





































adc















input	i	
minimum	m	
maximum	x	

bit1 ... bit12	b	
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































algoquencer

clock	c	
reset	r	
button1 ... button16	b	
length	l	
pattern	pt	
nextpattern	np	
prevpattern	pp	
reroll	rr	
clearpage	cp	
pitchlow	pl	
pitchhigh	ph	
pitchresolution	pre	
gatelength	gl	
lengthbutton	lb	
repeats	rp	
alternaterepeats	arp	
branches	bs	
mutebutton	mb	
unmutebutton	ub	
accentbutton	ab	
alternatebutton	alb	
alternatebars	aba	
accentlow	al	
accenthigh	ah	
startaccents	sc	
activity	a	
variation	v	
dejavu	d	
morphs	m	
offbeats	ob	
distribution	di	
fills	f	
fillorder	fo	
rolls	rl	
rollcount	rc	
rollsteps	rs	
rollstartvelo	rsv	
pitch1 ... pitch16	p	
display	dy	
header	hr	
select	s	
selectat	sa	
preset	pr	
loadpreset	lp	

savepreset	sp	
clear	cl	
clearall	ca	
dontsave	dos	





trigger	t	
gate	g	
pitch	p	
accent	ac	
led1 ... led16	l	
barled1 ... barled4	bl	
rollvelocity	rv	
startofbar	sb	
muted	ml	
unmuted	ul	
morphled	mol	
fillsled	fl	
branch	br	
lengthoutput	lo	

arpeggio








pitch	p	
range	ra	
clock	c	
reset	r	
pattern	pt	
direction	d	
pingpong	pp	
butterfly	by	
drop	dr	
octaves	oc	
startnote	sn	
autoreset	ar	
root	ro	
degree	dg	
select1	s1	
select3	s3	
select5	s5	
select7	s7	
select9	s9	
select11	s11	
select13	s13	
selectfill1	sf1	
selectfill2	sf2	
selectfill3	sf3	
selectfill4	sf4	
selectfill5	sf5	
harmonicshift	has	
noteshift	nos	
selectnoteshift	sns	
tuningmode	tm	
tuningpitch	tp	
transpose	tr	

output	o	
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bernoulli

























input	i	
distribution	di	
output1	o1	
output2	o2	

burst

















rate	ra	
taptempo	tt	
hz		
trigger	t	
reset	r	
count	c	
skip	s	








output	o	
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button


















button	b	
onvalue	ov	
offvalue	fv	
value1 ... value4	v	
doubleclickmode	dm	
longpresstime	lt	
states	st	
startvalue	sv	
display	dy	
header	hr	
select	s	
selectat	sa	
preset	pr	
loadpreset	lp	
savepreset	sp	
clear	cl	
clearall	ca	
dontsave	dos	
led	l	
output	o	
inverted	iv	
negated	n	
longpress	lop	
shortpress	shp	

buttongroup

minactive	ma	
maxactive	xa	
longpresstime	lt	
button1 ... button32	b	
value1 ... value32	v	
startbutton	sb	
display	dy	
header	hr	
select	s	
selectat	sa	
preset	pr	
loadpreset	lp	
savepreset	sp	
clear	cl	
clearall	ca	
dontsave	dos	




led1 ... led32	l	
buttonoutput1 ... buttonoutput32	o	
output	o	
buttonpress	bp	
longpress	lop	
selectionchanged	sc	
extrapress	ep	

calibrator

input	i	
nudgeup	nu	
nudgedown	nd	
clearhere	ch	
nudgeamount	na	
forcedisplay	fd	
tune0 ... tune8	t	
tunelowtail	tl	
tunehightail	th	
display	dy	
header	hr	
select	s	
selectat	sa	
preset	pr	
loadpreset	lp	
savepreset	sp	
clear	cl	
clearall	ca	
dontsave	dos	

























output	o	
ledup	lu	
leddown	ld	
correction	c	

case

case1 ... case16	c	
value1 ... value16	v	
else	e	

output	o	
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chord

pitch	p	
spread	s	
inversion	iv	
trigger	t	
root	ro	
degree	dg	
select1	s1	
select3	s3	
select5	s5	
select7	s7	
select9	s9	
select11	s11	
select13	s13	
selectfill1	sf1	
selectfill2	sf2	
selectfill3	sf3	
selectfill4	sf4	
selectfill5	sf5	
harmonicshift	has	
noteshift	nos	
selectnoteshift	sns	
tuningmode	tm	
tuningpitch	tp	
transpose	tr	


output1 ... output4	o	
---------------------	---	---

clockedtrigger


clock	c	
trigger	t	
clear	cl	
value	v	

clockedtrigger	ct	
clockedvalue	cv	
pendingtrigger	pv	
pendingvalue	pv	

clocktool

clock	c	
reset	r	
divide	d	
multiply	m	

dutycycle	dc	
gatelength	gl	
delay	dl	

output	o	
inputpitch	ip	
outputpitch	op	

compare

input	i	
compare	c	
ifgreater	g	
ifless	l	
ifequal	q	
else	e	
precision	pc	

endofhold eh 
endofdecay ed 
endofrelease er 

copy

input i 












output o 

crossfader

input1 ... input8 i 
fade f 

output o 

cvlooper

cvin ci 
gatein gi 
clock c 
reset r 
length l 
tapespeed s 
loopswitch ls 
pause p 
overlay ov 
overdub od 
bypass b 


cvout co 
gateout go 

dac

bit1 ... bit12 b 
minimum m 
maximum x 





output o 

delay

delay dl 
cvin ci 
numberin ni 
gatein1 ... gatein8 gi 
clock c 
sample sm 
timewindow tw 
bypass b 
save sv 
load ld 
filenumber f 












cvout co 
numberout no 
gateout1 ... gateout8 go 
overflow ov 

detune














input1 ... input8 i 
detune d 
tuningmode tm 
tuningpitch tp 

output1 ... output8 o 

display











display dy 
text tx 
header hr 
fontsize f 
value v 
threshold th 
numbermode nm 
linger l 
trigger t 
useasdefault u 
screensaver ss 
takeovercontrols to 
select s 
selectat sa 

droid

ledbrightness l 
maxslope1 ... maxslope8 s 
lpfilter1 ... lpfilter8 lf 
m4faderspeed m4f 
m4touchgain1 ... m4touchgain8 m4n 
statusdump sd 
m4notchpower m4n 
calibrate c 
startcontrollerupgrade u 
startx7upgrade x7 
clear cl 
clearall ca 
uislowdown us 




















encoderbank

firstencoder e 
led1 ... led8 l 
startvalue sv 
notch no 
outputscale os 
outputoffset oo 




mode m 
smooth sm 
discrete d 
snapto sn 
snapforce sf 
sensivity se 
autozoom a 
color co 
negativecolor nc 
ledfill lf 
display dy 
header hr 
select s 
selectat sa 
preset pr 
loadpreset lp 
savepreset sp 
clear cl 
clearall ca 
dontsave dos 

output1 ... output8 o 
button1 ... button8 b 





















































encoder























































encoder e 
override or 
sharewithnext sw 
movementticks mv 
led l 
startvalue sv 
notch no 
outputscale os 
outputoffset oo 
mode m 
smooth sm 
discrete d 
snapto sn 
snapforce sf 
sensivity se 
autozoom a 
color co 
negativecolor nc 
ledfill lf 
display dy 
header hr 
select s 
selectat sa 
preset pr 
loadpreset lp 
savepreset sp 
clear cl 
clearall ca 
dontsave dos 




output o 
button b 



moveddown md 
movedup mu 
valuechanged vc 

encoquencer

zorder z 
nume4s n4 
ledpreview pv 
firstfader f 
numfaders n 
numsteps ns 
page p 
clock c 
taptempo tt 
reset r 
run ru 
composemode cm 
mute m 
cvbase cb 
cvrange cr 
invert iv 
quantize q 
cvnotches cn 
shiftsteps sh 
startstep ss 
endstep es 
setendstep ses 
form fo 
direction d 
pingpong pp 
pattern pt 
repeatshift rs 
ratchetshift ras 
accumulatorrange ac 
constantlength co 
autoreset ar 
metricsaver ms 
fadermode fm 
buttonmode bm 
holdcv hc 
defaultcv dc 
defaultgate dfg 
clearskips cs 
clearrepeats crp 
clearstartend cse 
gatelength gl 
keyboardmode km 
keyboardcv kc 
keyboardgate kg 
recordmode rm 
recordsilence rsi 
copy cy 
paste pa 
pastefaders pf 
pastebuttons pb 
stepcopy sc 
doublerange dr 

bulkedit be 
linktonext ln 
luckychance lc 
luckyscope ls 
luckyclimb la 
luckycvbase lv 
luckyfaders lf 
luckybuttons lb 
luckycvs lcv 
luckycvdrift ld 
luckyspread lr 
luckyinvert li 
luckyrandomizecv lrc 
luckygates lg 
luckyskips lk 
luckyties lt 
luckygatepattern lgp 
luckygateprob lga 
luckyrepeats lrp 
luckyratchets lrt 
luckyshuffle lsh 
buttoncolor bc 
cvname ce 
gatename gn 
display dy 
luckyreverse lrv 
root ro 
degree dg 
select1 s1 
select3 s3 
select5 s5 
select7 s7 
select9 s9 
select11 s11 
select13 s13 
selectfill1 sf1 
selectfill2 sf2 
selectfill3 sf3 
selectfill4 sf4 
selectfill5 sf5 
harmonicshift has 
noteshift nos 
selectnoteshift sns 
tuningmode tm 
tuningpitch tp 
transpose tr 
select s 
selectat sa 
preset pr 
loadpreset lp 
savepreset sp 
clear cl 
clearall ca 
dontsave dos 

cv 
gate g 
startofsequence ssq 



startofpart spa 
startstepout sso 
endstepout eso 
currentstep cst 
currentpage cpq 
accumulator acc 

euklid

clock c 
reset r 
outputsignal os 
length l 
beats b 
offset of 
















output o 
offbeats ob 


explin

input i 
startvalue sv 
endvalue ev 
mix m 







output o 

faderbank

firstfader f 
notches n 
startvalue sv 
ledcolor lc 
ledvalue1 ... ledvalue16 lv 
display dy 
header hr 
select s 
selectat sa 
preset pr 
loadpreset lp 
savepreset sp 
clear cl 
clearall ca 
dontsave dos 

output1 ... output16 o 
button1 ... button16 b 

fadermatrix

firstfader f 
rowcolumn rc 
notches1 ... notches4 n 
startvalue1 ... startvalue4 sv 
ledvalue11 ... ledvalue141 lv 
ledvalue21 ... ledvalue242 lv 

ledvalue31 ... ledvalue34	31	34	
ledvalue41 ... ledvalue44	41	44	
ledcolor1 ... ledcolor4	lc		
display	dy	1+2+3	
header	hr	"TEXT"	
select	s	1+2+3	
selectat	sa	1+2+3	
preset	pr	1+2+3	
loadpreset	lp		
savepreset	sp		
clear	cl		
clearall	ca		
dontsave	dos		

output11 ... output14	o1	
output21 ... output24	o2	
output31 ... output34	o3	
output41 ... output44	o4	
button11 ... button14	b1	
button21 ... button24	b2	
button31 ... button34	b3	
button41 ... button44	b4	

firefacecontrol

trs	1+2+3	
outputlevel1 ... outputlevel16	lo	
mainoutput	mo	1+2+3
phonesoutput1, phonesoutput2	1+2+3	
outputmix1in1 ... outputmix1in16	1	
outputmix2in1 ... outputmix2in16	2	
outputmix3in1 ... outputmix3in16	3	
outputmix4in1 ... outputmix4in16	4	
outputmix5in1 ... outputmix5in16	5	
outputmix6in1 ... outputmix6in16	6	
outputmix7in1 ... outputmix7in16	7	
outputmix8in1 ... outputmix8in16	8	
outputmix9in1 ... outputmix9in16	9	
outputmix10in1 ... outputmix10in16	10	
outputmix11in1 ... outputmix11in16	11	
outputmix12in1 ... outputmix12in16	12	
outputmix13in1 ... outputmix13in16	13	
outputmix14in1 ... outputmix14in16	14	
outputmix15in1 ... outputmix15in16	15	
outputmix16in1 ... outputmix16in16	16	
postfader1 ... postfader16	16	
pan1 ... pan16	p	
unmute1 ... unmute16	u	
update	ud	
select	s	1+2+3
selectat	sa	1+2+3

flipflop

toggle	t	
set	s	

reset	r	
clear	cl	
startvalue	sv	
load	ld	
loadvalue	lv	

output

fold

input	i	
foldby	f	
minimum	m	
maximum	x	

output

fourstatebutton

button	b	
reset	r	
value1 ... value4	v	
startvalue	sv	1+2+3

output

led

gatetool

inputgate	ig	
inputtrigger	it	
inputedge	ie	
gatelength	gl	
gatestretch	s	
mingatlength	m	
maxgatelength	x	
taptempo	tt	

outputgate

outputtrigger

outputedge

ifequal

input1	i1	
input2	i2	
ifequal	q	
else	e	

output

lfo

rate	ra	
taptempo	tt	
hz		

level	l	
randomize	r	
offset	of	
bipolar	b	
phase	p	
pulsewidth	pw	
skew	sk	
sync	sy	
syncphase	sp	
waveform	w	

output	o	
square	q	
sawtooth	st	
triangle	t	
ramp	rp	
paraboloid	pb	
sine	si	
cosine	cs	

logic

input1 ... input8	i	
threshold	th	
lowvalue	l	
highvalue	h	
countvalue	cv	

and

or

xor

nand

nor

negated

count

countlow

math

input1, input2	i	
----------------	---	--

sum

difference

product

quotient

modulo

power

average

maximum

minimum

negation

reciprocal

amount

sine

cosine

square

root

logarithm	l	
log2	l2	
round	rd	
floor	f	
ceil	c	

matrixmixer

input1 ... input4	i	
auxin1 ... auxin4	a	
mixmax	m	
startvalue	sv	1+2+3
button11 ... button14	b1	
button21 ... button24	b2	
button31 ... button34	b3	
button41 ... button44	b4	
select	s	1+2+3
selectat	sa	1+2+3
preset	pr	1+2+3
loadpreset	lp	
savepreset	sp	
clear	cl	
clearall	ca	
dontsave	dos	

output1 ... output4	o	
led11 ... led14	l1	
led21 ... led24	l2	
led31 ... led34	l3	
led41 ... led44	l4	

midifileplayer

file	f	1+2+3
track	tc	1+2+3
clock	c	
reset	r	
loop	lo	
end	e	1+2+3
speed	sp	
channel	ch	1+2+3
tuningmode	tm	
tuningpitch	tp	
transpose	tr	
holdvelocity	hv	
pitchbendrange	pbr	
bendpitch	bp	
roundrobin	rr	
voiceallocation	va	1+2+3
notegap	ngp	
ccnumber1 ... ccnumber4	cn	1+2+3
lowestnote	ln	1+2+3
highestnote	hn	1+2+3
note1 ... note16	n	1+2+3

clockout	co	
midiclock	mc	

endoftrack	et	
error	er	
pitch1 ... pitch8	p	
velocity1 ... velocity8	v	
pressure1 ... pressure8	pr	
gate1 ... gate8	g	
trigger1 ... trigger8	t	
cc1 ... cc4	c	
cctrigger1 ... cctrigger4	4t	
notegate1 ... notegate16	ng	
notegatevelocity1 ... notegatevelocity16	16v	
pitchbend	pb	
programchange	pc	
program	pm	1+2+3
bank	ba	1+2+3
modwheel	w	
volume	vo	
portamento	po	
soft	so	

midilin

trs	1+2+3	
usb	1+2+3	
initialrunning	ir	1+2+3
systemreset	sr	
channel	ch	1+2+3
tuningmode	tm	
tuningpitch	tp	
transpose	tr	
holdvelocity	hv	
pitchbendrange	pbr	
bendpitch	bp	
roundrobin	rr	
voiceallocation	va	1+2+3
notegap	ngp	
ccnumber1 ... ccnumber4	cn	1+2+3
lowestnote	ln	1+2+3
highestnote	hn	1+2+3
note1 ... note16	n	1+2+3

clock	c	
clock8	c8	
clock8t	c8t	
clock16	c16	
clock4	c4	
midiclock	mc	
start	st	
continue	co	
stop	sp	
running	ru	
active	a	
pitch1 ... pitch8	p	
velocity1 ... velocity8	v	
pressure1 ... pressure8	pr	
gate1 ... gate8	g	
trigger1 ... trigger8	t	
cc1 ... cc4	c	

cctrigger1 ... cctrigger4	4t	
notegate1 ... notegate16	ng	
notegatevelocity1 ... notegatevelocity16	16v	
pitchbend	pb	
programchange	pc	
program	pm	1+2+3
bank	ba	1+2+3
modwheel	w	
volume	vo	
portamento	po	
soft	so	

midkout

channel	ch	1+2+3
usb		
trs		
pitch1 ... pitch8	p	
gate1 ... gate8	g	
velocity1 ... velocity8	v	
noteoffvelocity1 ... noteoffvelocity16	16v	
pressure1 ... pressure8	pr	
channelpressure	cp	
pitchstabilization	ps	
triggerdelay	td	
lowestnote	ln	1+2+3
highestnote	hn	1+2+3
notegate1 ... notegate16	ng	
note1 ... note16	n	1+2+3
notegatevelocity1 ... notegatevelocity16	16v	
modwheel	w	
volume	vo	
pitchbend	pb	
pitchtracking	pt	1+2+3
pitchbendrange	pbr	
ccnumber1 ... ccnumber8	cn	1+2+3
cc1 ... cc8	c	
cctrigger1 ... cctrigger8	8t	
updateccs	uc	
delayinitialccs	dc	
bank	ba	1+2+3
program	pm	1+2+3
programchange	pc	
start	st	
stop	sp	
running	ru	
systemreset	sr	
allnotesoff	ao	
allsoundoff	aso	
damper	dp	
portamento	po	
sostenuto	su	
soft	so	
legato	lg	
clock	c	
midiclock	mc	
activesensing	as	
updaterate	ur	

select s 1+2+3
selectat sa 1+2+3

midithrough

fromtrs ft 1+2+3
fromusb fu 1+2+3
totrs tt 1+2+3
tousb tu 1+2+3

minifonion

input i $\Delta \frac{1V}{Out}$
trigger t \perp
bypass b \perp
direction d 1+2+3
root ro 1+2+3
degree dg 1+2+3
select1 s1 \perp
select3 s3 \perp
select5 s5 \perp
select7 s7 \perp
select9 s9 \perp
select11 s11 \perp
select13 s13 \perp
selectfill1 sf1 \perp
selectfill2 sf2 \perp
selectfill3 sf3 \perp
selectfill4 sf4 \perp
selectfill5 sf5 \perp
harmonicshift has 1+2+3
noteshift nos 1+2+3
selectnoteshift sns 1+2+3
tuningmode tm \perp
tuningpitch tp $\Delta \frac{1V}{Out}$
transpose tr $\Delta \frac{1V}{Out}$

output o $\Delta \frac{1V}{Out}$
notechange n \perp

mixer

input1 ... input8 i \sim

output o \sim
maximum x \sim
minimum m \sim
average a \sim

motoquencer

firstfader f 1+2+3
numfaders n 1+2+3
numsteps ns 1+2+3

page p 1+2+3
clock c \perp
taptempo tt \perp
reset r \perp
run ru \perp
composemode cm \perp
mute m \perp
cvbase cb \sim
cvrange cr \sim
invert iv \perp
quantize q 1+2+3
cvnotches cn 1+2+3
shiftsteps sh 1+2+3
startstep ss 1+2+3
endstep es 1+2+3
setendstep ses 1+2+3
form fo 1+2+3
direction d \perp
pingpong pp \perp
pattern pt 1+2+3
repeatshift rs 1+2+3
ratchetshift ras 1+2+3
accumulatorrange ac 1+2+3
constantlength co \perp
autoreset ar 1+2+3
metricsaver ms \perp
fadermode fm 1+2+3
buttonmode bm 1+2+3
holdcv hc \perp
defaultcv dc \sim
defaultgate dfg \perp
clearskips cs \perp
clearrepeats crp \perp
clearstartend cse \perp
gatelength gl \sim
keyboardmode km 1+2+3
keyboardcv kc $\Delta \frac{1V}{Out}$
keyboardgate kg \perp
recordmode rm 1+2+3
recordsilence rsi \perp
copy cy \perp
paste pa \perp
pastefaders pf \perp
pastebuttons pb \perp
stepcopy sc \perp
doublerange dr \perp
bulkedit be \perp
linktonext ln \perp
luckychance lc $\circ \Delta_1$
luckyscope ls 1+2+3
luckyamount la $\circ \Delta_1$
luckycvbase lv $\circ \Delta_1$
luckyfaders lf \perp
luckybuttons lb \perp
luckycvs lcv \perp
luckycvdrift ld \perp
luckyspread lr \perp
luckyinvert li \perp

luckyrandomizecv lrc \perp
luckygates lg \perp
luckyskips lk \perp
luckyties lt \perp
luckygatepattern lgp \perp
luckygateprob lga \perp
luckyrepeats lrp \perp
luckyratchets lrt \perp
luckyshuffle lsh \perp
buttoncolor bc \sim
cvname ce \sim
gatename gn \sim
display dy 1+2+3
luckyreverse lrv \perp
root ro 1+2+3
degree dg 1+2+3
select1 s1 \perp
select3 s3 \perp
select5 s5 \perp
select7 s7 \perp
select9 s9 \perp
select11 s11 \perp
select13 s13 \perp
selectfill1 sf1 \perp
selectfill2 sf2 \perp
selectfill3 sf3 \perp
selectfill4 sf4 \perp
selectfill5 sf5 \perp
harmonicshift has 1+2+3
noteshift nos 1+2+3
selectnoteshift sns 1+2+3
tuningmode tm \perp
tuningpitch tp $\Delta \frac{1V}{Out}$
transpose tr $\Delta \frac{1V}{Out}$
select s 1+2+3
selectat sa 1+2+3
preset pr 1+2+3
loadpreset lp \perp
savepreset sp \perp
clear cl \perp
clearall ca \perp
dontsave dos \perp

cv g \sim
gate ssq \perp
startofsequence spa \perp
startofpart sso 1+2+3
startstepout eso 1+2+3
endstepout cst 1+2+3
currentstep cpg 1+2+3
currentpage acc 1+2+3
accumulator

motorfader

fader f 1+2+3
startvalue sv \sim
notches n 1+2+3

outputscale os \sim
outputoffset oo \sim
ledvalue lv \sim
ledcolor lc \sim
sharewithnext sw \perp
display dy 1+2+3
header hr "TEXT"
select s 1+2+3
selectat sa 1+2+3
preset pr 1+2+3
loadpreset lp \perp
savepreset sp \perp
clear cl \perp
clearall ca \perp
dontsave dos \perp

output o \sim
button b \perp

multicompare

input i \sim
compare1 ... compare16 c \sim
ifequal1 ... ifequal16 if \sim
else e \sim

output o \sim

notchedpot

pot p $\circ \Delta_1$
notch no \sim

output o $\circ \Delta_1$
bipolar b \sim
absbipolar ab \sim
lefthalf l \sim
righthalf r \sim
lefthalfinv li \sim
righthalfinv ri \sim

notebuttons

button1 ... button12 b \perp
clock c \perp
startnote sn 1+2+3
display dy 1+2+3
header hr "TEXT"
select s 1+2+3
selectat sa 1+2+3
preset pr 1+2+3
loadpreset lp \perp
savepreset sp \perp
clear cl \perp
clearall ca \perp
dontsave dos \perp

led1 ... led12 l \perp
output o 1+2+3
semitone st $\Delta \frac{1V}{Oct}$
gate g \perp

nudge

buttonup u \perp
buttondown d \perp
amount am \sim
startvalue sv \sim
minimum m \sim
maximum x \sim
wrap w \perp
offset of \sim
display dy 1+2+3
header hr "TEXT"
select s 1+2+3
selectat sa 1+2+3
preset pr 1+2+3
loadpreset lp \perp
savepreset sp \perp
clear cl \perp
clearall ca \perp
dontsave dos \perp

ledup lu \perp
leddown ld \perp
output o \sim
changed c \sim

octave

input i $\Delta \frac{1V}{Oct}$
spread s \perp
detune d $\circ \Delta_1$
fifths f \perp

output1 ... output3 o $\Delta \frac{1V}{Oct}$

once

delay dl \sim
onlycoldstart c \perp

trigger t \perp

outputcalibrator

output o 1+2+3
referencepoint r 1+2+3
nudgeup nu \perp
nudgedown nd \perp
save sv \perp
cancel c \perp
loaddefaults ld \perp
display dy 1+2+3

header hr "TEXT"

dirty d \perp
calibration cl \sim
uncalibrated u $\circ \Delta_1$

polytool

pitchinput1 ... pitchinput16 $\Delta \frac{1V}{Oct}$
gateinput1 ... gateinput16 \perp
roundrobin rr \perp
voiceallocation va 1+2+3

pitchoutput1 ... pitchoutput16 $\Delta \frac{1V}{Oct}$
gateoutput1 ... gateoutput16 \perp

pot

pot p $\circ \Delta_1$
outputscale os \sim
outputoffset oo \sim
notch no \sim
discrete d 1+2+3
slope sl \sim
ledgauge g \sim
startvalue sv $\circ \Delta_1$
display dy 1+2+3
header hr "TEXT"
select s 1+2+3
selectat sa 1+2+3
preset pr 1+2+3
loadpreset lp \perp
savepreset sp \perp
clear cl \perp
clearall ca \perp
dontsave dos \perp

output o $\circ \Delta_1$
bipolar b \sim
absbipolar ab \sim
lefthalf l \sim
righthalf r \sim
lefthalfinv li \sim
righthalfinv ri \sim
onchange c \perp

quantizer

input i \sim
trigger t \perp
steps s 1+2+3
bypass b \perp
direction d 1+2+3
hysteresis h \sim

output o \perp

changed	c	
queue		
input	i	
clock	c	
outputpos1 ... outputpos8	p	$1 \times 2 \times 3$
output1 ... output8	o	
random		
clock	c	
minimum	m	
maximum	x	
steps	s	$1 \times 2 \times 3$
output	o	
recorder		
playbutton	pb	
recordbutton	rb	
stopbutton	sb	
loop	lo	
pause	p	
mode	m	$1 \times 2 \times 3$
playbackspeed	ps	
scrub	sc	
scrubposition	sp	$0 \text{ to } 1$
trimstart	ts	$0 \text{ to } 1$
trimend	te	$0 \text{ to } 1$
cvin	ci	
numberin	ni	$1 \times 2 \times 3$
gatein1 ... gatein8	gi	
clock	c	
sample	sm	
timewindow	tw	
bypass	b	
save	sv	
load	ld	
filenumber	f	$1 \times 2 \times 3$
display	dy	$1 \times 2 \times 3$
header	hr	"TEXT"
select	s	$1 \times 2 \times 3$

selectat	sa	$1 \times 2 \times 3$
recordled		
played	pl	
stopled	sl	
cvout	co	
numberout	no	$1 \times 2 \times 3$
gateout1 ... gateout8	go	
overflow	ov	
sample		
input	i	
sample	sm	
gate	g	
timewindow	tw	
bypass	b	
output	o	
select		
input	i	
select	s	$1 \times 2 \times 3$
selectat	sa	$1 \times 2 \times 3$
output	o	
sequencer		
clock	c	
reset	r	
stages	sg	$1 \times 2 \times 3$
steps	s	$1 \times 2 \times 3$
transpose	tr	
outputscaling	os	
gatelength	gl	$0 \text{ to } 1$
pitch1 ... pitch8	p	
cv1 ... cv8	cv	
gate1 ... gate8	g	
slew1 ... slew8	sw	
repeat1 ... repeat8	rp	
chaintonext	cn	
pitchoutput	po	

cvoutput	co	
gateoutput	go	
sinfonionlink		
root	ro	$1 \times 2 \times 3$
degree	dg	$1 \times 2 \times 3$
transpose	tr	$1 \text{ to } \frac{1}{Oct}$
chaoticdetune	ch	
harmonicshift	has	$1 \times 2 \times 3$
linkstate	ls	
clock	c	
reset	r	
step	s	
beat	b	
slew		
input	i	
slew	sw	
slewap	u	
slewdown	d	
gate	g	
exponential	e	
linear	l	
scurve	c	
spring		
mass	m	
gravity	g	
springforce	f	
flowresistance	fr	
friction	fi	
speed	sp	
shove	sh	
shoveforce	sf	
reset	r	
startvelocity	sv	
startposition	spo	
velocity	v	
position	p	

superjust

input1 ... input8	i	$1 \text{ to } \frac{1}{Oct}$
tuningmode	tm	
tuningpitch	tp	$1 \text{ to } \frac{1}{Oct}$
bypass	b	$1 \text{ to } \frac{1}{Oct}$
transpose	tr	$1 \text{ to } \frac{1}{Oct}$

output1 ... output8	o	$1 \text{ to } \frac{1}{Oct}$
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switch

input1 ... input16	i	
forward	f	
backward	b	
reset	r	
shuffle	s	
sort	so	
offset	of	$1 \times 2 \times 3$

output1 ... output16	o	
----------------------	---	--

switchedpot

pot	p	$0 \text{ to } 1$
bipolar	b	
switch1 ... switch8	s	

output1 ... output8	o	$0 \text{ to } 1$
---------------------	---	-------------------

timing

clock	c	
reset	r	
timing1 ... timing8	t	

output	o	
--------	---	--

togglebutton

button	b	
reset	r	
onvalue	ov	

offvalue	fv	
doubleclickmode	dm	
startvalue	sv	

led	l	
output	o	
inverted	iv	
negated	n	

transient

start	st	
end	e	
duration	d	
loop	lo	
pingpong	pp	
freeze	f	
reset	r	
clock	c	

output	o	
phase	p	
endoftransient	et	

triggerdelay

input	i	
delay	dl	
gatelength	gl	
repeats	rp	$1 \times 2 \times 3$
mute	m	
clock	c	

output	o	
overflow	ov	

unusedfaders

firstfader	f	$1 \times 2 \times 3$
numfaders	n	$1 \times 2 \times 3$
select	s	$1 \times 2 \times 3$
selectat	sa	$1 \times 2 \times 3$

vcotuner

tuningnote	tn	$1 \times 2 \times 3$
concertpitch	cp	
basepitch	b	$1 \text{ to } \frac{1}{Oct}$
smooth	sm	$0 \text{ to } 1$
precision	pc	
display	dy	$1 \times 2 \times 3$
header	hr	"TEXT"
select	s	$1 \times 2 \times 3$
selectat	sa	$1 \times 2 \times 3$

hz		
ledflat	lf	$0 \text{ to } 1$
ledsharp	ls	$0 \text{ to } 1$
ledintune	lt	
intune	it	
tuning	t	$0 \text{ to } \frac{1}{Oct}$
cents	c	$0 \text{ to } \frac{1}{Oct}$
pitch	p	$1 \text{ to } \frac{1}{Oct}$
referencepitch	rp	$1 \text{ to } \frac{1}{Oct}$
vcofound	vf	

watch

input	i	
stepsizes	ss	
edgesize	es	
taptempo	tt	
threshold	th	
response	r	
hysteresis	h	

slope	sl	
moving	m	
movingup	mu	
movingdown	md	
step	s	
stepup	su	
stepdown	sd	
edge	e	
edgeup	eu	
edgedown	ed	
changed	c	
changedup	cu	
changeddown	cd	