pistons are found in the center of the console underneath the Swell manual and 4 Great/Pedal Divisional pistons are found in the center underneath the Great manual. Each of these divisional pistons are configured to "remember" selected stops from their appropriate divisions. For example:

Choose a stop combination from Swell Division stops that you wish to place on Swell Piston 1. After you have selected your stops, press and hold the "Set" Piston and then press and release Swell Piston 1. Release the "Set" Piston. Swell Division Piston 1 will now "remember" the combination you have assigned to it and bring on that combination of stops each time Swell Division Piston 1 is pressed and the appropriate "A" or "B" memory is selected.

Choose a stop combination from Great and/or Pedal Division stops that you wish to place on Great/Pedal Piston 4, for another example. After you have selected your stops, press and hold the "Set" Piston and then press and release Great/Pedal Piston 4. Release the "Set" Piston. Great/Pedal Piston 4 will now "remember" the combination of stops you have assigned to it and bring on that combination each time Great/Pedal Divisional Piston 4 is pressed and the appropriate "A" or "B" memory is selected.

You can change the stop combination assigned to any Swell Divisional piston or any Great/Pedal Divisional piston by the above procedures.

MIDI GUIDE FOR ORGANISTS

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 its benefits. It is important to explore the potential MIDI holds for musicians, as well as the various MIDI applications available today.

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, which, 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.

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, Smart MIDI™ 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.

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.

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.

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 vantagepoint. 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.

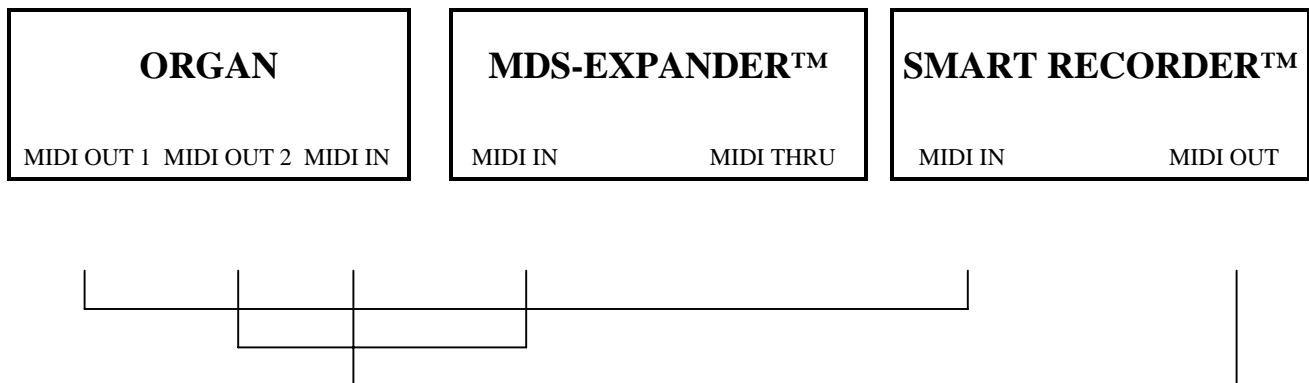
OTHER USES FOR MIDI

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.

CONNECTING THE ALLEN ORGAN TO OTHER MIDI DEVICES

The MIDI-capable Allen Organ consoles may be connected to a variety of MIDI devices. The drawing below illustrates the proper procedure for connecting the Allen MDS-Expander™ and Allen Smart Recorder™ to the Allen Protégé™ Chamber Series organ.

If you are connecting to external MIDI devices not made by Allen Organ Company and more specific information is required, please consult the owner's manuals of the external devices being connected. Contacting the local Allen Organ representative will also be helpful.



SmartMIDI™

Your Allen Protégé™ Chamber Series organ features SmartMIDI™ 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 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.

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 that 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.

For example, the Protégé™ C-6 and C-12 transmit MIDI information on the following channels:

Swell Manual = Channel 1 and Swell Divisional Pistons on C-12
Great Manual = Channel 2 and Great/Pedal Divisional Pistons on C-12
Pedal Manual = Channel 3
General Pistons = Channel 8

MIDI Program Change Messages are transmitted from the organ's General Pistons on MIDI Channel 8. These program change messages can be used to change the setting of MIDI sound modules or synthesizers that 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 Change Information** is sent on MIDI channels 1, 2, and 3 by the **model C-6's** single expression pedal. **On the model C-12**, the Swell volume change information is sent on MIDI channel 1 by changing the position of the organ's Swell Expression shoe. Great and Pedal volume change information is sent on MIDI channels 2 and 3 by changing the position of the organ's Great/Pedal expression pedal. In this manner, the volume level of connected sound producing 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 them.

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

INSTALLATION, VOICING, AND CARE OF THE ORGAN

INSTALLATION

Wherever your Protégé™ Chamber Series 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™ Chamber Series organ enjoys unprecedented accuracy in scaling and voicing of each note of every stop. Final adjustments in scaling and voicing will be performed by the installing dealer. These adjustments are a part of installation and, once done, should not require changes, unless the instrument is moved to a new location.

VIRTUAL ACOUSTICS™

Virtual Acoustics provides spatial ambiance to enhance any acoustical environment. Your service technician or sales representative will adjust the Virtual Acoustics™ to sound best for your installation and specifically to your taste. The organist may choose to use it or turn it off.

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 dishwashing 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, and then polish immediately with the dry cloth. Do not use soap or detergent on keys or stop tablets.

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

CAUTION

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

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

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

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

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

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

Reorient the receiving antenna.

Relocate the organ with respect to the receiver.

Move the organ away from the receiver.

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

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