

YAMAHA

CP60M
ELECTRIC PIANO
OWNER'S MANUAL

ELECTRIC PIANO CP60M

Thank you for purchasing the Yamaha CP60M Electric Piano. Its compact design makes it equally suitable for your home or the stage, and it can easily be set up by one person. Also, the CP60M is the first electric piano to feature the Musical Instrument Digital Interface; MIDI, enabling you to control any MIDI-equipped synthesizer from the CP60M's true piano-action keyboard. This means that you can add exciting synthesizer sounds to the dynamic and natural sound of the CP60M.

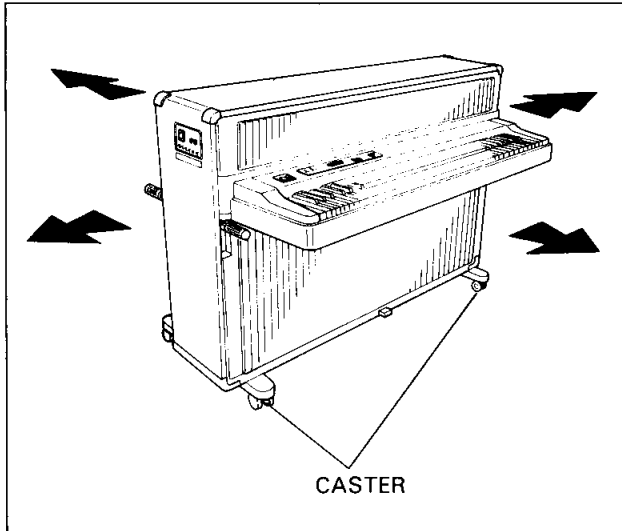
In addition, the CP60M comes equipped with a graphic equalizer to enhance the acoustic sound and provide tonal variation. With its tremolo system, external effect loop terminals, MIDI connector, etc., you will find the CP60M to be a great asset to your stage, studio or practice room. This manual describes the proper operation and care of the CP60M. To insure long and trouble-free operation, please read through this manual before setting up the piano.

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CAUTIONS

- ① So the piano will not tip over, always use it with the casters attached.

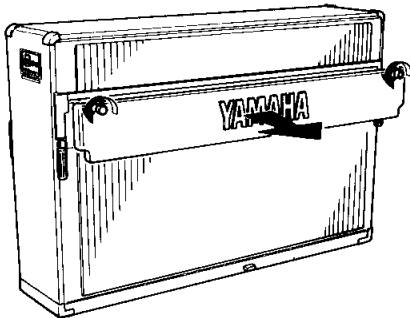


- ② The accompanying AC adaptor is especially designed for this instrument and is not interchangeable with other AC adaptors on the market. Use of other adaptors may result in damage to the internal Electrical circuit. Therefore, use only the AC adaptor designed for this instrument. If this instrument is used in another country, a special AC adaptor designed for the local voltage may be necessary.
- ③ This instrument is designed to operate with 16-20 volts DC. Never plug it directly into an AC outlet.

ASSEMBLY

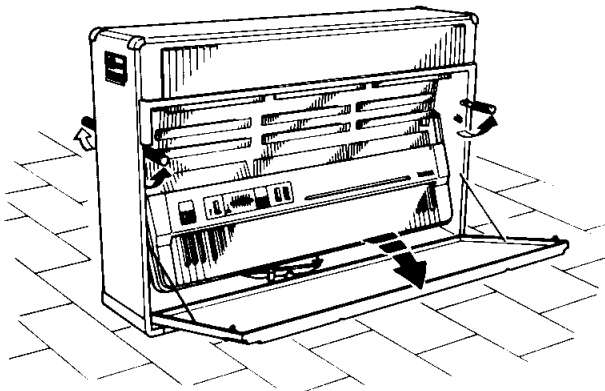
1 Removing the cover

Remove the cover by loosening the screws. Set aside the removed cover, or, you may fasten it to the rear panel (over the "Yamaha" plate). If you do, be careful that it does not rattle or vibrate.



2 Opening the front panel

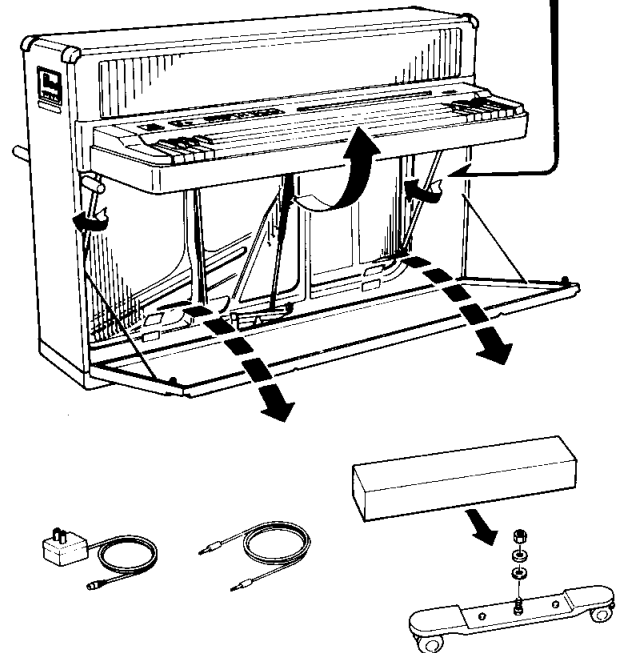
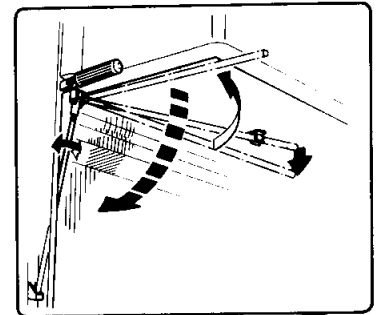
Raise the two front handles (left and right), and lower the front panel toward you.



3 Fastening the keyboard

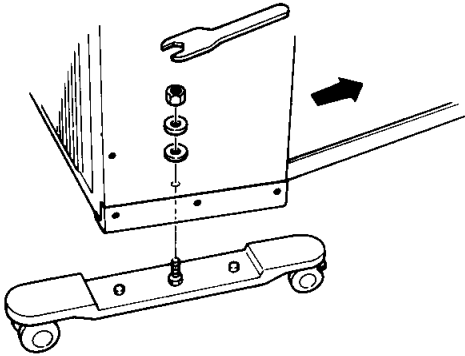
Slowly pull the keyboard to the upright position. On the underside of the keyboard, there are two keyboard arm stays (left and right) fastened in place. Unfasten these, and while lifting up the keyboard, slip the ends into the frame as shown in the diagram. Twist the arm stays (clockwise) until they have lengthened and locked the keyboard firmly in place. The casters, AC adaptor and connection cables are stored in the bottom of the case, so remove them.

- When packing up, remove the arm stays and fasten them in their holders. Then, slowly press the keyboard down into the case. If the opening stay piston becomes dirty, its function will be impaired, so please do not touch it with your hands.



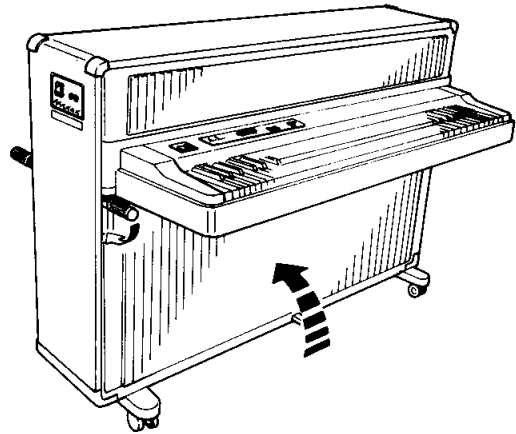
4 Attaching the casters

After raising the front panel, one person lifts the piano by the handles while another attaches the casters. Make sure that the caster with the stop is in front. When attaching the casters, you may find it easier if you use a temporary wood block inside the place of attachment. Since the caster unit has a stop for preventing unwanted movement, keep it in stopped position except when moving the instrument.



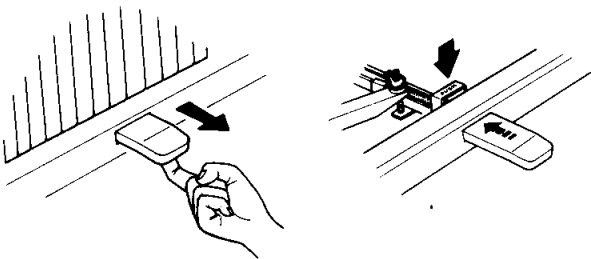
6

Pull the damper pedal out and it will lock in place. To retract the pedal for transportation, push down on the lever inside. If the pedal does not fully retract, push it in.



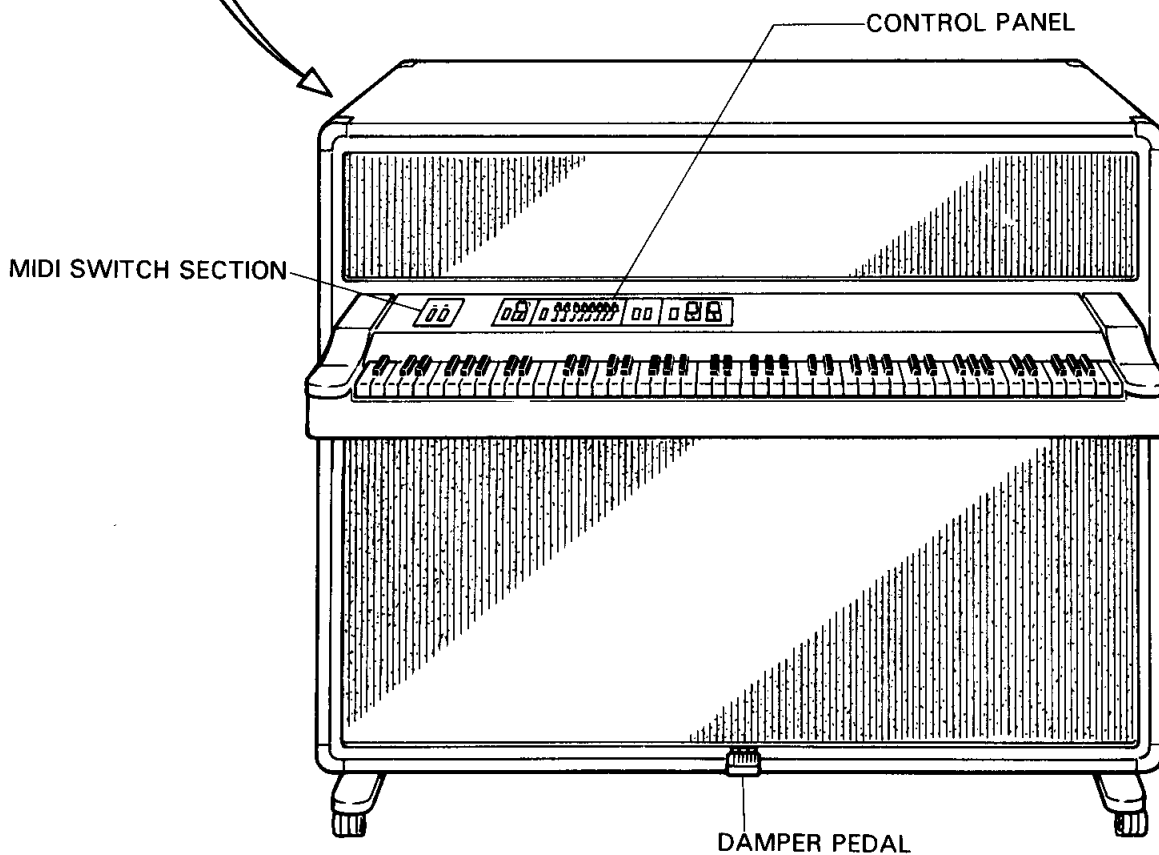
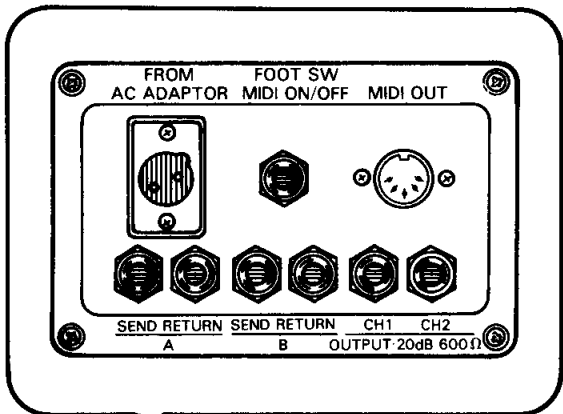
5

Raise and fasten the front panel, and fold down the handles.

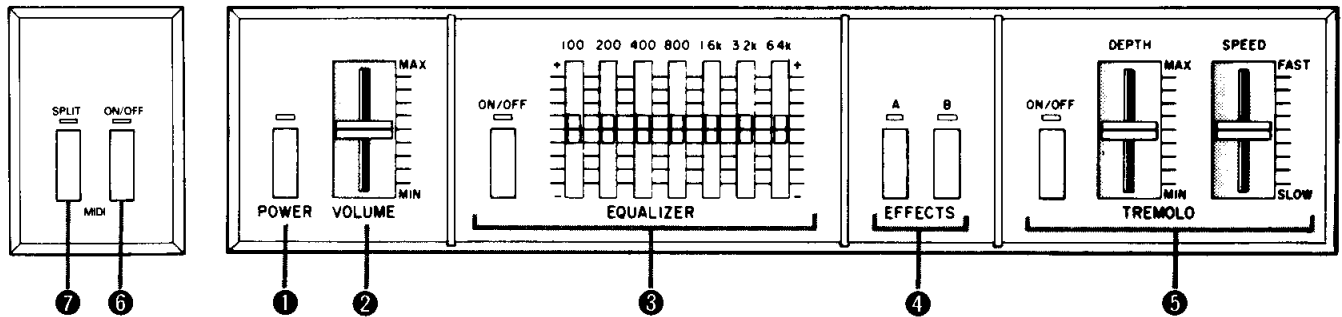


- When moving the instrument, always carry it by the handles. Also, make sure that the power switch is off and all cables are unplugged.

CONNECTING TERMINALS



CONTROL PANEL



① POWER

Power Switch.

② VOLUME

For volume control

③ EQUALIZER

Seven-band graphic equalize for a maximum variable pitch of ± 12 dB. Can be turned On or OFF with the switch. LED lamp lights when ON.

④ EFFECTS

When the switch is pushed, the effects connected to the SEND & RETURN terminals of the left panel will come ON. LED lamp lights when ON.

⑤ TREMOLO

By means of LFO, Tremolo provides amplitude variation with depth and speed control. Tremolo can be turned ON or OFF with the switch.

⑥ MIDI ON/OFF

Each time you press the ON/OFF switch, the ON/OFF LED will go on (MIDI ON) or off (MIDI OFF).

When MIDI ON, keyboard ON/OFF and sustain pedal ON/OFF information will be sent from MIDI OUT.

However, if you press MIDI ON while holding a key or the sustain pedal, that keyboard or sustain pedal information will not be sent. Also, if you press MIDI OFF holding a key or the sustain pedal, MIDI will turn off when you release the key or sustain pedal.

When you turn the power on, MIDI will be ON.

⑦ MIDI SPLIT

You may set a upper or lower keyboard limit to the MIDI signals sent from MIDI OUT.

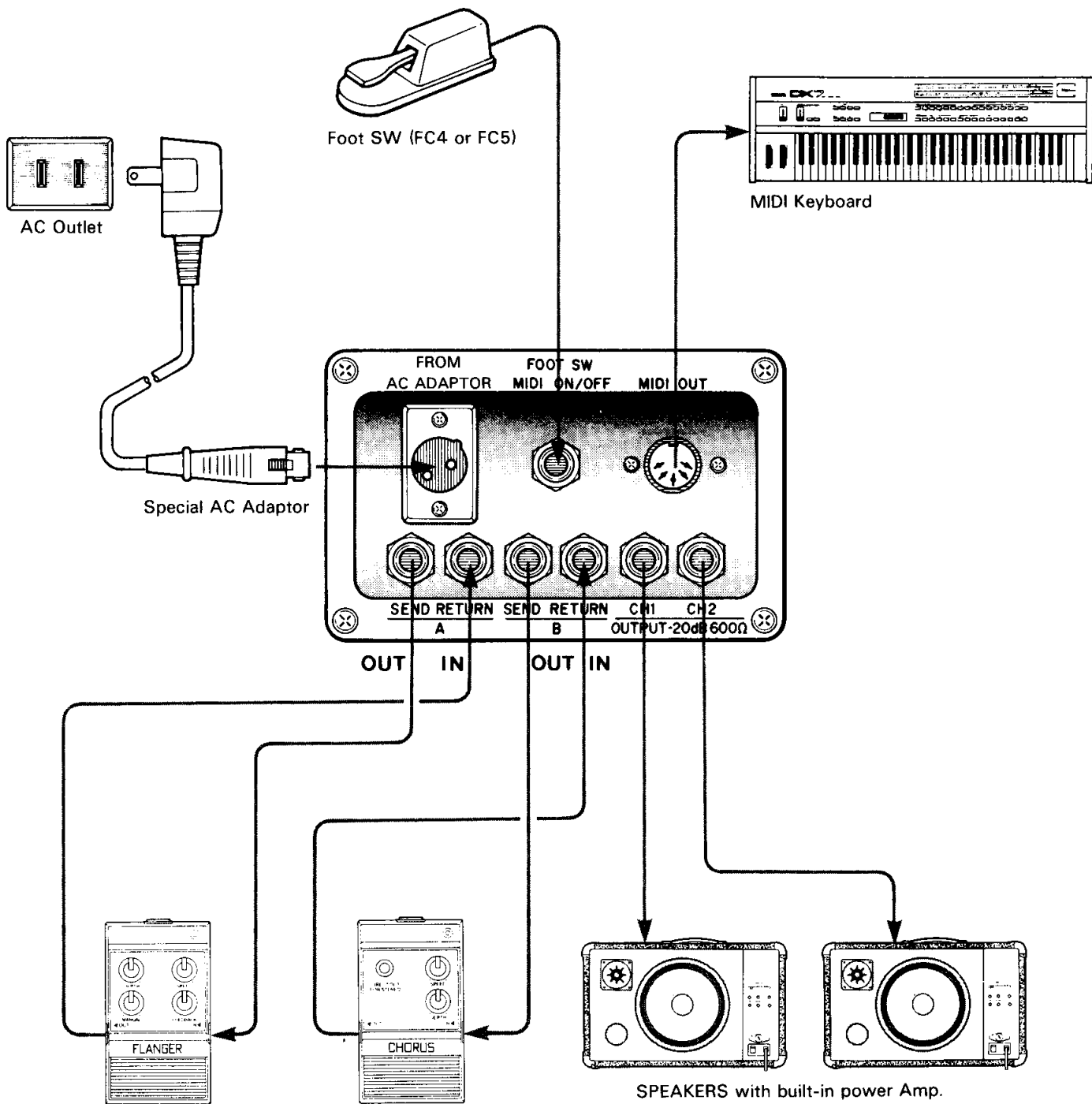
Each time you press the SPLIT switch, the SPLIT LED will alternate between ON (SPLIT ON) and OFF (SPLIT OFF).

When you press a key while holding down the SPLIT switch, that key will become the new split point. Next, if you press a key above (below) the split point, MIDI signals will be sent only for those keys above (below) the split point.

If you press only one key while holding down the SPLIT switch, only the split point will change, and whether the MIDI signals are sent for keys above or below the split point will not change.

When you turn the power on, SPLIT will be OFF.

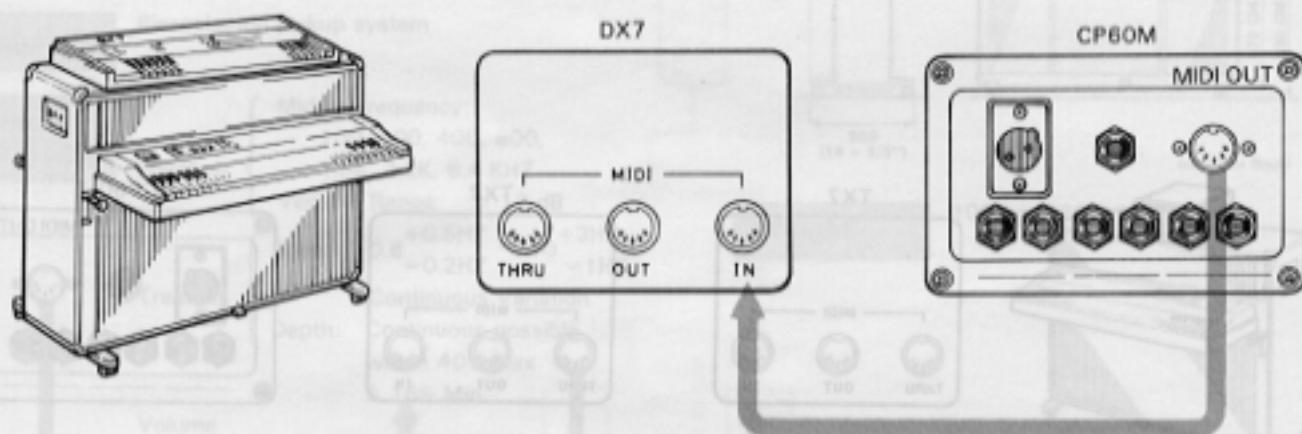
CONNECTION



EFFECTS

MIDI SYSTEMS WITH THE CP60M

The MIDI connector on the CP60M means that you can easily add the limitless tonal resources of a MIDI-equipped synthesizer to your electric piano sound, and play it from the piano keyboard. We will show some examples of MIDI systems built around the CP60M. First, here is a system using the YAMAHA DX7 Digital Programmable Algorithm Synthesizer. With a MIDI cable, connect the CP60M MIDI OUT to the DX7 MIDI IN, as shown in the diagram. Make sure that the DX7 power is turned on and it is connected to a suitable amp and speaker system.



CP + DX7

When the CP is first turned on, the MIDI SWITCH is on (see page 5), and every note you play on the CP will send a MIDI signal for that note out of the MIDI OUT jack. The DX7 receives this signal and produces a note corresponding to the one you played on the CP. Velocity data is also sent for each note, so if you play loudly on the CP (and the DX voice is touch sensitive), the DX will produce a loud note.

Since both the DX and CP will be heard together, you can creatively combine DX voices with the electric piano sound. Some DX voices you might want to try are an electric piano sound, vibes, etc. Also you can make a nice chorus effect by slightly changing the tuning of the DX7.

You can get another interesting sound by transposing the DX up or down a fifth or an octave.

CP + DX7 using MIDI SPLIT

When the CP is first turned on, MIDI SPLIT will be off. This means that every note you play on the CP will send out a MIDI signal. However, by using MIDI SPLIT, you can have only a certain part of the CP keyboard send MIDI signals.

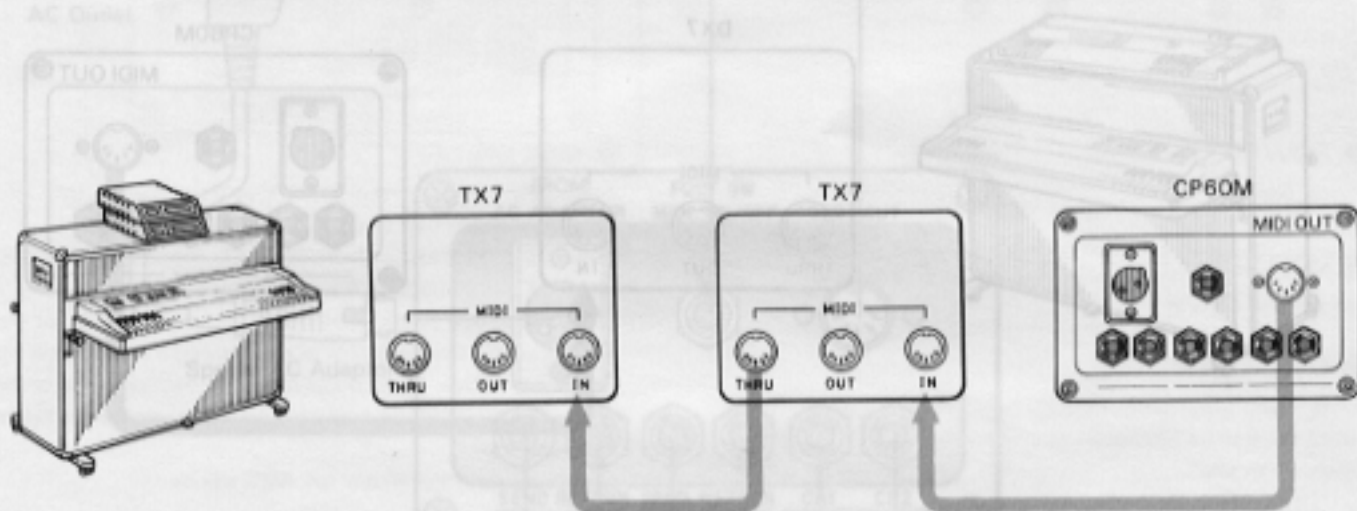
For instance, you can split the keyboard and add a resounding DX bass voice to only the lower octaves of the CP. (See page 5 for details on MIDI SPLIT). Notes you play above the split point will not produce sound from the DX.

Or, you can split the keyboard at a higher point and have MIDI output only for notes above the split point. Selecting a chime or vibe voice on the DX will add a beautiful sparkle to the high end of the CP. You can probably imagine many other combinations.

CP + two TX7s

Since the CP60M is a MIDI keyboard, you can complete a MIDI system simply by adding a MIDI tone generator unit such as the YAMAHA TX7 FM Expander. The TX7 without a keyboard. Here we will show a possible system using two TX7s.

Connect the MIDI terminals of the CP and TX7s as shown in the diagram. Signals sent from the CP to the first TX7 will be passed on unchanged to the second TX7 via MIDI THRU. So, both TXs are getting the same MIDI signals.



Turn MIDI SPLIT off. (See page 5.) Now, every key is sending MIDI signals. The TX7 has a function for setting high and low key limits. By using this, you can restrict each TX7 to only one section of the keyboard (see TX7 owner's manual). For example, try setting the first TX7 to produce sound for notes up to middle C, and set the second TX7 to produce sound for notes above middle C. By selecting different voices for each TX7, you can have a two-way keyboard split. Of course, you are not limited to using only two tone generators. Using MIDI THRU, you can daisy-chain together as many as you like.

Note; Using the CP's MIDI SPLIT and the TX7s key limit will result in "obvious" split points, ie, one note you have sound and the next note you don't. If you want to fade sounds in and out of keyboard areas more gradually, you can use the DX voice parameter Keyboard Level Scaling to change the operator output according to the keyboard area. See the DX7 manual for details.

Since the transmission channel of the CP is fixed on 1, it is necessary to set the reception channel of the receiver(s) to 1 or turn the OMNI MODE on if it can be selected (TX7 etc.).

SPECIFICATIONS

Keyboard

CP80M: 76 keys (E₁ - G₄)

Sound Production System

Striking action

Action

UP & Special Hammer

Pickups

Piezoelectric pickup system

Volume Control

Equalizer { Middle Frequency:
100, 200, 400, 800,
1.6K, 3.2K, 6.4 KHZ
Variable Range: ± 12 dB

Tremolo { Speed: $+0.5$ HZ ~ 10 $+3$ HZ
 -0.2 HZ -1 HZ
Continuous Variation
Depth: Continuous possible
within 40% Max.
& 15% Min.

Volume

Control Switch

POWER, EQUALIZER (ON/OFF)
EFFECT A, B, TREMOLO (ON/OFF)
MIDI ON/OFF
MIDI SPLIT
(All with LED)

Connecting Terminals

Send A, Send B Out (-20 dBm, 600Ω)
Return A, Return B In (-20 dBm, $100K\Omega$)
Phone Jack Out 2ch (-20 dBm, 600Ω , unbalanced)
MIDI OUT
FOOT SW (MIDI ON/OFF)

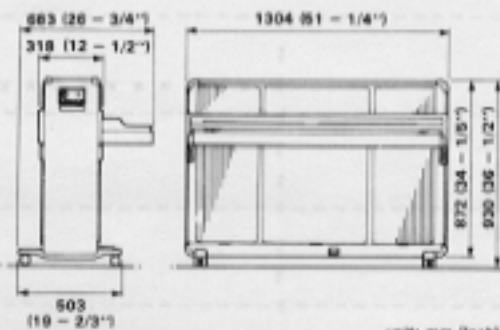
Rated Power Consumption

1.6 W (16 V, 100 mA DC)
(in case of the AC adaptor in use).

Accessories

- 1) Caster Unit x 2
- 2) Special AC Adaptor
- 3) Phone Jack Cord

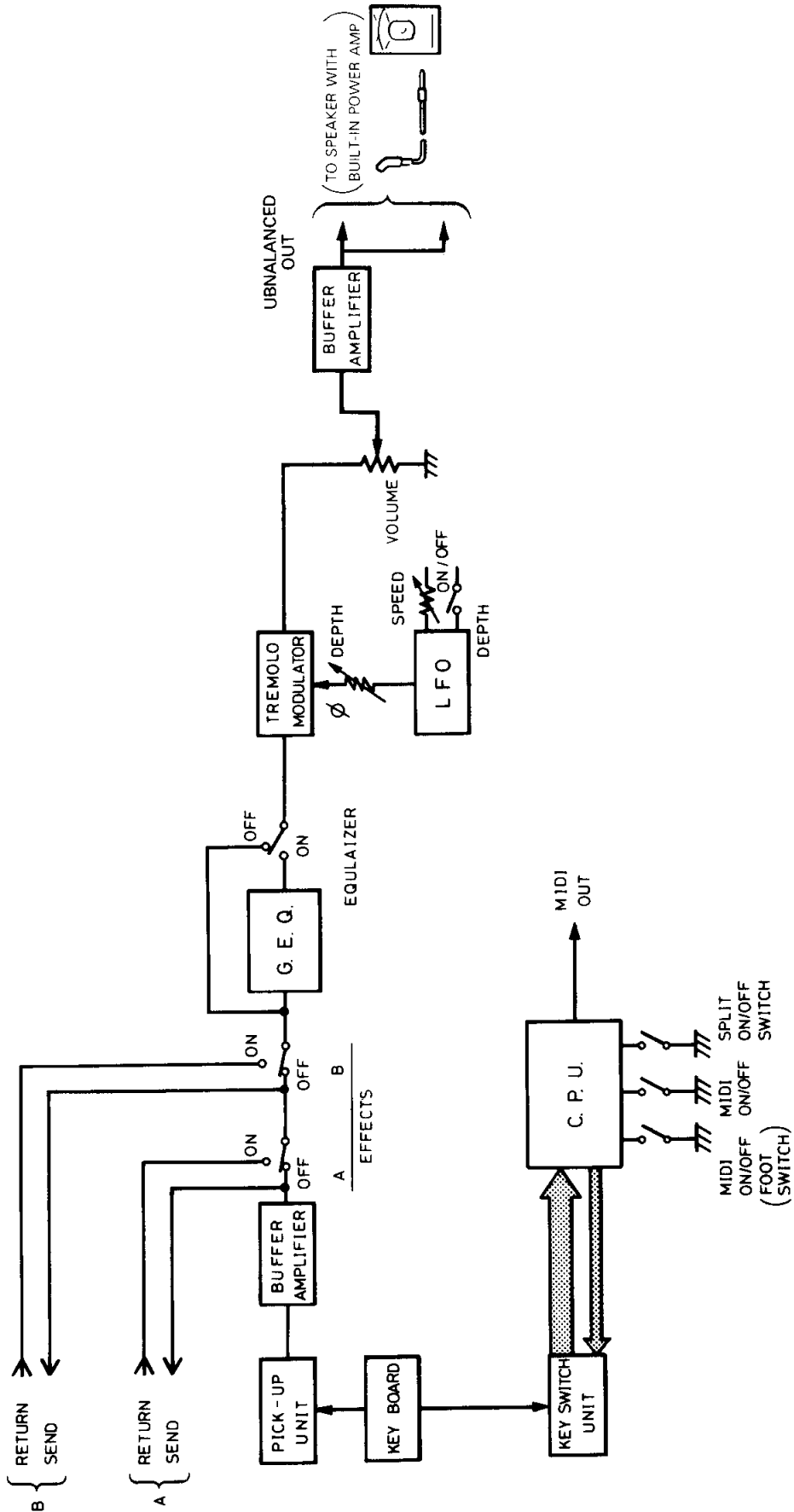
Dimensions



Weight

100 kg (220.5 lbs)

BLOCK DIAGRAM



Function ...	Transmitted	Remarks
Basic Default	: 1	
Channel Changed	: X	
Mode Default	: 3	
Mode Messages	: X	
Mode Altered	: *****	
Note Number : True voice	: 28-103 : *****	
Velocity Note ON	: O 90H, V=1-127	
Velocity Note OFF	: X 90H, V=0	
After Key's	: X	
Touch Ch's	: X	
Pitch Bender	: X	
	64 : V=0(off), V=127(on)	Sustain switch
Control Change		
Prog Change : True #	: X : *****	
System Exclusive	: X	
System : Song Pos	: X	
System : Song Sel	: X	
Common : Tune	: X	
System : Clock	: X	
Real Time : Commands	: X	
Aux : Local ON/OFF	: X	
Aux : All Notes OFF	: X	
Mes- : Active Sense	: O	
sages:Reset	: X	
Notes		

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

FCC CERTIFICATION (USA)

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

This series of Yamaha combo equipment 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), interference may occur. This series of Yamaha combo equipment has been type tested and found to comply with the specifications set for a class B computing device in accordance with those specifications listed in subpart J of 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 combo equipment should be suspected of causing interference with other electronic devices, verification can be made by turning your combo equipment off and on. If the interference continues when your equipment is off, the equipment is not the source of interference. If your equipment does appear to be the source of the interference, you should correct the situation by using one or more of the following measures:

Relocate either the equipment or the electronic device that is being affected by the interference. Utilize power outlets for the combo equipment and the device being affected that are on different branch (circuit breaker or fuse) circuits, or install AC line filters.

In the case of radio or TV interference, relocate the antenna or, if the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact your franchised Yamaha combo equipment dealer for suggestions and/or corrective measures. If you cannot locate a franchised Yamaha combo equipment dealer in your general area contact the Combo Service Department, Yamaha International, 6600 Orangethrope 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 is available from the U.S. Government Printing Office, Washington D.C. 20402 -- Stock No. 400-000-00345-4.

SERVICE

The CP60M supported by Yamaha's worldwide network of factory trained and qualified dealer service personnel. In the event of a problem, contact your nearest Yamaha dealer.

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