



## TECHNICAL REQUIREMENTS

### I MAIN SOUND - FOH

#### 1 Fronts

System must be stereo, three way, based on one channel columns good class, **tuned**, powered by power amplifiers with adequate power. Preferred systems are: Adamson Y AXIS, NEXO Geo-D, L-Acoustics, DYNACORD, EV – X-Array, X-LINE, XLC, EAW KF850, 750, , Meyersound - MSL-4, MILO, MICA, , Martin F-2, Turbosound Flashlight, JBL Vertec, Bayor-Audio OKTA

The system must be free from voices, with equal bandwidth characteristics, run and rendered (delays phase matching, EQ) before the assembly technician arrived at the assembly backline and trial.

The size and power of the system must be adapted to the overall dimensions of the room and the stage. In the case of outdoor concerts, the system must provide adequate sound coverage for the public at a level of 110 dB SPL pink noise, weight A, measured at the FOH console, without audible distortion. For Line Array systems, the minimum number of columns in a circle is 8 plus the appropriate number of subbands.

It is necessary to take care of the sound coverage of the zone right in front of the stage, where the first rows of the audience stand with Front-Fill. Front-Fill should consist of high-quality columns (it is unacceptable to use so-called "old-style" inventory disposals, etc.), respectively, (delay, phase matching, EQ).

At outdoor concerts, systems dedicated to outdoor broadcasting must be used. This excludes the **Mayer Melody**, **JBL Small VRX** and similar, designed for **SMALL** concerts.

At club concerts, closed events, held in small rooms where it is not possible to hang a linearly aligned system, a "classic" tubular system such as the **Dynacord Xa 2** should be used.

#### 2 Main Console

It should be set in the center of the central line of the scene, within the audience, adequately secured, on the platform no higher than 30 cm, absolutely impossible setting, eg under the balcony, behind the bar, against the wall, etc. As far as possible (if weather permits) the tent for the console should be without sideways.

- good class, in good technical condition.

- min. 32 channels input, 40 channels preferred (+ 48V, PAD-20dB, insert type, four point correction with two parametric channels per channel).

Preferred: MIDAS XL`s, H`s, Verona, Siena, Soundcraft Five, MH`s, Allen Health ML`s

- min. 4 AUX shipments

- 8 groups of VCA or DCA

- Microphone with switch for communication with stage

- Intercom for communication FOH - Monitor.

- We accept digital consoles such as: Digidesign (all), Soundcraft Vi6, Vi4, Digico D5, SD7, SD8, Yamaha M7CL PM1D, PM5D, Midas XL8, Pro6.



### 3 Periphery

- stereo 31 points GRAPHIC EQ - KLARK TEKNIK DN360, inserted into STEREO OUT output.
- Parametric EQ in suspended array arrays with the option of using an LSF filter (low frequency shelf). This can be done in the system processor or in the digital console provided that the EQ will only affect the array and not the sum of the LR.
- minimum of 3 effect processors with one of them must be Yamaha SPX990 / 2000 or Lexicon MPX 500 the other two from companies such as: YAMAHA SPX series, REV, PRO R3, LEXICON, T.C. ELECTRONIC M-ONE, D-TWO, M-2000, M3000
- min 6 high quality compressors, DBX 166xl, BSS DPR-402, DPR-404, Klark Teknik (except for Square ONE series)
- 8 good class noisegates from companies such as: DBX, BSS, Klark Teknik (except Square ONE) with smooth adjustment of parameters: ATTACK, HOLD, RELEASE, TRESHOLD
- CD player

- A lead-out cable with a small jack connector (for mp3 player) hooked up so that the sound can be sent to the monitors.

## II MONITOR SYSTEM :

### 1 Monitor console:

- Located in a place that provides direct bilateral visual contact of the monitor acoustics with all the musicians on the stage.
- min. 32 channels (PAD-20dB, insert, four point correction with two parametric means)
- minimum 5 AUX mono plus 2 stereo AUX to control drum driver's, keyboard and guitarist's in-ear systems. When using Sidefilli, minimum 6 AUX mono plus 2 AUX stereo.
- for each AUX inserted (**necessarily!**) 31-point. GRAPHIC EQ (does not apply to digital tables if they have "internal" equalizers on AUXs). This does not apply to in-ear tracks as well.
- We accept the following digital consoles: Behringer: X32, M32; Yamaha: M7CI, PM5D, CL5, CL3; Soundcraft Vi series; Digidesign; Midas PRO2, PRO2C, PRO3, PRO6. The use of a digital console other than the aforementioned one needs to be approved by the team monitor each time; Tomasz „Wierzba” Wierzbicki, tel: +48 733 871 122, mail: [wierzba70@o2.pl](mailto:wierzba70@o2.pl)

**All monitor tracks should be up and running (EQ antialiasing) before the arrival of the band backline! Earphones should also be hooked up and running (tuned transmitter with receiver, switched to stereo). In a word, the system is ready to start rehearsing with musicians immediately!**

### 2 Monitors

- Needed 7 monitors plus 1 standing at the monitor console, one type, armed with identical speakers. We need only 4 monitors in case of small rooms. Monitors from the scene are dotted with dotted lines that can be dispensed with. (please look at the technical draving of the stage, last page)



- 1 subbass of high efficiency instead of drumfill (M9) as low frequencies to the drum system. The subbass must be positioned behind the drummer's back! Please consider this when installing / setting up drum platforms! Sidefill mono (big scene)

3 **In-ear.** We need 3 Sennheiser G3 earbuds and one standard pair of headset

M4 M5 ( keyboard player Gadak) – TRS line (Jack) to tap into personal keyboard mixer  
M6 i M7 (guitar player Maras) – stereo line 2 x XLR for IEM transmitter  
M8 M9 ( drummer Dżery) – stereo line 2 x XLR for IEM transmitter  
M10 M11 (guitar player Pretty Roman) stereo line 2x XLR for IEM transmitter  
Monitor Out L and R - Stereo monitoring for the monitor, regardless of wedge

4 **Ambients**

Two capacitive microphones in A-B or ORTF (Near-Coincident Pair) are needed to collect sound from the public. These microphones should be placed and attached to the monitor console before the arrival of the band backline.

### III STAGE

1. Need a stable platform under the drums and min. 3m x 6m and height 30 ÷ 40 cm. In other words, a platform for two sets of drums. The platform must be on wheels so that it is possible to adjust its position on the stage to the needs of the musicians. There may be two 3m x 3m platforms, of course also on wheels. On the podium or behind it must stand the subbass for the drummer (M9).

2. **OPTIONAL** For concerts in the halls, an acoustic plexiglass is required, (minimum height 160cm, consisting of 4 ÷ 5 elements 60cm wide) to enclose the drums. The height of the ceiling above the stage is also significant - this information should be given to the acoustic team 1-2 weeks before the concert.

**3 Microphone stands:**

10 big one  
8 small one

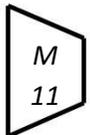
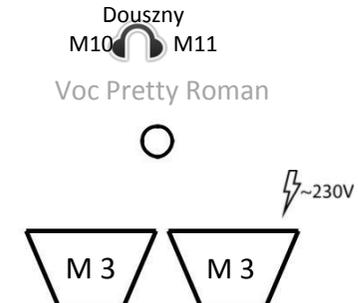
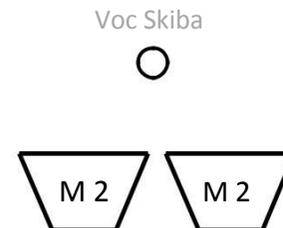
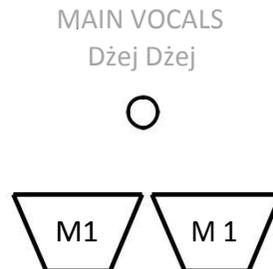
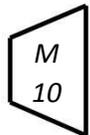
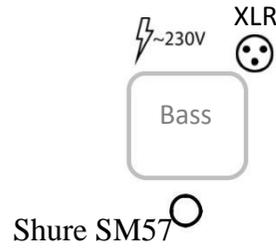
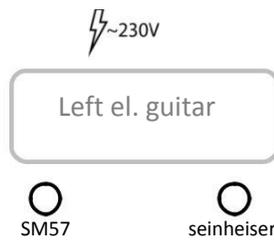
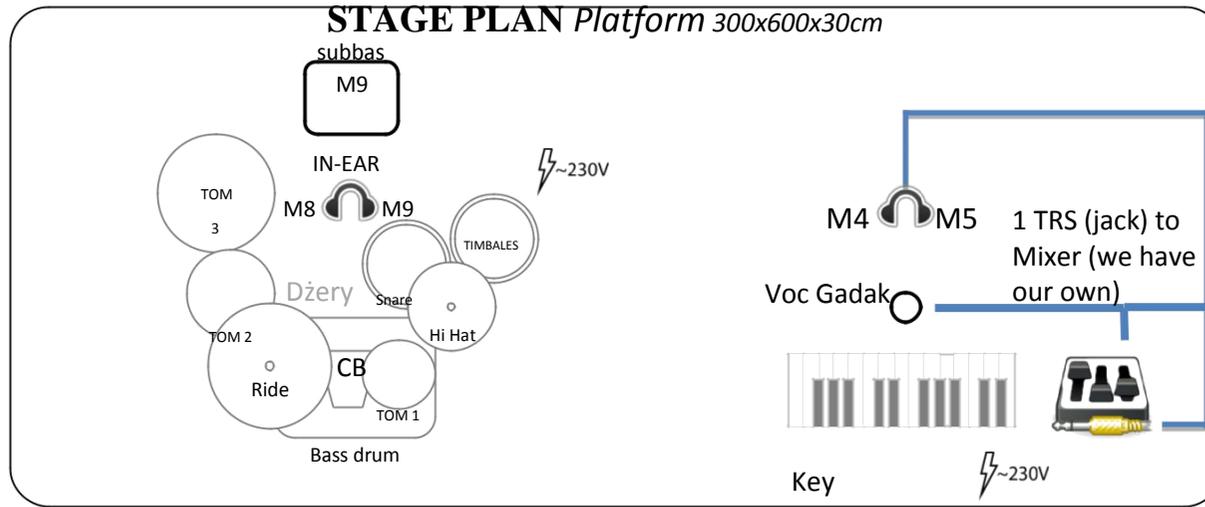
**Within 1-2 weeks before concert contact with sound producers are required;**

**Czubek GSM 500 269 395 – aspects of FOH,**

**and Tomasz Wierzbowski GSM 733 871 122, email: wierzbowski70@o2.pl – aspects of monitors**



notes	Chan.	Instrument	Connection type.	Insert	Monitor
	1.	Bass drum	AUDIX D6, Ev N/D868 SHURE Beta52	Gate.	YES
	2.	Snare drum(top)	SHURE SM57	Gate	YES
	3.	Snare drum (bottom)	SHURE SM57	Gate	YES
	4.	Timbales	SHURE SM57	Gate	YES
	5.	Hi-Hat	SM81	Comp.	
	6.	Tom 1	AUDIX D2, SEN.e604, MD421, SHURE Beta56	Gate	YES
	7.	Tom 2	As above	Gate	YES
	8.	Tom 3	As above	Gate	YES
	9.	OH left	AKG C414, AT4040, AT2020		YES
	10.	OH right	AKG C414, AT4040, AT2020		YES
	11.	Bass	XLR(amp's DI)	Comp.	YES
	12.	Bass mic	R20, AUDIX D6, Ev N/D868		
	13.	Electric Guitar (left)	SHURE SM57		YES
	14.	Electric Guitar (left)	SENHEISER e906; MD 421		
					YES
	15.	Electric guitar (right)	SENHEISER e906; MD 421		
	16.	Electric guitar (right)	SHURE SM57 XLR (output from		YES
	17.	Piezzo	Pedalboard	Comp	YES
	18.	Key MONO (Moog)	Di-box		
	19.	Key Roland L	Di-box		YES
	20.	Key Roland R	Di-box		YES
	21.	Key Hammond L	Di-box		YES
	22.	Key Hammond R	Di-box		YES
	23.	Voc Marek	SHURE SM-58	Comp.	YES
	24.	Main VOC Dżej Dżej	SHURE SM 58	Comp.	YES
	25.	Voc Skiba	SHURE SM58 Wireless	Comp.	Only for Skiba
	26.	Voc Pretty Roman	SHURE SM58	Comp.	YES
	27.	Voc Gadak	SHURE SM58 (Y spread )	Comp.	YES
	28.	AMBIENT	Cond. Mic. Tow. audience	Comp.	Only inear
	29.	AMBIENT		Comp.	Only inear
			Jack 3,5 stereo at the		
	30.	Intro L	monitor console		
	31.	Intro R	As above		



○ Ambients ○

AUDIENCE