

 YAMAHA

# FS-300/FS-500

*YAMAHA ELECTONE®*



**FS-300/FS-500  
SPECIFICATIONS**

**KEYBOARDS**

Upper: 49 Keys (C<sub>2</sub>-C<sub>6</sub>)  
Lower: 49 Keys (C<sub>1</sub>-C<sub>5</sub>)  
Pedal: 13 Keys (C<sub>0</sub>-C<sub>1</sub>)  
Solo: 37 Keys (C<sub>3</sub>-C<sub>6</sub>) (FS-500 Only)

**VOICE SECTIONS**

**Upper Keyboard**

Combination Section  
Combination Lever, Memory 1, 2, 3, Preset 1, 2, 3, 4, Volume  
Orchestra Section  
Strings 1, 2, 3, Brass 1, 2, Reed 1, 2, Vocal, Spice 1, 2, Preset Vibrato, Touch Tone, Volume  
Special Preset Section  
Piano, Harpsichord, Celesta, Vibraphone, Marimba, Mandolin, Banjo, Jazz Guitar, Brass 1, 2, Cosmic, Touch Tone, Volume

**Upper/Lower Keyboard**

Custom Voice Section  
Flute, Oboe, Clarinet, Saxophone, Trumpet, Trombone, Violin, Jazz Guitar, Cosmic 1, 2, 3, Preset Vibrato, Touch Tone, Volume

**Lower Keyboard**

Combination Section  
Combination Lever, Memory 1, 2, 3, Preset 1, 2, 3, 4, Volume  
Orchestra Section  
Strings 1, 2, Brass 1, 2, Reed, Vocal 1, 2, Spice, Preset Vibrato, Touch Tone, Volume

**Special Preset Section**

Piano, Electric Piano, Harpsichord, Harp, Acoustic Guitar, Jazz Guitar, Brass 1, 2, Cosmic, Touch Tone, Volume

**Pedal Keyboard**

Combination Section  
Combination Lever, Memory, Preset 1, 2, Volume  
Custom Voice Section  
Contra Bass 1, 2, 3, Tuba, Electric Bass 1, 2, 3, Cosmic, Brilliance, Volume

**ENSEMBLE SECTION**

Upper Combination, Upper Orchestra, Upper Special, Upper Custom, Lower Combination, Lower Orchestra, Lower Special, Lower Custom

**SOLO KEYBOARD SECTION**

**(FS-500 ONLY)**

**Tone Selectors**

Piccolo, Flute, Oboe, Clarinet, Saxophone, Trumpet 1, 2, Horn, Trombone, Violin, Jazz Guitar, Harmonica, Cosmic 1, 2

**Other Selectors**

Transposition (Down, Normal, Up), Preset Vibrato, Touch Vibrato, Touch Tone, Coupler (Solo To Upper)

**Controls**

Slide, Detune, Brilliance, Volume

**PRESET PANEL**

**Vibrato**

Indicators: Solo (FS-500), Upper Orchestra, Upper/Lower Custom, Lower Orchestra, Pedals  
Controls: Touch Depth, Delay, Depth, Speed  
Selectors: Set, Lever, Player, Preset

**Tone Levers (Combination Section)**

Upper Flute: 16', 8', 5-1/3', 4', 2-2/3', 2', 1'  
Upper Attack: 4', 2-2/3', 2', Length  
Lower Flute: 8', 4', 2-2/3', 2'  
Bass: 16', 8'  
Selectors: Program Set, Flute Response (Fast), Timbre Variation  
Rhythm Sequence Programmer: On, Record, Blank, End, Back, Forward

**EFFECTS**

Reverb, Sustain (Upper, Lower, Pedal; U & L Knee Lever Control), Glide, Symphonic Chorus & Celeste (Upper Combination, Upper Orchestra, Lower Combination, Lower Orchestra), Tremolo & Chorus (Upper Combination, Upper Orchestra, Lower Combination, Lower Orchestra), Tremolo Speed

**AUTO RHYTHM SECTION**

Rhythm Selectors: March, Waltz, Ballad, Swing, Bounce, Slow Rock, 8 Beat 1, 2, Tango, Latin 1, 2, Bossanova, Samba, Latin Rock, Disco, 16 Beat,

Variation 1, 2, 3, 4

Auto Variation Selectors: Normal, 4 Bar, 8 Bar, 16 Bar

Break Variation Selectors (Controllable With Foot Switch): On, 1, 2, 3

Rhythm Sequence Programmer: Program 1, 2, 3, 4 (Other Controls On Preset Panel)

Others: Start, Synchro Start, Tempo, Volume, Balance, Digital Display (Tempo/Bar•Beat), Tempo Light

**AUTO BASS CHORD SECTION**

Normal, Single Finger Chord, Fingered Chord, Custom, Lower Memory, Pedal Memory, Multi-Bass Normal, 1, 2, 3

**RHYTHMIC CHORD SECTION**

Section 1: Piano, Jazz Guitar, Solid Guitar, Phaser, Volume  
Section 2: Brass, Jazz Guitar, Solid Guitar, Phaser, Volume

**AUTO ARPEGGIO SECTION**

Patterns 1, 2, 3, 4, 5, 6, 7, 8, Piano, Harpsichord, Strings, Harp, Volume

**PLAY ASSIST SECTION**

(Controllable With Knee Lever) Upper Combination, Upper Orchestra, Upper Special, Melody-on-Chord 1, Melody-on-Chord 2, Duet, Counter Melody, Key Set

**REGISTRATION MEMORY SECTION**

Memory, Cancel, Memory Selectors 1, 2, 3, 4, 5, 6, 7, 8, Disable, Reset, Slider Drive

**REGISTRATION PACK SECTION**

Selectors: Read, Confirm, Write Indicators: Memory Ready, Error

**OTHER CONTROLS**

Master Volume, Power Switch, Manual Balance, Foot Switch Selectors (Glide, Rhythm Stop, Break Variation), Expression Pedal, Panel Light, Knee Lever, Pitch

**OTHER FITTINGS**

Headphone Jack (Stereo), AUX OUT (Left/Right) Jacks, AUX IN (Left/Right) Jacks, EXP. IN Jack, Tone Cabinet Sockets (Yamaha, Leslie), Remote, Lockable Roll-Top Fallboard, Music Rest, Matching Bench, Registration Pack

**SOUND SYSTEM**

Power Amplifier Speakers (RMS)

Center Channel: 90W 12" (Enclosed Type), 8", 2"

Right Channel: 60W 8", 2"

Left Channel: 60W 8", 2"

**DIMENSIONS**

	Cabinet	Bench
Width: FS-300	46-1/2"	30-1/2"
FS-500	46-3/4"	
Depth: FS-300	26-1/2"	14"
FS-500	29-1/2"	
Height: FS-300	41"	22"
FS-500	42-1/2"	

**WEIGHT**

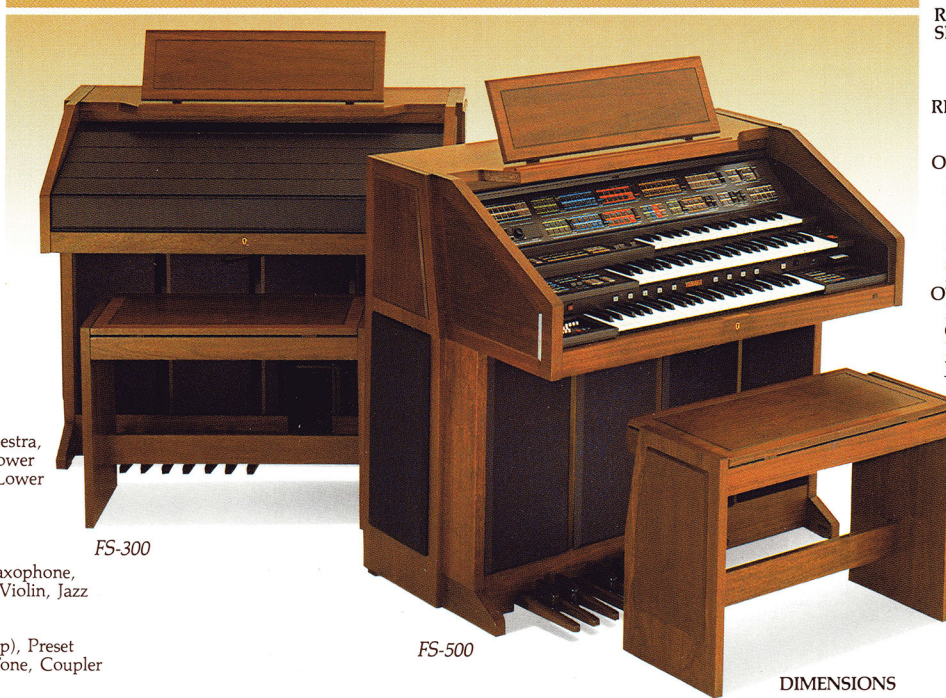
FS-300 305 lbs.  
FS-500 334 lbs.  
Bench 31 lbs.

**CABINETRY**

Real American Walnut Veneer With Selected Solid Hardwood Components

**FINISH**

American Walnut



FS-300

FS-500

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For details please contact:

**ELECTONE... THE BEST-SELLING ORGAN IN THE WORLD TODAY**



SINCE 1887

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## Revolutionary spinet performance...the new Yamaha FS-300/500 will change forever your perception of the organ.

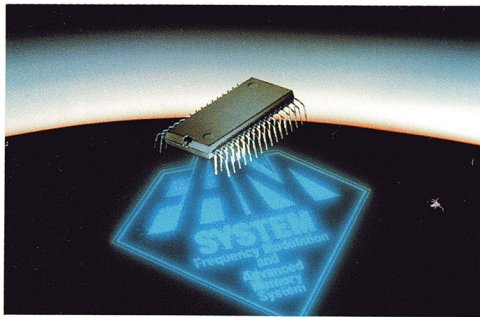
With the all-new Electone FS-300 and FS-500, Yamaha has reached the outer limits of exciting new sound technologies, and has placed them at the disposal of today's organists. Never before has the organ featured such an amazing wealth of astonishingly realistic voices. Never before has the organ offered such a wide range of musical expressiveness—from

the newly developed touch-sensitive keyboard to the only *total* Registration Memory System in existence, the FS-300 and FS-500 set new standards for the industry to follow. These dazzling new models are the world's first spinet organs to feature the unparalleled sound reproduction of FM tone generation technology. In addition, that incredible

advancement has been linked to other equally impressive developments in sonic performance. The results have to be heard to be believed. But once they are, there will be little doubt in your mind—that the new FS-300 and FS-500 spinet Electone models are light years ahead of all other home keyboard products.



FS-300



**Yamaha's breakthrough FAM System is the key** Featuring Yamaha's newly developed FAM System—which stands for Frequency Modulation and Advanced Memory, and is essentially an integration of various state-of-the-art technologies — the FS-300 and FS-500 represent a complete breakthrough in reproducing instrumental sounds. More than 100 FM tone generators are employed to achieve precise control of complex harmonics and tonal colors, providing you with "living" sound. Just as actual acoustic instruments change timbre according to the volume and duration of

notes, so do the voices on the new Electone FS Series. Similarly, Yamaha employs its own FWM (Full Wave Memory) technology to bring percussive and drum sounds to life in an unprecedented manner. Actual percussion sounds were originally recorded in a studio, and are reproduced digitally by the rhythm section. To complement this amazing authenticity, Yamaha has designed equally impressive amplification and speaker systems (three channels providing a total of 210 watts RMS through seven speakers, including a 12" enclosed woofer).



**FS-500**

The FS-300 and FS-500 are revolutionary instruments in every sense of the word. Even the Auto Rhythm unit has been completely redesigned to offer unprecedented fidelity, unrivalled realism. In this case, the technology is called Full Wave Memory (FWM) which faithfully reproduces drum sounds as never before. The percussive sounds you hear, the cymbals, the high-hats, the tomtoms, the snare drum and so on, *are* the real thing—not a synthesized “second cousin” as found on most conventional units. Just listen and you’ll easily appreciate the difference.



# High-Tech Rhythm Section

## 64 INCREDIBLE RHYTHMS

Versatility and authenticity are at the heart of this new rhythm unit. Every rhythm you could possibly want is available—from conventional Tango, Waltz, March, Bossanova, and Rock rhythms to 16 Beat and Disco, complete with Handclap. And any of the 16 basic beats can be altered in four distinctly different patterns, giving you 64 rhythms overall. Rhythm tempo, beats to the bar, and number of bars are all clearly displayed on an easy-to-read digital display. Synchro Start and regular Start selectors are provided, as is a sliding Balance control to let you highlight various percussive sounds, and a Foot Switch for starting or stopping the rhythm.

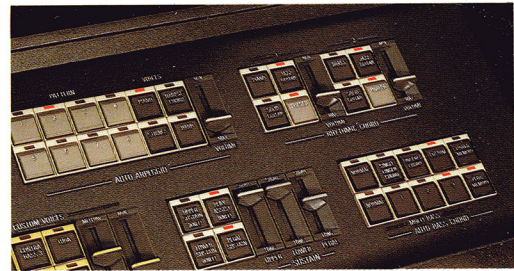
## BREAK VARIATIONS

Further realism is provided by the Break Variations, which let you obtain drum intros or fill-ins. Each of the rhythms comes with three carefully rendered drum breaks, making 48 incredibly authentic “riffs” in all. You can insert the breaks into your music either manually or by using the Foot Switch, or have them automatically added every 4, 8, or 16 bars.

## RHYTHM SEQUENCE PROGRAMMER

The rhythm unit also includes a Rhythm Sequence Programmer which memorizes up to 256 bars of rhythm information, including breaks. It’s simple to use and leaves you entirely free to concentrate on your upper and lower keyboard performance. Now you can preprogram the drum parts for an entire piece of music and instantly recall them at a later time. And when a program finishes, it will automatically repeat for extended play. Moreover, a digital display visually indicates precisely how many bars have been programmed or played back.

The FS-300 and FS-500 include Yamaha’s world famous *Auto Bass Chord System*, a system that greatly enhances the player’s creative freedom. With it you can obtain chords together with bass and rhythm accompaniment using only a few simple techniques. The Memory leaves you free



# Professional Aids & Effects

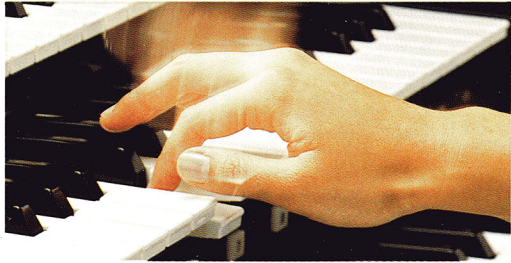
to use both hands to pursue more complex melody and counter-melody playing, and a highly advanced Multi-Bass feature lets you choose from at least four different automatic bass patterns for each of the 16 rhythms. In the *Rhythmic Chord* section you can choose from two independent sections, each of which contains three of four possible instruments (Piano, Jazz Guitar, Solid Guitar or Brass), and an electronic Phaser effect. A *Play Assist* section automatically adds harmonies to single-note melodies. Choose from Melody-on-Chord 1 or 2, Counter Melody, or the incredibly sophisticated Duet. Another automatic playing aid is the *Arpeggio* section, which gives you a choice of eight beautiful arpeggio patterns, specifically designed for each rhythm, which can be played by one of four available voices (Harp, Strings, Piano, or Harpsichord).

To embellish your playing even further, Yamaha has included a variety of special creative effects. For instance, the *Preset Vibrato* function is perhaps the most versatile of its type in the world, letting you individually apply vibrato depth, speed, and delay to *each* of the voices. To obtain the truly natural sound of a real-life symphony orchestra, you can use the *Symphonic Chorus* and *Celeste* effects, which can be applied to any one or all of the Upper and Lower Combination and Orchestra sections.

Among the other fine features offered by the Electone FS Series are: *Tremolo* and *Tremolo Chorus*, *Sustain*, *Attack*, *Flute Response*, *Timbre Variation*, *Glide*, *Manual Balance*, *Pitch Control*, and various jacks for connecting headphones and other electronic equipment.



One reason why Yamaha is the best-selling organ in the world today is due to Yamaha's ability to consistently come up with meaningful innovations in technology. There is no better example of this than the newly introduced touch-sensitive keyboards ... perhaps the most exciting development ever in the history of the modern organ. Now, for the first time, the performer can use the keyboard itself to texture voices in terms of volume, tonality and vibrato, which, when combined with the FAM technology, enables a realism never before possible.



#### TOUCH TONE

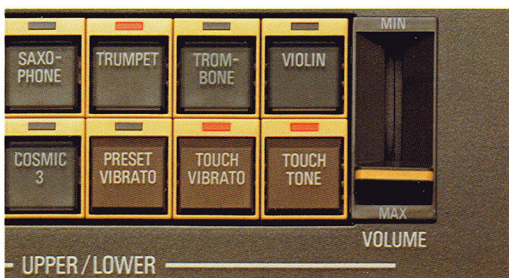
Touch Tone marks the beginning of an exciting new era of creative playing freedom. With it, finger pressure on the keyboard not only controls the timbre of the voice you have selected, but its volume as well. Keyboard response is calibrated through about 200 gradations, allowing the player incredibly precise use of this sensational upper, lower, and solo (FS-500) keyboard effect.

## Touch-Sensitive Keys

The more pressure you apply to the keyboard the more brilliant the timbre *and* the louder the volume. Moreover, Yamaha has independently calculated the degree of Touch Tone for *each* of the Orchestra, Custom Voice, Special Preset, and Solo Keyboard (FS-500) instruments. Thus, Touch Tone is distinctly different for, say, Piano and Brass voices, enabling a great variety of tonal contrasts to be attained. By being the first in the world to change the organ keyboard from static to active status, Yamaha has opened the door to an entirely new dimension of organ performance—a dimension that is sure to challenge and satisfy both the novice and the discriminating organist as well.

#### TOUCH VIBRATO

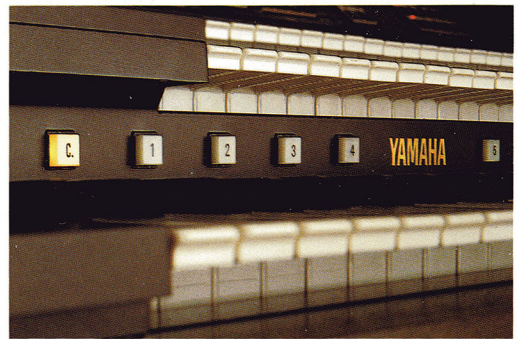
The Electone FS Series is also equipped with Touch Vibrato for use with the Upper/Lower Custom Voices and the FS-500's solo keyboard. The amount of pressure on the keys determines the depth of the Vibrato; the harder you press down, the greater the Vibrato intensity. You can also introduce a Delay effect by varying the pressure of your fingers on the keyboard. Since the Vibrato effect can be adjusted to suit *each individual voice*, highly realistic instrumental sounds can easily be created.



Yamaha's full Registration Memory System is the first of its kind in the world. With it, you need only to press the Memory button together with any one of the eight selectors located between the upper and lower keyboards and this system will automatically memorize every piece of information on the entire instrument panel at any given moment. Not only all of the voices and effects, but also the *precise* position of each of the sliding controls, and the automatic features as well... everything! When you change from one selector to another to recall a registration, all of the controls change in whisper-quiet fashion to precisely display the memorized registration so you can actually *see* the registration that you have recalled. What's more, you can easily change any of these registrations during your performance.

## Total Registration Memory

Other selectors extend the flexibility of this fantastic feature. Disable, for instance, lets you change all of the registrations except for the automatic functions—ensuring rhythmic continuity



while you change instrument sounds during a selection. Slider Drive, which is for recording purposes, eliminates the mechanical movement of the sliding controls to prevent electrical noise. Reset instantly returns all controls to a "neutral" position.

#### REGISTRATION PACK SYSTEM

Yamaha's Registration Pack System makes this revolutionary Registration Memory System even *more* versatile. One computer-like Registration Pack can store *all* the information filed on each of the eight memory selectors. Easy to use, the optional Registration Packs greatly expand your playing flexibility; they can be used to pre-register as many registrations as you like prior to a performance, or you can exchange them with friends having similar Yamaha Electone models.





FS-300

# Voice Versatility

The new Electone FS Series offers unparalleled sound authenticity, creative flexibility, and ease of operation. Every instrument in the voice sections—Combination, Orchestra, Special Presets, and Custom Voices—is instantly available with a feather-light touch of a button. Further, each of these voices has appropriate effects such as vibrato, sustain, attack and Symphonic Chorus built in (these effects can be adjusted, too), which are automatically obtained when a voice is selected. The Ensemble section acts as a master control center, letting you quickly and easily change or mix the different voice sections.

between. Even Attack, Timbre, and Response effects can be added as you like. The Combination Lever selector provides access to the existing tone lever settings on the Preset Panel, giving you a total of four possible player-set flute combinations for the upper and lower keyboards.

## ORCHESTRA VOICES

Comprised mainly of String and Brass voicings, the polyphonic Orchestra voices can be used on the upper and lower keyboards either on their

own or beautifully blended with other voice sections. There is also the realistic "female" Vocal sound on the upper keyboard and two types of "male" Vocal sounds on the lower keyboard, as well as some special "Spice" sounds. Preset Vibrato, Touch Tone, and a sliding Volume control allow you to tailor each instrument to suit your taste.

## SPECIAL PRESET VOICES

The majority of the Special Presets for the upper and lower keyboards are percussive instruments or instruments that must be either plucked or struck to be played. When used with the responsive Touch Tone effect, these instruments offer unsurpassed realism. A twin-mallet effect can be obtained for the Marimba and a double-picking effect for the Mandolin.

tailored precisely to taste on either the upper or lower keyboard. Many solo voices can be found there, ranging from Flute to Violin and Jazz Guitar. In addition, there are also three exciting

space-age Cosmic sounds. The Custom Voices for the pedal keyboard consist of three types of Contra Bass, three types of Electric Bass, Tuba, and Cosmic.

## THE SUPER SOUNDS OF THE SOLO KEYBOARD (FS-500)

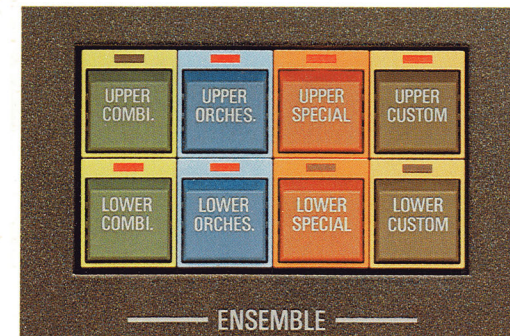
The solo keyboard on the FS-500 is like an instrument within an instrument, offering a

full variety of 14 dynamic, incredibly authentic voices plus a formidable range of effects.

Choose from Piccolo, Flute, two types of Trumpet, Horn, Clarinet, Violin, or Trombone, or convert your solo sounds into a beautiful Jazz Guitar, Harmonica, Oboe, Saxophone, or one of the two "Cosmic" sounds. Each is carefully rendered for unsurpassed sound authenticity. The 37-note solo keyboard also comes with a variety of effects such as: Transposition to raise or lower the keyboard one octave, Detune to heighten voice realism, a sliding Volume control to blend in or feature solo voices as you like, and, of course, the magic of the revolutionary Touch Tone and Touch Vibrato effects. A sliding Brilliance control lets you adjust the timbre of any instrument to taste, while the Slide control gives you an effect similar to portamento. Preset Vibrato further shapes the overall tonality. You can even play the solo keyboard sounds on the upper keyboard by using a Coupler.

## COMBINATION VOICES

The Combination sections are made up of Memory and Preset buttons, plus a Combination Lever selector. The Presets allow instant access to the traditional organ sounds of Jazz, Church and Theater organs on the upper and lower keyboards, and Classical Organ Bass and Jazz Organ Bass on the pedal keyboard. The Memory buttons are used in conjunction with the Preset Panel to program your own choice of organ sounds. With seven Flute tone levers for the upper keyboard, four for the lower keyboard, and two for the pedal keyboard, the Preset Panel lets you form tonal combinations according to your taste. Each of these tone levers can be set in any of three click-stop volume positions or anywhere in



## CUSTOM VOICES

Available with Preset Vibrato, Touch Vibrato, and Touch Tone, these 11 exciting monophonic sounds—ideal as soloists—can be