

Kieninger

Instruction manual for floor clocks



Kieninger congratulates you on the purchase of this fine clock. It has been designed and crafted with great care and attention to detail. Kieninger creates time culture of lasting value. We hope, that your new clock will become a cherished focal point in your home and brings you enjoyment for many years.

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About Kieninger ...

Kieninger is the oldest existing manufacturer of mechanical clock movements for grandfather, wall and mantel clocks in the world.

The Kieninger clock factory was founded 1912 by Joseph Kieninger at Mönchweiler in the Black Forest, right in the heartland of the German clock industry. In 1917 the factory moved to Aldingen, a charming village only a few miles away from Mönchweiler and the foot hills of the 'Schwäbische Alb'. Still in Aldingen the company today occupies a modern 54.000 square feet manufacturing facility, newly constructed in 1991, and employs about 100 dedicated and highly skilled workers.

Serving customers in more than 60 countries around the globe Kieninger's single largest export market traditionally remains the USA.

Since 1993 Kieninger has been part of the Howard Miller Group (USA), the largest manufacturer of grandfather clocks in the world.

From its very beginning Kieninger has stayed with its traditional concept: the manufacture of technically advanced, high quality mechanical movements and clocks. For many decades this has been the successful formula and it is to no surprise that Kieninger today is known for its craftsmanship and the manufacture of products of the highest quality.

Kieninger clocks are counted among the classics of the industry and some are already shown in the internationally famous clock museum in Furtwangen, Germany. For the unique tubular movement of the model 0087, Kieninger received the prestigious design award from the German copper and brass industry in 1988.

Only a limited quantity of handcrafted clocks is manufactured every year and Kieninger is determined to continue to offer only unique and individually designed clocks of the highest quality to its customers.

Introduction

Aside from the clock case all mechanical clocks consist of 5 basic components: The drive system with an energy source (weight or spring) and the respective winding mechanism; a time display comprising the dial and the hands (hour and minute hand and in some cases special displays like second hand, moon phase and date); the regulator (constant-speed controller); the escapement and the clock gears. Depending on type of movement additional trains of gears may control the hour strike and the quarter hour (melody) chime. The clock movement combines clock gears, additional gear train(s), escapement and depending on the type of movement an integrated regulator (balance wheel), drive system(s) and chime modules in one unit.

The hour strike and quarter hour chime sounds are created by a series of hammers hitting gong rods, tubes or bells of different length and/or size. Each size or length rod, tube or bell produces a different sound. The chime melodies are generated by controlling the sequence and rhythm that each hammer hits a corresponding rod, tube or bell through different chime drums.

Depending on type of movement the pendulum (external regulator) and the weights or springs are additional components of your clock and critical for the correct operation of the clock movement.

Pendulums of different length swing at different speeds. By changing the effective length of the pendulum, one has the ability to regulate and adjust the running speed (time keeping) of the clock. Changing the effective length of the balance wheel spring functions likewise.

The time keeping and the one or two strike/chime modules are driven by separate weights or springs. The weights or springs provide power to the hour strike (left), time (center), and, where applicable, quarter hour chime (right). Without the power of these weights or springs, the clock would not operate. For weight driven movements and depending on movement and features of the clock each weight is different and must be properly hung from the movement to ensure proper operation. Weights or springs should be raised or wound at least every 7 days or the clock will stop.

A small clock glossary

Automatic beat adjustment (Kieninger patent)

The term automatic beat adjustment refers to a automatic adjustement of the ancor position relative to the escape wheel through an overswing of the pendulum. This is achieved with a precisely tolerated friction between ancor and ancor shaft and an additional disc attached to the escape wheel. Because of the automatic beat adjustment a perfectly even tic sound will develop after the overswing period of the pendulum is completed.

Automatic chime sequencing (Kieninger patent)

When activating the option automatic chime sequencing («AUTOM.») the motion of the hand shaft automatically shifts the melody drum of triple chime movements to the next melody every hour after the hour count is completed.

Compensation pendulum

Due to temperature fluctuations the different metallic components of normal pendulums expand at different rates. Therefore the lenght of the pendulum changes and triggers fluctuations of the running speed (time keeping). Through a specific arrangement of metals with different expansion coefficients and a corresponding design of the pendulum these differences of expansion rates are compensated.

Escapement & Regulator

The term "escapement" refers to the combination of the clock components anchor and escapement wheel. The anchor is either made in one piece (solid anchor) or consists of an anchor body with inserted pallets (pallet anchor). The special gearing of the escapement wheel is matched for the type of escapement and the anchor.

The escapement regulates the otherwise uncontrolled run of the time drive with the help of the regulator oscillations and at the same time provides the regulator with the necessary drive impulse. Depending on type of movement the regulator can be either a pendulum or a balance wheel. The oscillation rate of the regulator determines the rhythm for the movement of the hands.

Kieninger movements use a stationary escapement (Graham) or an escapement (Swiss escapement).

Lyre pendulum

A pendulum style which includes multiple, vertically oriented bars joined by a bridge in the middle and which has a harp shaped structure above the pendulum bob.

Maintaining power

The time drive of weight powered clock movements with maintaining power continues to run during winding. This is achived through a counter locking gear with spring, which provides a power reserve for the time drive during winding.

Moon phase dial

A dial which tracks the moon's phases through the 29½ day lunar month. As the rotating moon dial passes behind representations of the eastern and western hemispheres, the phases of the moon (new moon, full moon, wasing crescent, etc.) are represented as they appear at each stage of the cycle.

Night shut-off (Kieninger patent)

When activating the option night shut-off («NIGHT OFF») the chimes or strike are/is automatically turned off between 10.00 P.M. and 7.15 A.M. (movements with quarter hour chime) or 10.00 P.M. and 7.00 A.M. (movements with half hour strike). The night shut-off incorporates an additional mechanism and a special time curve to interrupt the release of the chime and/or strike mechanism(s).

Pendulum leader

Through the pendulum leader, which is attached to the anchor and engages into the pendulum extension, the power is transfered from the movement to the pendulum.

Roller burnishing

The term refers to a special, traditional process for the surface treatment of the axle journals of pinions and arbors during clock manufacturing. In doing so the surface of a turning component is smoothened and compressed with a rotating ("roller burnishing") hard metal disk. With this process a very high life expectancy and soft running characteristics of the bearings are achieved.

Tempus Fugit

Latin for "Time flies". Traditionally these words are often inscribed on a decorative clock dial.

True second

With a "true second" feature the second hand moves in precise second steps. This is only possible for movements with a second pendulum, that is, with a pendulum length of nominal 116 cm. For movements with shorter pendulum lengths Kieninger uses a special second module (Kieninger patent) for a correct second indication.

The clock melodies

Clock movements with a melody chime feature offer playing "Westminster" (standard) and additional melodies depending on model:

Westminster



This famous clock melody was written by George Frideric Handel (1685 to 1759). Everybody associates the melody with the chimes of the Victoria Clock Tower of the Houses of Parliament (better known as "Big Ben"). Originally the chimes come from the university church St. Mary's the Great in Cambridge.

St. Michael



The bells for this melody were cast in England and first hung in the church St. Michael in Charleston, South Carolina, in 1764. After several relocations they were finally destroyed in 1862 during the American Civil War. The bells which ring at St. Michael today were recast from the original forms in 1867.

Whittington



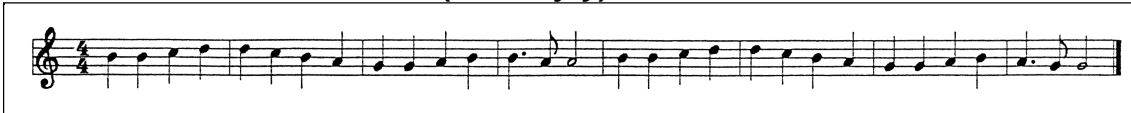
The Whittington melody originates from the strike of the church St. Mary's le Bow in Cheapside, London. The name derives from Dick Whittington (born in 1358), who served London as Lord-Major four times.

Ave Maria (Schubert)



This special Ave Maria version is taken from a hymn written by the Vienna composer Franz Schubert (1797 to 1828) in 1825. The matching lyrics are based on an English 1771 original by Sir Walter Scott and were written by D. Adam Storck in 1822.

Freude schöner Götterfunke (ode to joy)



The melody originates from the 9th symphony (d-minor) by Ludwig v. Beethoven (1779 to 1827). The underlying German lyrics "An die Freude" (Ode to joy) were written by Friedrich Schiller in 1785.

Vogelfänger (bird hunter)



The bird hunter melody comes from the aria of Papageno "Der Vogelfänger bin ich ja" (The bird hunter am I) and is part of the opera "Zauberflöte" (Magic Flute) by Wolfgang Amadeus Mozart (1756 to 1791).

Instruction manual

In the unlikely event of problems during setup or normal operation that cannot be resolved by following the instructions in this brochure, please contact your dealer or the Kieninger service department. When contacting your dealer or Kieninger, please have all product information available. This can be found on page 48 of this manual.

Please note: Depending on the model and accessories of your clock, additional information regarding special features could be included with this instruction manual.

1. Selecting a location

When selecting a location for your clock the following criteria should be observed:

- { Select a location where the clock can be set up level and securely.
- { Locations with direct sun light, close to radiators or other heat sources and/or draught should be avoided.
- { Please note that the sound and loudness of the clock can be influenced by size of room, other furniture, and sound absorbing materials (floor coverings, drapes, etc.).

2. Setting up the clock

Your Kieninger clock is usually delivered in a solid shipping carton (for models with tubular movement the tubes are packed in a separate, flat box). Other than the clock and depending on model this shipping carton contains various accessories, which should be taken out first:

- { mounting material (depending on model)
- { clock pendulum packaged in a separate cardboard box
- { styrofoam box with two (2) or three (3) weights
- { crank key (only cable or cable/key wind movements)
- { suede bag for crank key (depending on model)
- { key(s) to fit your clock door(s) (depending on model and amount of doors)

Kieninger recommends that you at least save the packaging material of the accessories for future use when relocating or moving.

Remove the clock (best with 2 persons) from its packaging and place it close to its final location. Ensure that the clock is positioned level and securely so that it will not fall over. Remove all silk papers, foils and/or adhesive tapes carefully.

Access to the clock movement, chimes or bells and cables or chains is obtained in three possible ways, depending on model: Through the front door(s), through the top side doors or panels or through the back access panel. To remove the glass side panels push them down lightly and fold them towards the inside of the case. For assembly of the panels reverse the procedure.

To perform the following steps, Kieninger suggests wearing cotton gloves or using a soft, dry cloth when handling parts.

2.1 Gong rod protection

For clocks with gong rods, remove the protection sleeve from around the chime rods by pulling it straight down and off the ends of the chime rods.

2.2 Preparing the cable pulley(s)

If your clock is cable driven the cable pulley(s) is/are usually prepared for setup in the factory. Please check that the cable(s) are attached correctly and run within the guides of the cable pulley(s).

Should the cable pulley(s) not be preinstalled, guide the brass cables through their pulleys and hook the cable ends with the end-tabs into the cable hanging plate mounted underneath the movement seat board or to their respective tabs underneath the movement (picture 1 - see page 23).

Do not remove the styrofoam blocks from above the cable pulley(s) at this point. Please refer to section 5.

2.3 Preparing the chains

If your clock is chain driven the chains have been packed for shipment in a bag located underneath the clock movement and are secured with a wire. Pull the bag free and cut the string with scissors. Allow the chains to hang. Remove the plastic retainer by sliding the retainer down off the chains. Take off the safety wire last.

2.4 Positioning the clock

Position the clock into its final location. Once in place your clock cabinet must be levelled, as the clock may not operate properly if it is not level. On most clocks there are four (4) levellers (one on each corner) under the cabinet that can be screwed in (up) or out (down) to make adjustments. Use a water-level to ensure that the clock is level both front to back and side to side, adjusting the levellers accordingly.

Depending on surface it may be necessary to periodically check your positioning of the clock cabinet after initial setup, as it might settle after original leveling. Always ensure that the clock is positioned level and securely on the floor.

2.5 Securing the clock against tipping

For some models securing the clock against tipping over by fixing the top of the clock to the wall is prepared and the necessary mounting materials are included. Generally, Kieninger recommends securing all floor clocks placed on soft surfaces (carpet, wall-to-wall carpet, etc.) against tipping (picture 2 - see page 23).

3. Hanging the tubes (tubular movements)

If your clock is equipped with a tubular movement, you will find the tubes in a separate, flat cardboard box. Hang the tubes, sorted by length, from the nine (9) hooks at the upper part of the movement frame (picture 3 - see page 23).

Start with the longest tube and the hook at the far left and make sure, that the tubes are not touching each other.

4. Hanging the pendulum

Remove the pendulum from its box. Some pendulums have a colored, easy to pull off protective plastic film covering the pendulum disk. Carefully remove this film before hanging the pendulum.

Prior to hanging the pendulum, check that the pendulum extension is correctly positioned. Depending on the model this can be done through the front door or any of the side door(s) or access panels. Make sure that the pendulum extension is attached to the two pins of the suspension spring and that the verge pin locks into the upper guide slot of the pendulum extension (picture 4 - see page 23).

First check the suspension spring. If it is damaged or bent, it must be replaced.

While holding the pendulum extension with one hand, slip the pendulum hook through the slot on the pendulum extension, and lower the pendulum until it is hanging securely on the pendulum extension (picture 5 - see page 24).

5. Hanging the weights

Most clocks use three weights and the total weight of each weight can be slightly different. Whenever the weights are different the bottom of each weight is labeled as to its proper hanging position. Each weight must be installed in its correct location for the clock to operate properly. Check the weights to ensure that they are tightly assembled.

Hang the weights on the cable pulley(s) or hooks and loops at the chain ends as indicated on the bottom of each weight (left, center, right) (pictures 6 + 7 - see page 24).

Should the indicators be missing, the correct weights and weight positions can be taken from the weight chart on page 47.

Do not remove the styrofoam blocks until your clock has been operating for at least twelve (12) hours. Removing the blocks before this time could cause the cables to overlap and jam the movement.

6. Setting the clock

6.1 Setting the time

Before setting the time, make sure that both the automatic night shut-off and the automatic chime sequencing, where applicable, are turned off and the respective selector levers are not in the positions «NIGHT OFF» and «AUTOM.» (see sections 11 + 12). Moving the hands while these options are in operation could damage the chime mechanism.

For combination cable-key wind movements the springs have to be wound prior to setting the time (see section 9.3).

To set the time, move the minute hand counterclockwise (backwards) until hour and minute hand are at the correct time. When moving the minute hand counterclockwise as described, the clock will not chime.

Never move the hour hand when setting the time. The hour hand will move automatically.

If after setting the clock on time, it does not chime properly, this is not a defect. Let the clock operate 1 to 2 hours. The movement has a self correcting feature which synchronizes the chimes with the time. The synchronization can be speeded up by moving the minute hand back 2 more hours and then turning it clockwise as described below.

Should you elect to move the minute hand clockwise (forward) when setting the time, it is recommended that you let the clock complete each strike cycle (quarter, half, three quarter and full hour depending on model). The strike release will only function if the minute hand is moved slowly past the respective release points.

Switching to day light savings time or back to regular time is done by moving the minute hand forward or backward one hour.

If your clock gains or loses time after several hours of operation, see section 9 for instructions on how to regulate the timekeeping of your clock.

6.2 Adjusting the moon phase dial (option)

If your clock has a moving moon dial feature, observe the following instructions:

To set the moon dial, apply slight pressure with your fingers to the front of the moon dial and rotate the moon dial clockwise until the moon is directly below the numeral "15" (picture 8 - see page 24).

If the moon dial will not easily rotate, this indicates that the gears which automatically advance the moon dial are engaged. Do not force the dial forward! With the factory set-up, the dial is advanced between 10:00 P.M. and 2:00 A.M.! To release the gears rotate the minute hand backwards depending on position up to four (4) hours as described in section 6.1. After setting the moon phase, reset your clock to the correct time.

Using an almanac or calendar, determine the date of the last full moon. Count the number of days past the last or before the next full moon. Turn the moon dial clockwise or counterclockwise for every day past or before the full moon. One click of the moon dial equals one day.

The moon dial is set now. Please note that the moon dial drive is calculated for an average lunar month of 29½ days. Even if the clock is operating continuously it should therefore be

corrected as described from time to time (for example every 6 months with the switch to day light savings time).

If the clock stops for more than 24 hours, the moon dial will also stop and, thus, must be reset when the clock is started again.

6.3 Setting the date (option)

If your clock has a dial with integrated date feature, observe the following instructions:

Set the date disk with the aid of a pointed tool (pencil or ballpoint pen) engaged in the small holes above its numerals (picture 9 - see page 25).

If the disk cannot be turned, its shift mechanism is engaged. Please turn the time back by approximately two hours until the disk can be turned. Set the date and then reset the hands to the correct time of day.

6.4 Adjusting the calendar dial

If your clock has been fitted with a calendar dial, observe the following instructions:

Before you adjust the calendar dial the correct time of day needs to be set. Should your clock offer an automatic night-off function make sure that the correct day or night phase is set.

Adjusting the calendar dial

All calendar and moon phase functions may be changed with a time setting between 3.00 AM and 9.00 PM, only. Between 9.00 PM and 3.00 AM the gears of the calendar mechanism are in function and a manual adjustment could damage the mechanism.

The adjustment of the date, day and month function is done manually from the front of the dial by turning the respective hand. The described hands can be moved clockwise as well as counterclockwise.

The basic setting of the integrated moon disk is done manually thru the dial opening by gently pressing and turning the disk until the full moon is centered in dial opening (numeral "15"). The final adjustment of the moon disk is described in detail in section 6.2 of this manual.

7. Starting the clock

Open the front (large) door of the clock and place your hand on the side of the pendulum disk.

Move the pendulum from the center to the far left or right, so that the pendulum bob just touches the side of the clock case or side glass, and release (picture 10 - see page 25).

Due to the built-in automatic beat adjustment, the tic sound of the clock movement will become perfectly even within a couple of minutes. Should this not be the case, please repeat the start procedure moving the pendulum to the other side of the clock case.

Pushing instead of just releasing the pendulum or an incorrect positioning of your clock (see section 2.4) can result in damage to the side of the clock case or the side glasses.

8. Setting the strike/chime mechanism

Never change (switch, turn on or off) the strike and/or chime selection while the clock is striking/chiming or the minute hand is positioned directly before the release points (quarter, half, three quarter and full hour depending on model). This could severely damage the mechanism.

Depending on the movement your clock is equipped with, different chime options are available. To select a chime option, use the selector levers positioned to the left, right or on both sides of the dial. Some clock models are equipped with selector rods on the side(s) below the dial or radial switches with small selectors in the top left and right of the moon phase dial.

Please pick the strike and/or chime lever positions of the one or two selector levers, rods or radial selectors that apply to

your clock and, thus, the possible chime options from the following table:

left side
«STRIKE» (hour strike on) «NIGHT OFF» (automatic night shut-off on) «SILENT» (hour strike off)
«STRIKE» (hour strike on) «SILENT» (hour strike off)
right side
«WESTM.» (Westminster) «SILENT» (Westminster strike off)
«WHITT.» (Whittington) «ST. MICH.» (St. Michael) «WESTM.» (Westminster) «SILENT» (melody strike off)
«AUTOM.» (automatic chime sequencing on) «SILENT» (melody strike off) «WESTM.» (Westminster) «ST. MICH.» (St. Michael) «WHITT.» (Whittington)
«SILENT/NIGHT ON» (melody strike off / automatic night shut-off on) «WESTM.» (Westminster) «ST. MICH.» (St. Michael) «WHITT.» (Whittington) «NIGHT OFF» (automatic night shut-off off)
«WESTM.» (Westminster) «VOGELFÄNGER» (Vogelfänger) «GÖTTERF.» (Freude schöner Götterfunke) «SILENT» (melody strike off)
«SILENT» (Westminster & hour strike off) «NIGHT OFF» (automatic night shut-off on) «STRIKE» (Westminster & hour strike on)
«NIGHT OFF» (automatic night shut-off on) «STRIKE» (strike on) «SILENT» (strike off)

Depending on movement the hour strike and melody chime mechanisms of your clock can be operated independently. When switching from «SILENT» to «STRIKE» the chimes/strike of the movement families A, M and S for technical reasons will take between minimal 1 to maximal 2 hours to synchronize.

Please note: For movements with a single selector lever for the chime and automatic night shut-off, the night shut-off is activated in the top lever position («SILENT/NIGHT ON») and deactivated in the bottom lever position («NIGHT OFF»). Depending on the lever position used last, the respective chime and the hour strike will then run with or without the automatic night shut-off. The automatic night shut-off can be deactivated during the day phase (see section 11), only.

9. Winding the clock

The weights or springs of your clock should be wound regularly and evenly. Leaving the strike mechanisms unwound can lead to jamming of the time mechanism. As a general rule, silencing the chime mechanisms should be done by using the function(s) of the chime selector levers, only (see section 8).

When winding weight driven clocks without maintaining power the automatic beat adjustment can shift out of alignment. The clock should therefore be re-started (see section 7) and the time be re-set (see section 6.1) after winding is completed. When winding the clock, and if possible, use your free hand to stabilize the clock case.

9.1 Cable movements

Insert the crank key provided into the crank holes located in the dial face as far as possible. Depending on movement the time, (if available) melody chime and hour strike mechanisms are wound clockwise or counterclockwise until the respective weight stops or is approximately 2" from the bottom of the wood movement mounting board. Refer to the winding directions for Your movement (check product identification on page 48) in the following table:

Movement	Left	Center	Right
H 1/4	↻	↻	↻
H 1/2	↻		↻
K	↻	↻	↻
M	↻	↻	↻
P	↻		↻
R	↻	↻	↻

Never wind the clock without having weights attached or lift the weights by hand while cranking. This could result in the cables becoming tangled and jamming of the movement.

9.2 Chain movements

Pull the loose end of the chain down until the respective weight stops or is approximately 2" from the bottom of the wood movement mounting board (picture 11 - see page 25). The chain should be pulled straight, slowly and evenly. Do not lift the weights by hand as this could cause them to come unhooked from their chain.

9.3 Cable-key wind movements

Insert the crank key provided into the crank holes located in the dial face as far as possible. The time mechanism is wound counterclockwise until the weight stops or is approximately 2" from the bottom of the wood movement mounting board. The key wind melody chime and hour strike mechanisms are wound clockwise until a noticeable resistance develops.

Never wind the clock without having weights attached or lift the weights by hand while cranking. This could result in tangling up the cables and blocking of the movement.

10. Adjusting the pendulum

The length of the pendulum determines the running speed (timekeeping) of your clock. The longer a pendulum the slower is its swinging speed. To change the running speed, move the pendulum bob up or down and, thus, shorten or lengthen the effective length, that is the distance between center of gravity of the pendulum and pendulum hook. The pendulum bob can be moved up and down by turning the adjustment nut. Depending on pendulum type, this adjustment nut is above or below the pendulum bob.

Before you make any change, observe and note the timekeeping of your clock over a longer period of time, for example 12 or 24 hours.

10.1 Standard pendulums

The adjustment nut is located below the pendulum bob.

Turning the adjustment nut as seen from above counterclockwise will shorten the effective pendulum length and the clock will run faster. Turning the adjustment nut clockwise will lengthen the effective pendulum length and the clock will run slower (picture 12 - see page 25).

The correct adjustments for your clock can be found in the chart on page 47. Please make sure that the pendulum bob remains fully seated against the adjustment nut and pull it down as needed.

Remember to reset the time after adjusting the pendulum bob.

10.2 Compensation pendulum (option)

The adjustment nut is located above the pendulum bob.

Turning the adjustment nut as seen from above clockwise will shorten the effective pendulum length and the clock will run faster. Turning the adjustment nut counterclockwise will lengthen the effective pendulum length and the clock will run slower (picture 13 - see page 26).

The correct adjustments for your clock can be found in the chart on page 47. Please make sure that the adjustment nut remains fully seated on the cross bar and pull the pendulum bob down as needed.

Remember to reset the time after adjusting the pendulum bob.

11. The automatic night shut-off (option)

Most clock models feature an option which will allow you to activate an automatic silencing of the chime between the hours of 10:00 P.M. and 7:15 A.M. (for quarter hour strike movements) or 10:00 P.M. and 7:00 A.M. (for half hour strike movements). Use the lever as identified in section 8 to select this option. The position of the chime selection lever is marked with «NIGHT OFF».

If your clock does not strike or chime during the daytime, its movement is in the night cycle. You need to move the clock hands back 12 hours to go into the day cycle. Before doing so the night shut-off has to be turned off. Moving the hands while the night shut-off is in operation could damage the chime mechanism.

If after setting the time, the clock does not chime properly, this is not a defect. The movement has a self correcting feature which synchronizes the chimes after 1 to 2 hours.

12. The automatic chime sequencing (option)

Some clock models offer an automatic chime sequencing feature.

Use the selector lever as identified in section 8 to select this option. The position of the chime selection lever is marked with «AUTOM.»

13. Care and maintenance

Your Kieninger clock requires very little care and maintenance.

Listed below are some steps you can take to maintain the function and appearance of your clock for many years:

- { Wind your clock regularly (every seven days).
- { Keep the door(s) and/or side doors/panels locked.
- { Check periodically to ensure that your clock is standing level and securely. This is especially important during the first few months if the clock stands on wall-to-wall carpet or the like. As the clocks feet settle into the carpet, it could become unbalanced and adjustment may then be needed.
- { Check the weights occasionally to ensure that they are still tightly assembled (hooks and/or loops), are hanging

properly and (where applicable) the cables run in their guides.

- { Clean and polish your clock cabinet as frequently as you do your other furniture. To retain the luster of the wood a mild non-silicone liquid or paste wax polish can be used when needed. All brass components are tarnish proofed with clear laquer and should be wiped with a soft, dry cotton cloth, only.
- { Kieninger recommends that your clock movement be oiled (synthetic oil No. 859 by Etsyntha) every five (5) years by an authorized service center and thoroughly cleaned every ten (10) years. Extreme environmental conditions (air humidity and quality, temperature, etc.) may necessitate more frequent oiling and/or cleaning.

14. Relocating the clock

When relocating or moving the clock all weights and the pendulum have to be removed from the clock. To avoid unnecessary damage, you should ensure that all accessories like the pendulum and the weights are packed in the original packaging (see section 2).

Cable movements have to be wound up completely with weights and the styrofoam blocks inserted. The weights can be removed afterwards.

The chains of chain movements should be secured with wire to avoid slipping off the chain wheels during transport. To prevent damage to the case the chain ends should be packed in a plastic bag.

At the new location, repeat the setup of the clock as previously described.

15. Trouble shooting

15.1 Clock does not chime at the proper time

If the clock chimes more than one minute before or after the proper time, the minute hand should be removed and adjusted. When performing this operation be careful not to scratch the hand nut, hand or dial.

- { When the clock starts to chime, stop the pendulum and record the exact time.
- { Using a special tool or pair of pliers, carefully remove the small nut that holds the minute hand in place by turning the nut counterclockwise while at the same time holding the minute hand with your fingers near the small nut.
- { Remove the hand from the hand shaft by pulling the hand straight off. The hand should come off easily. Riveted to the back side of the minute hand, directly around the shaft hole, is the hand bushing. Insert a square tool into the bushing or hold the bushing with a pair of pliers and, with your other hand, turn the clock hand forward or backward the distance necessary to correct the time (picture 14 - see page 26).
- { Re-attach the hand to the shaft and turn the hand nut finger tight. Make sure the hand points to the correct location that you recorded in Step 1 plus any corrections you made in step 3. If the hand does not point to the correct mark, repeat steps 2 and 3.
- { After the minute hand has been adjusted sufficiently tighten the hand nut again with the special tool or the pair of pliers.
- { Start the pendulum (see section 7) and reset the time as described in section 6.1.

15.2 Clock does not strike the correct hour

If after several hours of operation your clock does not strike the correct hour, the hour hand is not positioned correctly.

Grasp the hour hand only and move it forward or backward to line up with the correct hour on the dial indicated by the number of times the hour strikes.

Rotating this hand independently will not damage the clock.

15.3 Clock will not chime or strike

If your clock does not chime or strike, this can have several causes.

- { If you have just changed the setting of your clock, wait for 1 to 2 hours. The movement will synchronize automatically.
- { Make sure that the chime selection lever is not in the «SILENT» position or halfway between two chime melody positions.
- { For models with night shut-off, make sure that the clock is not in the night cycle (see section 11).
- { Check that all the packing material is removed from the movement area.
- { Make sure that the weights hanging in the correct location. Check the label on the bottom of each weight to ensure proper location and/or check weights and positions as per the weight requirements on page 47.
- { Assure that all weights and/or springs are sufficiently wound.
- { Check the hammer adjustment and correct it as necessary.

15.4 Chimes have unsatisfactory tone

The chime tone of gong rods, tubes or bells may be affected by hammers resting on them, touching insufficiently or striking incorrectly. Although the hammers were set at the factory, it is possible for them to get out of adjustment during transport. There are different procedures for adjustment depending on types of chimes:

- { **Gong rods:** Do not bend or try to adjust the gong rods as they break off easily. The volume and sound cannot be adjusted on a gong rod.
The hammer arms are made of brass and can be safely adjusted. If necessary, bend the hammer arms so that each hammer rests approximately 1/8" from each rod. Ensure that the hammers do not interfere with each other while moving.
The hammer heads should touch the center of the gong rods just below the tapering. For adjustment loosen the little screw on the back of the hammer head and slide the hammer head into the desired position. Securely tighten the screw afterwards.
- { **Tubes:** The hammer arms are made of spring steel and may not be bent.
The clarity of sound is in part determined by the distance between the hammer and the tube. This should typically be around 1/16". The distance can be adjusted by loosening or tightening the thumb screw attached to the hammer string (picture 15 - see page 26).
The sound volume of tubular movements can be adjusted by changing the tension levels of the hammer springs with the adjustment screw(s) (picture 16 - see page 26).
If the tension is too strong, it can cause the chime and movement to stop during the chime process. Therefore, this adjustment should be performed carefully.
- { **Bells:** The same procedure as for gong rods is applicable. The best bell sound is achieved when a hammerhead hits the edge of the bell.

15.5 Weights do not travel evenly

When the automatic night shut-off feature (see section 11) is activated and/or on some models «SILENT» is selected, the time weight will drop at a faster rate than the other weight(s). This is normal and not a defect of your clock.

15.6 Clock will not run or stops

Although it is not recommended that you repair your own clock, you should check and correct with the use of this manual the following items before contacting your dealer or Kieninger. In any case do not attempt any adjustment not described in this manual or you do not feel confident in making.

- { Has all the packing material been removed from the movement?
- { Did you try re-starting your clock?
- { Are all weights hanging in the correct location?
- { Are all weights and/or springs wound sufficiently?
- { Is the pendulum touching the weights, the chime rods or the tubes?
- { Is the clock positioned level and securely?
- { Has a pulley come off the cable or chain off the sprocket?
- { Do all the hands operate without interference or touching each other?
- { Did you remove the styrofoam blocks before 12 hours of operation?
- { Did you check the suspension spring?
- { Did you change the tension levels of the hammer springs?
- { Is the verge pin properly located in the upper slot of the pendulum guide?

16. Repair and service

Before pursuing service, ensure that all instructions provided with your Kieninger clock have been carefully followed. These instructions will provide detailed information to answer most questions.

Procedures to obtain repair and/or service

In the unlikely event that your clock appears to be malfunctioning or requires repair, please call the dealer you originally purchased your Kieninger clock from or contact the Kieninger service department.

Usually most problems can be quickly resolved without returning the clock for repair or service.

Have a copy of the original bill of sale or other proof of purchase, the information from the product identification on page 48 and a brief description of the problem available.

Return authorization is required from Kieninger Customer Service prior to the return of any product or component to Kieninger. Your clock will not be accepted otherwise.

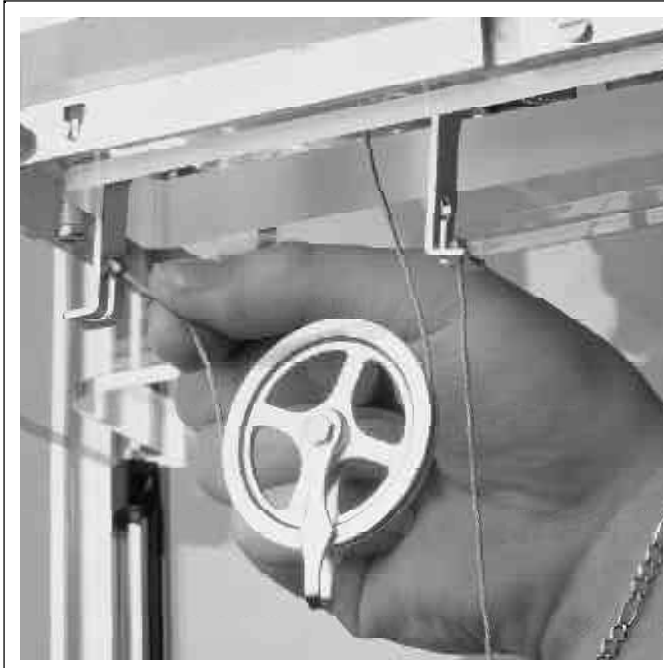
Warranty exemptions

You will be charged for repair services if a bill of sale or other proof of purchase date is not provided, if instructions were not followed, if the product is beyond the warranty period or is otherwise outside the scope of the warranty.

In addition the following minor adjustments and service and/or parts to perform these adjustments are not covered under this warranty and are at the consumer's expense.

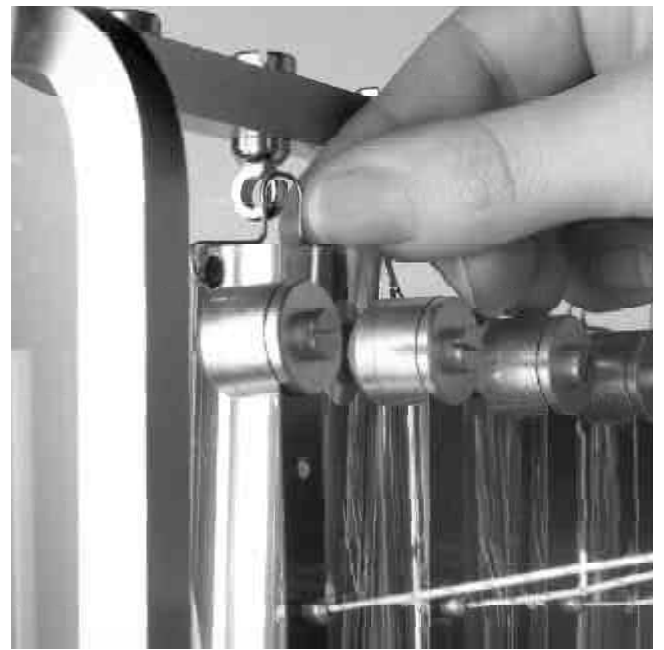
- { **Set-up of the clock**
Usually sufficient set-up instructions are provided in this manual.
- { **Mechanical movement oiling and cleaning**
The movement in your clock is a mechanical mechanism and requires periodic oiling and cleaning depending on environmental conditions (see section 13). Please contact an authorized dealer for this service.
- { **Setting running speed (timekeeping) and time** Usually sufficient instructions for these adjustments are provided in this manual.
- { **Freight damage**
It is the responsibility of the consignee to advise the carrier of any freight loss or damage, directly.
If the carton indicates signs of "visible damage", instruct the driver to note the damage on the freight bill. If the carton contains "concealed damage", notify the carrier and request in writing within six (6) calendar days of product receipt a carrier inspection and damage report.
Failure to notify the carrier within six (6) calendar days of product receipt may waive your rights to a damage claim.

Kieninger Uhrenfabrik GmbH / Service department
Brunnenstraße 37 / 78554 Aldingen / Germany
Telefax: +49 (0)7424 883-200
email: service@kieninger.com



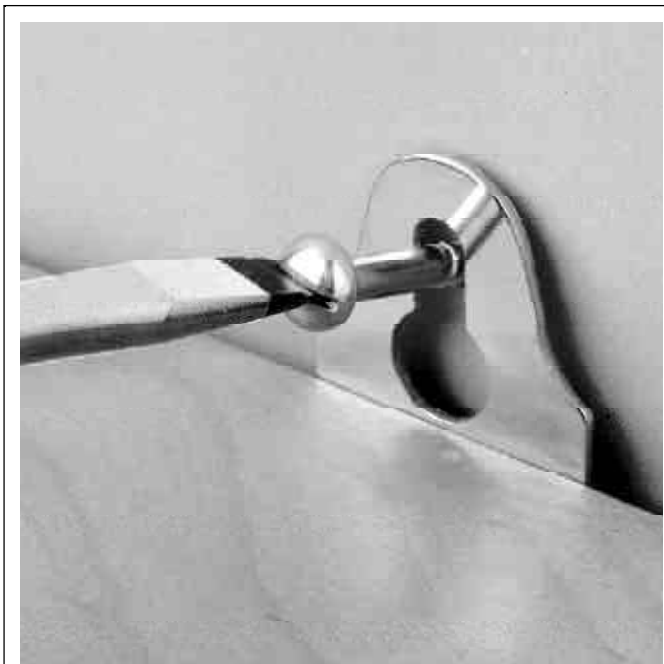
Picture 1

Inserting the cable ends



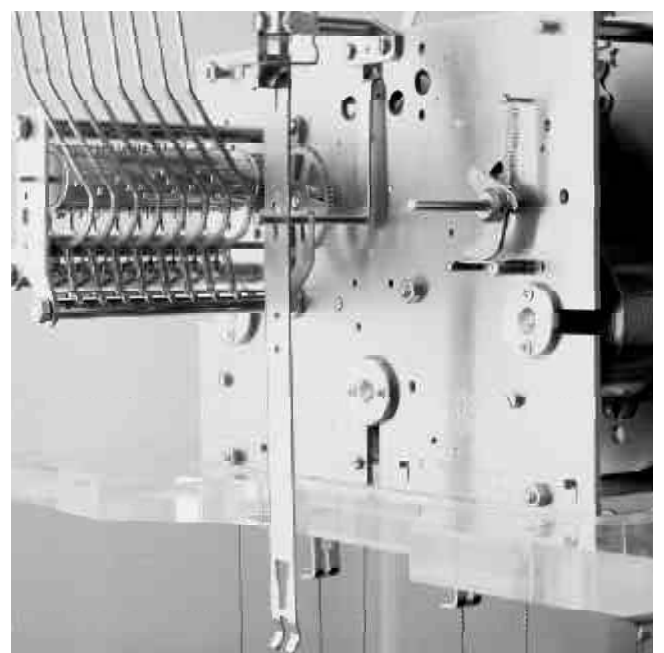
Picture 3

Hanging the tubes



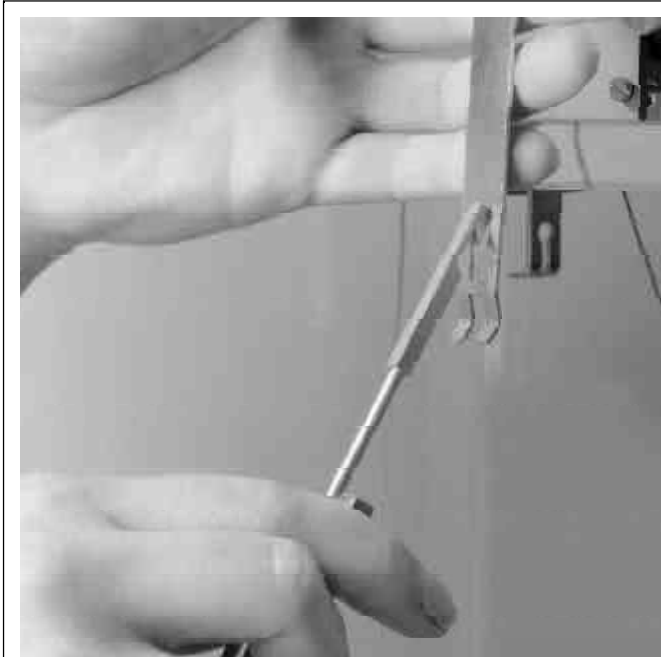
Picture 2

Securing the clock



Picture 4

Suspension spring, pendulum extension and verge pin



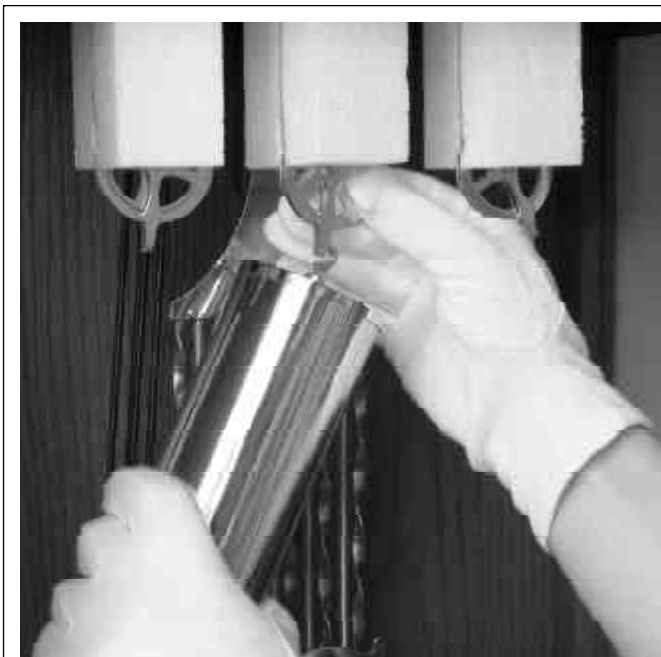
Picture 5

Hanging the pendulum on the pendulum extension



Picture 7

Hanging the weights (chain movements)



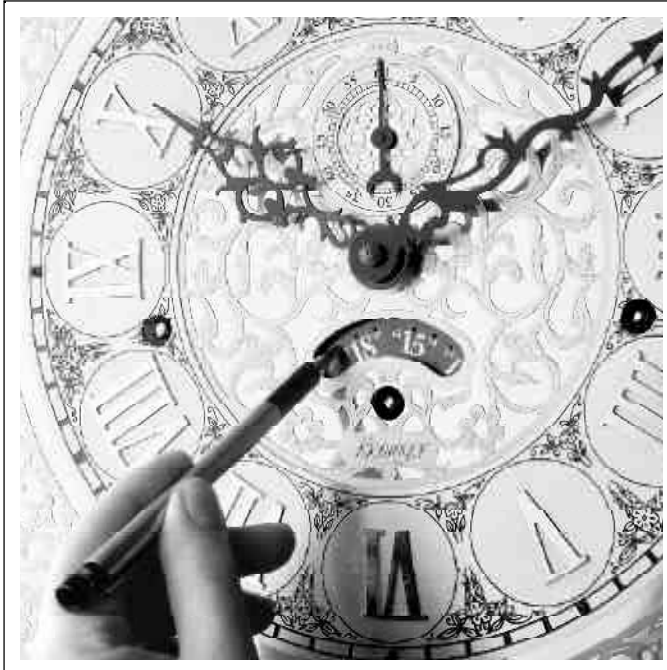
Picture 6

Hanging the weights (cable movements)



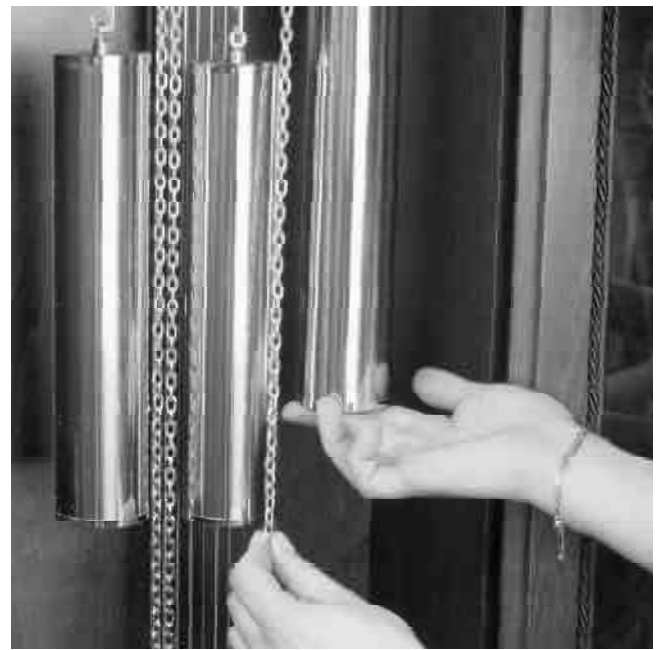
Picture 8

Adjusting the moon phase dial



Picture 9

Setting the date



Picture 11

Winding the clock (chain movements)



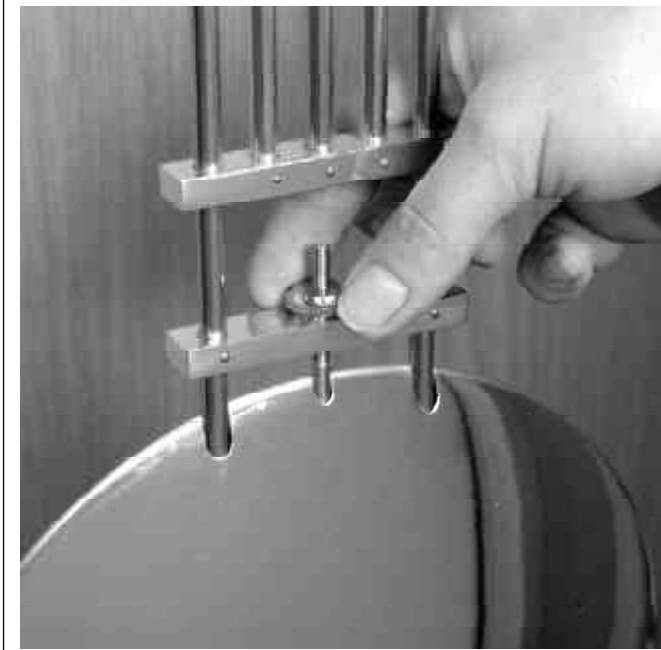
Picture 10

Starting the clock (activating the automatic beat adjustment)



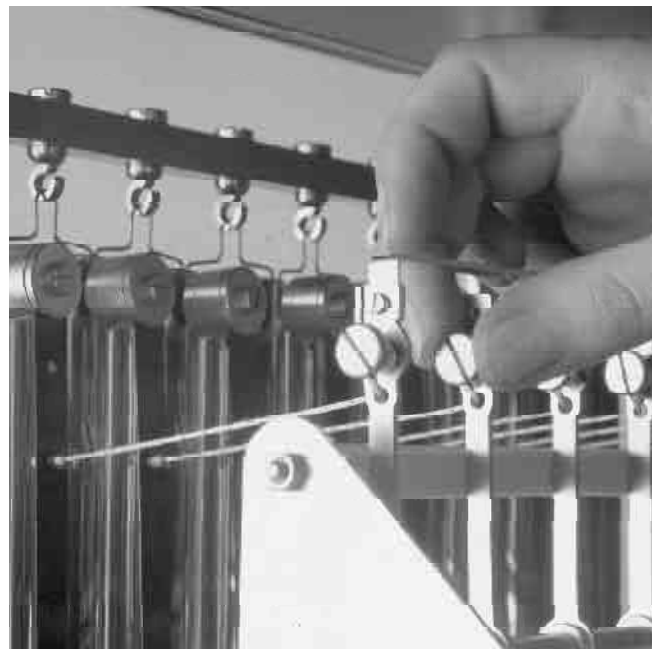
Picture 12

Adjusting the pendulum (standard pendulums)



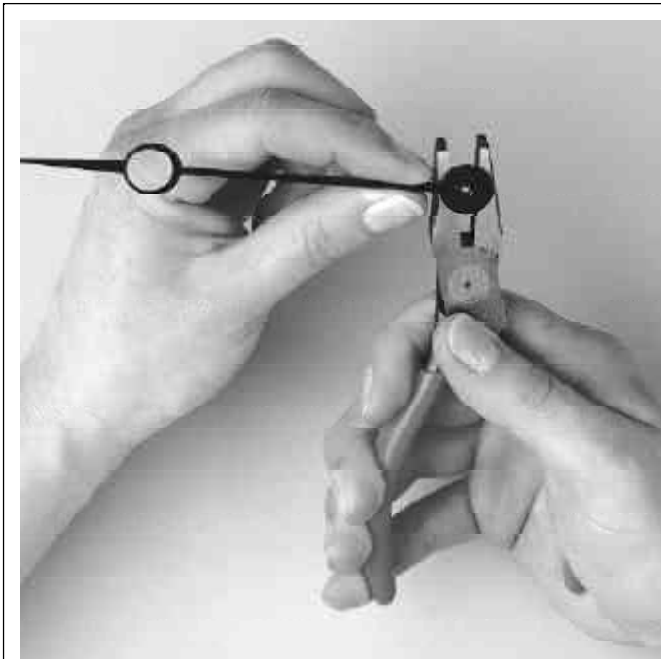
Picture 13

Adjusting the pendulum (compensation pendulums)



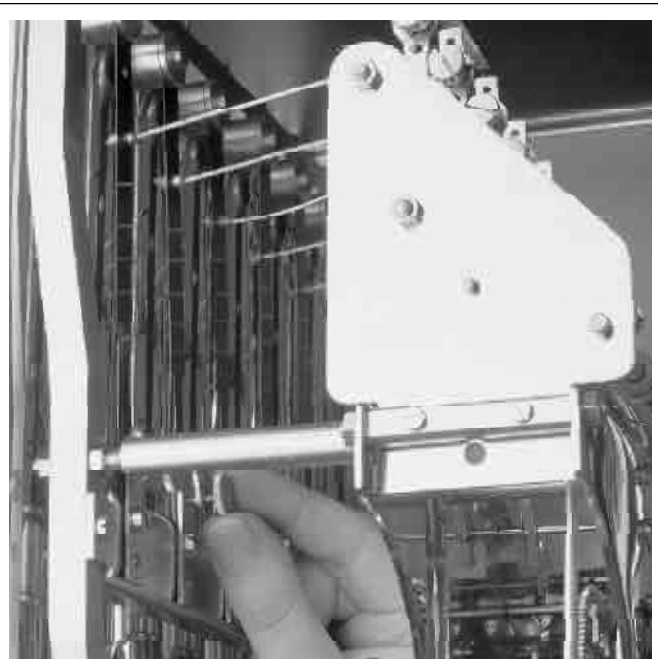
Picture 15

Adjusting the hammer string length (tubular movements)



Picture 14

Adjusting the minute hand



Picture 16

Adjusting the hammer spring tension level
(tubular movements)

Gewichtstabelle Standuhren

Weight chart floor clocks / Table de poids pour horloges de parquet
Tabla de pesas relojes de antesala

Movimiento Movement Mouvement Movimiento	Stunde / Links Hour / Left Heure / À gauche Hora / A la izquierda	Gehwerk / Mitte Time drive / Center Mécanisme / Au centre Mecanismo / Medio	Melodie / Rechts Chime / Right Mélodie / À droite Melodía / A la derecha
	kg / lbs	kg / lbs	kg / lbs
HK	3,50 / 7,70	3,50 / 7,70	4,50 / 9,90
HSU	4,00 / 8,80	5,00 / 11,00	5,00 / 11,00
HTU	4,00 / 8,80	5,00 / 11,00	6,50 / 14,40
KK / MK	3,00 / 6,50	3,50 / 7,70	3,00 / 6,50
KKU / MKU	3,00 / 6,50	3,50 / 7,70	3,50 / 7,70
KS / MS	3,00 / 6,50	4,00 / 8,80	3,50 / 7,70
KSU / MSU	3,00 / 6,50	4,00 / 8,80	4,00 / 8,80
KSU ("16")	3,00 / 6,50	4,00 / 8,80	5,00 / 11,00
KSU ("AUTOM.")	3,00 / 6,50	5,00 / 11,00	4,00 / 8,80
PK	2,00 / 4,40	2,00 / 4,40	-
PS	2,70 / 6,00	2,70 / 6,00	-
RK	3,00 / 6,50	3,00 / 6,50	3,00 / 6,50
RS	3,40 / 7,50	3,40 / 7,50	3,40 / 7,50
RU	3,00 / 6,50	3,00 / 6,50	3,50 / 7,70
RWS / RUS	-	(2x) 3,10 / 6,80	-
SK / SKS	2,00 / 4,40	2,80 / 6,20	2,80 / 6,20
SKU	2,00 / 4,40	2,80 / 6,20	3,00 / 6,50

Nominalgewichte ohne Gewichtshülse
Nominal weight without weight shell
Poids nominaux sans douille
Pesas nominales sin manguito de pesa

Pendelregulierung

Pendulum adjustment / Réglage du pendule / Ajuste de péndola

Pendeltype Type of pendulum Type de pendule Tipo de péndola	Pendellänge Pendulum length Longueur de pendule Largura de péndola	Umdrehungen Turns Rotations Rotaciones	Minuten / 24 Stunden Minutes / 24 hours Minutes / 24 heures Minutos / 24 horas
Gitter- / Holz- / Lyrapendel Grid / Wooden / Lyra pendulum Pendule à grille / bois / lyre Péndola con reja / de madera / a lira	93 cm	2,00	1,00
	100 cm	2,50	1,00
	116 cm	2,75	1,00
Kompensationspendel Compensation pendulum Pendule à compensation Péndola a compensación	116 cm	2,00	1,00

Produktidentifikation

Product identification / Identification produit / Identificación del producto

Die Informationen auf dieser Seite sind durch den verkaufenden Fachhändler auszufüllen.

The Information of this page is to be completed by the dealer selling the clock.

Les informations figurant sur cette page doivent être remplies par le revendeur agréé.

La información de esta página debe ser rellenada por el vendedor especializado.

Uhrendaten / Clock data / Informations d'horloge / Datos del reloj

Uhrenmodell Clock model Modèle de l'horloge Modelo de reloj	GGGGGBGGGG
Uhrwerk Movement Mouvement Movimiento	GGGGG
Pendellänge [cm] Pendulum length [cm] Longueur du pendule [cm] Largura de la péndola [cm]	GGG
Seriennummer des Uhrwerkes Serial number of movement Numéro de série du mouvement Número de serie del movimiento	GGGGGGGGGGGG
Kompensationspendel Compensation pendulum Pendule à compensation Péndola de compensación	G
Automatische Nachtabschaltung Automatic night shut-off Arrêt nocturne automatique Silencio nocturno automático	G
Melodienautomatik Automatic chime sequencing Changement automatique du carillon Dispositivo de melodías automático	G
Gangreserve Maintaining power Maintien de la marche Reserva de cuerda	G

Kontrollschein / Control slip / Fiche de contrôle / Talón de comprobación

<p>(bitte einkleben) (please attach) (veuillez le coller) (por favor pegar)</p>
