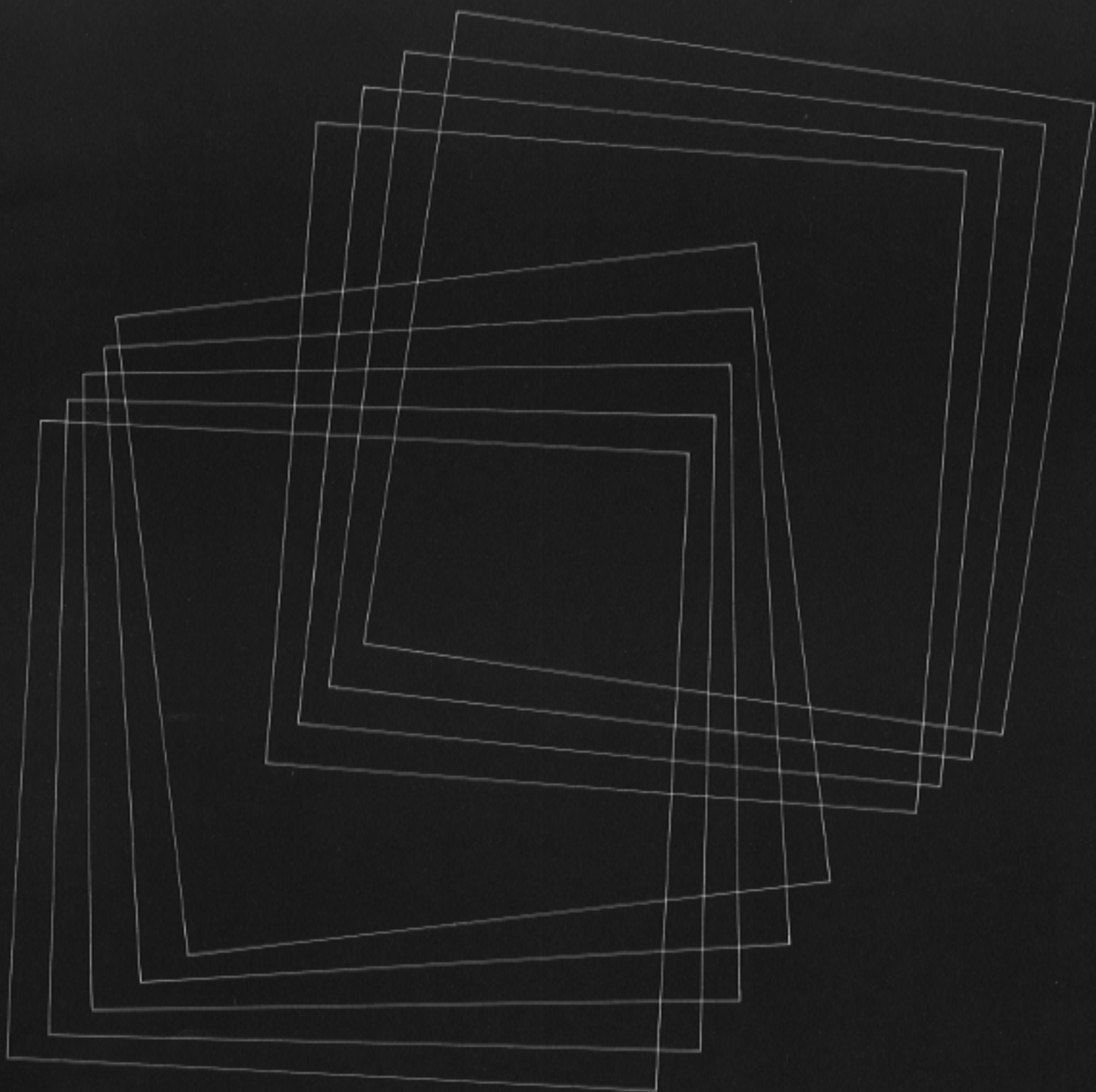


YAMAHA COMBO ENSEMBLE

CE25

OWNER'S MANUAL



Congratulations

Congratulations on becoming an owner of the Yamaha CE25 Combo Ensemble. Despite its light weight and compact size, the CE25 offers remarkably natural, "acoustic" sound through the use of advanced FM tone generator technology. The CE25 is ideal not only for the professional keyboard player, but also for use at home as the family keyboard. Please be sure to read this manual thoroughly in order to gain maximum performance and enjoyment from your CE25 Combo Ensemble.

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Precautions

LOCATION

Avoid placing your CE25 Combo Ensemble in direct sunlight or close to a source of heat. It is also important to avoid locations in which the instrument is likely to be subjected to vibration, excessive dust, cold or moisture. Be sure to unplug your CE25 Combo Ensemble if you will not be using it for an extended period of time.

HANDLING

Avoid applying excessive force to the instrument's knobs and switches.

POWER CORD

Always grip the power plug directly when unplugging. Removing the power plug from the wall socket by pulling on the power cord can result in damage to or shorting of the power cord.

Be sure to unplug your CE25 Combo Ensemble if you will not be using it for an extended period of time.

RELOCATION

When moving the CE25 Combo Ensemble once it has been set up, be sure to disconnect all cords that connect the instrument to other equipment. This will help to prevent accidental damage to or shorting of interconnection cables.

CONNECTION

Follow the "CONNECTION" instructions given in this manual carefully when setting up your CE25 Combo Ensemble. Connection errors can lead to serious damage to the instrument, amplifier and speakers.

CLEANING

Do not use solvents such as benzine or thinner to clean your CE25 Combo Ensemble, as these may cause discoloration or staining of the instrument's exterior. Use a soft, dry cloth.

SAVE THIS MANUAL

After studying this manual thoroughly, it should be stored in a safe place for future reference.

LIGHTNING

In the event of an electrical storm, the instrument's power cord should be unplugged to eliminate the possibility of serious damage.

OTHER APPLIANCES

Use your CE25 Combo Ensemble where its digital circuitry cannot be influenced by electromagnetic radiation from appliances such as televisions, radios, etc.



Connections

The CE25 Combo Ensemble does not have an internal power amplifier. An external amplifier/Speaker system must be used.

*No external amplifier is required for headphone operation.

Power Cord

Insert the CE25 power plug into the most convenient AC wall outlet.

* VOLTAGE SELECTOR (GENERAL MODEL ONLY)

- If your CE25 has a voltage selector on the bottom cover, check that it is set to your local voltage before plug in. If not properly set, turn the selector to the correct voltage indication.

External Amplifier/Speaker Systems

The CE25 can be connected to an external power amplifier and speaker system, an integrated keyboard amp/spaker, a mixer/PA system, or a stereo amplifier.

* Do not connect the CE25 to the microphone or phone inputs of a stereo amplifier or mixer.

① LINE OUT

Connection to an external amplifier is accomplished via the leftmost (LINE OUT) jack.

② HEADPHONES

A pair of headphones can be connected directly to this jack. Special monaural keyboard headphones or standard stereo headphones can be used.

Control Pedal Connection Jacks

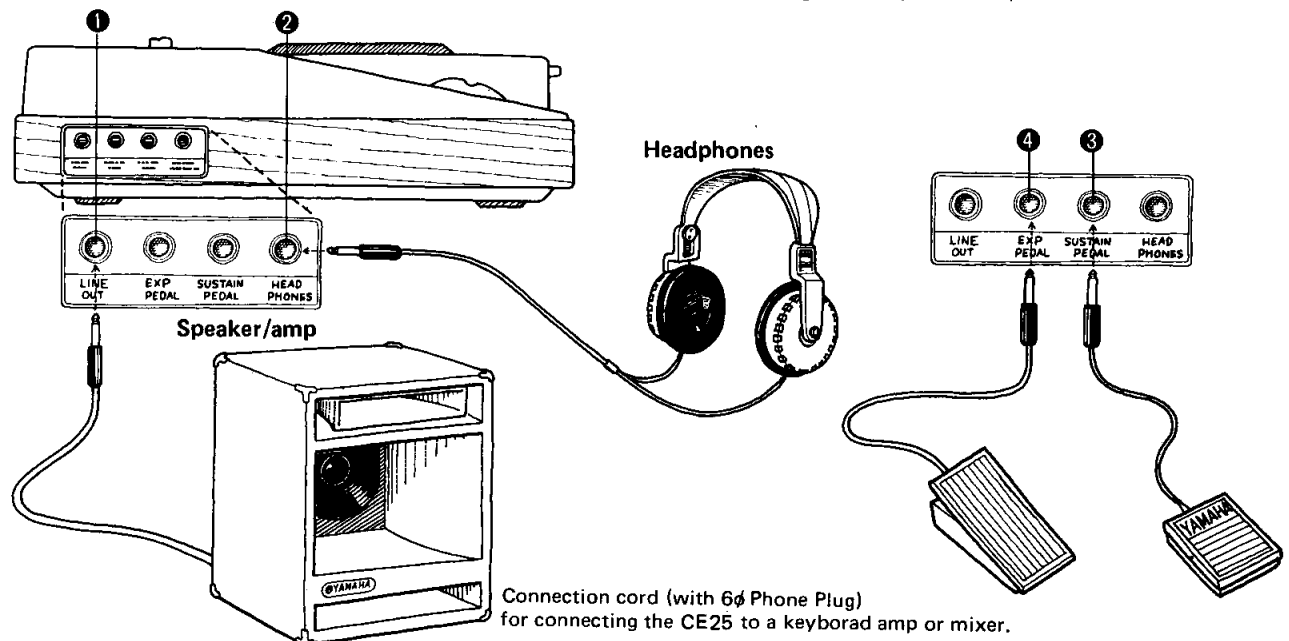
Expression and sustain control foot pedals (supplied) can be connected to these terminals for convenient foot control of volume and the sustain on/off function.

③ SUSTAIN PEDAL

The supplied sustain pedal is connected to this jack permitting foot on/off control of the CE25 sustain function.

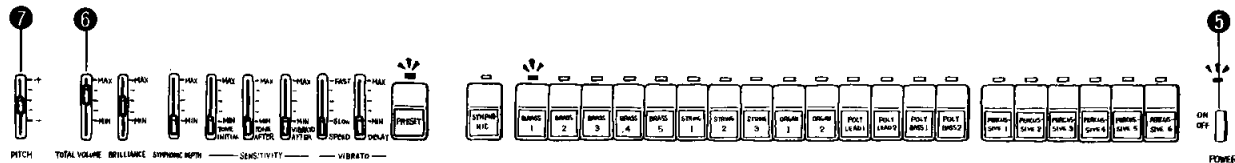
④ EXP PEDAL

The supplied expression pedal is connected to this jack permitting foot control of the overall CE25 volume. This permits smooth fade-in and fade-out, as well as general dynamic expression control.



Basic Operations

After making all required connections, double-check to make sure that there are no connection errors. If everything is OK, turn on the POWER switch try out your CE25.



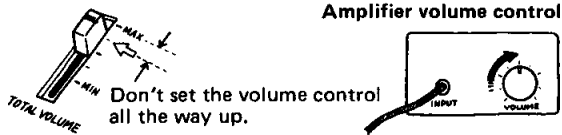
5 POWER

The POWER switch is located to the far right of the control panel. When you turn the power switch on, the three indicators shown in the illustration will light. These show that the BRASS 1 source is selected.

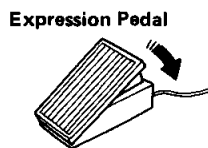
6 TOTAL VOLUME

Adjusts the overall volume of the CE25 sound.

- After the power switch has been turned on, raise the TOTAL VOLUME control and you should be able to play the CE25.
- Set the external amplifier/speaker volume control so that the most comfortable overall volume is obtained when the CE25 TOTAL VOLUME control is set to about "8".



- If the expression pedal is connected to its side-panel jack, you can use this pedal to control over-all volume. If the TOTAL VOLUME control is at its minimum setting, no sound will be heard even if the expression pedal is pressed. Conversely, if the expression pedal is set its minimum volume position, no sound will be heard even if the TOTAL VOLUME control is raised.



7 PITCH

This is the CE25 "tuning" control. Moving this lever towards the "+" end of the scale raises the overall pitch, while moving towards the "-" end of the scale lowers overall pitch. Control range is from 436 ± 2 to 447 ± 2 Hz (A3).

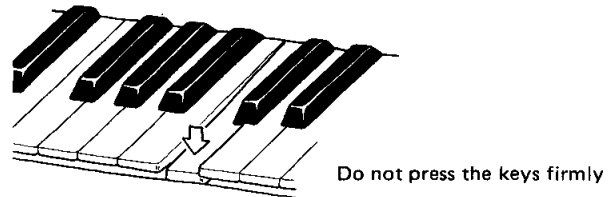
Keyboard

The CE25 keyboard covers 4 octaves with 49 keys. The overall range of the keyboard depends on the voice selected.

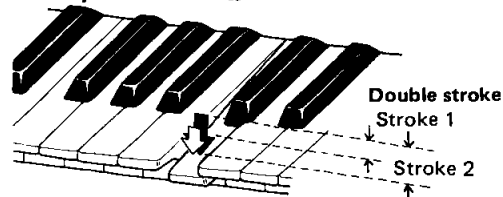
Double-Stroke Key

The CE25 keyboard action has two stages. If a key is pressed normally, it will stop at the first stage. If the same key is then pressed even further you will initiate the second stage. This double-stroke key feature gives the CE25 its unique touch response capability. Please refer to the Touch Response section of this manual for further details.

For soft passages

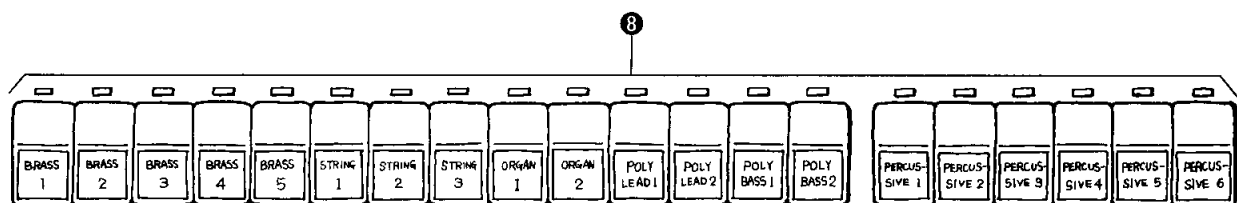


Add dynamic accents



Sound Variation

The CE25 Combo Ensemble offers 20 polyphonic voices that permit simultaneous output of up to 8 notes, any of which can be selected at the touch of a button. Thanks to highly advanced FM voice generation technology, all of the CE25's voices are exceptionally real and natural.



8 VOICE SELECTOR

These selectors permit instantaneous selection of 20 different voices : 5 brass voices, 3 string voices, 2 organ voices, 2 poly lead voices, 2 poly bass voices, and 6 percussive voices. The BRASS 1 voice is automatically selected when the power is initially turned on.

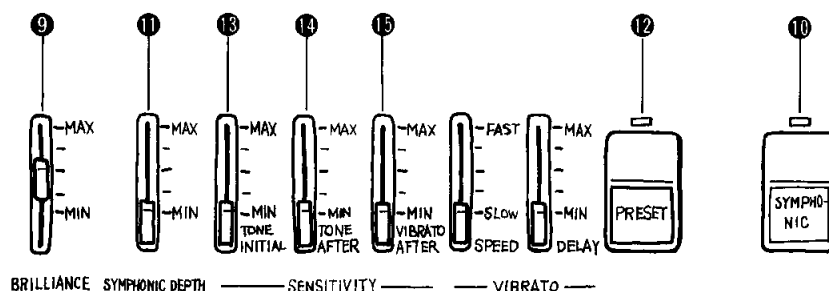
- When the STRING 1–3 or ORGAN 1 are selected, the SYMPHONIC effect is automatically activated. The SYMPHONIC effect can then be turned off by pressing the SYMPHONIC button.
- SYMPHONIC can be applied to the other voices by pressing the SYMPHONIC button ON.

■ FM TONE GENERATOR

- Any musical sound is composed of a periodic wave-form containing a number of frequency components, and the "spectrum" of the waveform indicates the relative strength or level of each individual frequency component making up the sound. Different sounds are made up of completely different spectrums. In other words, each musical sound is actually made up of a unique combination of many discreet frequencies.
- FM (frequency modulation) is familiar to most of us in the form of FM radio broadcasts. The vibrato effect in music is also actually a result of frequency modulation. The FM tone generator applies frequency modulation technology to the audible frequency range to generate music waveforms containing many discreet frequency components, the individual levels of which vary throughout the duration of a note. The result is remarkably "natural" sounds closely approach the timbre of conventional acoustic instruments.
- The FM tone generator has made it possible to create new, delicately natural voices that were un-attainable with prior technology (i. e. conventional synthesizers, electronic organs, etc.), offering considerably broadened expressive capability.

Touch Response

The CE25 Combo Ensemble offers an extensive array of effects that you can apply to the 20 voices provided to create your own sound.



9 BRILLIANCE

This control adjusts the overall tonality of all the CE25 voices. Setting this control towards the "MAX" end of the scale produces a brighter, crisper sound quality, while setting towards the "MIN" end of the scale creates a softer, rounder tonality.

10 SYMPHONIC

This effect creates a "thick," multi-instrument sound.

- THE SYMPHONIC effect is automatically turned on whenever the STRING 1-3 or ORGAN 1 are selected.

11 SYMPHONIC DEPTH

This control permits adjustment of the depth of the SYMPHONIC effect.

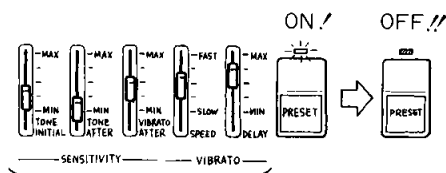
Vibrato & Touch Response

One of the most advanced features of the CE25 is its remarkable touch response capability. This function permits control over tonality, volume and vibrato depth according to the pressure applied to the instrument's keys. This means that the CE25 provides the same type of dynamic expression capability as an acoustic piano, and greater realism can be added to wind and string instrument sounds by appropriate variation of vibrato depth.

12 PRESET

"Normal" touch response and vibrato parameters have been preset into the CE25 by Yamaha music specialists. These parameters are activated by pressing the PRESET button, so you don't have to set the five touch response and vibrato parameter levers yourself to take advantage of their extensive expressive capabilities.

- The PRESET mode is automatically activated when the instrument is initially turned on.
- The five touch response (SENSITIVITY) and vibrato controls have no effect when the PRESET button is ON. If you wish to set up your own touch response and vibrato parameters, the PRESET button must be turned OFF.

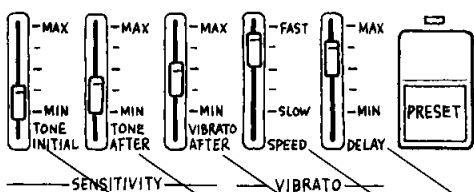


When the PRESET button is ON, these levers have no effect

PRESET must be OFF in order to use the SENSITIVITY controls

Preset Parameters

When the PRESET button is turned ON, the SENSITIVITY and VIBRATO parameters are set to the following relative values for each voice.



Voice	TONE INITIAL	TONE AFTER	VIBRATO AFTER	VIBRATO SPEED	VIBRATO DELAY
BRASS 1	4	5	0	1	2
BRASS 2	2	0	0	3	2
BRASS 3	6	7	0	3	0
BRASS 4	8	3	0	0	0
BRASS 5	8	3	0	1	0
STRING 1	4	5	0	0	0
STRING 2	6	7	0	1	2
STRING 3	6	7	0	1	3
ORGAN 1	6	0	0	2	0
ORGAN 2	8	5	0	1	0
POLY LEAD 1	8	7	0	1	0
POLY LEAD 2	8	5	10	3	0
POLY BASS 1	2	0	0	0	3
POLY BASS 2	6	0	0	1	3
PERCUSSIVE 1	4	0	0	1	3
PERCUSSIVE 2	4	0	0	1	0
PERCUSSIVE 3	6	0	0	1	0
PERCUSSIVE 4	8	0	0	3	0
PERCUSSIVE 5	4	0	0	0	3
PERCUSSIVE 6	4	0	0	0	0

* The number "10" indicates the highest control setting, while a "0" indicates the lowest control setting.

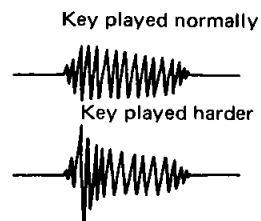
SENSITIVITY

These controls adjust the sensitivity of the touch response function. Setting these controls towards the "Max" end of their scales increases sensitivity resulting in a greater change in sound with lighter pressure.

13 TONE INITIAL

Adjusts the initial note attack. If this lever is moved towards the "MAX" end of the scale, a lighter key stroke produces a less prominent note attack while a heavier key stroke produces a stronger note attack.

TONE INITIAL effect



14 TONE AFTER

Adjusts the sound variation produced by key pressure variation after initial attack. If this lever is moved towards the "MAX" end of the scale, varying the pressure applied to a held key produces a larger variation in the sound.

- With voices that decay after initial attack—such as PERCUSSIVE 1~6—the setting of the TONE AFTER lever will have little effect.

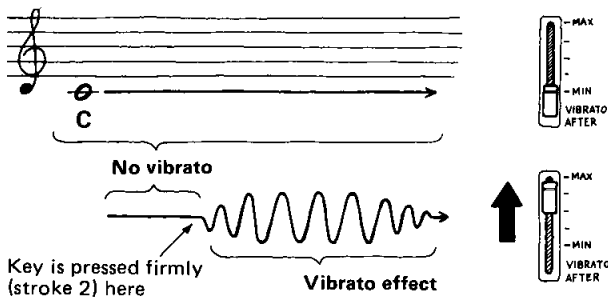
Modulation

15 VIBRATO AFTER

Adjusts the amount of variation in vibrato depth caused by varying key pressure. The speed of the vibrato effect is determined by the VIBRATO SPEED lever.

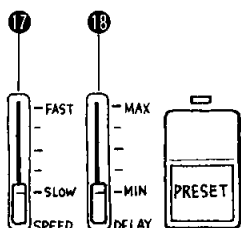
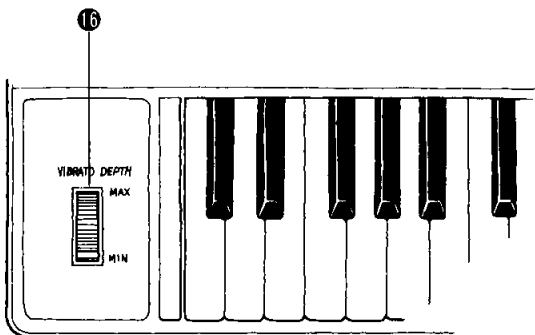
If this control is set towards the "MAX" end of the scale, increasing key pressure results in a corresponding increase in vibrato depth.

VIBRATO AFTER effect



VIBRATO

The vibrato effect can be applied according to pressure applied to the CE25's keys. Vibrato can also be used independently of the touch response feature using the following 3 controls.



16 VIBRATO DEPTH

Adjusts the depth of the vibrato effect. Moving this wheel towards "MAX" produces a deeper vibrato effect, while moving to "MIN" produces a shallower vibrato effect. Set all the way to "MIN" cancels the vibrato effect.

- VIBRATO DEPTH can be controlled even when the PRESET switch is on.

17 SPEED

Adjusts the speed of the vibrato effect. Setting towards the "FAST" end of the scale produces a faster vibrato effect. The speed control range is from approximately 4 to 10 Hz.

- The touch response vibrato speed is also adjusted using this lever.

18 DELAY

Adjusts the length of time it takes for the vibrato effect to be applied after a key has been pressed. This effect — known as delayed vibrato — creates an exceptionally realistic vibrato sound.

The further this control is set towards the "MAX" end of the scale, the longer it takes for the vibrato effect to be applied.

Specifications

Keyboard	49 keys, C2 ~ C6
Simultaneous Output Notes	8 Voices (first notes played)
Voice Selectors	BRASS 1, 2, 3, 4, 5 STRING 1, 2, 3 ORGAN 1, 2 POLY LEAD 1, 2 POLY BASS 1, 2 PERCUSSIVE 1, 2, 3, 4, 5, 6
Controls	PRESET switch SENSITIVITY : TONE INITIAL lever TONE AFTER lever VIBRATO AFTER lever VIBRATO : SPEED lever 4 ~ 10Hz DELAY lever VIBRATO DEPTH wheel SYMPHONIC switch SYMPHONIC DEPTH lever BRILLIANCE lever PITCH lever $436 \pm 2 \sim 447 \pm 2$ Hz (A3) TOTAL VOLUME lever
Jacks	LINE OUT : 600Ω , unbalanced HEADPHONES : $8 \sim 150 \Omega$ MONO (stereo headphones can be used) EXP. PEDAL : Expression Pedal FC-6 Connectable SUSTAIN PEDAL : Sustain Pedal FC-5 Connectable
Others	
Power Source	U. S. & Canadian Models : 120V, 60Hz General Model : 110, 130, 220 or 240V selectable 50/60Hz
Power Consumption	U. S. & Canadian Models : 30W General Model : 35W
Dimension (W x H x D)	33-1/8" x 3-3/8" x 11-5/8" (841 x 86 x 294 mm)
Weight	19 lbs. 12 oz. (9 kg)
Standard Accessories	Expression Pedal FC-6, Sustain Pedal FC-5, Music Stand, Top Cover

*Specifications are subject to change without notice.

Service

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO A QUALIFIED SERVICE PERSONNEL.

SERVICE

The CE25 is supported by Yamaha's worldwide network of qualified dealer service personnel. In the event of a problem, contact your nearest Yamaha dealer or authorized service center.

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