

Multi-Graphic®

Options for Centralized School Sound Systems

Option	Description
ASF4	Alarm Signaling Option
CPP	Handset Communication Option
LPC4	Loop Priority Option
MCPEXP	Input Expander Option
SCT	Six-Circuit Time Signaling Option
TWK351/TWK354	Wire Converter

Description

Multi-Graphic Administrative Communication Systems are engineered for versatility and reliability, and include provisions for optional configurations, which give them the ability to handle unique situations or needs of the facility. These options include Alarm Signaling, Handset Communication, Loop Priority, Input Expander, Six-Circuit Time Signaling, and Wire Converter.

ASF4/PBA3 Alarm Signaling Option

The Bogen ASF4 Alarm Signaling Option provides four (4) distinct tones for alarm signaling functions or for use as a manually operated class change signal. Tones are activated by the Bogen Model PBA3 Pushbutton Alarm Panel. The Bogen Model TG4C Tone Generator provides tone generation of up to four (4) tones (slow whoop, chime, steady, pulsed tone).

Architect and Engineer Specifications

The Bogen ASF4 Alarm Signaling Option shall be provided. It shall consist of the Bogen Model TG4C Tone Signal Generator, PRS40C Power Supply, and alarm activation device. The option shall provide a choice of four (4) distinct tones for alarm signaling functions or for use as a class change signal or other signal. Tones shall be: 1) slow whoop; 2) chime; 3) steady tone; and 4) pulsed tone. Tones shall be activated by the Bogen Model PBA3 Alarm Panel (only permits selecting of three tones).



TG4C



PRS40C



PBA3

CPP Handset Communication Option

The Bogen CPP Handset Communication Option provides for control center-to-classroom and classroom-to-classroom phone communications. The option uses the Bogen Model TPS4 Control Panel and Bogen HS20-Series handsets (HS201C or HS202C). The TPS4 panel provides an on/off switch which disconnects the normal intercom function of the Bogen Model MCP35A; a call button to transmit a call tone to the selected speaker; an in-use LED; and a disconnect function which lights an LED and sounds a tone to remind the operator to reset the control panel once classroom-to-classroom communication is finished.



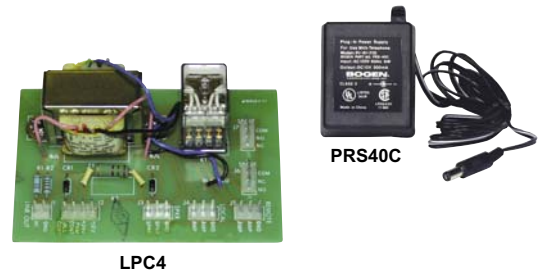
Architect and Engineer Specifications

The Bogen CPP Handset Communication Option shall be provided. It shall consist of the Bogen Model TPS4 Control Panel, the Bogen HS20-Series handset(s), and Bogen Model PCMPS2 power supply. The control panel shall be rack-mountable and shall interconnect with the Bogen Model MCP35A Master Control Panel and room selector panel(s). The TPS4 shall provide an on/off switch to disconnect the intercom function of the MCP35A, a call button to activate a call tone at the selected speaker, an in-use LED, and a disconnect function which shall alert the operator when communication is completed.

LPC4 Loop Priority Control Option

The Bogen LPC4 Loop Priority Control Option interfaces the Multi-Graphic Sound System with satellite systems in gymnasiums, multipurpose rooms, etc. The option has three (3) functions: 1) Distribution of program material from the main system to the satellite system; 2) Distribution of program material from the satellite system to any or all speakers of the main system; 3) Emergency seizure of the satellite system for broadcasting emergency announcements whether or not the satellite system's amplifier is turned "on".

The option consists of the Bogen Model LPC4 control module, Bogen Model PRS40C Power Supply, and an appropriate power amplifier (power rating of the amplifier is dependent upon the number of speakers in the satellite system).



Architect and Engineer Specifications

The Bogen LPC4 Loop Priority Option shall be provided. It shall consist of the Bogen Model LPC4 Control Module, Bogen Model PRS40C Power Supply and appropriate booster amplifier. The option shall permit the following functions: 1) Distribution of program material from the "main" system to the satellite system; 2) Distribution of program material from the satellite system to any or all speakers of the main system; 3) Emergency seizure of the satellite system for the purpose of making emergency announcements. Emergency seizure shall be possible even when the satellite system amplifier is "off". (The LPC4 shall include two (2) Class C contacts.)

MCP-EXP Input Expander Option

The Bogen MCP-EXP Expander Panel is designed to increase the input capabilities of the MCP35A master control panel in Bogen Multi-Graphic® Series 115B, 2223, and 2233 sound and communication systems.



Each MCP-EXP panel has two banks of four inputs, with selector switches, and allows up to eight additional balanced or unbalanced inputs to be fed into the MCP35A. Each bank of inputs may be connected to the Lo-Z microphone input terminals (MIC 1 or MIC 2), or Hi-Z AUX terminal of the MCP35A. The two banks may also be connected together to allow all eight inputs to feed into one MCP35A input. Multiple expander panels can be interconnected to further increase the input capacity of the system.

A fifth input on each bank is provided to replace the input on the MCP35A into which the expander is connected. This input is accessed when all selector switches on a particular bank are in the out (off) position.

Architect and Engineer Specifications

The input expander panel shall be a Bogen Model MCP-EXP, or approved equivalent. Each panel shall provide eight additional balanced or unbalanced inputs to the MCP35A Master Control Panel. It shall be possible to interconnect multiple expander panels to further increase system input capacity.

Each expander panel shall provide two banks of four inputs, plus selector switches. Each bank shall connect to a separate Lo-Z MIC or Hi-Z AUX input on the MCP35A. Provision shall be included to connect banks together to allow all eight inputs to feed into one MCP35A input. Each bank shall include a fifth input to replace the input on the MCP35A into which the expander panel is connected. This input shall be accessed when all selector switches of a bank are in the out (OFF) Position.

When a selector switch is pressed, it shall override the higher numbered selector switches for that bank. Vertical 0.156 centerline headers shall be furnished to connect microphones and auxiliary equipment to the panel. A tabular strip shall be provided on the front panel, which may be used to identify the particular input sources.

The panel shall be designed for installation in standard equipment racks, and shall occupy one rack space. It shall be finished to match associated school system panels. Dimensions shall be 1-3/4" H x 19" W x 3" D.

SCT Six-Circuit Time Signaling Option

The Bogen SCT Six-Circuit Time Signaling Option provides six circuits (zones) of time signaling to all loudspeakers in the system. A relay module included with the option permits programming of each loudspeaker (via DIP switch) to any of the six zones. The option requires a "dry contact" closure for each circuit plus a common closure (can be supplied by a Master Program Clock).

The option consists of an amplifier, Bogen Model TZMA Time Signal Relay Module (one per 25 loudspeakers), and Model TG4C Tone Signal Generator with power supply.



Architect and Engineer Specifications

The Bogen SCT Six-Circuit Time Signaling Option shall be provided. It shall consist of a time-signaling amplifier (amplifier power shall be determined by the number of loudspeakers), Bogen Model TZMA Time Signal Relay Module (one for each 25 loudspeaker stations), Bogen Model TG4C Tone Signal Generator, and Bogen Model PCMPS2 Power Supply. The option shall provide six zones of time signaling over system loudspeakers. Zone programming for each loudspeaker shall be accomplished via DIP switches. Signals shall be activated by a contact closure (user-supplied or provided by Master Program Clock). The duration of the signal shall be determined by the duration of the contact of the activating device.

TWK351/TWK354 Wire Converter

The model TWK351 is an adapter used in instances where there is existing 2-conductor shielded wiring. The TWK351 cannot be used with the SCR25A module. If 3-wire operation using the TWK351 wire converter is desired, CA10A call switches must be used (CA11A Call-in switches will not work in this application). The TWK354 is a 3-transformer assembly only used for 2233 systems.



Architect and Engineer Specifications

A two-wire adapter shall be provided and shall eliminate the need for a three-annunciator lead for call-in signaling with the Multi-Graphic communication systems. When used with Multi-Graphic products, the TWK351 shall provide for normal, urgent, and emergency signaling over two wires + shielded. The TWK351 shall facilitate 24 station positions per card. Only one TWK351 required per system. The system shall be expandable in increments of 24 and shall provide for a maximum of 10 watts of audio power per channel. The TWK351 shall operate from 24V DC, consuming not more than 2.4 watts. It shall connect with system components using plug-in centerline connectors. The TWK354 shall be used for 2233 systems.

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