

# po-28 robot

QUICK REFERENCE CHEATSHEET

pocket operator · teenage.engineering

HARDWARE CONTROLS		
CONTROL	FUNCTION	
keys 1-16	sounds / patterns / fx / steps / volume	
knob A	timbre (live) · note pitch (write, step held)	
knob B	release rate (live) · release rate (write, step held)	
sound	hold + key to select sound	
pattern	hold + key to select / chain	
glide	glide / chromatic fx (see glide section)	
fx	hold + key to toggle effect	
bpm	cycle presets; hold + knobs to fine-tune	
write	enter write / record mode	
play/stop	start and stop sequencer	
SOUND PARAMETERS (CONTEXT-SENSITIVE)		
live · knob A	timbre	
live · knob B	release rate	
write · hold step + A	set note pitch	
write · hold step + B	set release rate	
glide held · knob A	vibrato depth	
glide held · knob B	vibrato rate	
per-step parameter locking supported		
TEMPO		
HIP HOP 80	DISCO 120	TECHNO 140
hold <b>bpm</b> + knob B = fine-tune (60-240 BPM)		
hold <b>bpm</b> + knob A = swing		
hold <b>bpm</b> + 1-16 = volume (caution above 5 w/ headphones)		

SOUNDS (HOLD SOUND + KEY)							
HIGH OCTAVE (1-8)							
1 LFO Pulse	2 Pulse Wave	3 Mixed Wave	4 Trian	5 Echo	6 Arpeg	7 Vibra	8 4-bit Tri
LOW OCTAVE (9-16)							
9 LFO Pulse	10 Pulse Wave	11 Mixed Wave	12 Trian	13 Echo	14 Arpeg	15 Vibra	16 Micro Drum
1-8 = high octave synth · 9-15 = low octave synth · 16 = micro drum kit 2-channel sequencer: sounds 1-15 = melody · sound 16 = drums							
GLIDE BUTTON							
hold <b>glide</b> + 1-16 (live)	glide up to that note						
hold <b>glide</b> + release	falling chromatic effect						
hold lit step + <b>glide</b> (write)	toggle glide-up on step						
hold unlit step + <b>glide</b> (write)	glide-down on step						
hold <b>write</b> + <b>glide</b>	falling chromatic scale fx						
<b>glide</b> + <b>bpm</b>	toggle sync mode						

EFFECTS (HOLD FX + KEY)			
1 Distorted Filter	2 Distorted Sweep	3 Repeat 4	4 Repeat 2
5 LP Slow	6 LP Fast Sweep	7 HP Filter	8 HP Sweep
9 Fill-In	10 Fill-In Fast	11 Retrigger	12 Retrigger Fast
13 Glitch	14 Glitch Fast	15 Blinds	16 Noise Effect
hold <b>fx</b> alone = clear all effects <b>fx</b> + <b>play</b> = fade out & stop some effects are mutually exclusive			

SEQUENCER & RECORDING	
BASICS	
<b>play/stop</b>	start / stop
<b>write</b>	write mode (REC on LCD)
keys 1-16 (write)	enter / remove steps
16 patterns	each with 16 steps · 2 channels
LIVE RECORD	
hold <b>write</b> + key (playing)	punch in live (quantize d)
hold <b>write</b> + knobs (playing)	param lock across timeline
GLIDE IN SEQUENCER	
hold <b>glide</b> + 1-16	glide-up note (live)
hold lit step + <b>glide</b>	toggle glide-up (write)
hold unlit step + <b>glide</b>	glide-down (write)
STEP MULTIPLIER	
hold step + <b>M</b>	2× / 3× / 4× / 6× / 8× options
PATTERNS & CHAINS	
hold <b>ptn</b> + key	select pattern
hold <b>ptn</b> + sequence	chain (up to 128 patterns)
hold <b>write</b> + <b>ptn</b> + key	copy pattern to slot
<b>key</b> + <b>ptn</b>	clear pattern
2-ch: melody steps share pattern with drum steps	

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COMBOS · SYNC · SPECS

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## ALL BUTTON COMBINATIONS

COMBINATION	ACTION
hold <b>sound</b> +1-8	select high-octave sound
hold <b>sound</b> +9-15	select low-octave sound
hold <b>sound</b> +16	select micro drum kit
hold <b>ptn</b> +1-16	select pattern
hold <b>fx</b> +1-16	toggle effect on/off
hold <b>fx</b> (no key)	clear all effects
<b>fx</b> + <b>play</b>	fade out and stop
press <b>bpm</b>	cycle presets (80 / 120 / 140)
hold <b>bpm</b> +knob B	fine-tune tempo (60-240 BPM)
hold <b>bpm</b> +knob A	adjust swing
hold <b>bpm</b> +1-16	set master volume (caution above 5)
press <b>write</b>	enter write / record mode
hold <b>write</b> +1-16 (playing)	live punch-in (quantized)
hold <b>write</b> +knobs (playing)	param lock across timeline
hold lit step+knob A (write)	set note pitch for step
hold lit step+knob B (write)	set release rate for step
hold <b>glide</b> +1-16	glide-up to note (live)
hold <b>glide</b> +release	falling chromatic effect
hold <b>write</b> + <b>glide</b>	falling chromatic scale fx
hold lit step+ <b>glide</b> (write)	toggle glide-up on step
hold unlit step+ <b>glide</b> (write)	glide-down on step
<b>glide</b> +knob A (glide held)	vibrato depth
<b>glide</b> +knob B (glide held)	vibrato rate
hold step+ <b>M</b>	step multiplier (2/3/4/6/8x)
hold <b>ptn</b> +sequence	chain patterns (up to 128)
hold <b>write</b> + <b>ptn</b> +1-16	copy pattern to slot
<b>key</b> + <b>ptn</b>	clear pattern
<b>glide</b> + <b>bpm</b>	toggle sync mode (SY0-SY5)
<b>sound</b> + <b>bpm</b>	check battery status
<b>sound</b> + <b>write</b>	power off (saves all data)
hold <b>ptn</b> + <b>write</b> at battery insert	factory reset

## SYNC & CONNECTIVITY

### SYNC MODES — HOLD GLIDE + BPM TO TOGGLE

MODE	INPUT	OUTPUT
SY0	stereo	stereo (default)
SY1	stereo	mono + sync
SY2	sync	stereo
SY3	sync	mono + sync
SY4	mono + sync	stereo
SY5	mono + sync	mono + sync

3.5mm stereo cable · audio: right ch · sync: left ch · max 5Vpp

### TWO-UNIT SETUP

master	SY1 or SY3 (sync out on left ch)
slave	SY2 or SY4 (sync in on left ch)

## SPECS & POWER

sounds	8 high + 7 low octave synth + drum kit
channels	2 (melody + drums)
effects	16
patterns	16 × 16 steps
max chain	128 patterns
BPM range	60-240 (presets: 80 / 120 / 140)
volume	16 levels (caution above 5 w/ headphones)
sync modes	6 (SY0-SY5)
power	2 × AAA batteries
auto power-off	5 min idle / 60 min w/ line-in

### POWER CONTROLS

<b>sound</b> + <b>write</b>	manual power off (saves data)
<b>sound</b> + <b>bpm</b>	check battery status
any key	wake from sleep

same battery type only — do not mix · all data saves on power-off  
factory reset: hold **ptn**+**write** while inserting batteries