The PO-20 arcade manual provides instructions and features for the Pocket Operator, including:

- **Folding Stand**: Allows for hands-free operation.
- **Knob A / B**: Control parameters 1 and 2, with options for swing, tempo, drone level, and sidechain.
- **Chord Control**: Selection for sounds 1-16, chords 1-16, and effects 1-16.
- **Time / Note / Additional Info**: Displays tempo, pattern, and time information.
- **Auto Power Off (A.P.O.)**: The unit auto powers off when no buttons are pressed for a while, only powering the display to show time.
- **Press Sound + BPM to Show Battery Status**: Allows manual power off to ensure recent modifications to pattern data survive a loss of power.

### Sound Parameters A / B

- **Pattern**: To select pattern and press 1-16.
- **BPM**: Press to select tempo.
- **Hold**: To set master volume 1-16.
- **Step**: To set multiplier.
- **Sound**: To select sound and press 1-16.
- **Alarm**: Hold to set master volume 1-16.
- **Effect**: To toggle effects hold FX and press 1-16.

### Sound 1-16

1. Bass
2. Bass Drum
3. Snare Drum
4. Hi-Hat
5. Tom
6. Blip
7. Hardsync
8. Noise FX
9. Arpeggio

### Chord 1-16

1. Dm
2. Em
3. Esus
4. E
5. F
6. G
7. C/G
8. E/G#
9. Am
10. C/A
11. Dm/A
12. D/A
13. A
14. B/A
15. Portamento
16. D

### Effect 1-16

1. Solo Chords
2. Solo Chords + Lead
3. Solo Drums
4. Solo Drums + Bass
5. Lowpass Slow Sweep
6. Lowpass Fast Sweep
7. Highpass Filter
8. Highpass Sweep
9. Fill-in
10. Fill-in (Fast)
11. Retrigger
12. Retrigger (Fast)
13. Glitch
14. Glitch (Fast)
15. Blinds
16. Rising Arpeggio
1. Getting started

Power-up
insert two fresh AAA batteries.
Pay attention to plus and minus terminals.

Set clock
set time by turning knob A for hours
and knob B for minutes.
press any key to confirm and exit.

Alarm clock
press sound + pattern.
set alarm clock by turning A for hours
and B for minutes.
(disable by turning knob A all the way down.)
press any key 1-16 to set pattern for the
alarm. to stop alarm press any key.

Reset clock
reset the clock by removing the
batteries and start over.

2. Play

Select pattern
hold pattern and press any key
from 1-16 to select pattern.
Blanking LED indicates active
pattern.

Play
press play to start playing.
Press play again to stop.

Sequencer
a pattern consists of 16 steps.

3. Creating a Pattern

Select sound
hold sound and press any key
from 1-16 to select sound.

Create
press write. REC symbol is lit on
screen. enter sound/notes in grid.
Active steps will be lit.
Press play to listen to your pattern.

Parameter locking
during play, hold write while
turning knobs to write sound.
Parameter changes over time
hold any key 1-16 and turn knobs
to edit sound parameters on that
particular step. for most sounds,
parameter 1 controls the pitch and
parameter 2 controls the waveform.

4. Chords

Hold chord and press any key 1-16
to select chord. see reference on
opposite page.
During play, the change takes effect at the next
pattern boundary.

Hold chord and press a sequence of keys 1-16 to create a chain of
up to 128 chords. one chord can
be selected multiple times.
example: 9, 9, 16 plays chord 9
for a duration of three patterns.
then moves on to chord 16.
the entire sequence then repeats.

5. Live Effects

Hold fx and press any key 1-16
to toggle effects. see reference on
opposite page. some effects are
mutually exclusive. Fill-in, retrigger
and glitch effects last until the next
pattern boundary. the solo effects
can be pre-activated while the
sequencer is stopped.

Drone
Hold chord while turning knobs to
control drone playback of the
current chord.

Fade out
During playback, press fx + play to
fade out and stop the sequencer.

6. Tempo and Swing

Press bpm to switch tempo. the
bpm will be displayed in the upper
right corner of the screen.
HIP HOP (80 bpm)
DISCO (120 bpm)
TECHNO (140 bpm)
Hold bpm and turn A to adjust
the swing. hold bpm and turn B to
fine-tune tempo from 60 to 240 bpm.

7. Volume

Hold bpm and press any key 1-16
to adjust master volume.
At volume levels 9-16, the filters can be driven
into distortion.

8. Live Record

While playing, except in write
mode, hold write and press any
key 1-16 to punch in notes.
Notes will be quantized according
to the current swing setting.

9. Step Multiplier

In write mode, press and hold any
key 1-16 to select step, and press
bpm to insert a re-trig on that step.
Press bpm multiple times to switch
between 2, 3, 4, 6 or 8 multiplier.

10. Making a Song
(pattern chaining)

Copy pattern
while holding pattern, press write
followed by any key 1-16 to paste
the active pattern to the
Corresponding new slot.

Clear pattern
Hold chord and press pattern to
clear the active pattern.

Chain pattern
Hold pattern and press a sequence of
keys 1-16 to create a chain of
up to 128 patterns. One pattern
can be selected multiple times.
Example: 1, 1, 4, 16 plays pattern 1
three times then moves on to pattern
4, the entire sequence then repeats.

11. Sync Multiple Units

Connect a standard stereo audio
cable between the units. the
master unit will control the tempo of
the slave unit. Hold chord and
press bpm on master unit to
toggle sync modes.
Press repeatedly to toggle between
different modes displayed in the
upper right corner of the screen.
Press play on slave unit to wait for
master clock sync.
Press play on master to start.

Sync Modes
There are 5 sync modes.
Default mode is SY0.
When sync is used the signal will
be split between audio (right) and
Sync (left).

Sync Scenarios
Example A:
chain: PO-20 → PO-12 → PO-14
setting: SY1 → SY5 → SY4
Example B:
chain: external → PO-20
setting: volca → PO-20
9-inch phone
computer
synckontrol
Example C:
chain: ext. → PO-20 → PO-16
setting: SY3 → SY4
Example D:
chain: PO-20 → ext. (split cable)
setting: SY1

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