Hugo Morales Murguia

Valves

Disklavier, pianist and electronics

Valves
For disklavier, pianist and electronics

The piece tries to explore the mechanical characteristics of the instrument through the musical use of some of its artifacts and possibilities of control. An independent machine intervened by human physical gesture and digital control.

The piece is composed for a Yamaha-Disklavier DC3-Pro acquired by the Conlon Foundation, Amsterdam. Other models of Disklavier maybe equally compatible, possibilities and responsiveness should be verified in advance.

Requirements:
- A package of "Bluetack" or similar, used to damp some of the strings.
- A small stereo amplifier, small enough to fit discretely inside the disklavier.
- Two small transducers 25mm/6Watts or small enough to fit in one hand.
- Three FSR pressure sensors. And an appropriate interface (e.g. Arduino)
- One Ebow
- One contact and two condenser microphones
- A computer with an appropriate programming language (original program written in Max/MSP provided upon request)

General Preparations:
- Elongated pieces of Bluetack should be placed along the strings, close to the tuning pins, on the following registers: Highest (from B to E) Lowest (A, Bb and B) and on the top part of F6 string
- The amplifier should be on, and both transducers connected to it. The transducers should be placed in such a way they do not resonate or buzz with any part of the piano (e.g. covering the holes on the soundboard). (Fig. 1)
- The FSR sensors should be pasted on the center of the fallboard (keyboard lid) with a comfortable distance between them to be activated.
- The Ebow (on) should be placed on the E string (one octave above middle E)
- The contact microphone is to be attached to the control device underneath the instrument. (Fig. 1)
- Two condenser microphones to be directed on both extremes of the hammer's mechanism. (Fig. 1)

Commissioned by the Conlon Foundation and Sarah Nicolls for the Gaudemus Music Week 2010, Amsterdam.
With financial support from the Fonds Podiumkunst NL

Approx. duration 15 minutes

Valves
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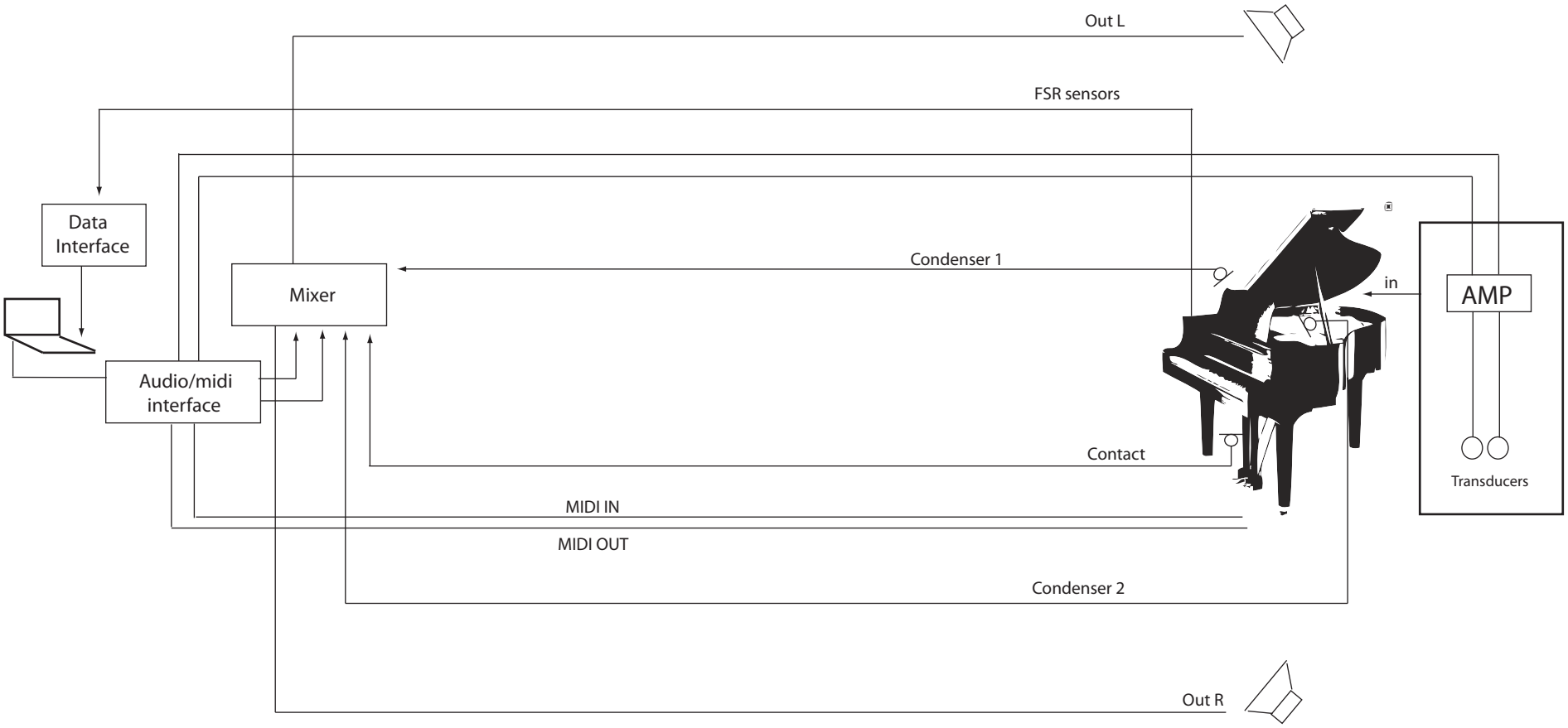

Figure 1

To Sarah Nicolls

Valves

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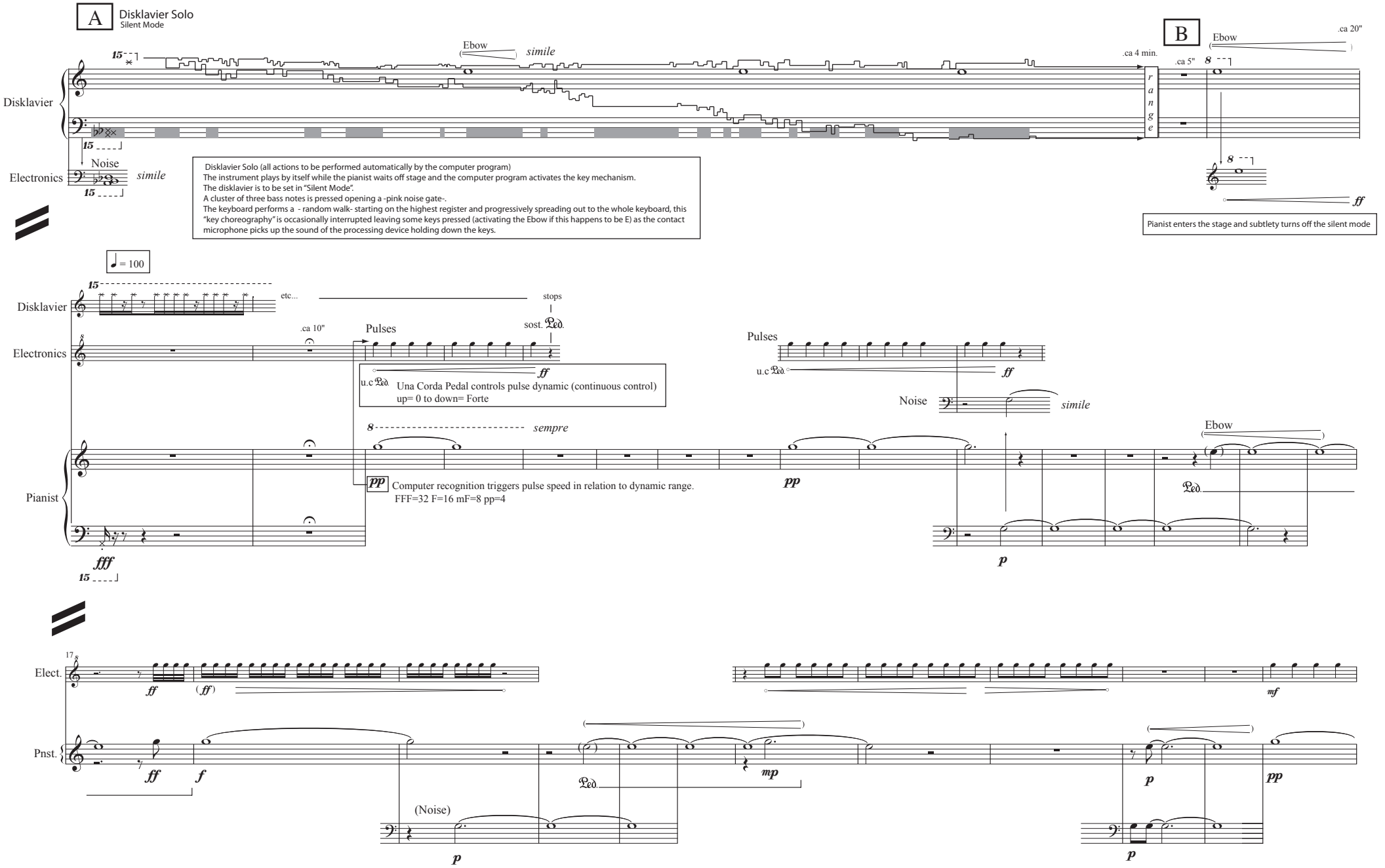
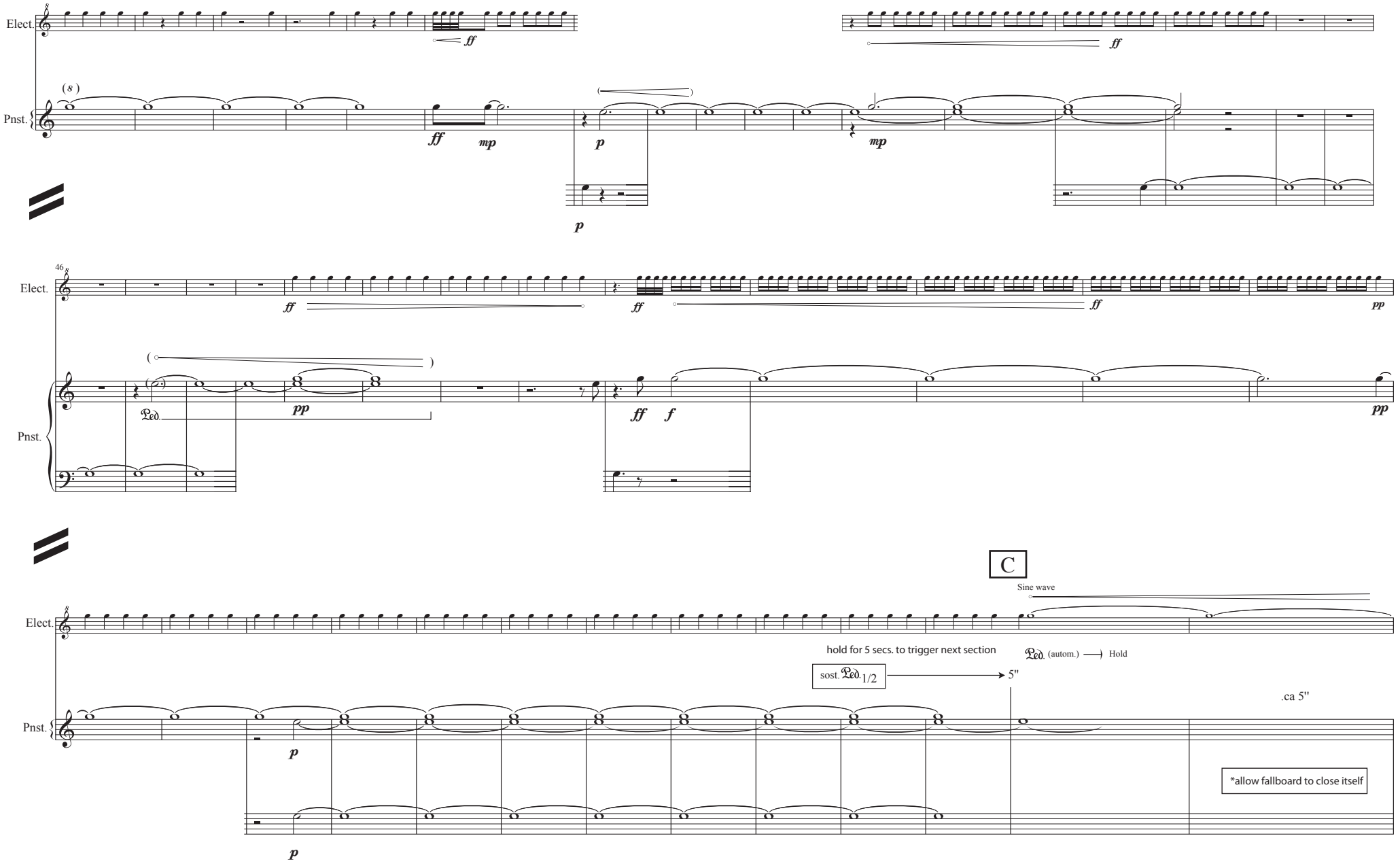
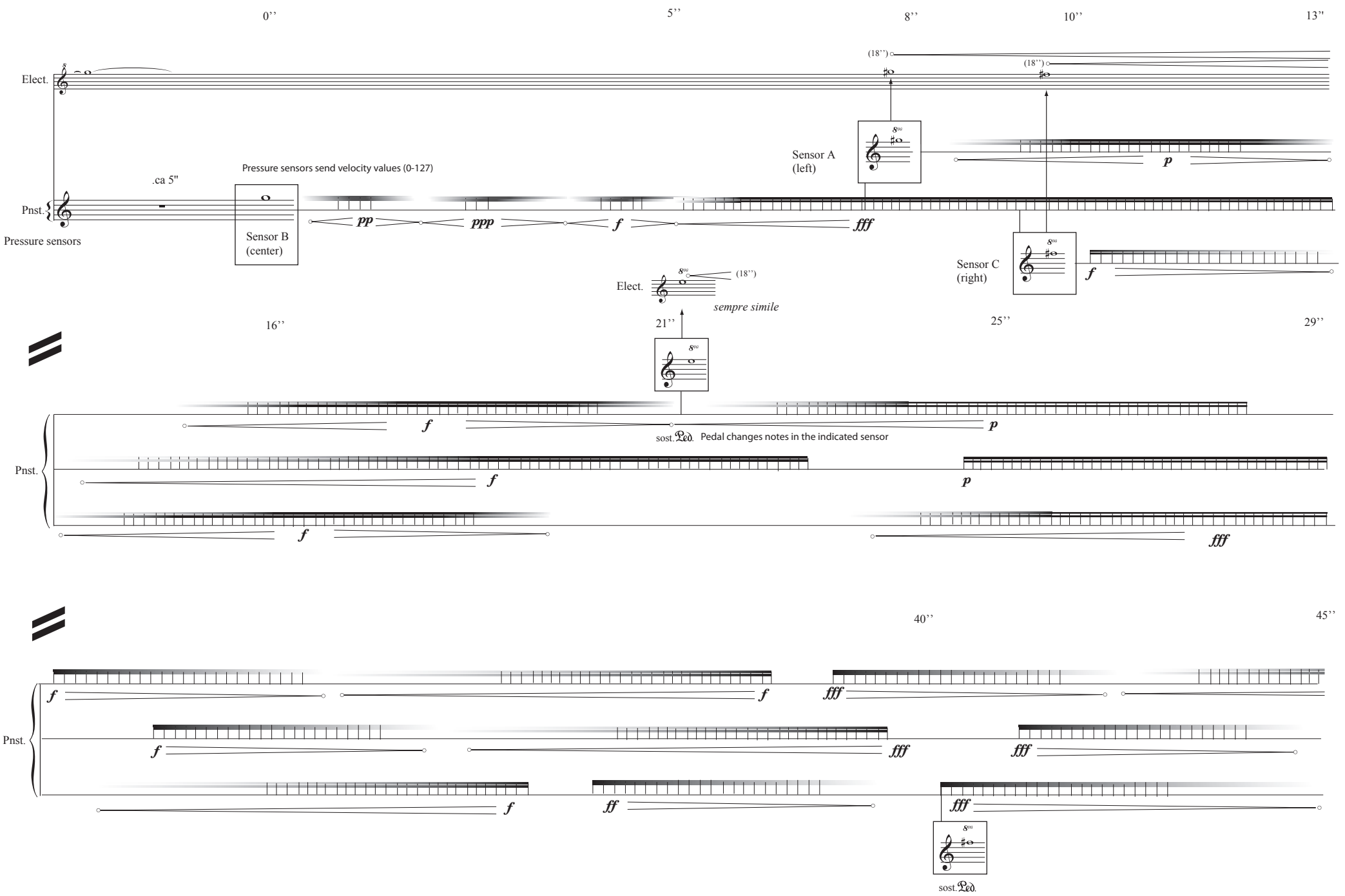
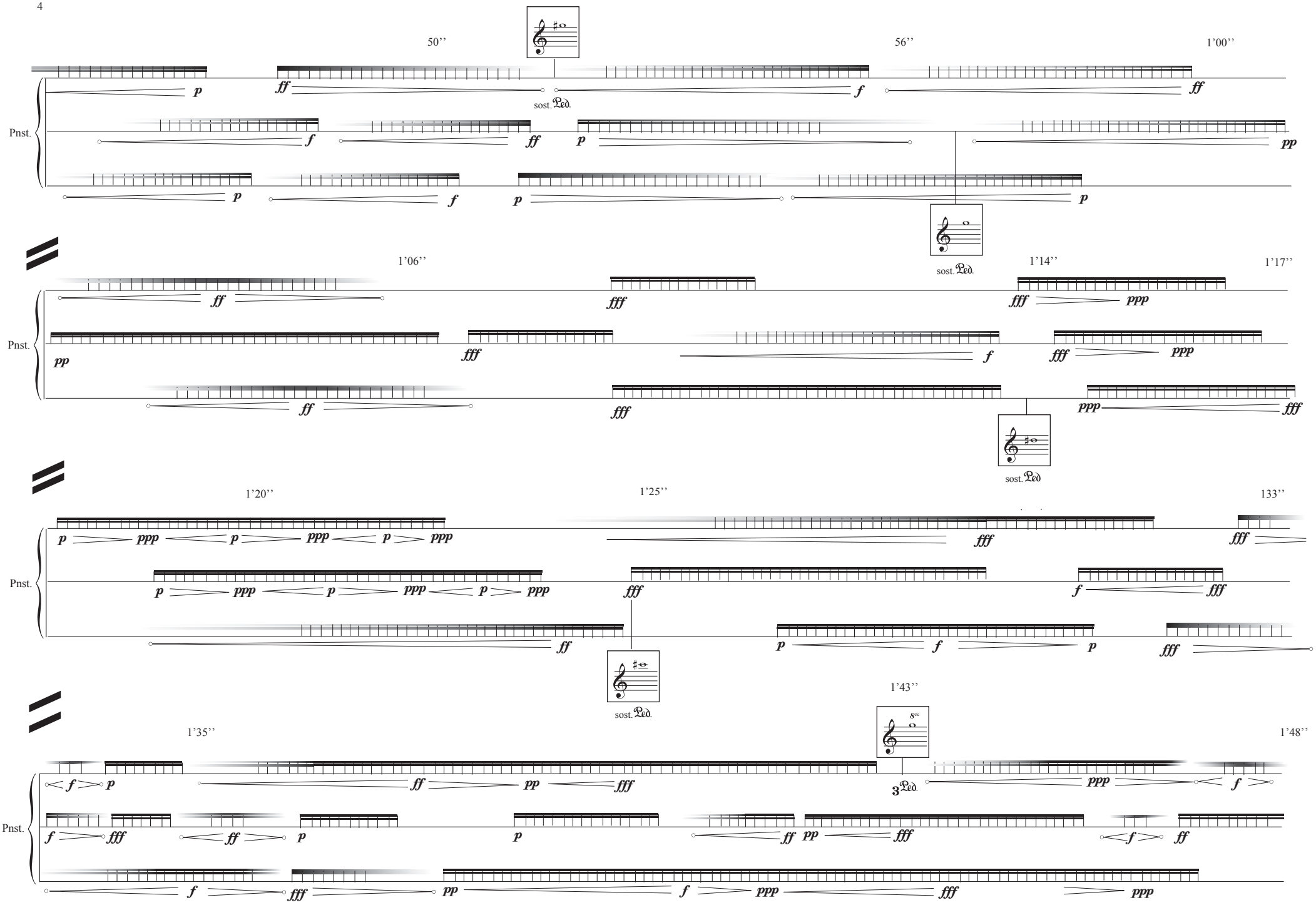
2010

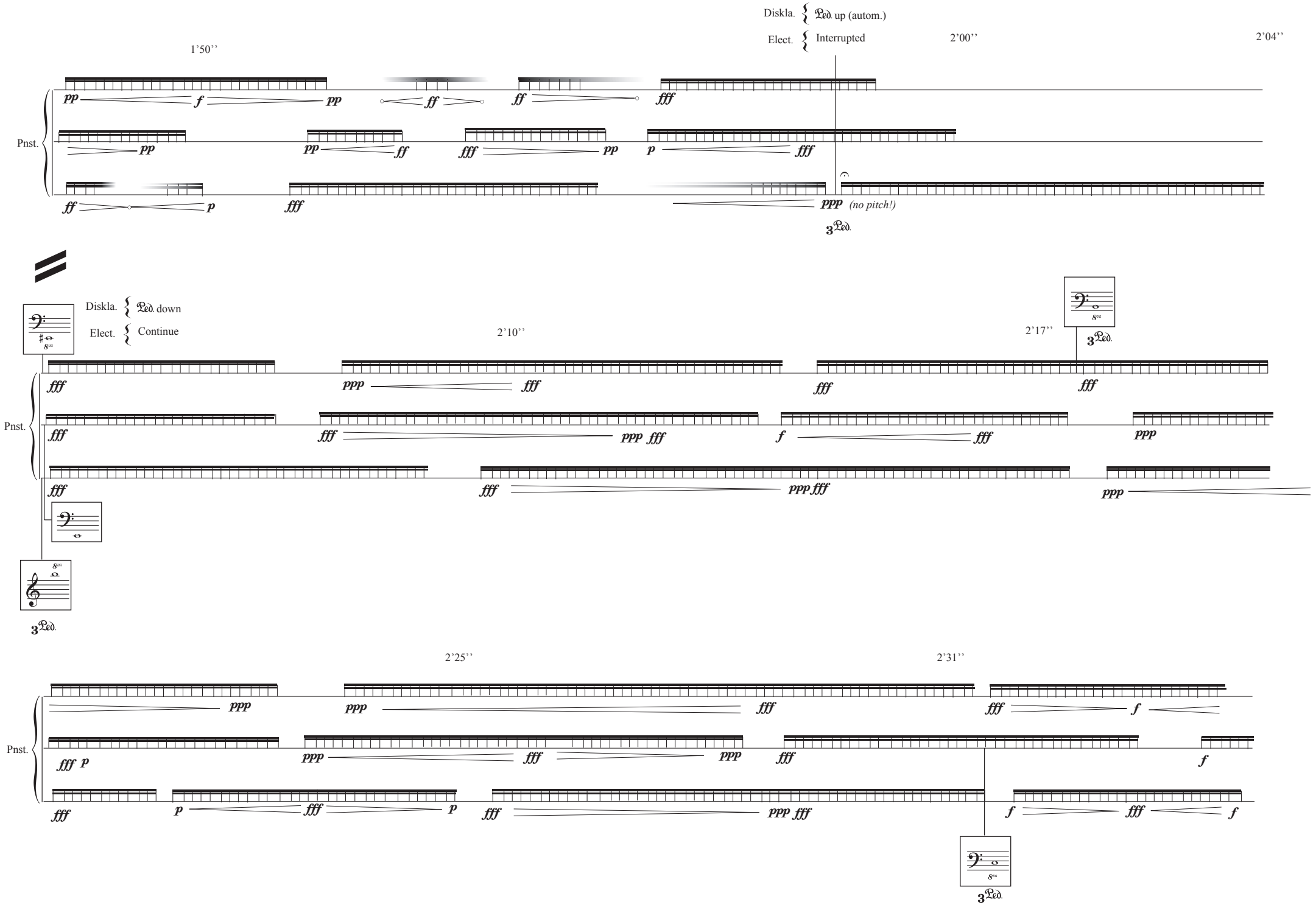




* In the DC-Pro disklavier model the fallboard closes itself by pushing it gently


0''
5''
8''
10''
13''
Elect.
(18'')
(18'')
8va
Sensor A
(left)
p
Pressure sensors send velocity values (0-127)
.ca 5"
Pnst.
Pressure sensors
Sensor B
(center)
pp
ppp
f
fff
Sensor C
(right)
f
Elect.
(18'')
sempre simile
16''
21''
25''
29''
f
p
sost. Ped. Pedal changes notes in the indicated sensor
Pnst.
f
p
f
fff
40''
45''
f
f
fff
f
fff
fff
f
ff
fff
sost. Ped.


50''
56''
1'00''
Pnst.
sost. Ped.
1'06''
1'14''
1'17''
1'20''
1'25''
133''
1'43''
1'35''
1'48''
3 Ped.


Diskla. Ped. up (autom.)
Elect. Interrupted
1'50''
2'00''
2'04''
Pnst.
(no pitch!)
Diskla. Ped. down
Elect. Continue
2'10''
2'17''
2'25''
2'31''


2’36’’
2’43’’
2’49’’
Pnst.
3’00’’
Pnst.
3
Ped.
3’04’’
3’10’’
3’15’’
3’20’’
Pnst.

3’23’’

Pnst.

fff !

fff !

fff !

r a n d o m n o t e s a t i r r e g u l a r

D

3’42’’

Elect.2
Transducers

T1

T2

p

p

mp

Noise (on some rand. notes)

Elect.
sines

ebow

mf

i n i s i d e p i a n o

Pnst.

.ca 10’’

open kbd. lid and walk slowly towards the bell

hold transducers upon two high stngs.

start moving the trans. along different strings

variate pressure becoming noisier (remove ebow)

move progressively towards the low register

Diskl.

t i m e i n t e r v a l s

5’’
subito

Elect.2
Transducers

f

ff

ff

Elect.
Sines/Noise

Pnst.

noisier

lower

noisier

lower

remain static on that particular spot

Diskl.

15 min .ca