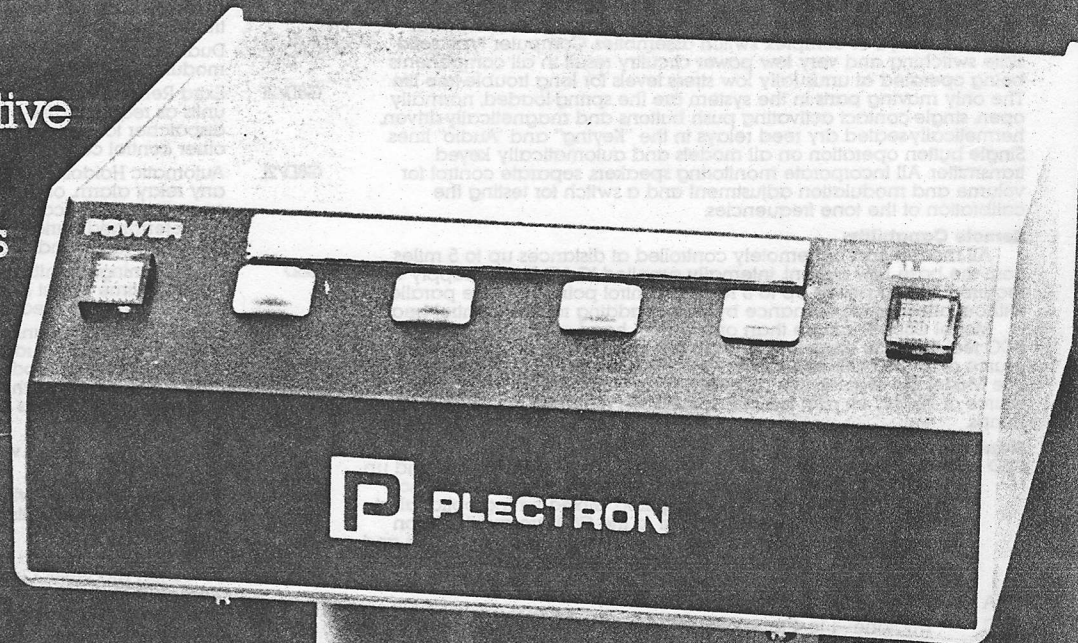




SIGNAL DIRECTORS

Emergency / Civil Defense
Tone Encoding Systems
G8D / G21

Advanced selective
signaling
for greater
communications
efficiency.



G21



G8D

PLECTRON

SIGNAL DIRECTORS

Tone Encoding Systems

SPECIFICATIONS:

Please note: Tone encoded communications can be a difficult and complex subject for the uninitiated. Therefore, the following data may be confusing. Don't let this complexity keep you from the efficiency of selective signaling. Write or call us, we'll be happy to answer your questions in simple terms.

General Characteristics:

Solid state, all silicon transistors, integrated circuits. Frequency and timing circuits all electronic with no motors, cams, solenoids, power handling relays, or complex switch assemblies. Computer type solid state switching and very low power circuitry result in all components being operated at unusually low stress levels for long trouble-free life. The only moving parts in the system are the spring-loaded, normally open, single-contact activating push buttons and magnetically-driven, hermetically-sealed dry reed relays in the "Keying" and "Audio" lines. Single button operation on all models and automatically keyed transmitter. All incorporate monitoring speakers, separate control for volume and modulation adjustment and a switch for testing the calibration of the tone frequencies.

Remote Capability:

All models can be remotely controlled at distances up to 5 miles from the base. Low current, internally supplied 10 VDC lines supply all required keying power. Up to 5 remote control points may be paralleled without affecting performance by simply adding remote control heads.

Model G8D—For more than one control head or at a distance of 500 feet from the encoder, an auxiliary lamp driver assembly and source of 117 VAC will be required if status indicator lamps are needed. The Model G21 requires the auxiliary lamp driver assembly and a source of 117 VAC for any remote application requiring status indicator lamps.

Standard Models:

G8D Single tone and Duotone mixed up to 10 single tones and up to 100 Duotone combinations. Automatic tone reversal now installed at no cost when required. Mixed timing optional at low cost. Other models similar to the G8D are available on special order providing any combination of up to 20 first and 20 second tones giving a capacity of up to 800 individual codes.

G21A Single tone—1 to 4 tones.

G21C Duotone—1 to 4 tone combinations/first tone common.

G21B Same as G21C except second tone common.

MG21 G21 for mobile use. Supplied with mounting bracket and DC cable. 12 VDC negative ground standard, positive ground available.

The dry reed "Keying" relay has fully isolated contacts and the audio line to the transmitter is similarly isolated by a set of dry reed contacts which completely disconnect the audio output of the encoder from the transmitter when the encoder is not being operated.

Modular construction provides unusual flexibility for system changes or expansion. Model G8D has plug-in tone and timer networks which may be individually preset for the exact tone durations and tone frequencies required. Existing systems may be modified or expanded by obtaining preset tone nets from Plectron. Many options on this line are also available in a form permitting their addition at a later date as system requirements change. Model G8D has variable timing adjustments with 2:1 range.

The Model G21 tone nets are supplied on individual preset boards which may be easily wired in to add or change tones and timing may be varied by changing fixed resistors which are identified on the printed circuit boards and in the manual.

Model G8D is a basic two-piece system with all circuitry incorporated in the main chassis which may be desk, wall, or floor mounted, as required. Operation controls, status indicator lamps, and clear button to cancel tone should wrong tone be selected are contained in a separate control head connected to the main chassis by a cable and separable connectors. All switches, lamps, and associated components are mounted on a removable panel which is readily adaptable to incorporation in a control console. The G8D is also available for 19" standard rack mounting.

Model G21 is supplied as a completely self-contained unit designed for desk or table top operation. It has remote control heads which may be plugged into a receptacle at the rear of the chassis.

Power Supply:

G8D—100-130 VAC, 60 cycles, 10 watts maximum. Fully regulated for line and load changes. (With slight modification may be supplied to operate from "12-volt" emergency power supply, DC generator, vehicle 12V system or standby battery system.)

G21—Same as above except requires only adapter cable for use with DC supply of 11 to 16 volts.

Operating Temperature Range:

-30 to +60°C within published specifications on all characteristics.

Frequency Stability:

Better than ±0.5% for all combinations of line voltage and temperature.

Better than ±0.2% for normal temperature ranges of indoor environment. (+10 to +40°C, +50 to +104°F).

Options:

G8D Lighted Head: Alerting push buttons light for 10 seconds when pushed for immediate visual confirmation of tones activated.

G8D Automatic Audible Alarm: Swept siren effect following alerting tone sequence. Timing may be any predetermined interval from 1 to 6 seconds with 2:1 built-in adjustment range. Intermittent alarm also available (Standard on G21).

G8D Manual Audible Alarm: As above but manually controlled to allow calling out a number of squads without delay of waiting for the alarm sequence. Alarm may be manually transmitted after squad or group calls are completed.

G8D Dual Transmitter Keying: Permits use of encoder to key and modulate two transmitters simultaneously.

G8D/21 Extra Remote Heads: May be supplied with ACTIVATING light units as required (Use of this feature at remote points enables dispatcher to determine when system is being used from other control centers.)

G8D/21 Automatic Holdoff: Permits activation of a selected input from any relay alarm, or similar repeating device. Code is sent once, then the encoder is prevented from activating for a predetermined period of time which can be adjusted to any time from 10 seconds to 3 minutes.

G8D Mixed Timing: Permits the user to take advantage of the short response time of fast Duotone devices while not obsoleting older equipment used for existing groups.

G8D Automatic Alarm Cancel: Permits transmission of tones with or without automatic audible alarm depending on wiring of individual buttons. Codes used for sirens or control purposes may be sent without the alarm while those for alerting personnel can include this function.

Finish:

Black chassis with grey shell wrap. All with durable polatex finish.

Size:

G8D— Main chassis—12-1/2" wide x 3-3/4" high x 9" deep. (Height includes base pads. Fits standard 3-1/2" rack panel with base pads removed.)

Remote head—

20 button model—10" wide x 3-3/4" high x 3-3/8" deep. (Removable panel is 9-3/4" x 4-5/32" and requires 2" clear space behind mounting surface.) 50- and 100-button heads also available.

G21— 8-1/2" wide x 3-3/4" high (including base pads) x 9-1/2" deep.

Weight:

G8D— Main chassis—5 to 8 lbs. depending on options.

Remote Head— 2-1/2 lbs. with 6-foot cable normally supplied (20-button standard).

G21— 6 lbs.

for further information write or call:



PLECTRON CORPORATION

Overton, Nebraska 68863
308/987-2416

DOMESTIC PRICE LIST
Effective August 1986

G21 ENCODERS

<u>ITEM</u>	<u>CATALOG NO.</u>	<u>DESCRIPTION</u>	<u>LIST PRICE</u>
G21	G21A	Encoder, Tone (Max. of 4 singletones)	\$469.00
	G21B	Encoder, Tone (Max. of 4 duotones, 2nd tone common)	469.00
	G21C	Encoder, Tone (Max. of 4 duotones, 1st tone common)	469.00
	G21D	Encoder, DIGITAL (4 codes, all group call, standard)	499.00

NOTE: ABOVE TONE PRICES INCLUDE ONE BUTTON OPERATIVE AND INTERMITTENT ALARM (BUTTON CAN BE SINGLE TONE OR DUOTONE)

G21 OPTIONS	G21-1	Additional tone frequency (TONE ONLY)	30.00
	G21-4	Remote Head** (TONE & DIGITAL)	149.00
	G21-5	Remote Activation Holdout (TONE ONLY)	101.00
	10-9093	Manual (TONE ONLY)	8.50
	G21D-1	Additional Transmitter Keying Cable (DIGITAL ONLY) (keys 2nd transmitter)	30.00

**SAME HEAD USED FOR G22

MODEL G8 ENCODERS

<u>ITEM</u>	<u>CATALOG NO.</u>	<u>DESCRIPTION</u>	<u>LIST PRICE</u>
G8 & G10 ENCODERS	G8D-2	Singletone or Duotone(w/o tones or alarm)	\$748.00
	G8D-3	3 Oscillators (w/o tones or alarm)	950.00
	G8D-4	4 Oscillators (w/o tones or alarm)	1,196.00
	G10	Encoder, DIGITAL (includes 20 buttons operative)	1,000.00
G8 ENCODER OPTIONS	G8-0	Each Button Operative (TONE ONLY)	14.00
	G-11	Manual Audible Alarm	40.00
	G-12	Automatic-Manual Alarm w/Cancel	90.00
	G-13	Automatic Alarm	55.00
	G-14	Alarm Cancel	28.00
	G-15	Mixed Timing (first tone) (TONE ONLY)	28.00
	G-16	Mixed Timing (second tone) (TONE ONLY)	35.00
	G-17	Mixed Timing (singletone/duotone) (TONE ONLY)	35.00
	G-18	Remote Activation Holdout	55.00
	G-19	Output 600 ohms	44.00
	G-20	Sequencer, Maximum of 9 Buttons	295.00
	G-71	CTCSS	130.00
	G-28	Additional Length Head Cable (above 6' standard cable)	2.75/ft.
	G-29	Second Transmitter Output	33.00
	G-30	12Volt DC Option	28.00
	G-31	Spare Additional 20 Button Head w/6' cable & connector	198.00
	G-32	(ADD ** per button to program buttons) "Y" Connector (required for parallel 20 button head operation)	7.00** 66.00