OB-Xa

PROGRAMMED PATCHES

THE OB-Xa/120 FACTORY PROGRAMS

The OB-Xa/120 comes from the factory programmed with 104 patch programs, arranged in 13 groups of 8 programs each (the last 2 groups are blank). Also in the OB-Xa memory are 8 split programs and 8 double programs. These programs were designed, in close consultation with recording and performing keyboardists, to not only exhibit the many features of the OB-Xa, but to also provide a realistically usable collection of sounds for players of all types of music.

The programs are generally organized so that sounds representative of the same instrument families (i.e., pianos, organs, strings, brass) are placed in the same numerical locations. These sounds may be selected by choosing consecutive group letters. (For example, a "Brass Ensemble" is found in location A1, "French Horns" are found in B1, and a "Trumpet Ensemble" is found in location AB1.)

The Facsimiles of the OB-Xa front panel on the following pages are provided to allow the beginning synthesist, as well as the more accomplished player, a simple method for understanding the various components of a sound that are used in the creation of the factory patches. By setting the front panel controls as shown on the facsimiles, the user will hear first-hand the capabilities of the OB-Xa. These facsimiles are as accurate as possible; however, fine tuning the more critical parameters of the patch (oscillator and filter frequencies, detune, modulation depth, and envelopes) can make a substantial difference in the final sound. Moreover, this fine tuning can be utilized to tailor the OB-Xa factory patches to meet the user's individual taste and needs.

The explanations provided give special playing techniques that may be called for, as well as tips on the most effective use of the patch programs.

THE OB-Xa/120
FACTORY PATCH DIRECTORY

	Program							
Group	1	2	3	4	5	6	7	8
A	Brass Ensemble	Clavinet	Low Strings	Electric Piano	Rotary Organ	Flutes	Harpsi-chord	Rock Unison
B	French Horns	Celeste	High Strings	Electronic Piano	Pipe Organ	Xa Chorus	Harp I	Cal-liope
AB	Trumpet Ensemble	Harmonica	Strings I	Accordion	Filter Drone	Bag Pipes	Banjo	Rush Rezz
C	Trumpets	Mellow Wow	Slow Strings	Resonance Sweep	Combo Organ	Double Reed	Farr's Funk	Pizzi-cato
AC	Modern Horns	Bass I	4-Pole Strings	Reed Piano	Perc Organ	Sax	Harp II	Orient Unison
BC	Tropical Horns	Rubber Clav	Strings II	Edge Piano	Hymn Organ	Recorder	Long Chimes	Unison Fear
ABC	Comp Horns	Bells	Strings III	Soft Piano	Reed Organ	Vocal Wow	Marimba	Terror
D	F-Env Horns	S/H Fifths	Poly Port	Steel Drums	Square Mod	Comp Synth	Unison Port	Delay Mod
AD	Tenth Decay	Sitar	Fiddle	Pulse Comp	PW Rezz	Comedy Comp	Jazz Solo	Earth-quake
BD	S/H Port Rezz	Conga	Strings IV	Funk Keys	Organ	Tremolo Rezz	Box O' Pups	Martian Hop
ABD	Claps	Carillon	Solo Strings	Tuned Bees	Rezz Reeds	Three Way	Percus-sion	Chopper
CD	Io	S/H PW	Strings V	Clarinet	Bright Drone	Solo Unison	Claves	Jet
ACD	Water Wiggle	Water Piano	Slower Strings	Flanged Piano	Space Bugs	Taped Voices	Thunder	Pong
BCD ABCD								
	1	2	3	4	5	6	7	8

SPLIT AND DOUBLE PROGRAMS

In addition to the 104 patch programs, the OB-Xa/120 also contains 8 split programs and 8 double programs. These programs remember the upper patch program, the lower patch program, transpositions, balance, and in the case of splits, the split point.

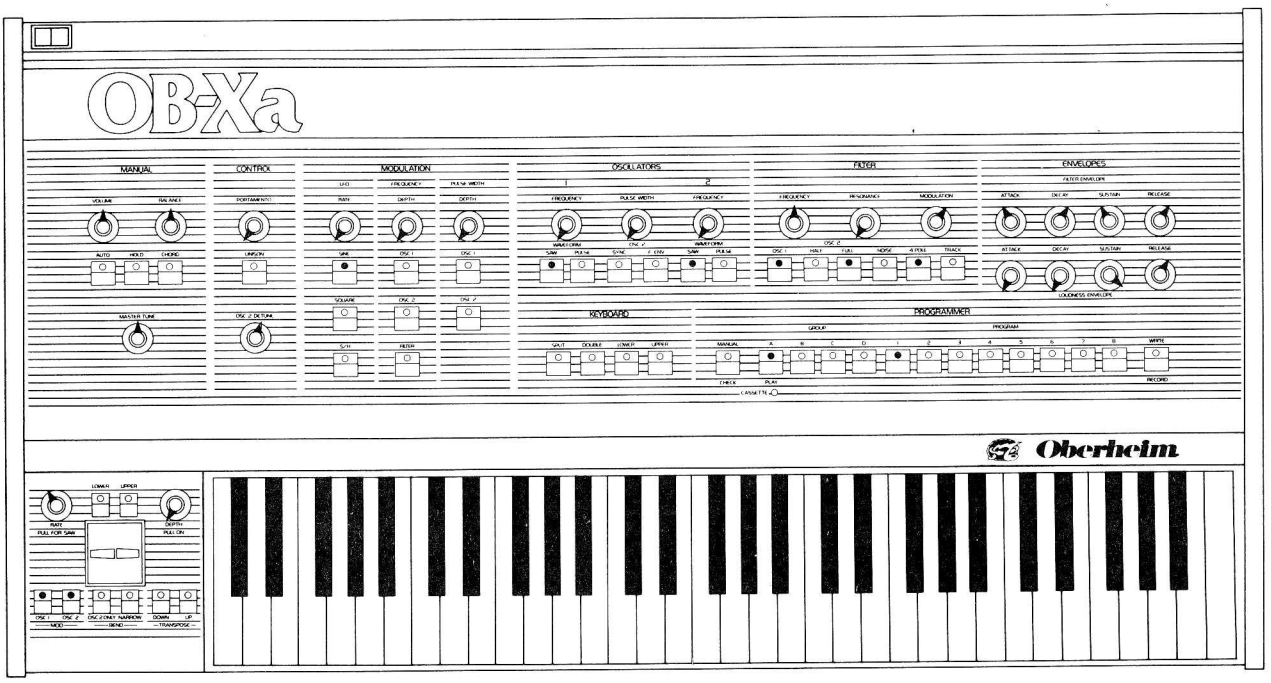
SPLIT PROGRAM DIRECTORY

Program	Lower Patch	Upper Patch	Split Point
1	AC2:Bass I	AC4: Reed Piano	C3
2	B5: Pipe Organ	AB8: Rush Rezz	C3
3	C1: Trumpet	C2: Mellow Wow	C3
4	A5: Rotary Organ	A4: Electric Piano	C3
5	CD5: Bright Drone	BD6: Tremolo Rezz	C3
6	BD2: Conga	AD2: Sitar (up one octave)	C3
7	D2: S/H Fifths	CD6: Solo Unison	C3
8	BC4: Edge Piano (up one octave)	AD7: Jazz Solo	F3

DOUBLE PROGRAM DIRECTORY

Program	Lower Patch	Upper Patch
1	A2: Clavinet	C2: Mellow Wow (down one octave)
2	C1: Trumpet	B1: French Horns
3	C8: Pizzicato (up one octave)	D6: Comp Synth
4	ACD4: Flanged Piano	ACD3: Slower Strings (up one octave and a fifth)
5	AC5: Percussive Organ	CD6: Solo Unison
6	ABC4: Soft Piano	BC4: Edge Piano
7	ACD2: Water Piano	ABD2: Carillon (down a fourth)
8	BD3: Strings IV	ABC3: Strings III

The Patches on the OB-Xa/120 were programmed by Todd McKinney, with additional programming by Daniel Sofer, Marcus Ryle, Mike Christopher, Geoff Farr, and Don Miele.



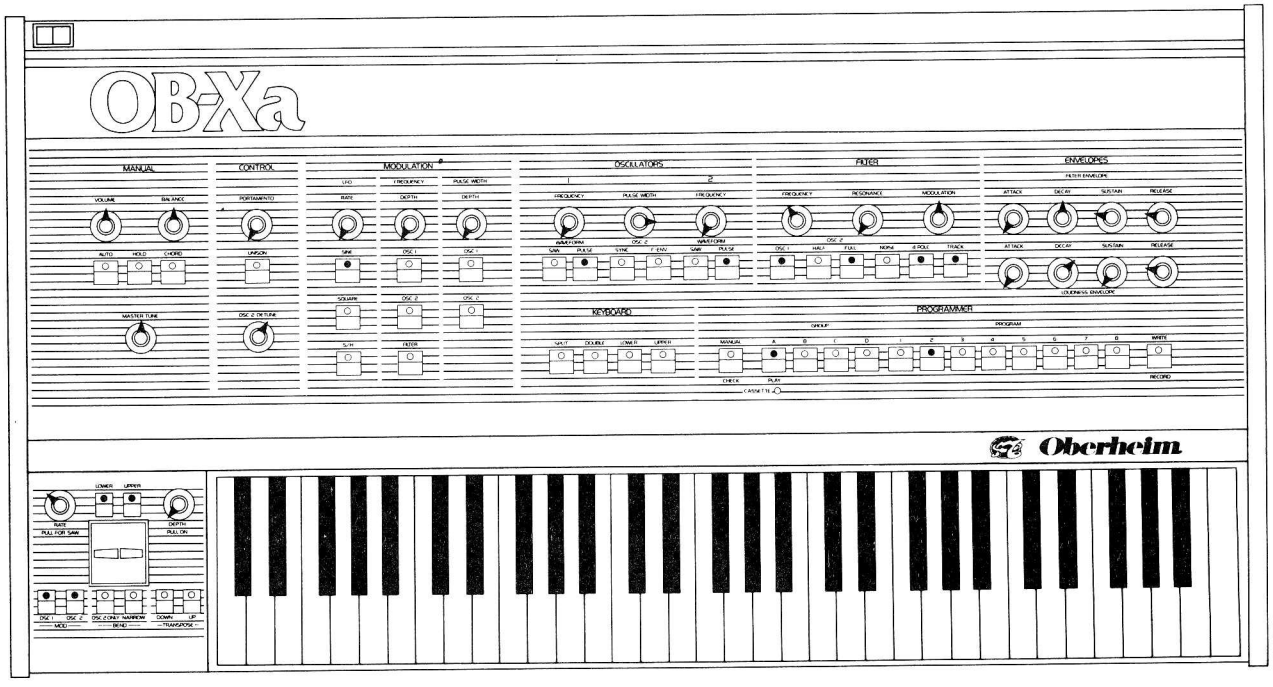
A1: Brass Ensemble

VCO1—Normal Pitch

VCO2—Normal Pitch

Filter envelope modulation creates the dynamic effect of this patch. The filter pedal is useful in adding more dynamic possibilities.

NOTES:



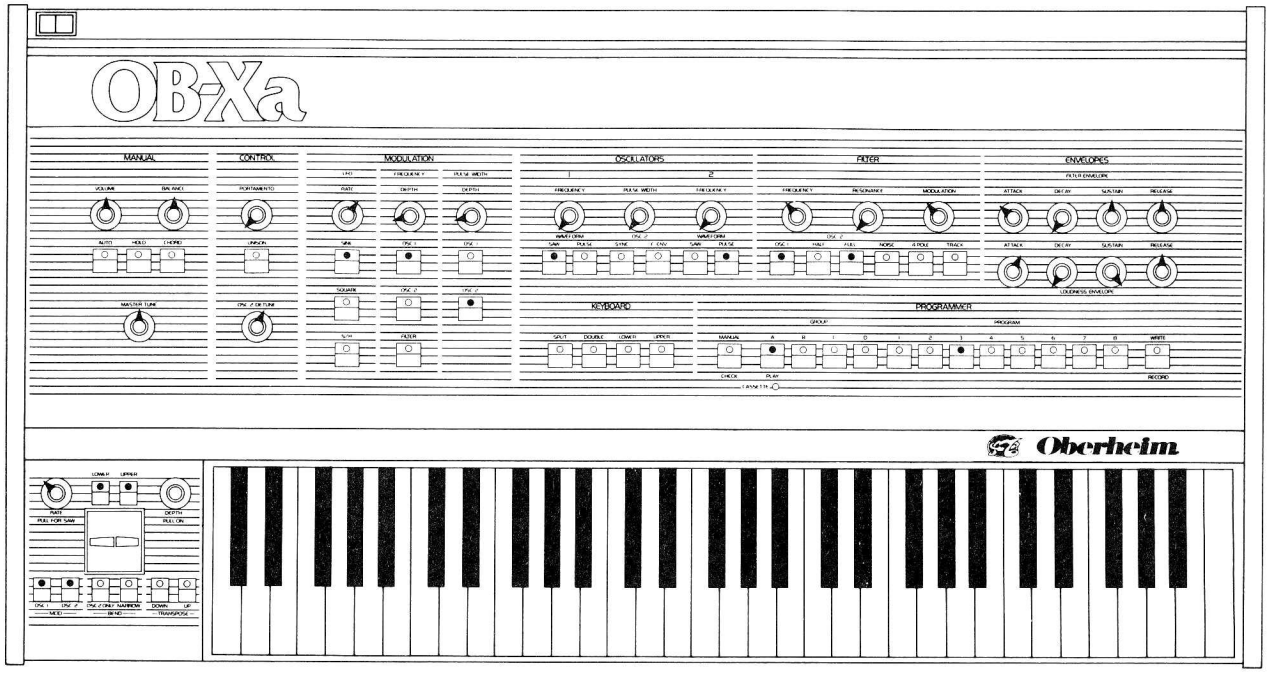
A2: Clavinet

VCO1—Normal Pitch

VCO2—Normal Pitch

Resonance may be added to create a funkier edge. A staccato style of playing should be used to simulate a realistic Clavinet sound.

NOTES:



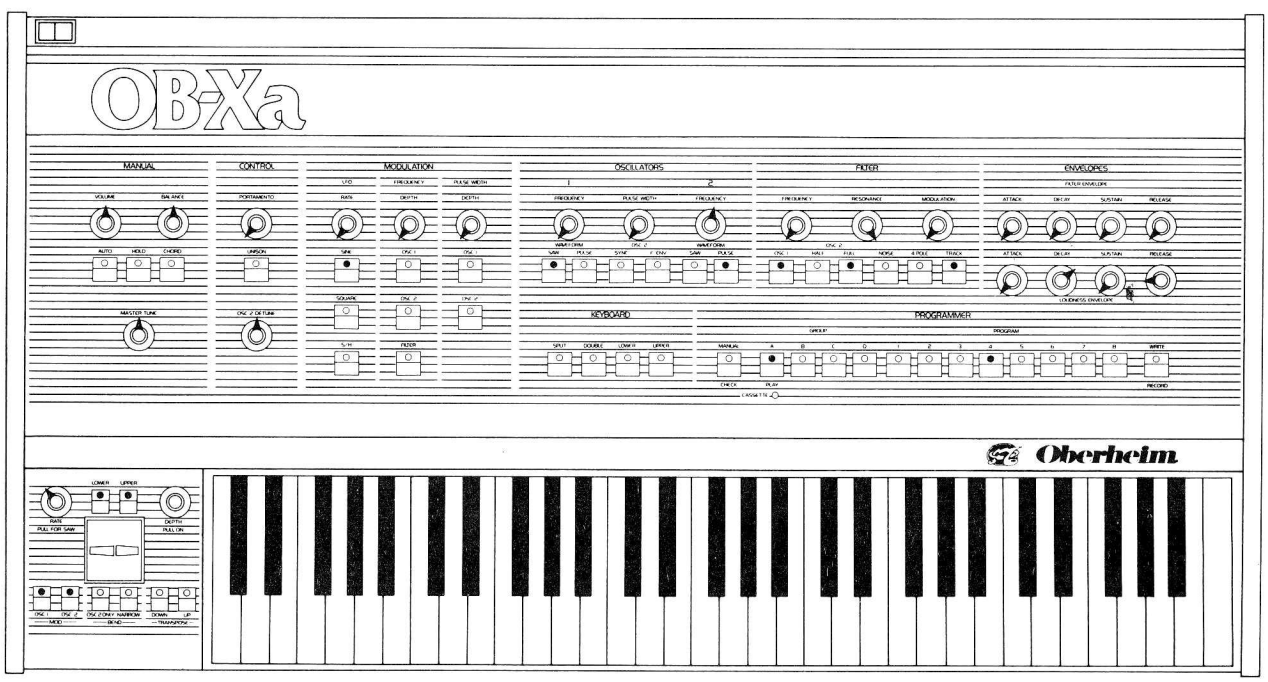
A3: Low Strings

VCO1—Normal Pitch

VCO2—Normal Pitch

The combination of pulse and sawtooth waveforms, along with frequency and pulse width modulation, add a more complex ensemble effect to this patch. Experiment with staccato accompaniment and legato melody phrases.

NOTES:



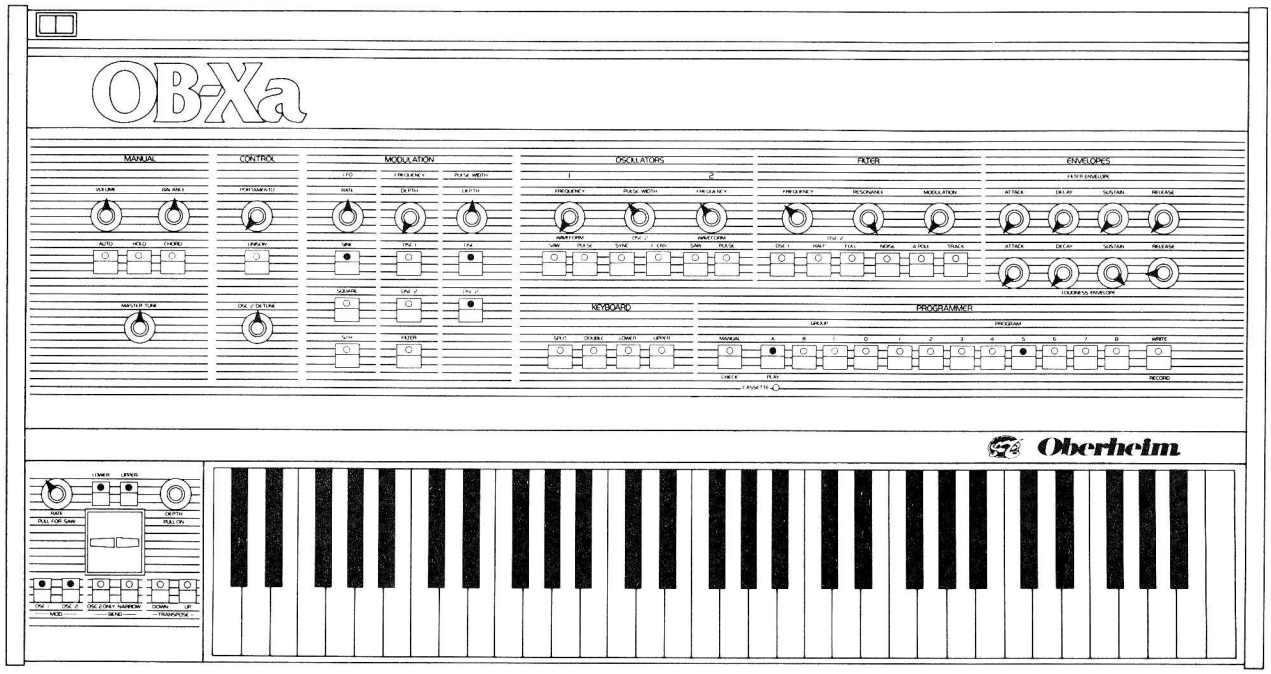
A4: Electric Piano

VCO1—Normal Pitch

VCO2—Two Octaves and a Major Seventh Up

VCO2 simulates the sound of the tines of an electric piano.

NOTES:



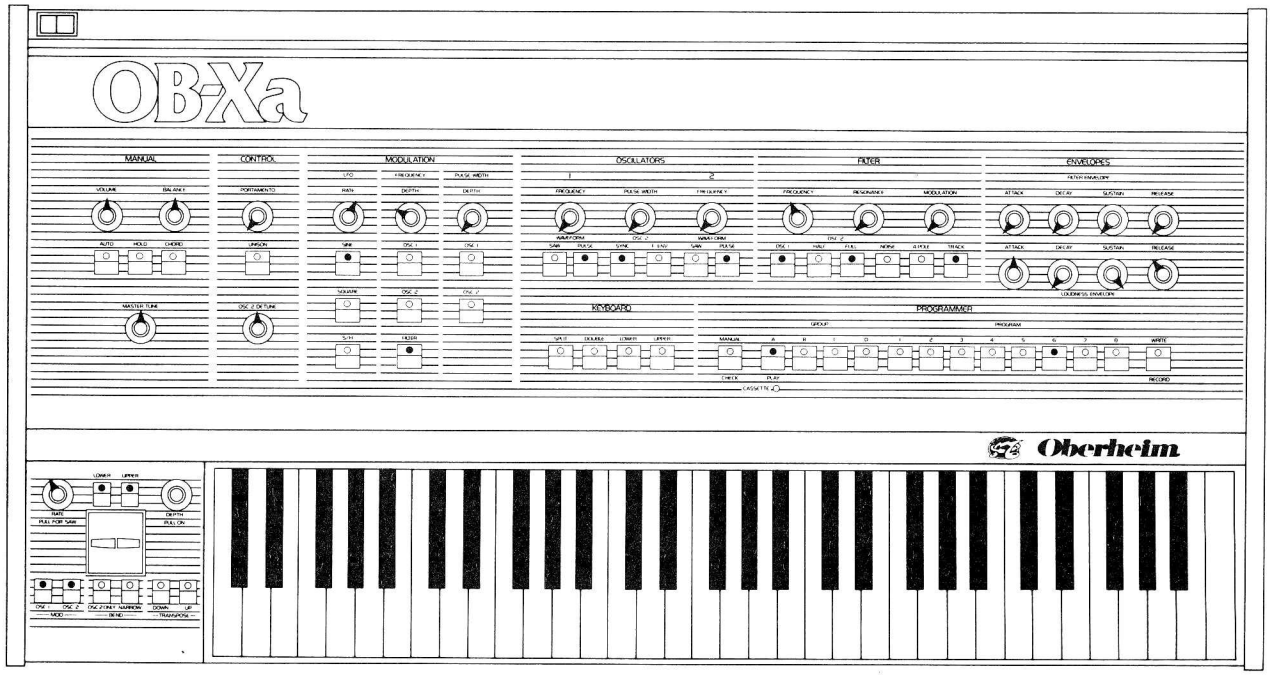
A5: Rotary Organ

VCO1—Normal Pitch

VCO2—Two Octaves Up

Pulse width modulation creates the rotary speaker effect on this patch. The LFO rate may be varied to simulate different rotary speaker speeds.

NOTES:



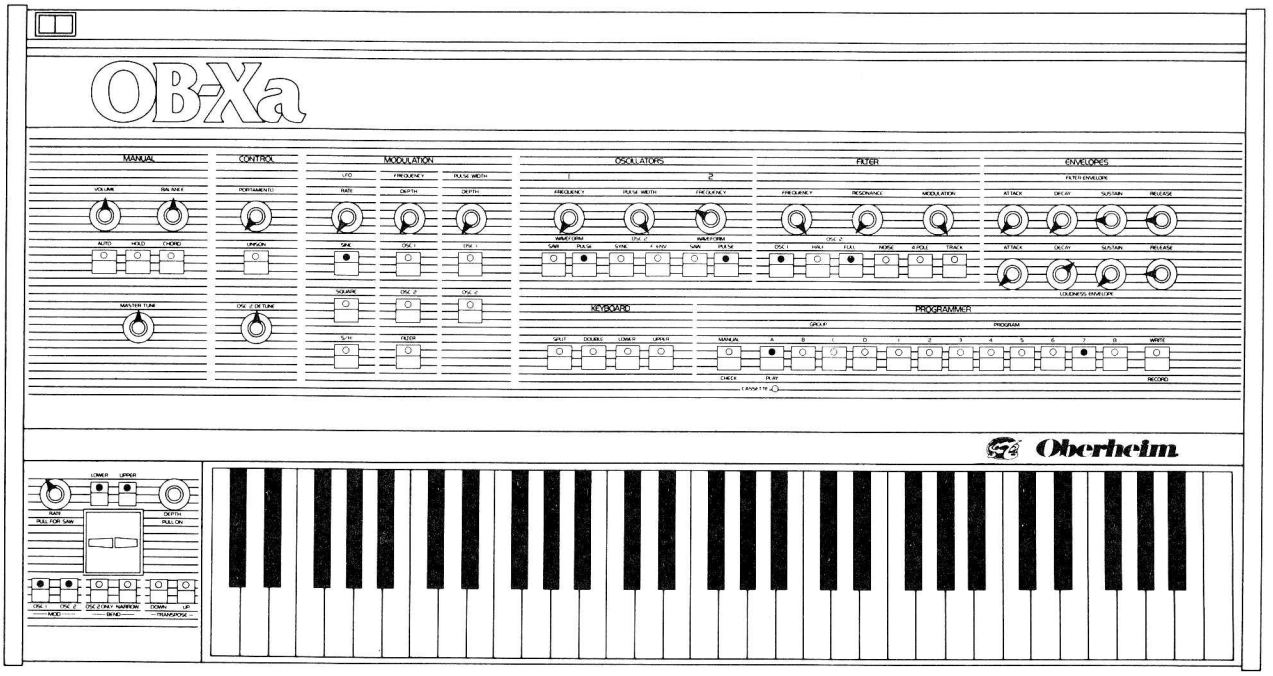
A6: Flutes

VCO1—Normal Pitch

VCO2—Normal Pitch

The LFO rate and modulation depth may be varied to change the tremolo.

NOTES:

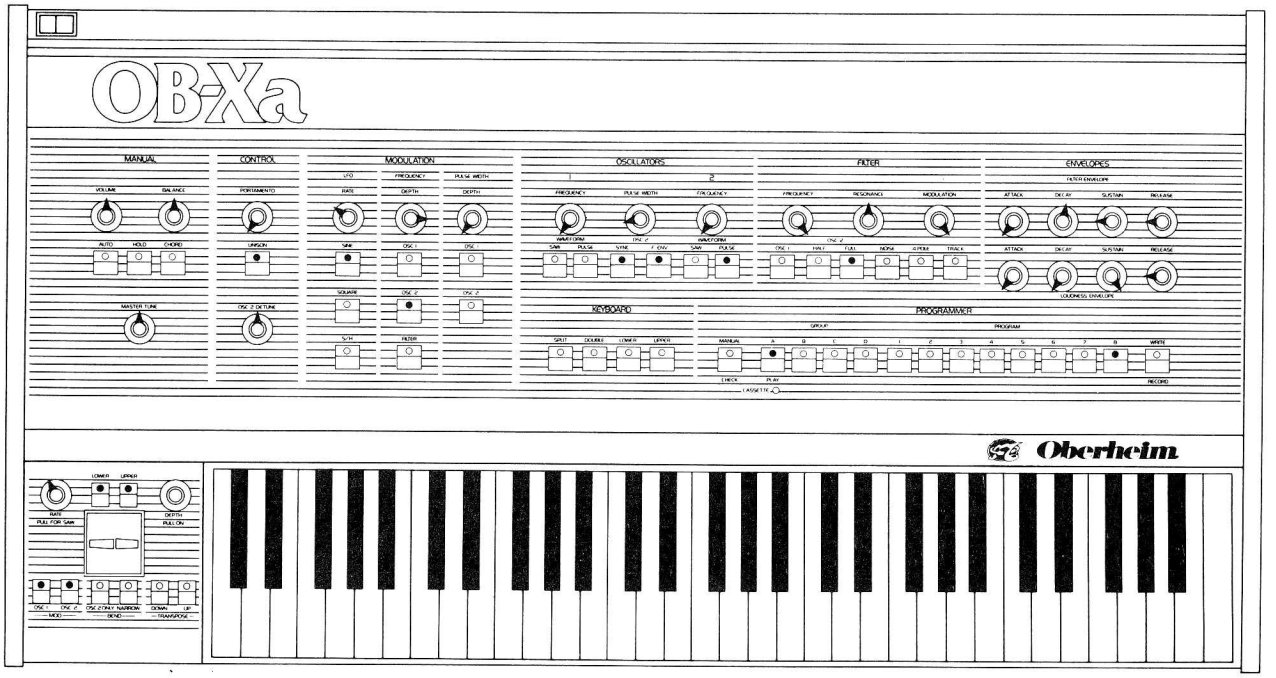


A7: Harpsichord

VCO1—Normal Pitch

VCO2—One Octave Up

NOTES:

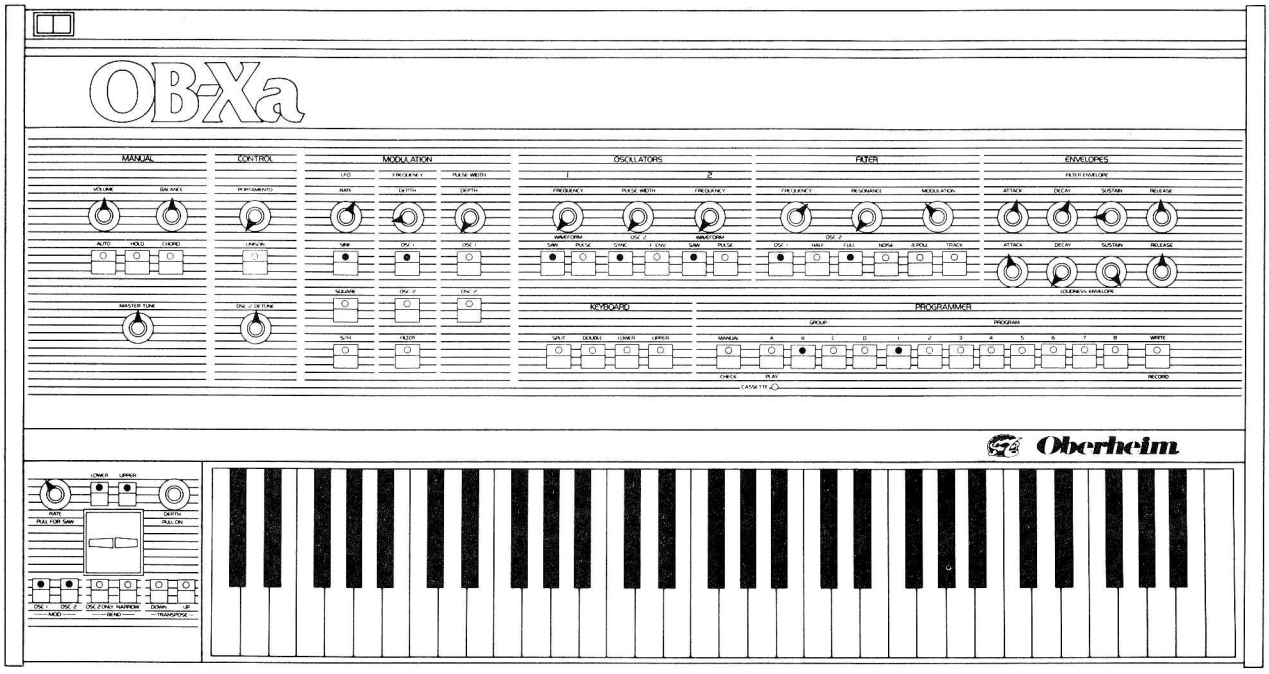


A8: Rock Unison

VCO1—Off

VCO2—Normal Pitch

NOTES:



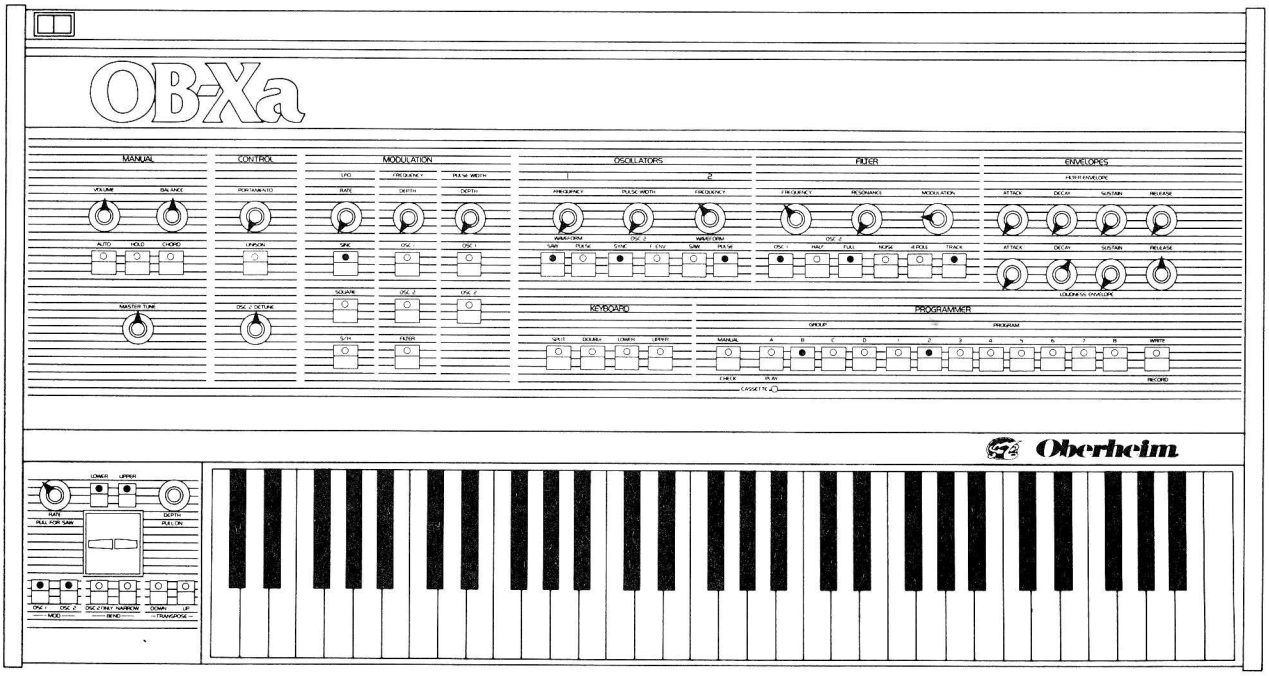
B1: French Horns

VCO1—Normal Pitch

VCO2—Normal Pitch

The sync function may be deleted for a more ensemble effect. Experiment with the filter frequency for varied timbral possibilities.

NOTES:



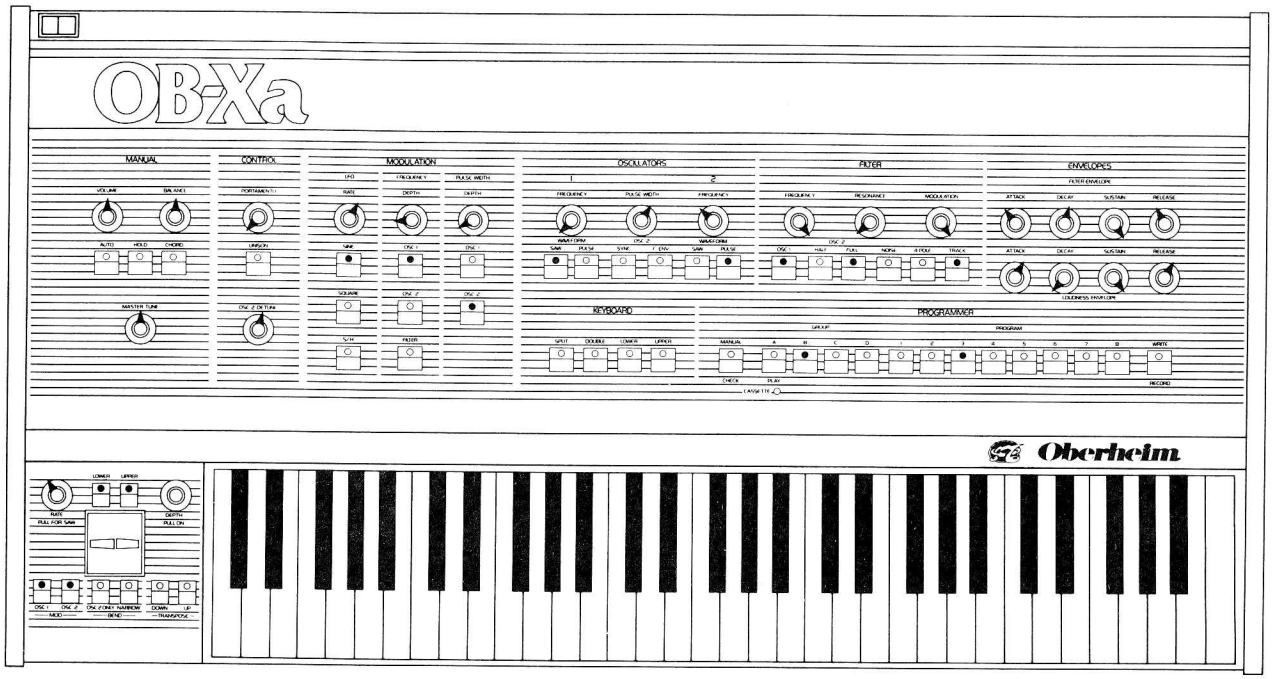
B2: Celeste

VCO1—Normal Pitch

VCO2—Major Seventh Up

When played in the upper octaves, this patch simulates a music box.

NOTES:



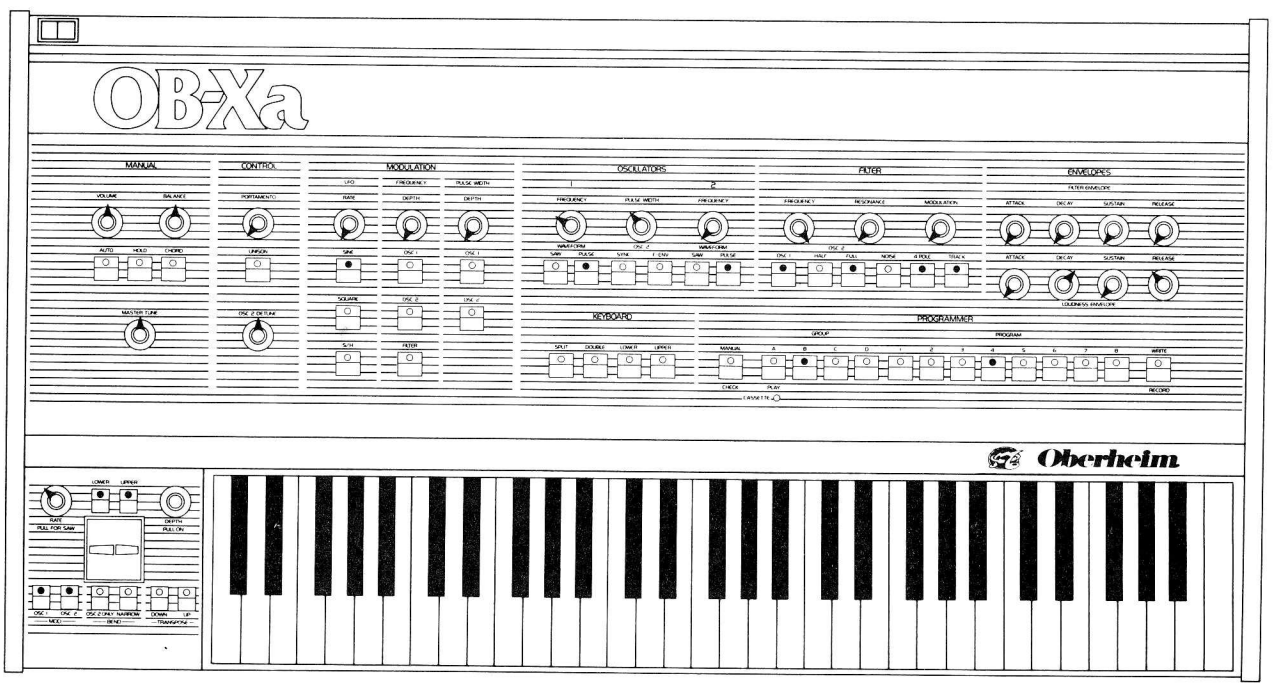
B3: High Strings

VCO1—Normal Pitch

VCO2—One Octave Up

As with all the string patches, try varying the filter frequency and envelope parameters.

NOTES:

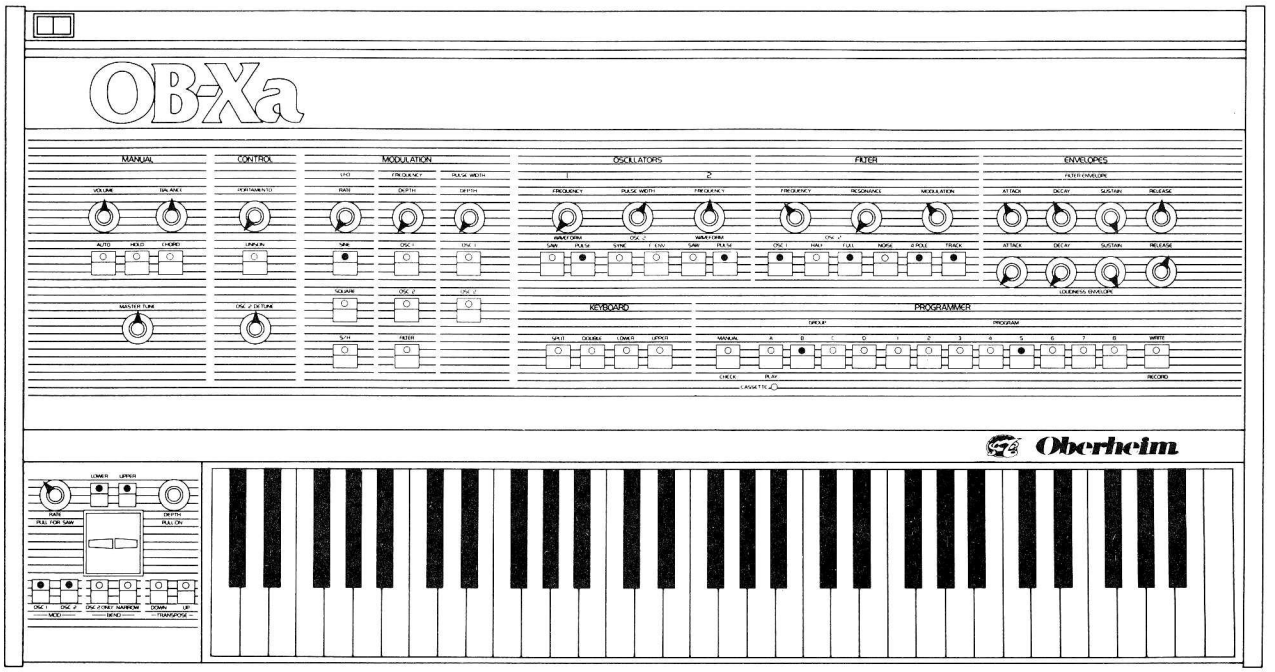


B4: RMI Piano

VCO1—Normal Pitch

VCO2—One Octave Up

NOTES:



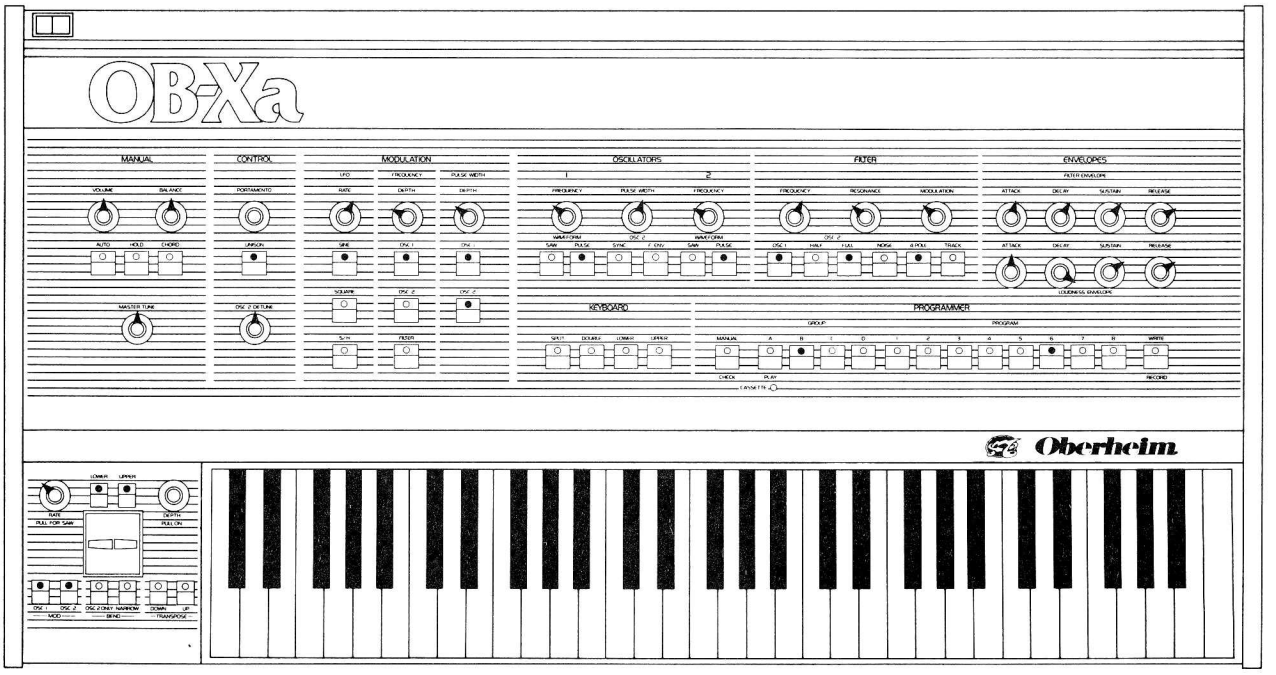
B5: Pipe Organ

VCO1—Normal Pitch

VCO2—Three Octaves Up

Try adding resonance for a more noticeable filter sweep.

NOTES:



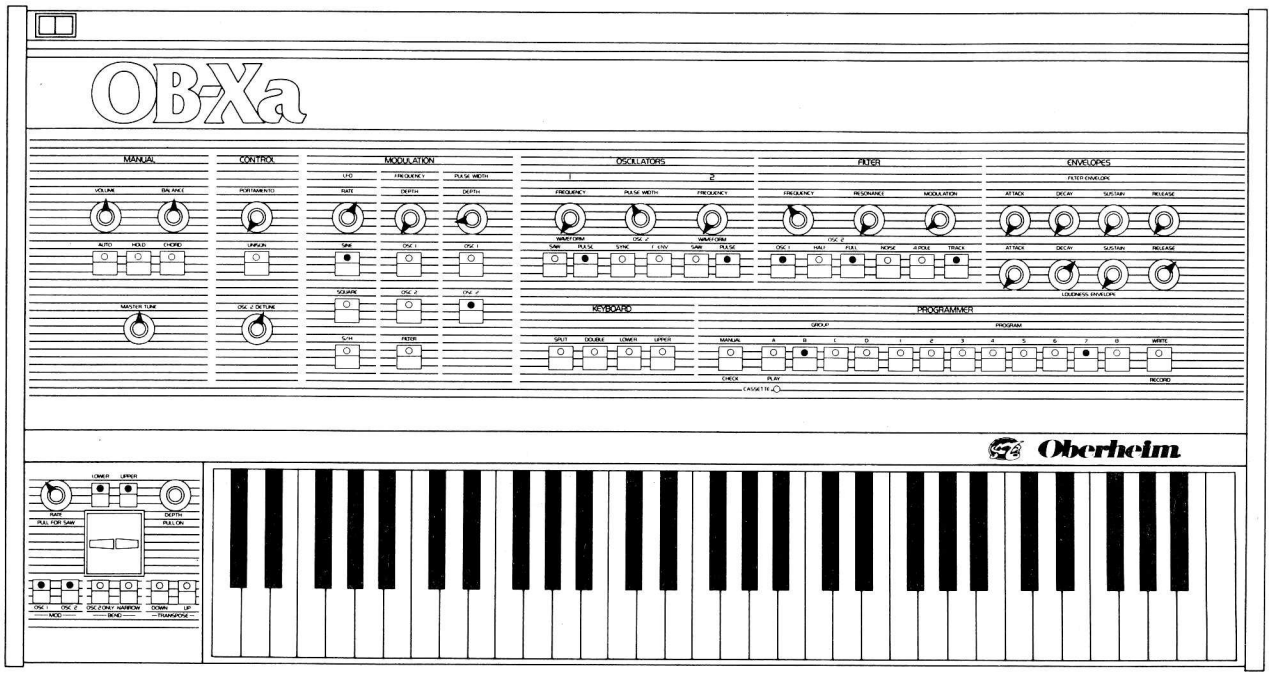
B6: Xa Chorus

VCO1—One Octave Up

VCO2—One Octave Up

A legato style of playing is most suited to this patch.

NOTES:



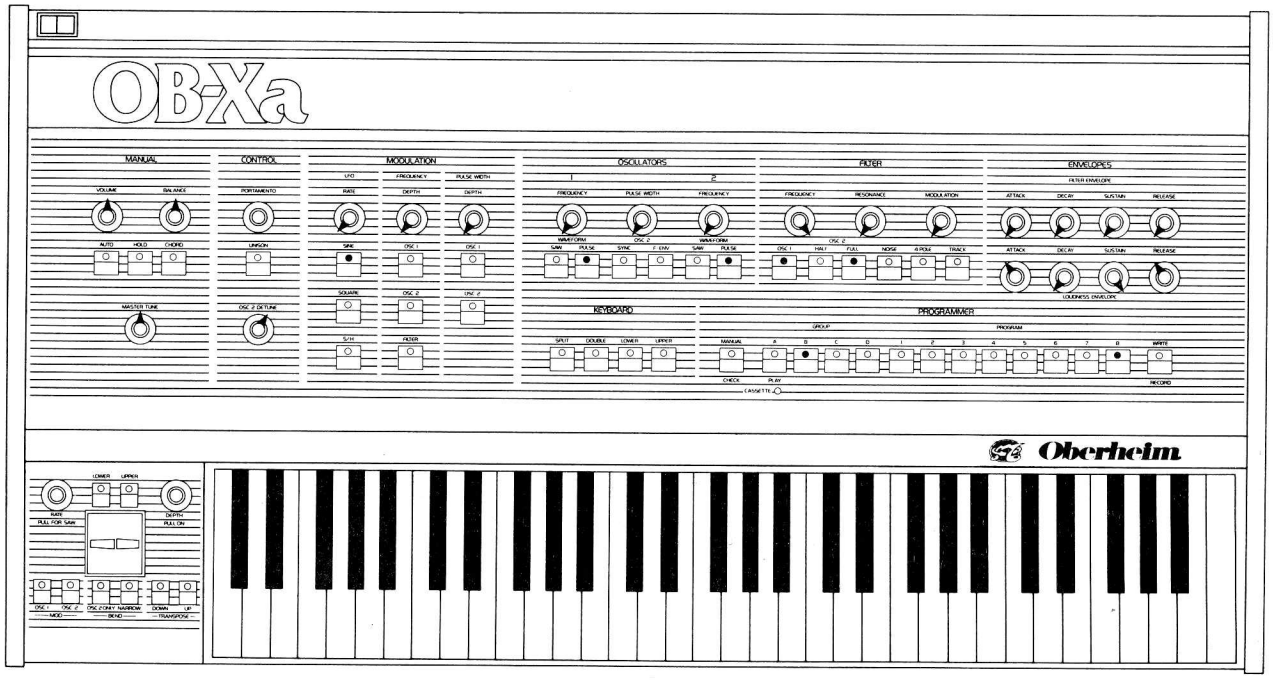
B7: Harp

VCO1—Normal Pitch

VCO2—Normal Pitch

Try shortening the loudness attack and release to change this patch from a "harp" to a simple organ sound.

NOTES: _____



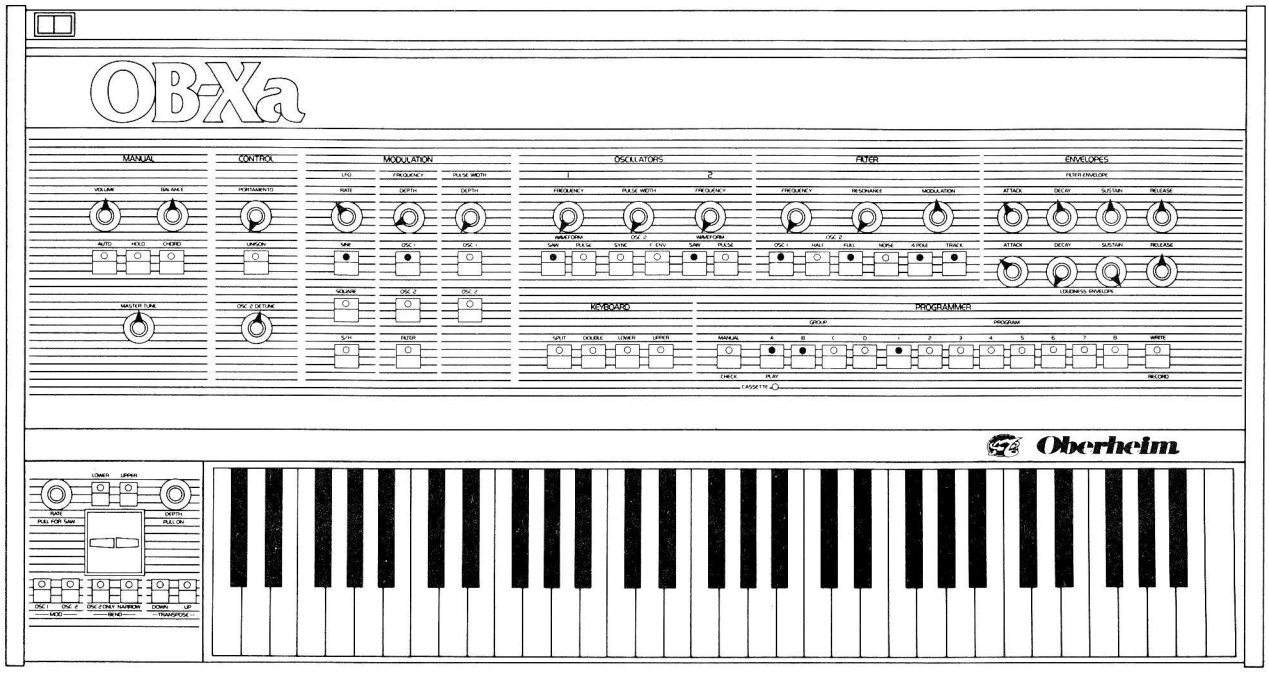
B8: Calliope

VCO1—Normal Pitch

VCO2—Normal Pitch

VCO2 detuning and frequence modulation generate the out-of-tune effect of the calliope.

NOTES: _____

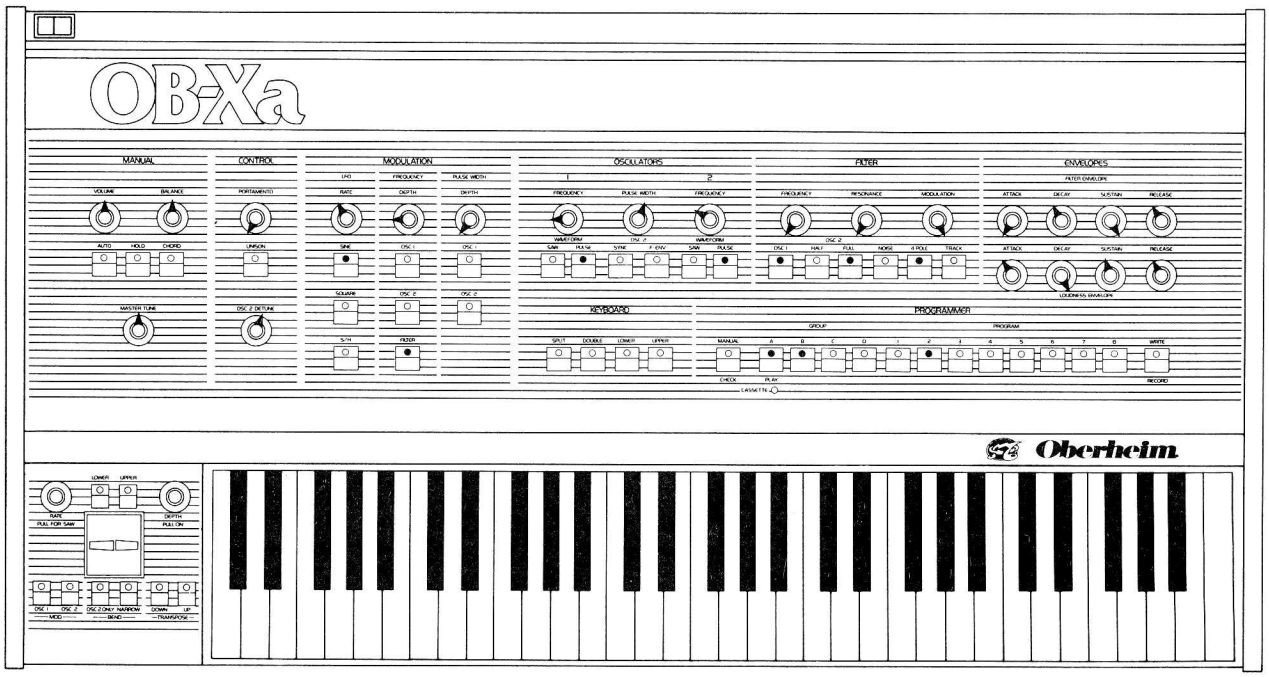


AB1: Trumpet Ensemble

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES: _____



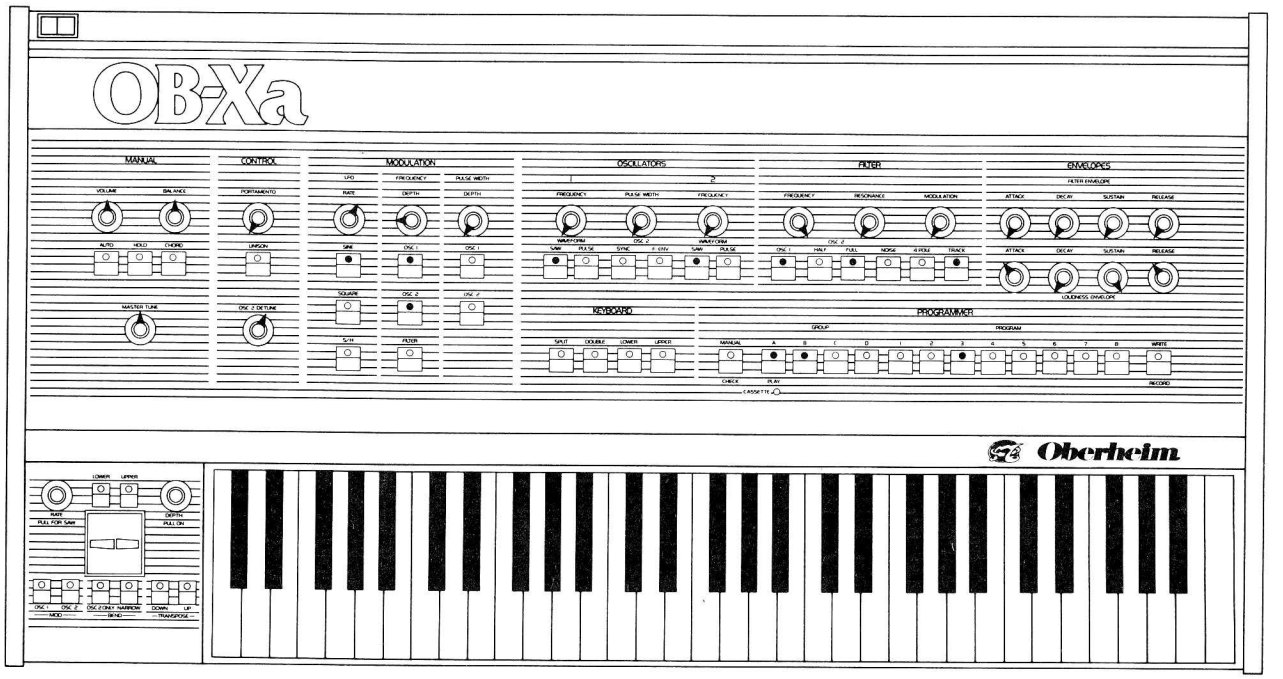
AB2: Harmonica

VCO1—One Octave Up

VCO2—One Octave Up

Use in conjunction with narrow pitch bend.

NOTES: _____

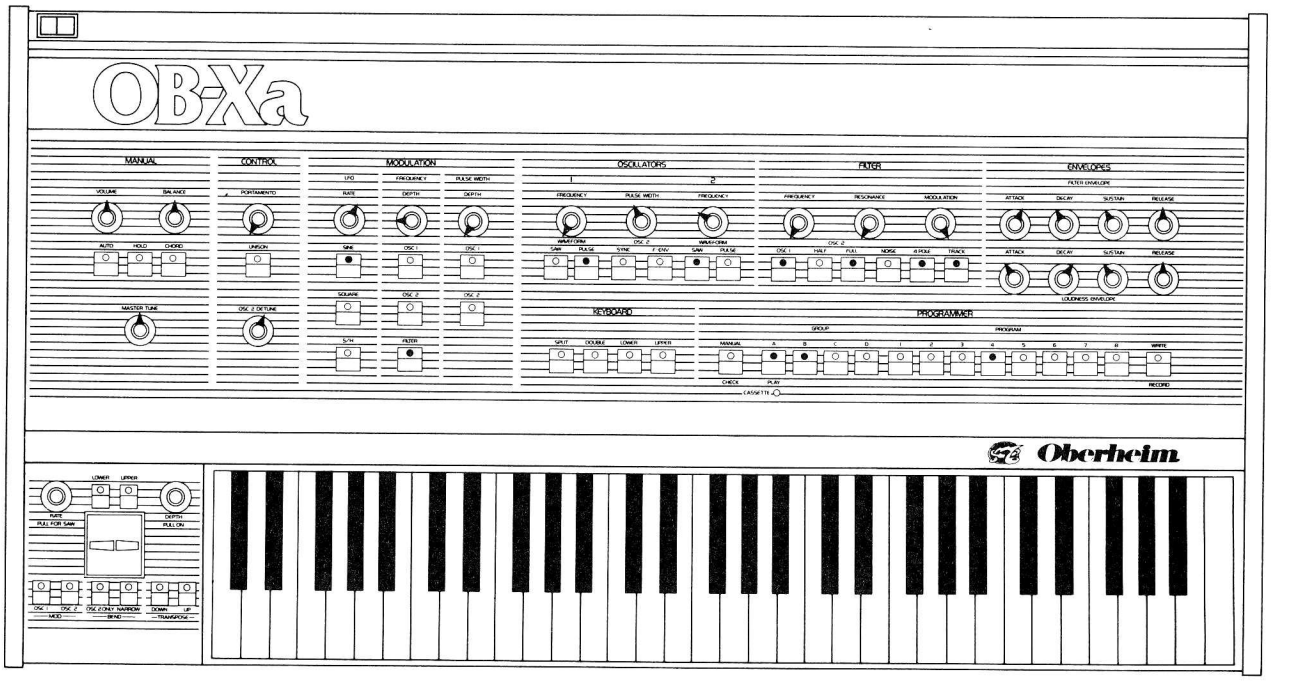


AB3: Strings I

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:

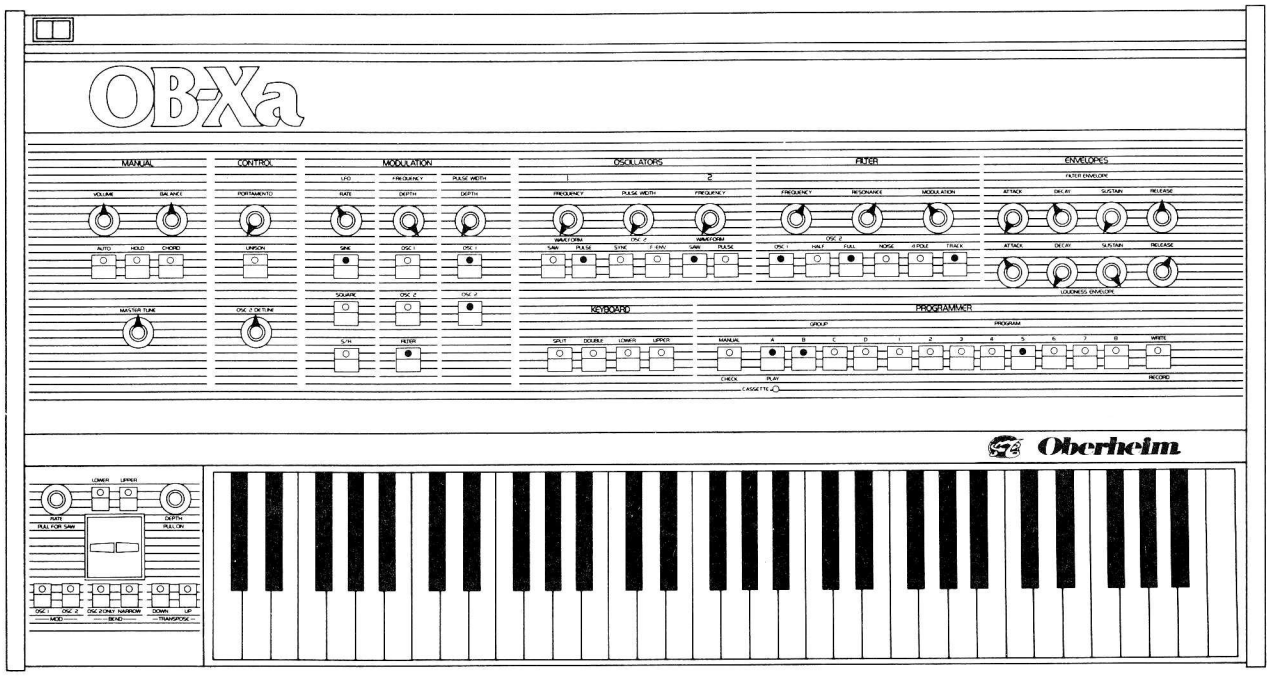


AB4: Accordion

VCO1—Normal Pitch

VCO2—One Octave Up

NOTES:



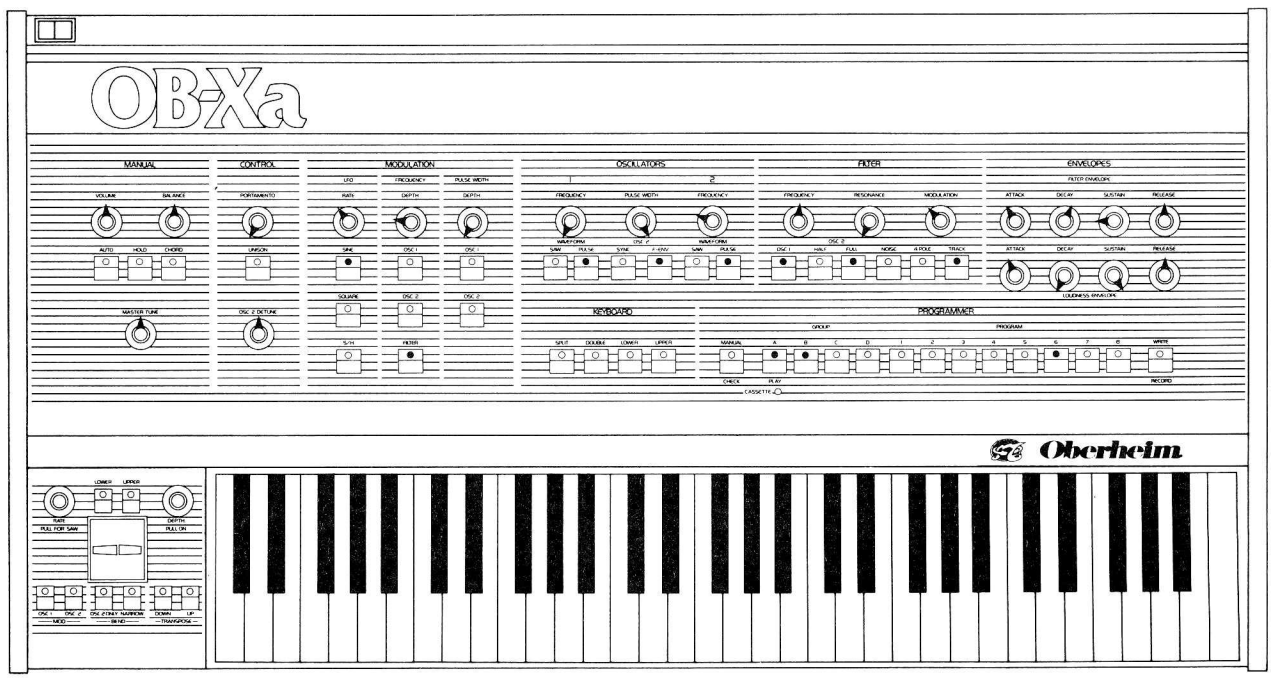
AB5: Filter Drone

VCO1—Normal Pitch

VCO2—Normal Pitch

The LFO speed can be altered to change the modulation rate.

NOTES:



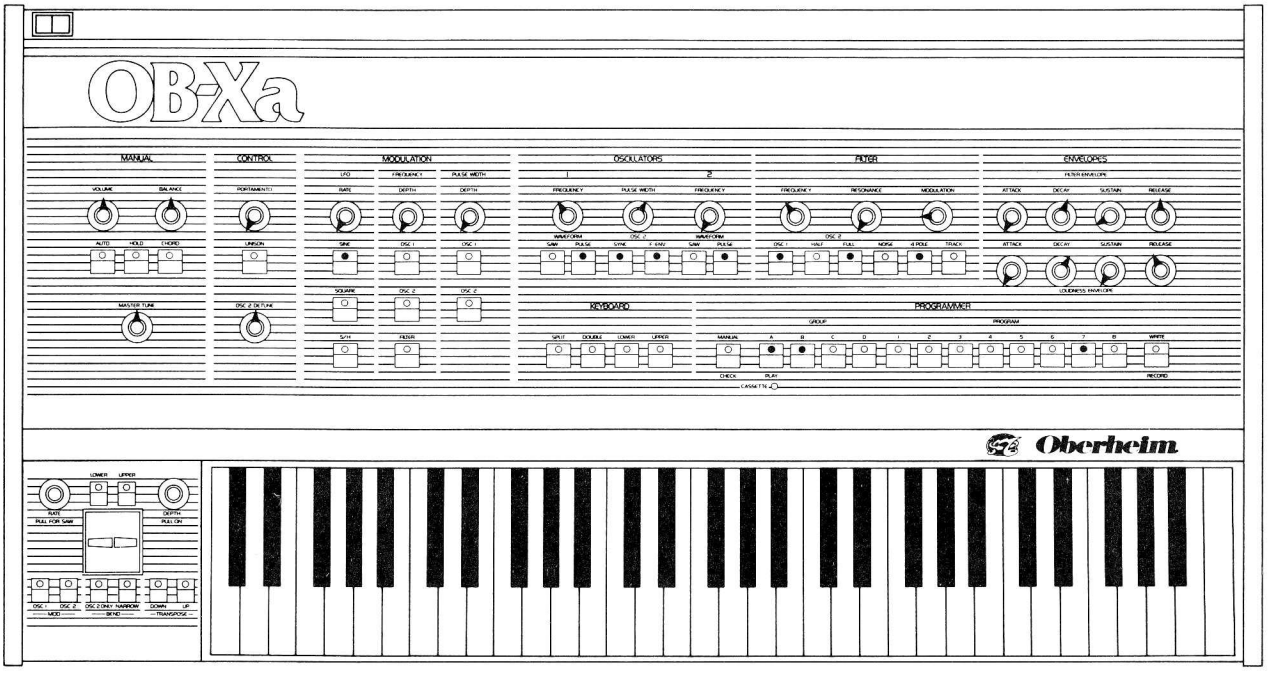
AB6: Bag Pipes

VCO1—Normal Pitch

VCO2—One Octave Up

To best simulate the pipes, place note A_2 on HOLD, and play in the key of A major.

NOTES:



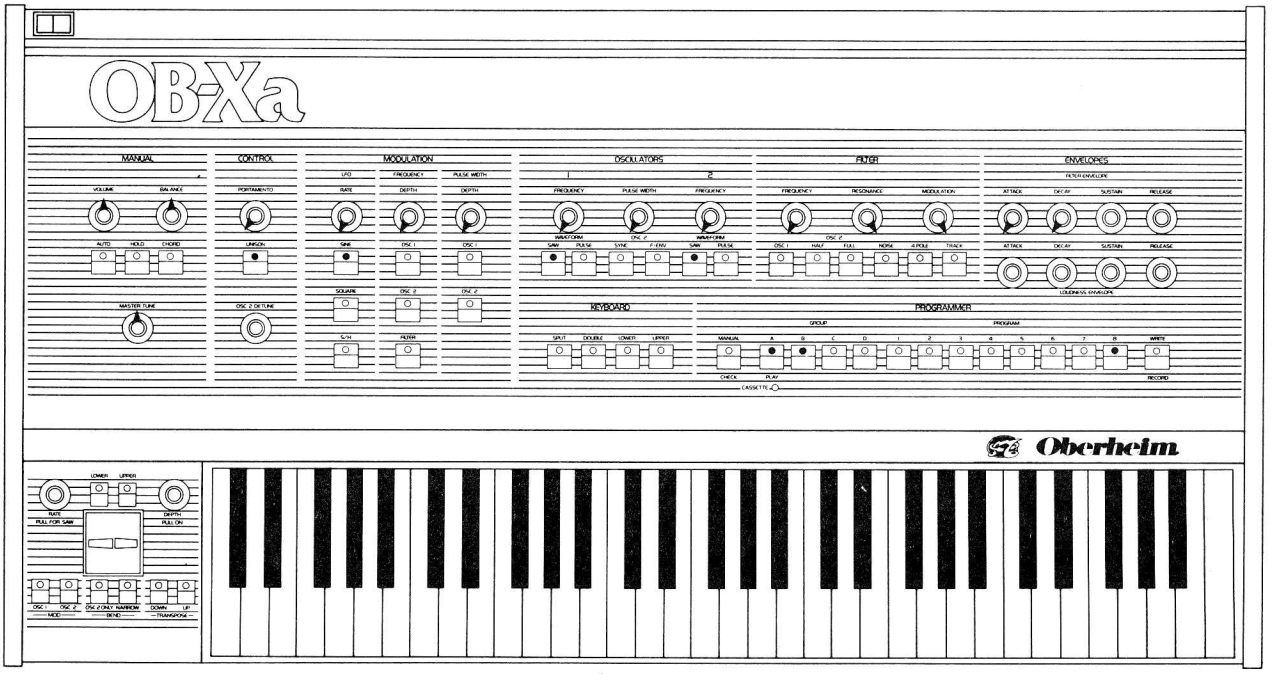
AB7: Banjo

VC01—One Octave Up

VC02—Normal Pitch

Look Out, Earl Scruggs.

NOTES:



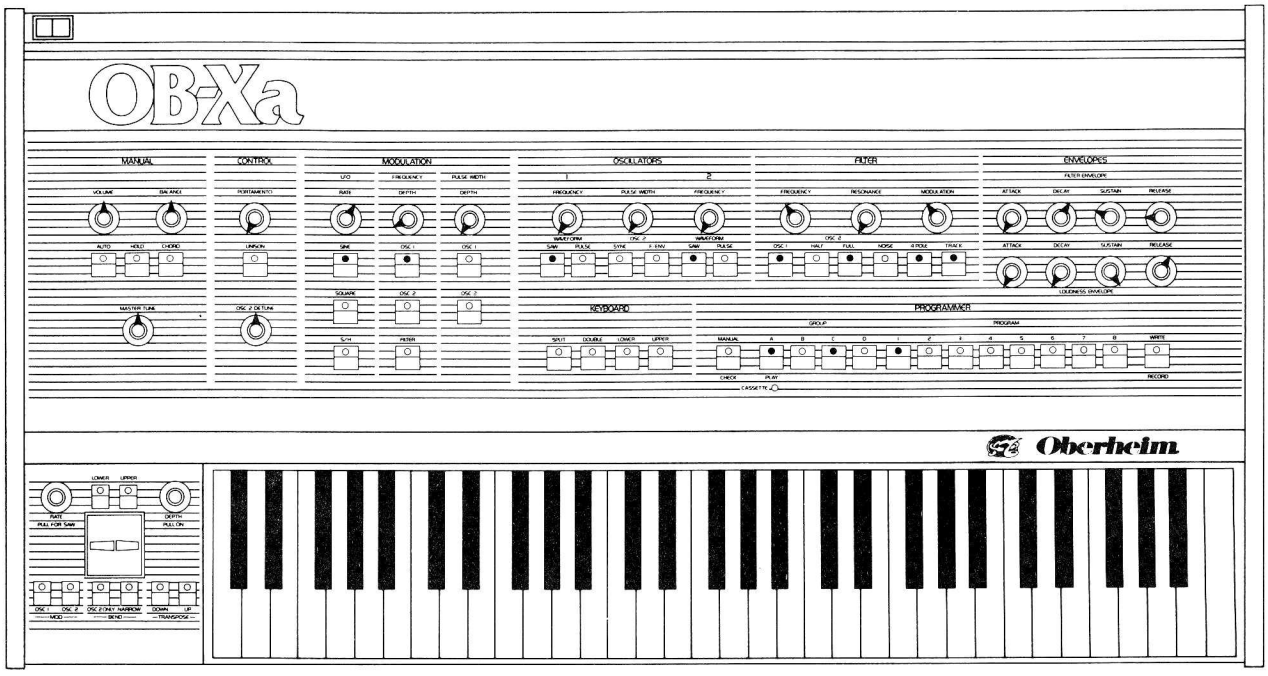
AB8: Rush Rezz

VC01—Normal Pitch

VC02—Normal Pitch

Play C down transpose for full effect.

NOTES:



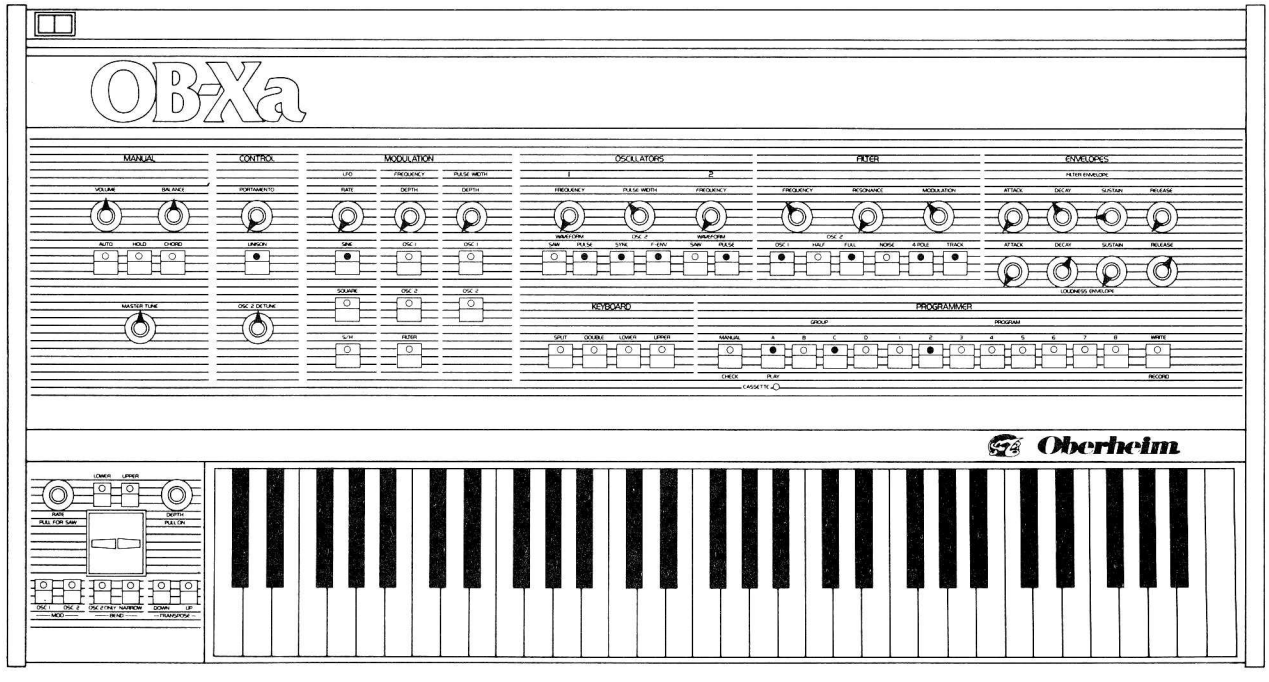
AC1: Modern Horns

VCO1—Normal Pitch

VCO2—Normal Pitch

Change the filter frequency for a variety of timbres.

NOTES:



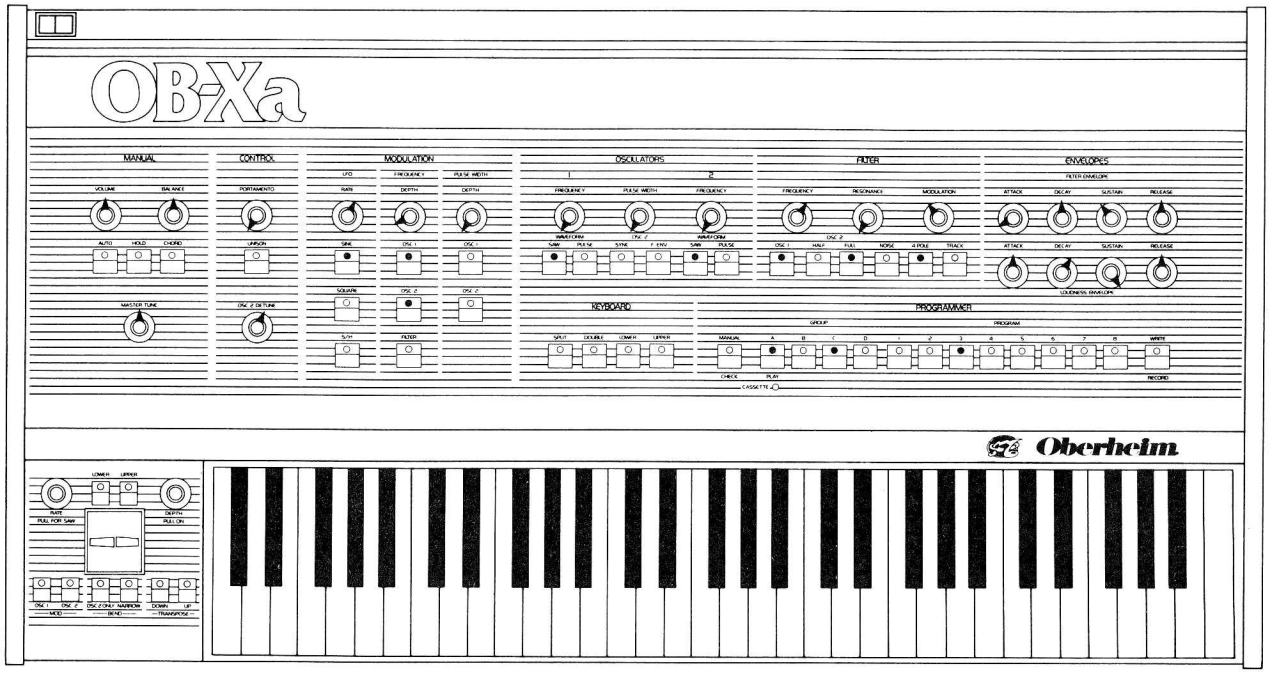
AC2: Bass I

VCO1—Normal Pitch

VCO2—Normal Pitch

Modulation via the filter envelope adds the plectrum edge. Tweak as necessary.

NOTES:

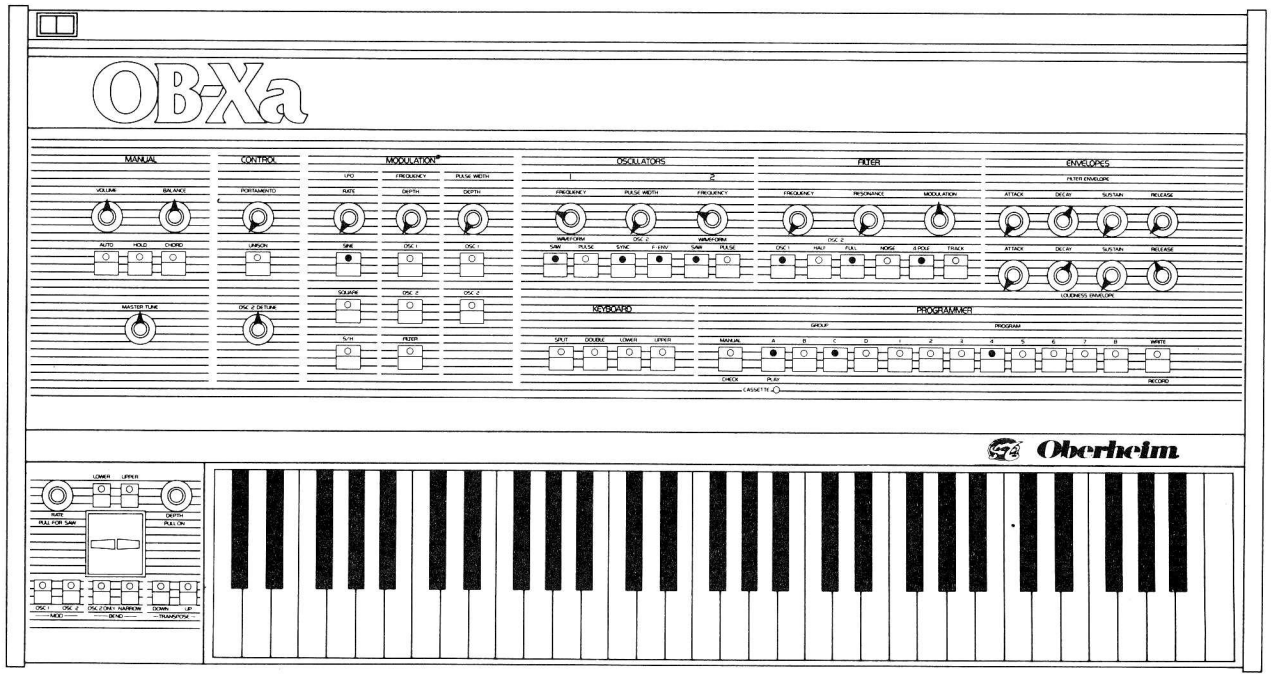


AC3: Four Pole Strings

VC01—Normal Pitch

VC02—Normal Pitch

NOTES: _____

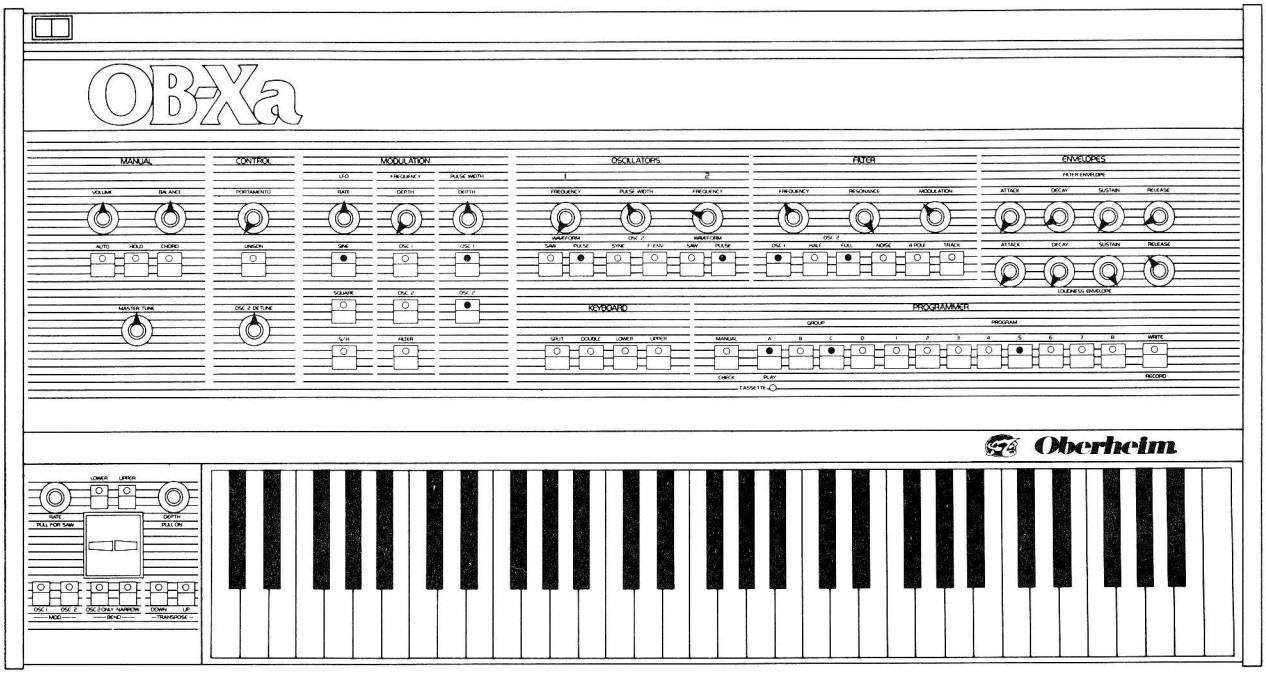


AC4: Reed Piano

VC01—One Octave Up

VC02—One Octave Up

NOTES: _____



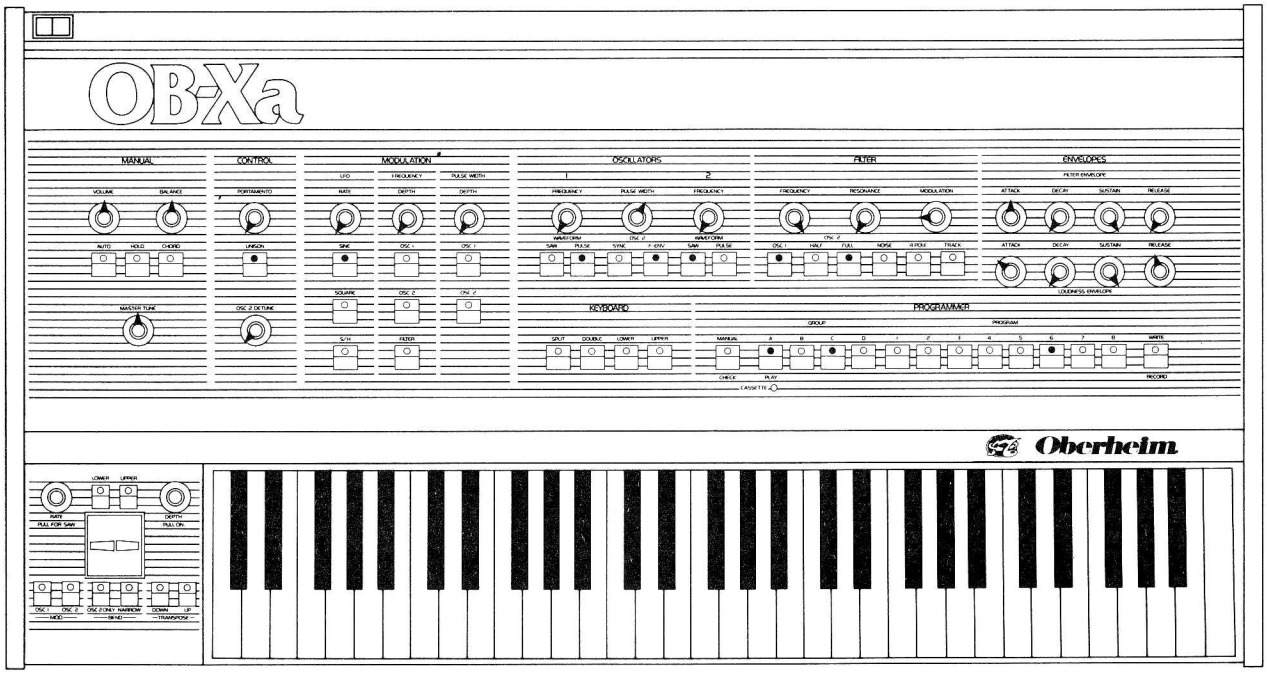
AC5: Perc Organ

VCO1—Normal Pitch

VCO2—One Octave Up

The filter cutoff frequency is set to the pitch of VCO2 to accentuate the second harmonic.

NOTES:

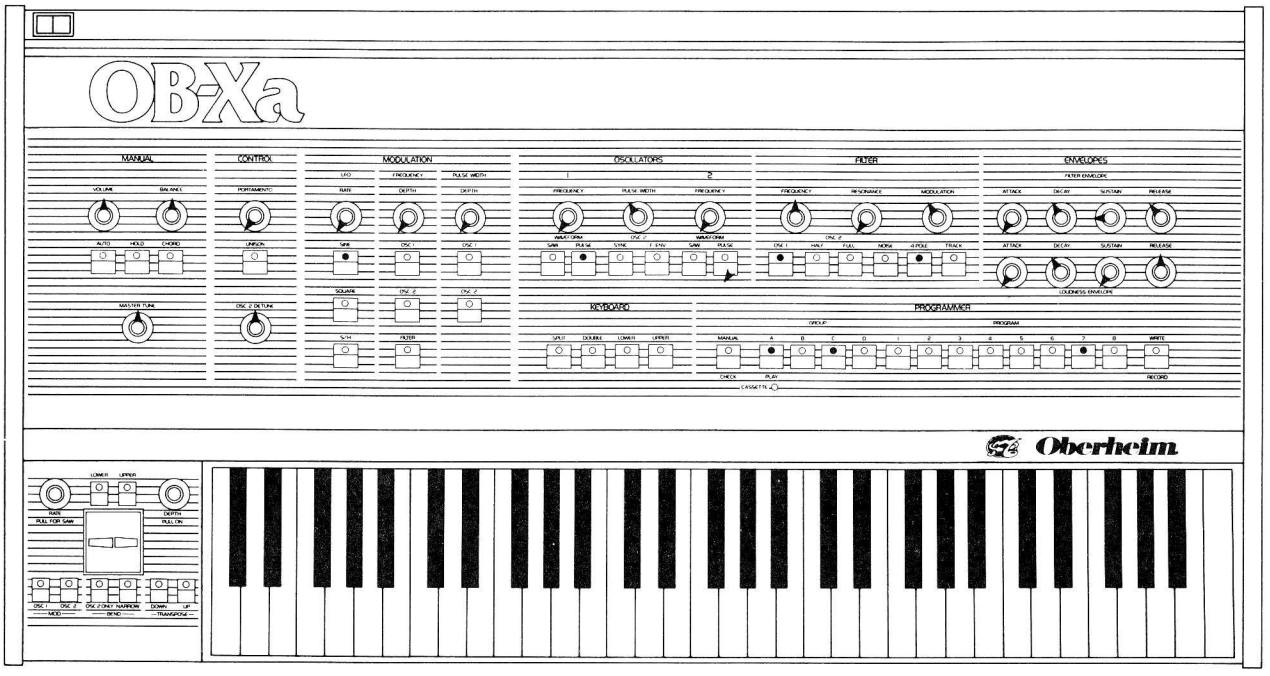


AC6: Sax

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



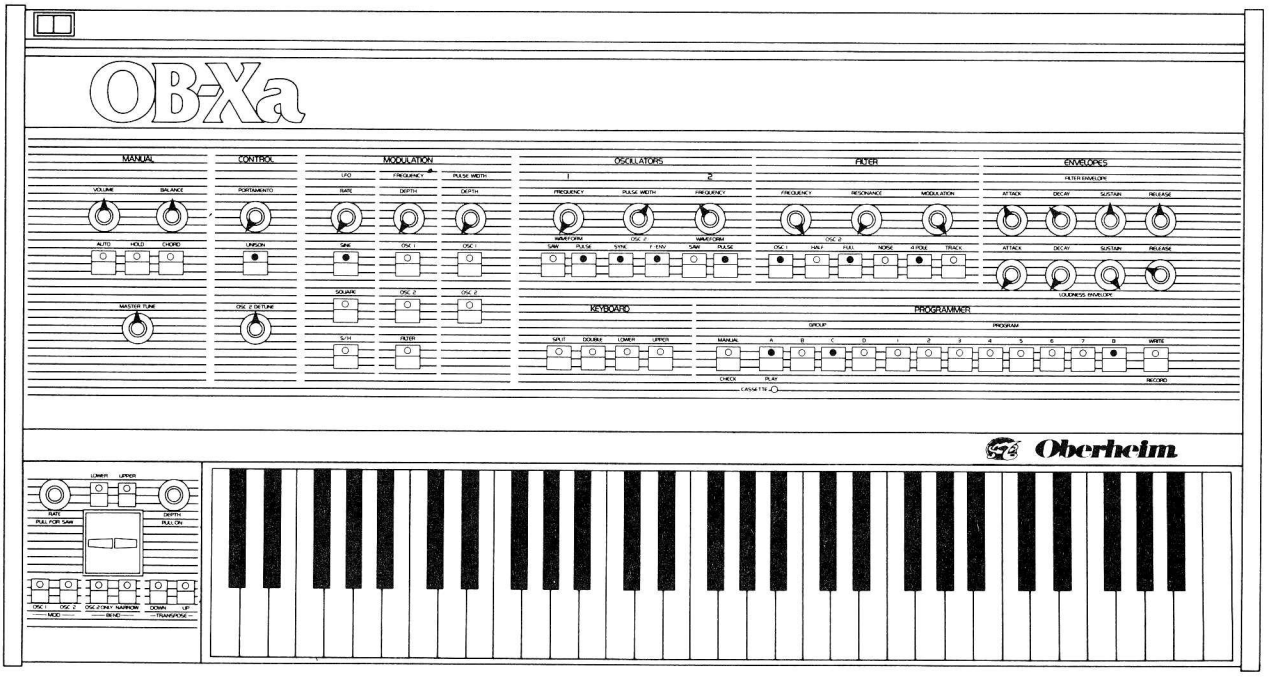
AC7: Harp II

VCO1—Normal Pitch

VCO2—Off

Holding a key down elicits a muted playing style, while releasing the key allows the "string" to ring.

NOTES:

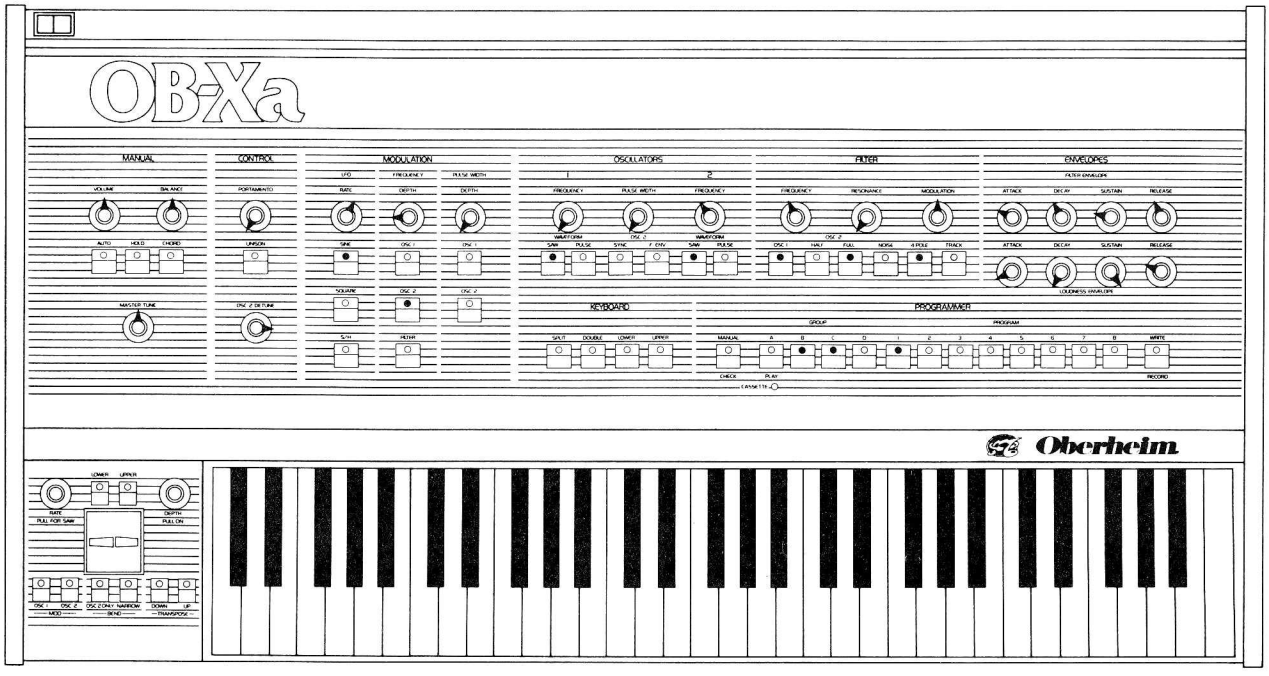


AC8: Oriental Unison

VCO1—Normal Pitch

VCO2—Four Octaves Up

NOTES:

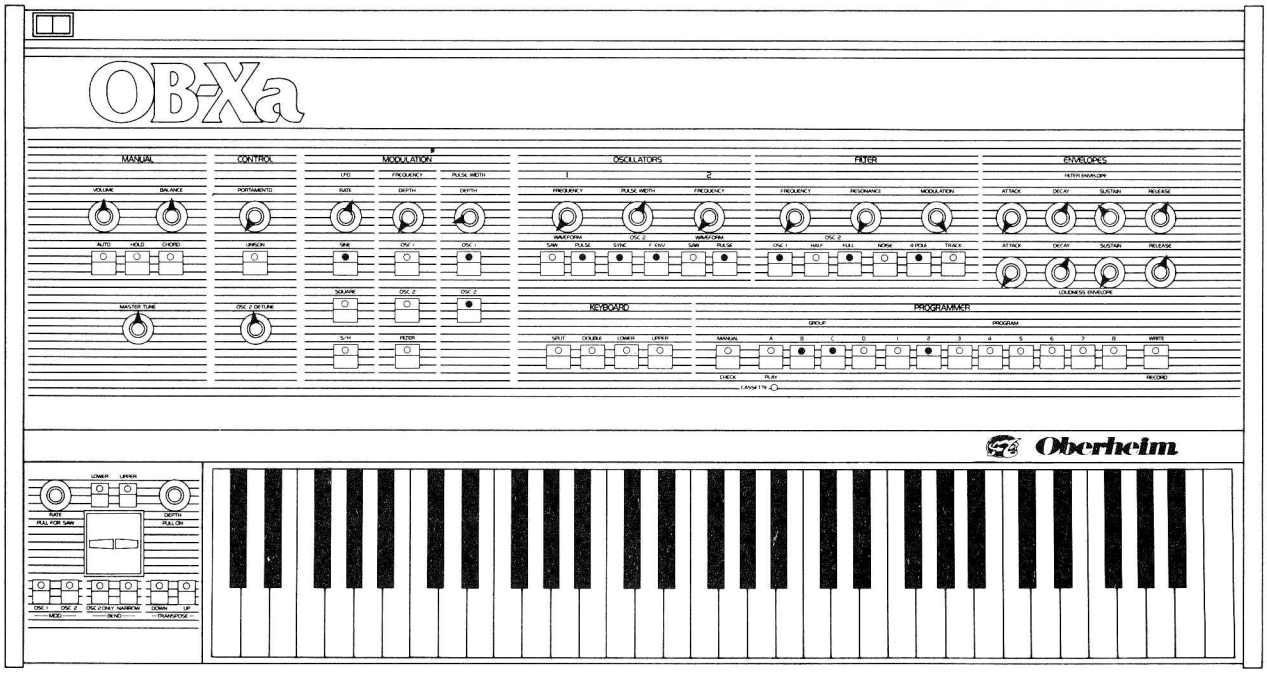


BC1: Tropical Horns

VC01—Normal Pitch

VC02—One Octave Up

NOTES:



BC2: Rubber Clav

VC01—Normal Pitch

VC02—Normal Pitch

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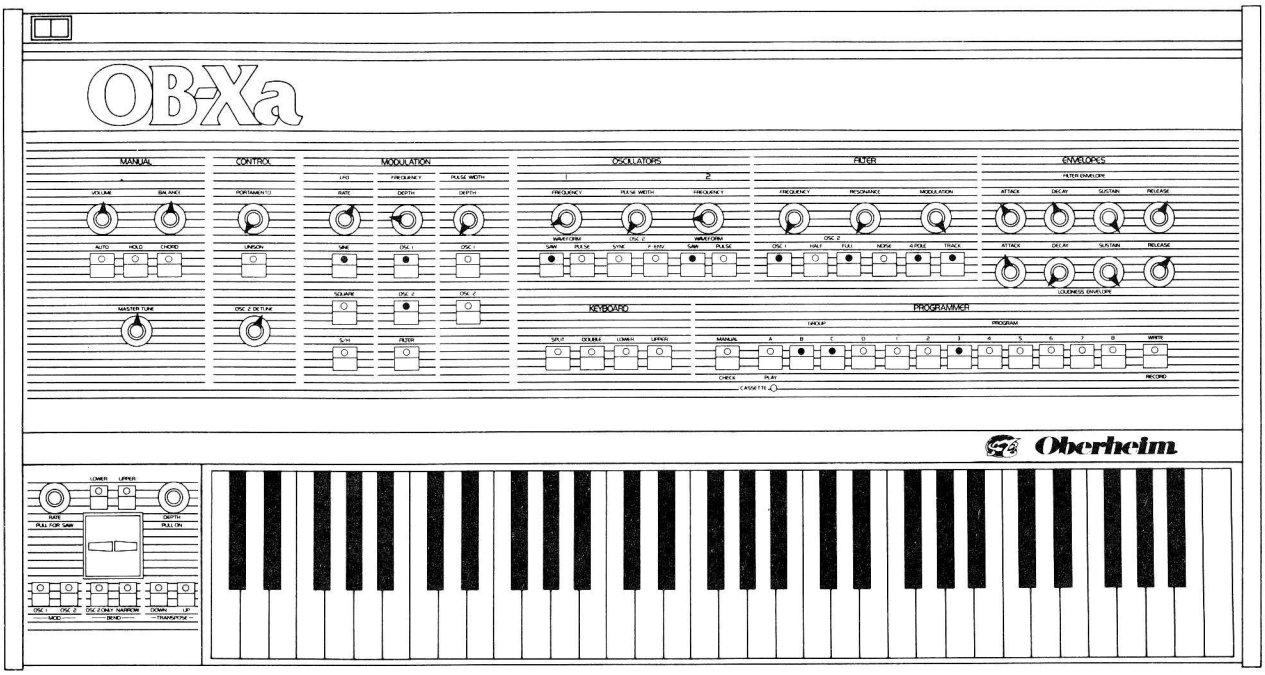

BC3: Strings II

VCO1—One Octave Up

VCO2—One Octave Up

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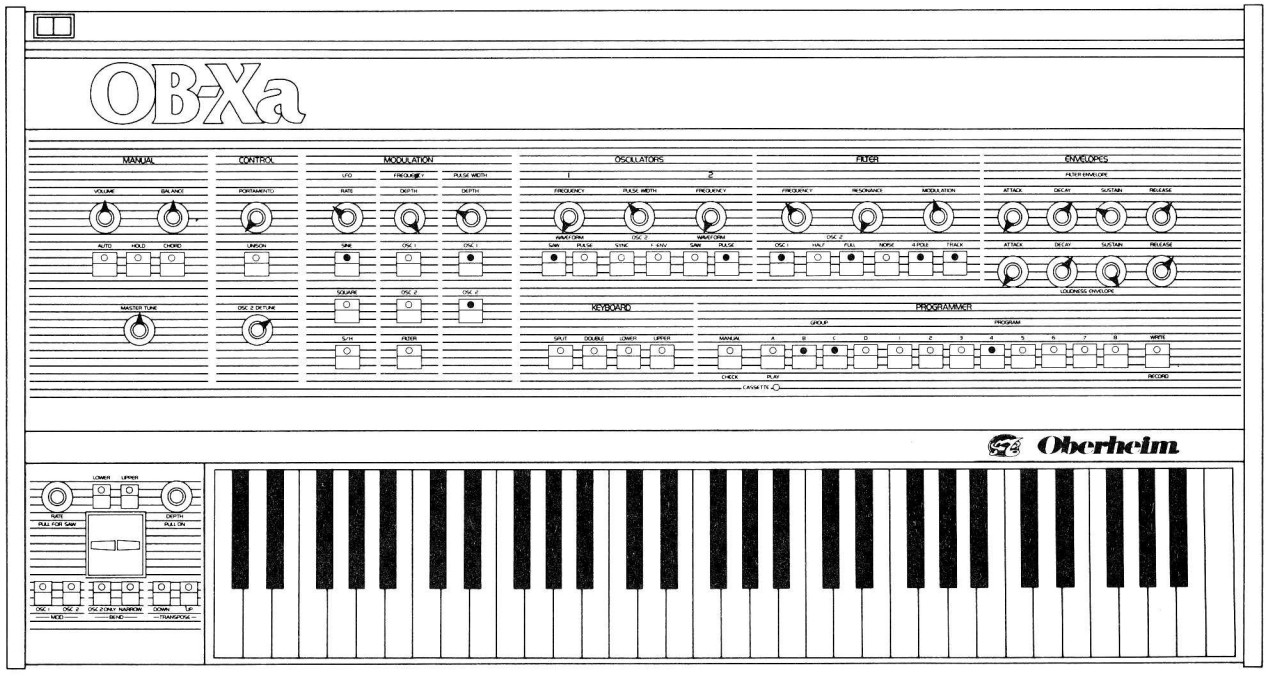


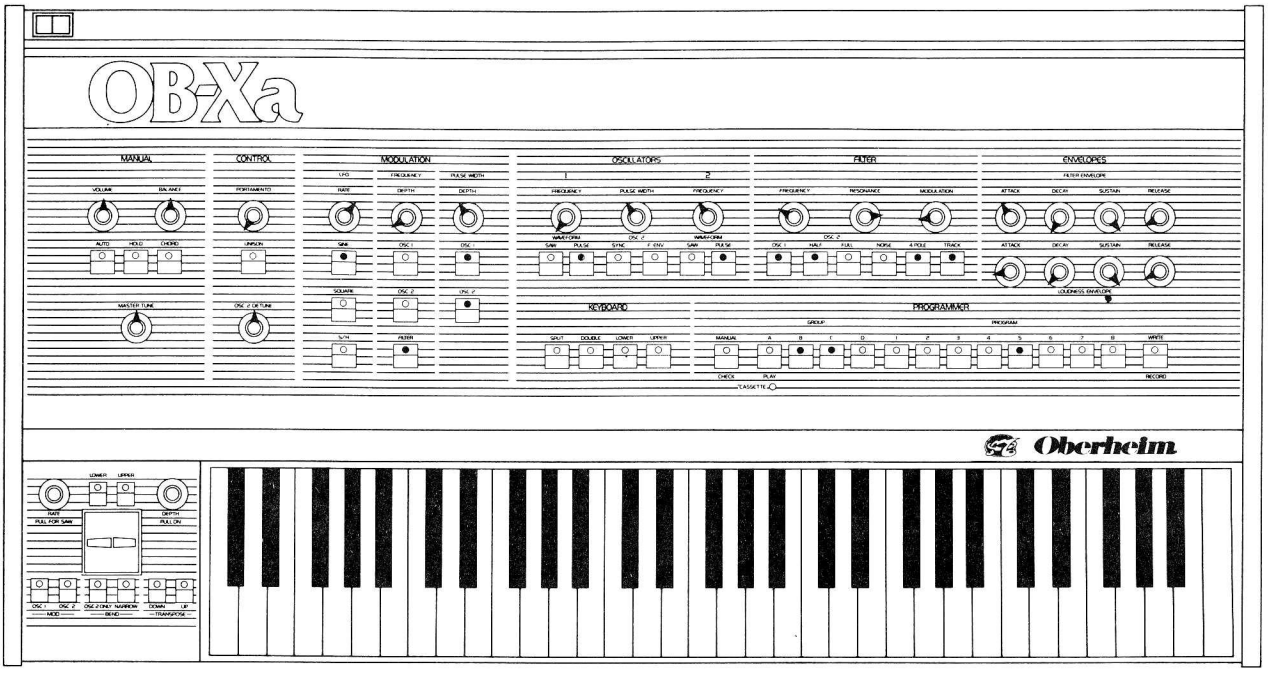
BC4: Edge Piano

VCO1—Normal Pitch

VCO2—Normal Pitch

More envelope modulation of the filter gives this patch more bite than the soft piano, with which it is combined in Double 6.

NOTES:

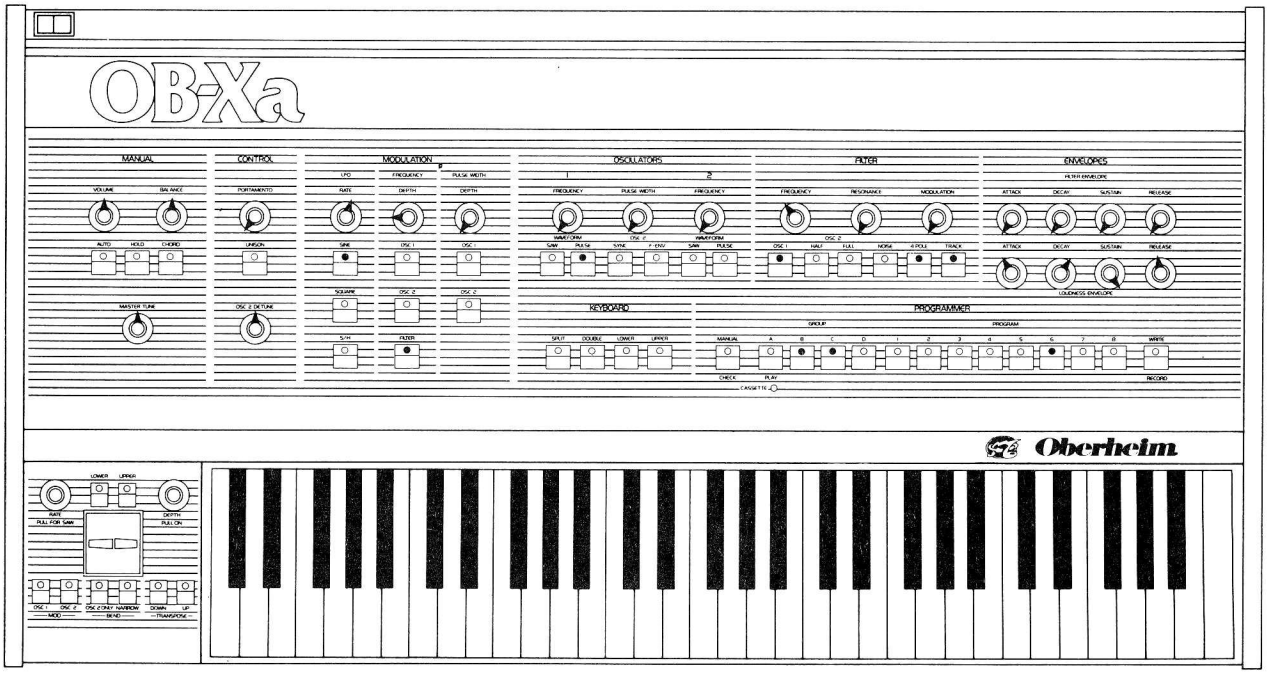


BC5: Hymn Organ

VCO1—Normal Pitch

VCO2—One Octave Up

NOTES:

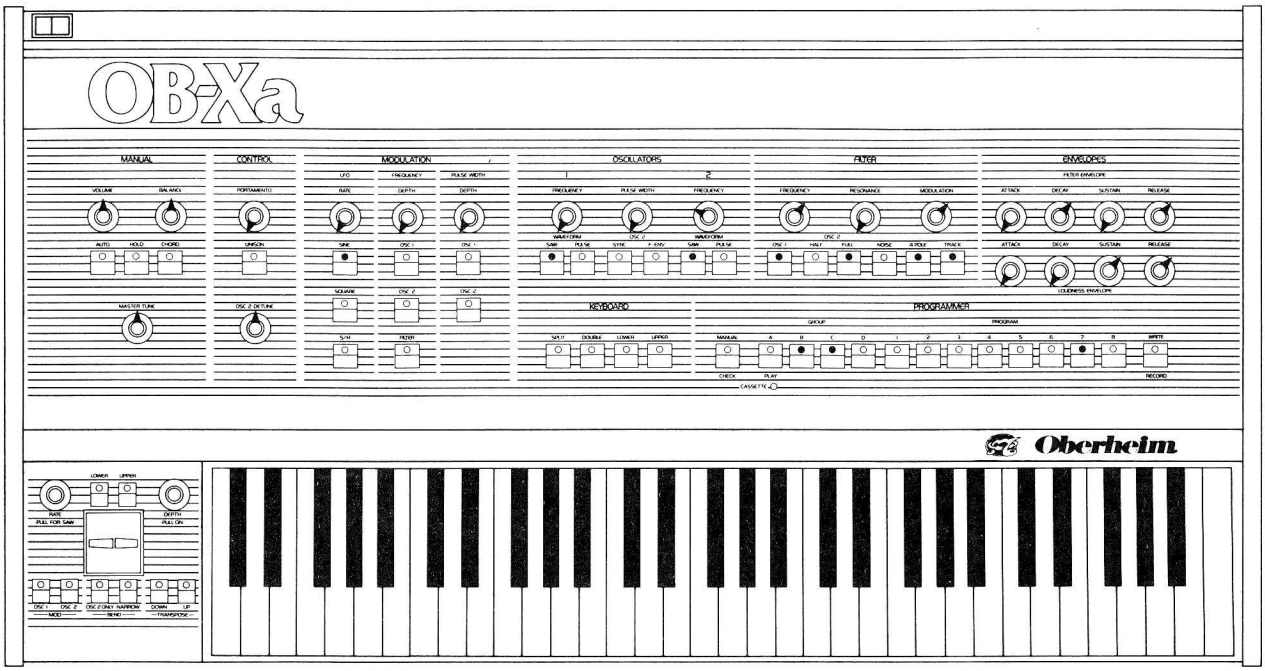


BC6: Recorder

VCO1—Normal Pitch

VCO2—Off

NOTES:

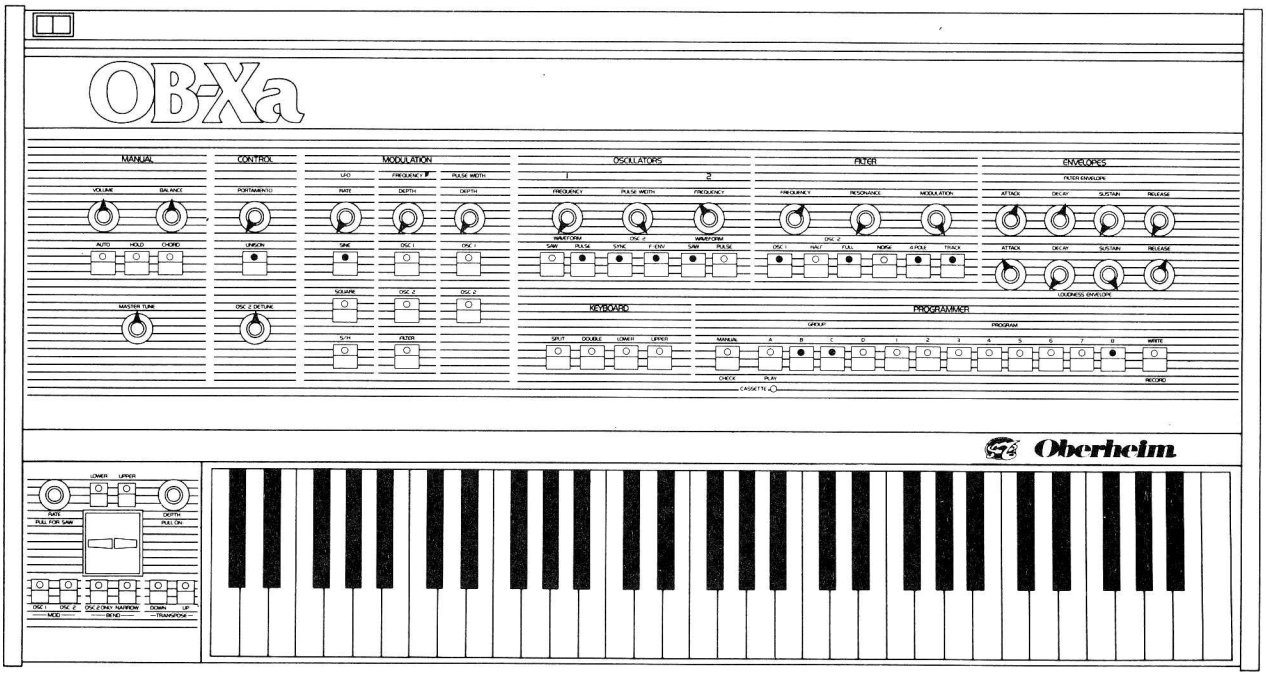


BC7: Long Chimes

VCO1—Normal Pitch

VCO2—Perfect Fifth Up

NOTES:

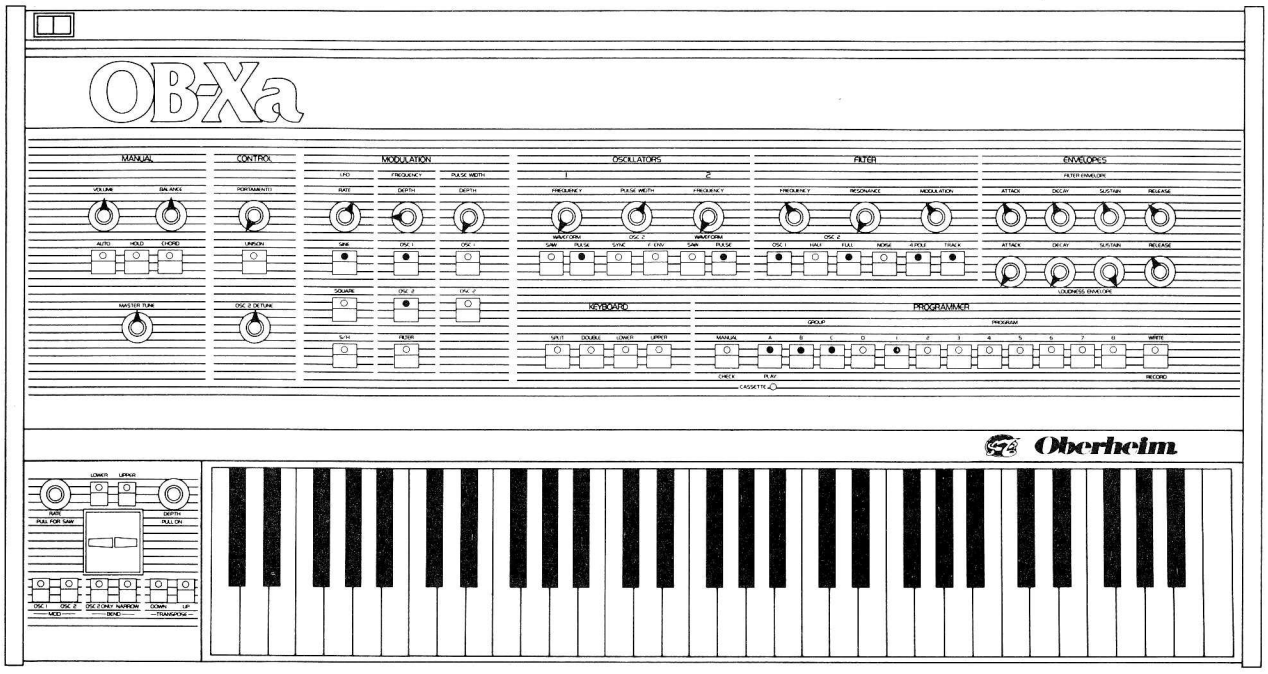


BC8: Unison Fear

VCO1—Normal Pitch

VCO2—One Octave Plus Perfect Fifth Up

NOTES:

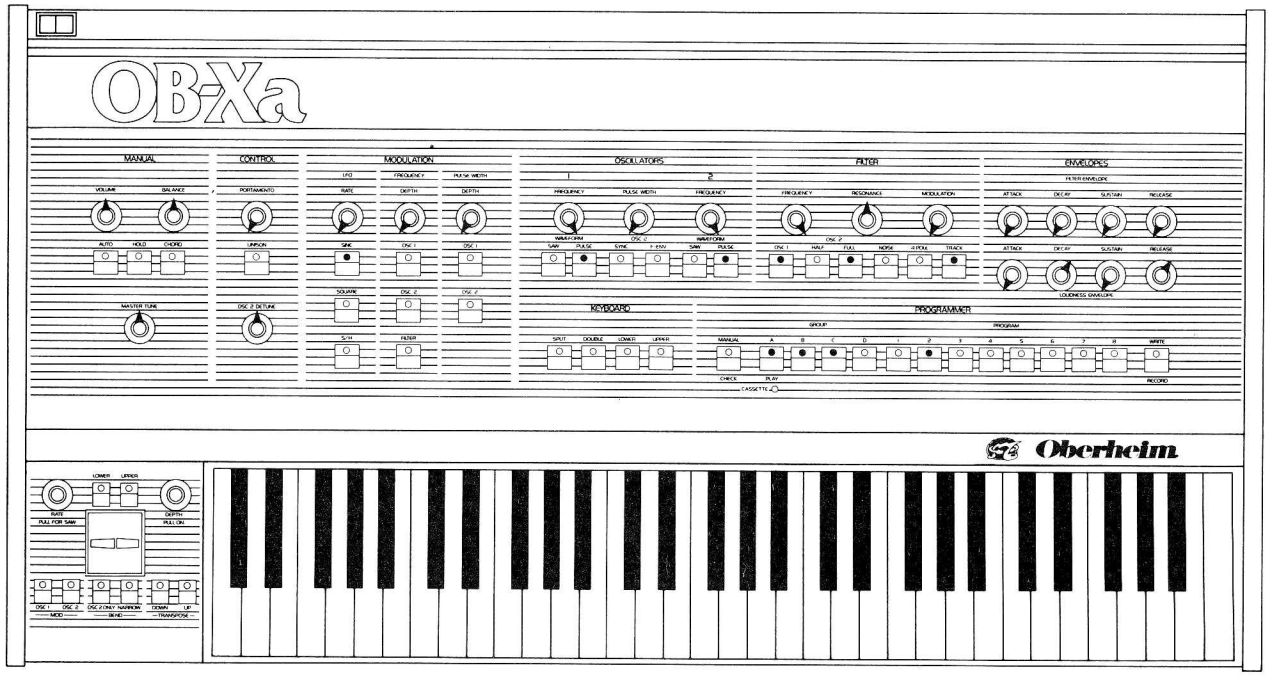


ABC1: Comp Horns

VC01—Normal Pitch

VC02—Normal Pitch

NOTES:

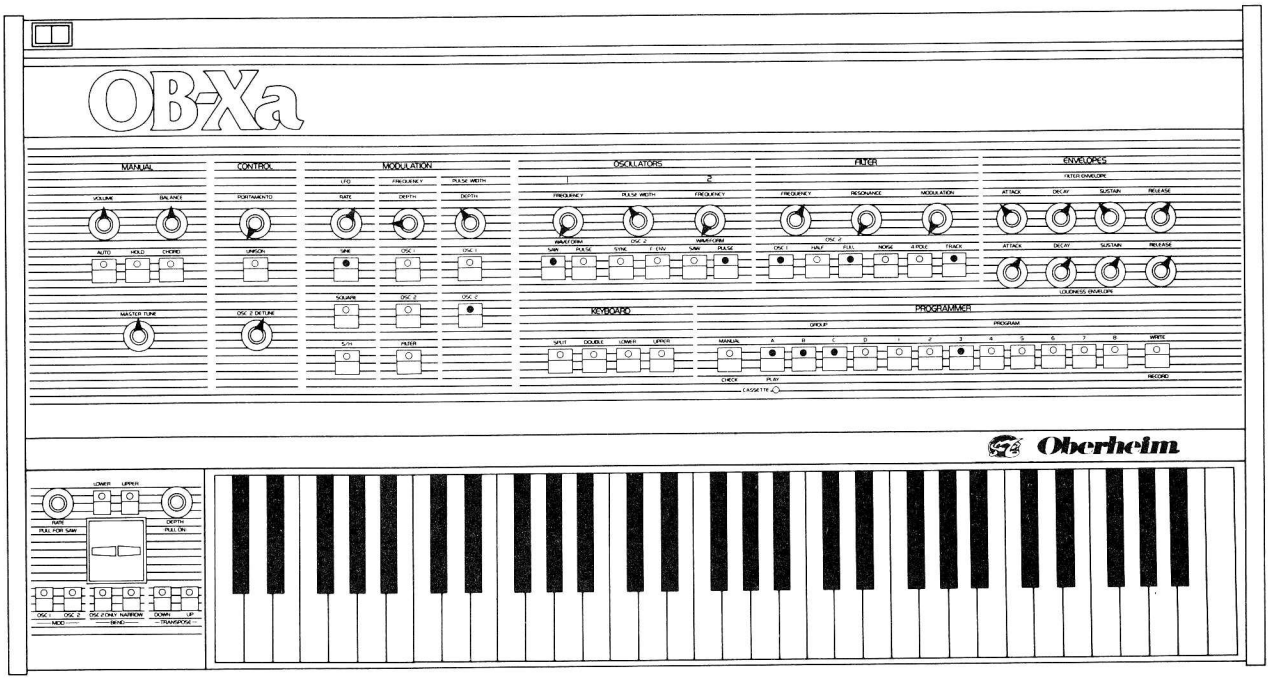


ABC2: Bells

VC01—Maximum Transpose Up

VC02—Maximum Transpose Up

NOTES:

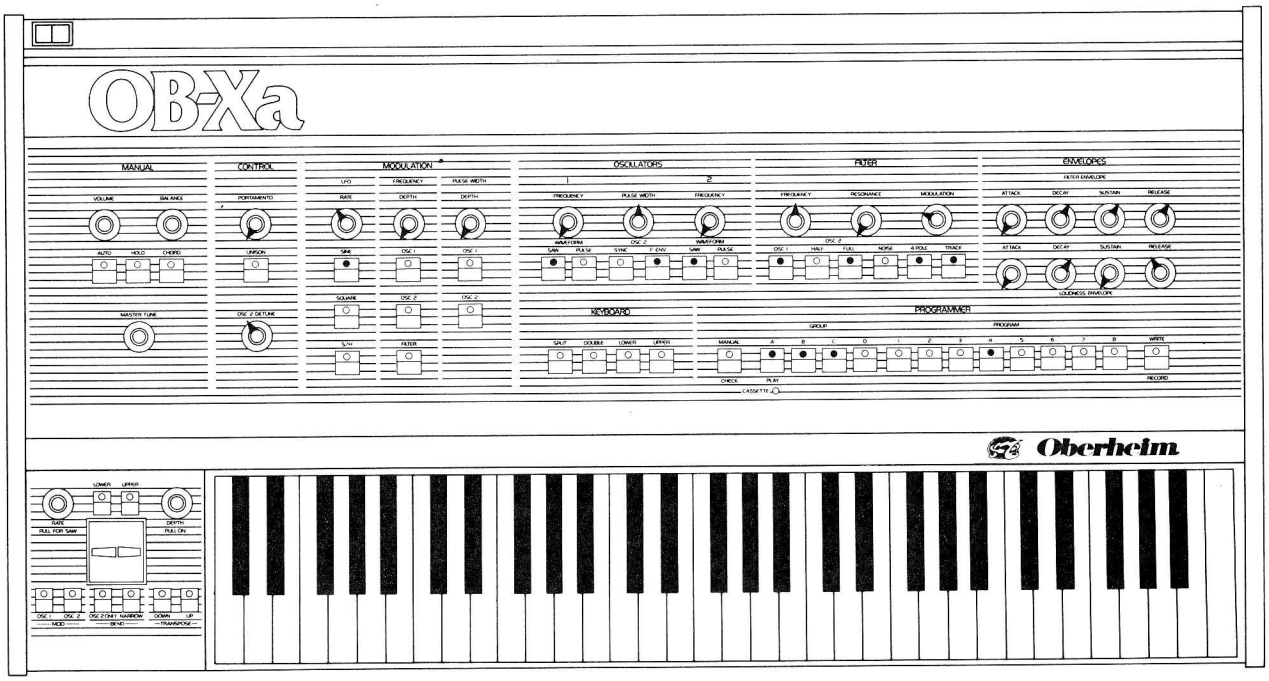


ABC3: Strings III

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



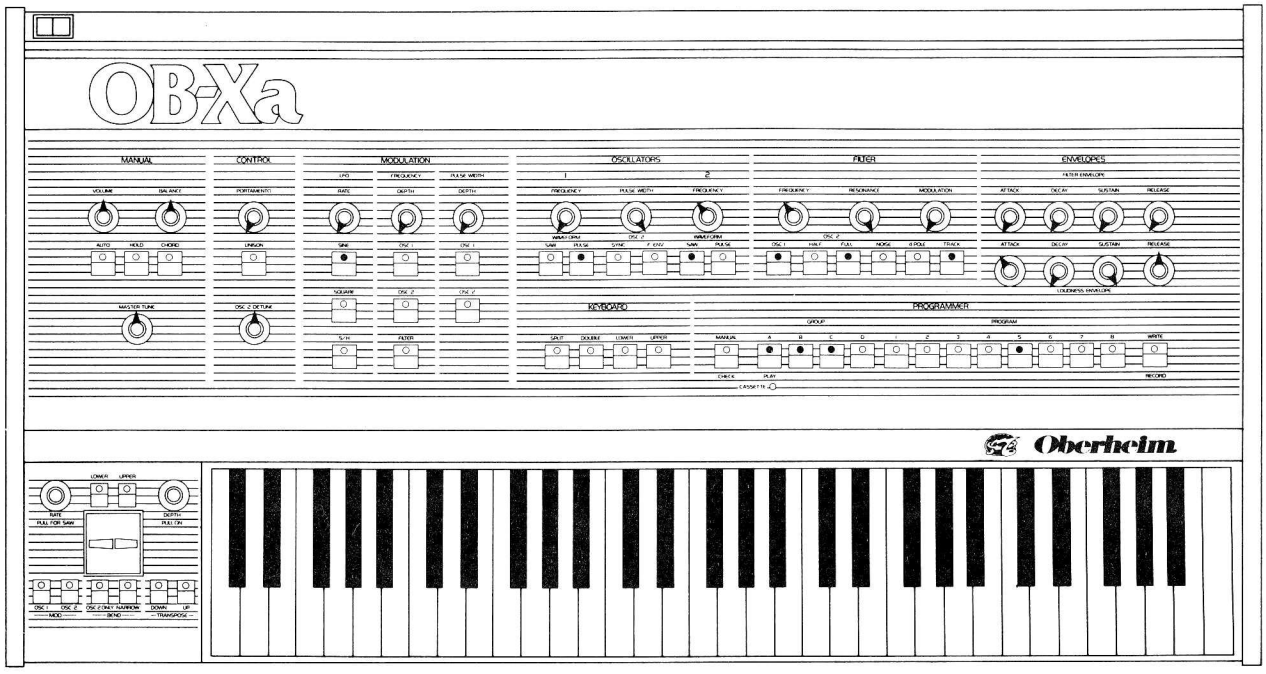
ABC4: Soft Piano

VCO1—Normal Pitch

VCO2—Normal Pitch

A slight amount of filter envelope modulation of VCO2 changes the beating of the VCO's during the duration of note. The long decay and minimum sustain of the loudness envelope causes the note to die out even if the key is held down. This patch is used with the Edge Piano in Double 6.

NOTES:

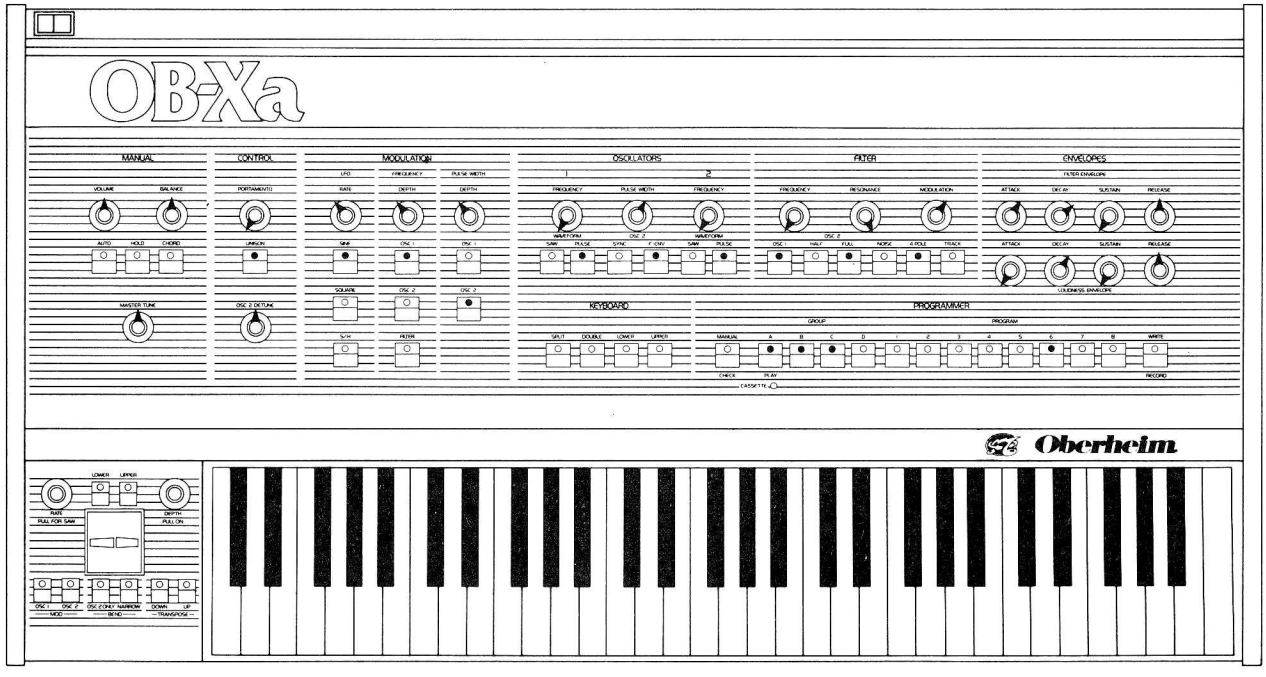


ABC5: Reed Organ

VCO1—Normal Pitch

VCO2—One Octave Plus Perfect Fifth Up

NOTES:



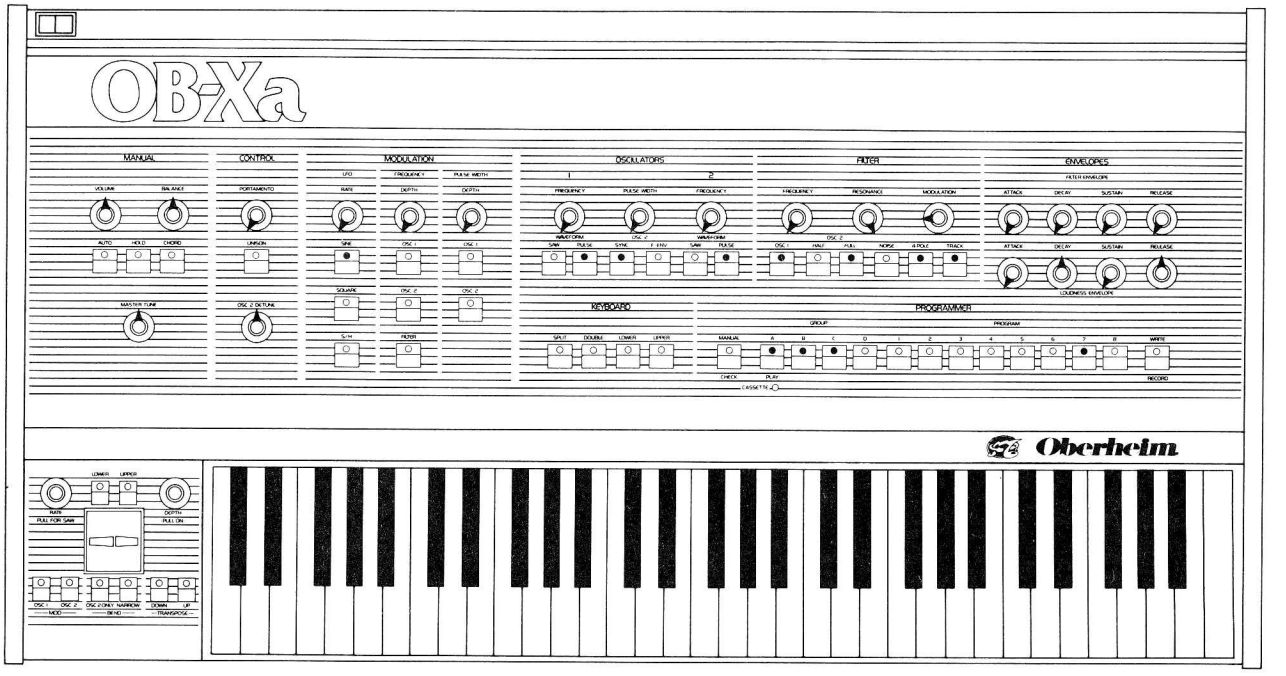
ABC6: Vocal Wow

VCO1—Normal Pitch

VCO2—Normal Pitch

Change the filter envelope decay time to alter the length of the word.

NOTES:



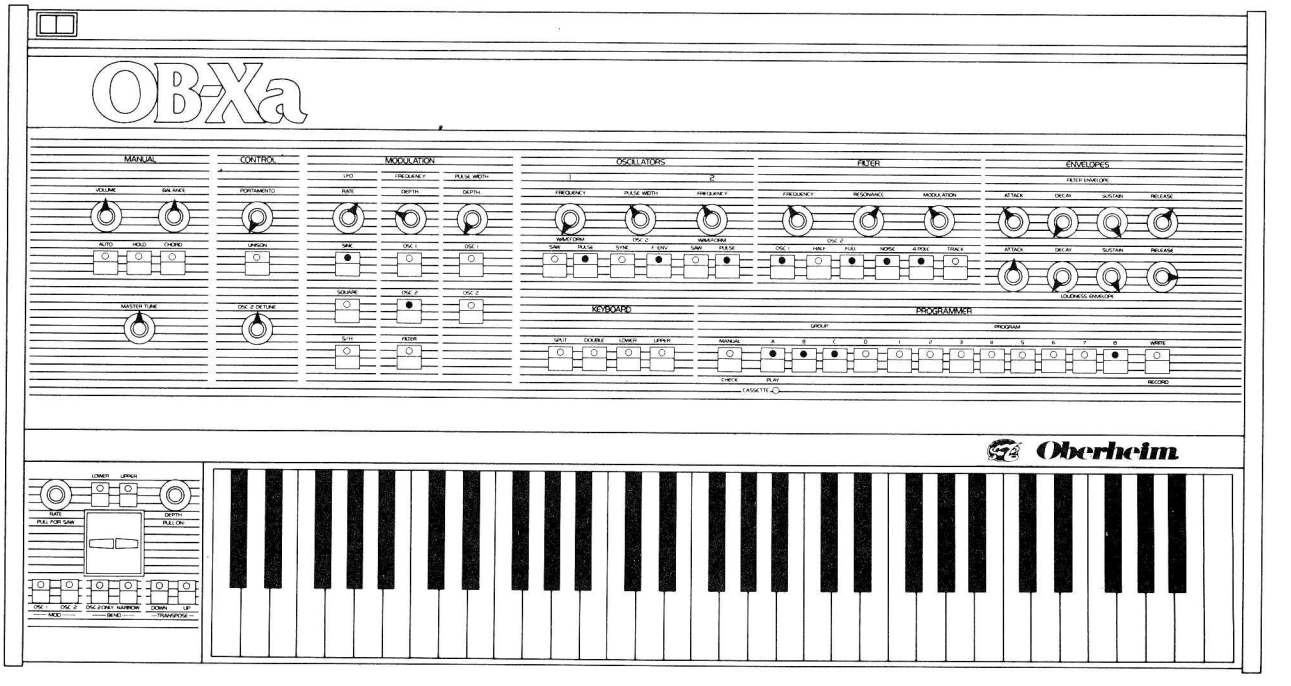
ABC7: Marimba

VCO1—Normal Pitch

VCO2—Normal Pitch

The mallet sound is available through filter envelope modulation.

NOTES: _____



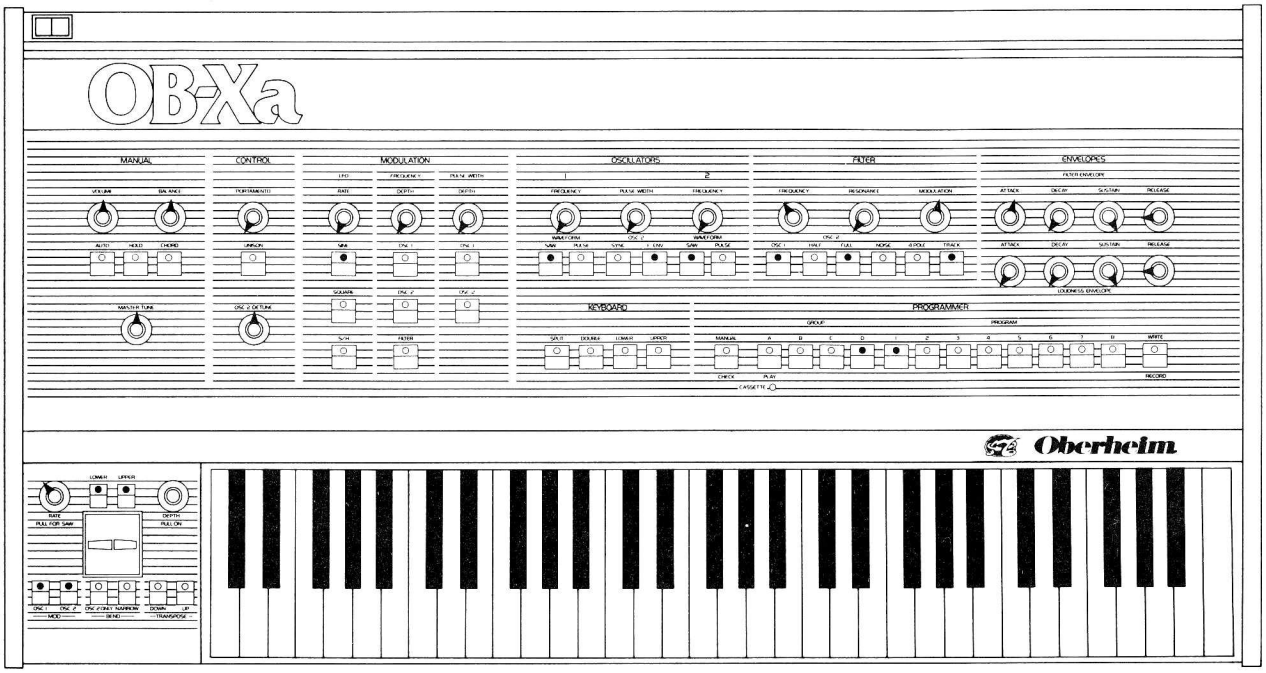
ABC8: Terror

VCO1—Normal Pitch

VCO2—Major Seventh Up

No one will be seated during the last seconds of this patch.

NOTES: _____



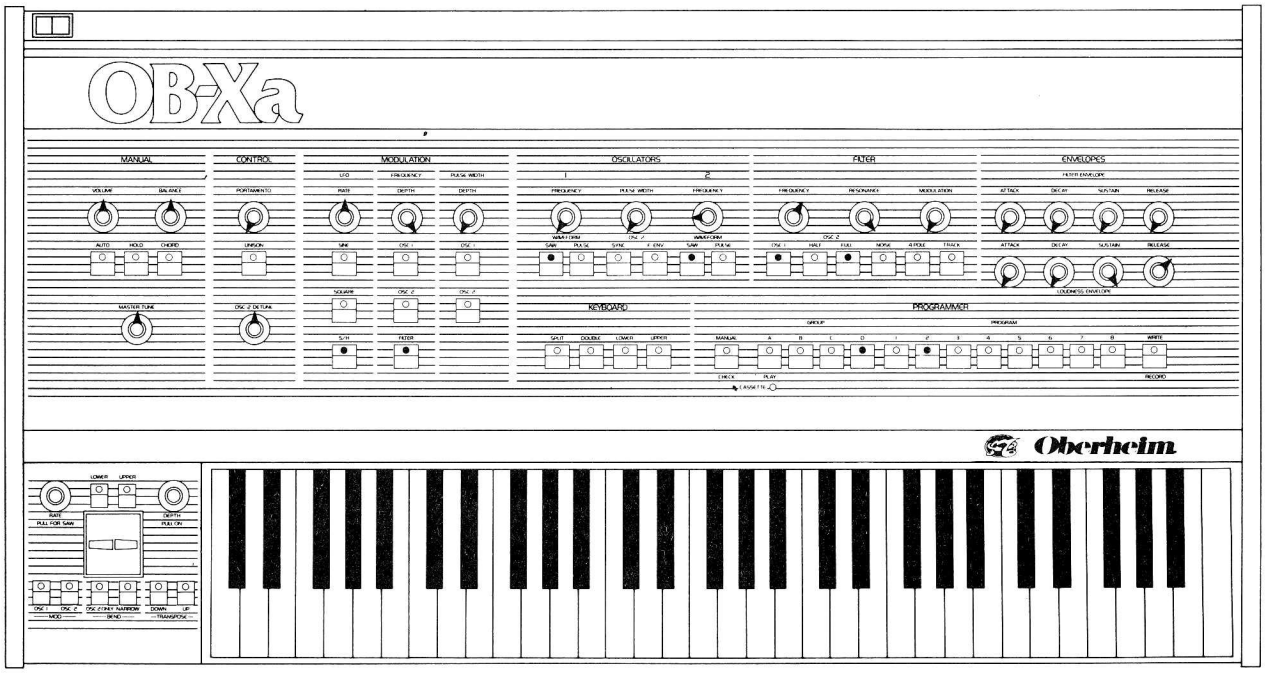
D1: F-ENV Horns

VCO1—Normal Pitch

VCO2—Normal Pitch

VCO2 is tuned to a fifth above VCO1 with the filter envelope modulation level. If sync is added, the filter envelope pitch modulation of VCO2 changes the harmonic structure of the sound instead of changing the pitch of VCO2.

NOTES:



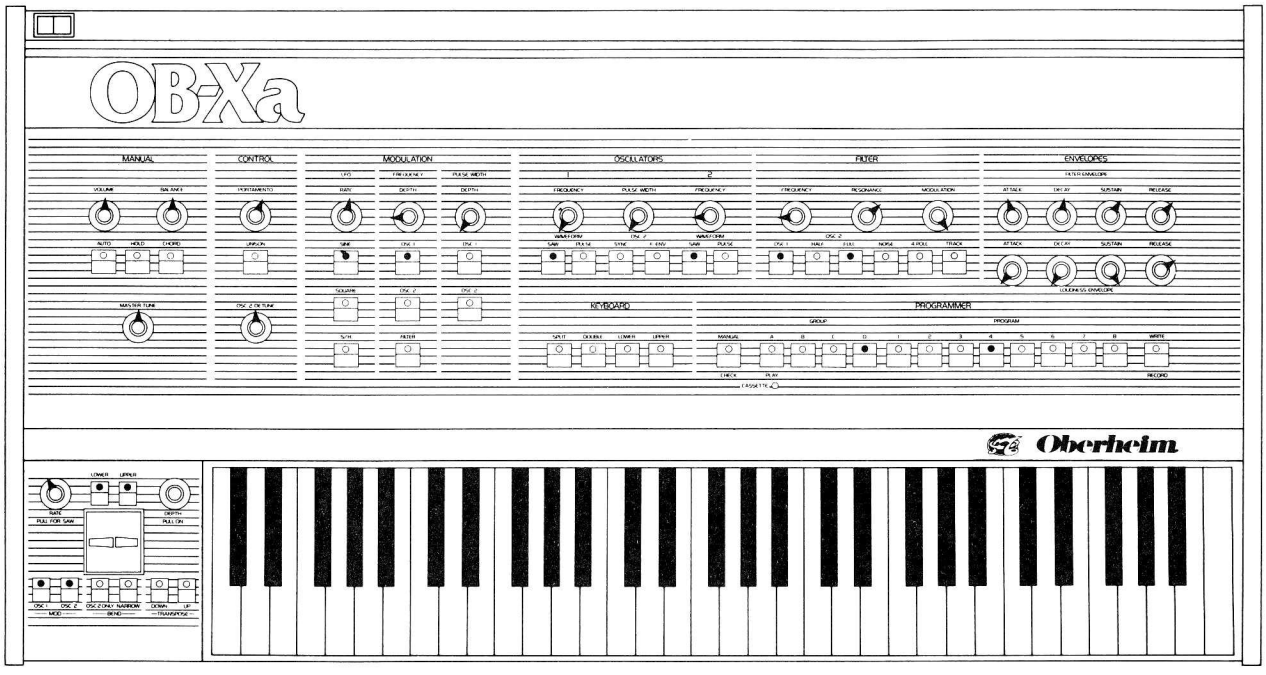
D2: S/H in Fifths

VCO1—Normal Pitch

VCO2—Perfect Fifth UP

The LFO rate may be varied to use this patch in tempo.

NOTES:

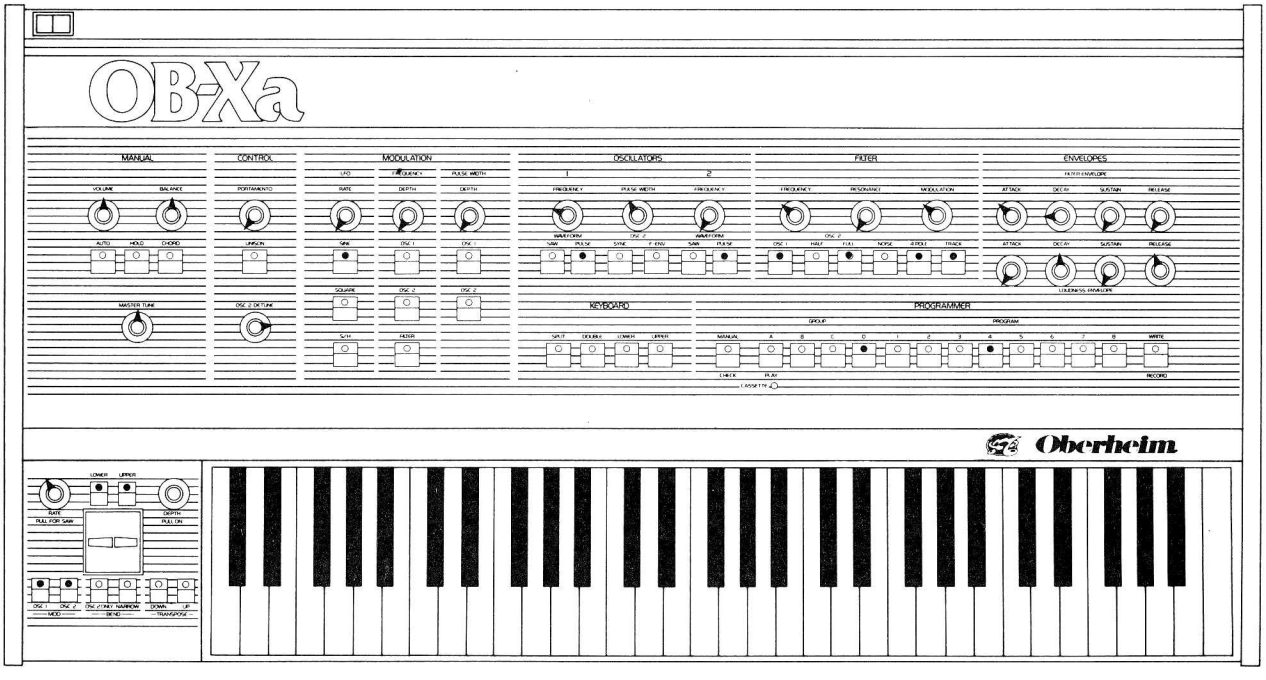


D3: Polyphonic Portamento

VCO1—Normal Pitch

VCO2—Perfect Fifth Up

NOTES:



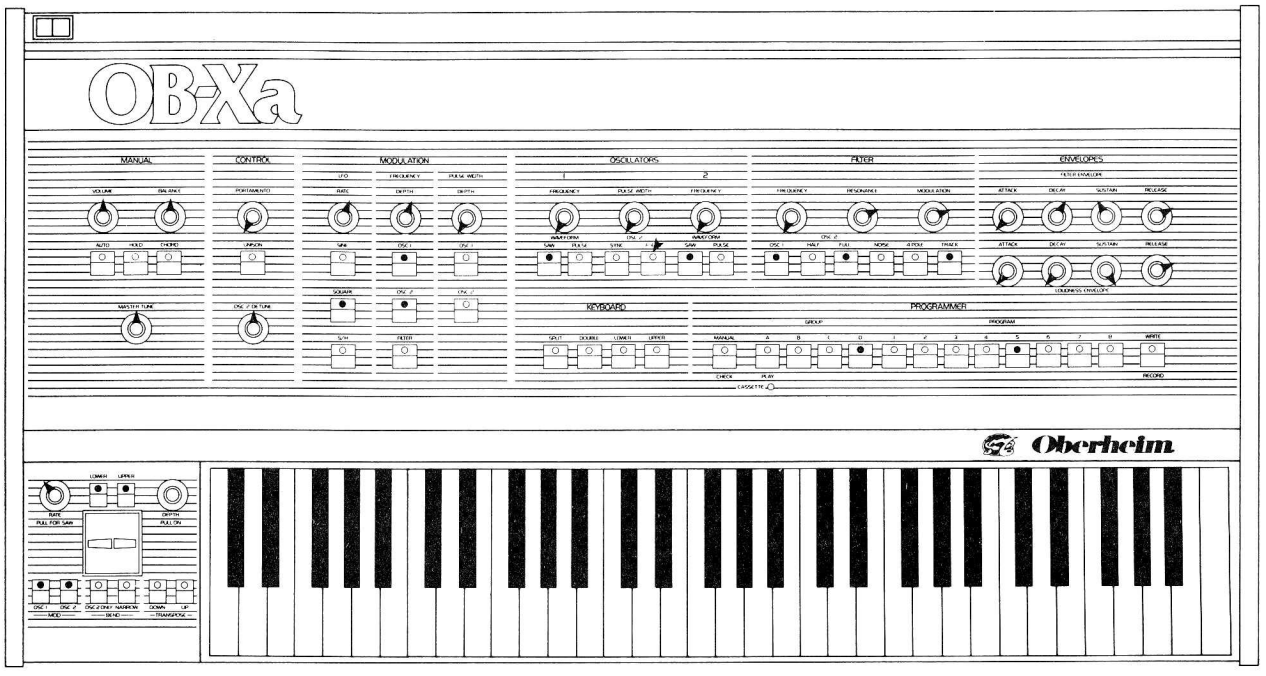
D4: Steel Drums

VCO1—One Octave Up

VCO2—Normal Pitch

VCO2 detuning contributes to the sound of steel drums. Play in a staccato style to simulate the drums.

NOTES:



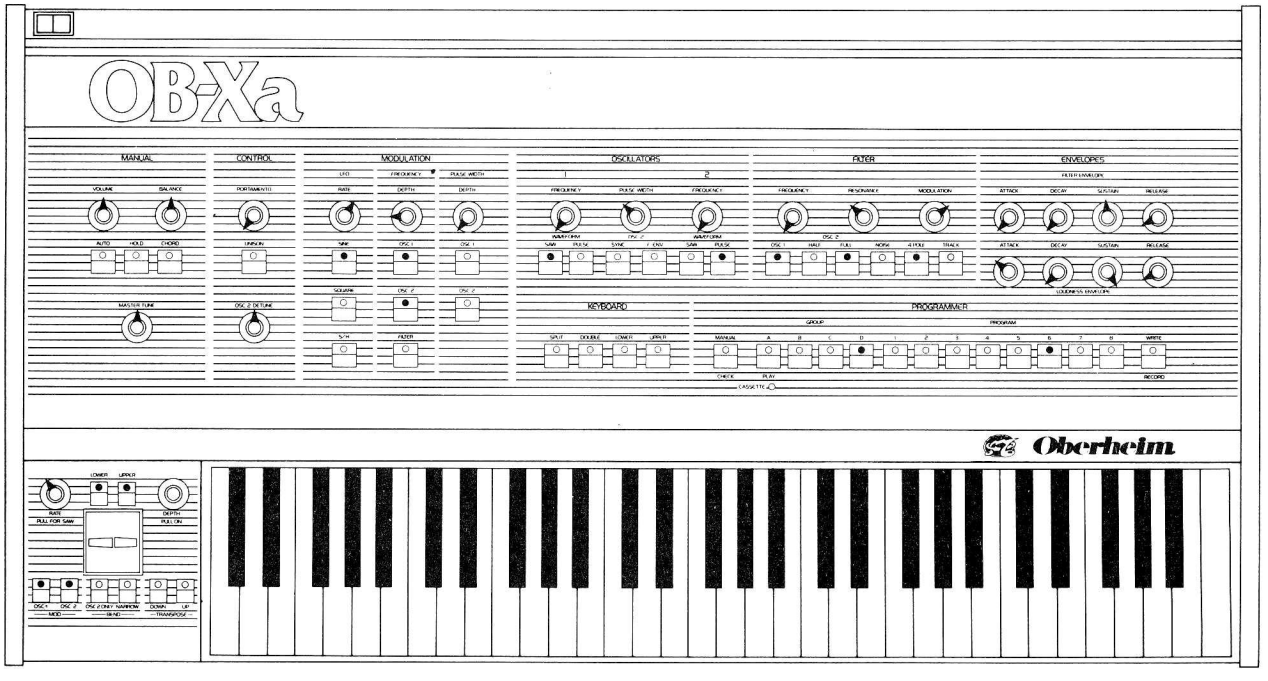
D5: Square Wave Mod

VCO1—Normal Pitch

VCO2—Normal Pitch

The LFO square wave modulates both oscillators up a fourth. The interval and speed can be changed by using the frequency depth and LFO rate controls.

NOTES:



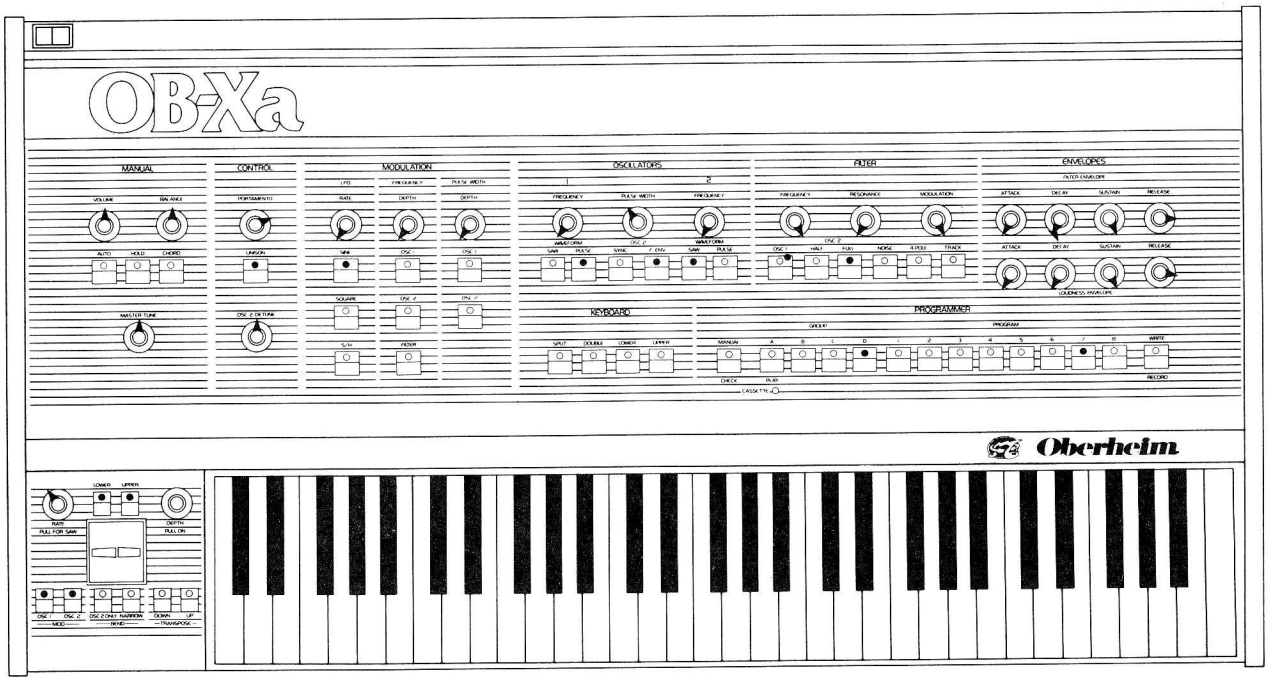
D6: Comp Synth

VCO1—Normal Pitch

VCO2—Normal Pitch

This patch may be used as a solo synthesizer sound or as an interesting accompaniment texture.

NOTES:

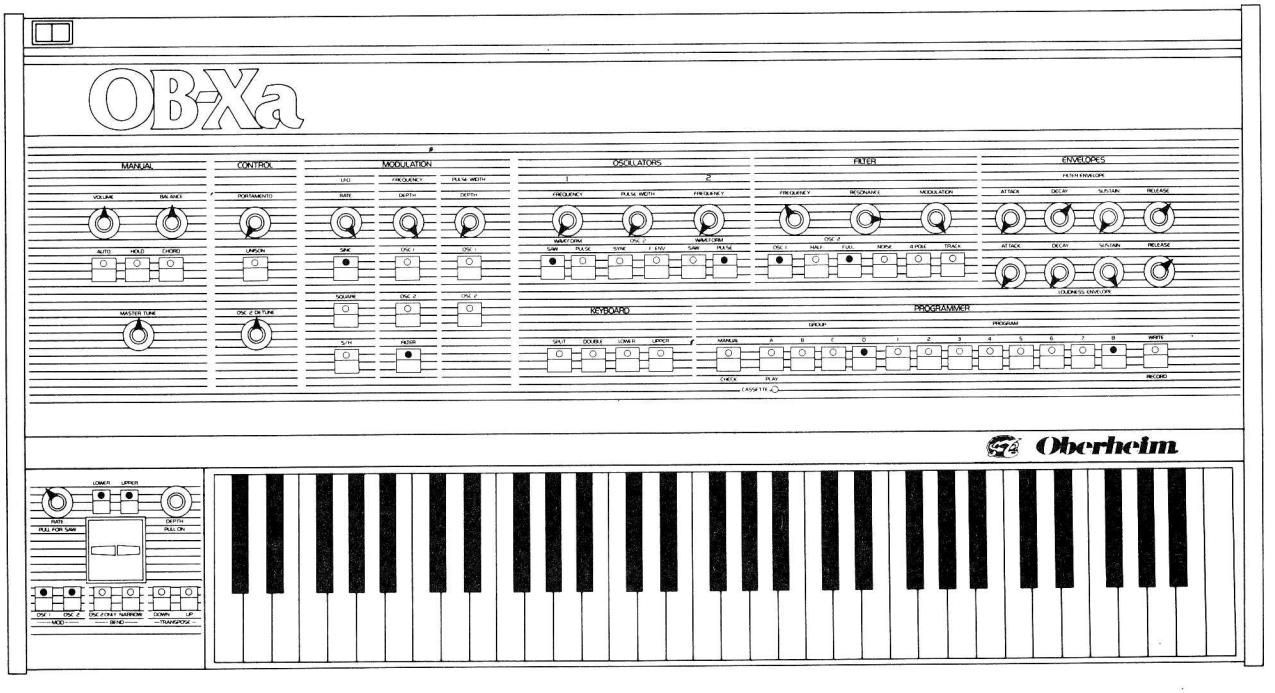


D7: Unison Portamento

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



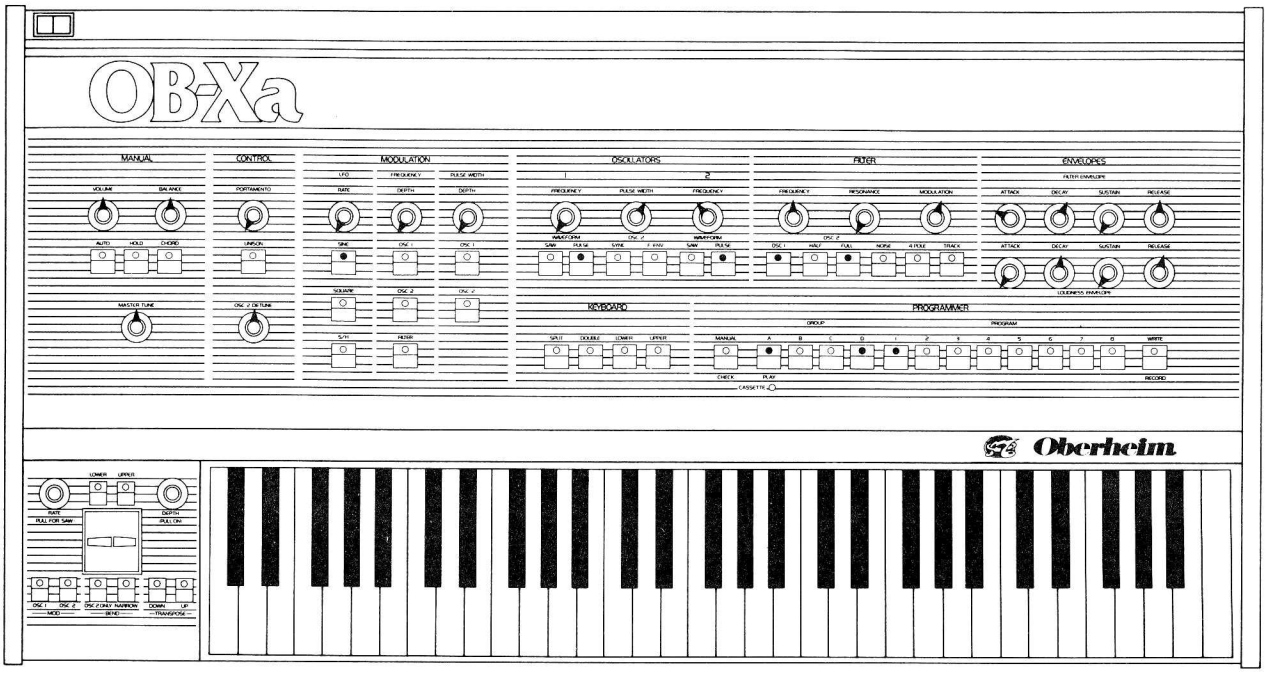
D8: Delayed Mod

VCO1—Normal Pitch

VCO2—Normal Pitch

In this patch, the filter envelope drives the filter frequency above the point at which the LFO is modulating the filter. As the filter frequency drops with the filter envelope decay, the LFO filter modulation becomes audible.

NOTES:

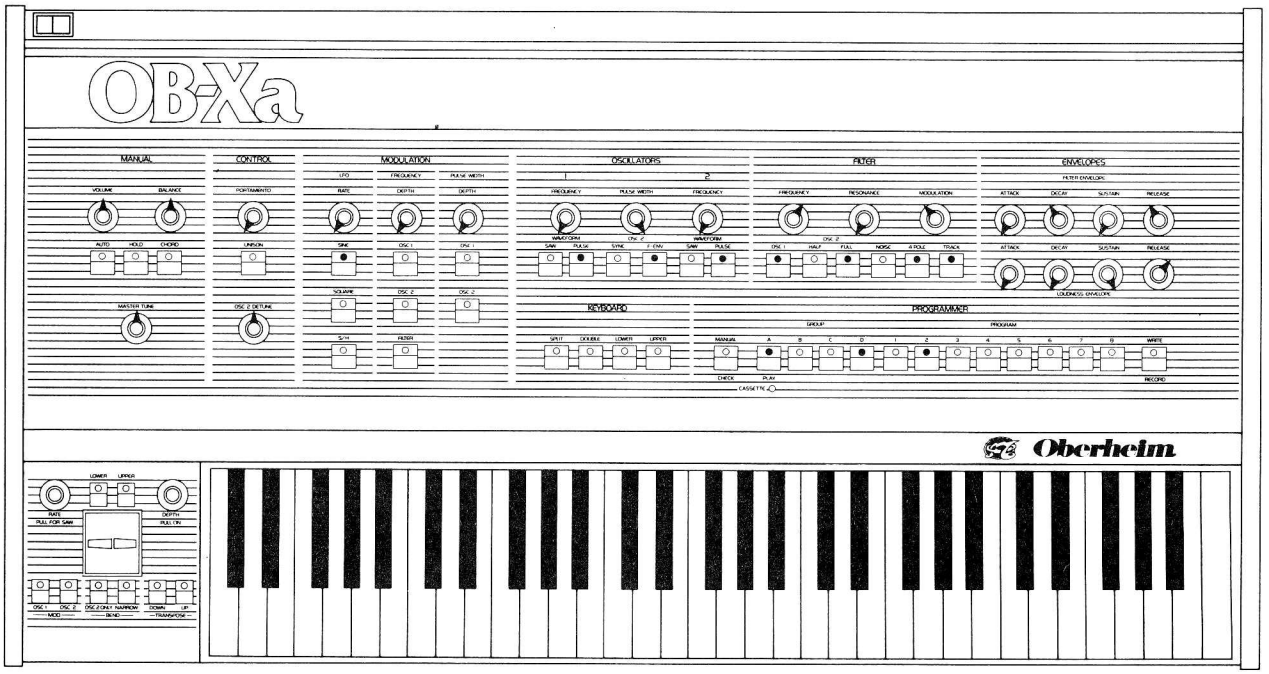


AD1: Tenth Decay

VCO1—Normal Pitch

VCO2—Tenth Up

NOTES:



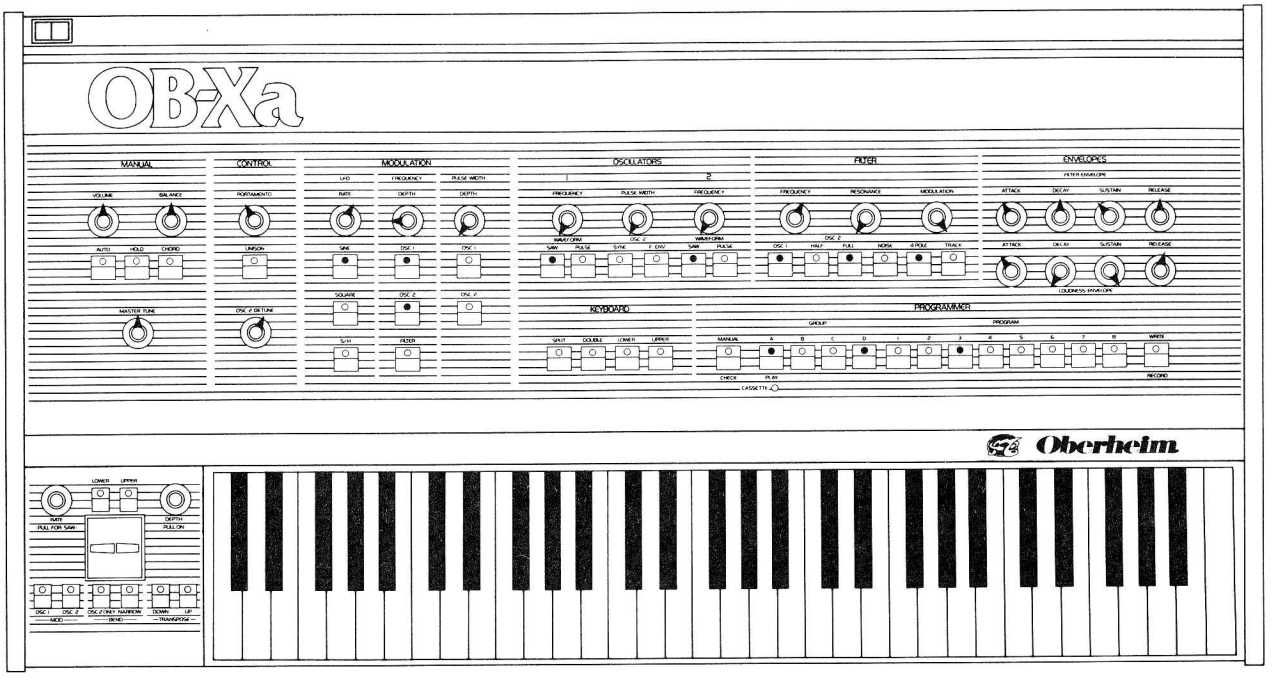
AD2: Sitar

VCO1—Normal Pitch

VCO2—Normal Pitch

Place a note on HOLD to produce the droning accompaniment.

NOTES:



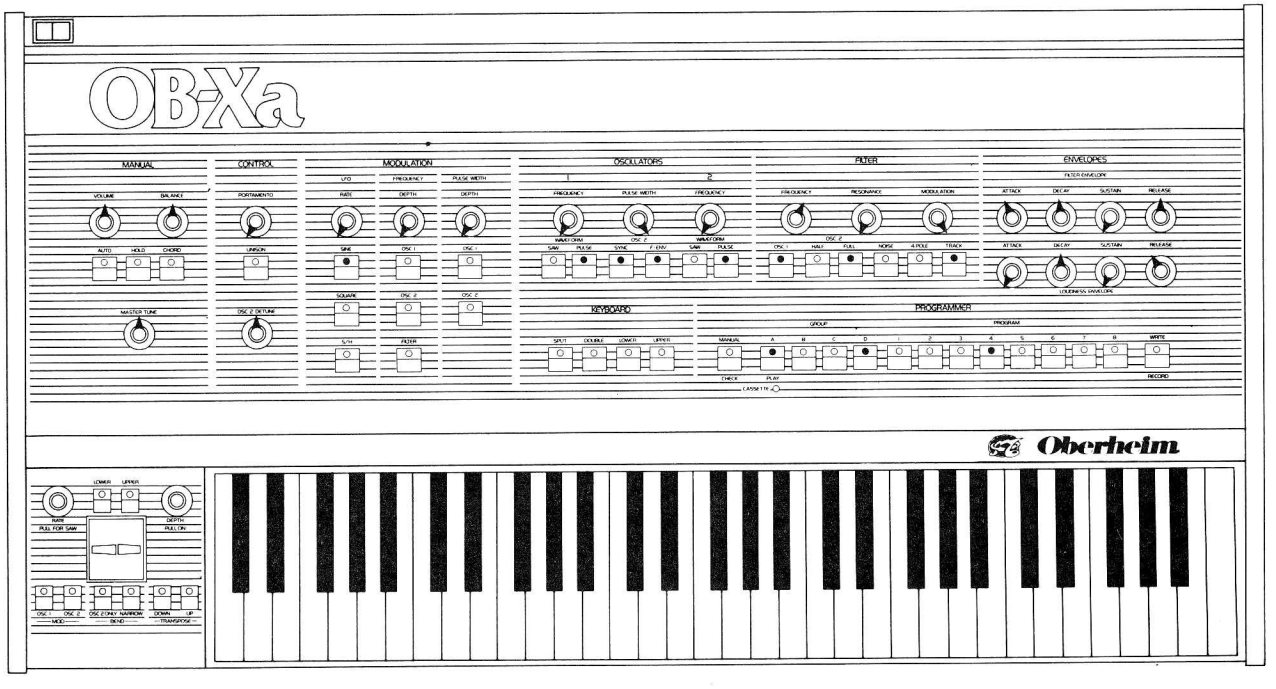
AD3: Fiddle

VCO1—Normal Pitch

VCO2—Normal Pitch

Play 32nd notes as fast as you can with major and minor thirds to get that barn dance feeling.

NOTES:

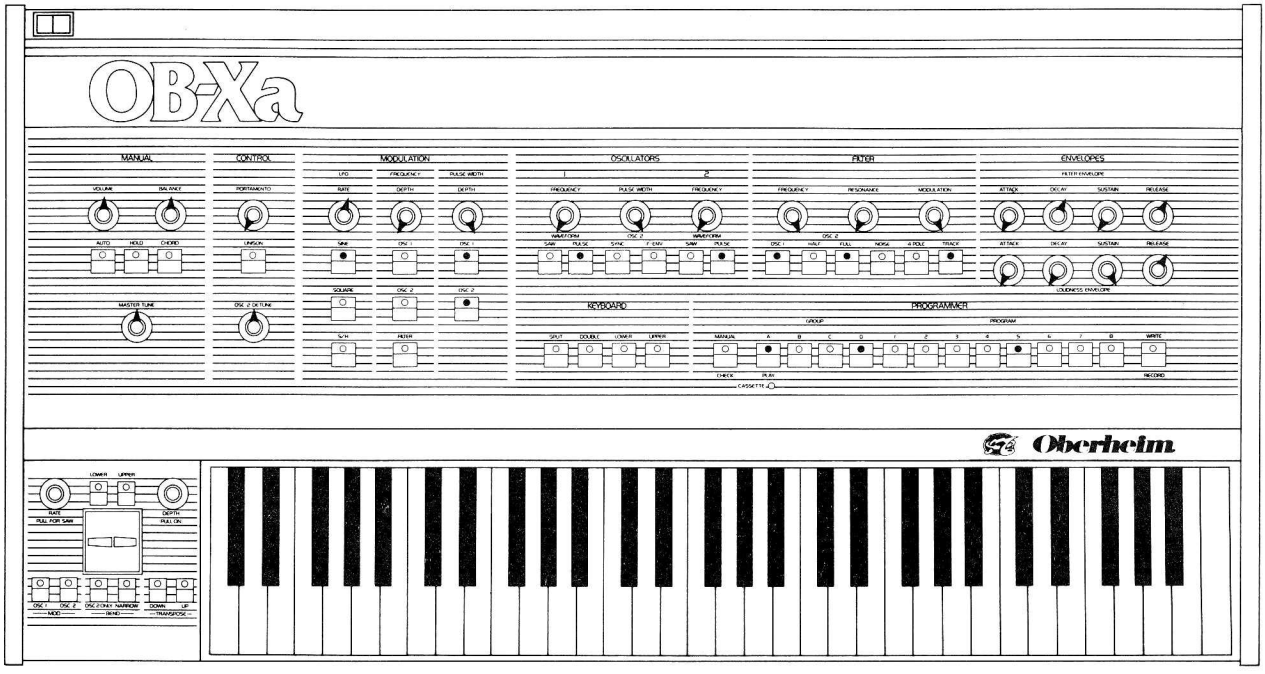


AD4: Pulse Comp

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:

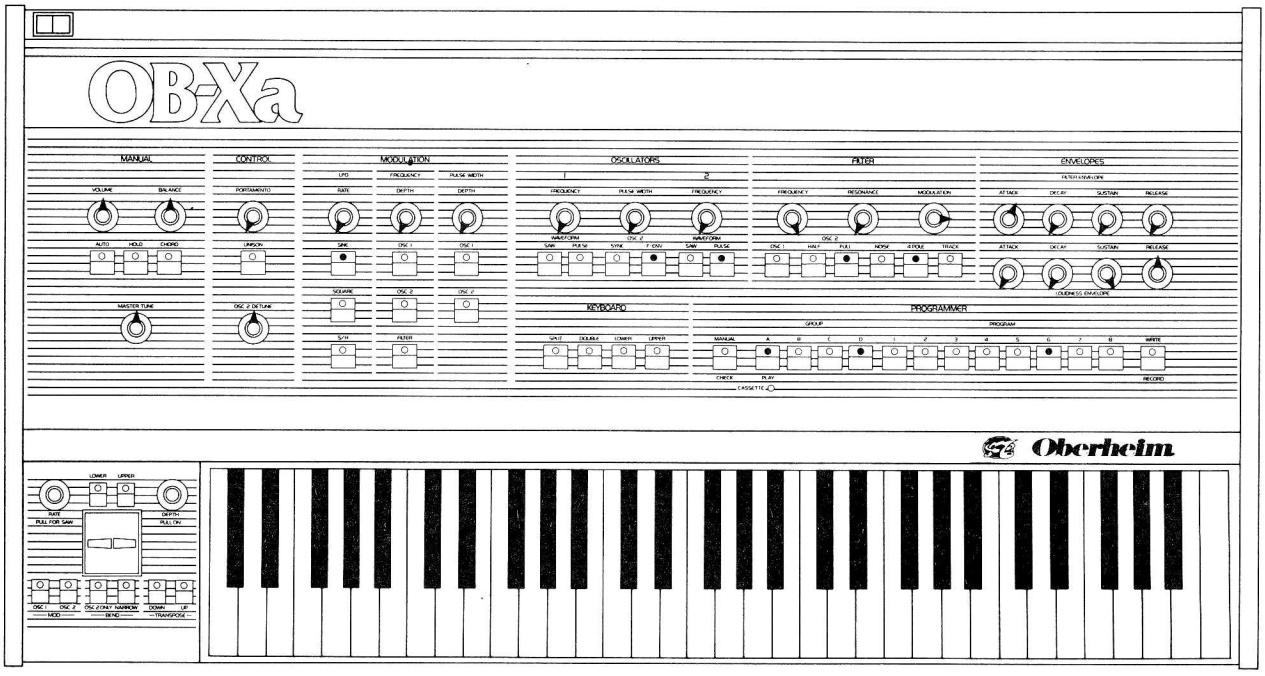


AD5: P.W. Rezz

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES: _____

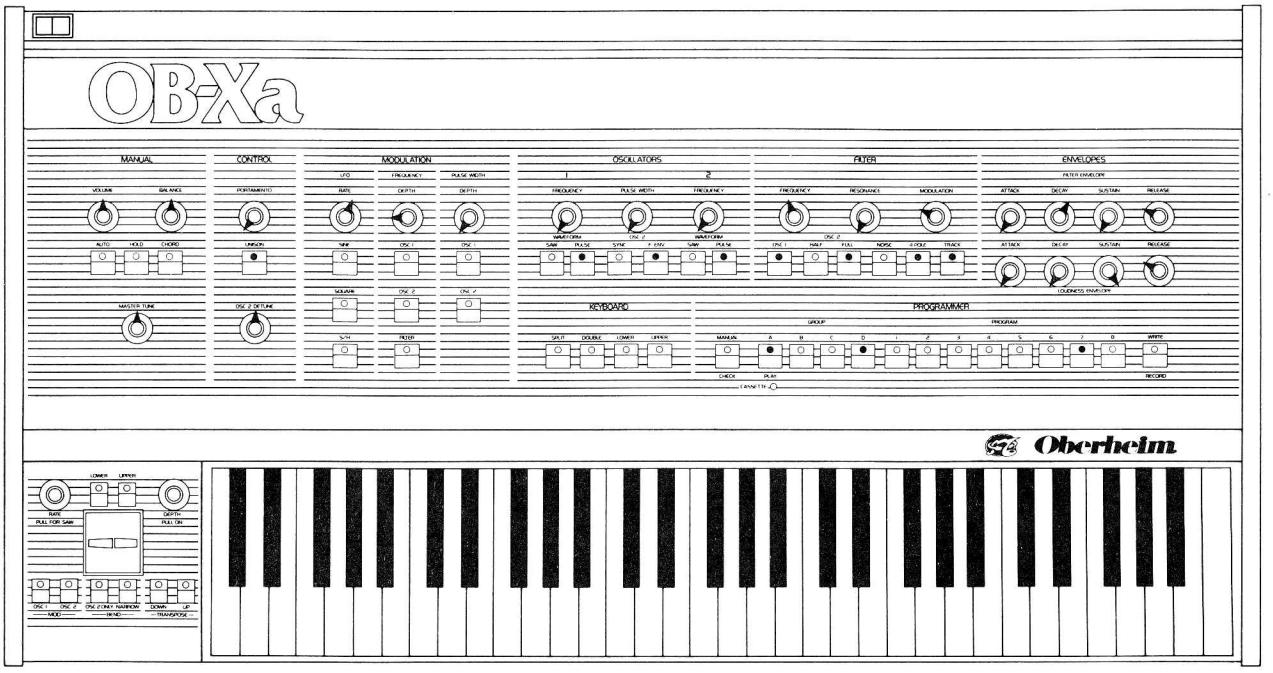


AD6: Comedy Comp

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES: _____



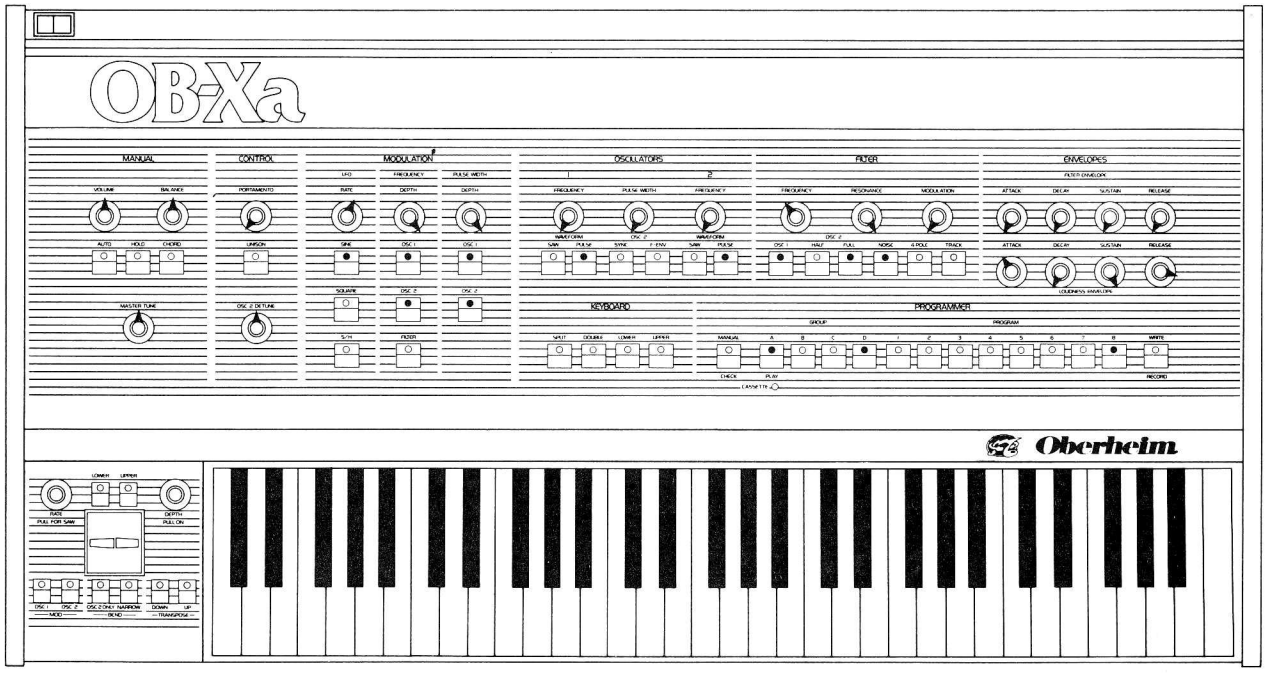
AD7: Jazz Solo

VCO1—Normal Pitch

VCO2—Normal Pitch

Two almost square waves in unison, with a small amount of envelope modulation on VCO2 at the start of the note. For vibrato you can add OSC1 or OSC2 modulation buttons.

NOTES:



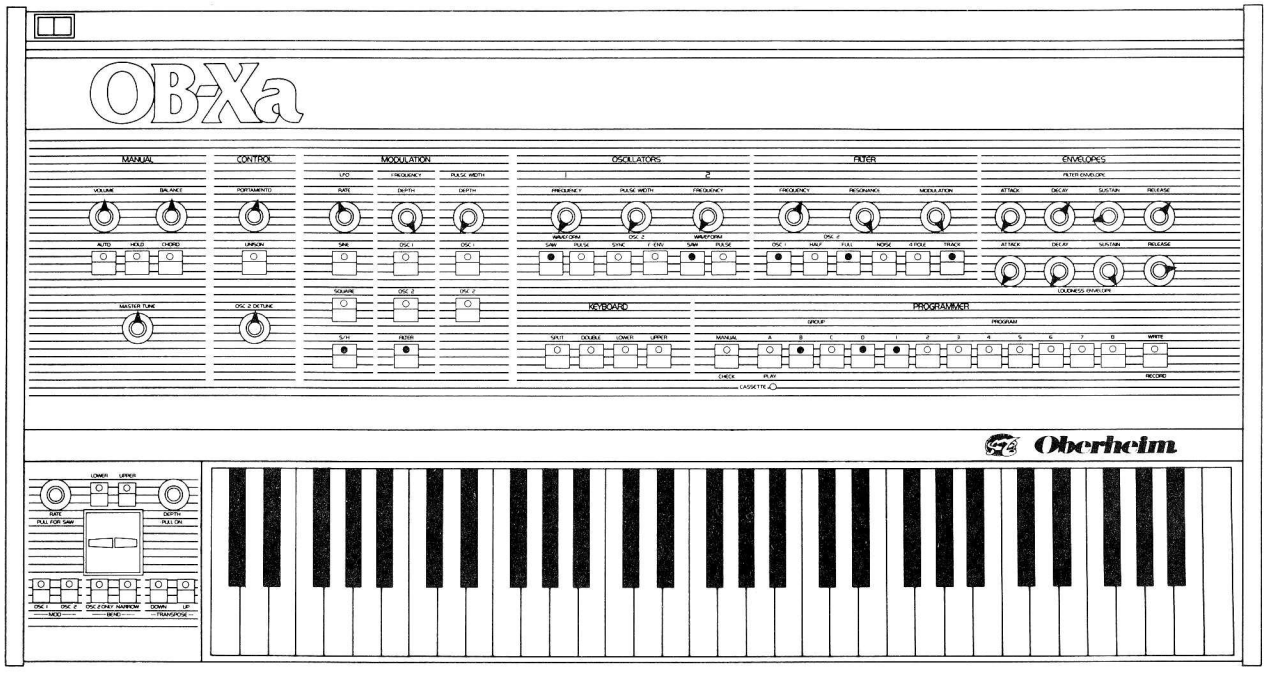
AD8: Earthquake

VCO1—Normal Pitch

VCO2—Normal Pitch

Play the eight lowest notes on the keyboard in down transpose.

NOTES:

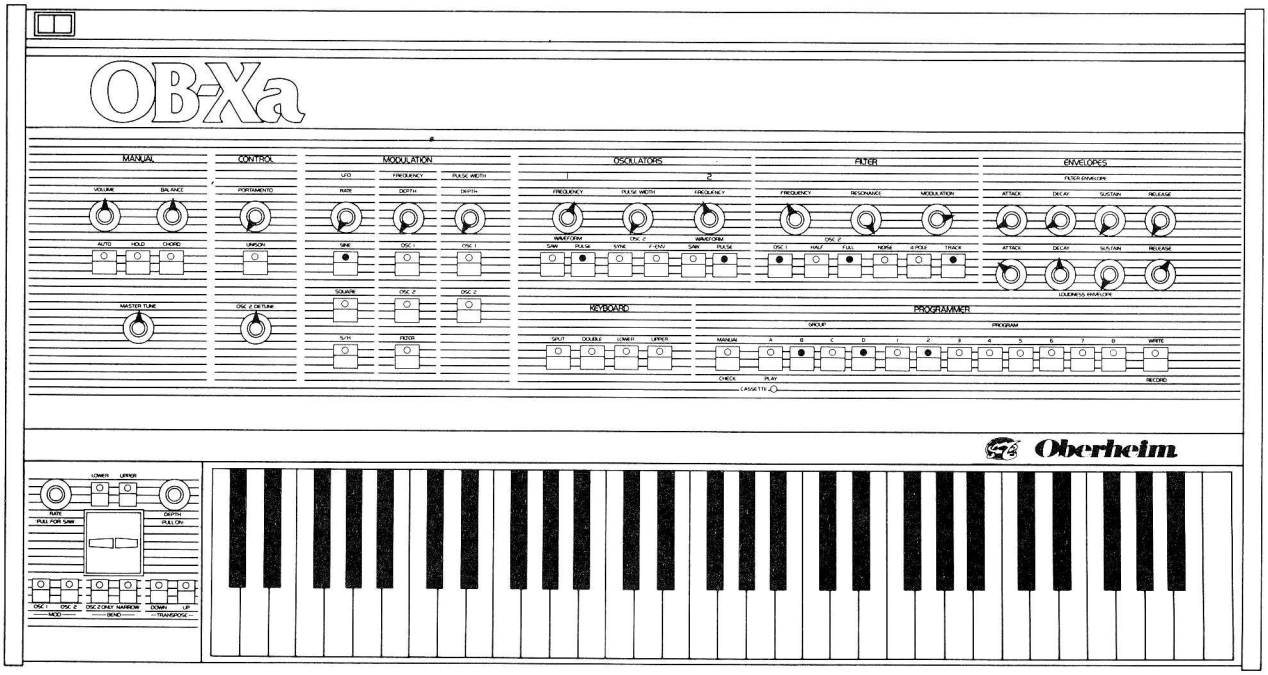


BD1: S/H Port Rezz

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



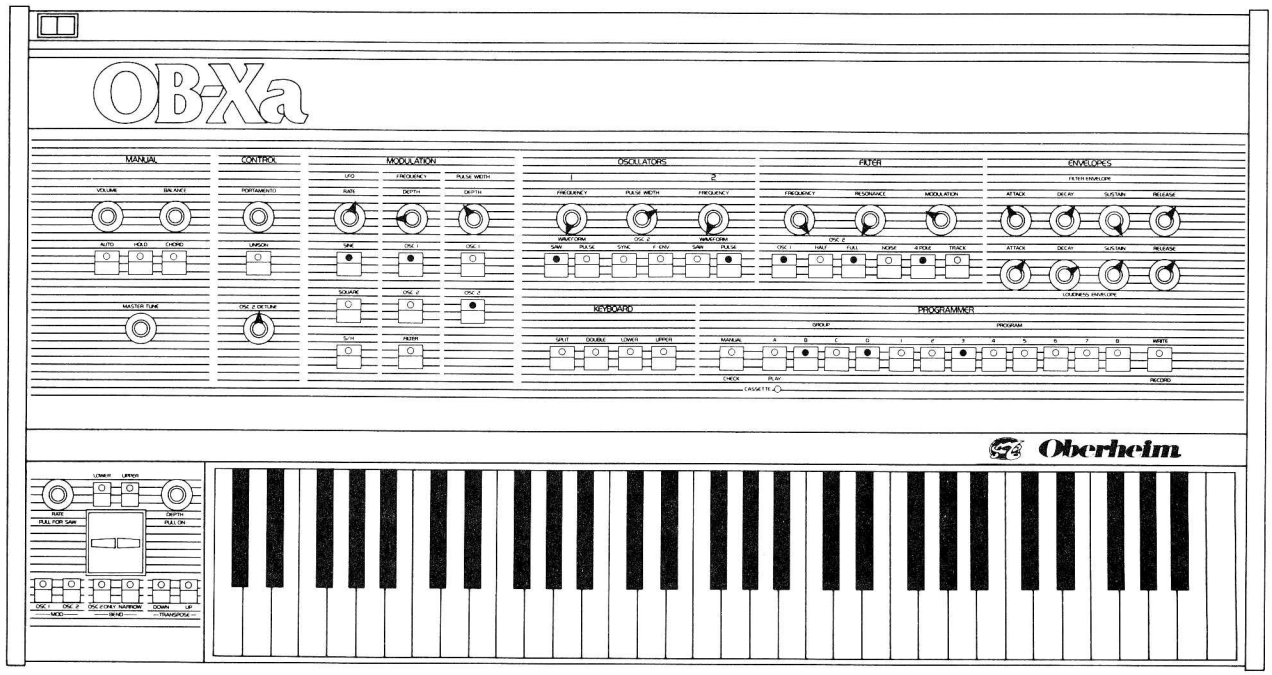
BD2: Conga

VCO1—Two Octaves Up

VCO2—One Octave Plus Minor Third Up

Play low keys in down transpose.

NOTES:



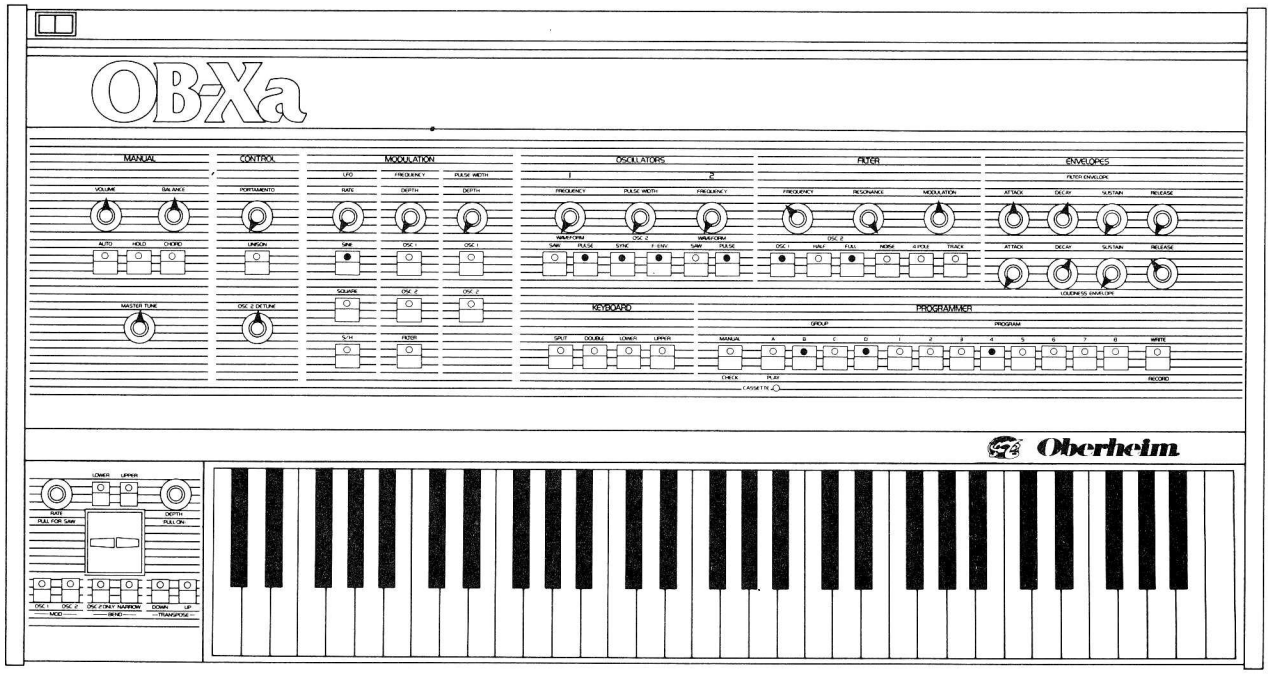
BD3: Strings IV

VCO1—Normal Pitch

VCO2—Normal Pitch

This string sound is best used in the lower register, and works well with the 2 pole strings. (Double 8)

NOTES:

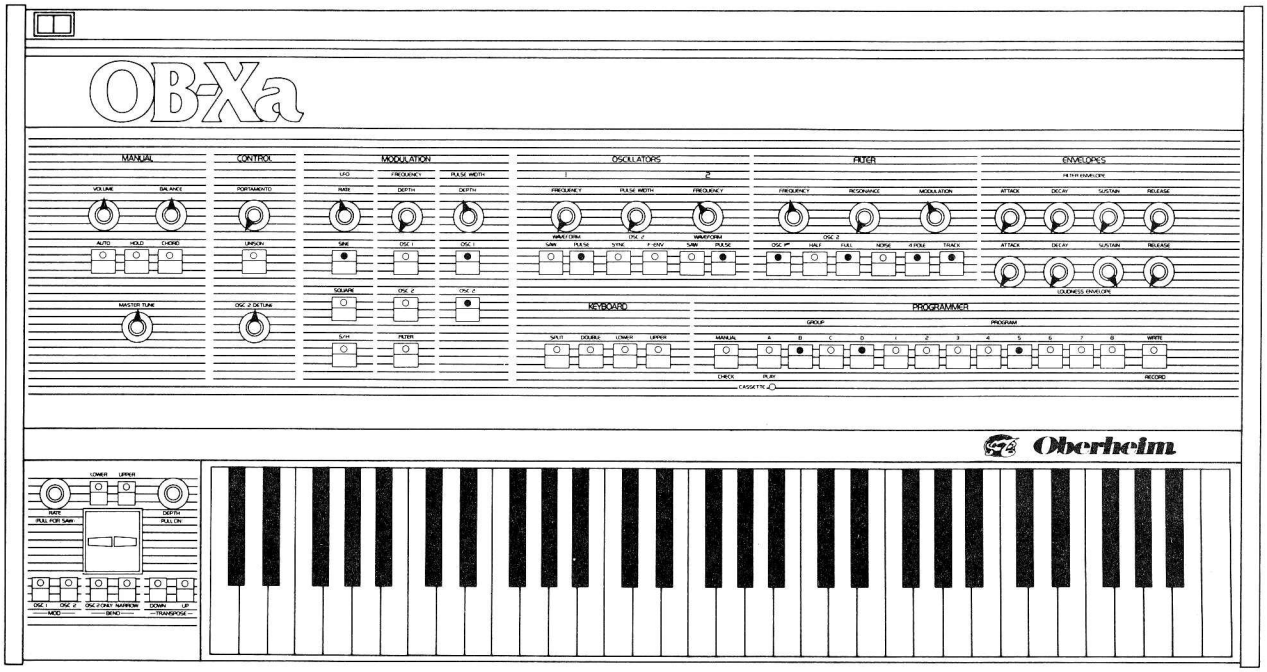


BD4: Funk Keys

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:

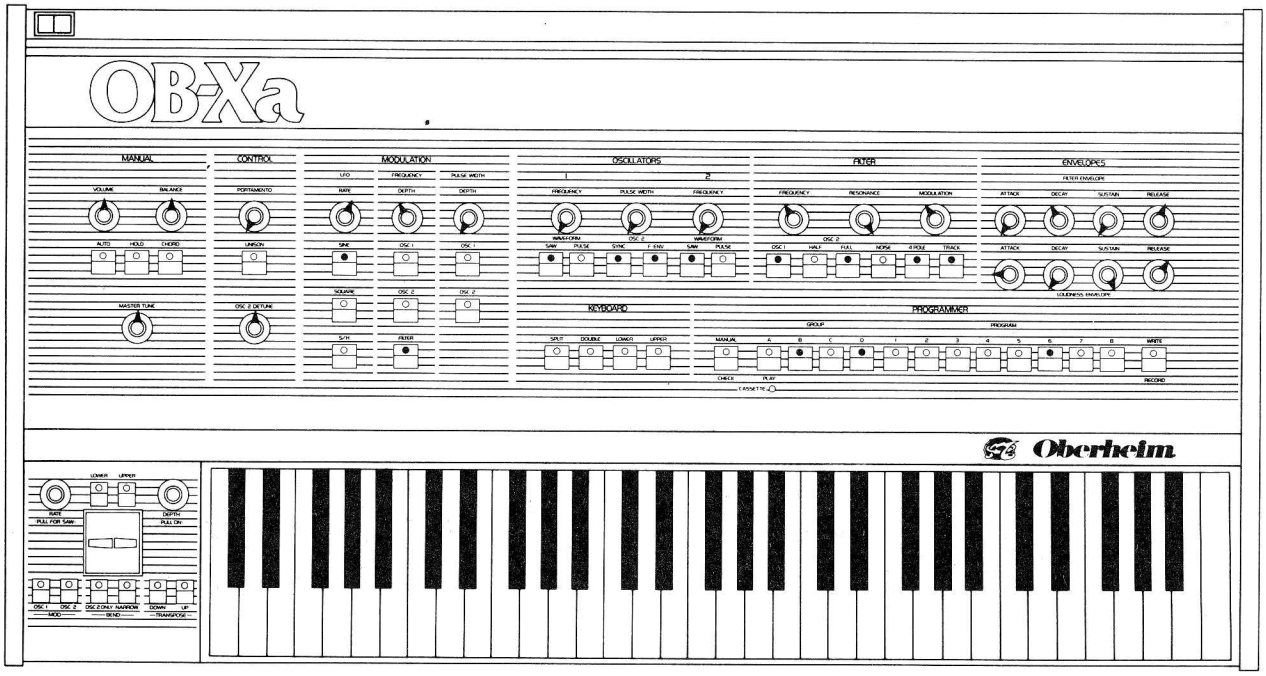


BD5: Organ

VC01—Normal Pitch

VC02—One Octave Up

NOTES:

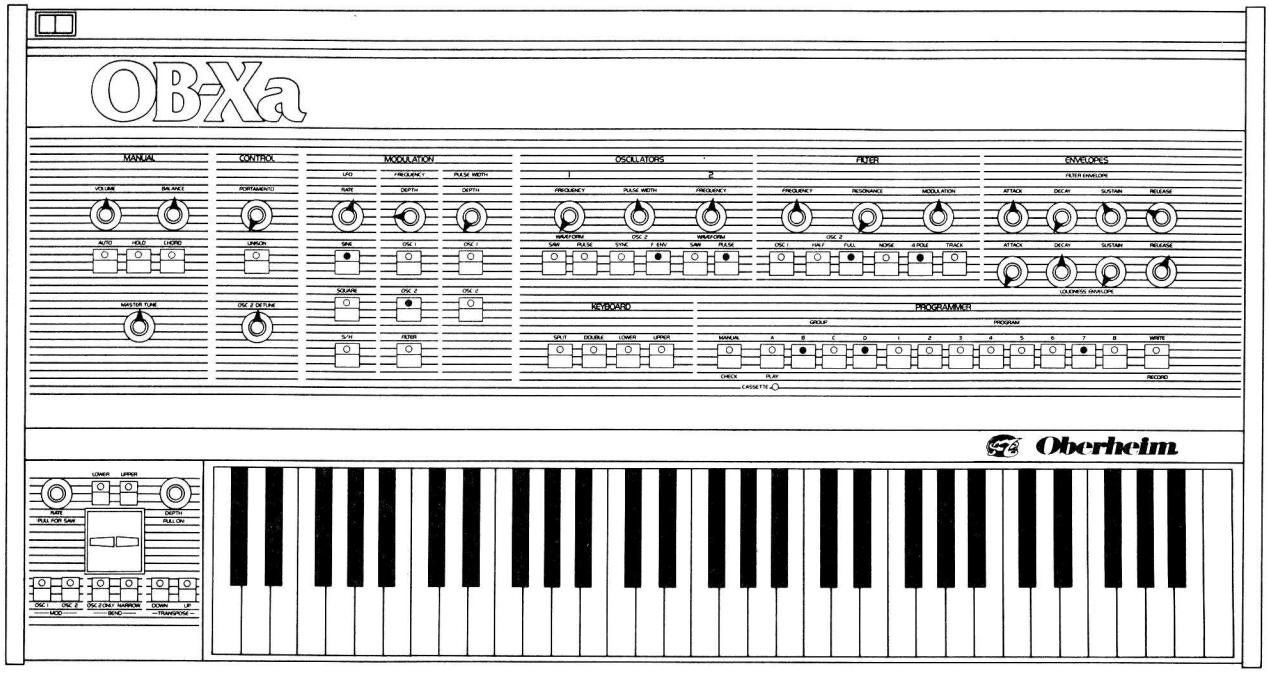


BD6: Tremolo Rezz

VC01—Normal Pitch

VC02—Normal Pitch

NOTES:



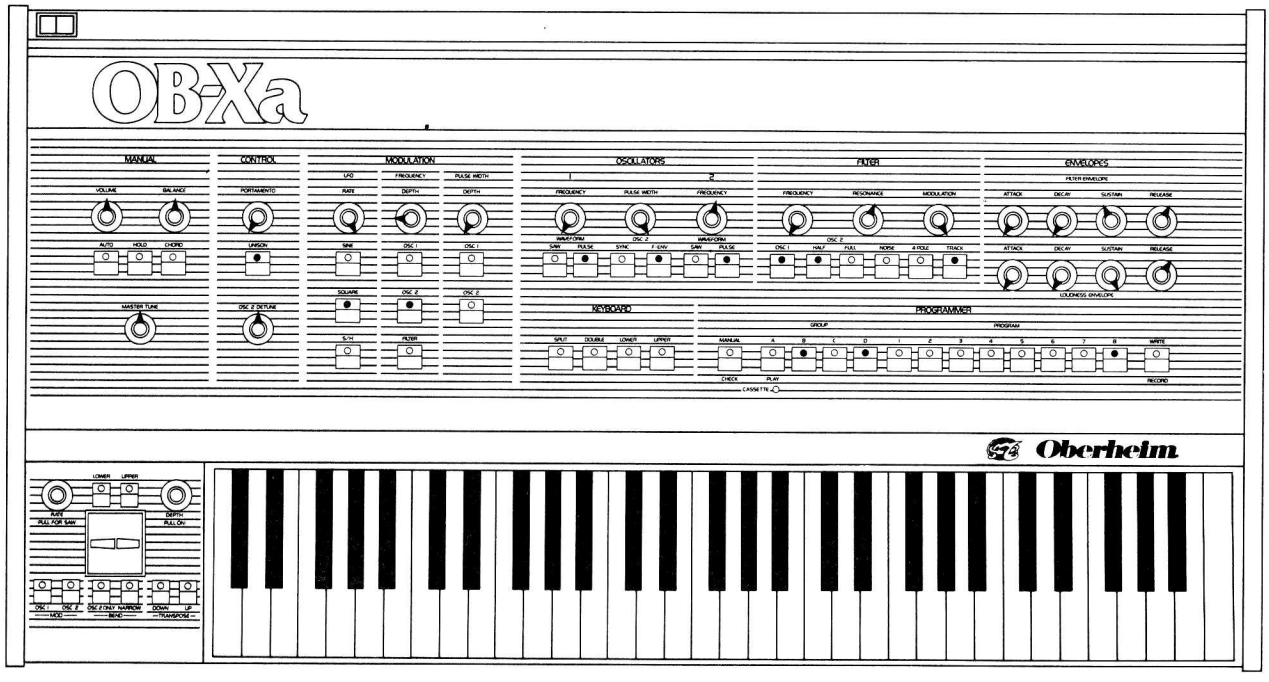
BD7: Box O'Pups

VCO1—Off

VCO2—Two octaves plus fourth

Play nervous notes to conjure up the canine carton.

NOTES:

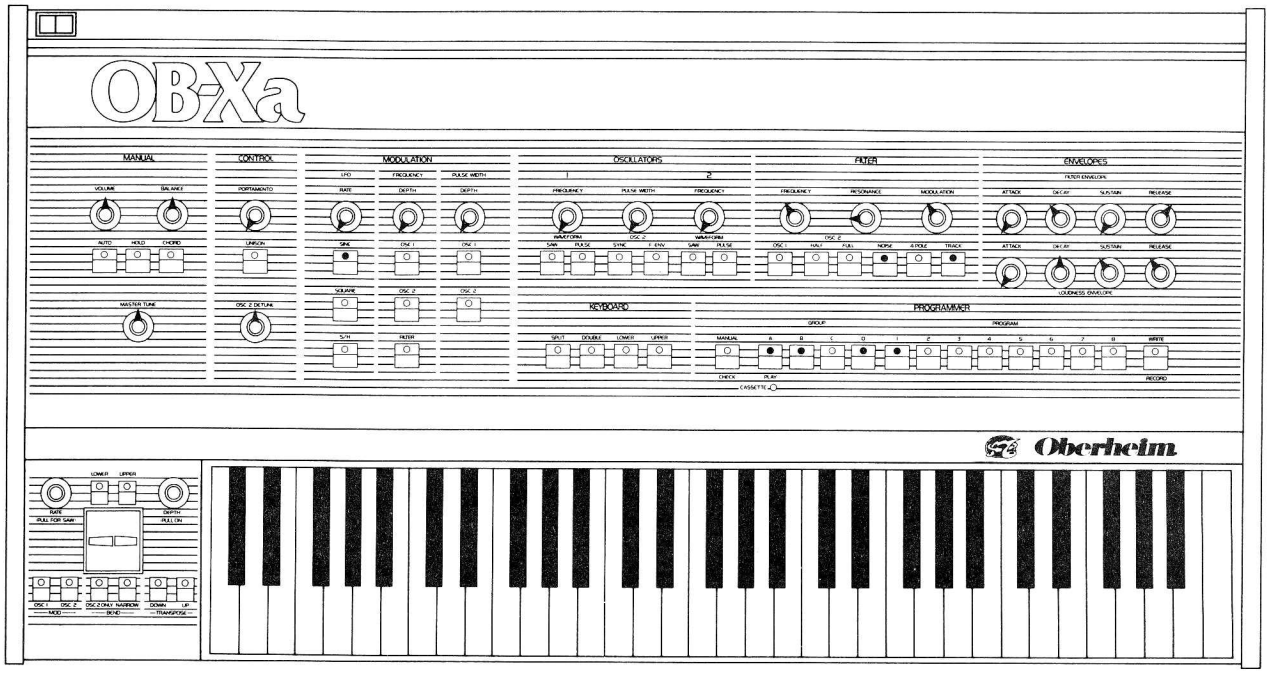


BD8: Martian Hop

VCO1—Normal Pitch

VCO2—Two Octaves Plus fourth-Up

NOTES:



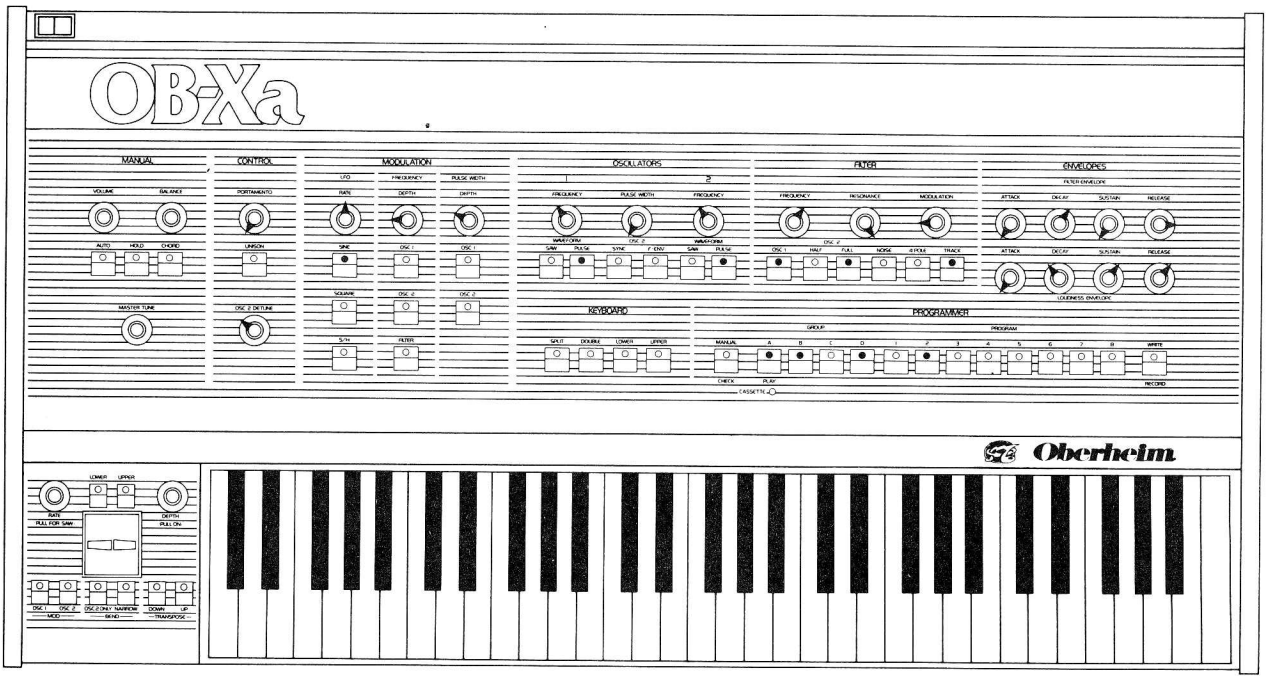
ABD1: Claps

VCO1—Off

VCO2—Off

Play eight keys in an erratic rhythmic style.

NOTES:



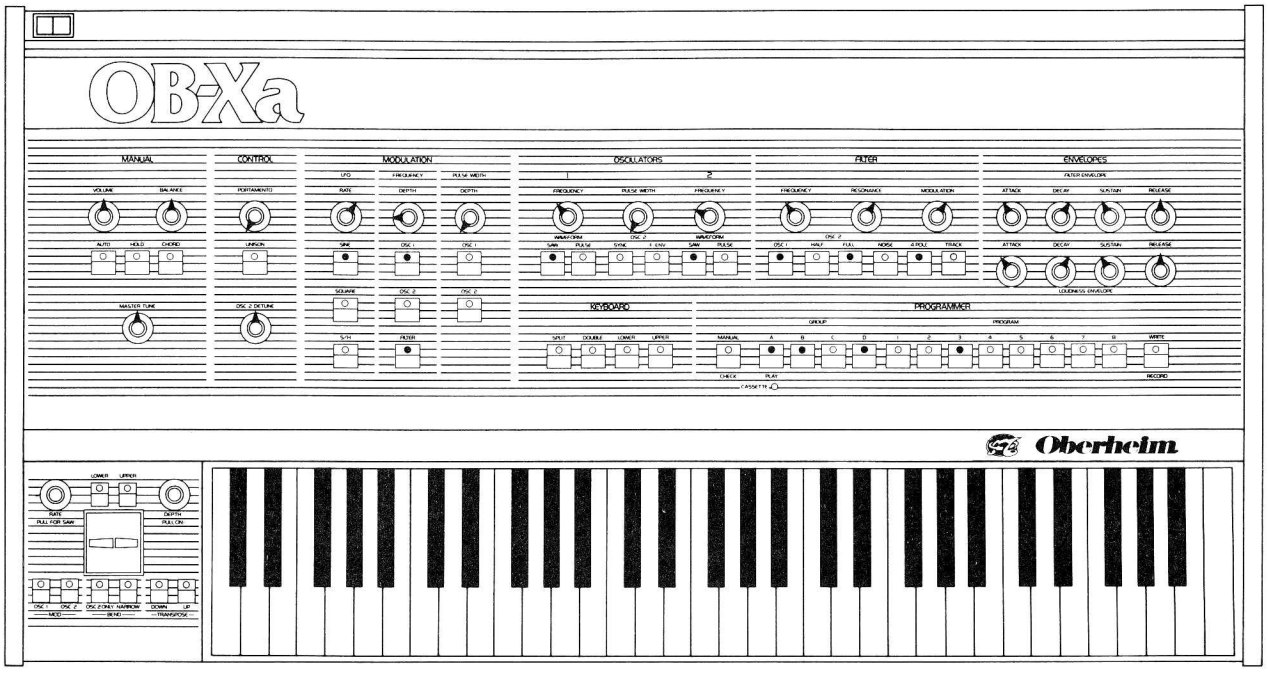
ABD2: Carillon

VCO1—One Octave Up

VCO2—One Octave Up

OSC2 detune offsets the slight amount of envelope. Filter resonance at maximum gives a more pure tone. This patch is used with the water piano (ACD2) in Double 7.

NOTES:

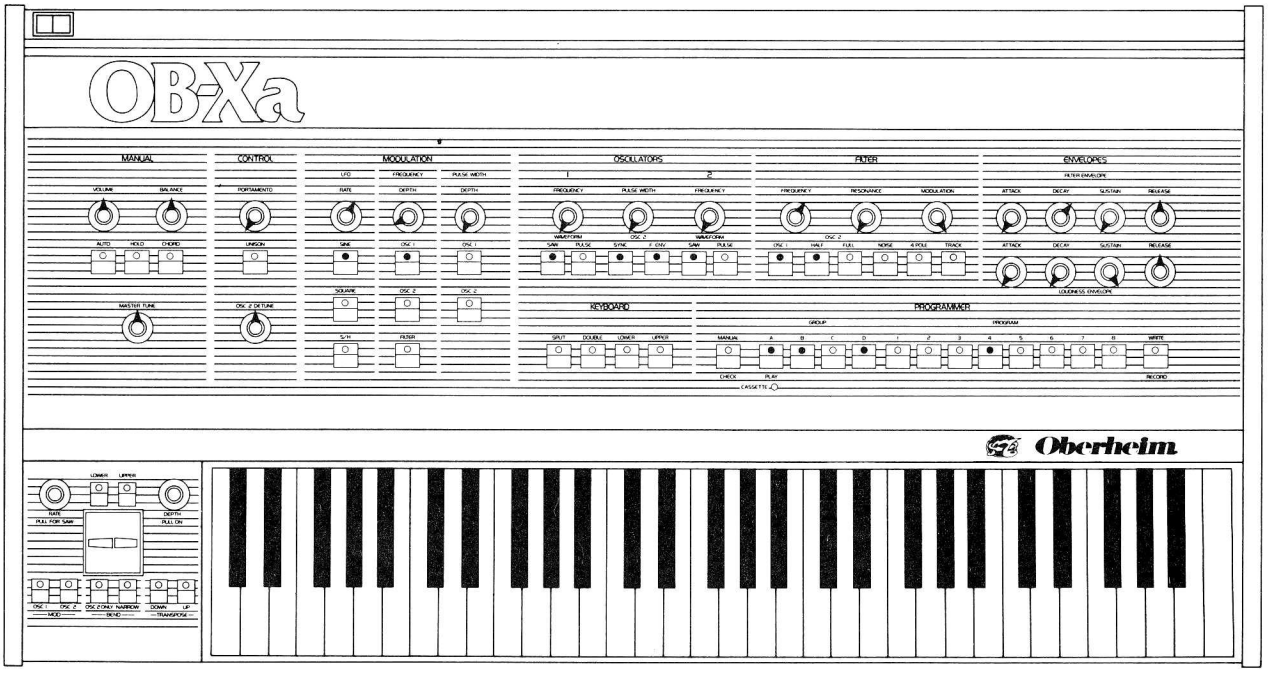


ABD3: Solo Strings

VCO1—One Octave Up

VCO2—One Octave Up

NOTES: _____

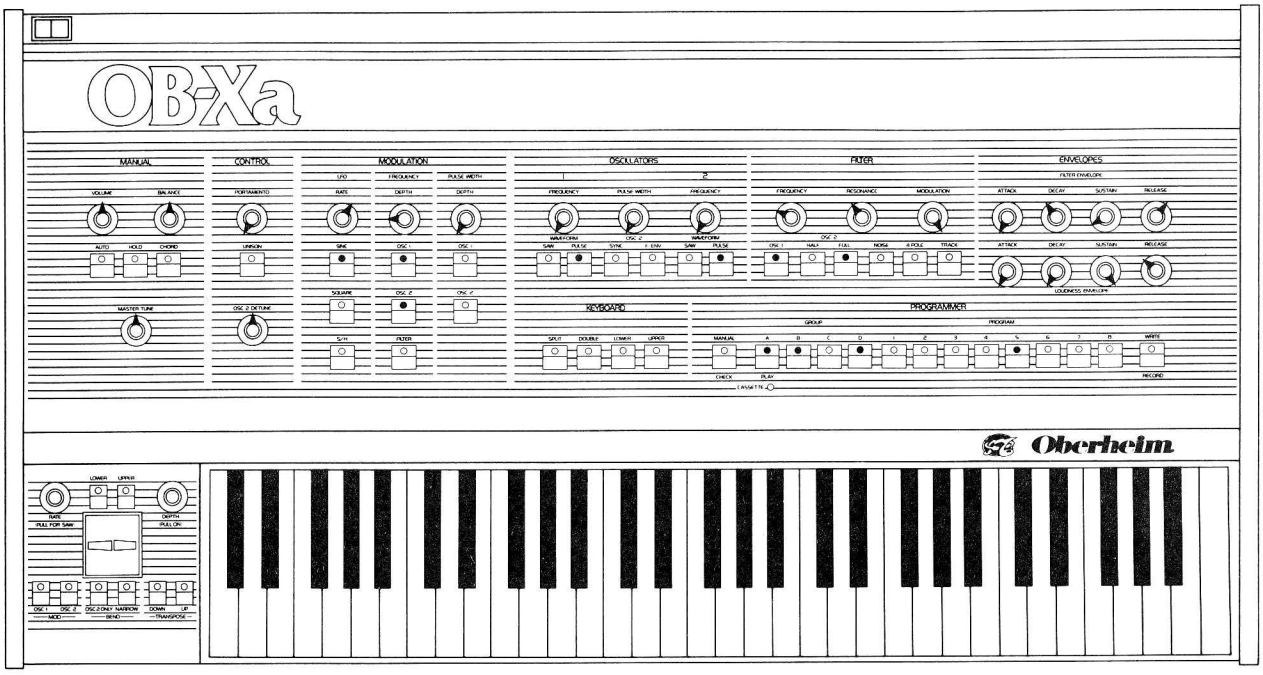


ABD4: Tuned Bees

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES: _____

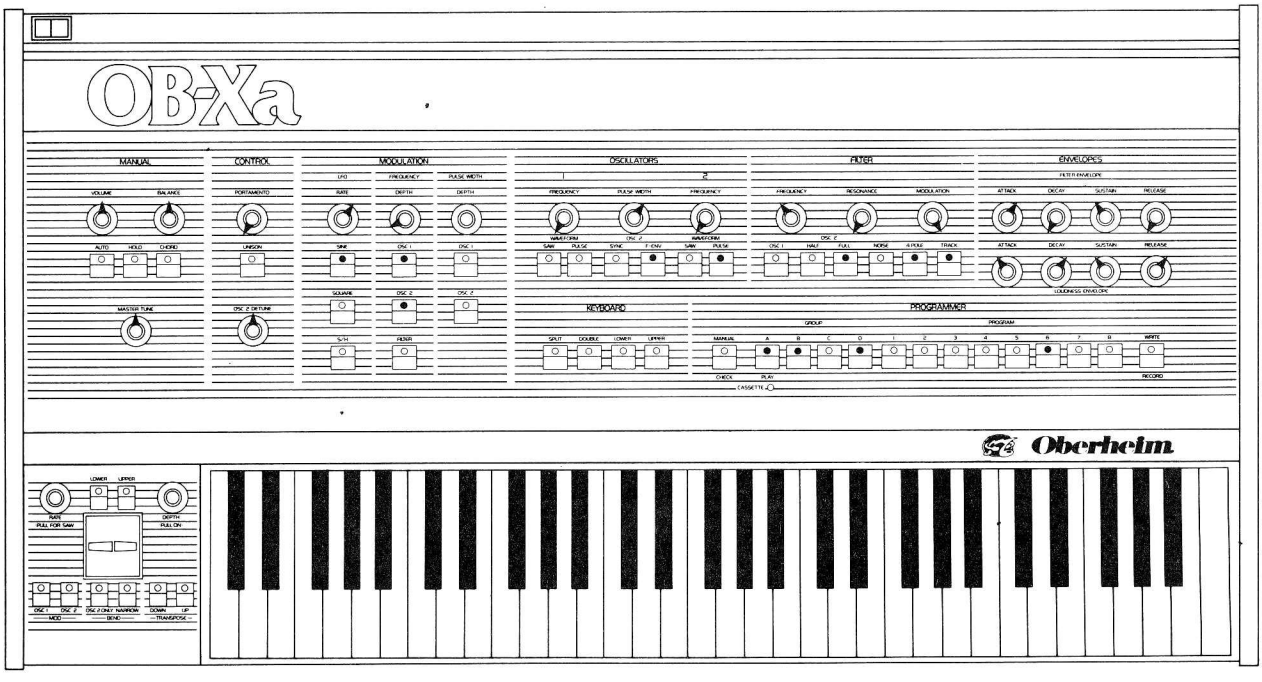


ABD5: Rezz Reeds

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



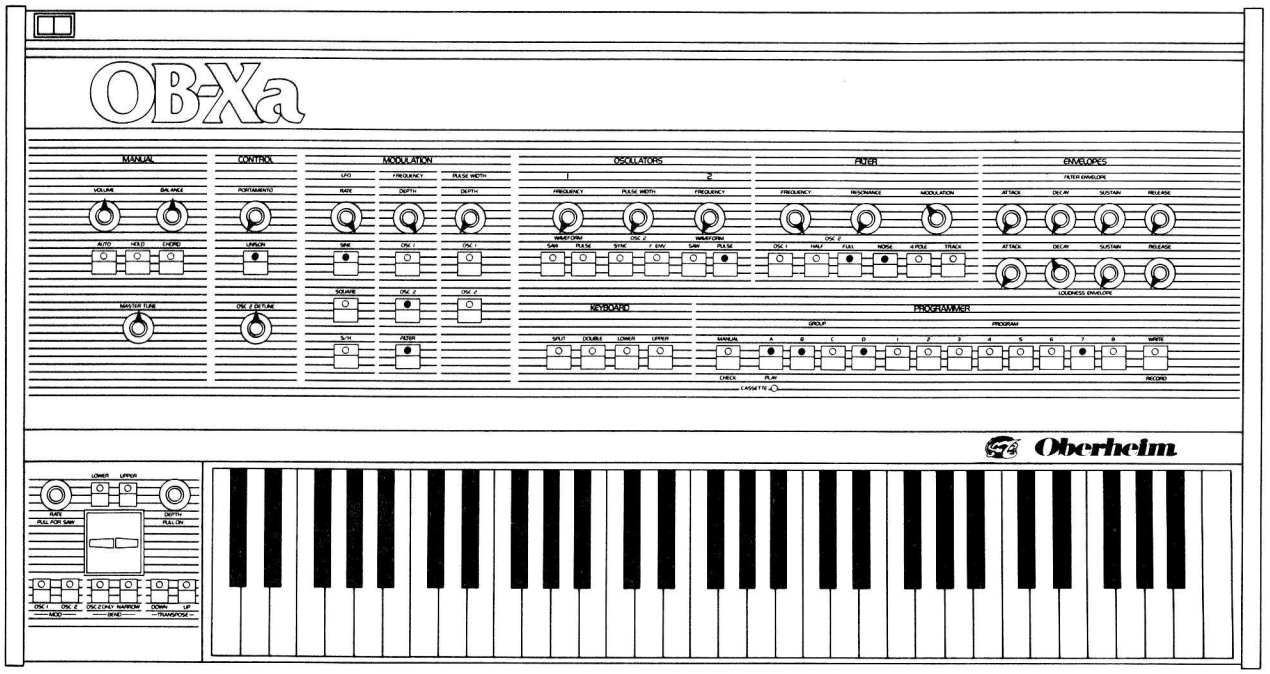
ABD6: Three Way

VCO1—Normal Pitch

VCO2—Normal Pitch

Filter envelope modulation produces three distinct pitches for each key depressed.

NOTES:

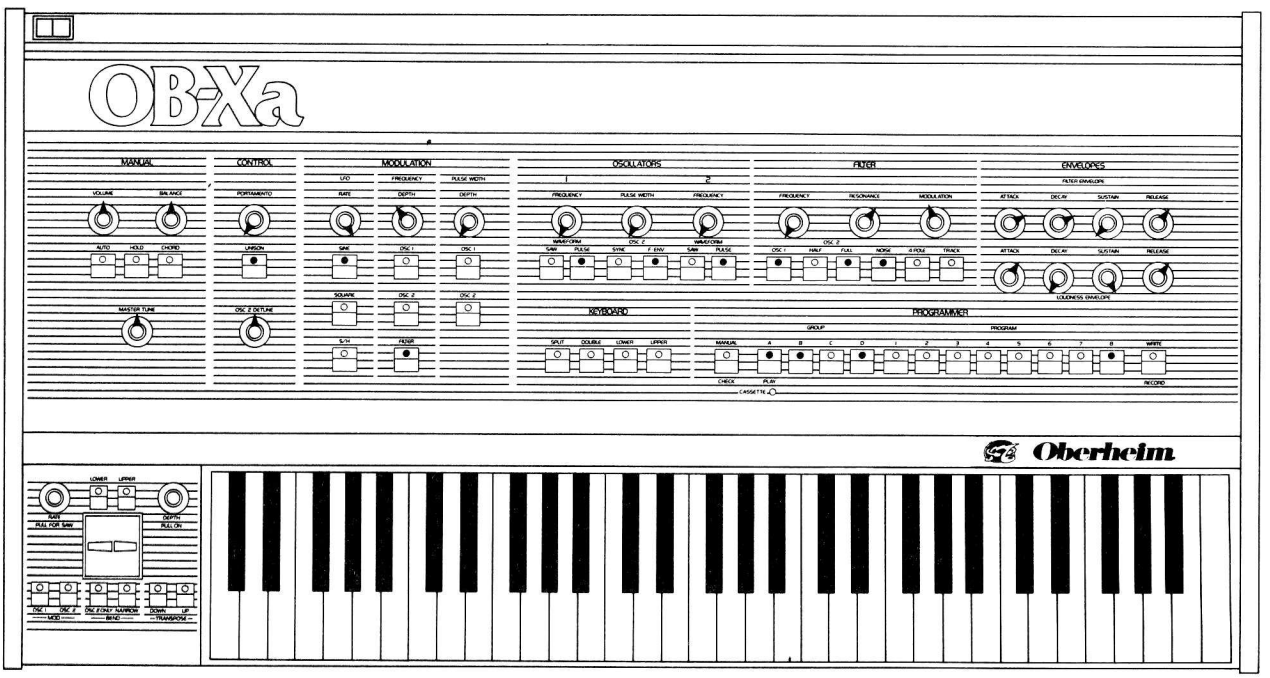


ABD7: Percussion

VCO1—Off

VCO2—Normal Pitch

NOTES: _____



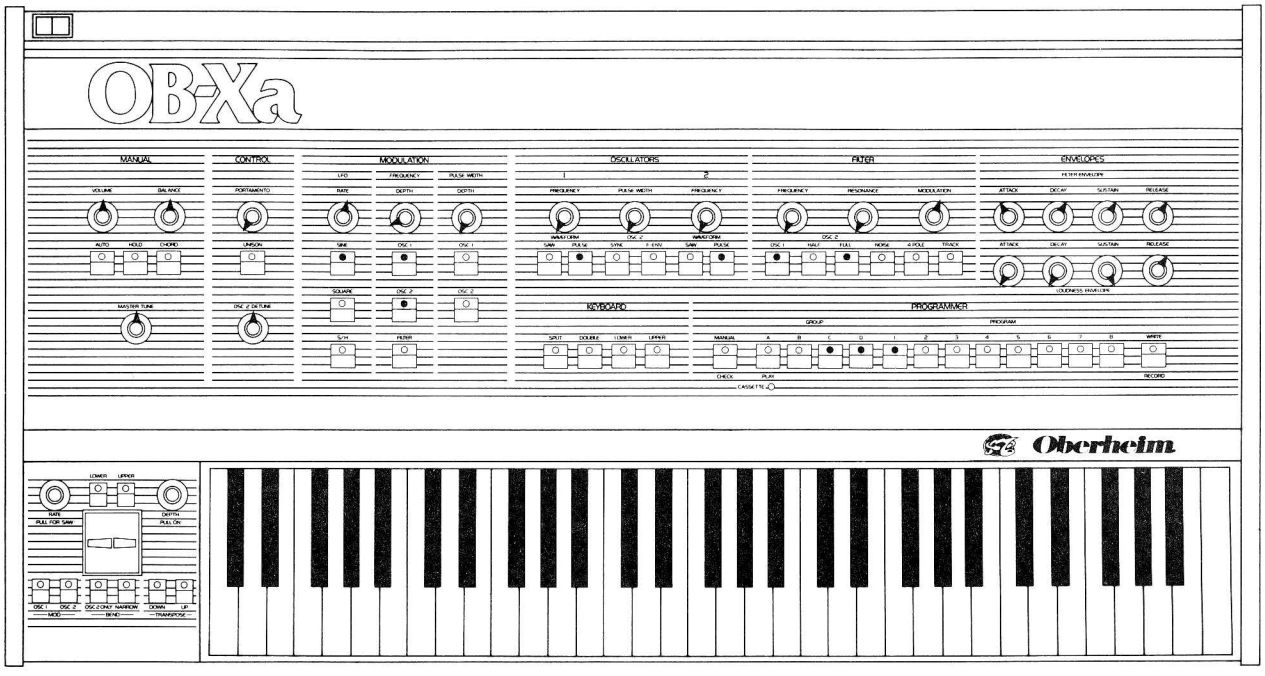
ABD8: Chopper

VCO1—Normal Pitch

VCO2—Normal Pitch

Vary the filter frequency to bring the Hueys home.

NOTES: _____

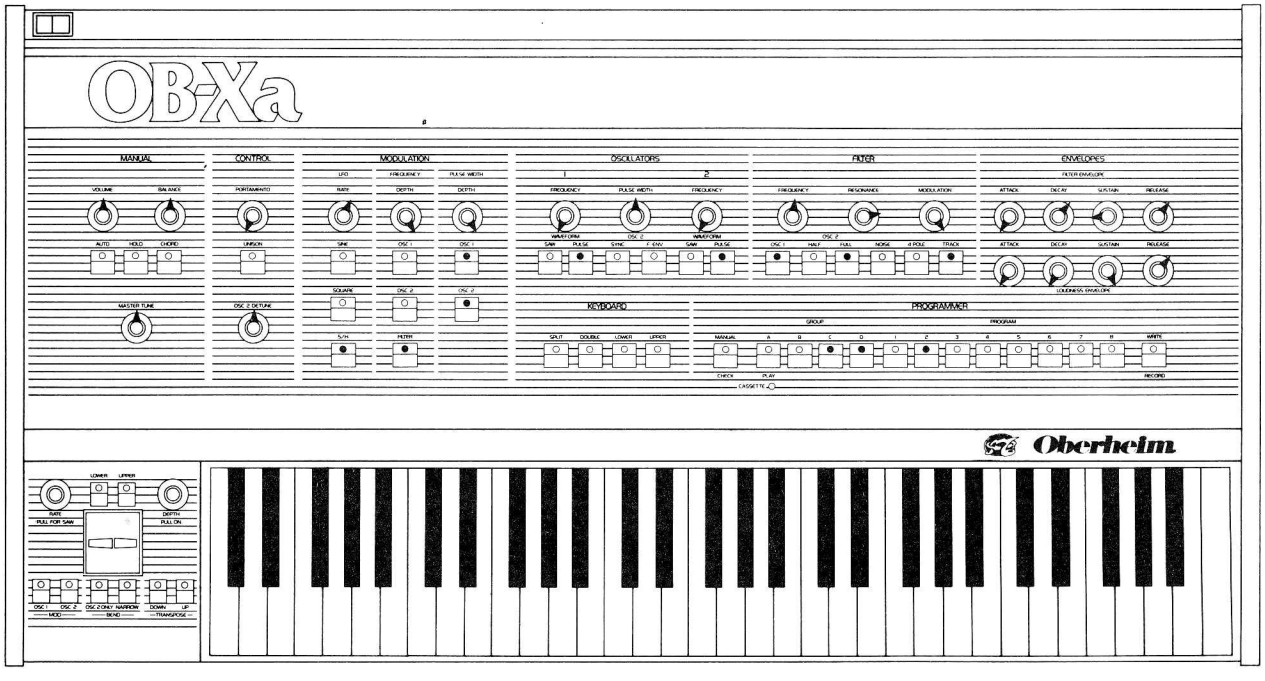


CD1: Io

VC01—Normal Pitch

VC02—Normal Pitch

NOTES:

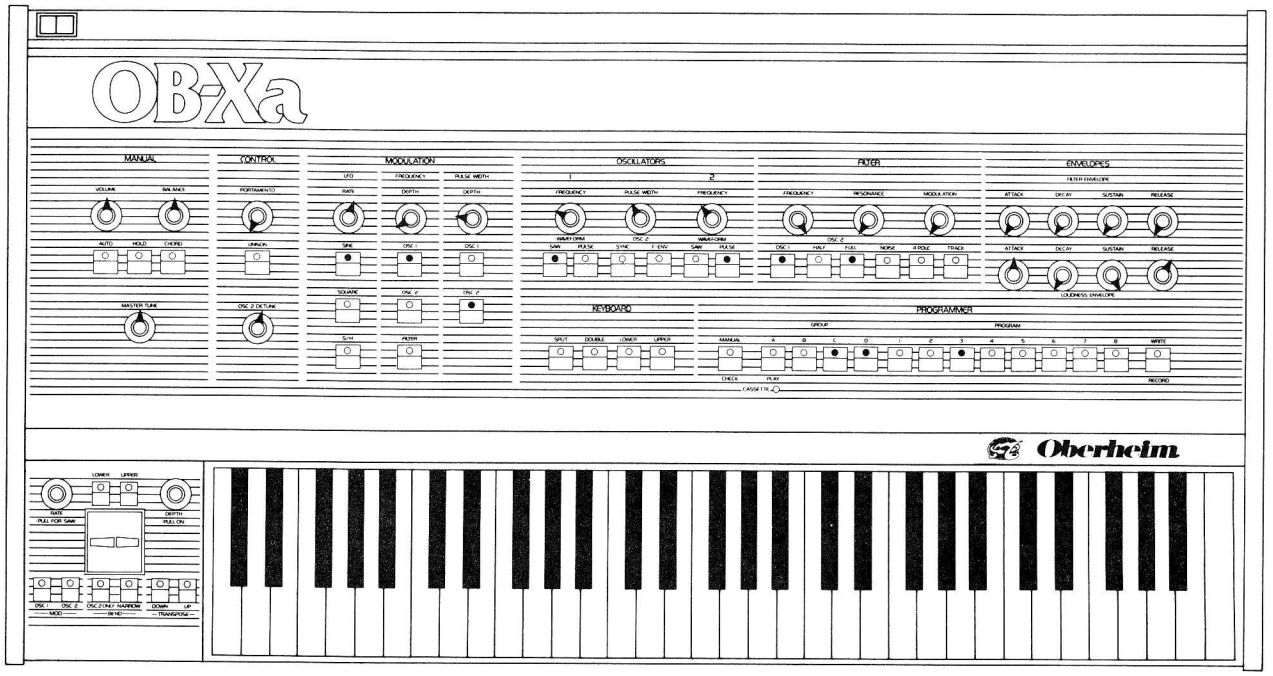


CD2: S/H P.W.

VC01—Normal Pitch

VC02—Normal Pitch

NOTES:

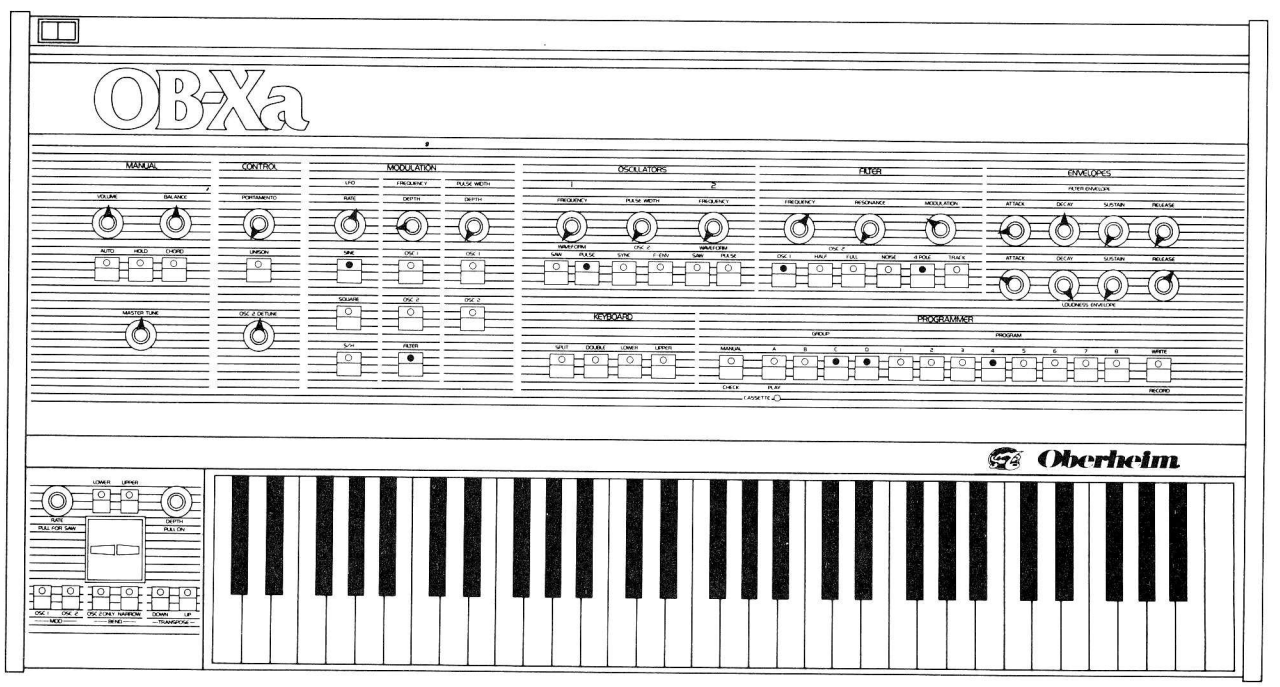


CD3: Strings V

VCO1—One Octave Up

VCO2—One Octave Up

NOTES:

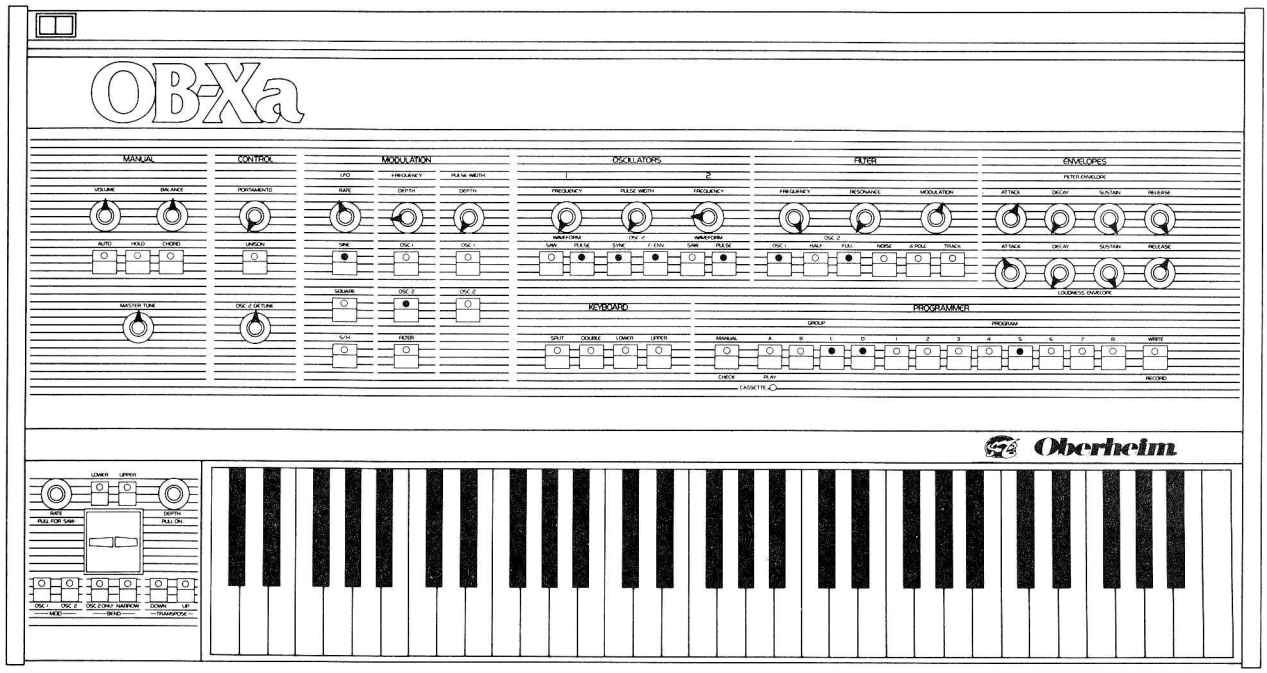


CD4: Clarinet

VCO1—Normal Pitch

VCO2—Off

NOTES:

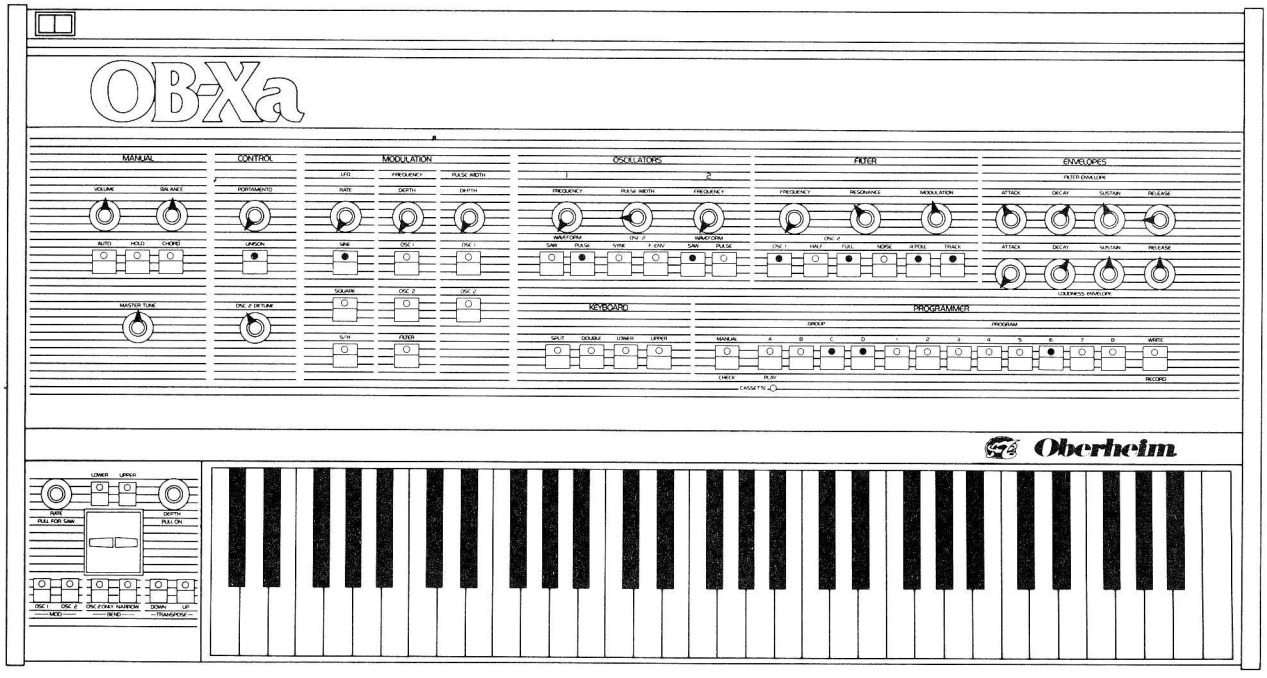


CD5: Bright Drone

VCO1—Normal Pitch

VCO2—One Octave Up

NOTES:

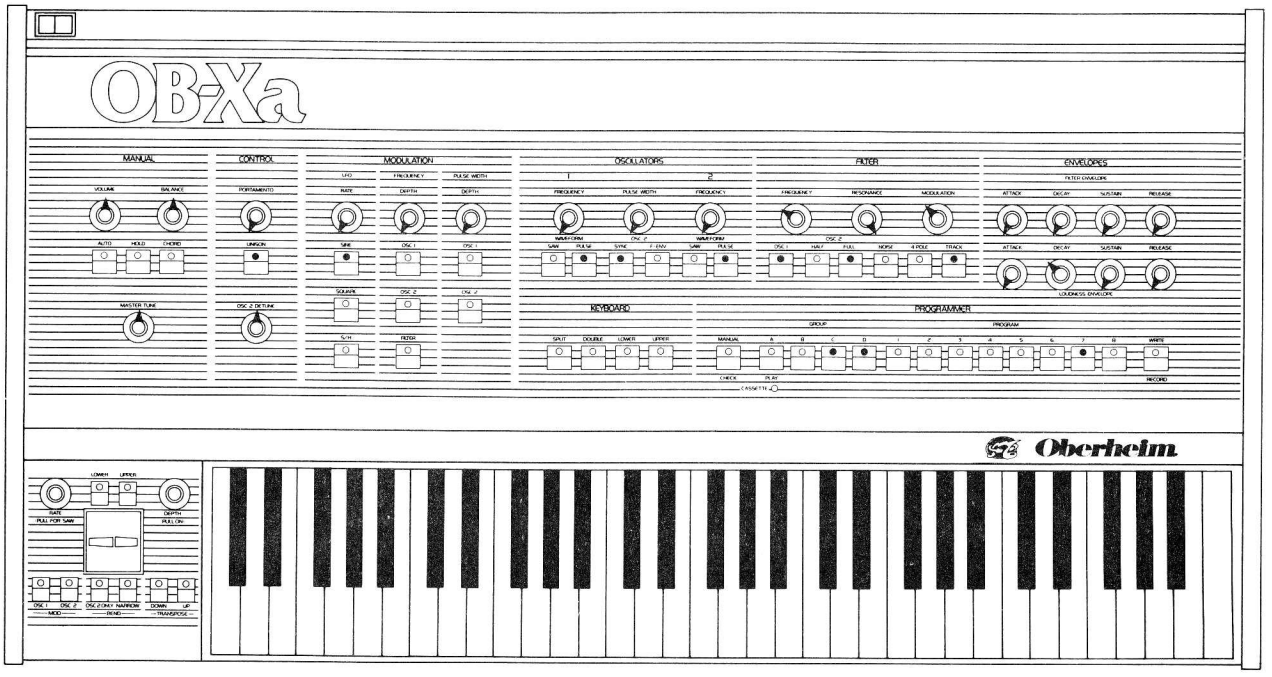


CD6: Rock Solo

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:

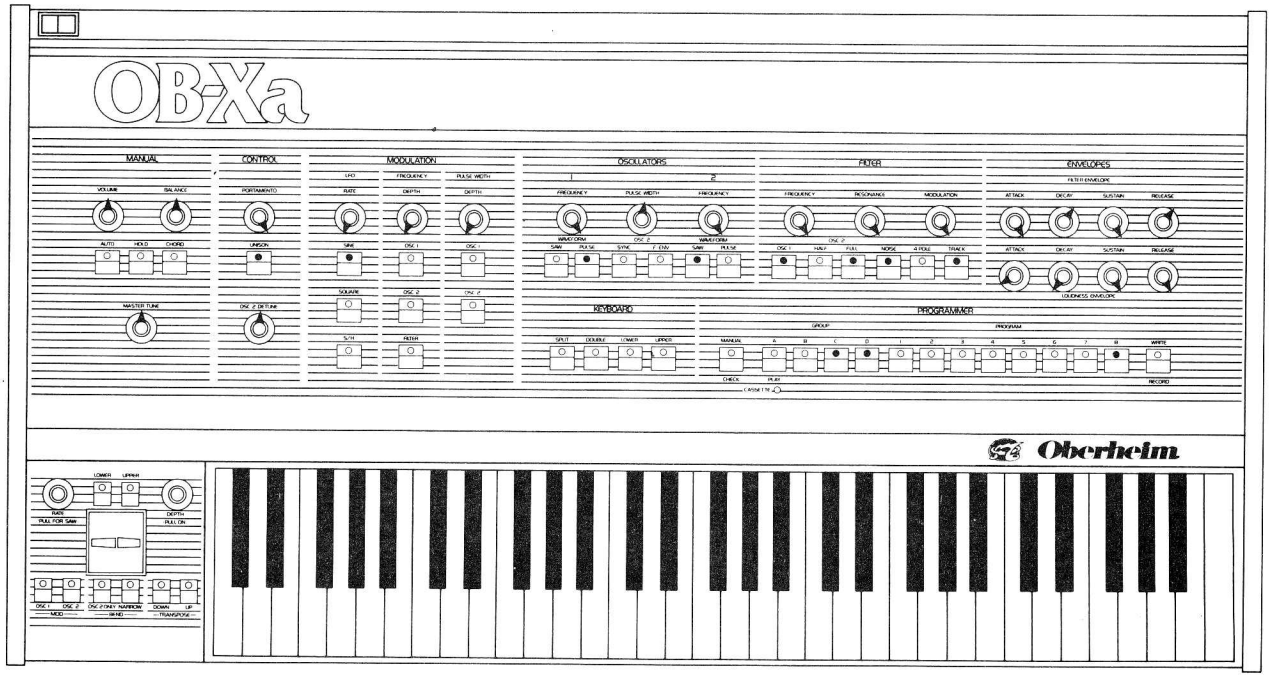


CD7: Claves

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES: _____



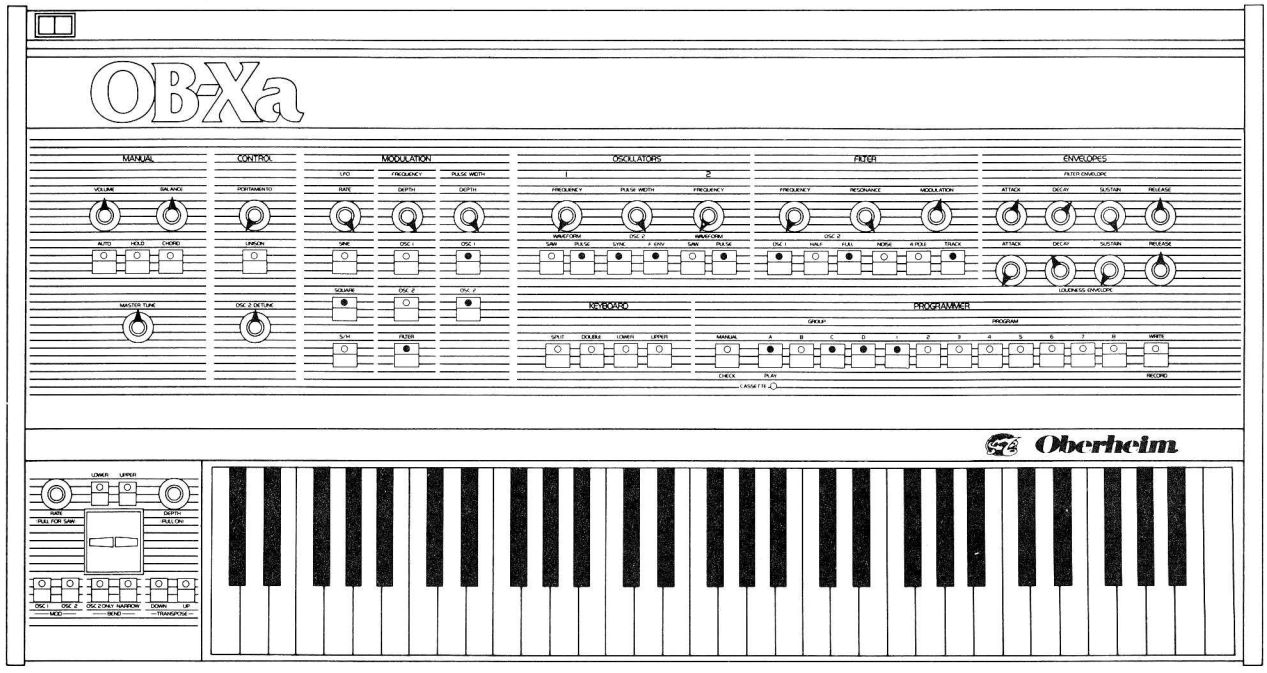
CD8: Jet

VCO1—Maximum Transpose Up

VCO2—Maximum Transpose Up

In down transpose, start at C_1 and depress C_5 for takeoff, reverse for landing.

NOTES: _____

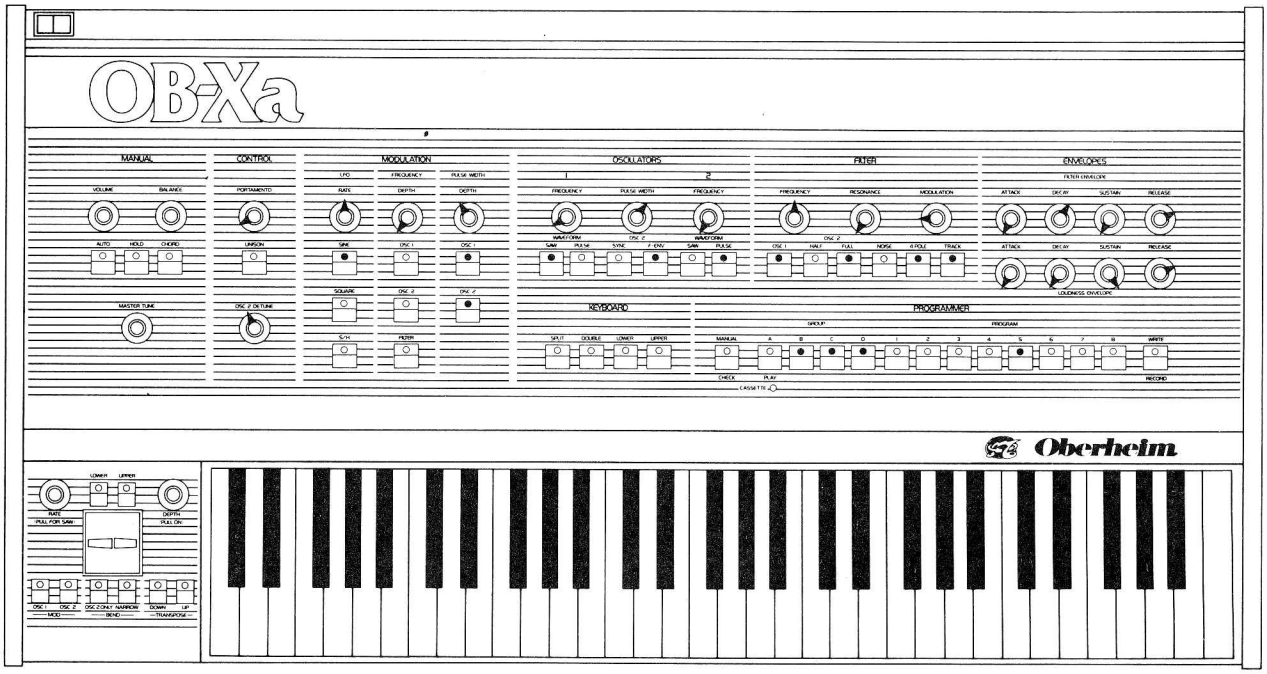


ACD1: Water Wiggle

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



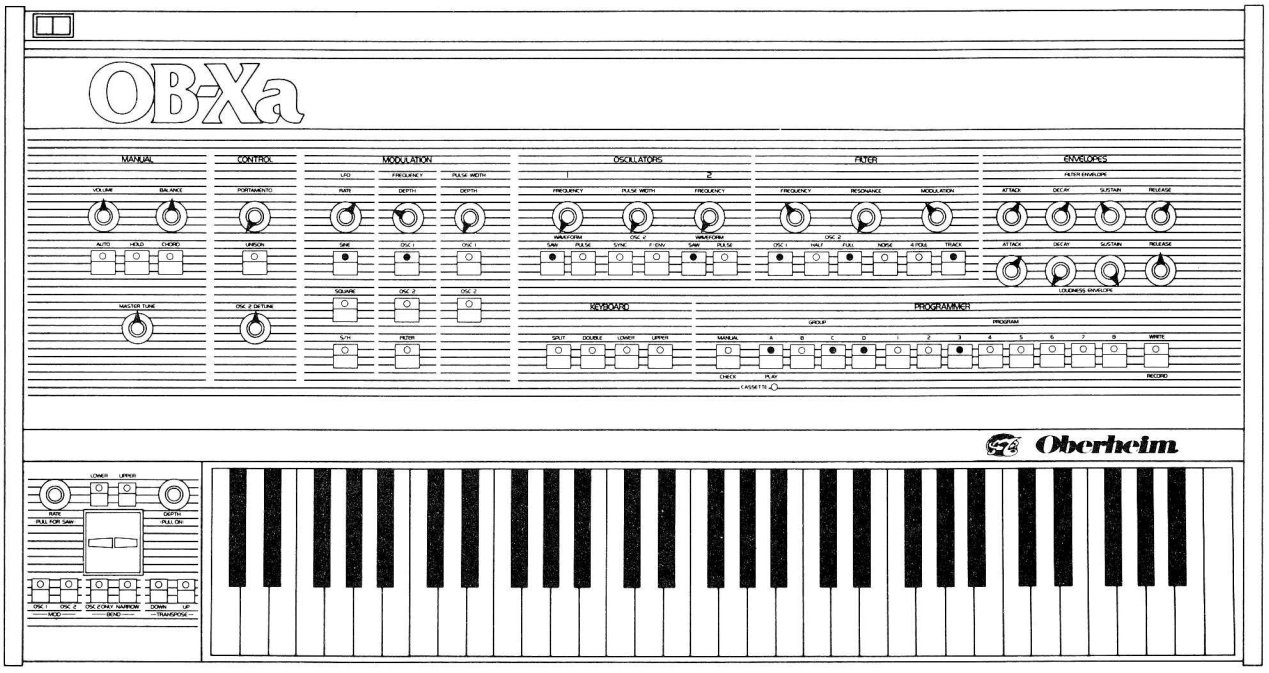
ACD2: Water Piano

VCO1—Normal Pitch

VCO2—Normal Pitch

This patch uses a moderate amount of filter envelope on VCO2, pulse width modulation, and a relatively long release time on the Loudness envelope to create a "floating" sound. This patch combined with the Carillon (ABD2) in Double 7.

NOTES:



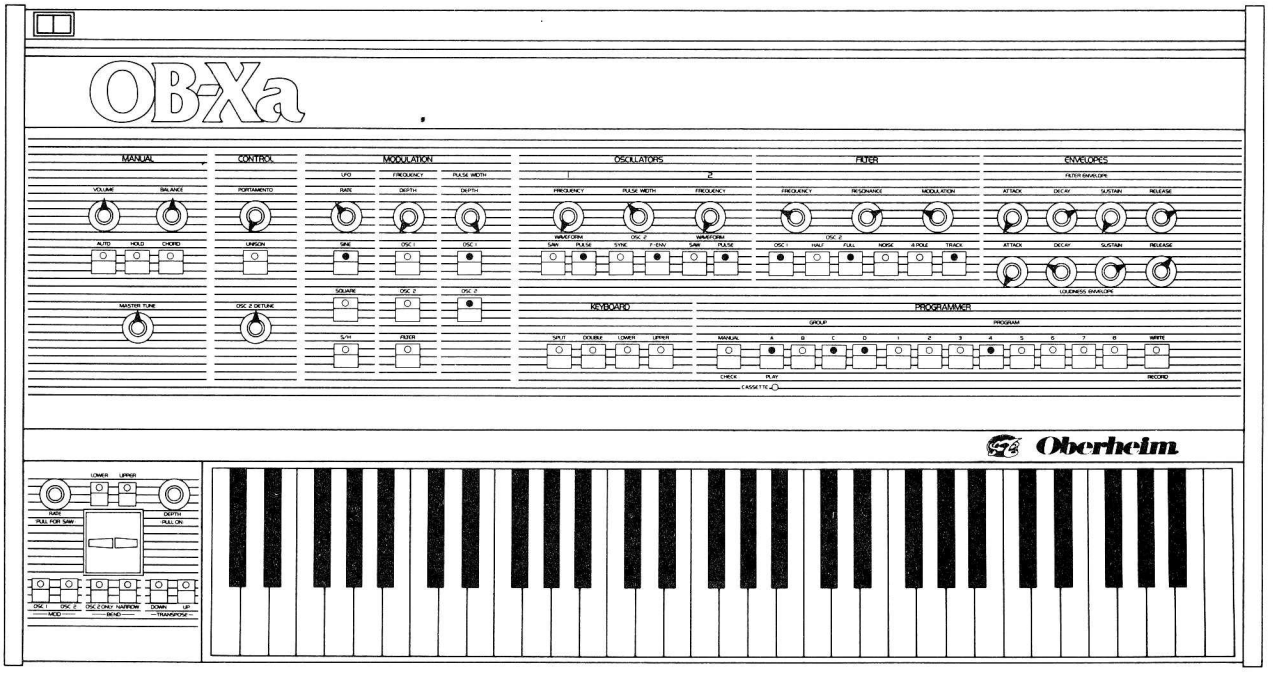
ACD3: Slower Strings

VCO1—Normal Pitch

VCO2—Normal Pitch

Designed for use in a double combination. The attack may be shortened as necessary.

NOTES:

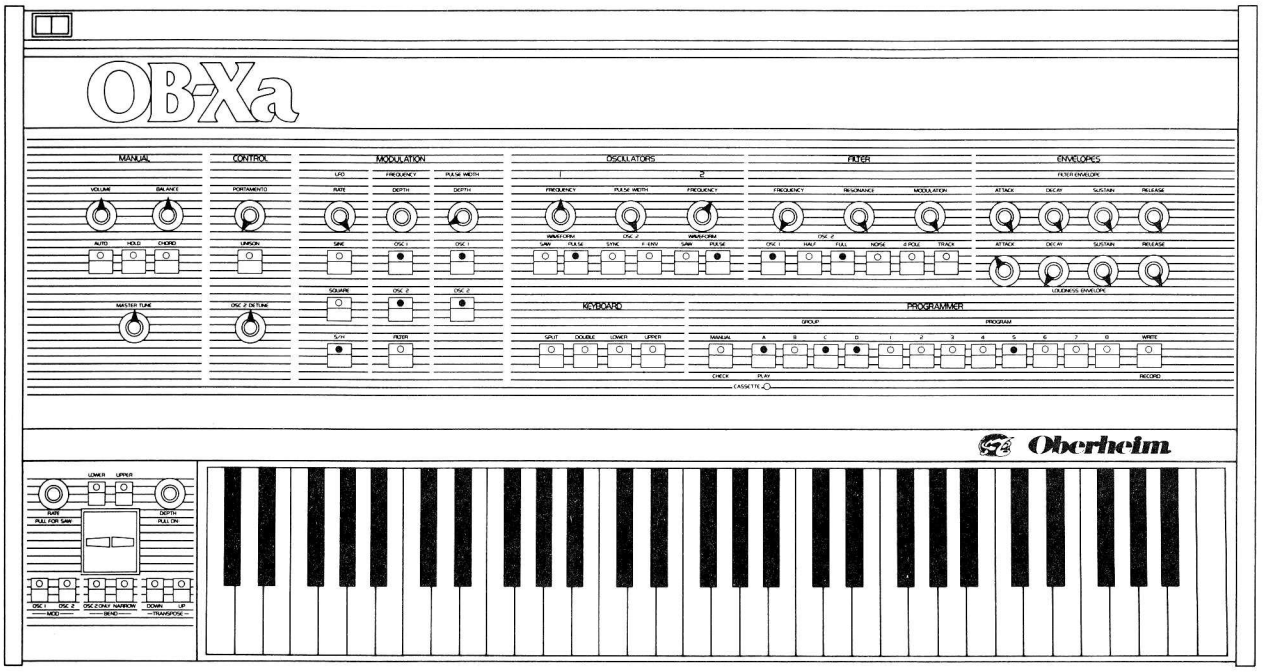


ACD4: Flanged Piano

VCO1—Normal Pitch

VCO2—Normal Pitch

NOTES:



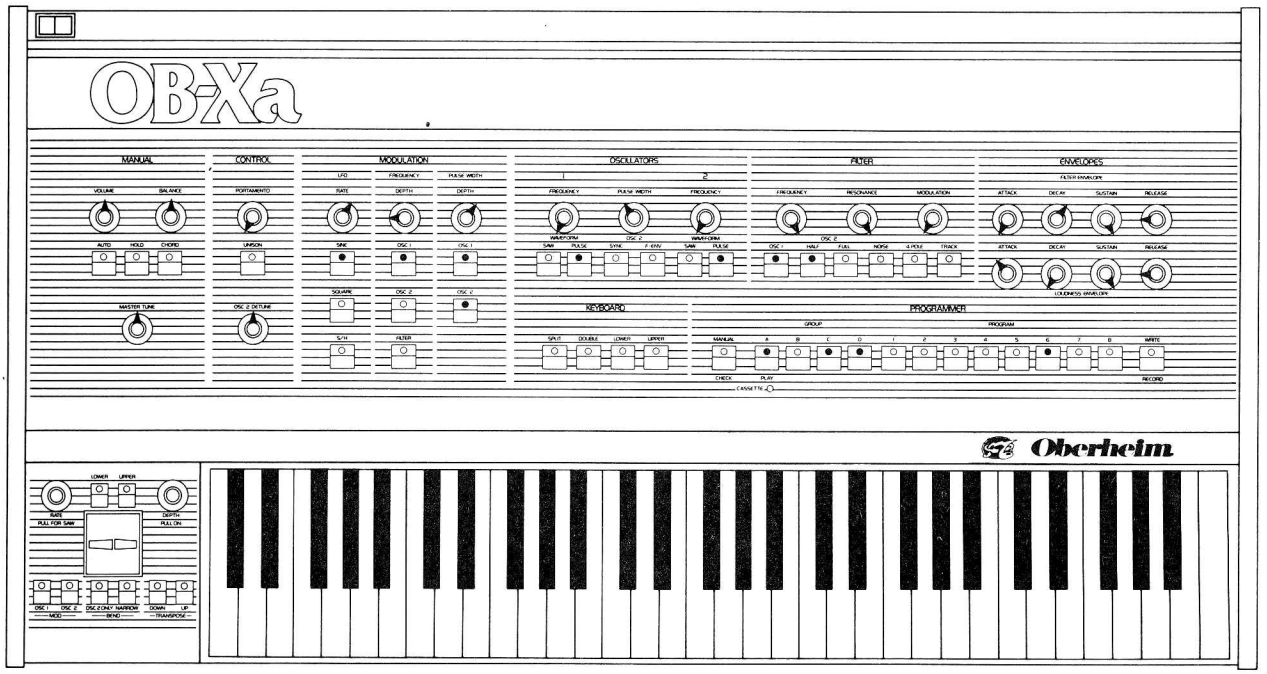
ACD5: Space Bugs

VCO1—Two Octaves Up

VCO2—Three Octaves Up

Play in up transpose for extra terrestrial anopholes invasion.

NOTES:



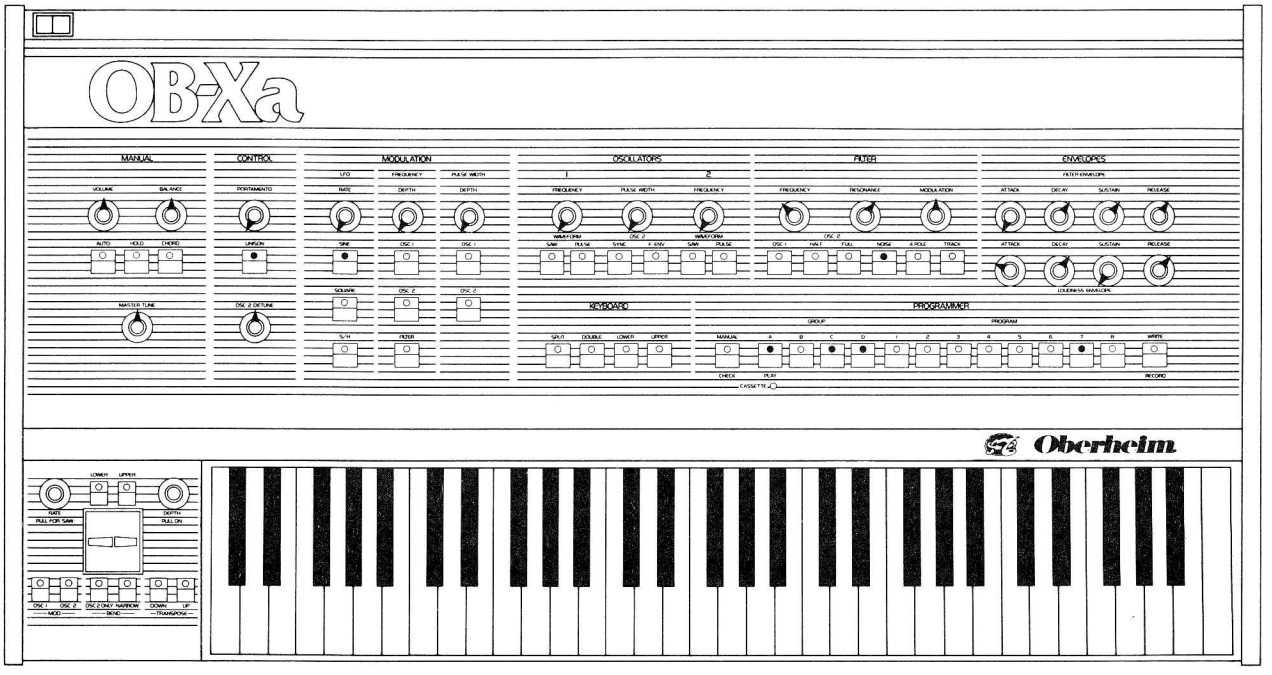
ACD6: Taped Voices

VCO1—Normal Pitch

VCO2—Normal Pitch

The filter used with maximum resonance and without the keyboard tracking, recreates the chest cavity that gives the human voice its distinctive sound.

NOTES:

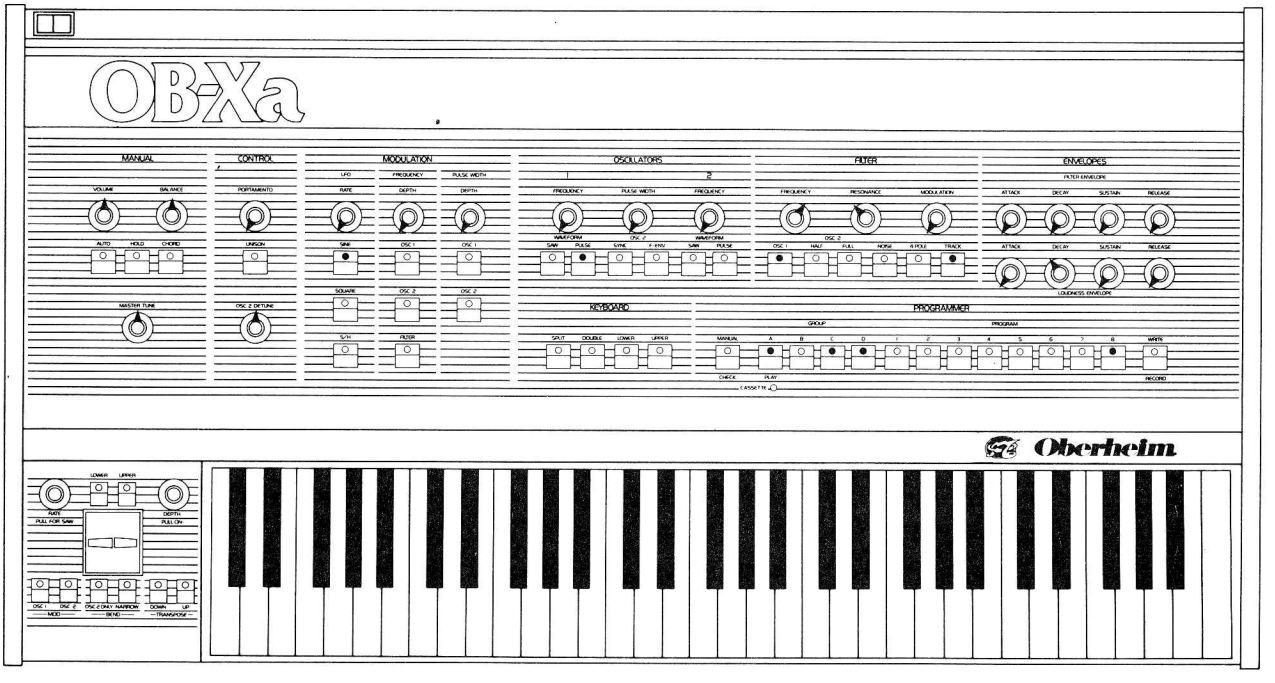


ACD7: Thunder

VCO1—Off

VCO2—Off

NOTES: _____



ACD8: Pong

VCO1—Normal Pitch

VCO2—Off

NOTES: _____