

## Graymark history

Sept 28, 1961 – The first usage of the name Graymark occurred as documented in a trademark application on Dec 1, 1969. Sept 1961 appears to be when Graymark was first launched as a privately held company in California.

May 27, 1965 – The first usage of the trademark symbol G with the triangle extension occurred as documented in a trademark application on Dec 1, 1969.

Graymark was acquired by Buck Engineering Co. Inc. in November 1969 as a subsidiary as documented in an Asbury Park Press article on Nov 23, 1969. Buck Engineering was located in Wall Township, NJ. At the time, Graymark had a 7000 sqft facility in Santa Monica, CA which appears to have been the company headquarters, and a facility in Tokyo, Japan which purchased components for Graymark's kits and perhaps also assembled the kit packages. It appears that kit design, distribution and sales and corporate functions were located in the Santa Monica facility. Gary Gregg was Vice President of Graymark at the acquisition, and he remained as Graymark's COO and executive VP. For the year of Aug 1968 to July 1969, Graymark had sales of \$628,244 and profits of \$62,369. Not a very large company, but the products sold for only about \$10 to \$20. It appears that the previous COO/CEO of Graymark did not stay with the company through the acquisition.

Buck Engineering was founded as early as 1956 according to trademark first usage dates, and they sold a line of educational electrical equipment called Lab-Volt which included power supplies as well as other electrical equipment. In 1995, they changed their name to Lab-Volt. They appear to have been publicly traded, and in 1968, when they acquired Graymark, they had gross sales of almost \$3.5 million.

Prior to the acquisition by Buck Engineering, Graymark had developed much of their 200, 400 and 500 series of electronics educational kits in the 1960's. A list of known kits appears at the bottom of this article. The 200 series included resistance and capacitance substitution boxes, power supplies and a Volt-Ohm Meter (VOM). The 400 series included a tachometer and an engine analyzer. The 500 series was more extensive with 20 to 25 kits in 1969 and included several transistor radios, several tube radios, 2 AM broadcasters, a crystal radio and a number of other products like a psycholite and a strobe light that turned music into a mini-light show. It appears that several kits may have been already discontinued by 1970, but some new ones were also added to the lineup, especially to the 500 series such as the 524 black light.

Most of the tube kits used 3 or 5 tubes with the filaments in series wired directly to 115 VAC and were designed without power transformers to minimize cost. In some cases, a power voltage dropping resistor was also placed in series with the filaments, but in other cases this was not needed. Plate voltages for the tubes were provided by simple rectifier and capacitive filtering circuits directly from 115 VAC, so a separate circuit and chassis ground was used to prevent electrical shock. However, the tube kits did present some risk for students of electrical shock, especially during assembly and testing. Also, transistor kits were part of the Graymark line up from the beginning. It appears that the tube kits were discontinued about 1980. Most of the tube kits used point-to-point wiring while the transistor kits used PCB's. An exception was the 505 broadcaster tube kit which used a PCB.

These kits were mostly intended for usage in classes for 7<sup>th</sup> to 12<sup>th</sup> grade. It appears in some cases, that schools provided low-cost kits to the students, and in other cases the kits were purchased by the students. In my own case, in which I constructed a 515 3-tube broadcaster in 1969/1970, constructing a kit was an optional project in wood shop classes in the 8<sup>th</sup> grade. The student could select a kit from a list of available kits with typical cost in the \$10 to \$20 range. The kit construction was done in a series of steps over about a 6 week grading/marking period.

Many Electronic kit companies existed in the 1950's through about 1990. Heathkit was one of the larger kit companies and they phased out in the early 1990's. Graymark considered Heathkit to be a competitor for electronic kits for educational usage. Generally Graymark targeted lower cost and simpler kits than Heathkit that were attractive for students starting in electronics.

After the acquisition by Buck Engineering, a number of expansions and new kits were introduced by Graymark. Also, they applied for trademarks. Two of those trademark applications occurred within weeks of the acquisition on Dec 1, 1969 for the Graymark name and for the G with a triangular extension. In 1974, Graymark introduced the 800 series with the first 6 kits in the series. Several of the kits appear to be updated replacements for 500 series kits including 1 and 2 transistor radios and a power supply. They also introduced a battery checker and a walkie-talkie. Later several kits were added to this series including a general purpose breadboarding kit and a micro-processor training kit with an 8085 cpu. That kit would have been preassembled and appears to focus on learning how to program micro-processors.

Also in 1974 (and probably for some years in the 1970's), Graymark was publishing "Graymark Electronics Shopper's Mart" catalogs. In addition to their lineup of electronic kits, Graymark sold kits and educational products from other companies including Eico and Midland. They also sold some low-cost test equipment and entertainment equipment including low-cost stereos and TV's. A substantial section of components was also included of about 50 pages. This was no doubt based on expanding the business of the component purchasing group in Tokyo and the sales groups in the USA. In the USA, Graymark expanded to 4 offices located around the USA. It appears that the office in California continued with engineering and management, and 3 new locations were focused on sales and distribution.

It appears that the KOMPONENT line of kits was started 1976, but a trademark application was not filed until 1983. This series of kits was designed to be very low cost. No case was included with these kits, but a cabinet could be purchased separately. All of these kits used PCB's and were solid-state (no tubes). Many of these kits ran on batteries but a number also ran on 115 VAC. There were no radios in this lineup, but the 500 series continued to provide transistor radio kits for many years. Like the 500 series, the Komponent series was fairly extensive. The lineup included a simple burglar alarm, a metal detector, a motor speed control, several sirens, and others. One of the more complicated kits was a function generator

It appears that Graymark introduced the 600 series of robot kits about 1984. The lineup eventually included 4 different types of robots that would react to sounds, follow a line drawn on the floor, follow a trained sequence of movements or use 6 legs to walk on rough surfaces.

Newspaper articles from 1987 and 1988 reported that Buck Engineering incurred losses. The Graymark Teletronics Institute and Electronics Institute subsidiaries had slumps in sales. Buck Engineering sold that Electronics Institute in 1988 and it is still in existence in 2023 in Kansas, Mo. In 1986, Graymark and the Electronics Institute had delivered profits.

Graymark was a part of Electronic School Supply (ESS) Inc from at least 2000 till about 2021/2022 when ESS along with Graymark appear to have disappeared during the covid pandemic. It appears that new kit development had stopped by about 2000 and the kit and training material was unchanged from the time until the company was shut down around 2021/2022.

During the period from about 2000 until 2021/2022, Graymark continued to sell from the 200, 400, 500 and 800 series of kits as well as the 600 series of robots and the Komponenten series. But they also sold training material for IT cable installation, analog/digital concepts, fiber optics, GPS technology and others. By 2023, [www.surplusmaster.com](http://www.surplusmaster.com) listed the remaining inventory from Graymark for sale.

<https://trademarks.justia.com/owners/graymark-international-inc-116550/>

<https://web.archive.org/web/20040902031321/http://www.esssales.com/graymark/graymark.html>

<https://web.archive.org/web/20220126110454/http://www.esssales.com/graymark/graymark.html>

List of Graymark kits and products

#### **200 series**

- 201 resistance substitution box
- 202 capacitance substitution box
- 203 Volt Ohm Meter
- 204 Power Supply
- 206A Volt Ohm Meter
- 213 Continuity Checker
- 214 Logic Probe
- 215 Logic Probe Enhancement
- 216 VOM
- 218 Digital Multimeter

#### **400 series**

- 401 Tachometer
- 403 Engine Analyzer
- 411 Telephone Kit

**500 series**

500B Continuity Checker  
501C Crystal Tuner  
502A Power Supply  
503 Code Oscillator  
504 Transistor Amplifier  
505 Transmitter with cabinet – 3 tube  
506C Two-Band Receiver – 5 tube  
508 Two-Transistor Radio  
509B Audio Amplifier – 3 tube  
510 Five-Tube Radio – 5 tube  
511 All-Band Radio – 3 tube  
512 8-Transistor Radio  
513 1-Transistor Radio  
515 Metal Chassis Transmitter – 3 tube  
516 Automatic Light/Alarm  
517 Neon Flasher  
518 Sun Powered radio  
519 Motor Speed/Light Control  
520 Psycholite  
521 One-Tube Radio  
522 Color Organ, Three Channel  
523 Strobe Light  
524 Black Light  
525 Scallion Table Radio – 5 tube  
527 Color Organ, Cube Design  
528 Color Organ, Shadow Design  
529 Infrared Burglar Alarm  
536 AM Transistor Radio – 8 Transistors  
540 Binary Clock  
542 AM/FM Portable Radio  
555 Exploratory Electronics Laboratory

**600 Series – introduced about 1984**

601 “Scooter” Sound Controlled Robot  
602 “Blinky” Pathfinder Robot  
603 Digital Programmable Robot  
606A “Scrambler” All Terrain Robot

**800 Series - introduced in 1974**

801 1-Transistor Radio  
802 2- Transistor Radio  
803 Power Supply  
804 Battery Checker  
805 Walkie-Talkie  
806 6-Transistor Radio

808 Triple Power Supply with Breadboard  
809 Micro-Processor Trainer  
810 Breadboard kit for 809 Micro-Processor  
811a Interface kit for 603a robot and 809 Micro-Processor

**Komponent series introduced in 1976**

102P 6/9 Volt Power Supply  
103P Mini-Wink Neon Flasher  
105 Fish Caller  
106P Metal Detector Oscillator  
108P Decision Maker  
109P Auto/Home Burglar Alarm  
110P Electronic Whooper Siren  
112P Proximity Detector  
117P Tunable Electronic Organ  
119P Motor Speed Control  
120P Siren/Code Oscillator  
123P Electronic Timer  
124P Warbling Siren  
131P Variable Power Supply  
144P Transistor/Diode Checker  
143 FM Wireless MIC  
148 Headlight Delay  
149 Telephone HOLD Button  
152P Sound Activated 3-Channel Color Organ  
157P LED Flasher  
159P Function Generator

**Trainers Series**

TR5 Analog Trainer  
TR7 Analog/Digital Trainer  
TR8 Advanced Digital Trainer  
TR9 Analog/Digital Trainer