

## *Amplifone Corporation*

Plant Facilities / Brownsville Compress, Bldg. No. 900

P.O. Box 3297

Brownsville, Texas 78520

512/541-3461

# **Amplifone Corporation.**

## **If There's A Better Way To Make A Product, We Won't Rest Until We Find It.**

Amplifone, an Illinois Corporation, was founded December 30, 1950 by T.K. Handing for the purpose of manufacturing and marketing a Telephone Amplifier; hence the name Amplifone Corporation.

Amplifone is and always has been family owned. Since its establishment in 1950 it has produced a variety of electronic assemblies. From 1956 to 1974 Amplifone

specialized in High Voltage Output Transformers, also known as Flyback Transformers. During this period the bulk of production went into the O.E.M. home entertainment industry.

Also during this period Amplifone Corporation developed the first acceptable flame-retardant flyback transformer construction. A transformer that to this day, passes all UL, CSA, and IEC specifications.



T.K. Handing, Founder and President



T.E. Handing, Executive Vice-President

During the past four years, 1974 to 1978, a variety of new product lines have been added under the direction of T.E. Handing, Executive Vice-President and son of the founder. Mr. Handing was educated at the Illinois Institute of Technology and has worked with the Company since 1958.

In order to continue to develop new ideas and establish new products, Amplifone Corporation has increased its Electrical Design Engineering Staff to six Project Engineers and five Technicians. In addition, a Mechanical Engineering capability with a full-time draftsman was established along with an in house machine shop.

At one time Amplifone had production facilities in Illinois, Wisconsin, Canada, and Texas. Today these

facilities have been combined into approximately 90,000 square feet in two facilities. Main production facilities are located in Brownsville, Texas with a sister facility in Matamoros, Mexico.

The people who work for Amplifone Corporation take pride in its reputation for producing quality products. The kind of pride that has led Amplifone to an outstanding supplier award for highest quality.

The overall company attitude may be summed up in one phrase:

**IF THERE IS A BETTER WAY TO MAKE A  
PRODUCT, WE WON'T REST UNTIL WE FIND IT.**

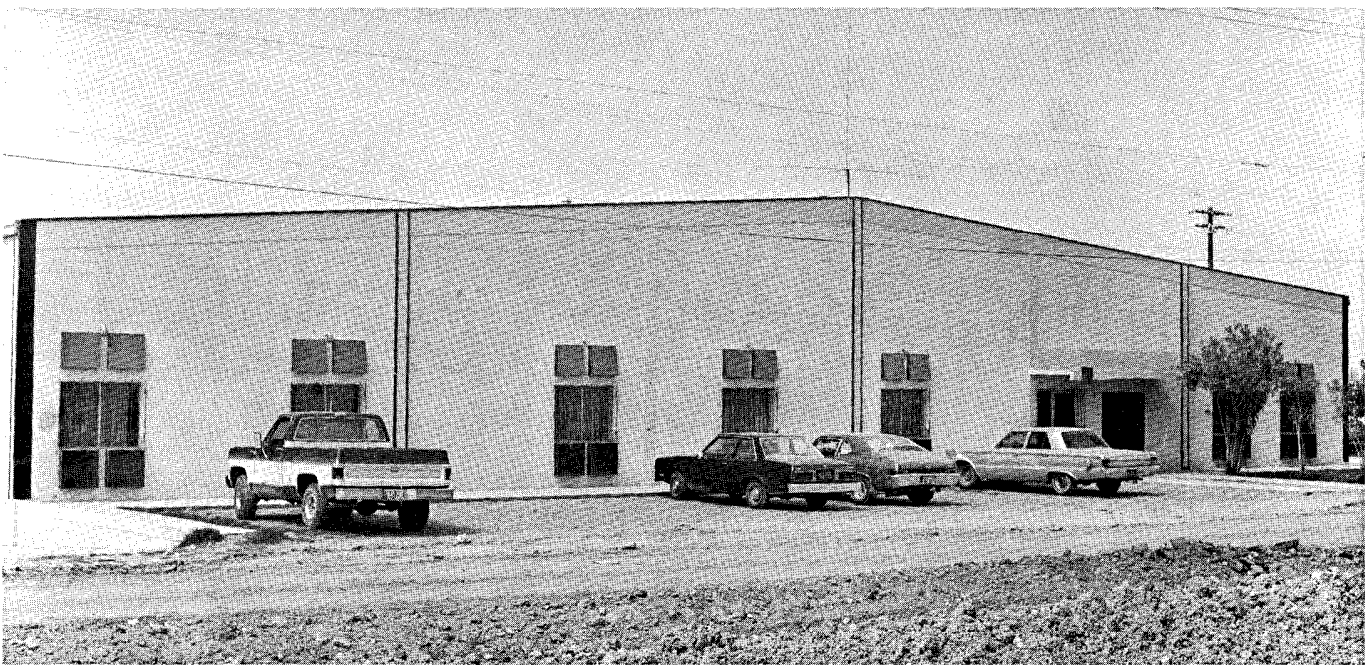
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# Amplifone Corporation

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Amplifone's main office at the Brownsville complex.

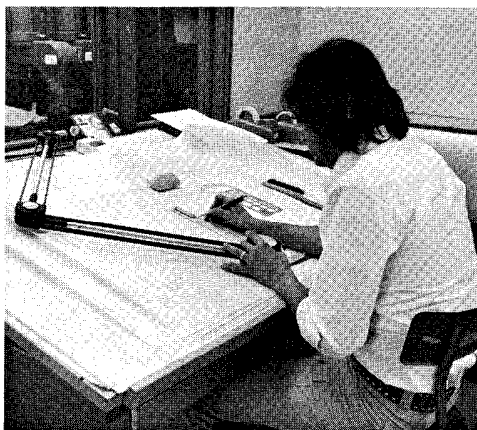


The sister facility located just across the border in Matamoros, Mexico.

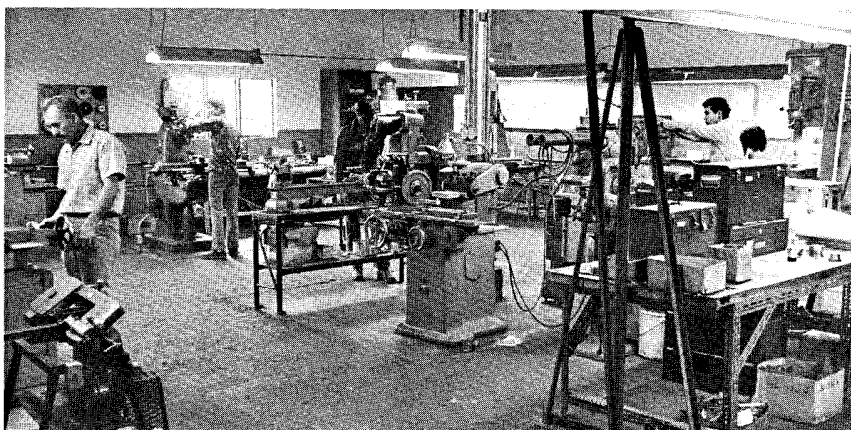
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# Amplifone Corporation

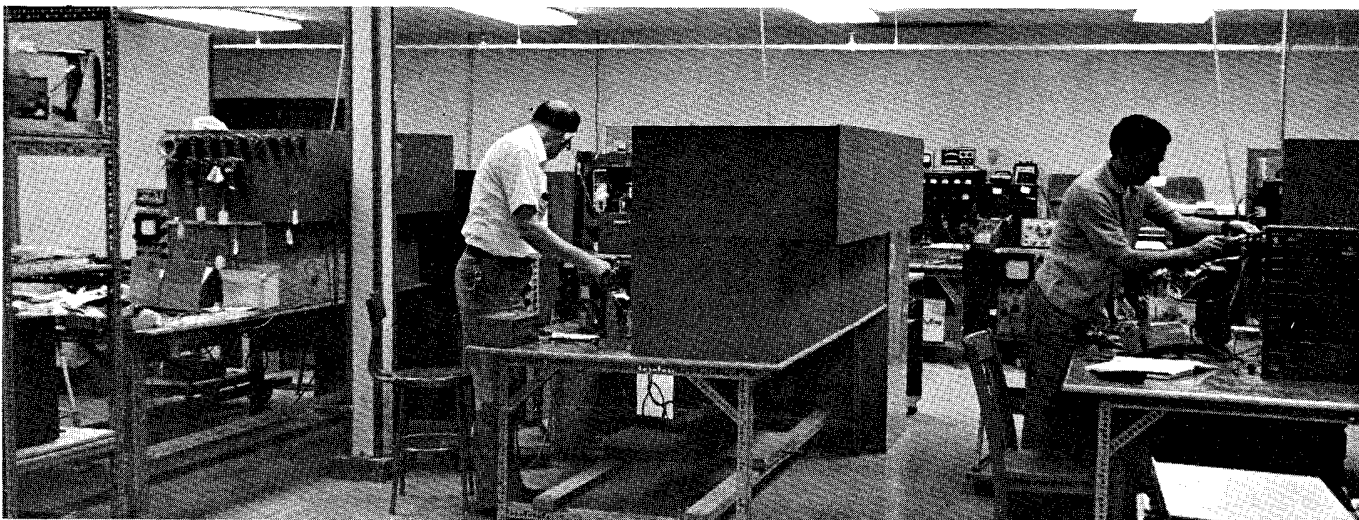
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Drafting Department.



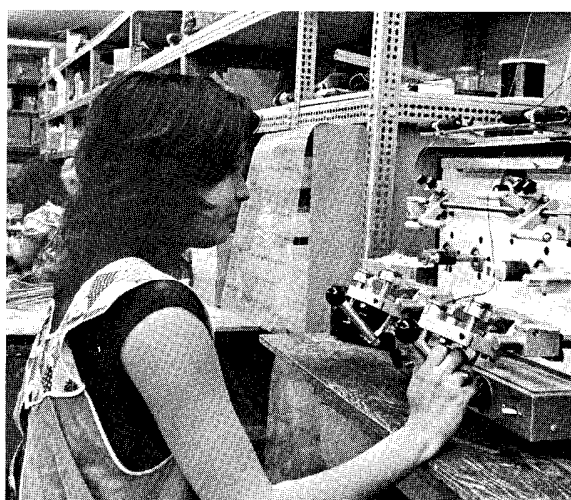
Amplifone's facilities include a complete on location machine shop.



Electrical design lab for the design and testing of new products and monitoring of production quality.



Compound development facilities are available through a chemical lab.

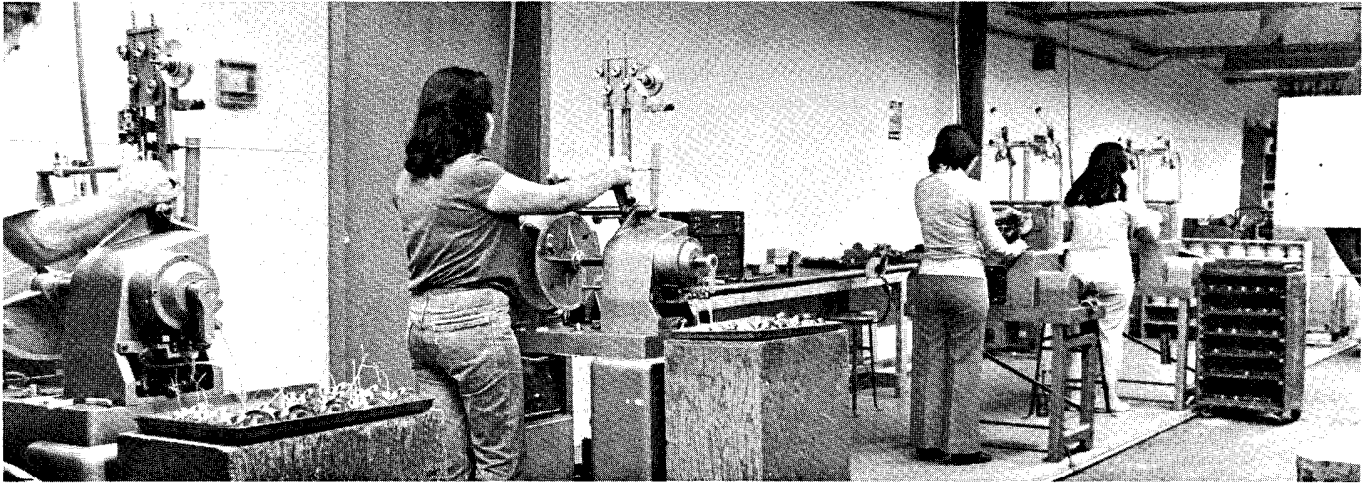


One section of the sample winding and assembly lab.

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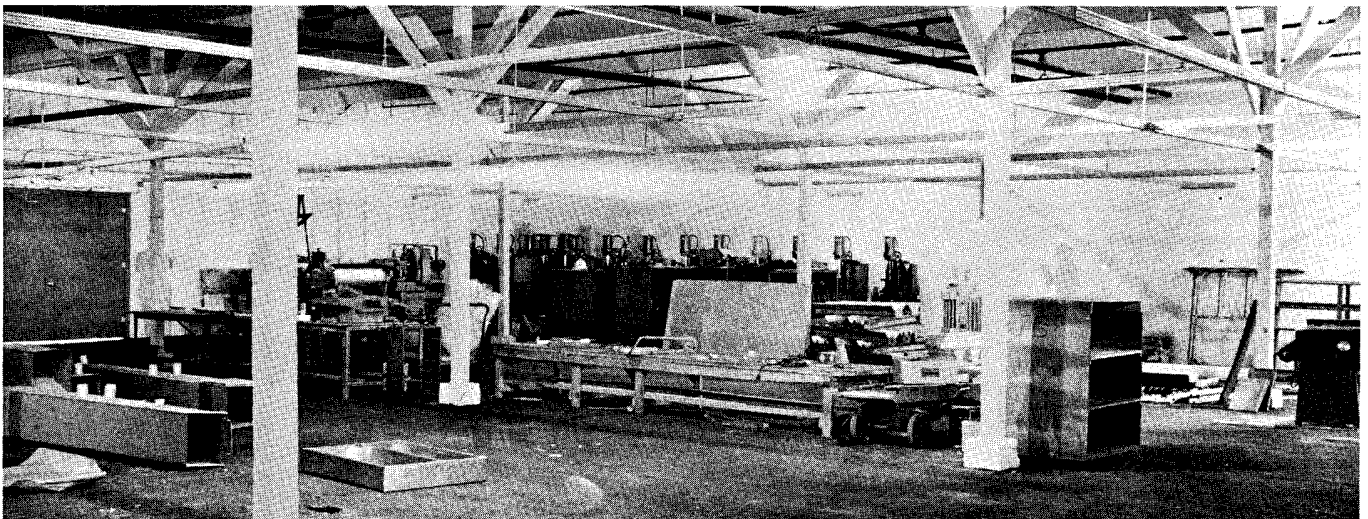
Section of yoke winding department.



Four-Line Scanner used in testing yokes.



Section of yoke assembly department.



Expansion area for yoke department.

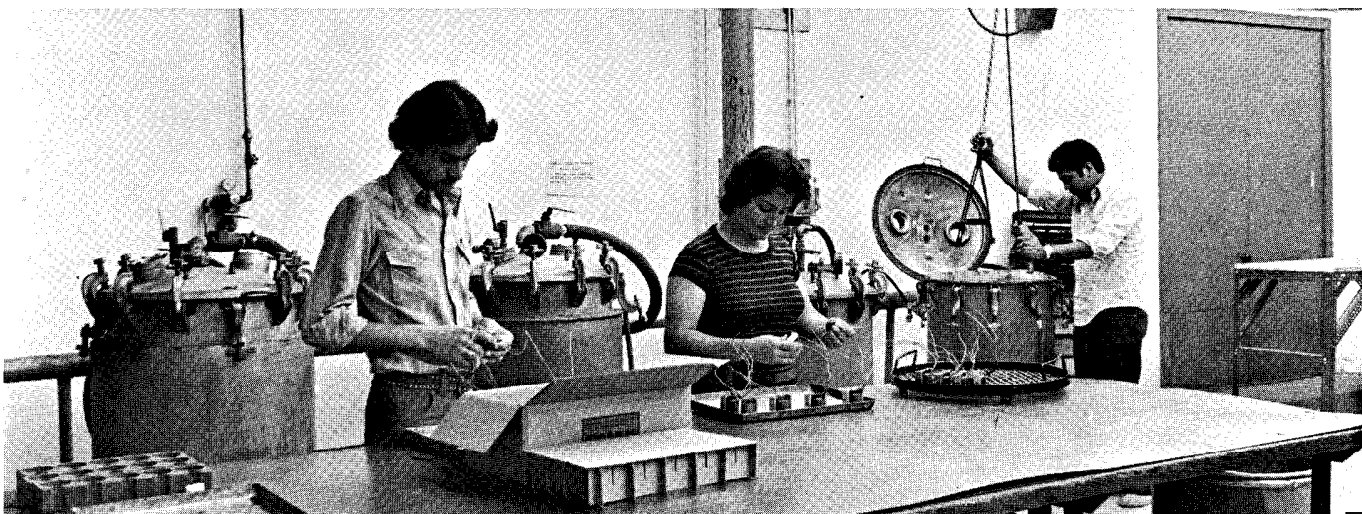
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Multiple coil layer winding department.

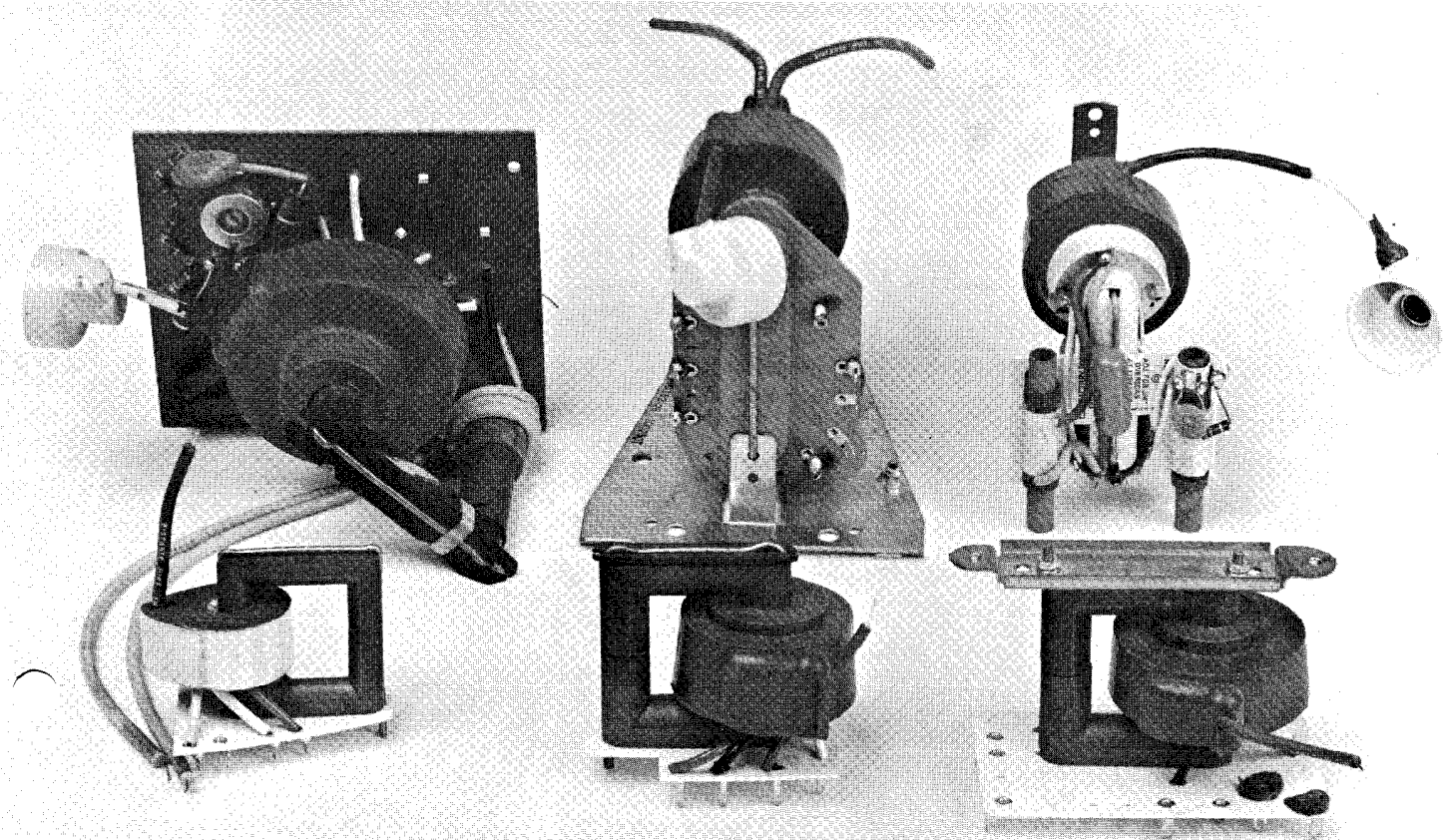


One of three different and separate impregnating sections.



Assembly department for coils and transformers.

# Standard Flyback Transformers

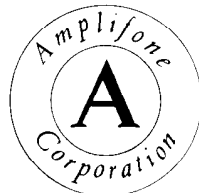


The Standard Flyback Transformer line consists of flyback transformers which use a special flame-retardant silicone impregnation and/or encapsulation process developed by Amplifone Corporation. This type of flyback transformer requires external rectification. Rectification can be obtained by vacuum tube, single stick, or voltage multiplier depending on design specifications and requirements. The transformers can be designed for vacuum tube or solid

state circuits. They can be tuned to operate at the third (3rd) or fifth (5th) harmonic, and in a wide range of input and output voltages.

All transformers are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

All are 100% tested before shipment.



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HIGH VOLTAGE TRANSFORMER PRELIMINARY  
INFORMATION REPORT  
(Confidential)

Page 1 of 2

Date: \_\_\_\_\_

Customer: \_\_\_\_\_ Customer's Part No: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer: \_\_\_\_\_ Tel. No: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sales Rep: \_\_\_\_\_ Tel. No: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A. If prints and/or published specifications are available, please attach them to this information report and fill out all information below if it is not specified in published materials attached.

- 1.) Request is for  New design  Replacement design  Second source
- 2.) Type of High Voltage Transformer  Standard  Integrated flyback transformer module (IFTM)
- 3.) Type of tuning  3rd (harmonic)  5th (harmonic)  Ultra-tuned (Note: Ultra-tuned available only with IFTM construction.)
- 4.) If standard construction, what type of rectification will be used? \_\_\_\_\_

Please include specifications.

- 5.) If IFTM construction, is internal bleeder desired?  Yes  No  
a. If yes, what bleeder current is required? \_\_\_\_\_
- 6.) Input supply voltage? \_\_\_\_\_
- 7.) Input supply power? \_\_\_\_\_
- 8.) Will supply voltage be regulated?  Yes  No  
a. What variation will be allowed? \_\_\_\_\_
- 9.) Switch repetition rate (Horizontal Frequency)? \_\_\_\_\_
- 10.) On time of Driver Transistor? \_\_\_\_\_  %  uS.
- 11.) Retrace time in micro seconds at AC zero? \_\_\_\_\_ uS.
- 12.) Nominal high voltage?  
a. To CRT or end device? \_\_\_\_\_
- 13.) Nominal high voltage current? \_\_\_\_\_





- 14.) Maximum high voltage current? \_\_\_\_\_
- 15.) High voltage regulation required? \_\_\_\_\_
- 16.) Total nominal inductance seen by primary? \_\_\_\_\_
- a. Nominal Yoke inductance (horizontal)? \_\_\_\_\_
- b. Nominal linearity coil inductance? \_\_\_\_\_
- c. Nominal width coil inductance? \_\_\_\_\_
- d. Other: \_\_\_\_\_

Note: Please include sketch or print of how components are connected.

- 17.) Peak to peak Yoke current for nominal scan? \_\_\_\_\_

B. Please attach following additional information:

- 1.) Specifications on driver transistor and damper diode.
- 2.) Circuit drawing showing any and all auxiliary windings and nominal loads.

- C. Is a Breadboard, Test Fixture, Monitor, Chassis with mounted CRT, or other assembly with supply voltages available for design purposes?  Yes  No

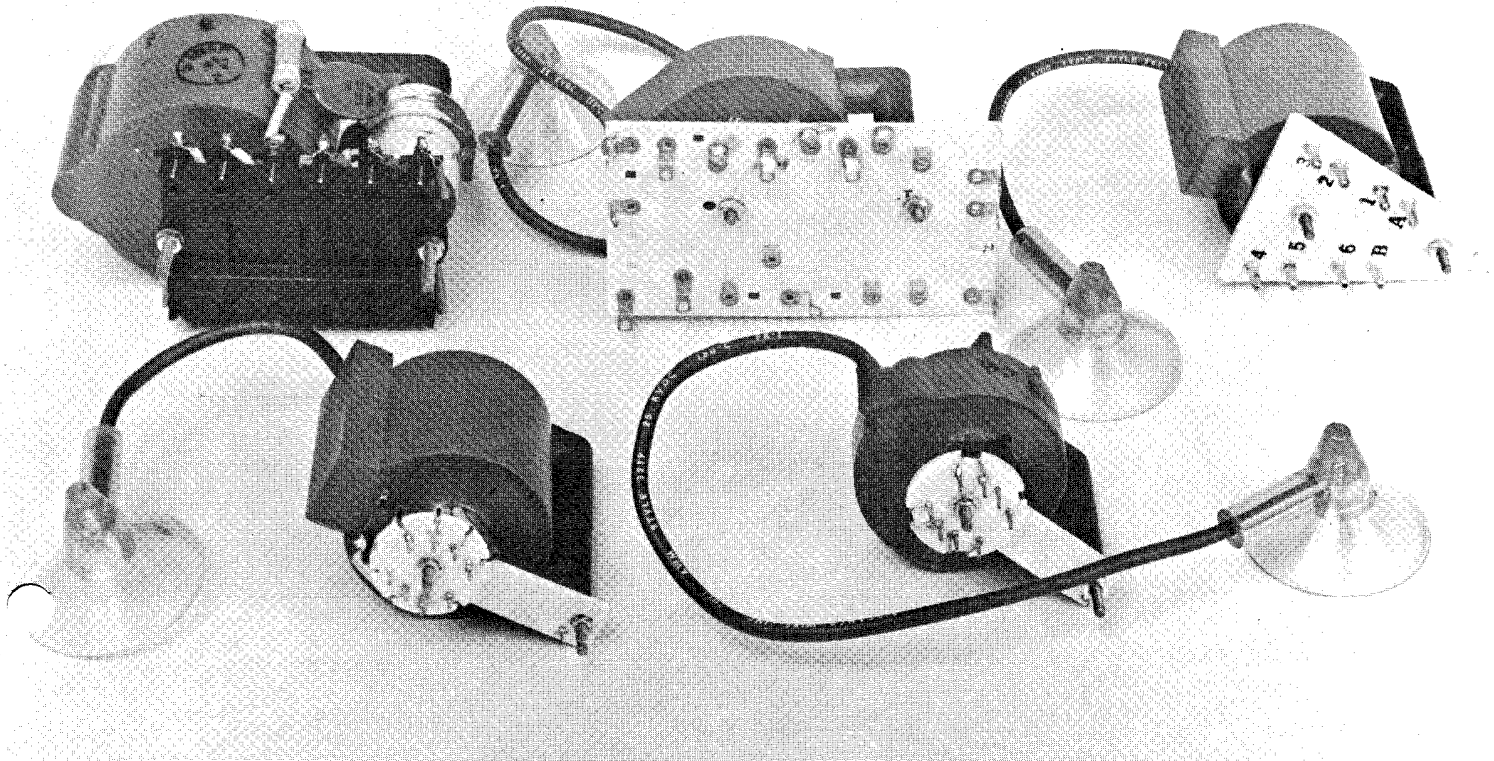
Submitted by:

\_\_\_\_\_

Date:

\_\_\_\_\_

# Integrated Flyback Transformer Modules

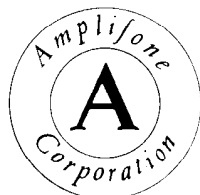


The Integrated Flyback Transformer Module (IFTM) line consists of flyback transformers with internal rectification. The special flame-retardant impregnation and encapsulation process developed by Amplifone Corporation permits this type of transformer module to be designed for a wide range of input and output voltages. Due to the special processing techniques developed by Amplifone Corporation, the customer has great flexibility in design parameters, such as input frequency, voltages both input and output, and terminal configuration. The Module size

varies depending on voltage requirements and other design specifications and requirements. These modules can be designed to take advantage of three (3) different types of tuning; third (3rd) harmonic, fifth (5th) harmonic, or Ultra-Tuned.

All transformers are custom built to the customer's specifications and/or requirements and can be designed to meet UL, CSA, and/or IEC standards.

All are 100% tested before shipment.



## Amplifone Corporation

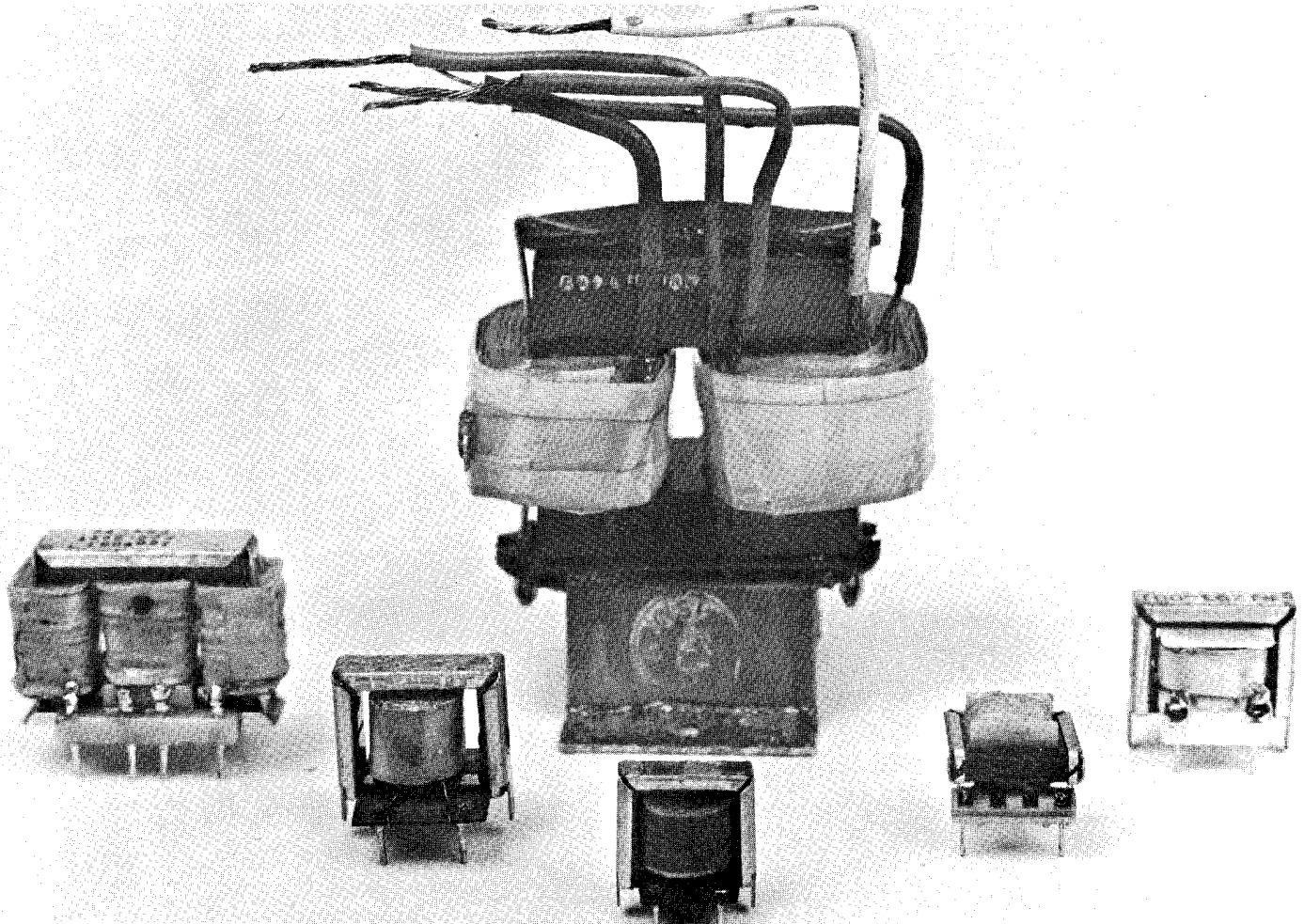
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# Ferrite Core Transformers



The Ferrite Core Transformer line includes transformers which operate in the medium to high frequency range and at the low to medium voltage range.

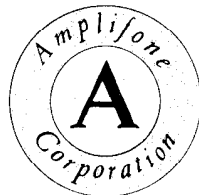
This type of transformer has been designed to deliver up to 1,300 watts of output power.

Amplifone Corporation's facilities provide for a variety of processing techniques including but not limited

to layer winding, and bobbin winding, along with dipping, impregnating, and encapsulating in a variety of compounds.

All transformers are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

All transformers are 100% tested before shipment.



*Amplifone Corporation*

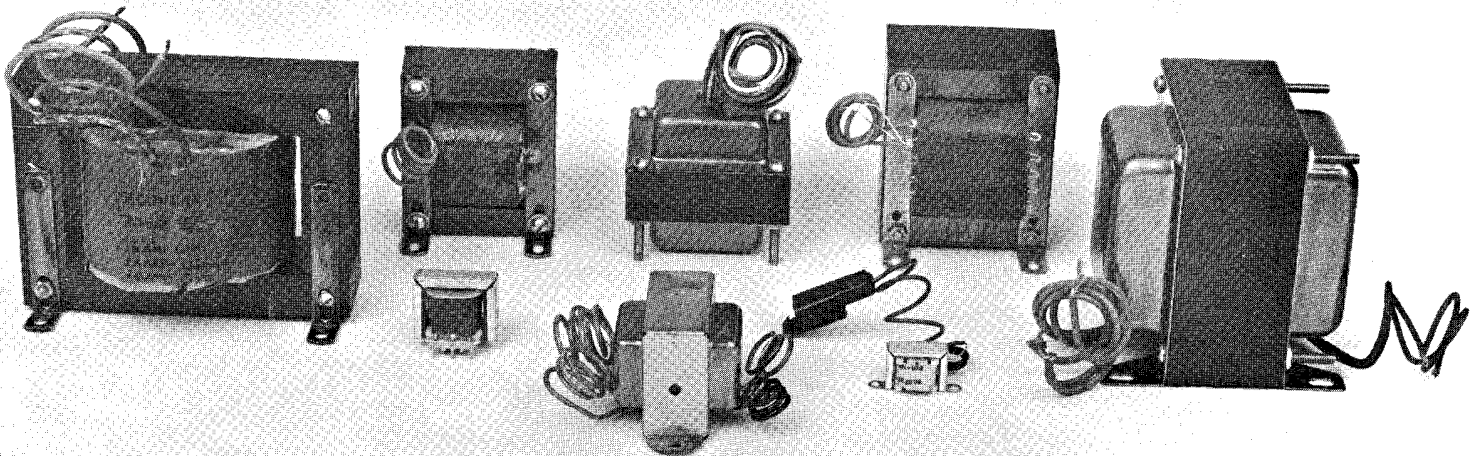
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# Laminated Transformers



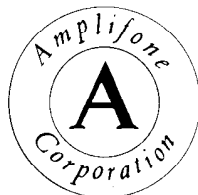
The Laminated Transformer line consists of all types of transformers using steel laminations with a center leg width of from one-quarter ( $\frac{1}{4}$ ) inch to two and one-half ( $2\frac{1}{2}$ ) inches.

Amplifone Corporation has facilities to impregnate and dip these transformers in a variety of different com-

pounds including but not limited to Varnishes, Permafil, and Silicone Resins.

Transformers are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

All are 100% tested before shipment.



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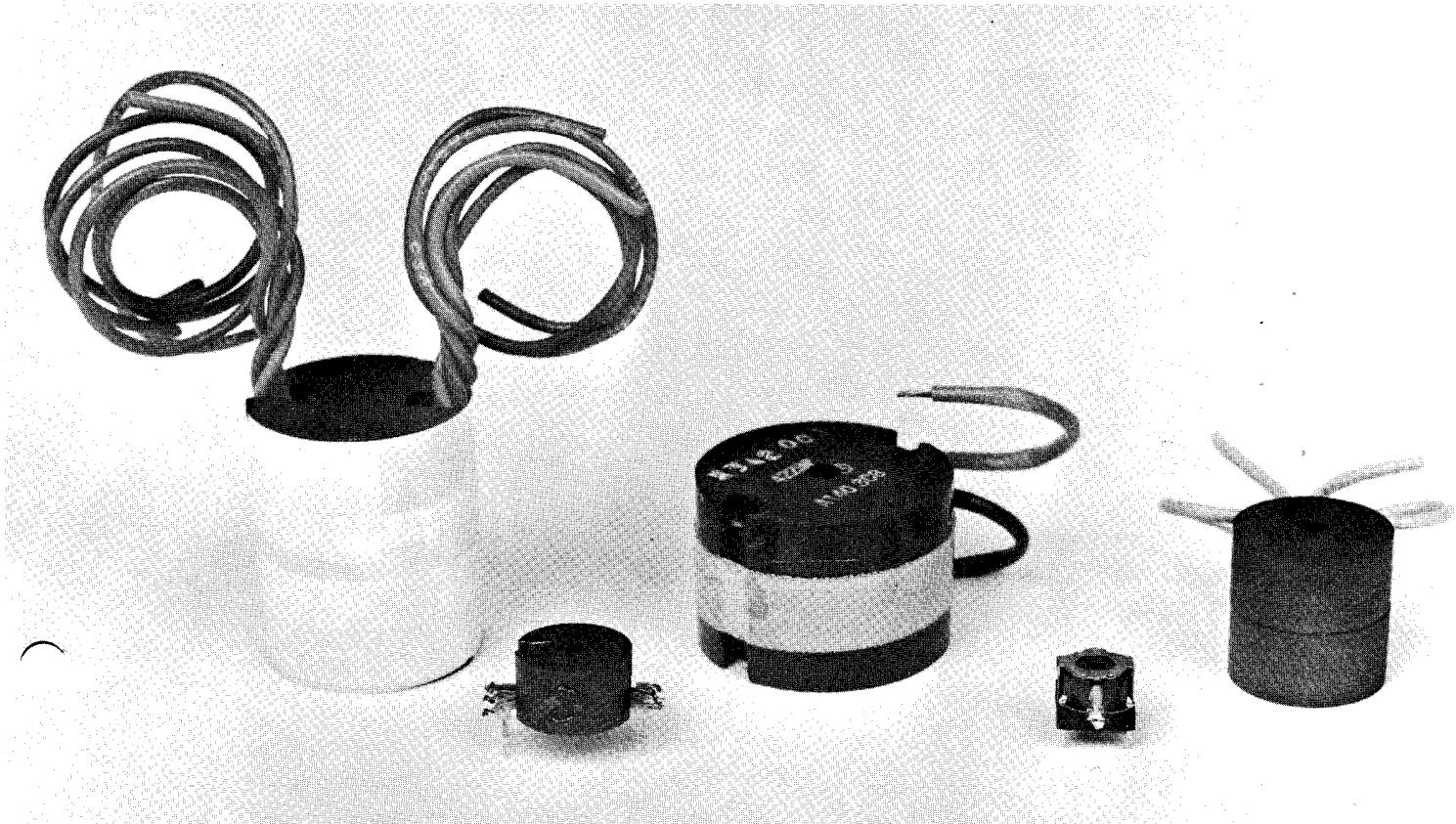
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# Ferrite Pot Core Transformers



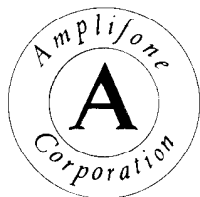
The Ferrite Pot Core Transformer line consists of a variety of transformers constructed with pot cores for use in the medium to high frequency range and at the low to high voltage range.

Amplifone Corporation facilities permit a variety of processing techniques including but not limited to layer

winding, and bobbin winding, with dipping, impregnation and encapsulation in a variety of compounds.

All transformers are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

All transformers are 100% tested before shipment.



*Amplifone Corporation*

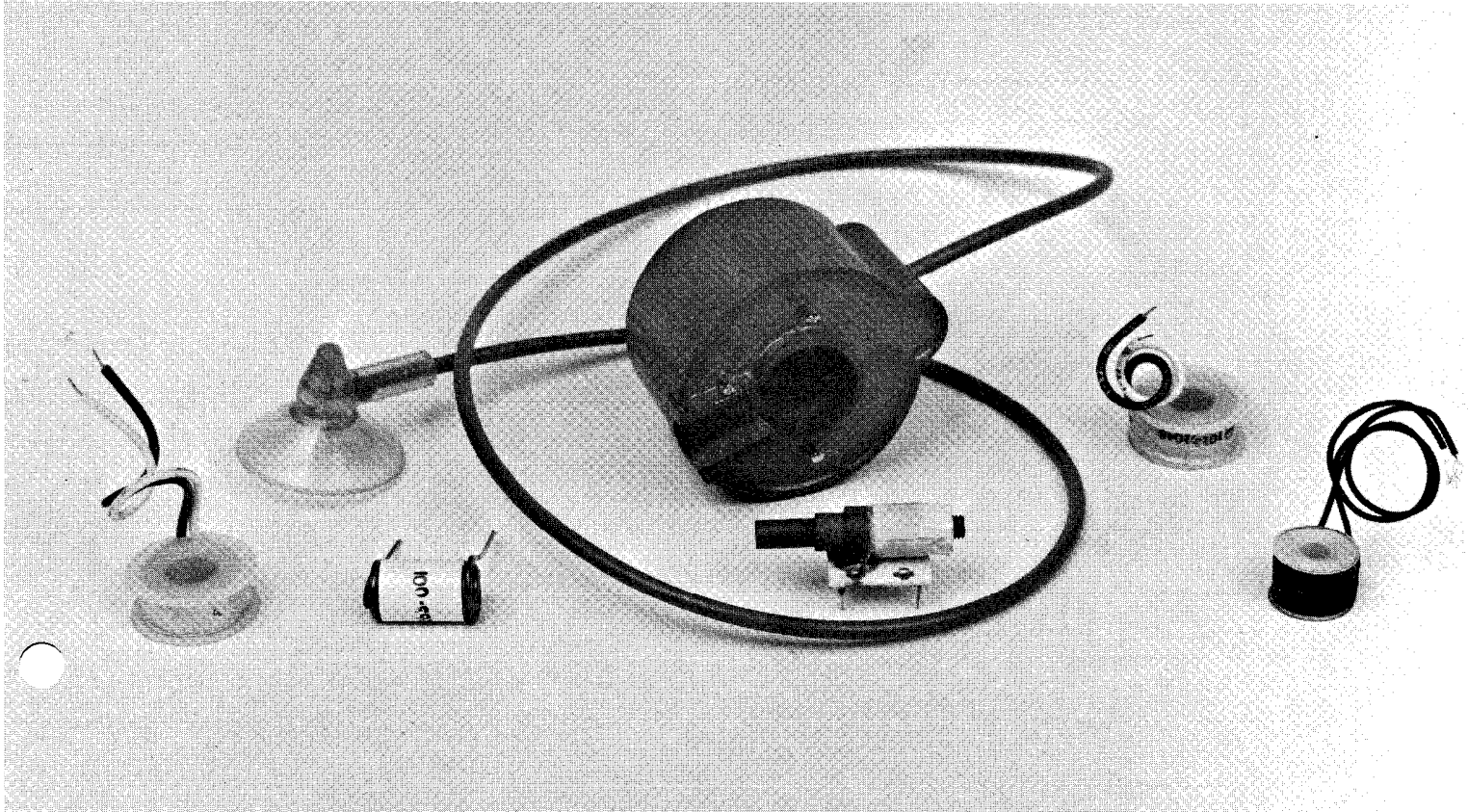
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# Coils & Coil Assemblies



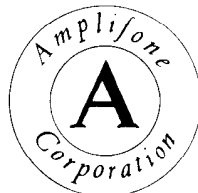
The Coil and Coil Assembly line of products includes layer wound, self-supporting, and bobbin wound winding constructions. The winding may be assembled to a terminal board or collar, impregnated or dipped, dry, or assembled with other components and encapsulated.

The dipping, impregnating, and encapsulating can be done with a variety of compounds including but not

limited to Epoxies, Silicone resins, and varnishes.

Coil sizes up to four (4) inches in diameter can be handled on present equipment.

All coils and coil assemblies are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards. All coil and coil assemblies are 100% tested before shipment.



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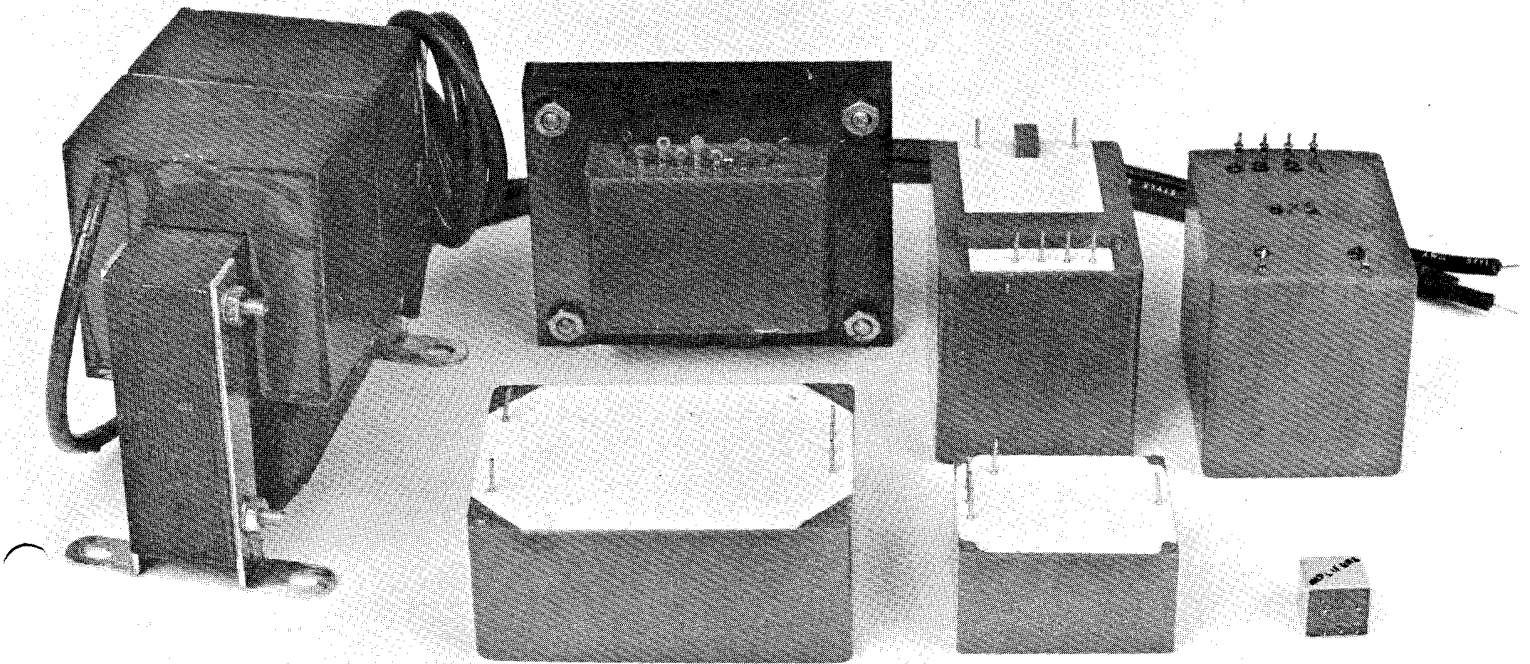
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# Specialty Type Transformers



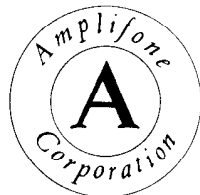
The Specialty Transformer line includes a wide range of transformers which must operate under unusual conditions such as irregular frequency response, and severe ambient conditions, including very high humidity and temperature conditions. This line also includes transformers which have been reduced to the minimum operable size for special applications.

Specialty Transformers can be designed in a wide

range of input and output voltages for low frequency or high frequency applications.

All Specialty Transformers are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

All transformers are 100% tested before shipment.



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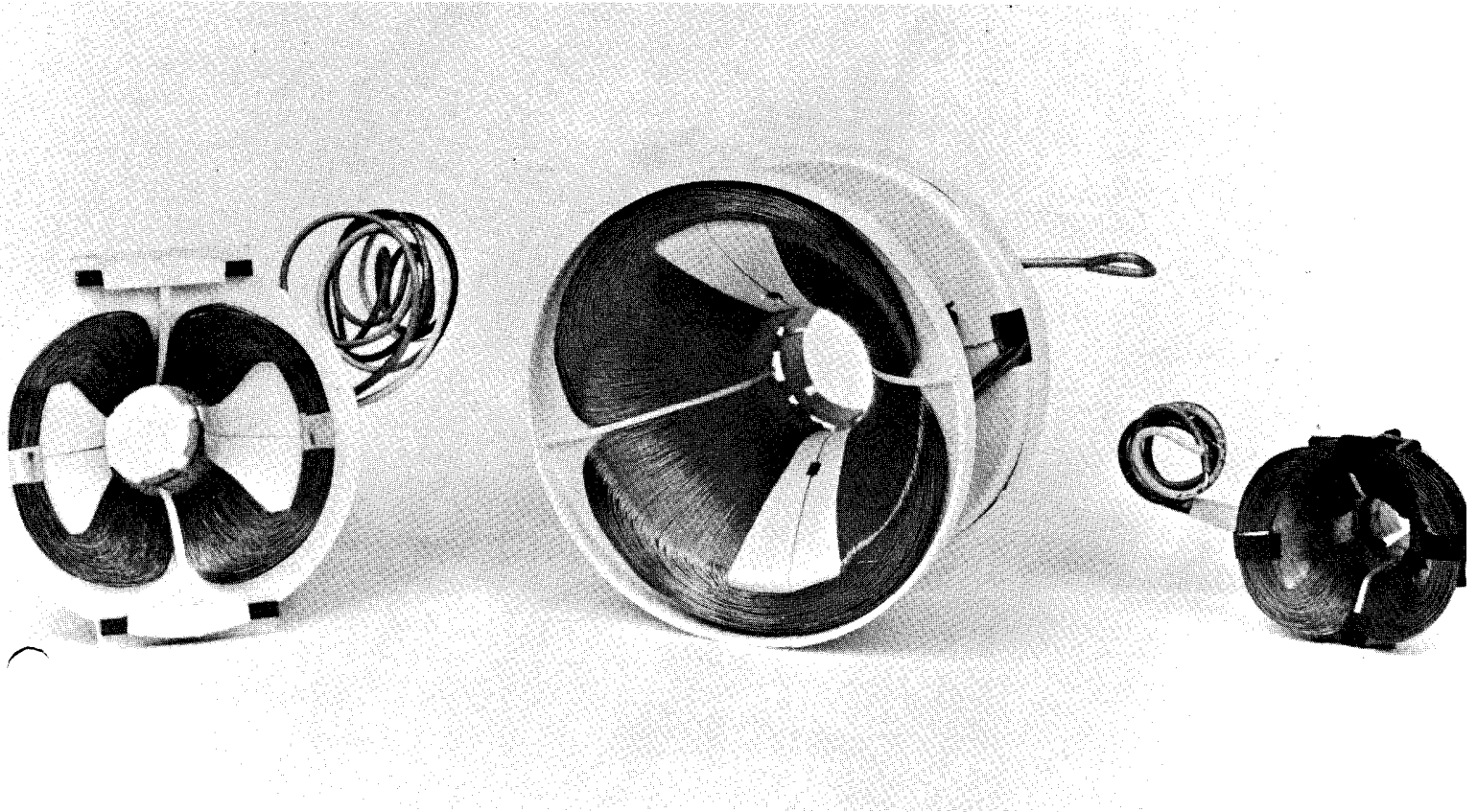
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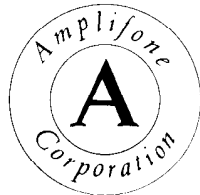
# Deflection Yokes



The Deflection Yoke line consists of deflection yokes for both color and black and white CRT displays. The yokes are constructed using saddle and toroidal windings. Additional tooling is acquired as needed.

All yokes are custom built to the customer's specifications and requirements and can be designed to meet UL, CSA, and/or IEC standards.

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B & W DEFLECTION YOKE PRELIMINARY  
INFORMATION REPORT  
(Confidential)

Date: \_\_\_\_\_

Customer: \_\_\_\_\_ Customer's Part No: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Engineer: \_\_\_\_\_ Tel. No: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Sales Rep: \_\_\_\_\_ Tel. No: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Yoke Description: Is print available? Yes  No   
(Where print is available, give information below when not specified  
on the print.) If no, when will it be available? \_\_\_\_\_

Tube Type (s) \_\_\_\_\_

Tube neck diameter 1 1/8" \_\_\_\_\_ 20mm \_\_\_\_\_ other (specify) \_\_\_\_\_

Horiz. Inductance \_\_\_\_\_ % \_\_\_\_\_

Horiz. Resistance \_\_\_\_\_ % \_\_\_\_\_

Vert. Inductance \_\_\_\_\_ % \_\_\_\_\_

Vert. Resistance \_\_\_\_\_ % \_\_\_\_\_

Vert. Coils/Torroidal (wound on core)  or, saddle wound

Cross talk ratio

Input: Frequency \_\_\_\_\_ Vrms \_\_\_\_\_ Output \_\_\_\_\_ Vrms



B & W DEFLECTION YOKE PRELIMINARY  
INFORMATION SHEET  
(Confidential)

Lead Wire lengths \_\_\_\_\_ in.

Measured from breakout point? Yes  No  Measured from  
center line of Yoke? Yes  No  Other (specify) \_\_\_\_\_

Position of lead wire breakout \_\_\_\_\_

Cathode Ray \_\_\_\_\_ KV  
Tube Voltage \_\_\_\_\_

Raster Dimensions used: Full Screen Illumination \_\_\_\_\_, or  
Partial Screen (Computer) \_\_\_\_\_. If partial Screen, specify:

Horiz. Scan \_\_\_\_\_ in. Vert. Scan \_\_\_\_\_ in.

Is a receiver (or monitor) available? (Specify) \_\_\_\_\_

In monitor applications, is a signal input generator available?  
(Specify availability) \_\_\_\_\_

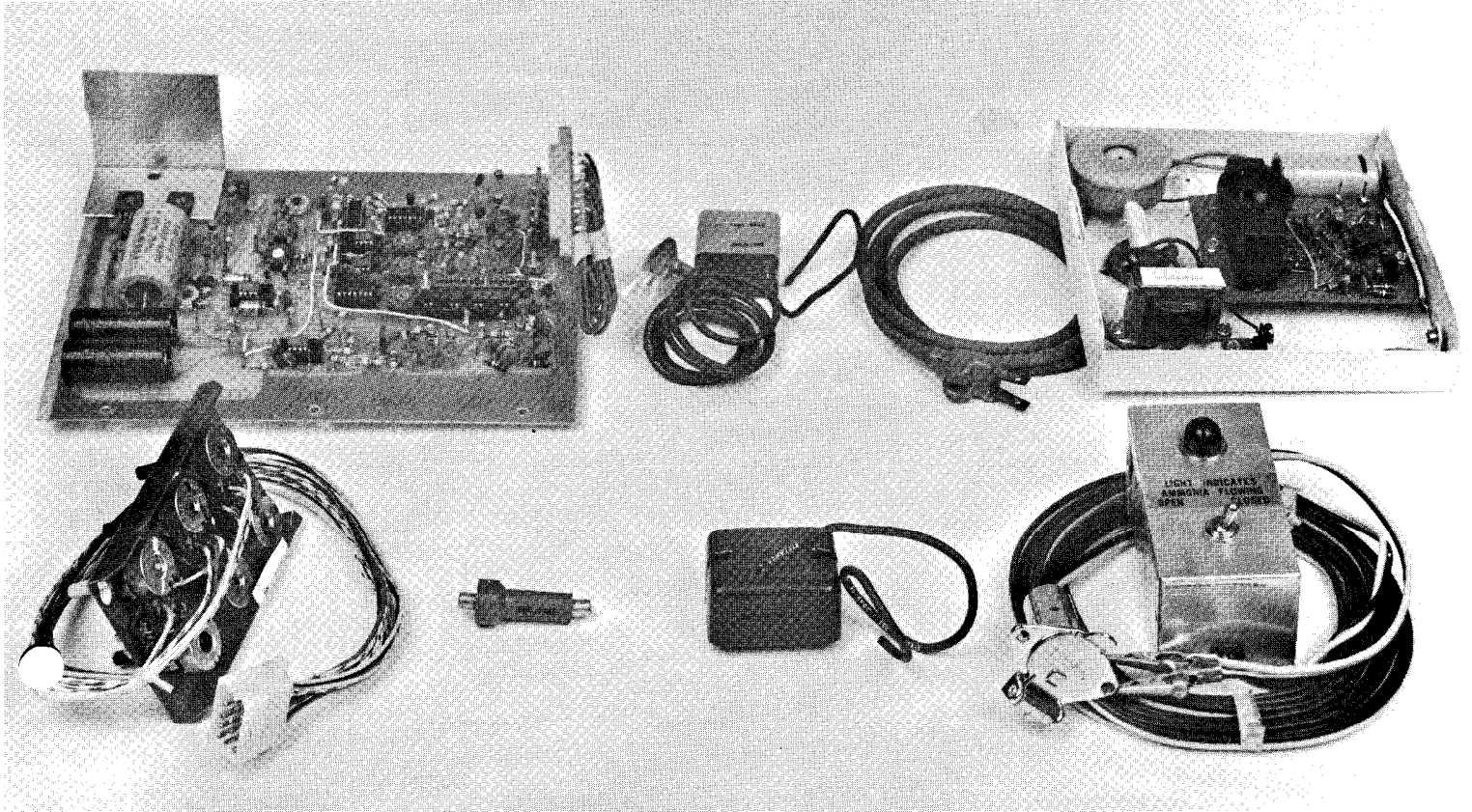
Information Secured by

\_\_\_\_\_

Date

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# Electronic Assemblies

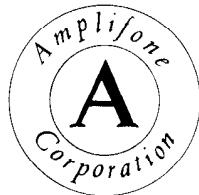


The Electronic Assembly line includes a variety of special purpose assemblies. This line consists of such items as special power supplies, switching assemblies, voltage multipliers (pulse and sine-wave), rectifier packages, control assemblies, switch mode power supplies, and others.

Depending on the customer's requirements, work in

this line can be done on a design and/or build basis, or on a sub-contract basis.

All electronic assemblies are custom built to the customer's specifications and requirements and 100% tested before shipment.



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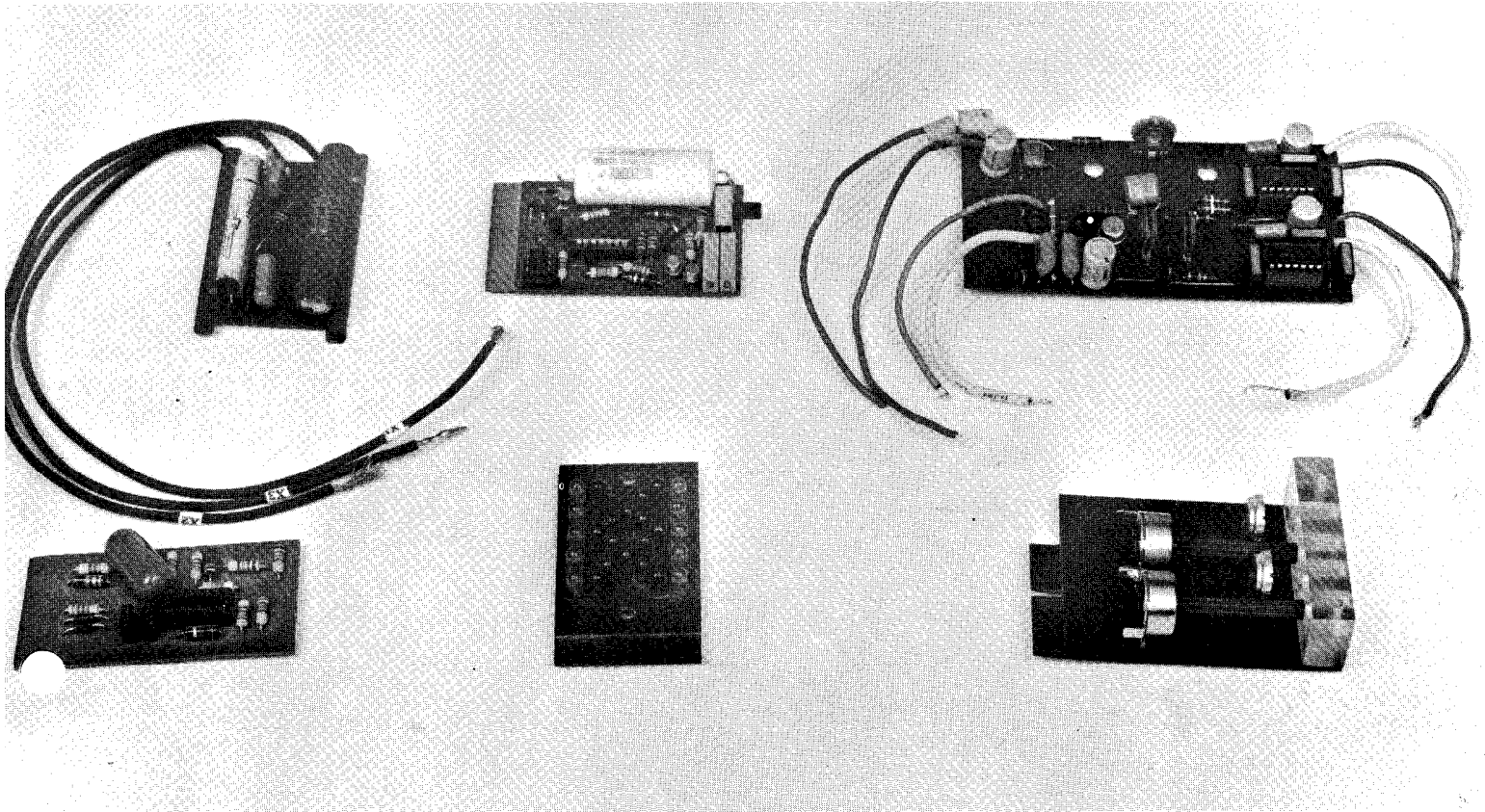
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# Printed Circuit Board Assemblies

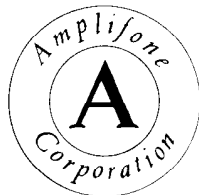


The Printed Circuit Board Assembly line includes all types of hand-stuffed, wave-soldered Printed Circuit Boards up to a maximum width of twelve (12) inches.

Depending on the customer's requirements, work in this line can be done on a design and/or build basis, or on

a sub-contract basis.

All printed circuit board assemblies are custom built to the customer's specifications and requirements and 100% tested before shipment.



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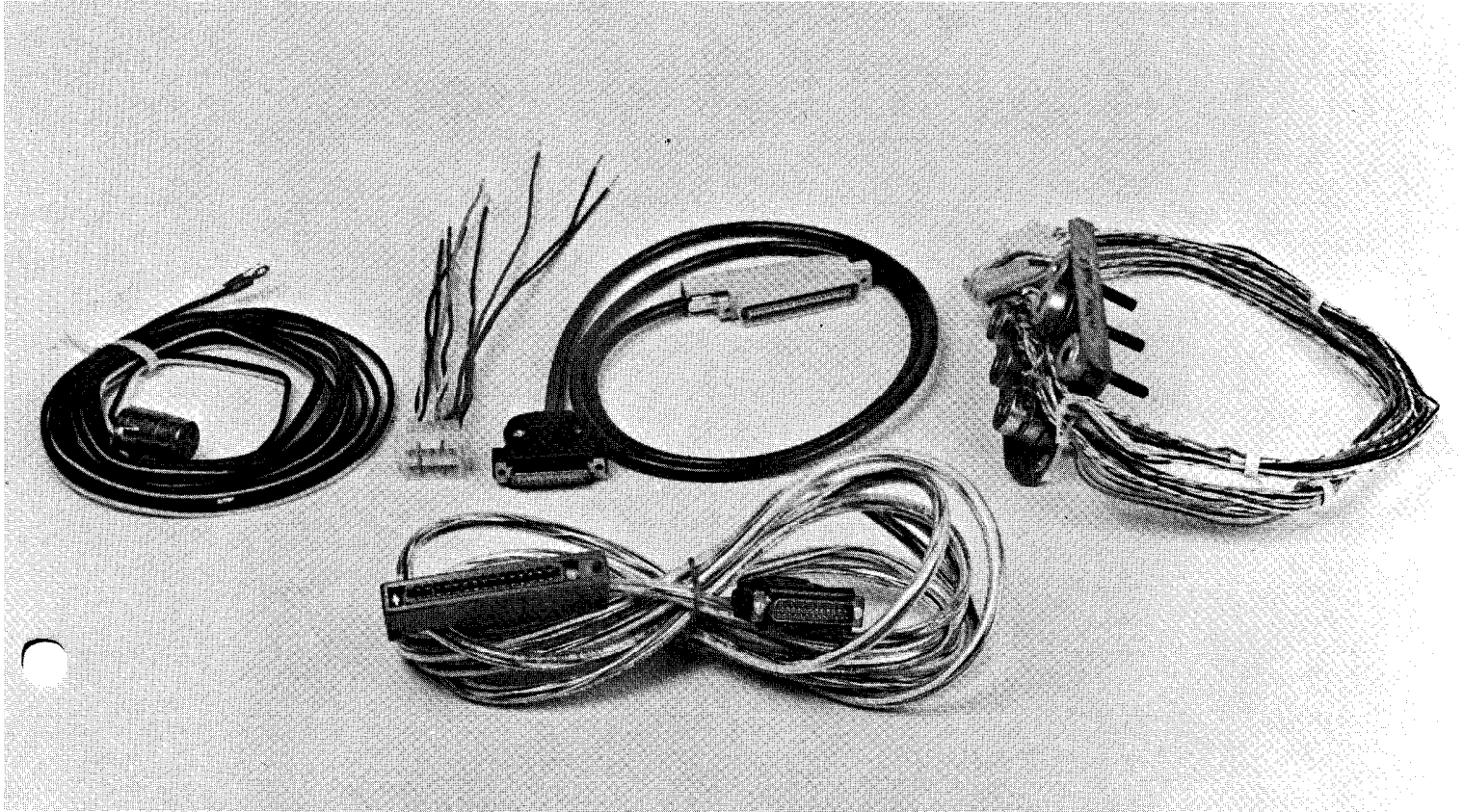
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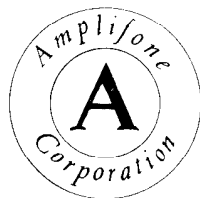
# Cable Assemblies



The Cable Assemblies produced by Amplifone Corporation are custom made to the customer's specifications and requirements. They can be assembled to a wide variety of connectors and in various configurations. The

Cable Assembly line includes cables for the Television industry, Computer industry, Agricultural industry, and various other industries.

All are 100% tested before shipment.



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