

## REPRESENTATION

**key signature** — key signature designation

## DESCRIPTION

Key signatures indicate the prevailing arrangement of global accidentals throughout a musical passage. Two forms of key signature interpretations can be distinguished: *pitch-class* signatures in which the accidentals modify all pitches of a given pitch class, and *pitch-height* signatures in which the accidentals modify only certain pitches of a specific pitch height.

Key signature interpretations consist of a single asterisk, followed by either a single upper- or lower-case letter 'K', followed by an open square bracket, followed by a list of pitches, followed by a closed square bracket. Pitches listed within the square brackets indicate the modified pitches or pitch-classes. The lower-case \*k designates a (common) pitch-class key signature; The upper-case \*K designates a (rare) pitch-height key signature;

In a pitch-class key signature, the pitch list specifies the recipe of sharps, flats, and/or naturals given in the key signature. Diatonic pitch are identified by lower-case pitch letter names. Each pitch is followed by one or more sharps, or flats, or a natural. For example, the key signature for three sharps (F,C,G) would be: \*k[f#c#g#]. The order of the accidentals within the accidental list corresponds to the order in which they would be printed in a visual rendering of the score. Double- and triple- sharps and flats are represented by repetition of the octothorpe (#) or minus sign (-). It is possible to mix sharps and flats within a single signature, to encode unconventional orderings, and to encode precautionary key signatures (such as those consisting only of naturals). It is not permitted to mix sharps/flats/naturals for a single pitch.

In very rare cases, key signatures modify only those pitches at a specific pitch height. For example, it may be that a composer wishes only some B's to be flat. These "pitch height" key signatures are designated by the upper-case key-letter 'K'. The corresponding pitch list uses \*\*pitch-like representations to identify the modified pitches. For example, the following key signature:

\*K[B3-C4#F4#B4nE5-]

specifies that B3 and E5 are lowered, and that C4 and F4 are raised. In addition, this key signature includes an explicit natural on B4 to remind readers that this pitch remains unaltered.

## SIGNIFIERS

The following table summarizes the mappings of signifiers and signifieds for key signatures.

k	pitch-class signifier
K	pitch-height signifier
a-g	pitch signifiers (pitch-class key signatures only)
A-G	pitch signifiers (pitch-height key signatures only)
0-9	octave indicators (pitch-height key signatures only)
#	sharp signifier
##	double sharp
-	flat signifier
n	natural signifier

*Summary of key signature Signifiers*

## EXAMPLES

Several examples of key signatures are given below:

*k[f#c#]	regular key signature containing F-sharp and C-sharp
*k[b-e-a-]	regular key signature containing three flats
*k[bnenan]	precaution key signature using naturals only
*k[]	key signature containing no sharps or flats
*k[b-e-f#]	mixed key signature containing both sharps and flats
*k[f##]	key signature containing a single double sharp
*k[c#f#]	key signature encoding an unorthodox ordering of sharps
*K[C#4B-4]	pitch-height key signature identify C4 and B4 as modified
*K[C#5B-5]	pitch-height key signature identify C5 and B5 as modified

*Examples of key signature Interpretations*

## SEE ALSO

**key (3)**