

**HAMMOND ORGAN**  
**PERCUSSION CONTROLS**

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# HAMMOND ORGAN PERCUSSION CONTROLS

## SPECIAL FEATURES

The Hammond Organ Percussion Controls enable the organist to produce a wide variety of tones similar to the orchestra bells, chimes, marimba, xylophone, and harp. They are not intended, however, to be exact substitutes for the percussion stops found on some pipe organs. An important feature of the Hammond Organ Percussion Controls is that the percussion tones may be produced with a key-controlled "touch-response" in which desired notes of a melody may be accentuated with the percussion tone while others are not so accentuated. This, of course, is impossible with the usual pipe organ percussions where *every* key played must sound percussively whenever a percussion stop is used. As will be explained later, this unique control is achieved through the method of playing the keys. Whether the keys are played in a sustained (*legato*) or detached (*non-legato*) manner determines whether or not the tones shall be percussive.

## THE PERCUSSION CONTROLS

The percussion tones are available on the upper manual. They are controlled in pitch, volume, and rate of decay by means of four tilting controls.

*Percussion "ON-OFF"*—This control, when in its "ON" position, renders the percussion system effective on the upper manual (use upper manual "B" pre-set key on Home, Church, and Concert Models). *Note:* In the "ON" position, all of the upper manual drawbars will be effective *except* the 8th Harmonic Drawbar. This latter is employed for operating the percussion system. In the "OFF" position, the 8th Harmonic Drawbar is effective as usual.

*Percussion Volume*—This control regulates the volume of the percussion tone. When it is set to its "normal" position, the percussion effect will be very prominent relative to the tones produced by the upper manual drawbars. It will also be noticed that the tones from the upper manual drawbars are reduced in volume to compensate for the addition of the percussion tones. This volume compensating feature enables the organist to quickly make registration changes by merely manipulating the "ON-OFF" percussion control. When the Percussion Volume Control is set to its "SOFT" position, the percussion effect is much less prominent. The volume of the

upper manual drawbar tones therefore remains unaffected by the addition of the soft percussion effect.

*Percussion Decay*—When this stop is set to its "SLOW" position (push tablet down at front), the percussion tone will decay slowly like a chime. In its "FAST" position, it will decay rapidly like a xylophone or marimba.

*Percussion Harmonic Selector*—The position of this tablet determines the pitch at which the percussion tone sounds. When set at "SECOND," the pitch is up one octave with respect to the Fundamental Drawbar; when set at "THIRD," the percussion pitch is up an octave and a fifth with respect to the Fundamental Drawbar.

## IMPORTANT! RULE FOR LEGATO AND NON-LEGATO PLAYING

It is important to understand that the percussion tones will sound only if the keys are played in a detached (*non-legato*) manner. Any degree of detachment will suffice to operate the percussion system. For example, if the melody is inherently of a sustained character, the degree of detachment required for operation of the percussion system can be so slight as to be imperceptible. Thus, the operation of the percussion system is controlled by the manner in which succeeding keys are played. The organist will find this intimate control of the percussion tone of great artistic value as it enables him to percussively accentuate only those notes of a melody which he feels would be enhanced thereby. Other less prominent notes may be passed over without percussion merely by playing them in a sustained *legato* manner. Thus, for a percussion tone, remember to release the first key before the second key is pressed.

The above rule about *legato* and *non-legato* playing only applies to the upper manual. The left hand accompaniment as played on the lower manual is entirely independent and can be played in any manner desired.

## MUSICAL EXAMPLES

The examples which follow will clarify the meaning and application of the above rule. In the music scores, a red check (✓) before a note signifies that the player should raise his hand off of the upper keyboard for an instant to provide for a percussion tone on the following note.

**EXAMPLE 1 ("Skater's Waltz")**—When first trying this example, play the right-hand melody with the second finger throughout. This, of course, will automatically produce the required detachment essential for the percussion tone. Now repeat the example playing the melody part in the usual sustained legato manner. Note that the percussion effect is absent on all notes save the first. Now repeat playing in a *very*

*slightly detached manner* and observe that the percussion effect is present regardless of how slight the detachment. The degree of detachment can be so slight as to be unnoticed in so far as the general legato character of the melody is concerned.

The red checks (✓) before the notes indicate that a slight break should be used for producing the percussion tone.

## REGISTRATIONS

### *Spinet Model*

PEDAL 5

UPPER MANUAL 70 7064 000

LOWER MANUAL 6634 2240

Vibrato Normal on both manuals

Percussion: ON

Percussion Harmonic Selector: SECOND

Percussion Decay: SLOW

Percussion Volume: NORMAL

### *Home, Church, and Concert Models*

PEDAL 64

UPPER MANUAL 70 7064 000

LOWER MANUAL 00 6634 212

Vibrato No. 3 on both manuals

Percussion: ON

Percussion Harmonic Selector: SECOND

Percussion Decay: SLOW

Percussion Volume: NORMAL

**Tempo di Valse**

The musical score is arranged in three systems. Each system consists of three staves: Upper Manual (treble clef, 3/4 time), Lower Manual (bass clef, 3/4 time), and Pedal (bass clef, 3/4 time). The tempo is marked 'Tempo di Valse'. Red checkmarks (✓) are placed above the first notes of the upper manual melody in each system, indicating where a slight break should be used to produce a percussion tone. The lower manual provides a steady accompaniment, and the pedal part consists of a simple bass line.

Handwritten musical score system 1. The system consists of three staves: a grand staff (treble and bass clefs) and a separate bass clef staff below. The grand staff contains a melody with red accents and a piano accompaniment. The lower staff contains a bass line. Handwritten annotations include a '5' above the first measure and a '3' above the second measure.

Handwritten musical score system 2. The system consists of three staves: a grand staff (treble and bass clefs) and a separate bass clef staff below. The grand staff contains a melody with red accents and a piano accompaniment. The lower staff contains a bass line.

Handwritten musical score system 3. The system consists of three staves: a grand staff (treble and bass clefs) and a separate bass clef staff below. The grand staff contains a melody with red accents and a piano accompaniment. The lower staff contains a bass line.

Handwritten musical score system 4. The system consists of three staves: a grand staff (treble and bass clefs) and a separate bass clef staff below. The grand staff contains a melody with red accents and a piano accompaniment. The lower staff contains a bass line. The system concludes with a double bar line and a fermata over the final note.

**EXAMPLE 2 ("Vilia Song")**—This example is similar to Example 1 except that the long, chime-like percussion occurs at the third harmonic pitch instead of the second harmonic pitch. The organist will find that changing from the second to third harmonic (or vice-versa) percussion produces a very strong and desirable tonal contrast. It is one which can be quickly made by merely reversing the "Percussion Harmonic Selector" tablet.

*Note Regarding Percussive Registrations:* Generally, the most effective percussive registrations are those in which there is great tonal contrast between the percussion tone and the sustained tone as provided by the upper manual drawbars. One method for obtaining this desirable contrast is to use the full vibrato on both manuals of the organ thereby leaving the percussion

tone with a desirable solo prominence because of its non-vibrato character.

Another factor is to avoid using too many drawbars. If more than four drawbars are used, the pure percussive tone will tend to be "masked" by the greater harmonic development of the sustained tone.

Another principle for obtaining contrast between the percussion and sustained tone is to use drawbar combinations which are even-numbered if the percussion harmonic is odd and vice-versa. Thus, if the third harmonic percussion is employed, the most effective drawbars will be the second and fourth harmonic drawbars. If the percussion uses the second harmonic, the organist will find the third and fifth harmonics effective.

## REGISTRATIONS

*Spinet Model*

PEDAL 5  
 UPPER MANUAL 80 4700 000  
 LOWER MANUAL 4434 3210  
 Vibrato Normal on both manuals  
 Percussion: ~~ON~~ *no*  
 Percussion Harmonic Selector: THIRD  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

*Home, Church, and Concert Models*

PEDAL 64  
 UPPER MANUAL 80 4700 000  
 LOWER MANUAL 00 4434 221  
 Vibrato No. 3 on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: THIRD  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

*June 2*

*no perc.*

**Andante**

The musical score consists of three staves: Upper Manual (treble clef), Lower Manual (bass clef), and Pedal (bass clef). The tempo is marked 'Andante'. The upper manual part features a melody with a triplet of eighth notes in the second measure, marked with a '3' and a handwritten 'no perc.' annotation. The lower manual part provides harmonic accompaniment with chords and moving lines. The pedal part has a simple bass line.

Handwritten musical notation system 1. It consists of three staves. The top staff is a treble clef with a key signature of one flat (B-flat) and a common time signature. It contains a melodic line with eighth and quarter notes, some of which are marked with red diagonal lines. The middle staff is a bass clef with a key signature of one flat, containing a bass line with eighth and quarter notes. The bottom staff is a bass clef with a key signature of one flat, containing a simple harmonic line with quarter notes.

Handwritten musical notation system 2. It consists of three staves. The top staff is a treble clef with a key signature of one flat and a common time signature. It contains a melodic line with eighth and quarter notes, some marked with red diagonal lines. The middle staff is a bass clef with a key signature of one flat, containing a bass line with eighth and quarter notes. The bottom staff is a bass clef with a key signature of one flat, containing a simple harmonic line with quarter notes.

Handwritten musical notation system 3. It consists of three staves. The top staff is a treble clef with a key signature of one flat and a common time signature. It contains a melodic line with eighth and quarter notes, some marked with red diagonal lines. The middle staff is a bass clef with a key signature of one flat, containing a bass line with eighth and quarter notes. The bottom staff is a bass clef with a key signature of one flat, containing a simple harmonic line with quarter notes. There is a handwritten annotation "le trino" in the first measure of the top staff. In the first measure of the middle staff, there are several sharp signs (#) and a flat sign (b) above the notes.

Handwritten musical notation system 4. It consists of three staves. The top staff is a treble clef with a key signature of one flat and a common time signature. It contains a melodic line with eighth and quarter notes, some marked with red diagonal lines. The middle staff is a bass clef with a key signature of one flat, containing a bass line with eighth and quarter notes. The bottom staff is a bass clef with a key signature of one flat, containing a simple harmonic line with quarter notes.

The image shows two systems of musical notation for a piano. Each system consists of three staves: a grand staff (treble and bass clefs) and a separate bass clef staff. The first system shows a melody in the treble clef with red checkmarks above notes, and a bass line in the grand staff. The second system continues the melody and bass line. The key signature has one flat (B-flat), and the time signature is common time (C).

**EXAMPLE 3** ("You Tell Me Your Dream")—In this example, the upper manual drawbar registration employs the second harmonic as does the percussion registration. When used with the slow percussive decay, the combination of the two tone sources produces a charming vibra-harp effect. At the beginning of the tone, one hears a "vibrato chorus" composed of both the non-vibrato percussive second harmonic and the vibrato sustained second harmonic. As the tone dies away, the non-vibrato component smoothly disappears leaving the sustained vibrato component. The general

effect is that of a chorus of vibra-harps played in unison. The sub-fundamental drawbar provides an additional low-pitched sustained component.

As a variation, try this example with the third harmonic drawbar substituted for the second harmonic drawbar and the "Percussion Harmonic Selector" set to "THIRD" instead of "SECOND". The same vibra-harp chorus tone will prevail but the pitch will be transposed up a fifth to produce a charmingly piquant "nazard" ( $2\frac{2}{3}$  ft.) percussion chorus.

## REGISTRATIONS

### *Spinet Model*

PEDAL 5  
 UPPER MANUAL 80 0800 000  
 LOWER MANUAL 4434 1130  
 • Vibrato Normal on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

### *Home, Church, and Concert Models*

PEDAL 64  
 UPPER MANUAL  
 LOWER MANUAL  
 Vibrato No. 3 on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

Moderato

Oct 7

Upper Manual

Lower Manual

Pedal

The first system of music features three staves. The Upper Manual staff is in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. It contains a melodic line with six measures, each marked with a red checkmark. The Lower Manual staff is in bass clef with the same key signature and time signature, containing a bass line with six measures of chords and some melodic fragments. The Pedal staff is also in bass clef with the same key signature and time signature, containing a simple bass line with six measures.

The second system continues the piece. The Upper Manual staff has six measures with red checkmarks. The Lower Manual staff has six measures of chords. The Pedal staff has six measures of a simple bass line.

The third system continues the piece. The Upper Manual staff has six measures with red checkmarks. The Lower Manual staff has six measures of chords. The Pedal staff has six measures of a simple bass line.

The fourth system continues the piece. The Upper Manual staff has six measures with red checkmarks. The Lower Manual staff has six measures of chords. The Pedal staff has six measures of a simple bass line.



**EXAMPLE 4 ("Forget-Me-Not")**—In this novelty selection, the sub-fundamental is omitted thus, in effect, lowering the pitch of the percussion tone relative to the sustained drawbar tone by an octave. This is an entirely different effect and provides a valuable means for obtaining tonal variation. The organist should understand the following two principles in regard to the drawbar and percussion controls:

(1) When the upper manual sub-fundamental drawbar is used, the percussive component will be prominent and tend to stand apart from the sustained drawbar component. This total resolution is often highly desirable. *Note:* If the sheet music registration involves the brown drawbars (of 16' stops), the notes are to be played as written. If the registration does *not* involve these pitches, play the music up one octave from that shown. When using the sub-fundamental

drawbar, this will produce the same basic pitch as intended by the composer. This technique of playing up an octave with 16' registrations in order to separate the percussion tone from the sustained tone is an old and familiar one to organists playing pipe organs having percussions.

(2) When the brown drawbars are *not* used, the tonal cohesiveness of the percussion and sustained tones is much greater. The general tonal effect becomes that of a single instrument whose tones partially die away. This is also a valuable effect and is in great contrast with the percussion which uses the sub-fundamental drawbar. *Note:* If the sheet music registration does not utilize the brown drawbars (or 16' stops), play the notes as written. If it does, play the notes down one octave omitting, of course, the brown drawbars.

## REGISTRATIONS

### *Spinet Model*

PEDAL 5  
 UPPER MANUAL 00 7600 000  
 LOWER MANUAL 4434 1130  
 Vibrato Normal on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: THIRD  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

### *Home, Church, and Concert Models*

PEDAL 64  
 UPPER MANUAL 00 7600 000  
 LOWER MANUAL 00 4434 113  
 Vibrato No. 3 on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: THIRD  
 Percussion Decay: SLOW  
 Percussion Volume: NORMAL

Oct 24

Moderato

Upper Manual

Lower Manual

Pedal

The first system of music consists of three staves. The Upper Manual staff is in treble clef and contains a melodic line with eighth-note patterns and some slurs. Red checkmarks are placed above several notes. The Lower Manual staff is in bass clef and contains a harmonic accompaniment of chords with wavy lines indicating tremolos. The Pedal staff is also in bass clef and contains a simple bass line with quarter notes.

Fine.

The second system continues the musical piece. The Upper Manual staff shows a continuation of the melodic line, ending with a fermata and a 'Fine.' marking. The Lower Manual and Pedal staves continue their respective parts.

The third system continues the musical piece. The Upper Manual staff features a melodic line with a sharp sign (#) appearing in the second measure. The Lower Manual and Pedal staves continue their parts.

The fourth system continues the musical piece. The Upper Manual staff features a melodic line with a sharp sign (#) appearing in the second measure. The Lower Manual and Pedal staves continue their parts.

**EXAMPLE 5** ("Rustic Dance")—In this example, the "Percussion Decay" control is set to "FAST" to simulate the xylophone or marimba. As in the previous examples, each note of the melody should be played in a slightly detached manner to produce the desired percussion. However, do not play the notes in a staccato manner as this will tend to make the sustained tone from the drawbar short like the percussion and the contrast between the two tones (sustained and percussion) will be lessened thereby. The keys should be played in a relatively sustained manner but with a very

short release before each succeeding note. This playing technique is best acquired by first practising this example very slowly and listening to make sure that each note is percussive. Then slowly increase the tempo. This "no-legato" touch occurs in many forms of organ playing and is one which is neither legato nor staccato. Keep in mind that the percussion tone is most effective when the degree of non-legato is very slight. In other words, it should be as close to the legato touch as is possible while still maintaining a slight detachment between the notes.

## REGISTRATIONS

### *Spinet Model*

PEDAL 5  
 UPPER MANUAL 80 0080 000  
 LOWER MANUAL 4433 2211  
 Vibrato Normal on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: FAST  
 Percussion Volume: NORMAL

### *Home, Church, and Concert Models*

PEDAL 64  
 UPPER MANUAL 80 0080 000  
 LOWER MANUAL 00 4433 112  
 Vibrato No. 3 on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: FAST  
 Percussion Volume: NORMAL

Moderato

Oct 28

Upper Manual

Lower Manual

Pedal

The first system of music features three staves. The upper manual staff is in treble clef and contains a melodic line with a triplet of eighth notes marked with a '3' and a dynamic marking of 'ff'. The lower manual staff is in bass clef and contains a bass line with a triplet of eighth notes marked with a '3'. The pedal staff is also in bass clef and contains a simple bass line. A section symbol (§) is placed at the beginning of the first measure.

The second system continues the musical piece. The upper manual staff features a melodic line with several triplet markings and red checkmarks above the notes. The lower manual staff contains a bass line with a long, sweeping slur over several measures. The pedal staff continues with a simple bass line.

The third system concludes the piece. The upper manual staff ends with a melodic phrase marked with a '3' and a dynamic marking of 'ff'. The lower manual staff contains a bass line with a dynamic marking of 'ff'. The pedal staff continues with a simple bass line. The word 'Fine' is written at the end of the system.

The fourth system continues the musical piece. The upper manual staff features a melodic line with a triplet marking and a dynamic marking of 'ff'. The lower manual staff contains a bass line with a dynamic marking of 'ff'. The pedal staff continues with a simple bass line.

*D. S. al Fine*

**EXAMPLE 6 ("Gold and Silver Waltz")**—The first and second themes of this waltz utilize the percussion tone played in chords as well as single notes. As before, observe the red check marks by releasing the keys momentarily.

In playing the third theme, notice that many of the percussion notes are scored only for the first beat of the measure. This produces a very pleasing rhythmic accentuation which heretofore has never been possible on the organ.

## REGISTRATIONS

### *Spinnet Model*

PEDAL 5  
 UPPER MANUAL 80 7016 750  
 LOWER MANUAL 5534 3330  
 Vibrato Normal on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: FAST  
 Percussion Volume: NORMAL

### *Home, Church, and Concert Models*

PEDAL 64  
 UPPER MANUAL 80 7016 750  
 LOWER MANUAL 00 5534 323  
 Vibrato No. 3 on both manuals  
 Percussion: ON  
 Percussion Harmonic Selector: SECOND  
 Percussion Decay: FAST  
 Percussion Volume: NORMAL

Dec. 9

Tempo di Valse

Upper Manual

Lower Manual

Pedal

First system of musical notation. It consists of three staves: a grand staff (treble and bass clefs) and a separate bass staff. The grand staff features chords with red checkmarks above them. The bass staff contains a simple rhythmic pattern of quarter notes.

Second system of musical notation. It consists of three staves: a grand staff and a separate bass staff. The grand staff features chords with red checkmarks above them. The bass staff contains a simple rhythmic pattern of quarter notes.

Third system of musical notation. It consists of three staves: a grand staff and a separate bass staff. The grand staff features chords with red checkmarks above them. The bass staff contains a simple rhythmic pattern of quarter notes.

Fourth system of musical notation. It consists of three staves: a grand staff and a separate bass staff. The grand staff features a melodic line with red checkmarks above it. The bass staff contains a simple rhythmic pattern of quarter notes.

Handwritten musical notation for the first system. The top staff is in treble clef and contains a melodic line with several notes marked with red checkmarks. The middle and bottom staves are in bass clef and provide accompaniment with chords and a simple bass line.

Handwritten musical notation for the second system. The treble staff continues the melodic line with red checkmarks. The bass staves continue the accompaniment. The system concludes with a double bar line.

Handwritten musical notation for the third system. The treble staff features a melodic line with red checkmarks. The bass staves continue the accompaniment. The system concludes with a double bar line.

Handwritten musical notation for the fourth system. The treble staff features a melodic line with red checkmarks. The bass staves continue the accompaniment. The system concludes with a double bar line.



The first system of musical notation consists of three staves. The top staff is in treble clef and contains a melodic line with several notes marked with red checkmarks. The middle staff is in bass clef and contains a piano accompaniment with chords and a melodic line. The bottom staff is in bass clef and contains a simple bass line with quarter notes.

The second system of musical notation consists of three staves. The top staff is in treble clef and contains a melodic line with several notes marked with red checkmarks. The middle staff is in bass clef and contains a piano accompaniment with chords and a melodic line. The bottom staff is in bass clef and contains a simple bass line with quarter notes.

The third system of musical notation consists of three staves. The top staff is in treble clef and contains a melodic line with several notes marked with red checkmarks. The middle staff is in bass clef and contains a piano accompaniment with chords and a melodic line. The bottom staff is in bass clef and contains a simple bass line with quarter notes.

The fourth system of musical notation consists of three staves. The top staff is in treble clef and contains a melodic line with several notes marked with red checkmarks. The middle staff is in bass clef and contains a piano accompaniment with chords and a melodic line. The bottom staff is in bass clef and contains a simple bass line with quarter notes.

## NOTE REGARDING PERCUSSION VOLUME

In the preceding examples, the Percussion Volume control has been set at "NORMAL" which, of course, makes the percussion tone very prominent. There are many other cases, however, where the percussion tone can provide a soft accompaniment to the sustained tone from the drawbars. Many organists find that the percussion tone, when played with the Percussion Volume control set to "SOFT" and the Percussion Decay control set to "FAST," serves to add a pleasant, unobtrusive rhy-

thmic definition which clarifies their organ playing and makes it more enjoyable to the listener. When the percussion tone is played softly, the organist will find that it is not nearly as important to maintain a rigorous non-legato touch as when the percussion is used as a solo effect. The rests and phrasings scored in the music will usually be found adequate for the non-legato requirement when the percussion is soft.