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CINE GONG
Manual

CINE PROJECT GmbH
Landshut, Germany

rev.1

Contents

Introduction

CINE GONG is a newly developed module designed for creation of a chime sequence of highest tonal quality. A traditional, mechanical „UFA“ – chime generator with the renowed four descending tones was our exemplary model and inspiration to improve upon. This incomparable chime was, in it’s time, found in nearly all german cinemas. Many substitutes followed. None reached the quality of the original. One of these „UFA“ – chimes was specially restored and tuned in preparation for digital sampling. CINE GONG is itself not a tone generator in the conventional sense. Instead, utilizing modern DSP techniques, the module functions as playback element reproducing the impressive tones in CD – player quality. To meet the high quality standards of contemporary cinema’s audio standards, data reduction methods have been avoided.

CINE GONG has been specially developed for use in film theaters. Connection to all conventional cinema processors is possible without problem. Furthermore the CINE GONG can be fully integrated into projection automation systems.

CINE GONG is however not limited for use in film theaters. The module can also be easily connected to any ELA system.

Installation of the CINE GONG is easy (19‘‘ housing, 1 rack unit). Separate nonsync inputs on the cinema processor are not needed.

Hardware Configurations Available

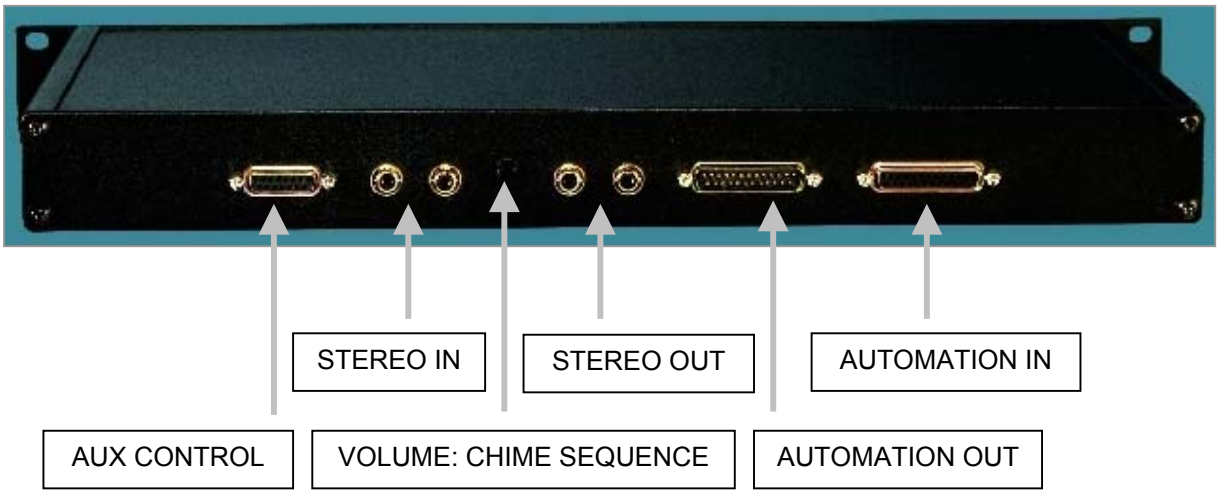
CINE GONG has standard configurations for the cinema sound processors Dolby CP65, CP500 and CP650 or Sony DFP-3000.

CINE GONG Installation Kit is available for every cinema processor (optional). Please indicate the type of your processor when ordering.

Operating Elements and Connectors

CINE GONG Front

CINE GONG Back



AUX CONTROL: - Control output to trigger the automation system
- Control output to start the chime sequence
- Power supply in combination with Dolby CP500 or Sony DFP-3000, or via an external power supply unit

STEREO IN: Audio input for connecting a Nonsync source (e.g. CD player)

STEREO OUT: Audio ouput for connecting a Nonsync input or an ELA system

AUTOMATION OUT: - Control lines for connecting the cinema processor (Dolby compatible pin assignment)
– Power supply in combination with Dolby CP650 und Dolby CP65

AUTOMATION IN: Control lines from the automation system, same pin assignment as AUTOMATION OUT

Specifications

CINE GONG is ready for operation as soon as the power supply has been plugged in. The button is illuminated. Stereo input (STEREO IN) is switched to stereo output (STEREO OUT) (attenuation: 20dB). Stereo input and output and the electronics of the CINE GONG module have separated grounds.

The AUTOMATION IN and the AUTOMATION OUT connectors posseses pin-to-pin connection (referred to as AUTOMATION in what follows).

CINE GONG can be operated **manually** or **automatically**.

To select **manual operation**, push the front button or select the control line „manual mode“ (AUX CONTROL). The front button starts to flash. Stereo input (e.g. CD player) is switched to mute and the chime generator is switched to stereo output. CINE GONG control also selects the cinema processor‘s sound format, via which the chime sequence is to be reproduced. Selection is made via the S0 to S7 lines of the AUTOMATION connectors. A jumper in the CINE GONG module enables you to select the relevant control line during installation. Factory default is S6, this setting normally corresponds to sound format Nonsync 1.

The chime sequence that will sound is reproduced in Mono. You can use the volume control on the backside of the device to adjust the chime volume (e.g. to the volume of the CD player). The chime sequence will sound for about 25 seconds. It is composed of four successive harmonic bells.

When the chime sequence is over, stereo input, which has been switched to mute, is switched back to stereo output. The front button on the device stops flashing, and the CINE GONG module returns to standby mode.

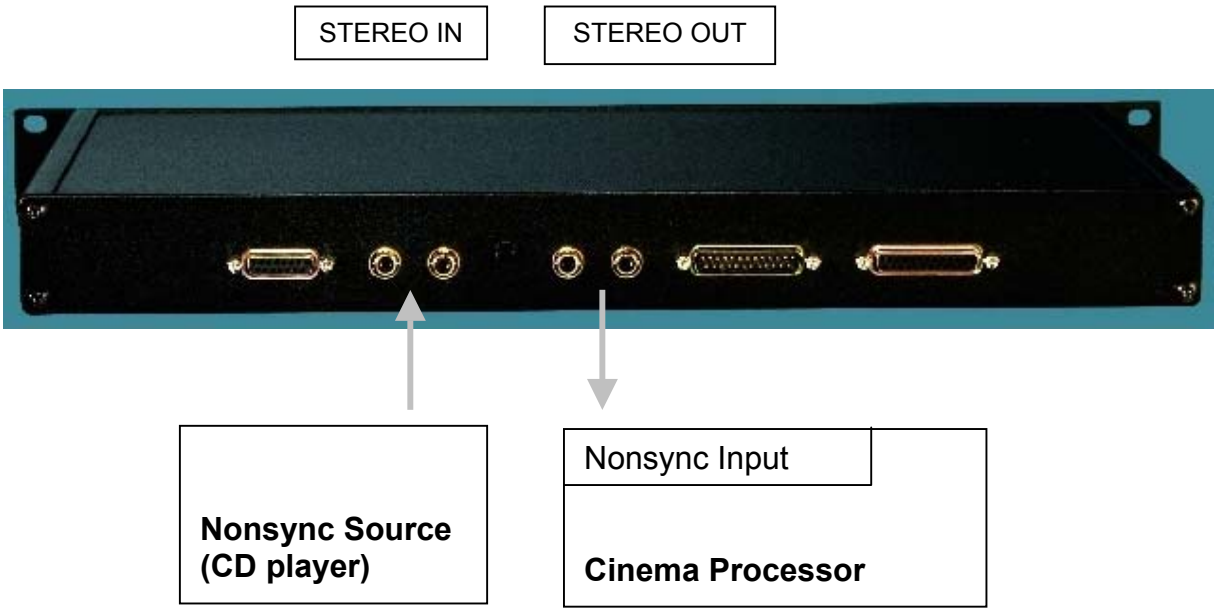
To select **automatic operation** select the „auto mode“ control line (AUX CONTROL). The chime sequence will be reproduced in the same way as described in manual operation above. When the chime sequence is over, an additional impulse will be generated via the „matrix impulse" (AUX CONTROL) lines. This feature can be used e.g. to trigger the currently used automation system. After a period of 5 seconds, the CINE GONG module will switch stereo input back to stereo output. During this period the automation system can trigger the functions which are to follow (cinema processor: sound format; projector: start; etc.).

Once more, the front button on the device is illuminated and, CINE GONG is in standby mode.

INSTALLATION

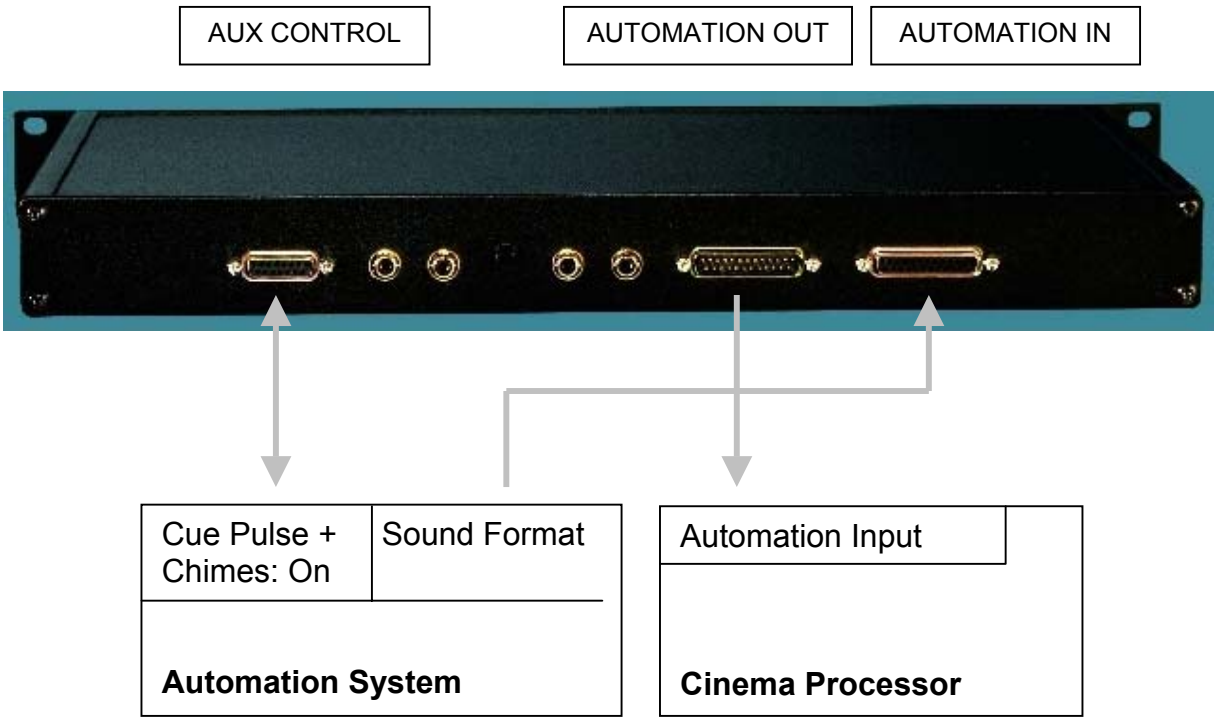
CINE GONG may only be installed and connected by specialised stuff. Damage to the sound system, especially to the loudspeaker systems cannot be excluded if the installation has been carried out by unauthorised people.

Audio Signal Wiring



Stereo audio connection cables with RCA plugs are required (if you update your sound system with CINE GONG you only need one additional audio connection cable). Connect the CINE GONG module with the cinema processor via STEREO OUT (Nonsync input) or the ELA system. A Nonsync source can be connected to STEREO IN, if required. Thus the CINE GONG module is put between the Nonsync source (STEREO IN) and the cinema processor (STEREO OUT).

Automation Wiring



Pinout of the AUTOMATION OUT connector corresponds to Pinout of Dolby processors (CP65, CP500, CP650). Therefore you will only need a extension cable SubD25 (male-female connector) to interconnect CINE GONG and the cinema processor. The Sony automation connector (DFP-3000) is a 37 pin connector, for which a custom made adapter cable will be required (see Appendix).

The impulse for connecting the matrix is wired via the AUX CONTROL connector (SubD15). For this purpose a SubD15 and a connecting line (CINE GONG – automation system) will be required. The impulse has a length of about 500 ms and is generated via a relais switch contact. Both, a normal open contact (PIN 7/8) as well as a normal close contact (Pin 7/14) are available.

The impulse for starting the chime sequence (manual or automatic) is also wired via the AUX CONTROL connector. The corresponding inputs are low – active. Manual operation is triggered by a short switch connection (> 100ms) between pin 5 (manual mode) and pin 9 (GND). Automatic operation is triggered between pin 6 (auto mode) and pin 9 (GND).

Power Supply Wiring

Dolby CP65 + CP650: The CINE GONG modul is powered by the cinema processor. Additional wiring will not be required, as is realised via the automation lines.

Dolby CP500: The CINE GONG module is powered by the cinema processor. The supply voltage is feed from the BYPASS/REMOTE connector of the CP500. Wiring must lead from there to the AUX CONTROL connector of the CINE GONG module according to the following table:

CP500 BYPASS/REMOTE	CINE GONG AUX CONTROL	Description
Pin 3	Pin 1	+24VDC
Pin 5	Pin 9	GND

Sony DFP-3000: The CINE GONG module is powered by a separate plug-in power supply. You only need a simple plug-in power supply unit with a DC voltage from 9 to 24 Volt (approx. 100mA). The power supply must be wired as follows:

Plug-in	CINE GONG AUX CONTROL	Description
plus	Pin 1	+9 ... +24VDC
minus	Pin 9	GND

Other processors and ELA systems: The CINE GONG module is also powered by a separate plug-in power, see Sony DFP-3000.

Volume Control

You can use the volume control on the backside of the device to continously adjust the volume of the chime sequence. The volume of the Nonsync source (STEREO IN) is not affected.

Configuring the sound format

CINE GONG control will automatically switch the cinema processor to the sound format required for the chime sequence. The sound format can be preset via an internal jumper.

The jumper is labelled „Preset 1“ to „Preset 8“. It is found towards the lateral end of the board, close to the AUTOMATION IN connector. The positions have the following meaning:

Jumper	Control line	Sound format (CP650)
Preset 1	S0	Mono
Preset 2	S1	A-type
Preset 3	S2	SR-type
Preset 4	S3	SRD
Preset 5	S4	External 6-Channel
Preset 6	S5	User 1
Preset 7	S6	Nonsync 1
Preset 8	S7	User 2

Factory default is „Preset 7“ (Nonsync).

Some cinema processors permit free assignment of the sound format with the relevant preset number, that corresponds to a selection button. The correct Nonsync format can also be configured via the corresponding jumper setting.

Appendix

CINE GONG connector pinouts

AUTOMATION IN (SubD 25pin female)
AUTOMATION OUT (SubD 25pin male)

AUTOMATION IN and AUTOMATION OUT are of the same assignment

PIN	FUNCTION
1	S0 select (Mono)
2	S1 select (A-type)
3	S2 select (SR-type)
4	S3 select (SRD)
5	S4 select (External 6-channel)
6	S5 select (User 1)
7	S6 select (Nonsync)
8	S7 select (User 2)
9	Remote fader select
10	Mute select
11	- 15V (CP65 only)
12	GND
13	+ 15V (CP65 and CP650 only)
14	ID0 indicator
15	ID1 indicator
16	ID2 indicator
17	ID3 indicator
18	ID4 indicator
19	ID5 indicator
20	ID6 indicator
21	ID7 indicator
22	Local / remote fader indicator
23	Mute indicator
24	n.c.
25	Projector status

The following pinouts are used by the CINE GONG module:

- S0 to S7 depending on internal configuration. Factory default: S6
- +15V (CP65 and CP650)
- GND

AUX CONTROL (SubD 15pin, female)

PIN	Direction	Function
1	Supply	External Supply, DC 9V ... 24V (app. 100mA)
2		Do not use
3		Do not use
4		Do not use
5	Input	Gong sequence start, manual mode
6	Input	Gong sequence start, auto mode
7	Output	Matrix impuls (common)
8	Output	Matrix impuls (normal open), dry contact
9	Supply	GND
10		Do not use
11		Do not use
12		Do not use
13		Do not use
14	Output	Matrix impuls (normal closed), dry contact
15		Do not use

„Matrix impulse" is generated via relais contacts.

„Gong sequence start" is low - active, must be switched through to GND (<1,5V).

Adapter for Automation Connector DFP-3000

You need:
1 connector female 25 pin SubD (CINE GONG AUTOMATION OUT)
1 connector male 37 pin SubD (DFP-3000 Automation)

DFP-3000 Automation	CINE GONG AUTOMATION OUT	FUNCTION
4	1	Preset 1, Mono
5	2	Preset 2, Type A
6	3	Preset 3, Type SR
7	4	Preset 4, SDDS (NO EX)
8	5	Preset 5, SRD/DTS
9	6	Preset 6, AUX
10	7	Preset 7, NONSYNC
11	8	Preset 8, SDDS (EX)
3	10	MUTE SELECT
22	23	MUTE TALLY
14,15,16,17	12	GND

Technical Data

Operating voltage .....9 V_{DC} . . . 24 V_{DC}

Power consumption .....<1 W

Input resistance .....40 kΩ

Transmission loss.....20 dB

Output level .....ca. 700 mV

SNR.....> 90 dB

Duration of the chime sequence.....25 s

Height .....1 rack unit

Width .....482 mm (19 inches)

Depth.....240 mm

Weight .....3 Kg