GRANULAR ∰SYNTHESIS

POL III

TECHNICAL RIDER

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Space / Venue
Terms of Set-up

IMPORTANT:
We need to have detailed information, floorplans etc., about the venue, especially the venue dimensions, early on.

We present POL projected on 7 screens 4,30m x 3.20m (or bigger).

- 7 screens of this size define a space of 26m width (including additional space to the left and right from the screens to place the PA),

- 5m height (including 1m from ground to lower side of screens) and about

- 16m minimal depth for frontprojection

- 23m minimal depth in case of back-projection (back-projection distance alone is about 7m).

It is crucial that the screens become a visual wall in the given space.

For operating and mixing we usually set up our equipment next to the audio-mixer. This is behind the audience facing the back-projection screens frontal.

The space must be absolutely dark during performance, light is emitted only by the video-beamers.
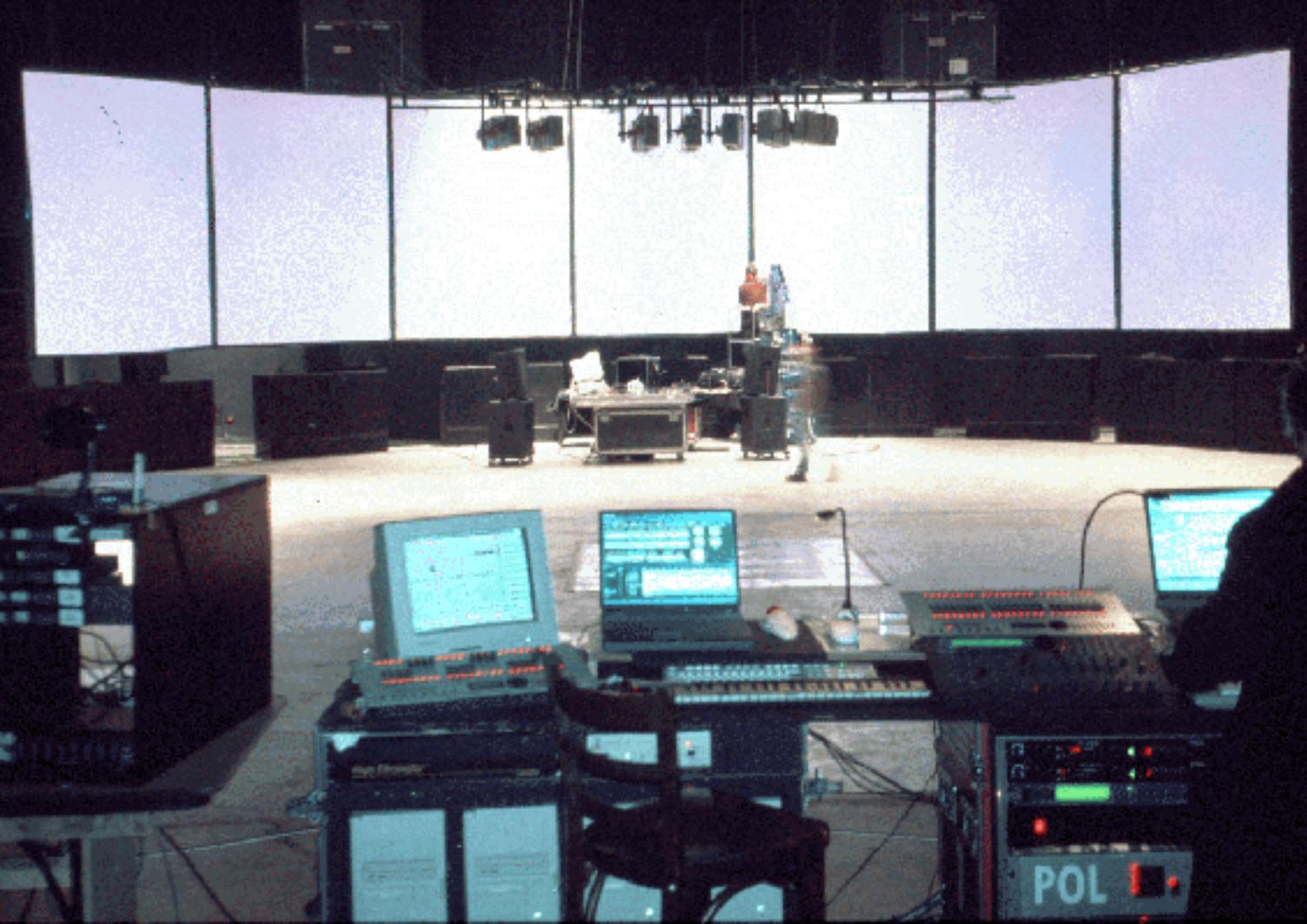

SET-UP :

1-2 days (before day of performance) are necessary for set-up and rehearsal.

POL is a technically complex network of computers, image and sound hardware. Informing the video company and audio company in all details about the circumstances is inevitable in order to avoid time-consuming improvised solutions during the actual setup. Please do not hesitate to put them into direct contact with us!

It is important to co-ordinate sound and video company's schedule:

Often, video companies have problems working in aircraft turbine-like sound environments
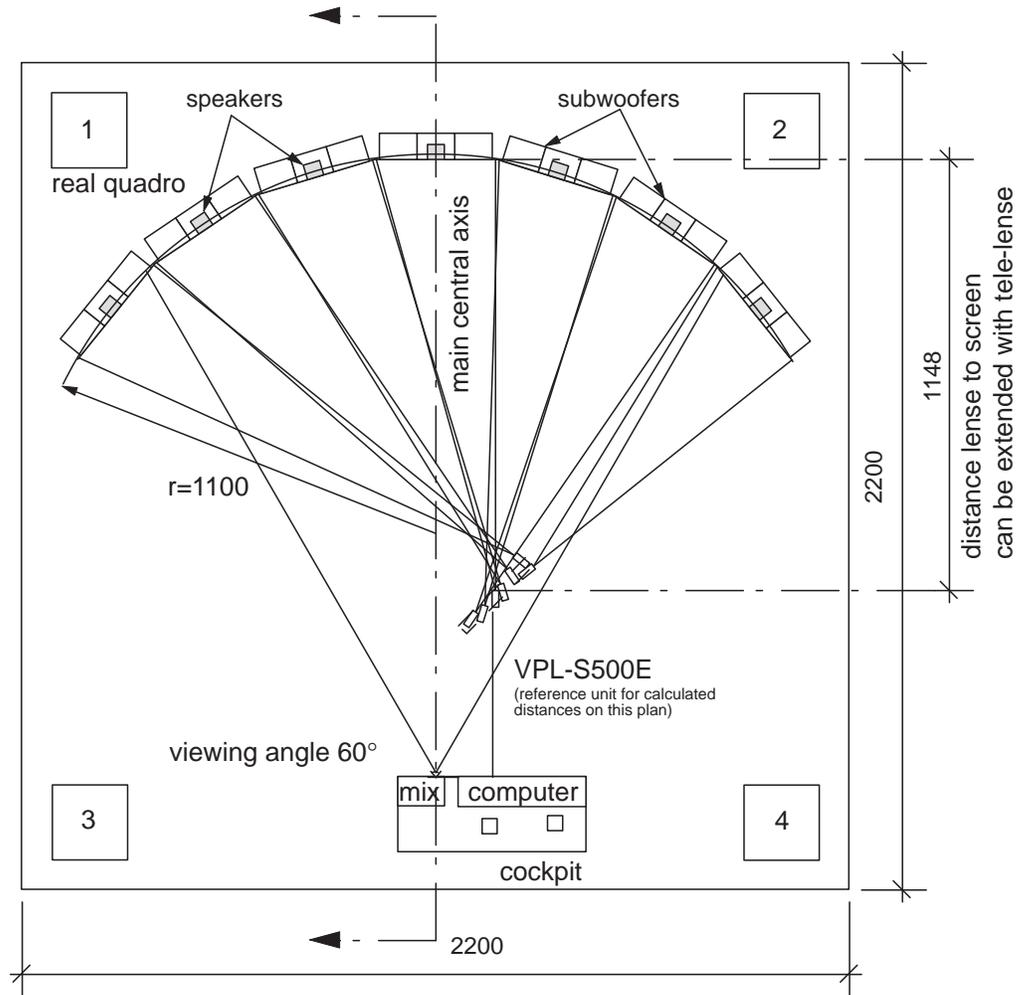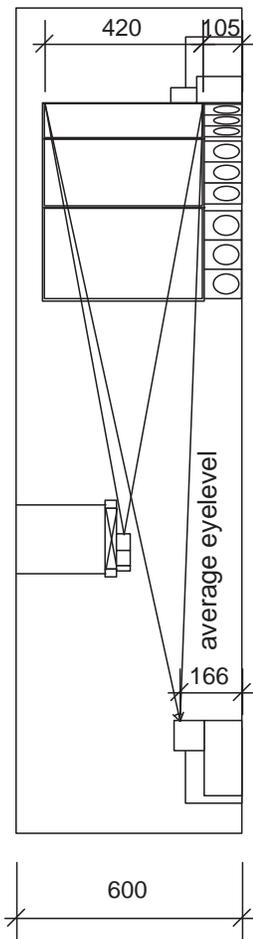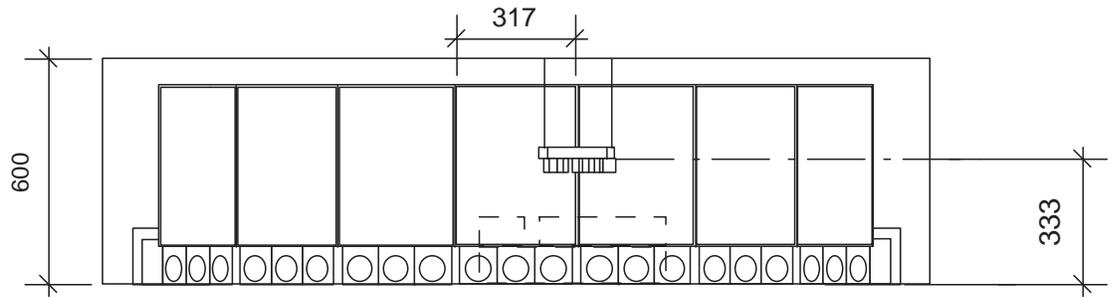Usually, sound companies have problems working in complete darkness.

Granular Synthesis "POL"

Installation Scheme - Main Installation

270600

317

600

333

scale 1:200

420   105

1   real quadro

speakers   subwoofers

2

main central axis

1148

distance lense to screen
can be extended with tele-lense

2200

average eyelevel

r=1100

VPL-S500E
(reference unit for calculated
distances on this plan)

166

viewing angle 60°

3   mix | computer   4

cockpit

600   2200

VIDEO 1

TECHNICAL REQUIREMENTS: to be organized by the venue, arranged well in advance
Please pass this page to the video company you work with !

POL is presented in a "supercinemascope" set-up : 7 screens

1.)   7 projection screens of identical dimensions

A.   GRANULAR SYNTHESIS owns 7 screens 4.30m x 3.20m for front-projection,
The availability of these screens for your venue should be clarified well in advance!
Screens need to be organised by the Venue, in any case, if back-projection is chosen.
Rental screens need to be of absolutely identical dimensions, in a similar state of use and of
very same material.

B.   **Front-projection is the logical option for most spaces**. Back-projection is possible too, but
demands for a much bigger space. It is difficult or rather impossible to back-project in average
sized venues. For better understanding please refer to our set-up drawing.
Whether front or back-projection screens can be used has to be clarified well in advance.
- In case of front-projection, the projection distance needs to be almost doubled compared to
back-projection – minimum 10m, respectively, needs to be the maximum distance that the
zoom lens of the given projectors or the venue dimensions allow. This is necessary to cut the
projectors as much as possible out of the visual perception of the audience.
- The screens have to be installed 90 degrees rotated : PORTRAIT (not landscape) !
- Now because of the 90 degree screen rotation, the projectors move necessarily into the
vertical centre position and by doing so can visually get in-between the audience and the
screens. This is, again, the actual reason for obtaining a maximum projection distance.
- Finally all 7 screens must be hanging next to each other, aligned in a curve.

Please take a careful look at the set-up drawings which accompany this Technical rider.

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VIDEO 2

2.)   **7 identical ! video projectors for one over all equal image of 7 projections**

A.1   **LCD projectors 1000 Lumens or more with a composite (FBAS) PAL - Video Input.**
Our Video Computers are exclusively PAL norm output !!!

A.2   **The projectors not only have to be of the same brand, kind and type, but need to have brand new lamps (i.e. never used before) to allow for maximum image equality in terms of brightness and contrast !!!**
We request that you insert those lamps on site, in presence of the artists.

A.3   **The projectors need to have a colour- temperature tune function to allow for full adjustment capabilities of the R-G-B components of the PAL video image !!!**

The task here is to achieve an almost total equality of the 7 images, to give the impression of one wide panorama, set together out of 7 modules, and not a series of image "variations". We know that it is literally impossible to totally match 7 projectors, but still we have to get as close as possible.

B.   **The projectors need to be installed 90 degrees rotated**, **to project in this unusual position PORTRAIT (not landscape) !**
The beamers are turned 90 degrees to achieve a compatible projection for the PORTRAIT set-up of the (back) projection screens.
As said above, in the Screen-section, the projectors, in case of front-projection, move then necessarily into the vertical centre position of the portrait-screens and by doing so can visually get in-between the audience and the screens. Therefore its crucial to obtain a maximum projection distance, for front-projection. It also helps a lot if the projectors have a "Horizontal Image Shift" function, which enables us to move the projector out of the vertical centre of the portrait format.

C.   **The rotation of the projectors demands a solid scaffolding or hanging because floor or ceiling projection options of the projectors do not apply any more**.
- If front-projection is the solution in your venue, a flying construction is inevitable.
- The projectors need to be perfectly fixed to the scaffolding, as the sub-low frequency parts of POL will make everything move that somehow can move.

3.)   **7 very long BNC video cables, size according to room dimensions**
The video projectors connected to the video computers (via our video-crossbar) are at either end of the space (especially in case of back-projection !). It is a lesser distance when using front-projection.

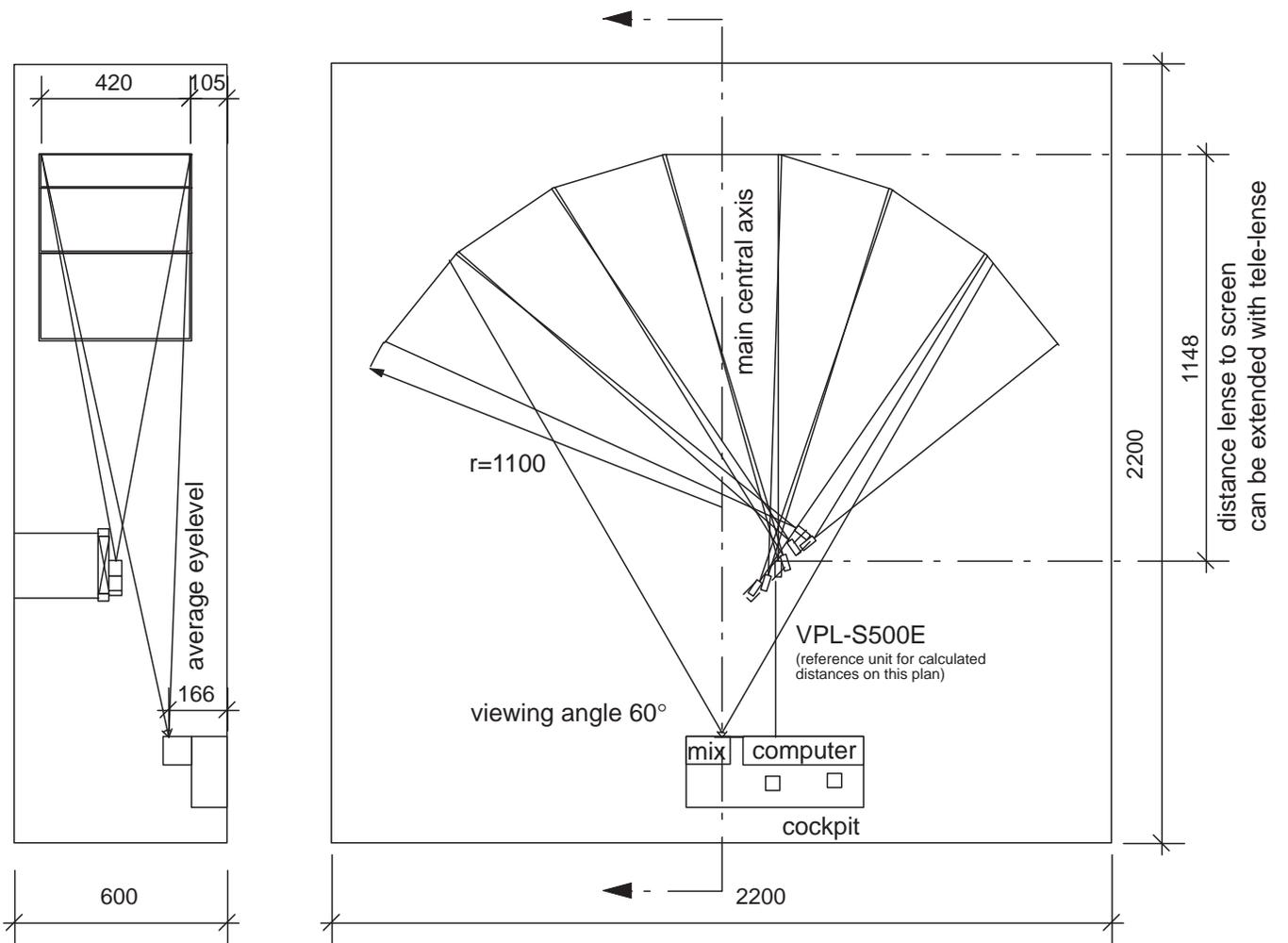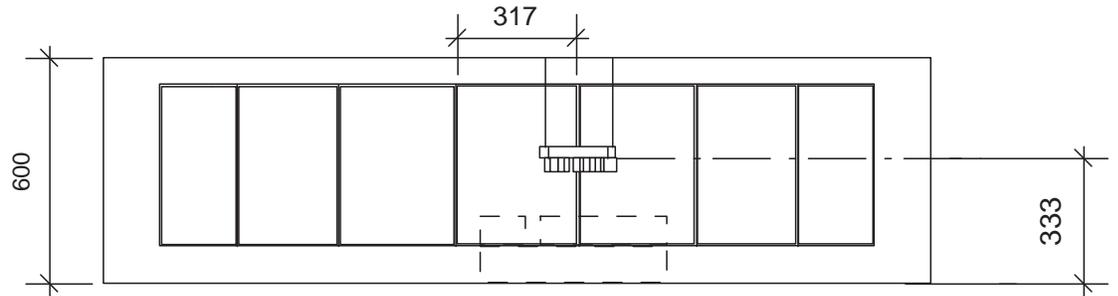**4.)**   **Computer monitor**
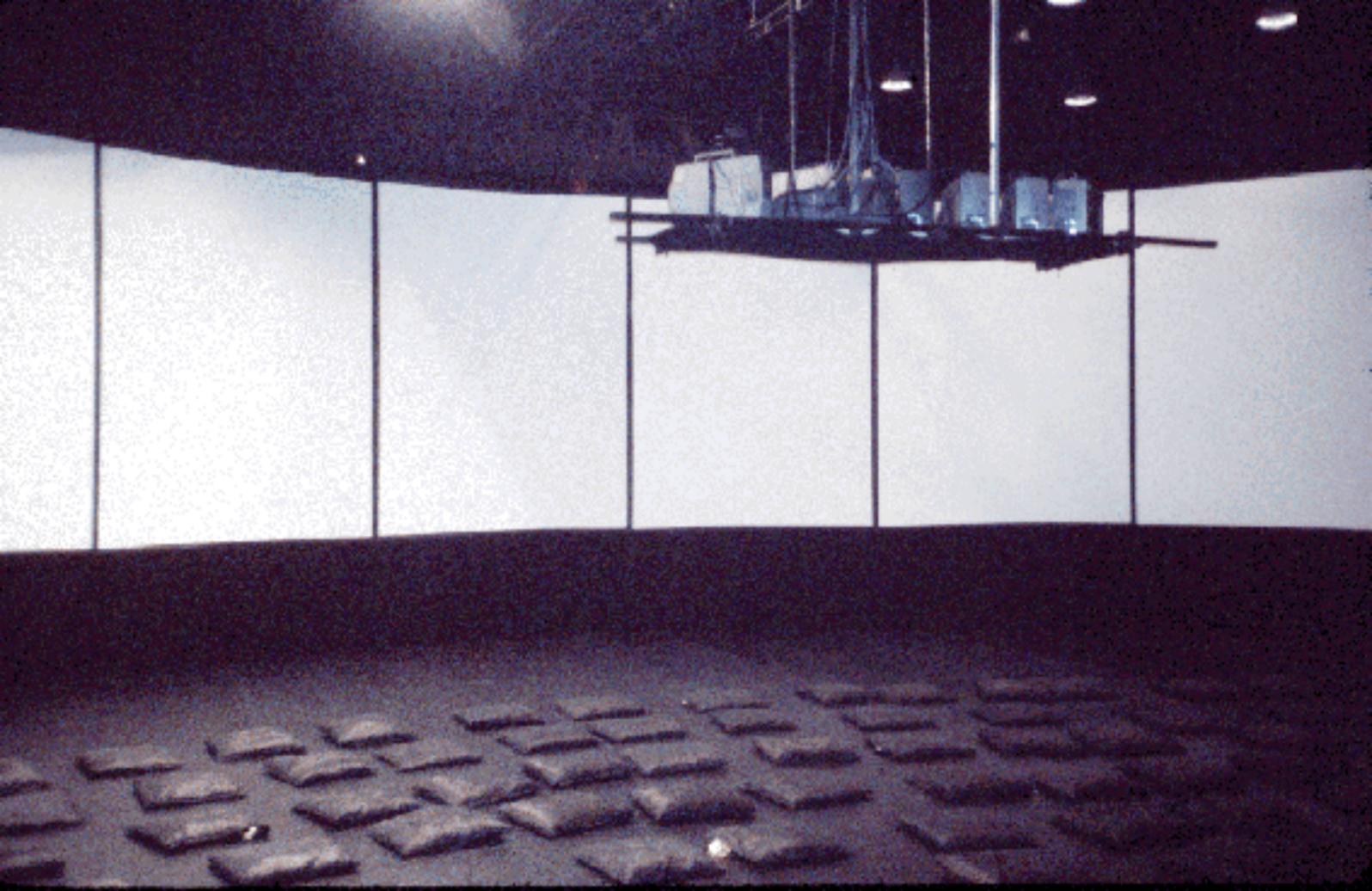We need one 15" computer monitor from the first day of set-up on.

Granular Synthesis "POL"

Installation Scheme - Video

270600

317

600

333

scale 1:200

420   105

average eyelevel

166

600

main central axis

r=1100

2200

1148

distance lense to screen
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VPL-S500E
(reference unit for calculated
distances on this plan)

viewing angle 60°

mix | computer

cockpit

2200
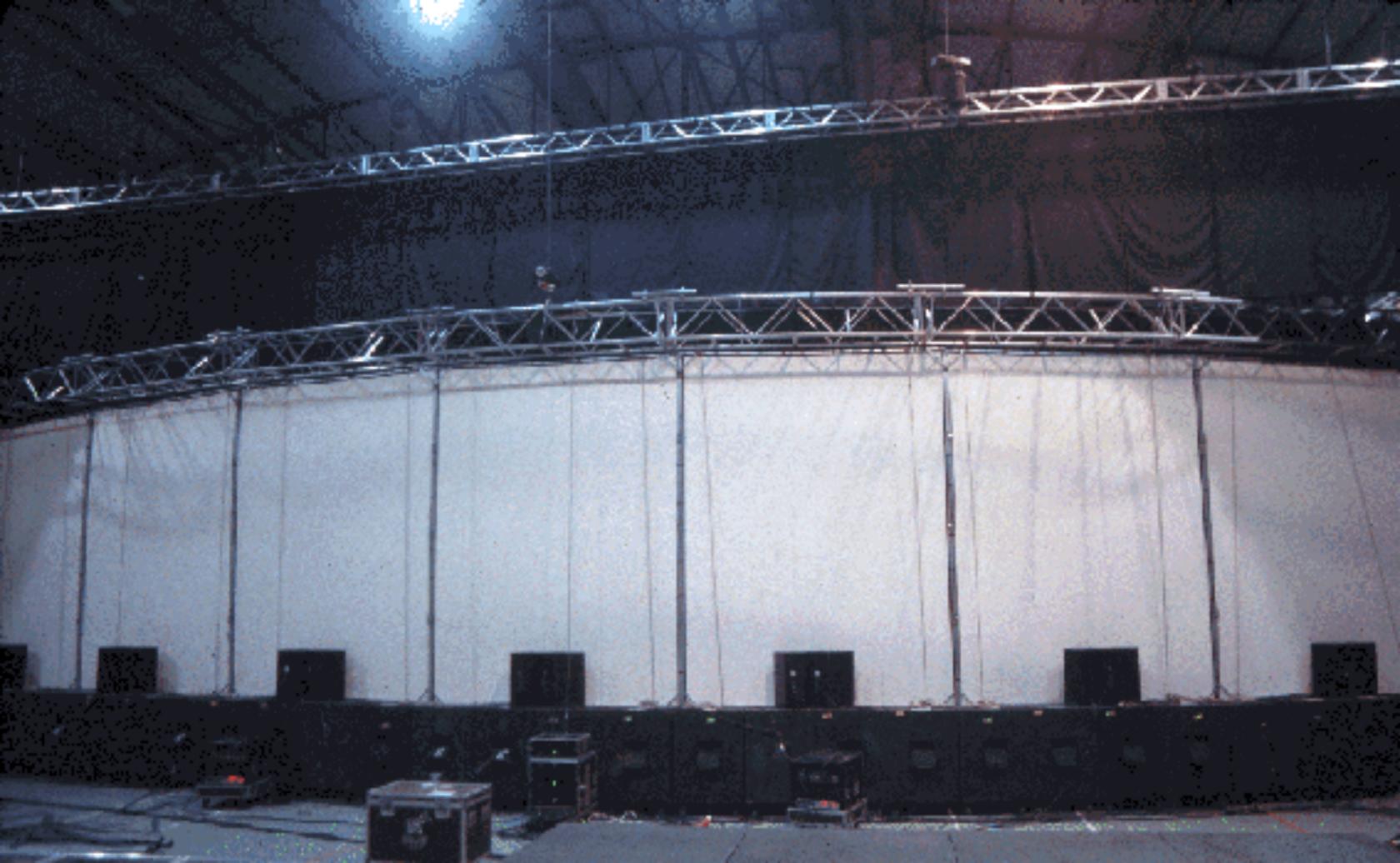
SOUND

TECHNICAL REQUIREMENTS:
to be organized by the venue (please hand this page to the audio company)

1.)   <u>**Mixing desk** as small as possible but with the following features:</u>

<u>24 Input channels consisting of:- half parametric equalisation</u>
- stereo on/off feature
- normal Jack connection inputs

<u>4 subgroups with dedicated Outputs and one Mono Bus</u>
- subgroup 1 & 2 to independent busses 1 & 2 : FRONT
- subgroup 3 & 4 to independent busses 3 & 4: REAR
- one additional Monobus :
 independent of the panorama position of the channels
 (not just the left side of a stereomaster!), feeds the Sub-audio block

<u>4 Aux Send Busses (2 Post-fader + 2 Pre-fader)</u>

<u>a dim light for the desk (it is pitch-black during the event)</u>

<u>All faders in neat condition for dynamic mix !</u>

The desk is one of two desks. The second desk, a MACKIE 16 channel mixer is part of our equipment, we bring it with us.

NOTE: Mixing desks, video equipment and audio equipment are located together at the rear of the space behind the audience. The two operators, working there on the equipment, are facing the video screens. The mixing desk needs to be situated right in the middle, our own video equipment to the left and our own audio equipment to the right. Your mixer should not occupy most of the space. Please provide us with the most compact you have in stock !

2.   **Two Audio CD drives** on top of a foam-like isolation from sub-bass frequencies. Stable DJ-Pro drives are recommended.

TECHNICAL RIDER: page 2 (of 6 pages) : **POL**

PA : the sound system combines 2 basic elements:

A.1 **2 x 3 000 Watt full-range** **(50 - 18 000 Hz)**
for "music" at   stereo front
next to the wall of the screens)
The tops must fly!
(This is not clearly indicated by our set-up drawings, sorry)

A.2 **2 x 2 000 Watt full-range** **(50 - 18 000 Hz)**
for "music" at   stereo rear:
The tops must fly too!
(This is not clearly indicated by our set-up drawings, sorry)

B. **7 x 1 000 Watt mid-range + high.**
each unit below (back-projection) or behind (front-projection) of the 7 screens.
Do not think about stage monitors for that purpose . They are useless.
The signals come directly from asymmetrical Jack Direct-Outs of our MACKIE MIXER.
7 DI-boxes for converting asymmetrical jack into symmetric XLR
and 7 long cables from the mixer to the speakers are required

SUBSONIC

30 000 Watt Sub-audio (15 -100 Hz)
for independent sustained (!!!) pressure !!!

- Subsonic frequency reproduction is to be considered a system autonomous from the full-range sound and is actually not serving any purpose in terms of "giving the music some balls".

- The idea is to create substantial and extraordinary physical pressure in the sub-bass area.
  This pressure is different from techno bass.

- AMPs will not be able to recover between kicks of bass, there are no kicks.

- Waves come not only in rhythmic peaks but as a sustained field of pressure!

- All sub-audio loudspeaker should be one block (one wave).

- LPF cut-off frequency set below 100 Hz.