

# ADVANCED INSTRUCTIONS FOR THE HAMMOND CHORD ORGAN

The first and second half-hour instruction booklets contain all the information needed to play the entire library of music supplied with the Chord Organ. The following subjects are treated in this booklet:

**PART I** —Information regarding the operation of the instrument and its various stops.

**PART II** —Advice on how to treat unusual guitar chords found in popular sheet music.

**PART III**—Useful hints for enabling the player to improvise.

**PART IV** —A Chord Appendix for showing the pianist how to adapt classical piano music to the Chord Organ.

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## PART 1

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The purpose of this part is to acquaint you with the function of each of the twenty STOPS and the three BALANCERS.

While each sheet of music supplied with the instrument does contain its own "registration" (selection of stops to be used), it is merely a suggestion. There are a great many other combinations of stops possible for any selection. You will find it very interesting to make your own selection of stops. By so doing you will be able to vary the tone and character of the instrument over an extremely wide range.

### THE DIVISIONS OF THE CHORD ORGAN

The musician at the Chord Organ plays on:

- (1) a **KEYBOARD** for playing the melody.
- (2) a **CHORD DIVISION** for playing the accompaniment.

The **KEYBOARD** has these two tonal divisions which are available on all keys:

- (a) a **SOLO DIVISION** which is used practically all of the time as it has the greatest variety of tonalities in all pitch registers. As its name implies, this division plays only one note at a time. If several keys are held down at once, only the highest one will be heard on the Solo Division.
- (b) an **ORGAN DIVISION** which is independent of the solo division but is played by the same keys. Its tones augment those of the solo division, and also make it possible to play full chords with the right hand.

The **CHORD DIVISION** consists of these three parts:

- (a) 96 **CHORD BUTTONS** for selecting the appropriate chords to harmonize with the melody.
- (b) a **CHORD BAR** for either sounding or

accentuating the chord selected by the chord buttons.

- (c) two BASS PEDALS for producing deep bass notes corresponding to the chords selected with the chord buttons.

## THE ORGAN STOPS AND BALANCERS

The twenty *Stops* control (1) the pitch range, tone quality, and attack of the solo division; (2) the tone quality of the organ and chord divisions; (3) the decay of the bass pedal tones; (4) the operation of the chord bar; (5) the vibrato for the various divisions; and (6) the overall volume of the instrument. The three *Balancers* regulate the volume of tone produced by the pedal, organ, and solo divisions with respect to the volume produced by the chord buttons. Normally, the three balancers should be turned so that their wording is horizontal.

### *The Solo Register Stops—*

*“Bass,” “Tenor,” and “Soprano”*

These three stops control the pitch range of the solo division. When using BASS, the tones will be in the low register; TENOR will place them in a medium register; and SOPRANO will place them in a high register. The player may choose to use several of these stops simultaneously to produce a chorus of tones in octave relations.

### *The Solo Timbre Stops—*

*“Deep Tone,” “Full Tone,” “First Voice,”  
“Second Voice,” and “Brilliant”*

These five stops at the right end are used to modify the quality of the tones selected by the solo register stops. DEEP TONE provides a pure, mellow type of

tone whereas FULL TONE results in a generally useful bright quality. FIRST VOICE and SECOND VOICE function as musical resonators, and serve to emphasize various groups of overtones. These stops are admirably suited to produce beautiful solo voices of the horn type. BRILLIANT, as its name implies, produces a piercing quality, especially when used alone. The solo timbre stops may be used singly or in various combinations to produce a great variety of effects.

NOTE: At least one of the three solo register stops and at least one of the five solo timbre stops must be used in order to obtain a solo tone when playing on the keyboard.

### *“Solo Woodwinds” Stop*

This stop changes the quality of the solo tones from the string or brass family to the clarinet or woodwind family. The particular qualities within these two groups are determined by the solo timbre stops employed.

### *“Solo Fast Attack” and “Solo Accent” Stops*

When neither of these stops is used the tonal attack of the solo division is very gradual and is well-suited for playing slow-moving melodies such as ballads. When SOLO FAST ATTACK is used, the attack becomes very prompt and is useful for fast moving melodies. When SOLO ACCENT is used, the attack is *percussive*. Accents may be produced by playing in a slightly detached manner.

### *The Organ Stops—*

*“Strings” and “Flutes”*

These two stops control the voices of the organ division, which is playable from the keyboard. When neither

is used, the organ division will be silent, leaving only the solo division. When STRINGS is used, the organ tones will be very brilliant; with FLUTES, the organ tones will be very mellow and pure; when both are used, the effect is additive and a full rich quality is obtained.

### *The Chord Stops—"Sustain Cancel," "Mute," and "Pedal Fast Decay"*

SUSTAIN CANCEL removes the relatively soft tonal background which is normally produced by pressing only a chord button. This stop is arranged to cancel the sustained background rather than to add it because the background is usually desired. When this stop is used, the various rhythm patterns produced with the chord bar and pedals are more pronounced.

MUTE is effective to render the chord button tones more mellow.

PEDAL FAST DECAY is used to obtain a more percussive pedal tone. When it is used, the bass tone will fade away very rapidly whenever a pedal is released.

### *The Vibrato Cancel Stops*

There are three Vibrato Cancel stops: ORGAN AND CHORDS, SOLO WIDE, and SOLO SMALL. Do not be confused by the word "cancel"—it simply means that the vibrato effect is removed when these stops are pushed in at the bottom. They are arranged to cancel the vibrato effect rather than to add it because the vibrato is normally desired.

Listen to each division with the three vibrato cancel stops pushed in at the top and note that the vibrato imparts a smooth, rich, string-like tonal warmth. A wide vibrato is desirable for such qualities as violin and cello, while orchestral solo instruments, such as the oboe, clarinet, and flute, sound best with a small vibrato. For some

purposes, however, you may wish to take the vibrato completely off, particularly for qualities resembling the church organ.

The ORGAN AND CHORDS vibrato cancel stop removes the vibrato from the chord button and pedal tones as well as from the organ string and flute tones.

With both SOLO SMALL and SOLO WIDE pressed in at the top you hear the maximum vibrato effect on the solo division. Pressing both stops in at the bottom causes the vibrato to disappear. To get a small solo vibrato, press only SOLO SMALL in at the top, and for a medium solo vibrato, press only SOLO WIDE in at the top.

Many lovely composite tonal effects may be had by opposite settings of the vibrato stops; that is, by using a vibrato effect on the solo division but not on the organ division.

### *"Volume Soft" Stop*

The player will find that soft music of great beauty can be obtained by using this stop. It may also be used to advantage when playing in a small room or when practicing. As an overall volume adjustment, it serves to reduce the volume without losing the full range of the expression control.

**NOTE:** You will find it helpful to remember that all the solo division stops are grouped together at the right starting with the SOLO WIDE vibrato cancel stop.

### *Volume Balancers—*

#### *"Pedal," "Organ," "Solo"*

These three knobs regulate the respective volumes of the bass pedals, organ division, and solo division relative

to the volume of the chord button tones (for which there is no balancer). The chord button tones are made more prominent by reducing the volume of the other divisions with the three balancers.

If the particular selection being played is enhanced by having the bass part prominent, it may be made so by turning the pedal balancer to the right (clockwise). The organ or solo division tones may be emphasized similarly.

You will find that the most generally useful balance is obtained when the wording on all the knobs is horizontal.

## SOME INTERESTING STOP COMBINATIONS

The following is a partial list of interesting combinations of stops. Try using them for the selections that you have already learned, and notice how the character of the music may be greatly varied by using different combinations. In trying each combination be sure that the unlisted stops are pushed in at the top.

### I. For playing Ballads, Folk Music, Melodic Popular Music, etc.:

- |  |   |  |
|--|---|--|
| 1. Strings<br>Flutes<br>Bass<br>Deep Tone<br>Full Tone                     | 5. Flutes<br>Solo Wide<br>Vibrato Cancel<br>Solo Small<br>Vibrato Cancel<br>Soprano<br>Woodwinds<br>Full Tone | 8. Strings<br>Flutes<br>Bass<br>Tenor<br>Soprano<br>Deep Tone<br>Brilliant |
| 2. Strings<br>Tenor<br>Full Tone   | 6. Mute<br>Flutes<br>Bass<br>Second Voice   | 9. Mute<br>Strings<br>Soprano<br>Woodwinds<br>Full Tone                    |
| 3. Flutes<br>Soprano<br>Woodwinds<br>Full Tone                             | 7. Strings<br>Flutes<br>Bass<br>Tenor<br>Soprano<br>Deep Tone   | 10. Mute<br>Flutes<br>Bass<br>Woodwinds<br>Deep Tone                       |
| 4. Flutes<br>Strings<br>Bass<br>Tenor<br>Soprano<br>Deep Tone<br>Full Tone |   |  |

### II. For playing Operatic, Symphonic, and other Classical Music:

- |  |  |
|--|--|
| 11. Strings<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Tenor<br>Full Tone<br>Brilliant              | 16. Mute<br>Strings<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Bass<br>Woodwinds<br>Second Voice    |
| 12. Strings<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Soprano<br>Woodwinds<br>Full Tone  | 17. Mute<br>Strings<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Soprano<br>Woodwinds<br>Full Tone    |
| 13. Strings<br>Flutes<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Tenor<br>Woodwinds<br>Second Voice | 18. Flutes<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Bass<br>Woodwinds<br>Deep Tone<br>First Voice |
| 14. Mute<br>Flutes<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Bass<br>Second Voice<br>Brilliant                                  | 19. Flutes<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Solo Small Vibrato Cancel<br>Bass<br>Deep Tone<br>Second Voice             |
| 15. Mute<br>Flutes<br>Organ and Chords<br>Vibrato Cancel<br>Solo Wide Vibrato Cancel<br>Bass<br>First Voice  |  |

III. For playing Hymns and other Church Music:

- |   |   |
|---|---|
| <p>20. Strings<br/>Flutes<br/>Organ and Chords<br/>Vibrato Cancel<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Tenor<br/>Soprano<br/>Fast Attack<br/>Deep Tone</p> | <p>22. Strings<br/>Flutes<br/>Organ and Chords<br/>Vibrato Cancel<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Tenor<br/>Soprano<br/>Fast Attack<br/>Deep Tone<br/>Full Tone</p> |
| <p>21. Mute<br/>Flutes<br/>Organ and Chords<br/>Vibrato Cancel<br/>Solo Wide Vibrato Cancel<br/>Bass<br/>Soprano<br/>Fast Attack<br/>Deep Tone</p>  |   |

IV. For Playing Fast-Moving Popular Music, Jazz, Novelty Styles, etc.:

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|--|---|
| <p>23. Strings<br/>Flutes<br/>Bass<br/>Tenor<br/>Soprano<br/>Accent<br/>Deep Tone<br/>Full Tone</p>  | <p>26. Mute<br/>Strings<br/>Flutes<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Accent<br/>Second Voice<br/>Brilliant</p>          |
| <p>24. Sustain Cancel<br/>Pedal Fast Decay<br/>Flutes<br/>Organ and Chords<br/>Vibrato Cancel<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Accent<br/>Brilliant</p> | <p>27. Flutes<br/>Organ and Chords<br/>Vibrato Cancel<br/>Bass<br/>Woodwinds<br/>Accent<br/>Second Voice</p>  |
| <p>25. Strings<br/>Flutes<br/>Bass<br/>Soprano<br/>Fast Attack<br/>Full Tone</p>   | <p>28. Sustain Cancel<br/>Pedal Fast Decay<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Tenor<br/>Accent<br/>Second Voice<br/>Brilliant</p> |

The following combinations involve the solo stops only, and are imitative of the various well-known orchestral instruments. While trying these suggestions, be sure that all unlisted stops are pushed in at the top.

*Orchestral Strings*

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|---|--|--|
| <p>29. VIOLIN I<br/>Soprano<br/>Deep Tone<br/>Brilliant</p> | <p>31. VIOLA<br/>Tenor<br/>Full Tone</p>               | <p>33. DOUBLE BASS I<br/>Bass<br/>Full Tone</p>                |
| <p>30. VIOLIN II<br/>Soprano<br/>Brilliant</p>              | <p>32. CELLO<br/>Tenor<br/>Deep Tone<br/>Full Tone</p> | <p>34. DOUBLE BASS II<br/>Bass<br/>Deep Tone<br/>Full Tone</p> |

*Orchestral Brasses*

- |  |   |
|--|---|
| <p>35. TRUMPET<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Tenor<br/>Fast Attack<br/>Second Voice</p> | <p>37. CORNET<br/>Solo Wide Vibrato Cancel<br/>Tenor<br/>Deep Tone<br/>Second Voice</p>           |
| <p>36. TRUMPET WITH VIBRATO<br/>Tenor<br/>Second Voice</p>   | <p>38. TUBA<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Deep Tone</p> |

*Orchestral Woodwinds and Horns*

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|--|--|
| <p>39. ALTO CLARINET<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Tenor<br/>Woodwinds<br/>Full Tone</p>                  | <p>42. BASS CLARINET I WITH VIBRATO<br/>Bass<br/>Woodwinds<br/>Deep Tone<br/>First Voice</p>   |
| <p>40. ALTO CLARINET WITH VIBRATO<br/>Tenor<br/>Woodwinds<br/>Full Tone</p>  | <p>43. BASS CLARINET II<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Woodwinds<br/>Full Tone<br/>Second Voice</p> |
| <p>41. BASS CLARINET I<br/>Solo Wide Vibrato Cancel<br/>Solo Small Vibrato Cancel<br/>Bass<br/>Woodwinds<br/>Deep Tone<br/>First Voice</p> | <p>44. BASS CLARINET II WITH VIBRATO<br/>Bass<br/>Woodwinds<br/>Full Tone<br/>Second Voice</p>   |

45. FLUTES

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Soprano  
Woodwinds  
Brilliant

46. OBOE I

Solo Wide Vibrato Cancel  
Tenor  
Second Voice  
Brilliant

47. OBOE II

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Tenor  
Brilliant

48. BASSOON

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Bass  
First Voice  
Brilliant

49. OBOE HORN

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Tenor  
First Voice

50. ENGLISH HORN

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Bass  
Second Voice  
Brilliant

51. PICCOLO

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Soprano  
Woodwinds  
Fast Attack  
Full Tone

52. MUTED HORN

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Bass  
First Voice

53. MUTED HORN WITH VIBRATO

Bass  
First Voice

Other Orchestral Combinations

54. TENOR SAXOPHONE

Bass  
Deep Tone

55. ALTO SAXOPHONE

Tenor  
Deep Tone

56. SOPRANO SAXOPHONE

Soprano  
Deep Tone

57. BARITONE SAXOPHONE

Bass  
Tenor  
Woodwinds  
Deep Tone

58. BASS SAXOPHONE

Solo Wide Vibrato Cancel  
Bass  
Deep Tone  
Brilliant

59. FRENCH HORN

Solo Wide Vibrato Cancel  
Bass  
First Voice

60. WALTZ HORN

Solo Wide Vibrato Cancel  
Bass  
Deep Tone

61. BAG PIPES

Solo Wide Vibrato Cancel  
Solo Small Vibrato Cancel  
Bass  
Tenor  
Second Voice  
Brilliant

## PART 2

The purpose of this part is to show you how to play popular songs from standard piano sheet music. Nearly every sheet of popular music which is now published contains guitar Chord Names which are written above the vocal staff. The guitar Chord Names are, for the most part, similar to the Chord Names used for the chord buttons.

Thus, the left hand selects the chord buttons from the guitar chord notations and the right hand plays the melody from the vocal staff. The two lower piano accompaniment staves may be disregarded.

In using the guitar Chord Names, however, one must bear in mind that the guitar is an entirely different type of instrument than the Chord Organ. The guitar is used chiefly as an accompaniment instrument to a singer.

To aid the singer, the guitarist makes every effort to play the melody note along with the harmony chord whenever possible. Thus, the melody note is frequently contained in the guitar Chord Names. Because of this, the guitar chord notation system has become quite complicated. Furthermore, the number of guitar chords shown on a sheet of popular music is often many more than are actually needed to accompany the melody. To illustrate, here is an excerpt from the selection "Deep Purple" which shows the guitar Chord Names used:—

The image shows a musical score for the song "Deep Purple". At the top, there are guitar chord names: Cm7, Dm7, Gm7, Fm7, Bb7, Am7, Cdim, F7. Below these are three staves. The top staff is the vocal melody with lyrics: "mist of a man o'ry you wan-der". The middle staff is the guitar accompaniment, and the bottom staff is the piano accompaniment. Labels on the right side indicate: "GUITAR CHORD NAMES", "MELODY (PLAY WITH RIGHT HAND)", and "PIANO ACCOMPANIMENT (MAY BE DISREGARDED)".

Below is shown the same excerpt from the "lead sheet" type of music preferred by professional musicians:—



Notice that a large number of chords have been omitted. This is because most of these chords automatically follow from playing the melody separately, using the standard accompaniment chords. The melody note plus the standard accompaniment chord results in the more intricate guitar Chord Names. For example, a melody "B" note accompanied by a C MAJOR chord is scored as a guitar C MAJOR SEVENTH chord (C-E-G-B). Likewise, an "A" melody note accompanied by a C MINOR chord is scored as the guitar C MINOR SIXTH chord (C-E $\flat$ -G-A). From this, it follows that when the melody note is considered in naming the guitar chords, there are an indefinitely large number of possible guitar Chord Names. Sometimes the guitar Chord Names become so complicated that it has become necessary to write in the extra melody note to play as, for instance:—

- B $\flat$ 7 (add G); E $\flat$ 9 (bF); G7 (add E $\flat$ );  
Cm7 (+F); B $\flat$ 7 (+E $\flat$ ); Gm6 (susA).

From the above, we see that while the number of guitar Chord Names may be very great, the identical harmonies are produced on the Chord Organ by accompanying an independent melody note with a standard chord. The eight types of chords provided on the Chord Organ are sufficient for all musical selections.

When a selection is especially arranged for the Chord Organ, the number of chords is relatively few, and the resulting music sheet corresponds closely to the "lead sheet" preferred by professional musicians. Con-

sequently when playing your chord buttons from guitar Chord Names, we recommend that you take a red pencil and encircle those that are usable and mark in substitutions for the others. The following is a list showing a few of the possible guitar Chord Names which you may find new to you on sheet music together with the equivalent chord buttons to use on the Chord Organ. Note that there is some variation in the type of Chord Name used by different guitarists for the same chord.

The chords in the table below are all shown as "C" chords but, of course, can also have designations in any of the eleven other keys. Also remember that:—

- C $\sharp$  and D $\flat$  are the same.
- D $\sharp$  and E $\flat$  are the same.
- F $\sharp$  and G $\flat$  are the same.
- G $\sharp$  and A $\flat$  are the same.
- A $\sharp$  and B $\flat$  are the same.

## EQUIVALENT GUITAR CHORD TABLE

(Shown for key of C but applicable to any key.)

<i>Guitar Chord Designation</i>	<i>Equivalent Chord Button to use on the Chord Organ</i>
Csus3.....	C
Cmin, Cmi.....	Cm
C+5, C5+.....	C+
C $^{\circ}$ , Co, Cdim.....	C-
C VI.....	C6
Cmaj7, Cma7, C7 $\sharp$ .....	C
Cm6, Cmi6, Cmin6, CmVI.....	Cm
C7-5, C7 $\flat$ 5.....	C7
C7+5, C7 $\sharp$ 5, C+7, C7+, C7aug.....	C+
C75+, C75aug.....	C+
C7-9, C7 $\flat$ 9, C $^{\circ}$ 7, C $^{\circ}$ -7.....	C7
C7-9+5, C7 $\flat$ 9+5, C+7-9, C+7 $\flat$ 9, C $^{\circ}$ +7, C $^{\circ}$ +7 $\flat$ 9.....	C+

C7-9-5, C7b9, C7 <sup>9b5</sup> , C7 <sup>9b5b</sup>	C7
C7sus, C7(sus4), C47.....	C7 or Cm7 or Bb6 (count two rows to the left)
C7alt.....	Gm7 (count one row to the right)
C7sus3.....	C7
C7+b5.....	C+
C7+, C+7, C7aug.....	C+
C7 <sup>9b5</sup> .....	F#7 (count six rows to the right)
Cm7b5, Cm <sup>-5</sup> , Cm <sup>b5</sup> .....	Cm7 or Ab9 (count four rows to the left)
C9+5, C9+, C+9, C9aug., C9#5.....	C+
C+b9, C+-9.....	C+
C <sup>9</sup> .....	C7 or C9
C9-5, C9b5.....	C9 or C-
C+9, C9+.....	C+
C9b, C-9, C9-.....	C7
C <sup>9</sup> , C <sup>6</sup> .....	C6
Cm9.....	Cm7
C9+b9, C9+-9.....	C+
C6+9.....	C9
Cmaj9.....	C
C9maj7.....	C
C11.....	C9 or C7
C13.....	C7
C <sup>9</sup> <sub>13</sub> , C <sup>13</sup> <sub>9</sub> .....	C7
C <sup>13</sup> <sub>9</sub> , C <sup>13b</sup> <sub>9</sub> .....	C7

**NOTE No. 1:** Observe that the key designation for a few of the guitar chords is different for the equivalent chords on the Chord Organ. In each of these cases, a parenthetical phrase tells you how many rows to count over. As shown in the table, guitar chord C7<sup>9b5</sup>

is equivalent to F#7 (count 6 rows to the right). When using this information for keys other than "C," you may find that you run off one end of the chord buttons. In this event, merely continue counting starting with the other end of the chord buttons as your next row. For example, D7<sup>9b5</sup> is equivalent to Ab7 (count to the right 4 rows from "D" to the right end of the chord buttons, and 2 more rows to the right from the left end of the chord buttons thus bringing you to the "Ab" row—six rows to the right in all).

**NOTE No. 2:** In order to conform to the staff signature, some guitarists insert a natural sign as: Bbm7, Eb7, etc. You may disregard the natural signs and play Bm7, E7, etc.

**NOTE No. 3:** Occasionally you will see this sort of a sequence of chords:

C            add 6            F            add 9

Play C6 where the score reads "add 6" and F9 where the score reads "add 9." In other words, use the key designation of the previous chord.

**NOTE No. 4:** From the table, you can see that most guitar chords which have augmented intervals (use a "+" or "#" sign) are equivalent to the AUGMENTED chord on the Chord Organ. This, of course, does not refer to the "#" sign in the key designation of the Chord Names (F#7, C#m, etc.).

**NOTE No. 5:** Occasionally you may find the Chord Name "dim." without any key designation. This simply means to use the DIMINISHED chord which is built on the melody note. For example, if the melody note is "C," use the "C" DIMINISHED chord button.

## PART 3

The purpose of this part is to show you how to find the correct chord button to accompany a melody that you can already play on the keyboard. Also, the hints and tables which follow will help you in selecting the chord buttons to use with a melody from a sheet of piano or vocal music which does not specify the chord names. This information, of course, does not cover all cases, but nevertheless will enable you to harmonize most of the melody notes occurring in your music. Within these tables are the rudiments of musical harmony theory. If you will practice using them you will soon acquire a natural "feel" for the correct chord buttons. It will then be just as easy to find the chord buttons as it is to "pick-out" the melody on the keyboard.

### THE MOST FREQUENTLY USED CHORDS

As pointed out in the "Second Half-Hour Instructions," you will be using only 3 of the 96 chord buttons over half of the time when playing the average piece. Furthermore, it will always be these same three buttons for any piece when played in the same key. The No. 2 chord is the most important and most frequently used chord. Not only is it found very often within the selection, but it almost always occurs at the beginning and end of a composition.

The next most important chord is the No. 3 chord. This chord is the one which most frequently precedes the No. 2 chord at the end of a selection.

The next most important chord is the No. 1 chord. The familiar "Amen" at the end of hymns is the progression of the No. 1 chord to the No. 2 chord. It is used several times in practically every melody.

The following is a list of the 10 most commonly used chords (arrived at by analyzing a large library of music) with the percentage indicating approximately how much of the time each is used.

Chord No.	Percentage
2	25%
3	20%
1	12%
4	10%
5	5%
6	3%
5m	2%
4m	2%
6m	1%
3+	1%

All other chords, less than 1/2% each.

By looking over this list, you will see that most of the chords lie in a "home area" in which they are designated by the NUMBER system. Of course, there are occasional reaches to more distant buttons, in which case the chords are designated by their Chord Names. As pointed out in the "Second Half-Hour Instructions," the "home area" will shift to the right or left when playing in different keys, but the relative location of the principal chords will be the same when playing in any of the usual keys. This makes it easy to finger the chord buttons, as they "feel" the same in the "home area" for any key. It is for this reason that the chord buttons are arranged in fifths (F, C, G, D, E, etc.) instead of chromatically (C, C#, D, D#, E, etc.)

## PIECES IN MINOR KEYS:

When playing in a minor key, the most important chord is 2m instead of 2, and 1m is used in place of 1. The relative importance of the other chords remains the same.

## CHORD PROGRESSIONS

The chord progressions in music frequently follow set patterns. For instance, the chords of a popular song may start with the No. 2 chord and use the No. 3 chord at the end of the eighth measure. The second set of eight measures may start with the No. 1 chord and finish with the "27" chord. In the third set of eight measures, the No. 5 chord is sometimes followed by the No. 4 chord leading back to the No. 3 chord for several measures. The fourth set of eight measures may be like the first eight measures except for ending with the No. 2 chord.

The following is a list of the most commonly used chord progressions:

- 2 may be followed by 3, 1, 4, 5m, 4m, 3+, 6, or 3-
- 3 may be followed by 2, 6, 1, or 3+
- 1 may be followed by 2
- 4 may be followed by 3
- 5 may be followed by 4 or 4m
- 6 may be followed by 5m or 5
- 5m may be followed by 4
- 4m may be followed by 3
- 6m may be followed by 2
- 3+ may be followed by 2
- 3- may be followed by 3

From the above, we see that chords very frequently progress consecutively to the left. For example, here is a very frequently used progression: 6, 5m, 4, 3, 2.

## USING THE MELODY CHORD TABLES

In the following tables, the chords most used are listed (from left to right in order of their probability) for each of the twelve possible melody notes in the common major keys. A chart for the remote key of F# major (6 sharps) is also included for the benefit of the player who is not accustomed to reading notes, but who has learned to play mostly on the black keys by ear. The melody notes are listed at the left. For example, if you are playing in the key of C major and are harmonizing an "E" melody note, first try the No. 2 chord. If this does not sound right, try in order 5m, 6, 6m, 3-, or 4. One of these chords will usually be correct. Do not try to change chords too often. The short "passing" melody notes are not usually harmonized individually.

### KEY OF C

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
C	2, 1, 4, 5m, 27, Ab7, 1m, 2-
D $\flat$ (or C#)	5, 3-, D $\flat$ , B $\flat$ m
D	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
E $\flat$ (or D#)	3+, 2m, 2-, 17, Ab7, B7, 3
E	2, 5m, 6, 5, 6m, 3-, 4
F	1, 3, 4m, 1m, B $\flat$ 7
F# (or G $\flat$ )	4, 2-, B7, 6
G	3, 2, 3mj, 27, 6m, 3-, 5, 3+
Ab (or G#)	6, Ab7, 2+, 1m
A	1, 2, 3, 4, 5, 5m, 4m, 17, B7
B $\flat$ (or A#)	27, B $\flat$ 7, 3-
B	3, 6m, 2, B7, 6, 3mj, 3+

## KEY OF F (1 FLAT)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
F	2, 1, 4, 5m, 27, Db7, 1m, 2-
Gb (or F#)	5, 3-, F#, Ebm
G	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Ab (or G#)	3+, 2m, 2-, 17, Db7, E7, 3
A	2, 5m, 6, 5, 6m, 3-, 4
Bb (or A#)	1, 3, 4m, 1m, Eb7
B	4, 2-, E7, 6
C	3, 2, 3mj, 27, 6m, 3-, 5, 3+
Db (or C#)	6, Db7, 2+, 1m
D	1, 2, 3, 4, 5, 5m, 4m, 17, E7
Eb (or D#)	27, Eb7, 3-
E	3, 6m, 2, E7, 6, 3mj, 3+

## KEY OF Bb (2 FLATS)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
Bb (or A#)	2, 1, 4, 5m, 27, F#7, 1m, 2-
B	5, 3-, B, Abm
C	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Db (or C#)	3+, 2m, 2-, 17, F#7, A7, 3
D	2, 5m, 6, 5, 6m, 3-, 4
Eb (or D#)	1, 3, 4m, 1m, Ab7
E	4, 2-, A7, 6
F	3, 2, 3mj, 27, 6m, 3-, 5, 3+
F# (or Gb)	6, F#7, 2+, 1m
G	1, 2, 3, 4, 5, 5m, 4m, 17, A7
Ab (or G#)	27, Ab7, 3-
A	3, 6m, 2, A7, 6, 3mj, 3+

## KEY OF G (1 SHARP)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
G	2, 1, 4, 5m, 27, Eb7, 1m, 2-
Ab (or G#)	5, 3-, Ab, Fm
A	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Bb (or A#)	3+, 2m, 2-, 17, Eb7, F#7, 3
B	2, 5m, 6, 5, 6m, 3-, 4
C	1, 3, 4m, 1m, F7
Db (or C#)	4, 2-, F#7, 6
D	3, 2, 3mj, 27, 6m, 3-, 5, 3+
Eb (or D#)	6, Eb7, 2+, 1m
E	1, 2, 3, 4, 5, 5m, 4m, 17, F#7
F	27, F7, 3-
F# (or Gb)	3, 6m, 2, F#7, 6, 3mj, 3+

## KEY OF Eb (3 FLATS)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
Eb (or D#)	2, 1, 4, 5m, 27, B7, 1m, 2-
E	5, 3-, E, Dbm
F	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
F# (or Gb)	3+, 2m, 2-, 17, B7, D7, 3
G	2, 5m, 6, 5, 6m, 3-, 4
Ab (or G#)	1, 3, 4m, 1m, Db7
A	4, 2-, D7, 6
Bb (or A#)	3, 2, 3mj, 27, 6m, 3-, 5, 3+
B	6, B7, 2+, 1m
C	1, 2, 3, 4, 5, 5m, 4m, 17, D7
Db (or C#)	27, Db7, 3-
D	3, 6m, 2, D7, 6, 3mj, 3+

## KEY OF Ab (4 FLATS)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
Ab (or G#)	2, 1, 4, 5m, 27, E7, 1m, 2-
A	5, 3-, A, F#m
Bb (or A#)	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
B	3+, 2m, 2-, 17, E7, G7, 3
C	2, 5m, 6, 5, 6m, 3-, 4
Db (or C#)	1, 3, 4m, 1m, F#7
D	4, 2-, G7, 6
Eb (or D#)	3, 2, 3mj, 27, 6m, 3-, 5, 3+
E	6, E7, 2+, 1m
F	1, 2, 3, 4, 5, 5m, 4m, 17, G7
F# (or Gb)	27, F#7, 3-
G	3, 6m, 2, G7, 6, 3mj, 3+

## KEY OF D (2 SHARPS)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
D	2, 1, 4, 5m, 27, Bb7, 1m, 2-
Eb (or D#)	5, 3-, Eb, Cm
E	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
F	3+, 2m, 2-, 17, Bb7, Db7, 3
F# (or Gb)	2, 5m, 6, 5, 6m, 3-, 4
G	1, 3, 4m, 1m, C7
Ab (or G#)	4, 2-, Db7, 6
A	3, 2, 3mj, 27, 6m, 3-, 5, 3+
Bb (or A#)	6, Bb7, 2+, 1m
B	1, 2, 3, 4, 5, 5m, 4m, 17, Db7
C	27, C7, 3-
Db (or C#)	3, 6m, 2, Db7, 6, 3mj, 3+

## KEY OF F# (6 SHARPS)

(Try in order from left to right)

Melody Note	Probable Harmonizing Chords
F# (or Gb)	2, 1, 4, 5m, 27, D7, 1m, 2-
G	5, 3, G, Em
Ab (or G#)	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
A	3+, 2m, 2-, 17, D7, F7, 3
Bb (or A#)	2, 5m, 6, 5, 6m, 3-, 4
B	1, 3, 4m, 1m, E7
C	4, 2-, F7, 6
Db (or C#)	3, 2, 3mj, 27, 6m, 3-, 5, 3+
D	6, D7, 2+, 1m
Eb (or D#)	1, 2, 3, 4, 5, 5m, 4m, 17, F7
E	27, E7, 3-
F	3, 6m, 2, F7, 6, 3mj, 3+

## MODERN HARMONIES

In playing modern music, you may prefer to substitute the MAJOR+6 chord for the MAJOR chords and the NINTH chord for the SEVENTH chords. These somewhat dissonant chords are frequently found in the compositions of Debussy and are now employed a great deal in modern orchestrations.

## PART 4

### CHORD APPENDIX

The information which follows is specifically directed to the advanced pianist to enable him to adapt standard piano music to the Chord Organ. Classical music does not contain Chord Names, and so the chief task here is to "glean the harmony" from the piano accompaniment. The melody is relatively easy to determine. It is usually the highest note for the right hand.




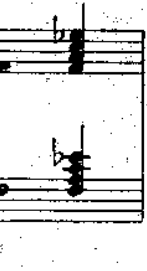



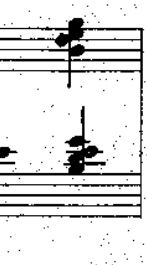
#### HOW TO USE THE CHORD CHARTS

The charts which follow show you the chord notes corresponding to the various chord buttons. They also tell you which root bass note sounds when the left pedal is depressed. For example, when the G SEVENTH chord is used, the notes G, B, D, and F are heard together with a low G bass note. As these notes may be scored in any inversion on either clef of the piano score, the Chord Charts show them in several locations on both clefs.








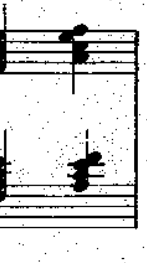
In determining which chord button to use, first observe the bass note on the first beat of the measure. For instance, if it is a C note, the chord button to use is likely to be one of the C chords. If other accompaniment notes are E and G, the chord is C MAJOR. If they are E $\flat$  and G, the chord is C MINOR. If they are E, G, and B $\flat$ , the chord is C SEVENTH. If they are E and G $\sharp$ , the chord is C AUGMENTED. If they are E $\flat$ , F $\sharp$ , and A, the chord is C DIMINISHED, etc. In using the chord charts, bear in mind that any "sharp" note may also be expressed as a "flat" note and vice-versa. For example, the C $\sharp$  MINOR chord (C $\sharp$ , E, and G $\sharp$ ), is the same as the D $\flat$  MINOR chord (D $\flat$ , F $\flat$ , and A $\flat$ ).

Some of the more difficult piano scores will also contain other accompaniment notes in the form of "passing-notes." No attention should be paid to these in determining which chord button to use.









**C  
CHORDS**

<b>C major</b>	<b>C minor</b>	<b>C seventh</b>	<b>C diminished</b>
			
<b>C augmented</b>	<b>C minor 7th</b>	<b>C major+6th</b>	<b>C ninth</b>
			

**Db  
CHORDS**

<b>Db major</b>	<b>Db minor</b>	<b>Db seventh</b>	<b>Db diminished</b>
			
<b>Db augmented</b>	<b>Db minor 7th</b>	<b>Db major+6th</b>	<b>Db ninth</b>
			

**D  
CHORDS**

<b>D major</b>	<b>D minor</b>	<b>D seventh</b>	<b>D diminished</b>
			
<b>D augmented</b>	<b>D minor 7th</b>	<b>D major+6th</b>	<b>D ninth</b>
			

**E<sub>b</sub>  
CHORDS**

**E<sub>b</sub> major**      **E<sub>b</sub> minor**      **E<sub>b</sub> seventh**      **E<sub>b</sub> diminished**

Four musical staves showing the chord voicings for Eb major, Eb minor, Eb seventh, and Eb diminished. Each staff has a treble and bass clef. The notes are: Eb major (Eb, G, Bb), Eb minor (Eb, G, Ab), Eb seventh (Eb, G, Bb, Ab), and Eb diminished (Eb, G, Ab, Bb). Dynamics are marked 'p'.

**E<sub>b</sub> augmented**      **E<sub>b</sub> minor 7th**      **E<sub>b</sub> major + 6th**      **E<sub>b</sub> ninth**

Four musical staves showing the chord voicings for Eb augmented, Eb minor 7th, Eb major + 6th, and Eb ninth. The notes are: Eb augmented (Eb, G, Ab, Bb), Eb minor 7th (Eb, G, Ab, Bb), Eb major + 6th (Eb, G, Bb, Ab), and Eb ninth (Eb, G, Bb, Ab, G). Dynamics are marked 'p'.

**E  
CHORDS**

**E major**      **E minor**      **E seventh**      **E diminished**

Four musical staves showing the chord voicings for E major, E minor, E seventh, and E diminished. The notes are: E major (E, G#, B), E minor (E, G, Bb), E seventh (E, G, B, Ab), and E diminished (E, G, Ab, Bb). Dynamics are marked 'p'.

**E augmented**      **E minor 7th**      **E major + 6th**      **E ninth**

Four musical staves showing the chord voicings for E augmented, E minor 7th, E major + 6th, and E ninth. The notes are: E augmented (E, G#, Ab, Bb), E minor 7th (E, G, Ab, Bb), E major + 6th (E, G, B, Ab), and E ninth (E, G, B, Ab, G). Dynamics are marked 'p'.

**F  
CHORDS**

**F major**      **F minor**      **F seventh**      **F diminished**

Four musical staves showing the chord voicings for F major, F minor, F seventh, and F diminished. The notes are: F major (F, Ab, C), F minor (F, Ab, Cb), F seventh (F, Ab, C, Bb), and F diminished (F, Ab, Bb, Cb). Dynamics are marked 'p'.

**F augmented**      **F minor 7th**      **F major + 6th**      **F ninth**

Four musical staves showing the chord voicings for F augmented, F minor 7th, F major + 6th, and F ninth. The notes are: F augmented (F, Ab, Bb, Cb), F minor 7th (F, Ab, Bb, Cb), F major + 6th (F, Ab, C, Bb), and F ninth (F, Ab, C, Bb, Ab). Dynamics are marked 'p'.

F# major      F# minor      F# seventh      F# diminished

Four measures of musical notation for F# chords. Each measure shows a grand staff with treble and bass clefs. The first measure is F# major, the second is F# minor, the third is F# seventh, and the fourth is F# diminished. Each chord is shown in a block chord format with a piano (p) dynamic marking.

F#  
HORDS

F# augmented      F# minor 7th      F# major + 6th      F# ninth

Four measures of musical notation for F# chords. Each measure shows a grand staff with treble and bass clefs. The first measure is F# augmented, the second is F# minor 7th, the third is F# major + 6th, and the fourth is F# ninth. Each chord is shown in a block chord format with a piano (p) dynamic marking.

G major      G minor      G seventh      G diminished

Four measures of musical notation for G chords. Each measure shows a grand staff with treble and bass clefs. The first measure is G major, the second is G minor, the third is G seventh, and the fourth is G diminished. Each chord is shown in a block chord format with a piano (p) dynamic marking.

G  
HORDS

G augmented      G minor 7th      G major + 6th      G ninth

Four measures of musical notation for G chords. Each measure shows a grand staff with treble and bass clefs. The first measure is G augmented, the second is G minor 7th, the third is G major + 6th, and the fourth is G ninth. Each chord is shown in a block chord format with a piano (p) dynamic marking.

A $\flat$  major      A $\flat$  minor      A $\flat$  seventh      A $\flat$  diminished

Four measures of musical notation for A $\flat$  chords. Each measure shows a grand staff with treble and bass clefs. The first measure is A $\flat$  major, the second is A $\flat$  minor, the third is A $\flat$  seventh, and the fourth is A $\flat$  diminished. Each chord is shown in a block chord format with a piano (p) dynamic marking.

A $\flat$   
HORDS

A $\flat$  augmented      A $\flat$  minor 7th      A $\flat$  major + 6th      A $\flat$  ninth

Four measures of musical notation for A $\flat$  chords. Each measure shows a grand staff with treble and bass clefs. The first measure is A $\flat$  augmented, the second is A $\flat$  minor 7th, the third is A $\flat$  major + 6th, and the fourth is A $\flat$  ninth. Each chord is shown in a block chord format with a piano (p) dynamic marking.

**A  
CHORDS**

A major      A minor      A seventh      A diminished

Musical notation for A major, A minor, A seventh, and A diminished chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is one sharp (F#).

A augmented      A minor 7th      A major + 6th      A ninth

Musical notation for A augmented, A minor 7th, A major + 6th, and A ninth chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is one sharp (F#).

**Bb  
CHORDS**

Bb major      Bb minor      Bb seventh      Bb diminished

Musical notation for Bb major, Bb minor, Bb seventh, and Bb diminished chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is two flats (Bb, Eb).

Bb augmented      Bb minor 7th      Bb major + 6th      Bb ninth

Musical notation for Bb augmented, Bb minor 7th, Bb major + 6th, and Bb ninth chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is two flats (Bb, Eb).

**B  
CHORDS**

B major      B minor      B seventh      B diminished

Musical notation for B major, B minor, B seventh, and B diminished chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is two sharps (F#, C#).

B augmented      B minor 7th      B major + 6th      B ninth

Musical notation for B augmented, B minor 7th, B major + 6th, and B ninth chords. Each chord is shown in a four-measure format across two staves (treble and bass clef). The key signature is two sharps (F#, C#).

### EXCERPTS SHOWING USE OF CHORD CHARTS

The following excerpts illustrate how the chord charts may be used to determine the harmony from the piano score. Below each score of piano music is a score of equivalent Chord Organ Music.

## IL BACIO

LUIGI ARDITI

2=C  
1=F 3=G7

## LARGO

Very slow (with feeling)

G. F. HANDEL

SHARP  
Square Notes

2=G  
1=C 3=D7

## CHANSON TRISTE

la melodia molto espress.

PETER TSCHAIKOWSKY

FLAT  
Square Notes

2=G  
1=C 3=D7

# PRELUDE

Andantino

FREDERIC CHOPIN

*p dolce* *cresc.*

E7 A E7 A E7

SHARP  
Square Notes □

2=A  
1=D 3=E7

# SONG WITHOUT WORDS

Allegretto grazioso e cantabile

PETER TSCHAIKOWSKY

*p*

F Bb F Bb F D7

FLAT  
Square Notes □

2=F  
1=Bb 3=C7

# THE HAPPY FARMER

ROBERT SCHUMANN

*f* *f*

5 3 5 3 2 1 2 3 4 5

Ped. \* Ped. \* Ped. \* Ped. \* 1 Ped. \* Ped. \*

F Bb F C7 F C G7 C

2 1 2 3 2 3mj 4 3mj

FLAT  
Square Notes □

2=F  
1=Bb 3=C7