

YAMAHA Clavinova®

CLP-650

Owner's Manual
Bedienungsanleitung
Mode d'emploi
Manual de instrucciones

Diese Bedienungsanleitung bezieht sich auch auf das CLP-650W.

IMPORTANT

Check your power supply

Make sure that your local AC mains voltage matches the voltage specified on the name plate on the rear panel. In some areas a voltage selector may be provided on the bottom panel of the main unit. Make sure that the voltage selector is set for the voltage in your area (this must be done before the main unit is installed during assembly—see page 2).

WICHTIG

Überprüfen der Netzspannung

Sicherstellen, daß die örtliche Netzspannung den Angaben zur Betriebsspannung auf der Rückseite des Keyboards entspricht. Die Modelle für einige Bestimmungsländer weisen einen Spannungswähler auf der Unterseite auf. In diesem Fall darauf achten, daß die Einstellung des Spannungswählers der Netzspannung entspricht (vor dem Anbringen des Keyboards am Ständer überprüfen - siehe Seite 2).

IMPORTANT

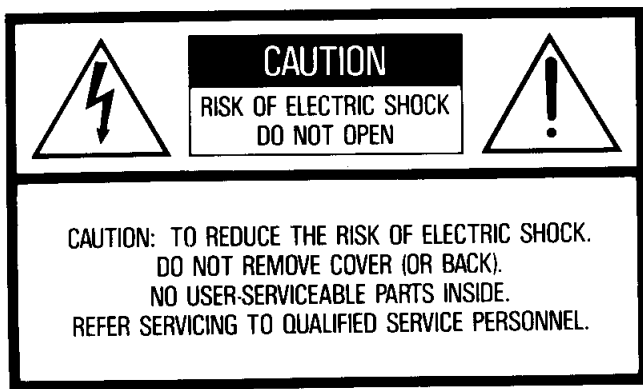
Contrôler la source d'alimentation

S'assurer que la tension secteur locale correspond à la tension indiquée sur la plaque d'identification située sur le panneau arrière. Les modèles destinés à certaines régions peuvent être équipés d'un sélecteur de tension situé sur le panneau inférieur de l'unité principale. Vérifier que le sélecteur est bien réglé pour la tension secteur utilisée. (Ceci doit être effectué avant de poser l'unité principale au cours du montage, voir page 3).

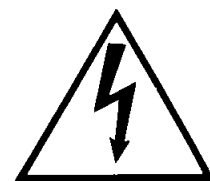
IMPORTANTE

Verifique la alimentación de corriente

Asegúrese de que el voltaje local de CA concuerde con el especificado en la placa de identificación del panel trasero. En algunas áreas, la unidad viene provista de un selector de voltaje en el panel inferior. Asegúrese de que este selector esté en la posición correspondiente al voltaje de su área (hágalo antes de instalar la unidad principal durante el montaje. Vea la página 3).



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



IMPORTANT SAFETY AND INSTALLATION INSTRUCTIONS

INFORMATION RELATING TO POSSIBLE PERSONAL INJURY, ELECTRIC SHOCK, AND FIRE HAZARD POSSIBILITIES HAS BEEN INCLUDED IN THIS LIST.

WARNING—When using electronic products, basic precautions should always be followed, including the following:

1. Read all Safety and Installation Instructions, Explanation of Graphical Symbols, and assembly instructions (where applicable) BEFORE using your Yamaha electronic product. Check unit weight specifications before you attempt to move this instrument!

2. Main Power Supply Verification: Your Yamaha electronic product has been manufactured specifically for the main supply voltage used in your area. If you should move, or if any doubt exists, please contact your dealer for instructions. The main supply voltage required by your electronic product is printed on the name plate. For name plate location, see “PREPARATION” item.

3. This product may be equipped with a polarized line plug (one blade wider than the other). If you are unable to insert the plug into the outlet, contact an electrician to have your obsolete outlet replaced. Do NOT defeat the safety purpose of the plug. Yamaha products not having polarized plugs incorporate construction methods and designs that do not require line plug polarization.

4. **WARNING**—Do NOT place objects on your electronic product’s power cord or place the unit in a position where anyone could trip over, walk over, or roll anything over cords of any kind. Do NOT allow your electronic product or its bench to rest on or be installed over cords of any type. Improper installations of this type create the possibility of a fire hazard and/or personal injury.

5. Environment: Your electronic product should be installed away from heat sources such as a radiator, heat registers and/or other products that produce heat. Additionally, the unit should not be located in a position that exposes the cabinet to direct sunlight, or air currents having high humidity or heat levels.

6. Your Yamaha electronic product should be placed so that its location or position does not interfere with its proper ventilation.

7. Some Yamaha electronic products may have benches that are either a part of the product or supplied as an optional accessory. Some of these benches are designed to be dealer assembled. Please make sure that the bench is stable before using it. The bench supplied by Yamaha was designed for seating only. No other uses are recommended.

8. Some Yamaha electronic products can be made to operate with or without the side panels or other components that constitute a stand. These products should be used only with the components supplied or a cart or stand that is recommended by the manufacturer.

9. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

10. Do not use your Yamaha electronic product near water or in wet environments. For example, near a swimming pool, spa, or in a wet basement.

11. Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through openings.

12. Your Yamaha electronic product should be serviced by a qualified service person when:

- The power-supply cord or plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the product; or
- The product has been exposed to rain; or
- The product does not operate, exhibits a marked change in performance; or
- The product has been dropped, or the enclosure of the product has been damaged.

13. When not in use, always turn your Yamaha electronic product “OFF”. The power-supply cord of the product should be unplugged from the outlet when it is to be left unused for a long period of time. Notes: In this case, some units may lose some user programmed data. Factory programmed memories will not be affected.

14. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

15. Electromagnetic Interference (RFI). This series of Yamaha electronic products utilizes digital (high frequency pulse) technology that may adversely affect Radio/TV reception or the operation of other devices that utilize digital technology. Please read FCC Information (Page 40) for additional information.

PLEASE KEEP THIS MANUAL
FOR FUTURE REFERENCE!

Introduction

Thank you for choosing a Yamaha CLP-650 Clavinova. Your Clavinova is a fine musical instrument that employs advanced Yamaha music technology. With the proper care, your Clavinova will give you many years of musical pleasure.

- Yamaha's sophisticated AWM (Advanced Wave Memory) tone generator system offers rich, realistic reproductions of digitally sampled keyboard sounds.
- 32-note polyphony permits use of the most sophisticated playing techniques.
- Piano-like touch response provides extensive expressive control and outstanding playability.
- A number of built-in effects for wide-ranging sonic versatility.
- MIDI compatibility and a range of MIDI functions make the Clavinova useful in a range of advanced MIDI music systems.

In order to make the most of your Clavinova's performance potential and features, we urge you to read this Owner's Manual thoroughly, and keep it in a safe place for later reference.

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Vorwort

Herzlichen Dank für den Kauf des Yamaha Clavinovas CLP-650. Ihr Clavinova ist ein vielseitiges Keyboard, das mit modernster Yamaha Musiktechnologie arbeitet. Bei umsichtiger Handhabung wird es Ihnen viele Jahre Musikgenuß bieten.

- Das integrierte Yamaha AWM Wellenspeicher-Tongeneratorsystem erzeugt volle, natürlich klingende Stimmen auf der Basis von digital aufgezeichneten Keyboard-Klängen.
- Die 32-notige Polyphonie erlaubt komplizierteste Spieltechniken.
- Da das Clavinova die Anschlagsansprache eines Pianos besitzt, ist eine nuancenreiche Akzentuierung und ein umfassender musikalischer Ausdruck ermöglicht.
- Eine Reihe von internen Effekten gewährt vielseitige Klangveränderungen.
- Aufgrund der MIDI-Kompatibilität und der integrierten MIDI-Funktionen kann das Clavinova problemlos in komplexe MIDI-Systeme integriert werden.

Um das großartige Potential des Clavinovas voll ausschöpfen zu können, bitten wir Sie diese Bedienungsanleitung sorgfältig zu lesen und zur späteren Bezugnahme an einem sicheren Ort aufzubewahren.

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Introduction

Nous vous remercions d'avoir choisi le Clavinova Yamaha CLP-650. Le Clavinova est un instrument de musique perfectionné faisant appel aux innovations les plus récentes de la technologie musicale mise au point par Yamaha. Si vous utilisez votre Clavinova avec le soin qui convient, il vous donnera de grandes satisfactions pendant de longues années.

- Le système générateur de sons AWM (de l'anglais Advanced Wave Memory) ultra-sophistiqué de Yamaha permet une reproduction riche et réaliste des sons de clavier échantillonnés numériquement.
- Une polyphonie à 32 notes permet d'utiliser des techniques d'exécution extrêmement complexes.
- Une réponse au toucher similaire à celle d'un piano vous permet un plus grand contrôle de l'expression et vous offre des possibilités d'exécution extraordinaires.
- Un certain nombre d'effets incorporés offrent une grande diversification de tonalité.
- La compatibilité MIDI et toute une série de fonctions MIDI permettent d'utiliser le Clavinova dans de très nombreux systèmes musicaux MIDI.

Afin d'obtenir du Clavinova le maximum des possibilités et fonctions qu'il offre, nous vous conseillons de lire attentivement ce manuel d'instructions et de le conserver dans un endroit sûr afin de pouvoir vous y référer ultérieurement si besoin est.

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Introducción

Gracias por su elección de la Yamaha Clavinova CLP-650. Su Clavinova es un instrumento musical de calidad que emplea la avanzada tecnología musical de Yamaha. Con un trato adecuado, le brindará muchos años de satisfacciones musicales.

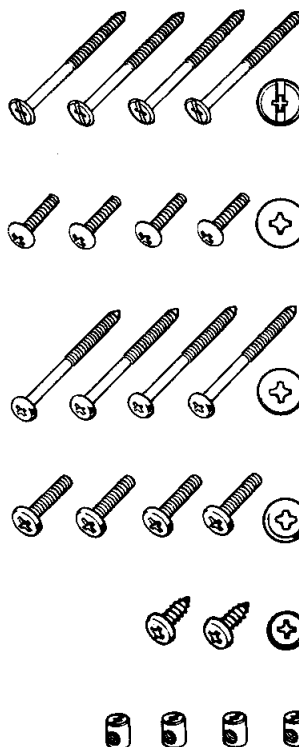
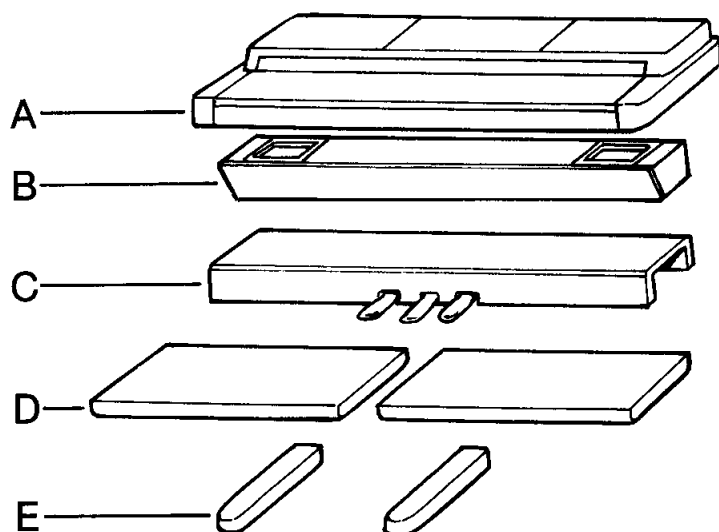
- El sofisticado sistema generador de tonos AWM (Advanced Wave Memory, o Memoria Avanzada de Onda) de Yamaha ofrece una rica y fiel reproducción de sonidos de teclado muestreados digitalmente.
- La polifonía de 32 notas permite el uso de avanzadas técnicas de interpretación.
- Una respuesta al toque similar a la del piano brinda amplio control expresivo y notable facilidad de ejecución.
- Variedad de efectos incorporados, brindando una amplia versatilidad sonora.
- Su compatibilidad con el sistema MIDI, y sus variadas funciones MIDI, hacen de la Clavinova un útil componente en cualquier sistema musical MIDI avanzado.

A fin de aprovechar al máximo las posibilidades y funciones de su Clavinova, le recomendamos leer este manual de instrucciones atentamente y guardarlo en lugar seguro para referencias futuras.

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1



- Long screws (black) × 4
- Lange Schrauben (schwarz) × 4
- Vis longues (noires) × 4
- Tornillos largos (negros) × 4
- Short large-head screws (black) × 4
- Kurze Schrauben mit großem Kopf (schwarz) × 4
- Vis courtes à grosse tête (noires) × 4
- Tornillos cortos de cabeza grande (negros) × 4
- Long screws (gold) × 4
- Lange Schrauben (goldfarben) × 4
- Vis longues (dorées) × 4
- Tornillos largos (dorados) × 4
- Short screws (black) × 4
- Kurze Schrauben (schwarz) × 4
- Vis courtes (noires) × 4
- Tornillos cortos (negros) × 4
- Cover Screws (black) × 2
- Abdeckungsschrauben (schwarz) × 2
- Vis de couvercle (noires) × 2
- Tornillos de cubierta (negros) × 2
- Joint connectors × 4
- Verbindungsstücke × 4
- Dispositifs d'assemblage × 4
- Juntas × 4

Keyboard Stand Assembly

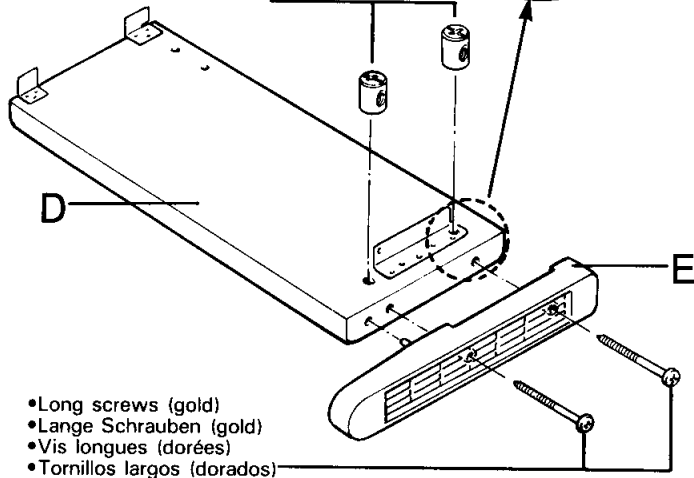
- 1 Open the box and remove all the parts.**
On opening the box you should find the parts shown in the illustration to the above. Check to make sure that all the required parts are provided.
- 2 Assemble the side panels (D) and base boards (E).**
Install the joint connectors in side panels (D) as shown in the illustration, then secure the base boards (E) to the side panels (D) with the long gold-colored screws.
* When installing the joint connectors in the holes in the side panels (D), make sure that the arrows printed on their upper surface face in the direction shown in the illustration.
* Make sure that the left and right base boards are facing in the proper direction as shown in the illustration. The grooved edge of each base board should face inward.
- 3 Attach the side panels (D) to the pedal box (C).**
Place the pedal box on top of the brackets attached to the side panels (D), and attach using the four short large-head black-colored screws.
- 4 Attach the speaker box (B) to the side panels (D).**
Before attaching the speaker box, remove the speaker grille (the speaker grille is attached by "magic tape" and can be easily pulled away from the speaker box). Securely attach the speaker box (B) between the side panels (D) using the four long black-colored screws.

Zusammenbau des Keyboardständers und Aufstellung

- 1 Den Versandkarton öffnen und alle Teile auspacken.**
Der Versandkarton sollte alle oben gezeigten Teile enthalten. Sicherstellen, daß alle benötigten Teile vorhanden sind.
- 2 Die Seitenplatten (D) und Füße (E) zusammenbauen.**
Die Verbindungsstücke entsprechend der Abbildung in die Seitenplatten (D) einsetzen. Dann die Füße (E) mit den langen goldfarbenen Schrauben an den Seitenplatten (D) anbringen.
* Beim Einsetzen der Verbindungsstücke in die Bohrungen der Seitenplatten (D) sicherstellen, daß die Pfeile auf den Oberseiten wie in der Abbildung ausgerichtet sind.
* Sicherstellen, daß linker und rechter Fuß in die in der Abbildung gezeigten Richtung weisen. Die Nut am Fuß sollte dabei nach innen weisen.
- 3 Die Seitenplatten (D) an der Pedalkonsole (C) anbringen.**
Die Pedalkonsole auf die Halterungen an den Seitenplatten (D) aufsetzen und durch Eindrehen der vier kurzen schwarzen Schrauben mit großem Kopf befestigen.
- 4 Das Lautsprechergehäuse (B) an den Seitenplatten (D) anschrauben.**
Vor dem Anbringen des Lautsprechergehäuses den Lautsprechergrill abziehen (mit Klebeband befestigt). Dann das Lautsprechergehäuse (B) mit den vier langen schwarzen Schrauben zwischen den Seitenplatten (D) anmontieren.

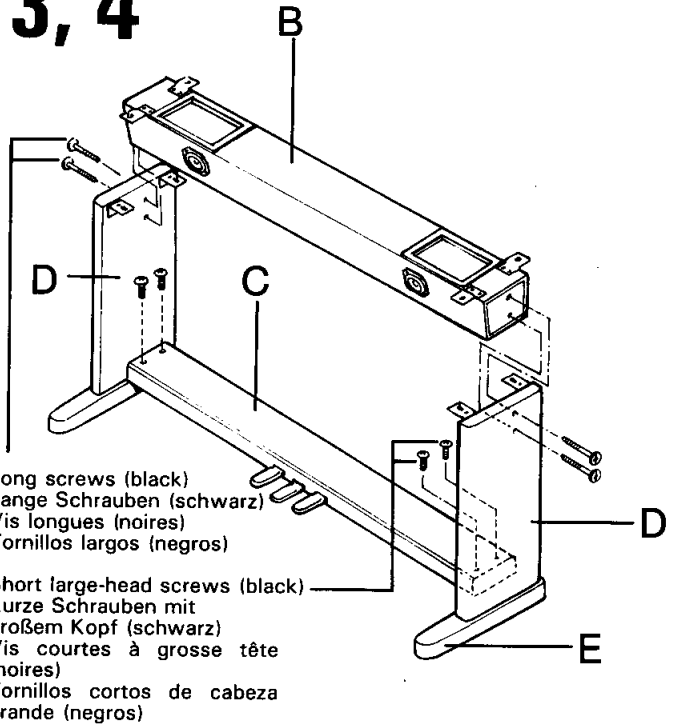
2

- Joint connectors
- Verbindungsstücke
- Dispositifs d'assemblage
- Juntas



- Long screws (gold)
- Lange Schrauben (gold)
- Vis longues (dorées)
- Tornillos largos (dorados)

3, 4



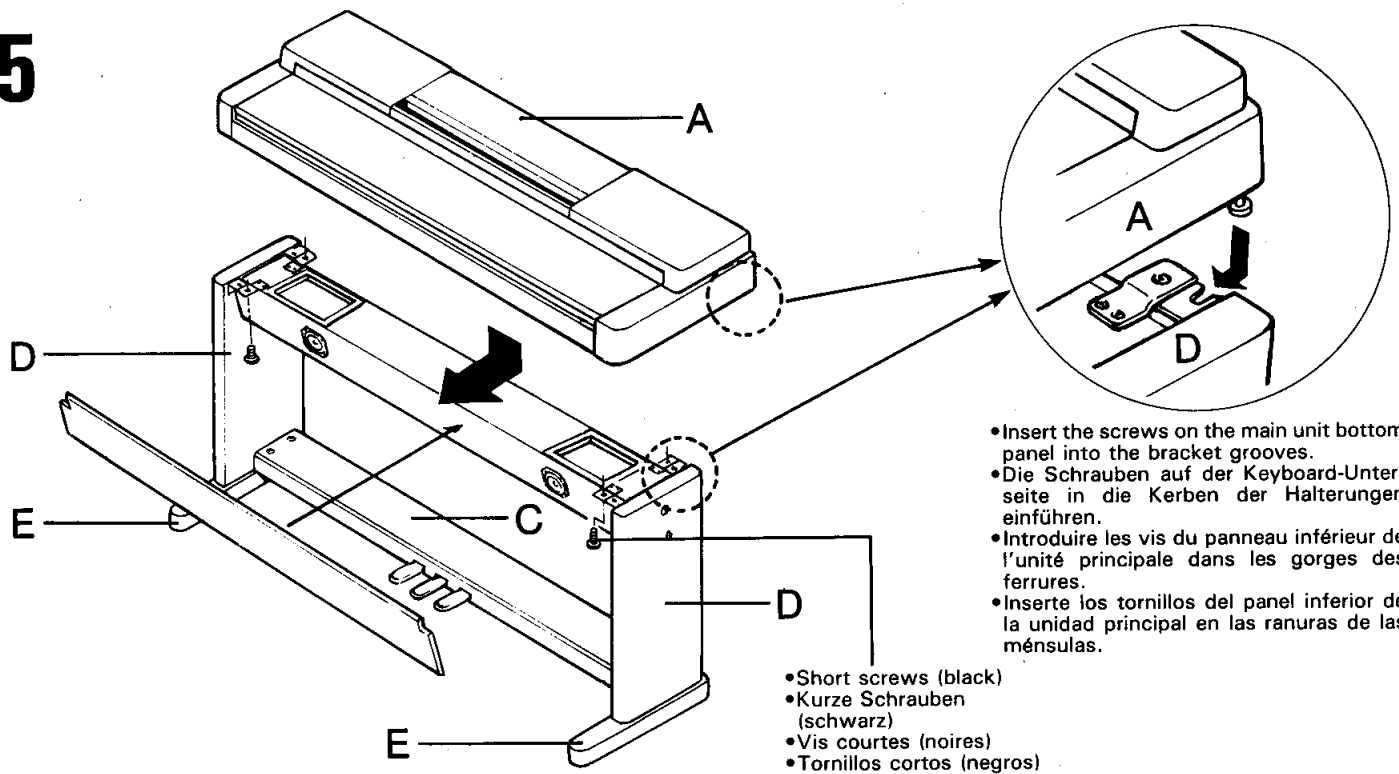
- Long screws (black)
- Lange Schrauben (schwarz)
- Vis longues (noires)
- Tornillos largos (negros)
- Short large-head screws (black)
- Kurze Schrauben mit großem Kopf (schwarz)
- Vis courtes à grosse tête (noires)
- Tornillos cortos de cabeza grande (negros)

Support du clavier

- Ouvrir le carton et retirer toutes les pièces**
Les pièces indiquées sur l'illustration en haut à gauche devraient toutes se trouver dans le carton. Vérifier qu'il n'en manque aucune.
- Monter les panneaux latéraux (D) sur les supports inférieurs (E)**
Poser les dispositifs d'assemblage sur les panneaux latéraux (D) de la manière illustrée, puis fixer les supports inférieurs (E) aux panneaux latéraux (D) à l'aide des vis longues dorées.
* Lors de la pose des dispositifs d'assemblage dans les trous des panneaux latéraux (D), veiller à ce que les flèches marquées sur leurs surfaces supérieures pointent dans le sens indiqué sur l'illustration.
* Veiller à ce que les supports droit et gauche soient orientés de la manière illustrée. Le bord découpé de chaque support doit être dirigé vers l'intérieur.
- Fixer les panneaux latéraux (D) au pédalier (C)**
Placer le pédalier sur les ferrures des panneaux latéraux (D) et le fixer à l'aide des quatre vis courtes à grosse tête de couleur noire.
- Fixer l'ensemble haut-parleur (B) aux panneaux latéraux (D)**
Avant de poser le haut-parleur, enlever la grille frontale (celle-ci est fixée à l'aide de ruban adhésif et peut être séparée facilement du haut-parleur). Fixer soigneusement le haut-parleur (B) entre les panneaux latéraux (D) à l'aide des quatre vis longues de couleur noire.

Armado del soporte del teclado

- Abra la caja y extraiga todas las partes.**
En la caja deberá encontrar todas las partes mostradas en la ilustración. Confirme que todas las partes necesarias estén incluidas.
- Una los paneles laterales (D) con los tableros de base (E).**
Coloque las juntas de los paneles laterales (D) como se aprecia en la ilustración, y fije los tableros de base (E) a los paneles laterales (D) con los tornillos largos dorados.
* Cuando coloque las juntas en los orificios de los paneles laterales (D), asegúrese de que las flechas impresas en su superficie superior apunten en la dirección mostrada en la ilustración.
* Asegúrese de que los tableros de base izquierdo y derecho queden en la dirección correcta como se ve en la ilustración. El borde ranurado de cada base debe quedar hacia adentro.
- Una los paneles laterales (D) a la caja de pedales (C).**
Ubique la caja de pedales sobre las ménsulas unidas a los paneles laterales (D); y fíjela mediante los cuatro tornillos negros de cabeza grande.
- Una la caja de altavoces (B) a los paneles laterales (D).**
Antes de colocar la caja de altavoces, quítele la rejilla (ésta se encuentra adherida con "cinta mágica" y puede desprenderse fácilmente). Instale firmemente la caja de altavoces (B) entre los paneles laterales (D) empleando los cuatro tornillos negros largos.

5

- Insert the screws on the main unit bottom panel into the bracket grooves.
- Die Schrauben auf der Keyboard-Unterseite in die Kerben der Halterungen einführen.
- Introduire les vis du panneau inférieur de l'unité principale dans les gorges des ferrures.
- Inserte los tornillos del panel inferior de la unidad principal en las ranuras de las ménsulas.

- Short screws (black)
- Kurze Schrauben (schwarz)
- Vis courtes (noires)
- Tornillos cortos (negros)

5 Install the main unit (A).

Place the main unit on the side panels (D) with the screws on its bottom panel (toward the rear of the main unit) just behind the grooves in the brackets located at the top of the side panels (D), then slide the keyboard forward until it stops.

Align the holes on the bottom panel of the main unit (A) with the holes in the brackets on the side panels (D) and the speaker box (B), then screw in and securely tighten the four short black-colored screws. After the screws have been properly installed, reattach the speaker grille to the speaker box with the recessed corners facing upwards (push it into place).

Note: Check that the voltage selector—located on the bottom of the main unit (A)—is set properly for the AC mains voltage in your area before installing the main unit. If adjustment is necessary, set the voltage selector with a “—” screwdriver and then install the main unit.

6 Connect the pedal and speaker cords.

Remove the black cover which is taped to the bottom of the pedal box (C) (the pedal cord is pre-threaded through the black cover). Attach the pedal cord to the two pedal cord holders located on the side panel, then insert the pedal cord plug into the connector located at the bottom of the main unit's (A) rear panel. Connect the speaker connector protruding from the rear of the speaker box (B) to the corresponding connector at the bottom of the main unit's (A) rear panel. Attach the black cover to the rear of the speaker box (B) using the two black screws.

* Check to make sure that all screws have been securely tightened.

7 Be sure to set the adjuster.

For stability, an adjuster is provided on the bottom of the pedal box (C). Rotate the adjuster until it comes in firm contact with the floor surface. The adjuster ensures stable pedal operation and facilitates pedal effect control.

* If the adjuster is not in firm contact with the floor surface, distorted sound may result.

5 Keyboard (A) installieren.

Das Keyboard so auf die Seitenplatten (D) aufsetzen, daß die Schrauben auf der Bodenplatte (hinten) genau hinter den Kerben der Halterungen auf den Seitenplatten (D) zu liegen kommen. Dann das Keyboard bis zum Anschlag nach vorne schieben. Die Löcher in der Bodenplatte des Keyboards (A) mit den Löchern in den Halterungen auf den Seitenplatten (D) ausrichten und die vier kurzen schwarzen Schrauben fest hineindrehen. Dann den Lautsprechergrill mit den ausgesparten Ecken nach oben auf das Lautsprechergehäuse aufdrücken.

Hinweis: Vor dem Anbringen des Keyboards (A) sicherstellen, daß der Spannungswähler auf der Unterseite auf die örtliche Netzspannung eingestellt ist. Den Wähler erforderlichenfalls mit einem Schlitzschraubenzieher verstellen und dann das Keyboard anbringen.

6 Pedalkonsole und Lautsprecherkabel anschließen.

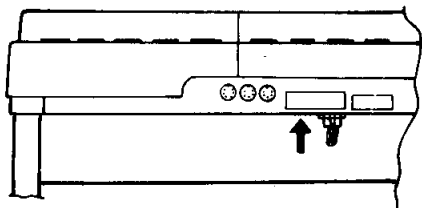
Die schwarze Abdeckung von der Unterseite der Pedalkonsole (C) abziehen (das Pedalkabel ist bereits durch die schwarze Abdeckung gelegt). Das Pedalkabel in die zwei Kabelhalter auf der Seitenplatte einsetzen und dann den Stecker des Pedalkabels in die Buchse unten auf der Rückseite des Keyboards (A) einführen. Den Steckverbinder auf der Rückseite des Lautsprechergehäuses (B) mit dem entsprechenden Anschluß des Keyboards (A) verbinden. Die schwarze Abdeckung mit zwei schwarzen Schrauben am Lautsprechergehäuse (B) anbringen.

* Sicherstellen, daß alle Schrauben gut festgezogen sind.

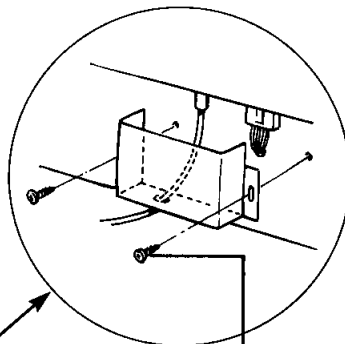
7 Unbedingt die Stützschaube einstellen.

Um eine gute Stabilität zu gewährleisten, befindet sich unten an der Pedalkonsole (C) ein Stützschaube. Die Stützschaube drehen, bis sie den Boden berührt. Die Stützschaube verhindert ein Verrutschen der Pedalkonsole beim Spielen und vereinfacht die Effektsteuerung über Pedal.

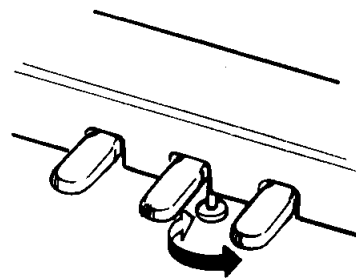
* Falls die Stützschaube nicht fest am Boden aufsitzt, kann es zu Klangverzerrungen kommen

6

- Cord holder
- Pedalkabelhalter
- Monture de cordon
- Soportes de cable



- Cover Screws (black)
- Abdeckungsschrauben (schwarz)
- Vis de couvercle (noires)
- Tornillos de cubierta (negros)

7

- Rotate the adjuster until it comes in firm contact with the floor surface.
- Die Stützschraube drehen, bis sie fest am Boden aufsitzt.
- Tourner le dispositif de réglage jusqu'à ce qu'il soit en contact ferme avec la surface du sol.
- Gire el ajustador hasta que quede en firme contacto con la superficie del piso.

5 Poser l'unité principale (A)

Placer l'unité principale sur les panneaux latéraux (D), avec les vis de son panneau inférieur (situées vers l'arrière de l'unité principale) placées immédiatement derrière les gorges des ferrures situées à la partie supérieure des panneaux latéraux (D), puis faire glisser le clavier vers l'avant jusqu'à ce qu'il vienne en butée. Aligner les trous du panneau inférieur de l'unité principale (A) sur les trous des ferrures des panneaux latéraux (D) et du haut-parleur (B) puis introduire et serrer à fond les quatre vis courtes de couleur noire. Une fois que les vis sont en place, reposer la grille frontale du haut-parleur avec les coins en creux dirigés vers le haut (la pousser pour la mettre en place).

Remarque: Vérifier que le sélecteur de tension, situé à la partie inférieure de l'unité principale (A), est bien réglé pour la tension secteur de la région d'utilisation avant de poser l'unité principale. En cas de nécessité, régler le sélecteur de tension à l'aide d'un tournevis plat, puis poser l'unité principale.

6 Connecter le cordon de pédale et les cordons de haut-parleur

Retirer le couvercle noir, fixé temporairement à la partie inférieure du pédalier (C) (le cordon de pédale a été passé au travers du couvercle noir en usine). Fixer le cordon de pédale aux deux montures de cordon de pédale situées sur le panneau latéral et insérer ensuite la fiche du cordon de pédale dans le connecteur situé à la partie inférieure du panneau arrière de l'unité principale (A). Relier le connecteur du haut-parleur (B) au connecteur correspondant situé à la partie inférieure du panneau arrière de l'unité principale (A). Fixer le couvercle noir à la partie arrière du pédalier (B) à l'aide des deux vis noires.

* Vérifier que toutes les vis sont serrées à fond.

7 Ne pas oublier de régler la hauteur du pédalier!

Pour assurer la stabilité du pédalier (C), un dispositif de réglage est prévu à sa partie inférieure. Tourner le jusqu'à ce qu'il soit en contact ferme avec la surface du sol. Ce dispositif assure la stabilité du pédalier lors de son utilisation et facilite la commande au pied des effets.

* Si ce dispositif n'est pas en contact ferme avec le sol, il peut se produire une distorsion du son.

5 Instale la unidad principal (A).

Coloque la unidad principal sobre los paneles laterales (D) con los tornillos de su panel inferior (hacia la parte trasera de la unidad principal) colocados justo detrás de las ranuras de las ménsulas ubicadas en la parte superior de los paneles laterales (D), y deslice el teclado hacia adelante hasta el tope.

Alinee los orificios del panel inferior de la unidad principal (A) con los orificios de las ménsulas de los paneles laterales (D) y la caja de altavoces (B), y atornille los cuatro tornillos negros cortos, apretándolos firmemente. Una vez que los tornillos estén correctamente colocados, vuelva a montar la rejilla a la caja de altavoces, con las esquinas ahuecadas hacia arriba (empújela hasta quedar en posición).

Nota: Confirme que el selector de voltaje, ubicado debajo de la unidad principal (A), esté en la posición correspondiente al voltaje de CA suministrado en su área antes de instalar la unidad principal. Si no lo estuviera, ajústelo con un destornillador e instale después la unidad principal.

6 Conecte los cables de pedales y altavoces.

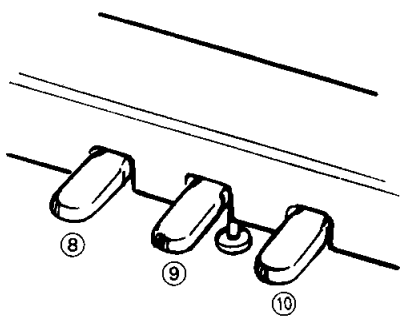
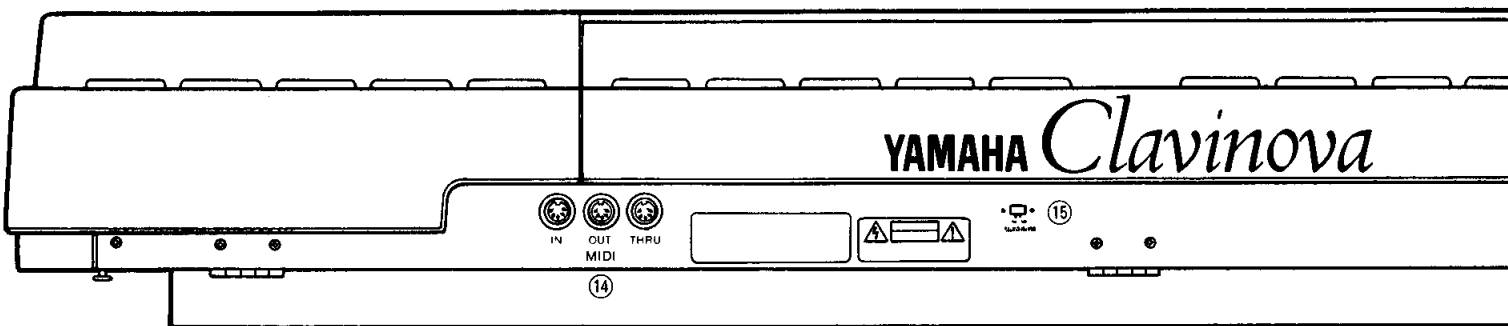
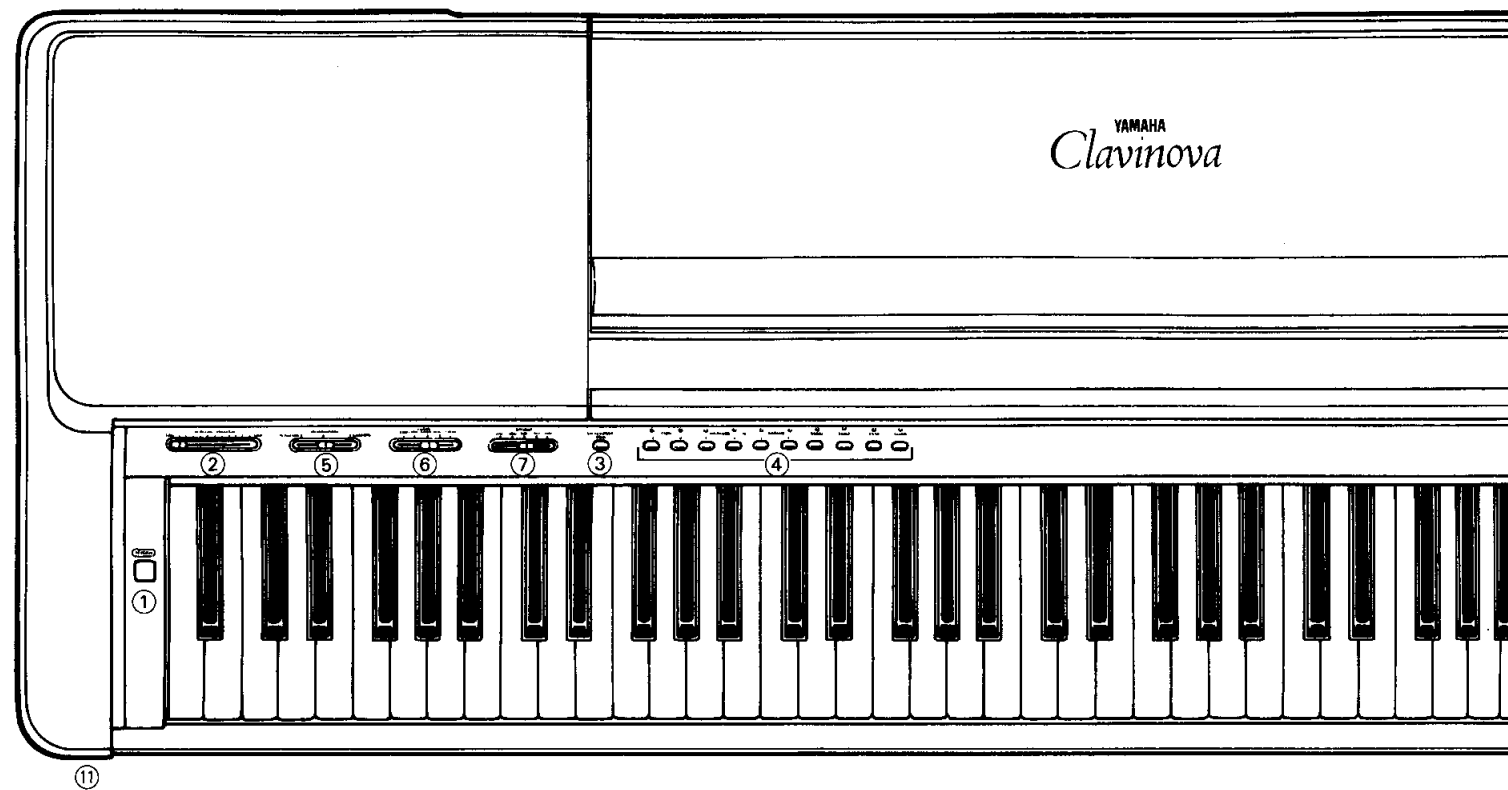
Quite la tapa negra que se encuentra sujeta con cinta a la parte inferior de la caja de pedales (C) (el cable de pedales está ya conectado a través de esta tapa). Fije el cable de los pedales a los dos soportes ubicados en el panel lateral, e inserte la clavija del cable de los pedales en el conector ubicado en la parte inferior del panel trasero de la unidad principal (A). Conecte el conector de altavoces que sobresale de la parte trasera de la caja de altavoces (B) con el conector correspondiente en la parte inferior del panel trasero de la unidad principal (A). Fije la tapa negra detrás de la caja de altavoces (B) mediante los dos tornillos negros.

* Confirme que todos los tornillos estén firmemente apretados.

7 Asegurese de disponer el ajustador.

Un ajustador ha sido instalado debajo de la caja de pedales (C) para dar estabilidad a la misma. Gire el ajustador hasta que quede en firme contacto con la superficie del piso. El ajustador asegura una estable operación de los pedales y facilita el control del efecto de los mismos.

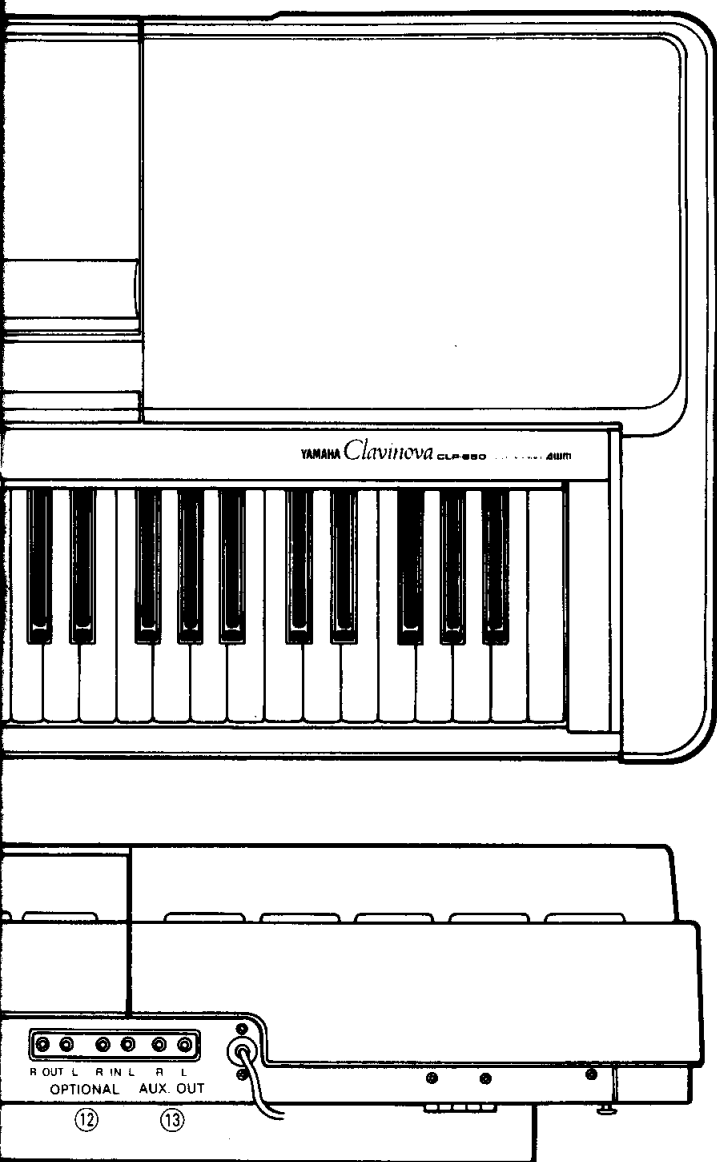
* Si el ajustador no está en firme contacto con la superficie del piso, se puede producir distorsión del sonido.



TAKING CARE OF YOUR CLAVINOVA

Your Clavinova is a fine musical instrument, and deserves the most careful treatment. Observe the following points and your Clavinova will sound and look great for many years.

1. Never open the case and touch or tamper with the internal circuitry.
2. Always turn the POWER switch OFF after use, and cover the keyboard with the built-in key cover.
3. Clean the cabinet and keys of your Clavinova only with a clean, slightly damp cloth. A neutral cleanser may be used if desired. Never use abrasive cleansers, waxes, solvents or chemical dust cloths since these can dull or damage the finish.
4. Never place any vinyl products on your Clavinova. Contact with vinyl can cause irreversable damage to the finish.
5. Install your Clavinova in a place that is away from direct sunlight, excessive humidity or heat.
6. Never apply excessive force to the controls, connectors or other parts of your Clavinova, and avoid scratching or bumping it with hard objects.



THE CONTROLS AND CONNECTORS

① POWER Switch

Press the **POWER** switch once to turn the power **ON**, a second time to turn the power **OFF**. When the power is initially turned **ON**, the **PIANO 1** voice selector LED will light.

② MASTER VOLUME Control

The **MASTER VOLUME** control adjusts the volume (level) of sound produced by the Clavinova. The **MASTER VOLUME** control also adjusts headphone volume when a pair of headphones is plugged into the **HEADPHONE** jack ⑫.

③ TRANSPOSER/MIDI Button

The **TRANSPOSER/MIDI** button allows access to the Clavinova's **TRANSPOSE** function (to shift the pitch of the entire keyboard up or down) and **MIDI** functions. For details refer to the "**TRANSPOSITION**" and "**MIDI FUNCTIONS**" sections on page 9.

④ Voice Selectors

The CLP-650 has ten voice selectors. Simply press any of the voice selectors to select the corresponding voice. The LED indicator above the voice selector will light to indicate which voice is currently selected.

Note: The **PIANO 1** voice is automatically selected whenever the **POWER** switch is initially turned **ON**.

⑤ BRILLIANCE Control

This control can be used to change the tonality or "timbre" of the selected voice. It has three settings: **MELLOW**, center (**NORMAL**) and **BRIGHT**. The center setting produces the "normal" tone of the selected voice. If you want a brighter or "sharper" tone, slide the control to the **BRIGHT** position. For a "rounder" more mellow tone, slide the control to the **MELLOW** position.

Note: The **BRILLIANCE** control has no intermediate settings. If you slide the control to a position between one of its three settings, the sound of the last setting will be retained.

⑥ REVERB Control

The **REVERB** control provides a number of digital effects that you can use for extra depth and expressive power. Simply slide the **REVERB** control to the required position:

OFF

No effect is produced.

PEDAL

In this position a subtle-but-warm reverb effect is added to the sound whenever the damper pedal is pressed.

ROOM

This setting add a continuous reverb effect to the sound that is similar to the type of acoustic reverberation you would hear in a medium-size room.

HALL

For a really spacious reverb sound, use the **HALL** setting. This effect simulates the natural reverberation of a large concert hall.

COSMIC

"**COSMIC**" is an echo effect in which the sound seems to "bounce" around in the stereo sound field.

⑦ EFFECT Control

The **EFFECT** control provides a range of four effects that you can use in addition to the **REVERB** effects. Please note that when any of these effects is selected the CLP-650 provides 16-note polyphony rather than 32 notes. Simply slide the **EFFECT** control to the required position:

OFF

No effect is produced.

PAN

This effect causes the Clavinova sound to sweep back and forth between its stereo speaker systems.

DETUNE

DETUNE delivers a thick, multi-instrument sound by producing two notes of slightly different pitch for every single note you play on the keyboard — i.e. the two notes are slightly "detuned."

TREMOLO

TREMOLO is a gentle variation in volume that gives the sound a more dynamic feel.

DUAL

The **DUAL** effect actually makes it possible to play two CLP-650 voices simultaneously across the entire range of the keyboard. The voices combined when **DUAL** is activated are normally the last two voices selected (the voice selected first is played via the right speaker and the voice selected last is played via the left speaker). For example, if you press the **PIANO 1** voice selector and then the **VIBES** voice selector, and then set the **EFFECT** control to **DUAL**, The **PIANO 1** and **VIBES** LEDs will both light and both voices will be played simultaneously—**PIANO 1** from the right speaker and **VIBES** from the left. If another voice selector—say **CELESTA**—is pressed while **DUAL** is active, the newly selected voice (**CELESTA**) will be combined with the previously selected voice (**VIBES** in this example). If the **EFFECT** control is then set to **OFF**, the last voice selected (**CELESTA** in this example) will be selected.

• Here are some examples of how the **DUAL** logic works:

- If you select these voices in this order:
PIANO 1 → **E.PIANO** → **HARPSICHORD 1**
 and then set the **EFFECT** control to **DUAL**, the **E.PIANO 1** and **HARPSICHORD** voices will be played simultaneously.
- If you select these voices in this order:
PIANO 1 → **E.PIANO 1** → **E.PIANO 1**
 and then set the **EFFECT** control to **DUAL**, the **PIANO 1** and **E.PIANO 1** voices will be played simultaneously.

3. If the EFFECT control is already set to DUAL and you select these voice in this order:
PIANO 1 → E.PIANO 1 → HARPSICHORD 1,
the E.PIANO 1 and HARPSICHORD voices will be played simultaneously.
4. If the EFFECT control is already set to DUAL and you select these voices in this order:
PIANO 1 → E.PIANO 1 → E.PIANO 1,
the E.PIANO 1 voice will be selected twice! The result is that you'll hear only the E.PIANO 1 voice, and polyphony will be 16 notes rather than the maximum 32.

Note: If the EFFECT control is set to DUAL immediately after turning the power ON, the PIANO 1 and PIANO 2 voices will be combined.

⑧ Soft Pedal

Pressing the soft pedal reduces the volume and slightly changes the timbre of notes played.

⑨ Sostenuto Pedal

If you play a note or chord on the keyboard and press the sostenuto pedal while the note(s) are held, those notes will be sustained as long as the pedal is held (as if the damper pedal had been pressed) but all subsequently played notes will not be sustained. This makes it possible to sustain a chord, for example, while other notes are played "staccato."

⑩ Damper Pedal

The damper pedal functions in the same way as a damper pedal on an acoustic piano. When the damper pedal is pressed notes played have a long sustain. Releasing the pedal immediately stops (damps) any sustained notes. The CLP-650 damper pedal also features continuous damping. This allows you to create shorter sustain effects by pressing the damper pedal down only part of the way.

⑪ HEADPHONE Jack

A standard pair of stereo headphones can be plugged in here for private practice or late-night playing. The internal speaker system is automatically shut off when a pair of headphones is plugged into the HEADPHONE jack.

⑫ OPTIONAL IN L/R and OUT L/R Jacks

These jacks are intended primarily for use with Yamaha EM-series Expander Modules such as the EME-1 Reverb Box, EMT-1 FM Sound Box, EMT-10 AWM Sound Box and EMR-1 Drum Box. In the case of the EME-1 Reverb Box, for example, the OPTIONAL OUT jacks connect to the EME-1 LINE IN jacks, and the EME-1 LINE OUT jacks connect back to the Clavinova OPTIONAL IN jacks. This allows application of a range of high-quality digital effects, including reverb and echo, to the Clavinova sound. Refer to the EM-series Expander Module device owner's manual for connection details.

⑬ AUX OUT L/R Jacks

The AUX OUT L and R jacks deliver the output of the Clavinova for connection to a stereo sound system, a mixing console or a tape recorder.

Note: The AUX OUT jack signal must never be returned to the OPTIONAL IN jacks, either directly or through external equipment. Always use the OPTIONAL IN and OUT jacks when connecting EM-series or other Yamaha peripheral equipment.

⑭ MIDI IN, THRU and OUT Connectors

The MIDI IN connector receives MIDI data from an external MIDI device (such as the EMQ-1 Memory Box) which can be used to control the Clavinova. The MIDI THRU connector re-transmits any data received at the MIDI IN connector, allowing "chaining" of several MIDI instruments or other devices. The MIDI OUT connector transmits MIDI data generated by the Clavinova (e.g. note and velocity data produced by playing the Clavinova keyboard). More details on MIDI are given in "MIDI FUNCTIONS" on page 9.

⑮ SPEAKER ON/OFF Switch

This switch turns the CLP-650's internal stereo speaker system ON or OFF. It may be convenient to switch the speakers OFF when the CLP-650 is driving external sound equipment such as amplifiers or mixing consoles via the AUX OUT jacks.

PREPARATION

• Check your power supply

Make sure that your local AC mains voltage matches the voltage specified on the name plate on the rear panel. In some areas a voltage selector may be provided on the bottom panel of the main unit. Make sure that the voltage selector is set for the voltage in your area (this must be done before the main unit is installed during assembly—see page 2).

• The music stand

If you will be using sheet music with your Clavinova, raise the music stand built into its top panel by lifting the rear edge of the music stand until it clicks into place.

The music stand can be lowered after slightly lifting the stand and pressing the two brackets which support it inward.

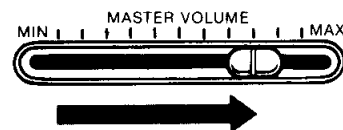
PLAYING THE CLAVINOVA

After making sure that the Clavinova's AC plug is properly inserted into a convenient AC wall outlet:

1. Press the POWER switch located to the left of the keyboard to turn the power ON. When the power is turned ON, the PIANO 1 voice selector LED will light (the PIANO 1 voice is automatically selected whenever the power is turned ON).



2. Initially set the MASTER VOLUME control about three quarters of the way towards the "MAX" setting. Then, when you start playing, adjust the MASTER VOLUME control for the most comfortable listening level.



3. Select the desired voice by pressing one of the voice selectors.

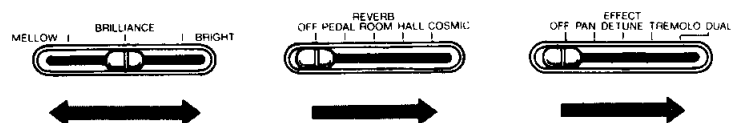


4. Play.

The Clavinova has "32-note polyphony*" which means you can play up to 32 notes at once. The Clavinova also offers keyboard touch response, so the volume and timbre of notes played can be controlled according to how "hard" you play the keys. The amount of variation available depends on the selected voice.

* The CLP-650 allows up to 16 notes to be played at once when the PAN, DETUNE, TREMOLO or DUAL effects are used.

5. You can also add BRILLIANCE, REVERB and/or EFFECTS as desired by using the BRILLIANCE, REVERB and EFFECT controls (see "THE CONTROLS AND CONNECTORS" on page 7).



TRANSPOSITION

The Clavinova's TRANSPOSER function makes it possible to shift the pitch of the entire keyboard up or down in semitone intervals up to a maximum of six semitones. "Transposing" the pitch of the Clavinova keyboard makes it easier to play in difficult key signatures, and you can simply match the pitch of the keyboard to the range of a singer or other instrumentalist. The TRANSPOSER/MIDI button and keys F#5 through F#6 on the keyboard are used for transposition.



1. Press and hold the TRANSPOSER/MIDI button.
2. Press a key between F#5 and F#6 according to the desired amount of transposition.*
3. Release the TRANSPOSER/MIDI button.

* Pressing the C6 key produces normal keyboard pitch. Pressing the key to the left of C6 (B5) transposes the pitch of the keyboard down a semitone, the next key to the left (Bb5) transposes down a whole tone (two semitones), etc., down to the F#5 key which transposes down 6 semitones. Upward transposition is accomplished in the same way using the keys to the right of C6, up to F#6 which transposes up 6 semitones.

Note: The transpose function has no effect when LOCAL OFF is active (see "Local Control ON/OFF" on page 11).

PITCH CONTROL

Pitch control makes it possible to tune the Clavinova over a ± 50 -cent range in approximately 3-cent intervals. A hundred "cents" equals one semitone, so the tuning range provided allows fine tuning of overall pitch over a range of approximately a semitone. Pitch control is useful for tuning the Clavinova to match other instruments or recorded music.

Tuning Up

1. To tune up (raise pitch), hold the A-1 and B-1 keys simultaneously.
2. Press any key between C3 and B3. Each time a key in this range is pressed the pitch is increased by approximately 3 cents, up to a maximum of 50 cents above standard pitch.
3. Release the A-1 and B-1 keys.

Tuning Down

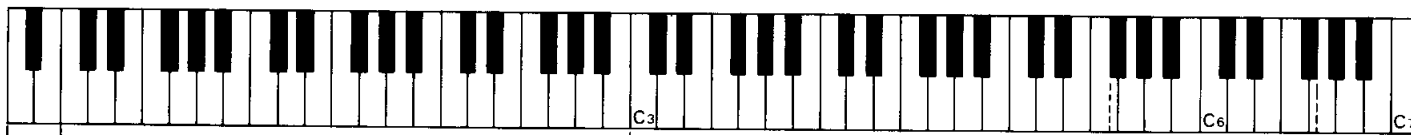
1. To tune down (lower pitch), hold the A-1 and A#-1 keys simultaneously.
2. Press any key between C3 and B3. Each time a key in this range is pressed the pitch is decreased by approximately 3 cents, up to a maximum of 50 cents below standard pitch.
3. Release the A-1 and A#-1 keys.

To Restore Standard Pitch*

1. To restore standard pitch (A3 = 440 Hz), hold the A-1, A#-1 and B-1 keys simultaneously.
2. Press any key between C3 and B3.
3. Release the A-1, A#-1 and B-1 keys.

* Standard pitch (A3 = 440 Hz) is automatically set whenever the POWER switch is initially turned ON.

Note: The pitch control function has no effect when LOCAL OFF is active (see "Local Control ON/OFF" on page 11).



For Pitch Control (A-1 + B-1/A-1 + A#-1)

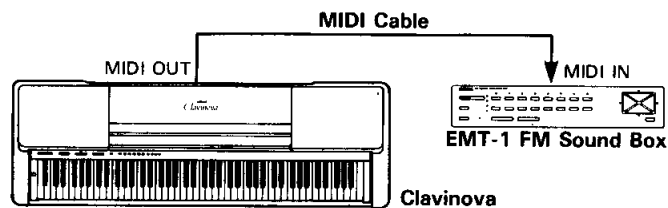
For Pitch Control (C3 ~ B3)

For Transposition (F#5 ~ F#6)

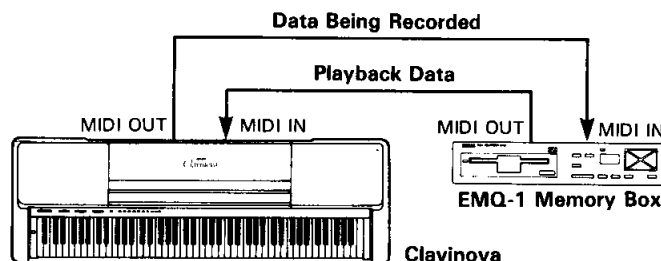
MIDI FUNCTIONS

A Brief Introduction to MIDI

MIDI, the Musical Instrument Digital Interface, is a world-standard communication interface that allows MIDI-compatible musical instruments and equipment to share musical information and control one another. This makes it possible to create "systems" of MIDI instruments and equipment that offer far greater versatility and control than is available with isolated instruments. For example, most MIDI keyboards (including the Clavinova, of course) transmit note and velocity (touch response) information via the MIDI OUT connector whenever a note is played on the keyboard. If the MIDI OUT connector is connected to the MIDI IN connector of a second keyboard (synthesizer, etc.) or a tone generator such as the Yamaha EMT-1 FM Sound Box (essentially a synthesizer with no keyboard), the second keyboard or tone generator will respond precisely to notes played on the original transmitting keyboard. The result is that you can effectively play two instruments at once, providing thick multi-instrument sounds.



This same type of musical information transfer is used for MIDI sequence recording. A sequence recorder such as the Yamaha EMQ-1 Memory Box can be used to "record" MIDI data received from a Clavinova, for example. When the recorded data is played back, the Clavinova automatically "plays" the recorded performance in precise detail.



The examples given above really only scratch the surface. MIDI can do much, much more. The CLP-650 offers a number of MIDI functions that allow them to be used in fairly sophisticated MIDI systems.

Note: Always use a high-quality MIDI cable to connect MIDI OUT to MIDI IN terminals. Never use MIDI cables longer than about 15 feet, since cables longer than this can pick up noise which can cause data errors.

MIDI "Messages" Transmitted & Received by the Clavinova

The MIDI information (messages) transmitted and received by the CLP-650 Clavinova are as follows:

Note and Velocity Data

This information tells the receiving keyboard or tone generator to play a certain note (specified by the MIDI note number) at a certain dynamic level (specified by the MIDI velocity value). Note and velocity data is transmitted by the Clavinova whenever a key is pressed, and the Clavinova's internal AWM tone generator will "play" the corresponding note(s) whenever note and velocity data is received from an external MIDI device.

Program Change Numbers

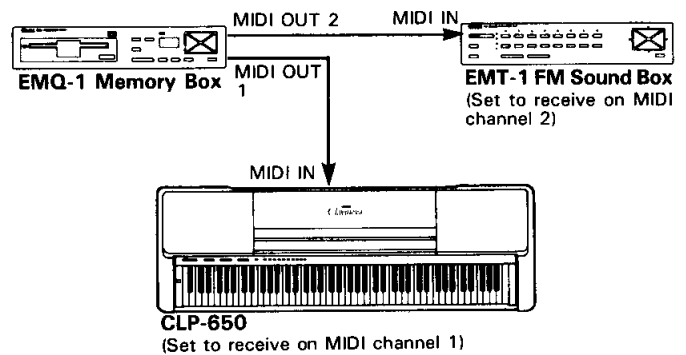
The Clavinova transmits a MIDI program number between 0 and 9 when one of its voice selectors is pressed. This normally causes the correspondingly numbered voice or program to be selected on a receiving MIDI device. The Clavinova will respond in the same way, automatically selecting the appropriate voice when a MIDI program change number is received. See "Program Change ON/OFF" on page 11 for information on turning program change number reception and transmission ON or OFF.

Control Change Numbers

Control Change data representing Soft, Sostenuto and Damper pedal operations is transmitted by the Clavinova whenever one of these pedals is used. If the receiving device is a tone generator or another keyboard, it will respond in the same way as the Clavinova's internal tone generator when one of the pedals is used. The Clavinova also receives and responds to the appropriate control change data. See "Control Change ON/OFF" on page 11 for information on turning control change number reception and transmission ON or OFF.

MIDI Transmit & Receive Channel Selection

The MIDI system allows transmission and reception of MIDI data on 16 different channels. Multiple channels have been implemented to allow selective control of certain instruments or devices connected in series. For example, a single MIDI sequence recorder could be used to "play" two different instruments or tone generators. One of the instruments or tone generators could be set to receive only on channel 1, while the other is set to receive on channel 2. In this situation the first instrument or tone generator will respond only to channel-1 information transmitted by the sequence recorder, while the second instrument or tone generator will respond only to channel-2 information. This allows the sequence recorder to "play" two completely different parts on the receiving instruments or tone generators.



In any MIDI control setup, the MIDI channels of the transmitting and receiving equipment must be matched for proper data transfer. An "OMNI" receive mode is also available, which allows reception on all 16 MIDI channels. In the OMNI mode it is not necessary to match the receive channel of the receiving device to the the transmit channel of the transmitting device (except when receiving mode messages).

Setting the Clavinova MIDI Channels

1. Press and hold the TRANSPOSER/MIDI button.
2. Press the key on the keyboard corresponding to the desired MIDI transmit or receive channel.*
3. Release the TRANSPOSER/MIDI button.

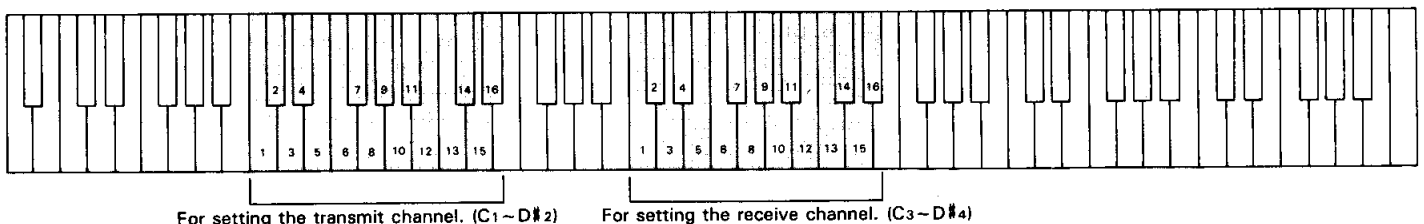
* Keys C₁ through D_{#2} on the keyboard are used to set the MIDI transmit channel, and keys C₃ through D_{#4} are used to turn the OMNI mode OFF and set the MIDI receive channel as shown in the illustration below. The E₄ key sets the OMNI receive mode and basic receive channel 1.

Note: When the power is initially turned ON, MIDI receive is set to the OMNI mode and the transmit channel is set to 1.

MIDI FUNCTION CHART

Function	Voice Selector*
Local ON/OFF	PIANO 1
Program Change ON/OFF	PIANO 2
Control Change ON/OFF	E.PIANO 1
Multi-Timbre Mode	E.PIANO 2
Split & Left Local OFF	HARPSICHORD 1
Split & Right Local OFF	HARPSICHORD 2
Panel Data Transmit	CELESTA

* The MIDI functions listed above are engaged by holding down the TRANSPOSER/MIDI button and pressing the corresponding voice selector. Full details are given in the following pages.



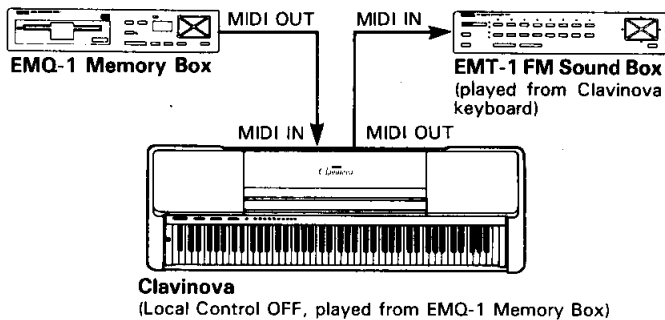
For setting the transmit channel. (C₁~D_{#2})

For setting the receive channel. (C₃~D_{#4})

Local Control ON/OFF

“Local Control” refers to the fact that, normally, the Clavinova keyboard controls its internal tone generator, allowing the internal voices to be played directly from the keyboard. This situation is “Local Control ON” since the internal tone generator is controlled locally by its own keyboard.

Local control can be turned OFF, however, so that the Clavinova keyboard does not play the internal voices, but the appropriate MIDI information is still transmitted via the MIDI OUT connector when notes are played on the keyboard. At the same time, the internal tone generator responds to MIDI information received via the MIDI IN connector. This means that while an external MIDI sequence recorder such as the Yamaha EMQ-1 Memory Box, for example, plays the Clavinova’s internal voices, an external tone generator such as the EMT-1 can be played from the Clavinova keyboard.



Turning Local Control ON or OFF

1. Hold down the TRANSPOSER/MIDI button.
2. Press the PIANO 1 voice selector. If the PIANO 1 LED is lit when the PIANO 1 voice selector is pressed, you have turned local control OFF. If the PIANO 1 LED is not lit when the PIANO 1 voice selector is pressed, you have turned local control ON.
3. Release the TRANSPOSER/MIDI button.

Program Change ON/OFF

Normally the Clavinova will respond to MIDI program change numbers received from an external keyboard or other MIDI device, causing the correspondingly numbered Clavinova voice to be selected. The Clavinova will normally also send a MIDI program change number whenever one of its voices is selected, causing the correspondingly numbered voice or program to be selected on the external MIDI device if the device is set up to receive and respond to MIDI program change numbers.

This function makes it possible to cancel program change number reception and transmission so that voices can be selected on the Clavinova without affecting the external MIDI device, and vice versa.

1. Hold down the TRANSPOSER/MIDI button.
2. Press the PIANO 2 voice selector. If the PIANO 2 LED is lit when the PIANO 2 voice selector is pressed, you have turned program change reception/transmission OFF. If the PIANO 2 LED is not lit when the PIANO 2 voice selector is pressed, you have turned program change reception/transmission ON.
3. Release the TRANSPOSER/MIDI button.

Control Change ON/OFF

Normally the Clavinova will respond to MIDI control change data received from an external MIDI device or keyboard, causing the selected Clavinova voice to be affected by pedal and other “control” settings received from the controlling device. The Clavinova also transmits MIDI control change information when either of its pedals are operated.

This function makes it possible to cancel control change data reception and transmission if you do not want the Clavinova voices to be affected by control change data received from an external device or vice versa.

1. Hold down the TRANSPOSER/MIDI button.
2. Press the E.PIANO 1 voice selector. If the E.PIANO 1 LED is lit when the E.PIANO 1 voice selector is pressed, you have turned control change reception/transmission OFF. If the E.PIANO 1 LED is not lit when the E.PIANO 1 voice selector is pressed, you have turned control change reception/transmission ON.
3. Release the TRANSPOSER/MIDI button.

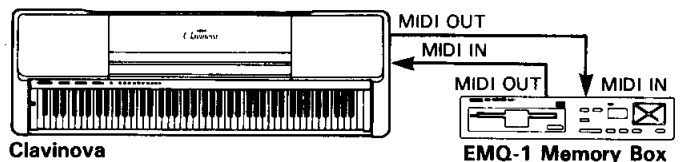
The Multi-Timbre Mode

The Multi-Timbre mode is a special mode in which the Clavinova voices can be independently controlled on different MIDI channel numbers (1 through 10) by an external MIDI device such as the Yamaha EMQ-1 Memory Box. The Multi-Timbre mode can be activated as follows:

1. Hold down the TRANSPOSER/MIDI button.
2. Press the E. PIANO 2 voice selector. If the E. PIANO 2 LED is lit when the E. PIANO 2 voice selector is pressed, you have turned the Multi-Timbre mode ON. If the E. PIANO 2 LED is not lit when the E. PIANO 2 voice selector is pressed, you have turned the Multi-Timbre mode OFF.
3. Release the TRANSPOSER/MIDI button.

Here's an example of how you could use the Multi-Timbre mode to record three different parts on the EMQ-1 Memory Box that will play different voices on the Clavinova when played back.

1. Connect the EMQ-1 to the Clavinova as shown below.



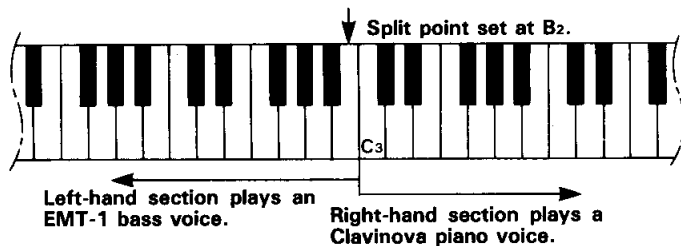
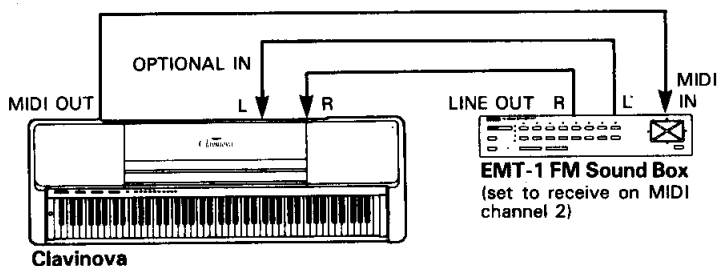
2. Select the first voice and MIDI transmit channel number, then record the first part on the EMQ-1.
3. Activate the Clavinova Multi-Timbre mode, then select a new MIDI transmit channel and voice and record the second part on the EMQ-1 using its overdubbing function.
4. While still in the Multi-Timbre mode, select the third MIDI transmit channel and voice and record the third part on the EMQ-1 using its overdubbing function.
5. Still in the Multi-Timbre mode, play back the EMQ-1. The recorded parts will be played back using the individual voices selected during recording, providing a full ensemble sound.

The Split & Left Local OFF Mode

In the split mode one section of the Clavinova keyboard is used to play a Clavinova voice in the normal way, while the remaining section is used to play a second MIDI keyboard or tone generator such as the Yamaha EMT-1 FM Sound Box or EMT-10 AWM Sound Box. In this mode the right-hand section of the keyboard is used to play an internal Clavinova voice, while the left-hand section of the keyboard plays the external keyboard or tone generator. Playing the left-hand section of the keyboard produces no sound from the Clavinova. The "split point," or the key that divides the left- and right-hand sections of the keyboard can be set at any desired key.

The split mode is useful if, for example, you want to play a piano (Clavinova) voice with the right hand while playing a synthesizer bass line or string section with the left hand.

When the split mode is activated, notes played on the left-hand section are transmitted via the Clavinova MIDI OUT connector on MIDI channel 2. Notes played on the right-hand section are transmitted on the "basic channel" (i.e. the channel set using the MIDI channel selection function described previously).



Activating the Split & Left Local OFF Mode & Selecting the Split Point

1. Hold down the TRANSPOSER/MIDI button, then press and hold down the HARPSICHORD 1 voice selector. The HARPSICHORD 1 LED indicator will flash.
2. Press the key on the keyboard at which you wish to set the split point. The HARPSICHORD 1 LED will light continuously. The split-point key becomes the first key of the left-hand section.
3. Release the split point key.
4. Release the TRANSPOSER/MIDI button and HARPSICHORD 1 voice selector.
5. To return to the normal full-keyboard mode, hold the TRANSPOSER/MIDI button and press the HARPSICHORD 1 voice selector, then release both buttons.

Note: When the power is initially turned ON the default split point key -B2- will be automatically selected. If a new split point is selected it remains active until the power is turned OFF or a different split point is selected.

The Split & Right Local Off Mode

In the CLP-650 either the right- or left-hand section of the keyboard can be assigned to control an external keyboard or tone generator. Assigning the left-hand section to external tone generator control was described in the previous section. To assign the right-hand section to external tone generator control while playing the Clavinova voices with the left hand, press the HARPSICHORD 2 voice selector instead of the HARPSICHORD 1 voice selector when activating the Split mode (See "Activating the Split & Left Local OFF Mode & Selecting the Split Point" in the previous section). All other operations are exactly the same as described in the previous section.

Transmitting the Panel Settings

This function causes all the current Clavinova control settings (selected voice, etc) to be transmitted via the MIDI OUT terminal. This is particularly useful if you will be recording performances to a MIDI sequence recorder which will be used to control the Clavinova on playback. By transmitting the Clavinova panel settings and recording them on the MIDI sequence recorder prior to the actual performance data, the Clavinova will be automatically restored to the same settings when the performance is played back.

1. Hold down the TRANSPOSER/MIDI button.
2. Press the CELESTA voice selector.
3. Release the TRANSPOSER/MIDI button.

TROUBLESHOOTING

If you encounter what appears to be a malfunction, please check the following points before assuming that your Clavinova is faulty.

1. **No Sound When the Power is Turned ON**
Is the AC plug properly connected to an AC wall outlet? Check the AC connection carefully. Is the MASTER VOLUME control turned up to a reasonable listening level?
2. **The Clavinova Reproduces Radio or TV Sound**
This can occur if there is a high-power transmitter in your vicinity. Contact your Yamaha dealer.
3. **Intermittent Static Noise**
This is usually due to turning ON or OFF a household appliance or other electronic equipment which is fed by the same AC mains line as your Clavinova.
4. **Interference Appears On Radio or TV Sets Located Near the Clavinova**
The Clavinova contains digital circuitry which can generate radio-frequency noise. The solution is to move the Clavinova further away from the affected equipment, or vice versa.
5. **Distorted Sound When the Clavinova is Connected to An External Amplifier/Speaker System**
If the Clavinova is connected to a stereo system or instrument amplifier and the sound is distorted, reduce the setting of the Clavinova volume control to a level at which the distortion ceases.

OPTIONS & EXPANDER MODULES

OPTIONS

BC-7 Bench

A stable, comfortable bench styled to match your Yamaha Clavinova.

HPE-5 Stereo Headphones

High-performance lightweight dynamic headphones with extra-soft ear pads.

PCS-3 Connecting Cord

For connecting the Clavinova to a stereo system or other audio equipment.

EXPANDER MODULES

Sound Box EMT-10..... AWM Sound Expander

Sound Box EMT-1 FM Sound Expander

Memory Box EMQ-1 Disk Recorder

Drum Box EMR-1..... Digital Drums

Reverb Box EME-1 Digital Reverb

These state-of-the-art Expander Modules can dramatically expand the musical scope of your Clavinova.

Note: Some items may not be available in certain areas.

MIDI DATA FORMAT

If you're already very familiar with MIDI, or are using a computer to control your music hardware with computer-generated MIDI messages, the data provided in this section can help you to control the Clavinova.

1. NOTE ON/OFF

Data format: [9 × H] → [kk] → [vv]

9 × H = Note ON/OFF event (x = channel number)

kk = Note number (21 ~ 108 = A-1 ~ C7)

vv = Velocity (Key ON = 1 ~ 127. Key OFF = 0)

* Note OFF event format [8 × H] → [kk] also recognized (reception only).

2. CONTROL CHANGE & MODE MESSAGES

Data format: [B × H] → [cc] → [dd]

B × H = Control event (x = channel number)

cc = Control number (or mode message number)

dd = Control value

cc	PARAMETER	dd
40H	Damper pedal	0 ~ 0FH = OFF; 10H ~ 1FH = 1; 20H ~ 2FH = 2; 30H ~ 3FH = 3; 40H ~ 4FH = 4; 50H ~ 5FH = 5; 60H ~ 6FH = 6; 70H ~ 7FH = 7
42H	Sostenuto pedal	0 ~ 3FH = OFF; 40H ~ 7FH = ON
43H	Soft pedal	0 ~ 3FH = OFF; 40H ~ 7FH = ON
7AH	Local ON/OFF	0 = OFF; 7FH = ON
7BH	All notes OFF	0
7CH	OMNI OFF/All notes OFF	0
7DH	OMNI ON/All notes OFF	0

* 7AH, 7BH, 7CH and 7DH are receive only.

3. PROGRAM CHANGE

Data format: [C × H] → [dd]

C × H = program event (x = channel number)

dd = Program number

dd	VOICE
00H	PIANO 1
01H	PIANO 2
02H	E.PIANO 1
03H	E.PIANO 2
04H	HARPSICHORD 1
05H	HARPSICHORD 2
06H	CELESTA
07H	VIBES
08H	GUITAR 1
09H	GUITAR 2

* No voice change is made when dd > 09.

4. SYSTEM REALTIME MESSAGES

Active Sensing (FEH)

Transmitted every 200 milliseconds. If not received for more than 400 milliseconds a NOTE OFF occurs.

5. SYSTEM EXCLUSIVE MESSAGES

Data format: [F0H] → [43H] → [nx] → [ff] [F7H]

n = 0, ff = 7CH : Panel data reception. Panel data follows 7CH.

n = 2, ff = 7CH : Panel data transmitted when this data received.

n = 2, ff = 7DH : Model ID code transmitted when this data received.

* Panel data is comprised of voice number, brilliance, reverb and effect settings.

6. MULTI TIMBRE MODE

Data format: [F0H] → [43H] → [73H] → [1AH] → [nnH] → [F7H]

43H = YAMAHA ID

73H = SINGLE KEYBOARD ID

1AH = CLP-650 ID

nn = 15H: MULTI TIMBRE mode ON; nn = 13H: MULTI TIMBRE mode OFF

* In addition to model ID code [1AH], the standard ID code [01H] and Clavinova ID code [1BH] are also accepted.

7. BRILLIANCE, REVERB & EFFECT

Data format: [F0H] → [43H] → [73H] → [1AH] → [11H] → [0x] → [cc] → [dd] → [F7H]

43H = YAMAHA ID

73H = SINGLE KEYBOARD ID

1AH = CLP-650 ID

11H = BRILLIANCE/REVERB control confirm.

0x = Control MIDI Channel

cc	CONTROL	dd
58H	BRILLIANCE	00H = NORMAL 01H = MELLOW 02H = BRIGHT
59H	REVERB	00H = OFF 01H = PEDAL 02H = ROOM 03H = HALL 04H = COSMIC
5AH	EFFECT	00H = OFF 01H = PAN 02H = DETUNE 03H = DUAL 04H = TREMOLO

* In the MULTI TIMBRE mode BRILLIANCE can be set independently for each channel, while REVERB affects all voices and is received on the basic receive channel.

* All MIDI data available for general use are given above.

SPECIFICATIONS
TECHNISCHE DATEN
SPÉCIFICATIONS
ESPECIFICACIONES

- * Specifications subject to change without notice.
- * Änderungen ohne Vorankündigung vorbehalten.
- * Sous toute réserve de modification des caractéristiques sans préavis.
- * Especificaciones sujetas a cambio sin previo aviso.

CLP-650	
KEYBOARD	88 KEYS (A-1 ~ C7)
VOICE SELECTORS	PIANO 1/2, E.PIANO 1/2, HARPSICHORD 1/2, CELESTA, VIBES, GUITAR 1/2
REVERB	PEDAL, ROOM, HALL, COSMIC
EFFECTS	PAN, DETUNE, TREMOLO, DUAL
PEDAL CONTROLS	DAMPER, SOFT, SOSTENUTO
OTHER CONTROLS	MASTER VOLUME, BRILLIANCE, TRANSPOSER/MIDI
JACKS/CONNECTORS	HEADPHONES, AUX OUT L/R, OPTIONAL IN L/R, OPTIONAL OUT L/R, MIDI IN/OUT/THRU, PEDAL
INPUT & OUTPUT LEVEL/IMPEDANCE	AUX OUT: 600 Ω / -7 dBm OPTIONAL OUT: 600 Ω / 1 ~ 4 Vpp OPTIONAL IN: 22 k Ω / -10 dBm (for nominal output level)
MAIN AMPLIFIER	60 W (30 W \times 2)
SPEAKERS	13 cm (5-1/8") \times 2, 5 cm (1-8/9") \times 4
DIMENSIONS	1418 \times 467 \times 804 mm
WEIGHT	55 kg (121.2 lbs.)

YAMAHA [Clavinova]
 Model CLP-650 MIDI Implementation Chart

Date : 12/6, 1988
 Version : 1.0

Function	Transmitted	Recognized	Remarks
Basic Default	: 1	: 1	
Channel Changed	: 1-16	: 1-16	
Mode Default	: 3	: 1	
Mode Messages	: X	: OMNION, OMNIOFF	
	: *****	: X	
Note Number : True voice	: 21-108	: 21-108	
	: *****	: 21-108	
Velocity Note on	: 0 9nH, v=1-127	: 0 v=1-127	
Velocity Note off	: X 9nH, v=0	: X	
After Key's	: X	: X	
Touch Ch's	: X	: X	
Pitch Bender	: X	: X	
Control Change	07 : X	0 : 0	*1 : Volume
	64 : 0	0 : 0	: Damper
	66 : 0	0 : 0	: Sostenuto
	67 : 0	0 : 0	: Soft Pedal
Program Change : True #	: 0 0-9	: 0 0-9	
	: *****	: 0-9	
System Exclusive	: 0	: 0	
System : Song Pos	: X	: X	
System : Song Sel	: X	: X	
Common : Tune	: X	: X	
System : Clock	: X	: X	
Real Time:Commands	: X	: X	
Aux : Local ON/OFF	: X	: 0	
Aux : All Notes OFF	: X	: 0 (123-125) *2	
Mes- : Active Sense	: 0	: 0	
sages:Reset	: X	: X	
Notes : *1 = receive if multi-timbre mode is on			
Notes : *2 = receive (123) if omni off or multi-timbre on			

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO 0 : Yes
 Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO X : No

FCC INFORMATION (USA)

While the following statements are provided to comply with FCC Regulations in the United States, the corrective measures listed are applicable worldwide.

This series of Yamaha Clavinova uses frequencies that appear in the radio frequency range, and if installed in the immediate proximity of some types of audio or video devices within three meters (approximately ten feet), interference may occur.

This series of Yamaha Clavinova has been type-tested and found to comply with the specifications set for a class B computer in accordance with those specifications listed in sub-part J, part 15 of the FCC rules. These rules are designed to provide a reasonable measure of protection against such interference. However, this does not guarantee that interference will not occur.

If your Clavinova should be suspected of causing interference with other electronic devices, verification can be made by turning your Clavinova off and on. If the interference continues when your Clavinova is off, the Clavinova is not the source of the interference. If your Clavinova does appear to be the source of the interference, you should try to correct the situation by using one or more of the following measures:

- Relocate either the Clavinova or the electronic device that is being affected by the interference.
- Utilize power outlets for the Clavinova and the device being affected that are on different branch (circuit breaker or fuse) circuits, or install a/c line filters.
- In the case of radio-TV interference, relocate the antenna or, if the antenna lead-in is a 300 ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact a Yamaha dealer for suggestions and/or corrective measures, if you can not locate a Yamaha dealer in your general area, please contact the Service Division, Yamaha Corporation of America, 6600 Orangethorpe Ave., Buena Park, CA 90620, U.S.A.

If for any reason, you should need additional information relating to radio or TV interference, you may find a booklet prepared by the Federal Communications Commission helpful. "How to Identify and Resolve radio-TV Interference Problems." This booklet, Stock #004-000-00345-4, is available from the U.S. Government Printing Office, Washington D.C. 20402.

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

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