

1953 EDITION



**world's toughest transformers**

**CHICAGO**

**TRANSFORMERS  
AND FILTER REACTORS**

UNITED ELECTRONIC SUPPLY  
403 JONES ST.  
FORT WORTH, TEXAS

CHICAGO TRANSFORMER DIVISION  
3501 West Addison Street, Chicago 18, Illinois

ESSEX WIRE  
CORPORATION

CATALOG  
No. CT-153





# CHICAGO

## *The world's toughest*

**PREFERRED FOR EVERY MODERN CIRCUIT**

**T**he standard CHICAGO Transformers and Reactors you choose from this catalog are backed by more than two decades of engineering and manufacturing experience in supplying original transformer units to America's leading manufacturers of radio and electronic equipment.

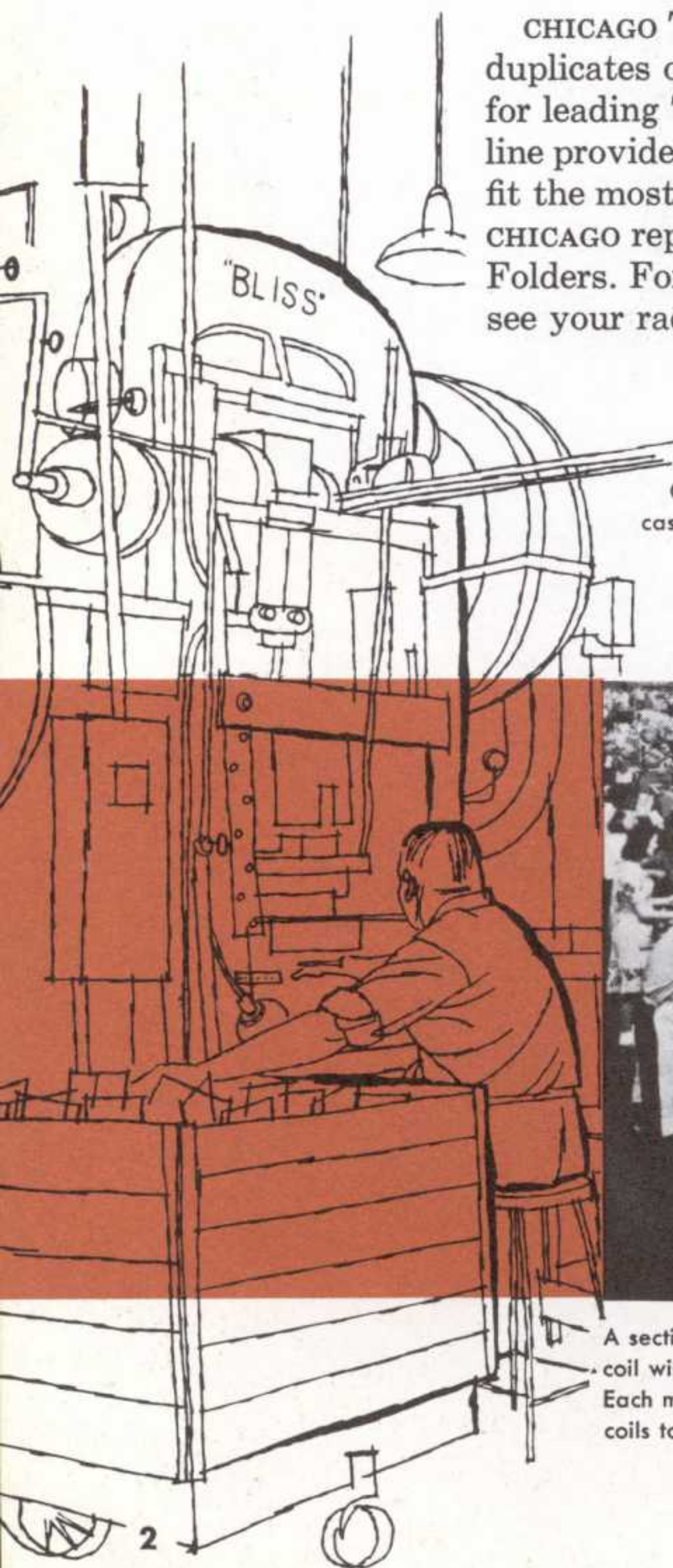
CHICAGO offers the only complete line of Hermetically-Sealed transformers and filter reactors available for quick shipment from stock. These units meet all requirements of Grade 1, MIL-T-27 for Class A operation.

The *New Equipment* line includes power transformers exactly suited to specific requirements—one range of ratings expressly designed for capacitor input, another for reactor input; audio transformers in three ranges—full frequency, public address and communications; plate transformers, matching reactors and other units for amateur and commercial broadcasting.

CHICAGO Television Replacement Transformers are exact duplicates of the units CHICAGO has been building continuously for leading TV set manufacturers. The *CT General Replacement* line provides servicemen with a wide range of standard ratings that fit the most frequent replacement requirements. CHICAGO replacement units are listed in Sams' Photofact Folders. For your CHICAGO Transformer needs, see your radio parts distributor.

CHICAGO's famous one-piece drawn steel cases are made in presses like this one. Smaller presses perform blanking, forming and piercing operations

**UNEQUALLED  
FACILITIES  
FOR ADVANCED  
TRANSFORMER  
DESIGN AND  
PRODUCTION**

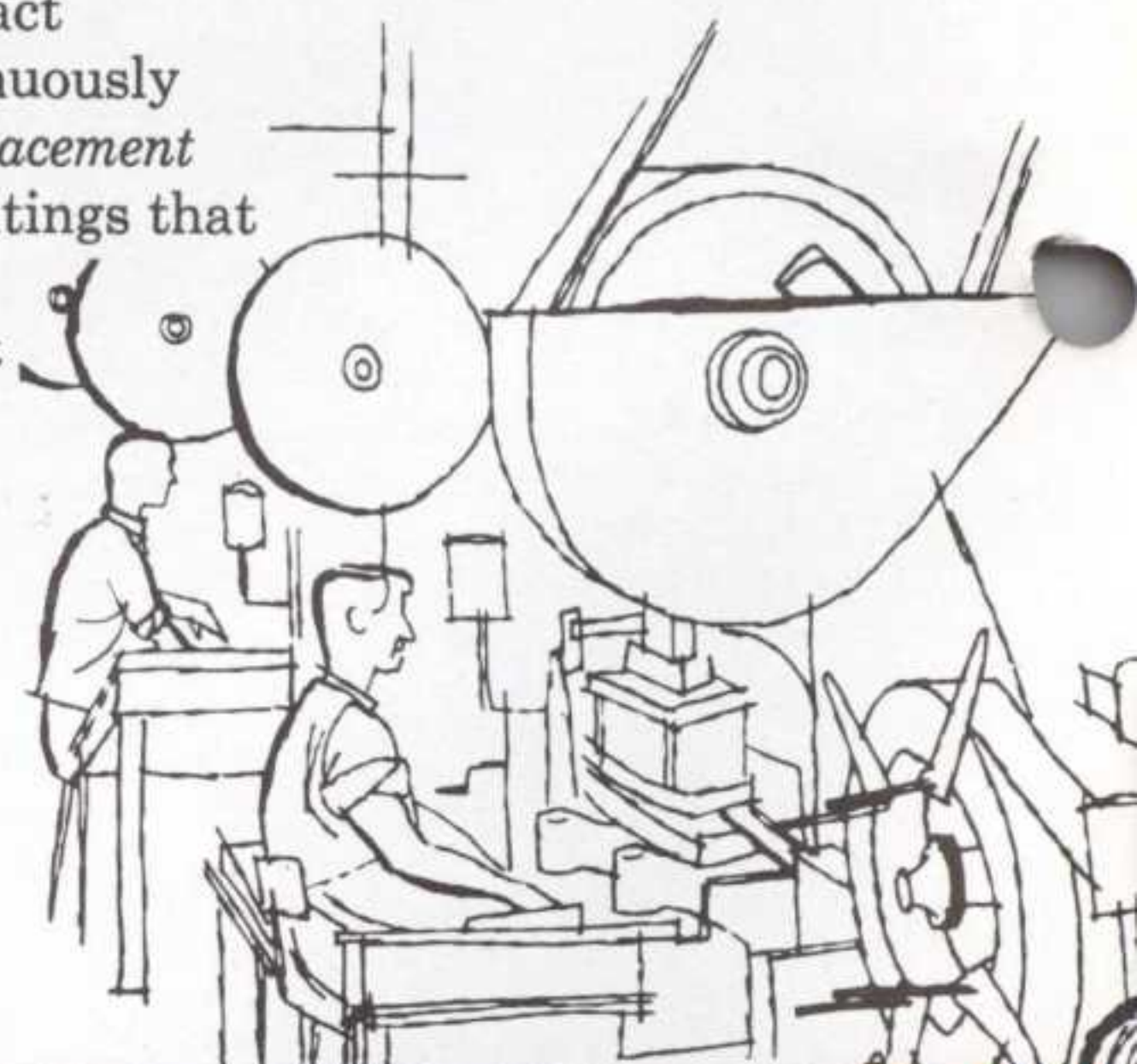


A section in one of CHICAGO's coil winding departments. Each machine winds up to 30 coils to a spindle simultaneously



View of laminating operation at CHICAGO's Zanesville plant

Progressive dies in these automatic presses turn strip silicon steel into core laminations to close tolerances



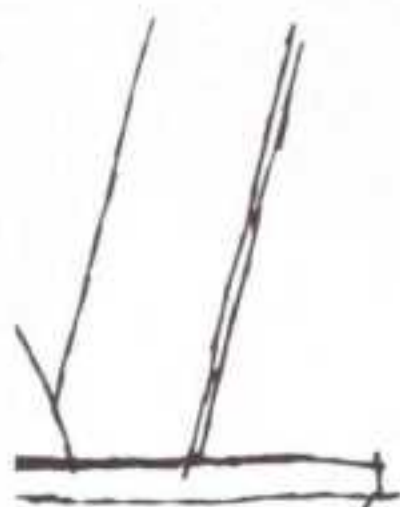


# transformers

## REQUIREMENT



In the years since the company's founding in 1928, CHICAGO TRANSFORMER'S plant capacity has been steadily increased until today the organization is equipped with large scale manufacturing facilities in Chicago and Zanesville, Ohio, adequate to produce transformers in any desired volume. A large and competent staff of engineers, as well as a fully-equipped test laboratory and model shop, are maintained. Complete machine shop facilities provide prompt tooling, when required, and metal parts of all kinds, from laminations to the largest drawn steel cases, are produced on CHICAGO'S own presses. All essential operations, from coil winding through impregnating and assembly to final finishing, are conducted entirely within CHICAGO'S own plants.



One of several CHICAGO assembly departments. Here, insulated leads are attached to the coil, and laminations inserted around the coil to form the core

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**a**

**NEW EQUIPMENT TRANSFORMERS AND REACTORS**

**b**

**TELEVISION REPLACEMENT TRANSFORMERS AND REACTORS**

**c**

**GENERAL REPLACEMENT TRANSFORMERS AND REACTORS**

**d**

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# CHICAGO world's toughest transformers

**THE FAMOUS HERMETICALLY-SEALED TRANSFORMER THAT**

**MEETS ALL MIL-T-27  
REQUIREMENTS**

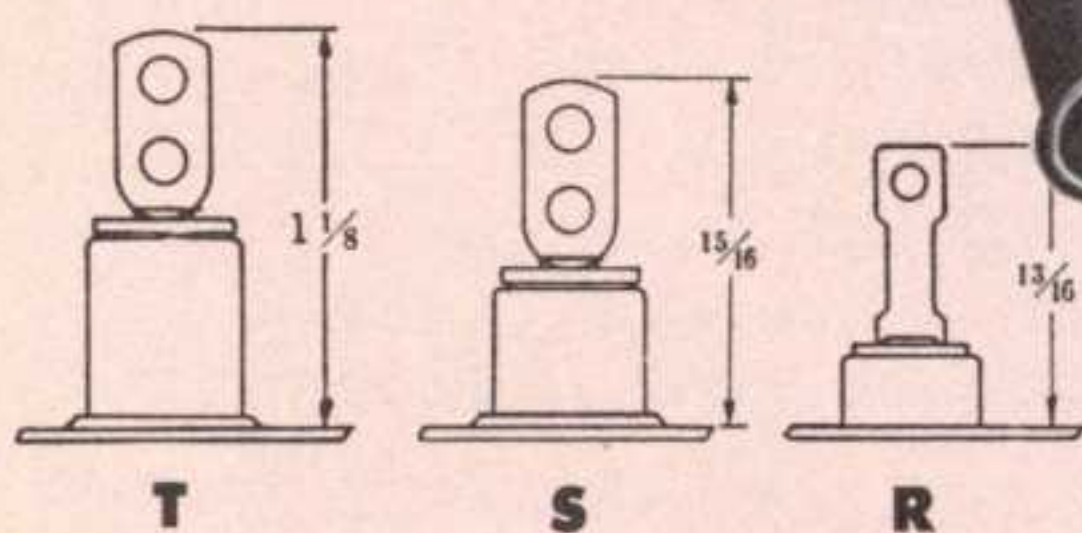
## GENERAL SPECIFICATIONS

CHICAGO Hermetically Sealed Transformers meet all requirements of Grade 1, MIL-T-27 specifications for Class A operation. As such, they fill the transformer requirements for military airborne, marine, and ground communication equipment, particularly in research and development applications, pilot runs, and pre-production models. They also fit a wide range of uses in other fields where a maximum of sealing and quality construction is required. Among such applications are various types of civilian communication equipment designed for use in tropical and sub-zero climates.

To indicate the construction characteristics of this CHICAGO transformer line, the MIL-T-27 specifications require, among other things, that transformers be:

1. Alternately heated and chilled for 20 cycles (20 days) within a temperature range of from +65°C to -10°C in 90% humidity. Also tested for 5 cycles in temperatures ranging from -55°C to +85°C.
2. Immersed in hot and cold brine at temperatures of 75°C to 0°C.
3. Subjected to severe vibration on a shake table for 20 periods of 15 minutes each.
4. Given a pull test on all terminals, from all directions, of 5 lbs. or more for 30-second intervals.
5. Tested on each winding at twice the rated a-c voltage and frequency.
6. Tested for insulation resistance in excess of 500 megohms at stated intervals throughout the heat-and-cold cycles.
7. Tested for corona discharge at voltages one-and-a-quarter times the operating voltage of the transformers.
8. Capable of operation in 65°C ambient temperature with a temperature rise not exceeding 40°C.
9. Operated for 48 hours with 12% overload at rated ambient temperature.

## TERMINAL DIMENSIONS



## CASE DIMENSIONS

Case Size	Dimensions in Inches					Stud Size
	A	C	D	H	K	
8	1 1/2	1 1/2	1 5/16	1	1	6-32
9	1 1/2	1 1/2	2 1/8	1	1	6-32
12	2 1/4	2 1/8	2 11/16	1 1/16	1 3/8	6-32
13	2 1/4	2 1/8	2 15/16	1 1/16	1 3/8	6-32
14	2 1/2	2 3/8	3 1/16	1 13/16	1 11/16	6-32
15	2 1/2	2 3/8	3 3/16	1 13/16	1 11/16	6-32
16	2 7/8	2 11/16	3 1/2	2	1 7/8	8-32
17	2 7/8	2 11/16	3 3/4	2	1 7/8	8-32
18	3 1/4	3	3 3/8	2 3/8	2 1/8	8-32
19	3 1/4	3	4 1/4	2 3/8	2 1/8	8-32
20	3 11/16	3 5/16	4 3/16	2 5/8	2 3/8	10-32
21	3 11/16	3 5/16	4 11/16	2 5/8	2 3/8	10-32
22	4 9/16	4 1/8	5 5/16	3 3/8	3	10-32
24	5 5/16	4 13/16	6 1/16	3 3/8	3	12-24

## CONSTRUCTION DETAILS

Units are mounted in seamless, drawn steel cases, as illustrated above, with one-piece steel base covers bonded in by deep-seal soldering.

Terminals are sealed and cushioned against shock by rubber gaskets, compressed and retained in place by ceramic bushings and the internal and external sections of the steel terminals themselves. This exclusive CHICAGO terminal seal is virtually impervious to mechanical shock and drastic changes in temperature. There is no cracking, for instance,

because of sudden heat transfer from soldering iron to terminal during installation of the unit.

Coil and core are varnish impregnated by a process using heat and alternating cycles of vacuum and pressure. Rigid internal mounting brackets secure the core and coil unit against any possible movement by vibration or impact.

After final assembly of the unit, special, moisture-resistant compound is forced into the case under pressure to completely fill all remaining space.



# CHICAGO

world's toughest transformers

## POWER TRANSFORMERS

FOR CAPACITOR INPUT SYSTEMS—Primary: 117 volts, 50/60 cycles

Catalog No.	High Voltage Secondary			Rectifier		Filament		No. 3		Case Size	Terminal Type	Wt. Lbs.	List Price
	A-C Volts	D-C Ma.	D-C V. Output	Volts	Amps	Volts	Amps	Volts	Amps				
PHC-10	250-0-250	10	320			6.3	0.6	6.3	1.2	14	R	1 1/4	\$23.35
PHC-20	250-0-250	20	300			6.3	0.6	6.3	1.2	15	R	1 3/4	23.90
PHC-40	225-0-225	40	210	5	2	6.3CT	2			17	R	3 1/4	19.75
PHC-55	270-0-270	55	260	5	2	6.3CT	2			17	R	3 1/2	21.65
PHC-60	300-0-300	60	285	5	2	6.3CT	3			19	R	4 1/2	22.60
PHC-70	335-0-335	70	320	5	2	6.3CT	3			19	R	4 1/2	23.45
PHC-85	330-0-330	85	320	5	2	6.3CT	3			20	R	6	25.15
PHC-105	345-0-345	105	320	5	2	6.3CT	3.5			21	R	6 1/2	27.70
PHC-120	375-0-375	120	380	5	3	6.3CT	4			21	R	9 1/2	29.30
PHC-150	370-0-370	150	390	5	3	6.3CT	4	6.3CT	1	22	R	11 1/2	36.30
PHC-200	385-0-385	200	390	5	3	6.3CT	4.5	6.3CT	1	22	R	12	38.20
PHC-250	400-80-0 -80-400	250	410	5	6	6.3CT	7	5	2	24	R	15	45.60

FOR REACTOR INPUT SYSTEMS—Primary: 117 volts, 50/60 cycles

PHR-55	350-0-350	55	260	5	2	6.3CT	2			17	R	3 1/4	\$21.65
PHR-70	425-0-425	70	320	5	2	6.3CT	3			19	R	4 1/2	23.45
PHR-85	440-0-440	85	325	5	2	6.3CT	3			20	R	6	25.15
PHR-105	450-0-450	105	320	5	2	6.3CT	3.5			21	R	6 1/2	27.70
PHR-120	500-0-500	120	390	5	3	6.3CT	4			21	R	9 1/2	29.30
PHR-150	510-0-510	150	395	5	3	6.3CT	4	6.3CT	1	22	R	11 1/2	36.30
PHR-200	520-0-520	200	390	5	3	6.3CT	4.5	6.3CT	1	22	R	12 1/4	38.20
PHR-300	550-370-75-0 -75-370-550	300	420	5	6	6.3CT	5	6.3CT	1	24	R	17 1/2	52.15

FOR REGULATED POWER SUPPLIES—Primary: 117 volts, 50/60 cycles

PHC-165	440-0-440	165	430	5	3	6.3 6.3	7.5 0.6	6.3 6.3	3 3	22	R	12	\$45.90
PHC-200A	450-0-450	200	442	5	2	6.3 6.3	4 4	6.3	0.6	22	R	12	42.95

## BIAS TRANSFORMERS—COMBINATION PLATE AND FILAMENT SUPPLY

Primaries: 115 volts, 50/60 cycles; 230 volts, 50/60 cycles

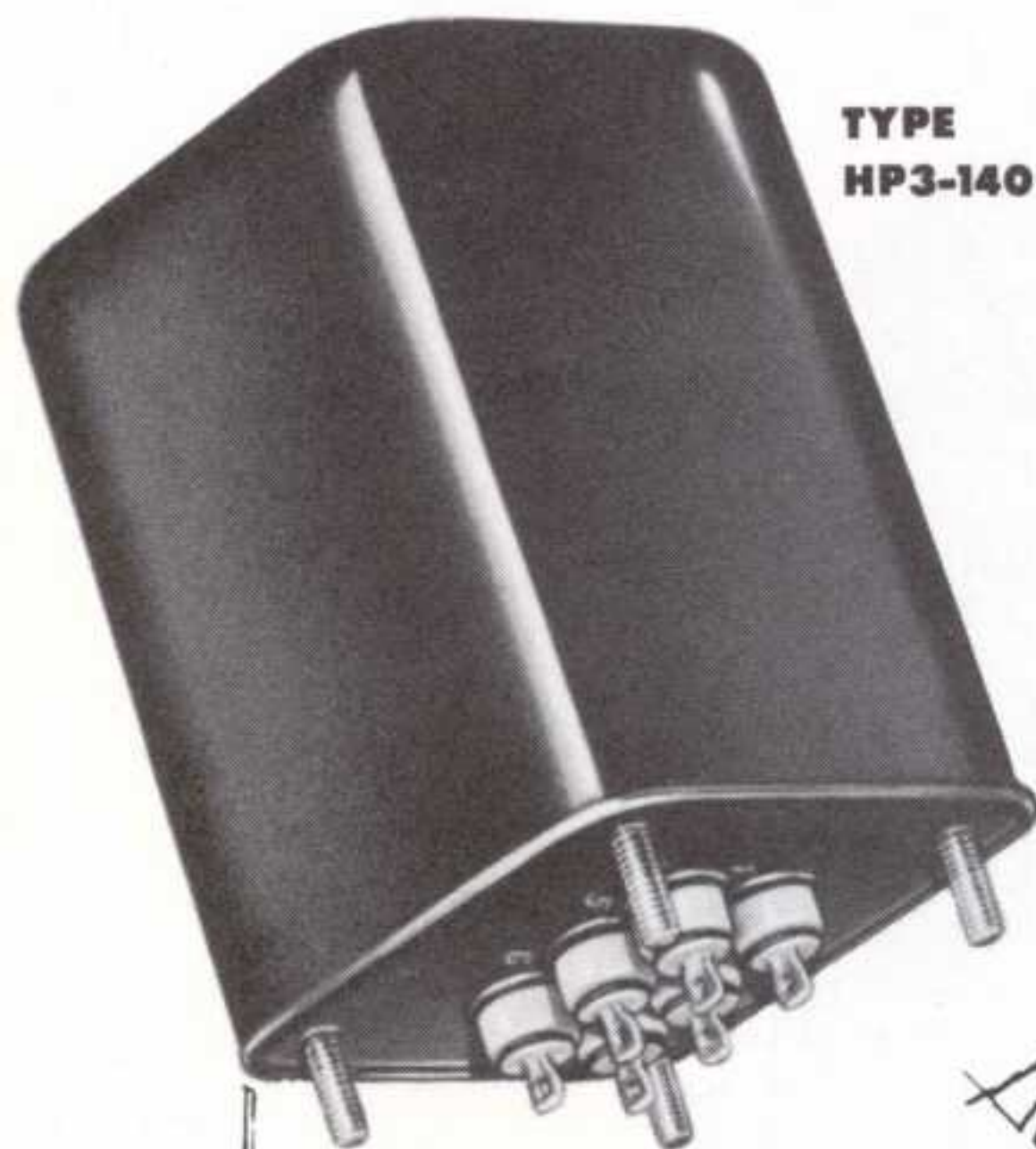
Catalog No.	Primary Volts	High Voltage Secondary		Rectifier Volts	Filament Amps	Case Size	Terminal Type	Wt. Lbs.	List Price
		A-C Volts	D-C Ma.						
1BH-150	115	180-160-140-120-0 -120-140-160-180	150	5.0	3.0	19	R	5	\$26.80
2BH-150	230	180-160-140-120-0 -120-140-160-180	150	5.0	3.0	19	R	5	26.25



# CHICAGO world's toughest transformers

**MIL-T-27 HERMETICALLY-SEALED  
TRANSFORMERS AND REACTORS**

**a**



**TYPE  
HP3-140**

## STEP-DOWN TRANSFORMER

### THREE-PHASE 400 CYCLES

No. HP3-140 is a 3-phase, 400-cycle step-down transformer, Y-Y connected, designed primarily for use in aircraft. It is identical to CHICAGO Specification No. 9926A in size and construction, but is rated at 140 va. instead of 88 va. Primary is 115 volts per phase, 3-phase, 400 cycles.

Catalog No.	Volts	Secondary Va. Cap.	Case Size	Terminal Type	Weight Lbs.	List Price
HP3-140	28.5	140	17	R	3	\$43.50

## FILAMENT TRANSFORMERS

**Primary: 115/230 volts,  
50/60 cycles**

Ratings of CHICAGO filament transformers provide voltages and currents for heating a wide range of receiving and transmitting tubes. Catalog Nos. FH-210, FH-210H, FH-215H, FH-510H, and FH-520HB are specially designed for high voltage rectifier supplies.

Catalog No.	Secondary Volts	Amps	Insulation Test Volts RMS	Case Size	Terminal Type	Wt. Lbs.	List Price
FH-25	2.5 CT	5.25	3500	15	S*	2	\$15.45
FH-210	2.5 CT	10.	5000	15	S*	3	22.15
FH-210H	2.5 CT	10.	9000	19	T*	4	25.75
FH-215H	2.5 CT	15.	9000	21	T*	5 1/4	30.95
FH-54	5.0 CT	4.	2500	15	R	2 1/4	16.10
FH-58	5.0 CT	10.	2500	17	R	3 1/2	22.15
FH-510H	5.0 CT	10.	8000	21	T*	6	33.00
FH-516	5.0 CT	20.	2500	21	S*	6 1/2	32.00
FH-520HB	5.0 CT	20.	10000	22	†T*	13	41.25
FH-530	5.0 CT	30.	2500	22	S*	10 1/2	41.25
FH-615	6.3 CT	1.5	2500	12	R	1	9.05
FH-63	6.3 CT	3.	2500	14	R	2	12.85
FH-65	6.3 CT	5.5	2500	16	R	3	18.55
FH-610	6.3 CT	10.	2500	19	R	5	26.25
FH-104	10.0 CT	4.	2500	17	R	3 1/4	19.05
FH-106	10.0 CT	6.5	2500	19	R	5	26.25
FH-1010	10.0 CT	10.	2500	21	R	6 1/2	30.95
FH-1110	11.0 CT	10.	2500	21	R	9 1/2	32.95

\*Terminal type indicated is for secondary; primary has R-type terminals.  
†Has 1 1/8-inch terminals.

## FILTER REACTORS

The design of CHICAGO New Equipment filter reactors provides maximum inductance for given current rating in the smallest possible size of unit. Their mountings and current ratings match with those of the power transformers, page 5.

Catalog No.	Inductance Henries	Max. D-C Current, Ma.	D-C Resistance in Ohms	Insulation Test Volts RMS	Case Size	Terminal Type	Wt. Lbs.	List Price
RH-1510	15	10	680	1000	8	R	1	\$ 9.75
RH-1520	15	20	680	1000	8	R	1	10.30
RH-1540	15	40	475	2500	12	R	1 1/2	10.40
RH-1055	10	55	230	2500	13	R	1 3/4	10.75
RH-1555	15	55	420	2500	13	R	2	10.75
RH-1085	10	85	175	2500	14	R	2 1/2	11.40
RH-1585	15	85	285	2500	14	R	2 3/4	11.40
RH-8105	8	105	100	2500	17	R	3 3/4	13.35
RH-12105	12	105	170	2500	17	R	4	13.35
RH-8150	8	150	100	2500	18	R	5 1/4	15.30
RH-12150	12	150	150	2500	19	R	5 1/2	15.30
RH-8200	8	200	85	2500	20	R	7	18.00
RH-12200	12	200	140	2500	20	R	7	18.00
RH-8250	8	250	90	2500	22	R	10 1/2	21.70
RH-8300	8	300	55	3500	22	R	12 1/2	25.85

**TYPE FH**

**TYPE RH**



# CHICAGO

## world's toughest transformers

### MIL-T-27 FULL FREQUENCY RANGE AUDIO TRANSFORMERS

Frequency response of these input and output transformers is characteristically within  $\pm .5$  db over the full range of 30 to 15,000 cycles. In performance and in coil construction, they are identical to the transformers listed on pages 13 and 14 of this catalog. For instance, Nos. BIH-1, BIH-4, and BIH-5 are electrically the same as input transformers Nos. BI-1, BI-4, and BI-5 respectively, for which frequency response curves are shown on page 13.

Similarly, the frequency response of the BOH output transformers below is the same as for the corresponding BO units, representative curves for which are shown on page 15.

The transformers in this series meet all requirements of Grade 1, MIL-T-27 specifications for Class A operation. For details of construction and dimensions, refer to the specifications given on page 4.

### INPUT TRANSFORMERS—Frequency Response, 30 to 15,000 cycles

Catalog No.	Application	Impedance Primary—Secondary	Operating Level§	Hum Reduction	Case Size	Terminal Type	Wt. Lbs.	List Price
BIH-1	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	\$45.40
BIH-2	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	-90 dbm.	13	R	1½	59.85
BIH-3	Line bridging to Push-Pull Grids	*Pri: 8000/6000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	47.45
BIH-4	Line to Line	Pri: 600/150 ohms CT Sec: 600/150 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	43.35
BIH-5	Line to Line	*Pri: 600/150 ohms CT *Sec: 600/150 ohms CT	+30 dbm.	-90 dbm.	18	R	3¼	61.95
BIH-6	Interstage—P-P Pl. to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	45.40
BIH-7	Low imped. mike, pickup, or multiple line to grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	47.45
BIH-8	Single Plate to Push-Pull Grids	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	13	R	1½	45.40
BIH-9	Single Plate to Push-Pull Grids**	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	-70 dbm.	18	R	3¼	53.70

### OUTPUT TRANSFORMERS—Frequency Response, 30 to 15,000 cycles

Catalog No.	Application	Impedance Primary—Secondary	Operating Level§	Output Tubes	Case Size	Terminal Type	Wt. Lbs.	List Price
BOH-1	Single Plate to Line	†Pri: 15,000 ohms *Sec: 600/150 ohms CT	+15 dbm.	6C4's or equiv.	14	R	2¼	\$26.80
BOH-2	Push-Pull Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm.	6C5's or equiv.	16	R	3	39.20
BOH-3	Push-Pull Plates to Line	Pri: 5,000 ohms CT *Sec: 600/150 ohms CT	+40 dbm.	6B4G's or equiv.	20	R	5¾	35.10
BOH-4	Push-Pull Plates to Line	Pri: 7,500 ohms CT *Sec: 600/150 ohms CT‡	+43 dbm.	6L6's or equiv.	20	R	6	37.10
BOH-5	P-P Plates to Line or Voice Coil	*Pri: 10,000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+37 dbm.	6V6's or equiv.	18	R	4	49.50
BOH-6	Push-Pull Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms †	+43 dbm.	6L6's or equiv.	20	R	6	47.45
BOH-7	Line to Voice Coil	*Pri: 600 CT/150 ohms Sec: 8/20 ohms	+45 dbm.		20	R	6½	45.40
BOH-8	P-P Parallel Pl. to Line or Voice Coil	Pri: 1500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+45 dbm.	6B4G's or equiv.	21	R	6½	61.95
BOH-9	P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm.	6B4G's or equiv.	20	R	6	45.40
BOH-10	P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm.	6C5's or equiv.	13	R	1½	43.35

\*Split and balanced windings. \*\*Has D-C in primary; frequency response  $\pm 2$ db, 30—15,000 cycles.  
†0 to 10 ma. D-C. §0 dbm. reference level=1 milliwatt. ‡Has tertiary winding for 15% inverse feedback.





# CHICAGO

world's toughest transformers

## MIL-T-27 PUBLIC ADDRESS RANGE AUDIO TRANSFORMERS

Transformers in this CHICAGO series are electrically the same as those listed on page 16, but are hermetically sealed to meet MIL-T-27 specifications as described on page 4. Their frequency response is within  $\pm .5$  db over a frequency range

of 50 to 10,000 cycles. Response curves for the three PHO output transformers are identical to those for units with corresponding PSO numbers shown on page 16. Widely used in military communication and test equipment.

### DRIVER TRANSFORMERS

Catalog No.	Typical Driver Tubes	Primary Impedance	Max. D-C In Pri.	Ratio Pri./ $\frac{1}{2}$ Sec.	Case Size	Terminal Type	Wt. Lbs.	List Price
PHD-10	P-P 6N7's, 6A6's, 6J5's, 6C4's, etc.	20,000 ohms CT	10 ma.	3:1	14	R	2 $\frac{1}{4}$	\$15.00
PHD-25	P-P 6N7's, 6A6's, 6J5's, 6C4's, etc.	20,000 ohms CT	25 ma.	3:1	15	R	2 $\frac{1}{4}$	14.45
PHD-100	P-P 6B4G's, 45's, 2A3's, 6L6's, etc.	5,000/10,000 ohms CT	100 ma.	5:1	18	R	4 $\frac{1}{2}$	24.75

### OUTPUT TRANSFORMERS

Catalog No.	Typical Output Tubes	Class	Impedances Primary-Secondary	Max. D-C in Pri.	Power Level	Case Size	Terminal Type	Wt. Lbs.	List Price
PHO-80	P-P 6B4G's, 6L6's P-P 6V6's, 6L6's	A <sup>1</sup> AB	Pri: 5,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	120 ma.	20 watts	20	R	6 $\frac{1}{2}$	\$30.95
PHO-150	P-P 6V6's, 6F6's P-P 6K6's	AB AB <sup>1</sup>	Pri: 10,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	200 ma.	15 watts	19	R	5	27.85
PHO-200	P-P 6L6's P-P Parallel 6V6's	B AB <sup>2</sup> †	Pri: 6,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	250 ma.	30 watts	22	R	9	34.60

\*Has tertiary winding to provide 10% inverse feedback. †For low distortion, use fixed bias.

## MIL-T-27 COMMUNICATIONS RANGE AUDIO TRANSFORMERS

The frequency response of these input, driver, and output transformers is within  $\pm 1$  db over range of 200 to 3500 cycles, which makes them well adapted to equipment designed for unattenuated speech reproduction. Units are

hermetically sealed to meet Grade 1, MIL-T-27 specifications for Class A operation, as described under General Specifications and Details of Construction, page 4. Built to withstand high humidity, severe shock, or corrosive action.

### INPUT TRANSFORMERS

Catalog No.	Application	Impedances Primary-Secondary	Case Size	Terminal Type	Wt. Lbs.	List Price
CIH-1	Low Level Line to Single or P-P Grids	Pri: 600/150 ohms *Sec: 100,000 ohms CT	9	R	$\frac{3}{4}$	\$21.65
CIH-2	Low Level SB or DB Microphone to Sgl. or P-P Grids	Pri: 125/50 ohms, 80 ma. Sec: 125,000 ohms CT *Split and balanced windings.	12	R	$\frac{3}{4}$	12.35

### DRIVER TRANSFORMER

Catalog No.	Application	Primary Impedance	Max. D-C in Pri.	Ratio Pri./ $\frac{1}{2}$ Sec.	Case Size	Terminal Type	Wt. Lbs.	List Price
CDH-1	P-P 2A3's, 6B4G's etc. to P-P Grids	5,000 ohms CT	100 ma.	3:1	17	R	3 $\frac{1}{2}$	\$17.00

### OUTPUT TRANSFORMERS Single Plate to Line or Voice Coil

Catalog No.	Typical Output Tubes	Class	Impedances Primary-Secondary	Max. D-C in Pri.	Power Level	Case Size	Terminal Type	Wt. Lbs.	List Price
COH-1	Sgl. 6L6, 6V6, 25A6, etc.	A	Pri: 5,000 ohms Sec: 600/150/ 16/8/4 ohms	55 ma.	5 watts	14	R	2 $\frac{1}{4}$	\$15.45
COH-2	Sgl. 6F6, 6V6, 6N6, 6K6, 7B5	A	Pri: 8,000 ohms Sec: 600/150/ 16/8/4 ohms	55 ma.	5 watts	14	R	2 $\frac{1}{4}$	16.00



# CHICAGO world's toughest transformers

## the facts about



## "NEW EQUIPMENT" TRANSFORMERS

The CHICAGO transformers and filter reactors in this section are designed primarily for use in new equipment—power supplies, amplifiers, transmitters, receivers, test equipment and other electronic gear—either in the process of development or built within recent years.

Maximum adaptability to up-to-date applications is the goal of CHICAGO's design engineers in the "New Equipment" line, with no compromise made between old and new type circuit requirements. The results of this policy are reflected in these characteristics:

Power and audio ratings that precisely fit the requirements of today's most-used tubes;

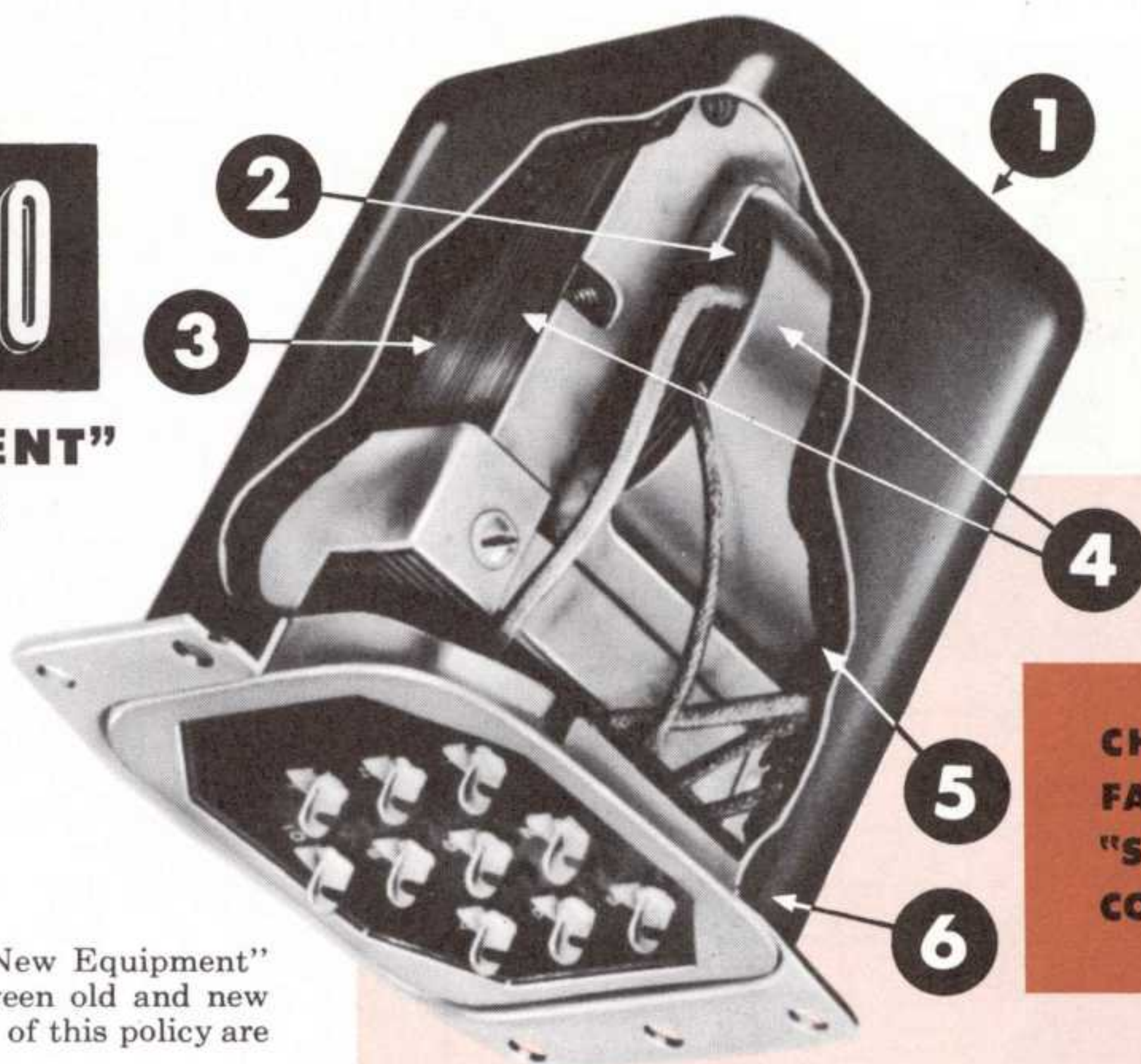
Audio transformers with line and voice coil impedances that exactly match the ratings of the currently popular high-fidelity speakers;

Observance of RMA standards for heat rise and lead color coding;

Streamlined, drawn steel cases that look well with other modern set components, and add to the handsome appearance of any equipment.

Throughout this section, the ratings are conservative. CHICAGO "New Equipment" transformers and reactors will operate exactly as rated. This means that the coil windings are fully wound and amply insulated, and that cores are of sufficient size and thickness to insure that the units will operate up to their full ratings efficiently and with allowances for intermittent overloading.

The forward-looking policies governing the design of these transformers have been developed to result in real value, outstanding performance and satisfaction to you, the user.



## CHICAGO'S FAMOUS "SEALED-IN-STEEL" CONSTRUCTION

- 1 Exclusive one-piece drawn-steel case, unsurpassed for strength, moisture-resistance, better electrostatic and magnetic shielding, mounting ease and streamlined appearance.
- 2 Uniformly-wound precise coil structures—cooler operation and better electrostatic shielding in power units—minimum leakage, optimum coupling in audio units.
- 3 Core of high-grade non-aging silicon steel brought to high efficiency by scientific heat-treating in CHICAGO's own annealing ovens.
- 4 Core and coil vacuum-impregnated with varnish. Final high-temperature baking achieves a perfectly impregnated coil and core locked against vibration.
- 5 All internal free space is filled by special, moisture-resistant compound. Prevents corrosion and helps maintain far cooler operation than in conventional air-surrounded mountings.
- 6 Checked by quality controls at every stage of manufacture, rigidly inspected, "torture-chamber" tested to insure long, dependable life in actual service.

## AVAILABLE IN THREE VERSATILE CONSTRUCTIONS



**S-TYPE**

Steel base cover fitted with phenolic terminal board. Convenient numbered solder lug terminals. Flange-mounted unit.



**C-TYPE**

With 10" color-coded leads brought out through fibre board base cover. Lead ends stripped and tinned. Flanged-mounted unit.



**B-TYPE**

Steel base cover soldered into case. Phenolic terminal board with solid steel pin-type terminals. Unit has mounting studs.

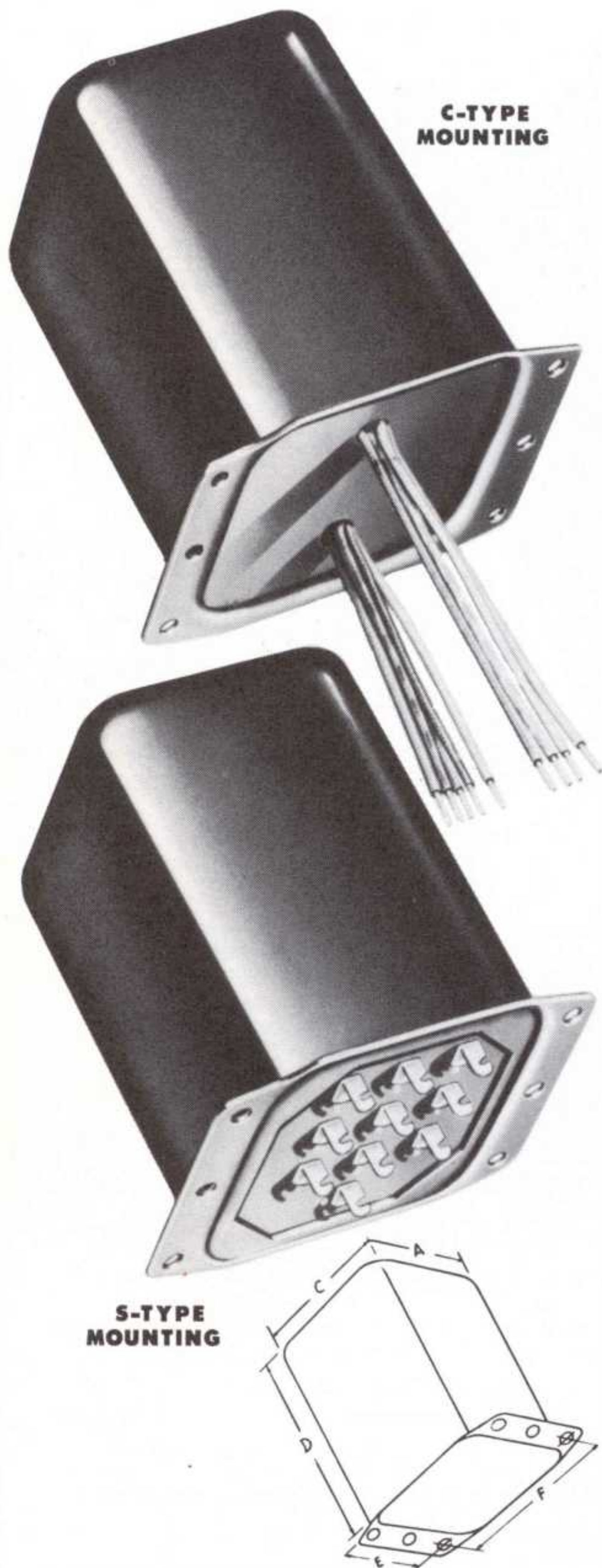


# CHICAGO

## world's toughest transformers

### NEW EQUIPMENT TRANSFORMERS AND REACTORS

b



**C-TYPE  
MOUNTING**

**S-TYPE  
MOUNTING**

**C-AND S-TYPE DIMENSIONS**

Case Size	Dimensions in Inches					
	A	B	C	D	E	F
12	2 1/4	2 11/16	2 1/8	2 11/16	1 1/2	2 3/8
13	2 1/4	2 11/16	2 1/8	2 15/16	1 1/2	2 3/8
14	2 1/2	3	2 3/8	3 1/16	1 3/4	2 11/16
15	2 1/2	3	2 3/8	3 5/16	1 3/4	2 11/16
16	2 3/8	3 1/2	2 11/16	3 1/2	2	3 1/8
17	2 3/8	3 1/2	2 11/16	3 3/4	2	3 1/8
18	3 1/4	4	3	3 7/8	2 1/4	3 1/2
19	3 1/4	4	3	4 1/4	2 1/4	3 1/2
20	3 11/16	4 7/16	3 5/16	4 5/16	2 3/4	3 3/8
21	3 11/16	4 7/16	3 5/16	4 11/16	2 3/4	3 3/8
22	4 3/16	5 1/4	4 1/8	5 5/16	2 1/2	4 3/4
24	5 5/16	5 7/8	4 13/16	6 1/16	3 1/2	5 3/8

### POWER TRANSFORMERS—Primary: 117 volts, 50/60 cycles

The power transformers in the CHICAGO New Equipment line are designed to provide plate and filament supply for from two to sixteen of the tubes most used in up-to-date circuits. They are conservatively rated and will deliver full load at 60 cycles with a temperature rise not exceeding 50° C—well below the RMA recommended standard. Because of

their *Sealed-in-Steel* construction, they have excellent protection against corrosion by atmospheric moisture, industrial fumes, etc., and, in addition, add greatly to the finished, modern appearance of any equipment. Current ratings of these power transformers and their mountings are perfectly matched in the series of filter reactors, opposite page.

#### FOR CAPACITOR INPUT SYSTEMS

Catalog No.	A-C Volts	High Voltage Secondary				Filaments				Mounting Type	Size	Wt. Lbs.	List Price
		D-C Ma.	D-C V. Output	Rectifier Volts	Amps	No. 2 Volts	Amps	No. 3 Volts	Amps				
PCC-40										C	16		\$ 6.50
PSC-40	225-0-225	40	210	5	2	6.3CT	2			S	17	3 1/4	9.20
PCC-55										C	16		7.05
PSC-55	270-0-270	55	260	5	2	6.3CT	2			S	17	3 1/2	10.85
PCC-60										C	18		8.10
PSC-60	300-0-300	60	285	5	2	6.3CT	3			S	19	4 1/2	11.40
PCC-70										C	18		8.65
PSC-70	335-0-335	70	320	5	2	6.3CT	3			S	19	4 1/2	12.45
PCC-85										C	20		10.00
PSC-85	330-0-330	85	320	5	2	6.3CT	3			S	20	6	14.35
PCC-105										C	20		10.85
PSC-105	345-0-345	105	320	5	2	6.3CT	3.5			S	21	6 1/2	15.20
PCC-120										C	22		12.20
PSC-120	375-0-375	120	380	5	3	6.3CT	4			S	22	9 1/2	16.00
PCC-150										C	22		16.30
PSC-150	370-0-370	150	390	5	3	6.3CT	4	6.3CT	1	S	22	11 1/2	21.15
PCC-200										C	22		17.60
PSC-200	385-0-385	200	390	5	3	6.3CT	4.5	6.3CT	1	S	22	12	22.50
PCC-250	400-80-0									C	24		21.70
PSC-250	-80-400	250	410	5	6	6.3CT	7	5.0	2	S	24	15	26.05
PCC-300										C	24		33.50
PSC-300	625-0-625	300	685	5	3	6.3CT	8	6.3	3	S	24	21	39.85

#### FOR REACTOR INPUT SYSTEMS

Catalog No.	A-C Volts	D-C Ma.	D-C V. Output	Rectifier Volts	Amps	No. 2 Volts	Amps	No. 3 Volts	Amps	Mounting Type	Size	Wt. Lbs.	List Price
PCR-55										C	16		\$ 7.85
PSR-55	350-0-350	55	260	5	2	6.3CT	2			S	17	3 1/4	11.10
PCR-70										C	18		8.90
PSR-70	425-0-425	70	320	5	2	6.3CT	3			S	19	4 1/2	12.70
PCR-85										C	20		10.30
PSR-85	440-0-440	85	325	5	2	6.3CT	3			S	20	6	14.65
PCR-105										C	20		11.10
PSR-105	450-0-450	105	320	5	2	6.3CT	3.5			S	21	6 1/2	15.45
PCR-120										C	22		12.45
PSR-120	500-0-500	120	390	5	3	6.3CT	4			S	22	9 1/2	16.30
PCR-150										C	22		16.50
PSR-150	510-0-510	150	395	5	3	6.3CT	4	6.3CT	1	S	22	11 1/2	21.40
PCR-200										C	22		17.90
PSR-200	520-0-520	200	390	5	3	6.3CT	4.5	6.3CT	1	S	22	12 1/4	22.80
PCR-300	550-370-75-0									C	24		25.50
PSR-300	-75-370-550	300	420	5	6	6.3CT	5	6.3CT	1	S	24	17 1/2	32.60
*PCR-300A										C	24		25.85
*PSR-300A	480-0-480	300	380	5	6	6.3CT	10			S	24	19	33.00

\*Primary 115/230 volts, 50/60 cycles.

#### FOR REGULATED POWER SUPPLIES—CAPACITOR INPUT

Catalog No.	A-C Volts	D-C Ma.	D-C V. Output	Rectifier Volts	Amps	No. 2 Volts	Amps	No. 3 Volts	Amps	Mounting Type	Size	Wt. Lbs.	List Price
PSC-165	440-0-440	165	430	5	3	6.3	7.5	6.3	3				
						6.3	0.6	6.3	3	S	22	12	\$30.60
PSC-205	450-0-450	200	442	5	2	6.3	4	6.3	0.6	S	22	12	29.00
						6.3	4						

### BIAS TRANSFORMERS—Primary: 50/60 cycles

#### COMBINATION PLATE AND FILAMENT SUPPLY

Catalog No.	Primary Volts	High Voltage Secondary A-C Volts	Rectifier D-C Ma.	Filament Volts	Amps	Mounting Type	Size	Wt., Lbs.	List Price
1BC-150		180-160-140-120-0				C	18		\$ 8.90
1BS-150	115	120-140-160-180	150	5.0	3.0	S	19	5	14.10
2BC-150		180-160-140-120-0				C	18		8.65
2BS-150	230	120-140-160-180	150	5.0	3.0	S	19	5	13.80



# CHICAGO

## world's toughest transformers

NEW EQUIPMENT  
TRANSFORMERS AND REACTORS

b

### FILAMENT TRANSFORMERS—Pri: 115/230 v., 50/60 cy.

Ratings of CHICAGO filament transformers provide voltages and currents for heating a wide range of receiving and transmitting tubes. Units with secondaries rated for less than 6 amps have solder-lug terminals, as shown in the S-Type Mounting illustration on opposite page; those with second-

aries rated at more than 6 amps have screw-type terminals. Filament transformers Nos. F-210, F-210H, F-215H, F-510H, and F-520HB are specially for high voltage rectifier supply. They have secondary terminals insulated with ceramic bushings of the S or T types as shown on page 4.

Catalog No.	Secondary Volts	Amps.	Insulation Volts RMS	Mounting Type	Size	Wt. Lbs.	List Price
F-25	2.5 CT	5.25	3500	S	14	2	\$ 8.10
F-210	2.5 CT	10.	5000	S	17	3	11.65
F-210H	2.5 CT	10.	9000	S	19	4	13.55
F-215H	2.5 CT	15.	9000	S	20	6	16.30
F-54	5.0 CT	4.0	2500	S	15	2 1/4	8.35
F-58	5.0 CT	10.	2500	S	17	3 1/2	11.65
F-510H	5.0 CT	10.	10000	S	21	6	17.35
F-516	5.0 CT	20.	2500	S	21	6 1/2	16.80
F-520HB	5.0 CT	20.	10000	S	22	13	21.70
F-530	5.0 CT	30.	2500	S	22	10 1/2	21.70
F-615	6.3 CT	1.5	2500	S	12	1	4.75
F-63	6.3 CT	3	2500	S	14	2	6.75
F-65	6.3 CT	5.5	2500	S	17	3	9.75
F-610	6.3 CT	10.	2500	S	19	5	13.80
F-75	7.5 CT	5.0	2500	S	17	3 1/4	9.45
F-712	7.5 CT	12.	2500	S	21	6 1/2	16.30
F-725	7.5 CT	25.	2500	S	22	12	21.75
F-104	10 CT	4.0	2500	S	17	3 1/4	10.00
F-106	10 CT	6.5	2500	S	19	5	13.80
F-1010	10 CT	10.	2500	S	21	6 1/2	16.25
F-1110	11 CT	10.	2500	S	22	9 1/2	17.35

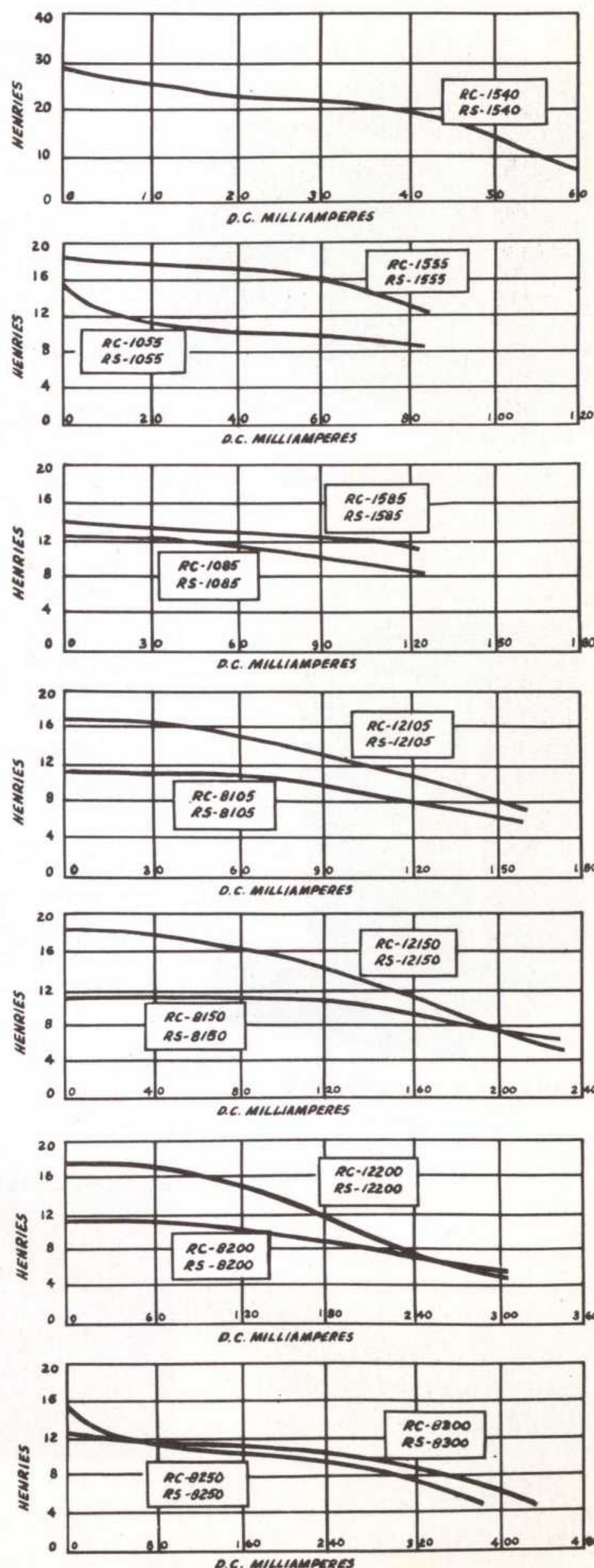
### FILTER REACTORS

The design of CHICAGO New Equipment filter reactors provides maximum inductance for given current rating in the smallest possible size of unit. Their mountings and current ratings match with those of the power transformers on opposite page.

Catalog No.	Inductance, Henries	Max. D-C Current, Ma.	D-C Resistance in Ohms	Insulation Test Volts RMS	Mounting Type	Size	Wt. Lbs.	List Price
RC-1540	15	40	475	2500	C	12	1 1/2	\$ 3.25
RS-1540	15	40	475	2500	S	12	1 1/2	4.55
RC-1055	10	55	230	2500	C	12	1 3/4	3.80
RS-1055	10	55	230	2500	S	13	1 3/4	5.10
RC-1555	15	55	420	2500	C	12	2	4.00
RS-1555	15	55	420	2500	S	13	2	5.40
RC-1085	10	85	175	2500	C	14	2 1/2	4.55
RS-1085	10	85	175	2500	S	15	2 1/2	6.20
RC-1585	15	85	285	2500	C	14	2 3/4	4.85
RS-1585	15	85	285	2500	S	15	2 3/4	6.50
RC-8105	8	105	100	2500	C	16	3 3/4	5.40
RS-8105	8	105	100	2500	S	17	3 3/4	6.75
RC-12105	12	105	170	2500	C	16	4	5.65
RS-12105	12	105	170	2500	S	17	4	7.05
RC-8150	8	150	100	2500	C	18	5 1/4	7.60
RS-8150	8	150	100	2500	S	19	5 1/4	9.20
RC-12150	12	150	150	2500	C	18	5 1/2	7.85
RS-12150	12	150	150	2500	S	19	5 1/2	9.45
RC-8200	8	200	85	2500	C	20	7	9.20
RS-8200	8	200	85	2500	S	21	7	10.85
RC-12200	12	200	140	2500	C	20	7	9.45
RS-12200	12	200	140	2500	S	21	7	11.10
RC-8250	8	250	90	2500	C	22	10 1/2	11.95
RS-8250	8	250	90	2500	S	22	10 1/2	13.55
RC-8300	8	300	55	2500	C	22	12 1/2	14.65
RS-8300	8	300	55	2500	S	22	12 1/2	16.80

### FILTER REACTOR CURVES

Actual inductance values of CHICAGO Filter Reactors when operated throughout the specified current range. All measurements made at 10 volts, 60 cycles.





# CHICAGO

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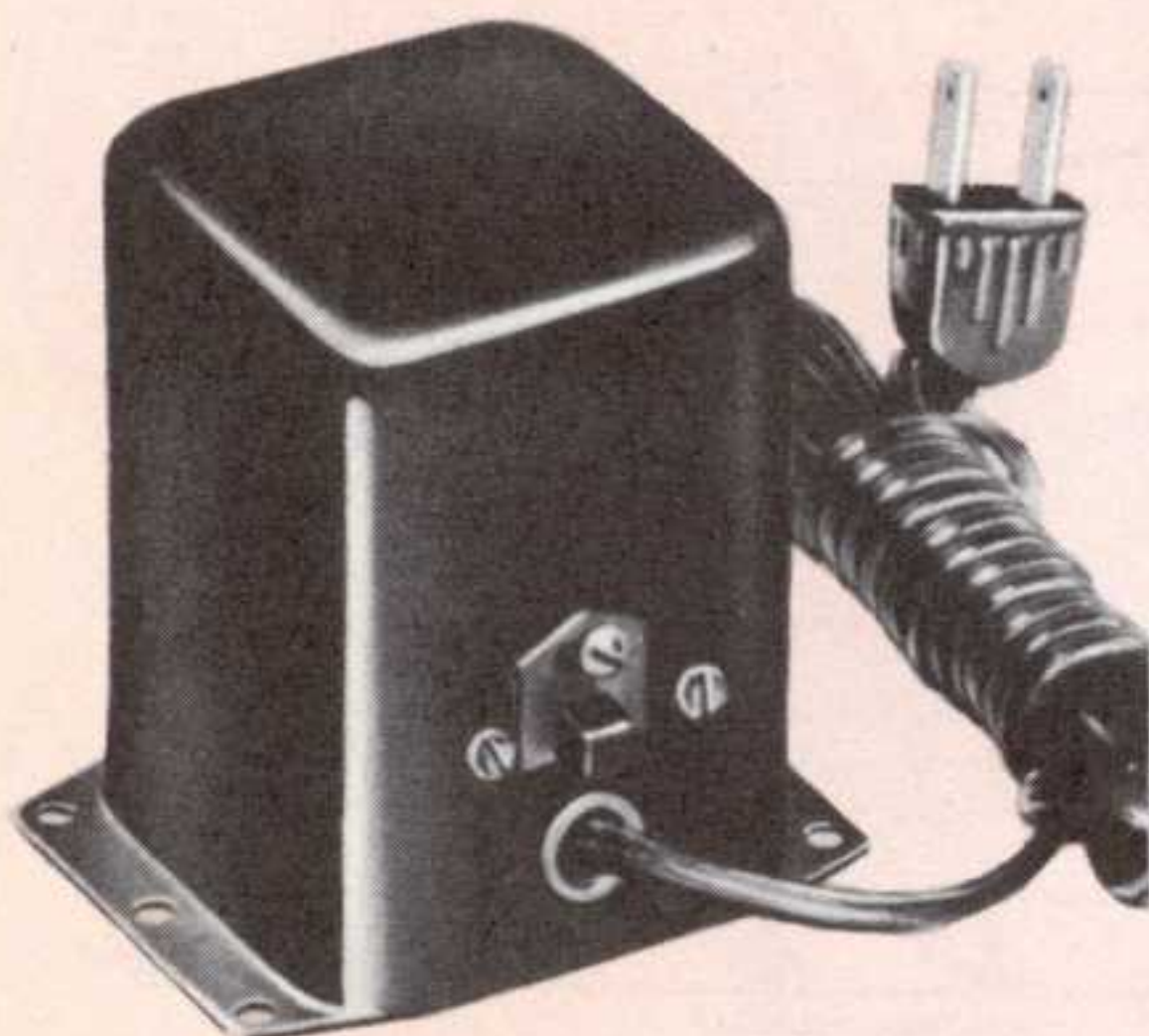
NEW EQUIPMENT  
TRANSFORMERS AND REACTORS

b

### STEP-DOWN TRANSFORMERS—Primary: 50/60 cycles

CHICAGO step-down autotransformers solve the problem of operating standard 117-volt radios, amplifiers, and various electrical appliances from 220-volt power sources. They are particularly well adapted to use in Central and South American countries, where

220-volt lines are frequently found, and where the *Sealed-in-Steel* construction protects them against corrosion caused by excessive humidity. Input side is equipped with 8-foot, rubber-covered cord and plug. Output side has standard female receptacle.



STEP-DOWN TRANSFORMER

Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	List Price
SD-50	220-250	110-125	50 watts	16	2 3/4	\$8.90
SD-100	220-250	110-125	100 watts	20	4 1/4	11.10
SD-150	220-250	110-125	150 watts	22	7	13.00
SD-250	220-250	110-125	250 watts	22	8 3/4	16.30
SD-500	220-250	110-125	500 watts	24	14 1/2	21.70
SD-1000	220-250	110-125	1000 watts	26	22 1/2	43.45

### ISOLATION TRANSFORMERS—Primary: 50/60 cycles

A sliding switch on each CHICAGO isolation transformer adjusts to either of three primary voltages, 125/115/105 volts. With the unit operating on a 115-volt line, the three switch positions also provide varying secondary voltages, 105/115/125 volts isolated from line. Two different general applications follow:

**For faster, safer, easier servicing,** these transformers, by isolating chassis ground from line ground, eliminate the hazard of shocks from AC-DC radio and television sets. An electrostatic shield between windings provides true isolation and minimum leakage. When operated on a 115-volt line, the available 125 volts on the secondary helps show up faulty tubes, by overloading, while the 105 volts output is useful for

checking oscillator performance.

Extra tip: The life of soldering irons is prolonged when plugged into a CHICAGO isolation transformer with switch set for low output voltage. For jobs requiring quick extra heat, flip the switch to over-line voltage.

**For safe, efficient set operation where line volts run high or low,** CHICAGO isolation transformers solve two frequent problems (1) How to provide normal power where rural line volts run high or low, and (2) how to remove the dangers of floating ground potentials. The isolated secondaries and three primary switch settings are ideal for this application.

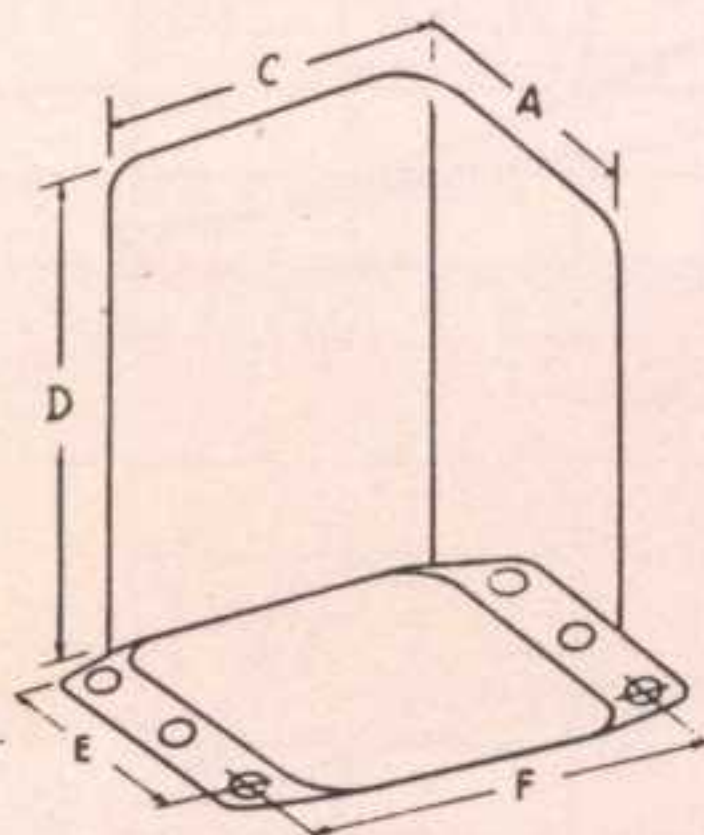
Eight-foot, rubber-covered cord and plug on primary, standard female receptacle on secondary.



ISOLATION TRANSFORMER

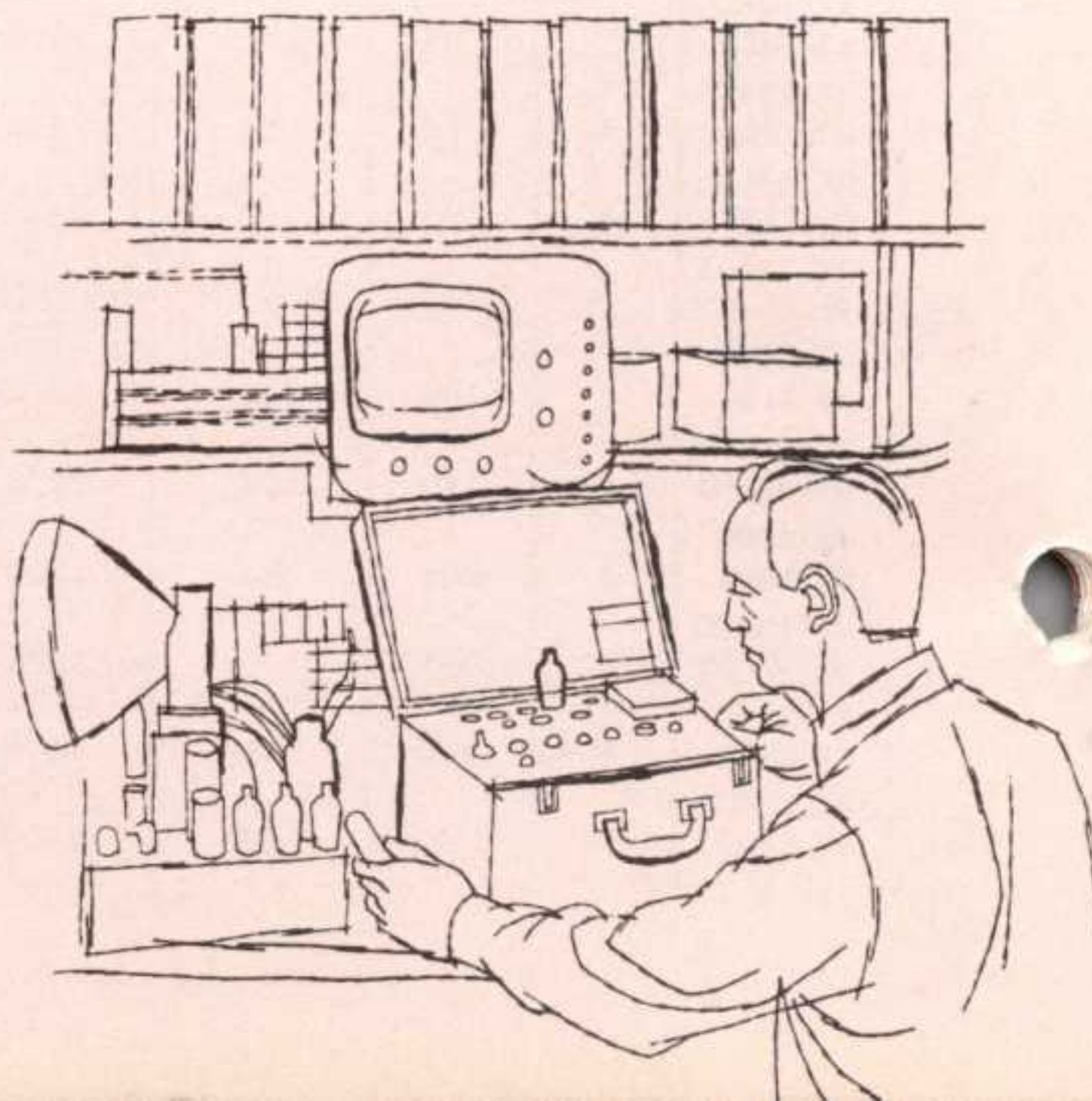
Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	List Price
IS-50	105/115/125	125/115/105*	50 watts	21	5	\$9.75
IS-100	105/115/125	125/115/105*	100 watts	22	8 1/2	15.20
IS-150	105/115/125	125/115/105*	150 watts	24	12 1/2	22.80
IS-250	105/115/125	125/115/105*	250 watts	24	18 1/4	38.00

\* With 115-volt primary.



### DIMENSIONS FOR STEP-DOWN AND ISOLATION TRANSFORMERS

Case Size	Dimensions in Inches					
	A	B	C	D	E	F
16	2 7/8	3 1/2	2 11/16	3 1/2	2	3 1/8
20	3 11/16	4 7/16	3 3/16	4 3/16	2 3/4	3 3/8
21	3 11/16	4 7/16	3 3/16	4 11/16	2 3/4	3 3/8
22	4 9/16	5 1/4	4 1/8	5 5/16	2 1/2	4 3/4
24	5 3/16	5 7/8	4 13/16	6 1/16	3 1/2	5 3/8
26	6 1/8	6 1/2	5 1/4	7 1/16	4 1/4	6





# CHICAGO world's toughest transformers

## FULL FREQUENCY RANGE INPUT TRANSFORMERS

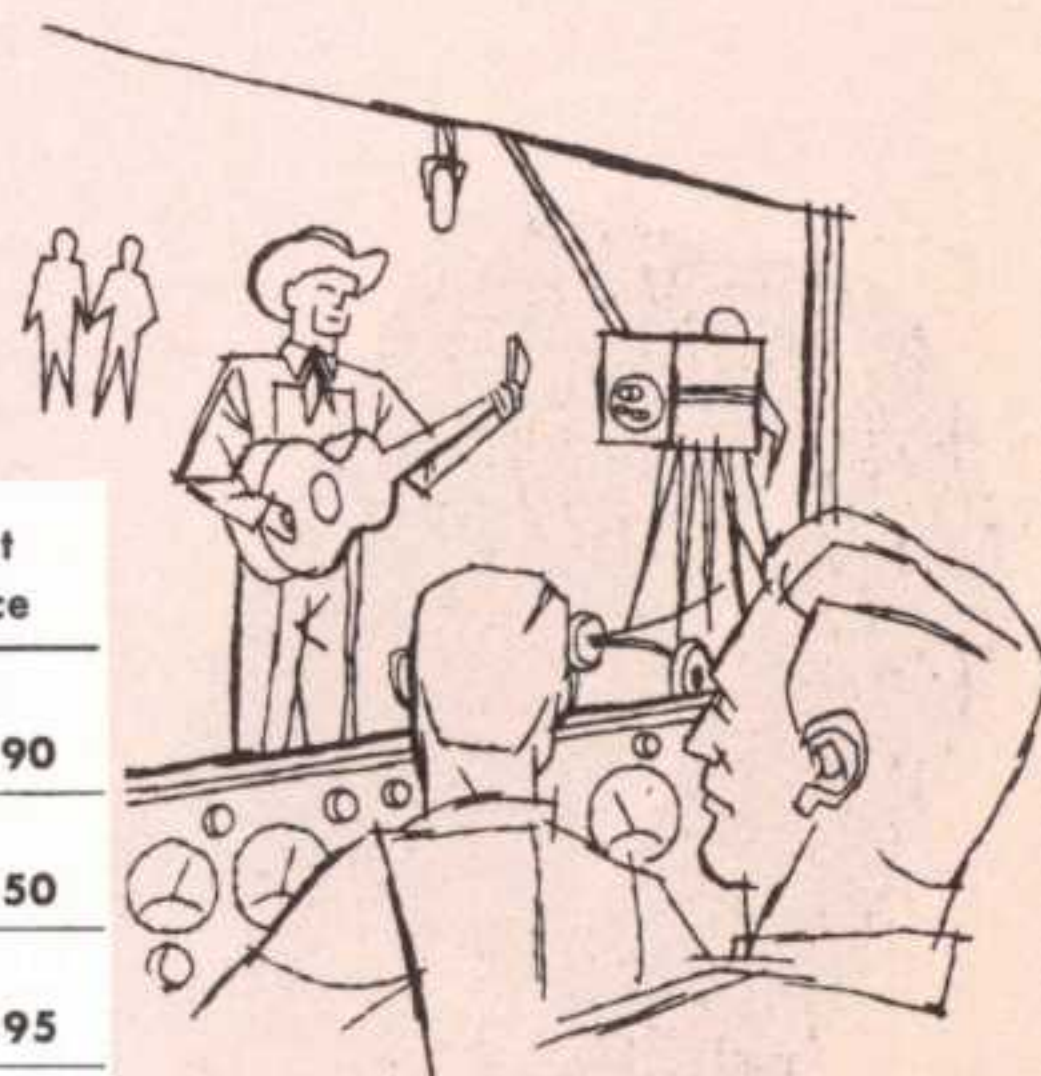
CHICAGO Full Frequency Range Input Transformers provide a response within 0.5 db from 20 to 20,000 cycles. The percentage of distortion is exceptionally low over the full range—at low as well as high frequencies.

All units have hum-bucking coil and core construction to provide maximum neutralization of stray magnetic fields. Internal cases and covers of special alloy give hum shielding of —70 dbm or better.

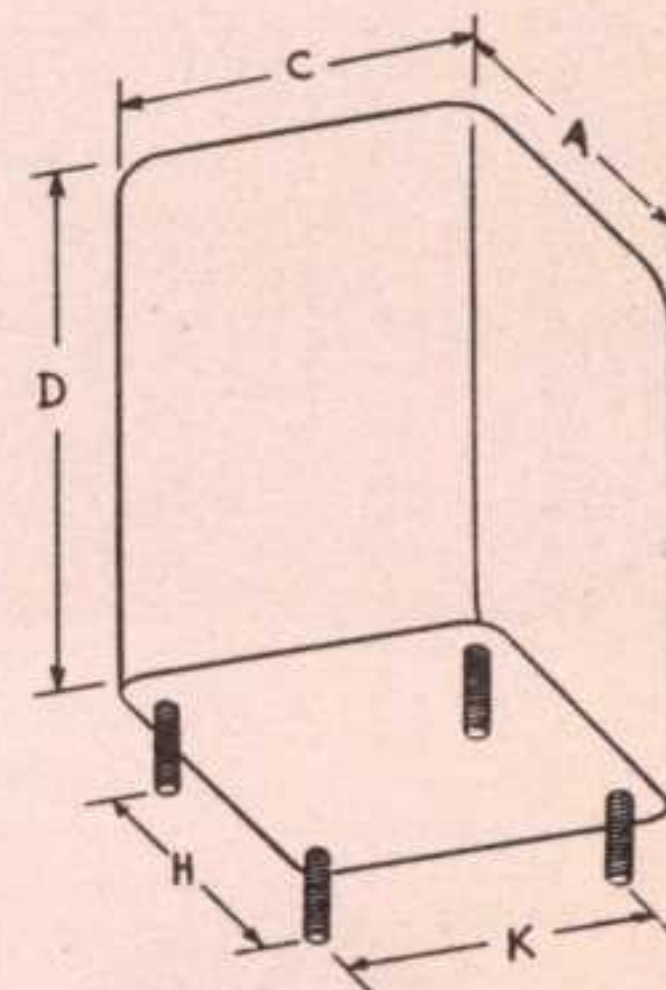
Catalog No.	Application	Impedances Primary—Secondary	Operating Level <sup>§</sup>	Hum Reduction	Mounting Type	Size	Wt., Lbs.	List Price
BI-1	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	\$23.90
BI-2	Line to Single or Push-Pull Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—90 dbm.	B	13	1½	31.50
BI-3	Line bridging to Push-Pull Grids	*Pri: 8000/6000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	24.95
BI-4	Line to Line	Pri: 600/150 ohms CT Sec: 600/150 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	22.80
BI-5	Line to Line	*Pri: 600/150 ohms CT *Sec: 600/150 ohms CT	+30 dbm.	—90 dbm.	B	18	3¼	32.60
BI-6	Interstage—P-P Pl. to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	23.90
BI-7	Low imped. mike, pickup, or multiple line to grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	24.95
BI-8	Single Plate to Push-Pull Grids	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	13	1½	23.90
BI-9	Single Plate to Push-Pull Grids**	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	—70 dbm.	B	18	3¼	28.25

\*Split and balanced windings. \*\*Has D-C in primary; frequency response  $\pm 2$ db, 30—15,000 cycles.

§ 0 dbm. reference level — 1 milliwatt.

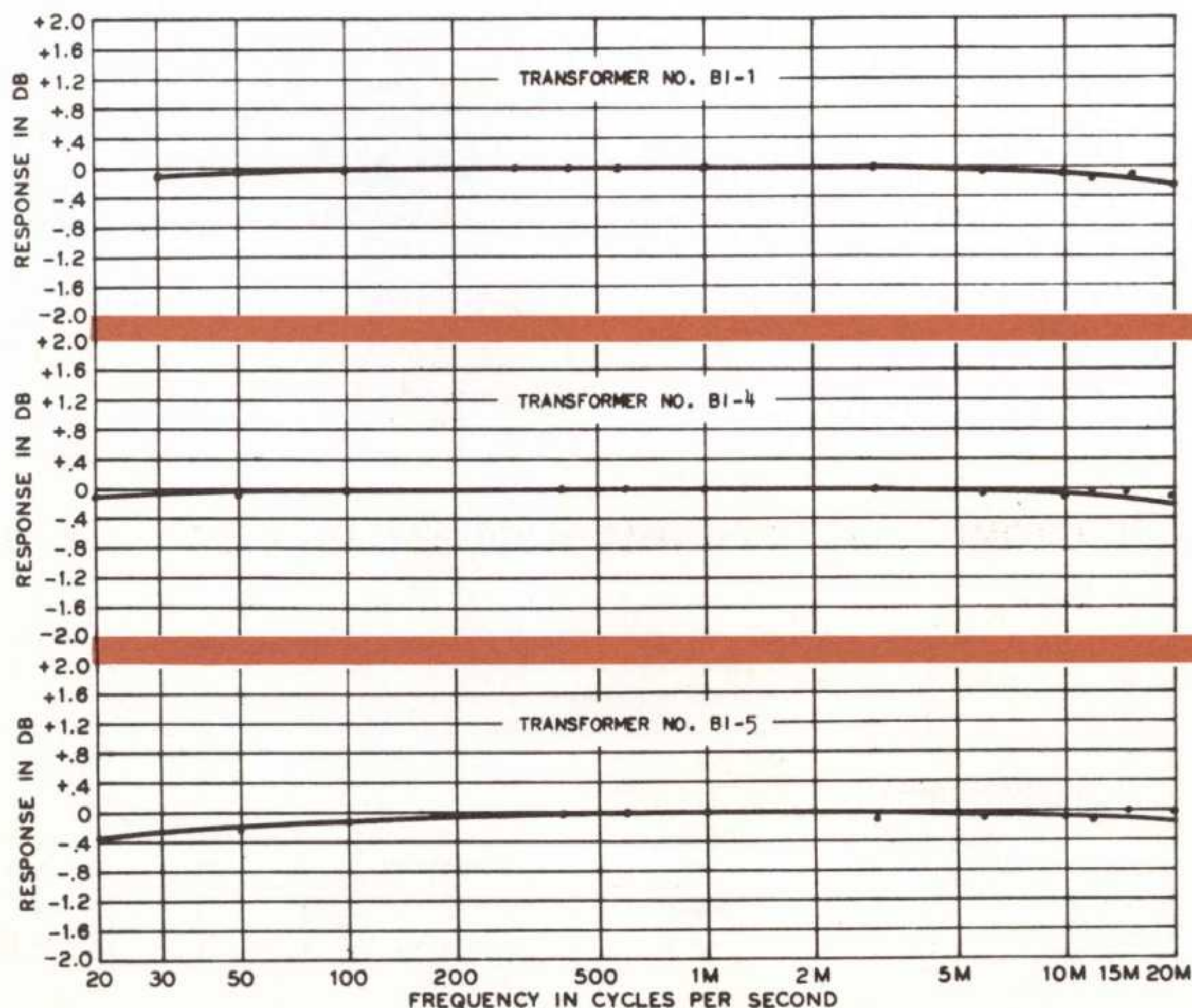


**B-TYPE MOUNTING**



**B-TYPE DIMENSIONS**

Case Size	Dimensions in Inches					Stud Size
	A	C	D	H	K	
13	2¼	2⅞	2⅞	1⅞	1⅞	6-32
18	3¼	3	3⅞	2⅞	2⅞	8-32





# CHICAGO

## world's toughest transformers

### NEW EQUIPMENT TRANSFORMERS AND REACTORS

b

### FULL FREQUENCY RANGE OUTPUT TRANSFORMERS

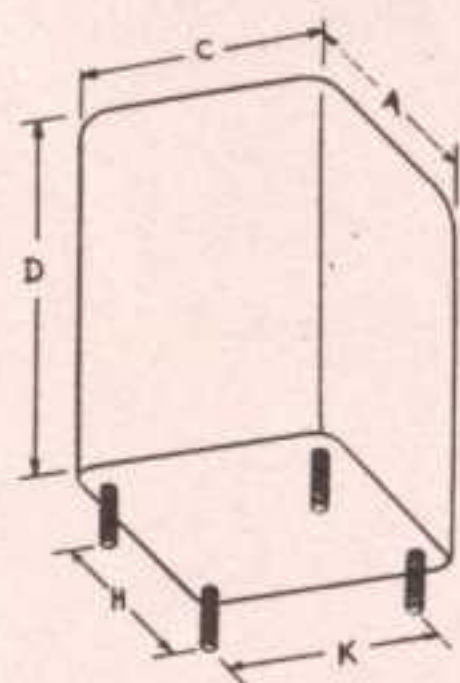
For uniformly excellent response over the full frequency range, for very low percentage of distortion at all frequencies, and for high grade construction throughout, CHICAGO FF Range output transformers are unsurpassed. Typical frequency response is within 0.5 db from 30 to 20,000 cycles, although maximum deviation from 0 for the respective units varies from 0.2 db to about 1.5 db. To indicate the extremely uniform response, actual test curves are shown on opposite page.

Output impedance ratings match perfectly with

those recommended as standard by RMA and used by many leading manufacturers of high fidelity speakers. A table of representative high fidelity speaker ratings is given on the opposite page.

A special *Sealed-in-Steel* construction, described under "B-Type Mounting," page 9, protects the coil windings from corrosion by atmospheric moisture. The compactness of this mounting is invaluable in confined chassis spaces.

Driver and modulation transformers for full frequency range transmitters are listed on page 18.



#### B TYPE MOUNTING

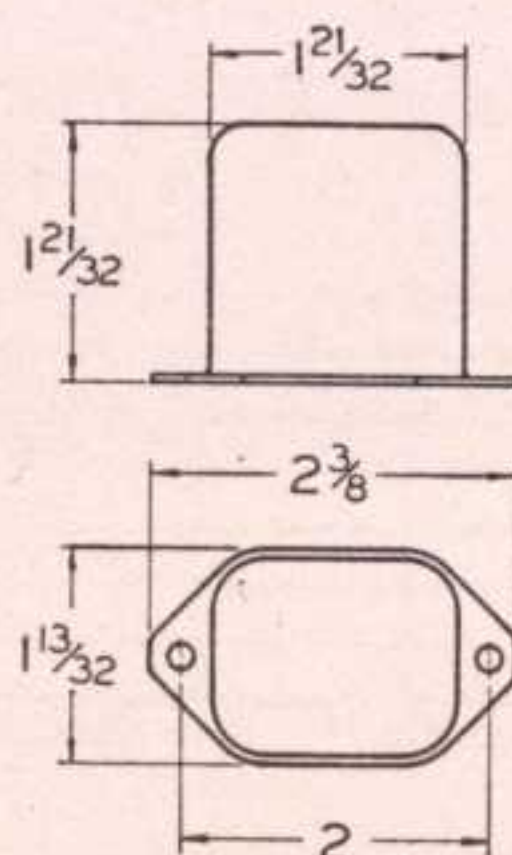
Case Size	Dimensions in Inches					Stud Size
	A	C	D	H	K	
13	2 1/4	2 1/8	2 1/16	1 1/16	1 3/8	6-32
14	2 1/2	2 3/8	3 1/16	1 13/16	1 11/16	6-32
16	2 7/8	2 11/16	3 1/2	2	1 7/8	8-32
18	3 1/4	3	3 7/8	2 3/8	2 1/8	8-32
20	3 11/16	3 5/16	4 5/16	2 5/8	2 3/8	10-32
21	3 11/16	3 5/16	4 11/16	2 5/8	2 3/8	10-32
22	4 1/16	4 1/8	5 5/16	3 3/8	3 3/8	10-32

Catalog No.	Application	Impedances Primary—Secondary	Operating Level§	Output Tubes	Mounting Type	Size	Wt., Lbs.	List Price
BO-1	Single plate to Line	†Pri: 15,000 ohms *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	6C4's to equiv.	B	14	2 1/4	\$14.10
BO-2	Push-Pull Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm. (1 watt)	6C5's or equiv.	B	16	3	20.60
BO-3	Push-Pull Plates to Line	Pri: 5,000 ohms CT *Sec: 600/150 ohms CT	+40 dbm. (10 watts)	6B4G's or equiv.	B	20	5 3/4	18.45
BO-4	Push-Pull Plates to Line	Pri: 7,500 ohms CT *Sec: 600/150 ohms CT ‡	+43 dbm. (20 watts)	6L6's or equiv.	B	20	6	19.55
BO-5	P-P Plates to Line or Voice Coil	*Pri: 10,000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+37 dbm. (5 watts)	6V6's or equiv.	B	18	4	26.05
BO-6	Push-Pull Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms ‡	+43 dbm. (20 watts)	6L6's or equiv.	B	20	5 3/4	24.95
BO-7	Line to Voice Coil	*Pri: 600 CT/150 ohms Sec: 8/20 ohms	+45 dbm. (30 watts)		B	20	6 1/2	23.90
BO-8	P-P Parallel Pl. to Line or Voice Coil	Pri: 1500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+45 dbm. (30 watts)	6B4G's or equiv.	B	21	6 1/2	32.60
BO-9	P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm. (15 watts)	6B4G's or equiv.	B	20	6	23.90
BO-10	P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	6C5's or equiv.	B	13	1 1/2	22.80
BO-11	P-P Plates to Line or Voice Coil	*Pri: 3000/2500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+46 dbm. (40 watts)	3C33, 807's, WE300's, 6AR6's	B	22	9 1/2	41.95
BO-12	P-P Plates to Line or Voice Coil	Pri: 10,000 ohms CT Sec: 600/16/8 ohms	+40 dbm. (10 watts)	807's	B	22	9	24.75

\* Split and balanced windings. † 0 to 10 ma. D-C. § 0 dbm. reference level = 1 milliwatt.

‡ Has tertiary winding for 15% inverse feedback.

### HIGH Q CHOKES FOR DYNAMIC NOISE SUPPRESSOR CIRCUITS



CHICAGO High Q chokes, Nos. NSI-1 and NSI-2, are designed specifically for use in dynamic noise suppressor circuits, but can be used with equal advantage in any tuned circuit requiring the given inductances.

Their inductance values, .8 and 2.4 henrys respectively, are accurate within  $\pm 5\%$  with up to 15 ma d-c. The units have a minimum Q of 20.

Catalog No.	Inductance	Wt., Lbs.	List Price
NSI-1	.8 henrys	1/2	\$8.10
NSI-2	2.4 henrys	1/2	8.10



# CHICAGO

## world's toughest transformers

**NEW EQUIPMENT  
TRANSFORMERS AND REACTORS**

b

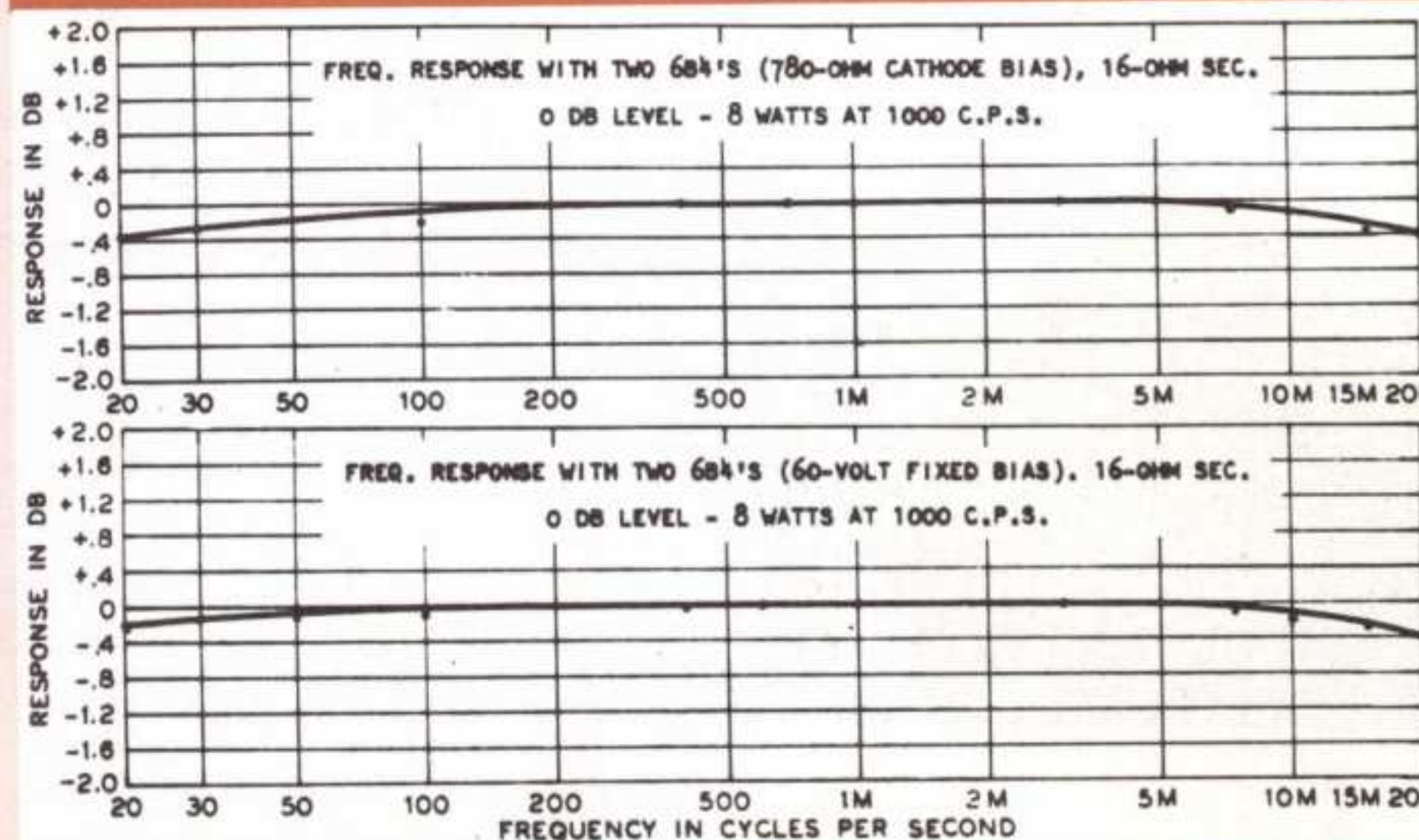
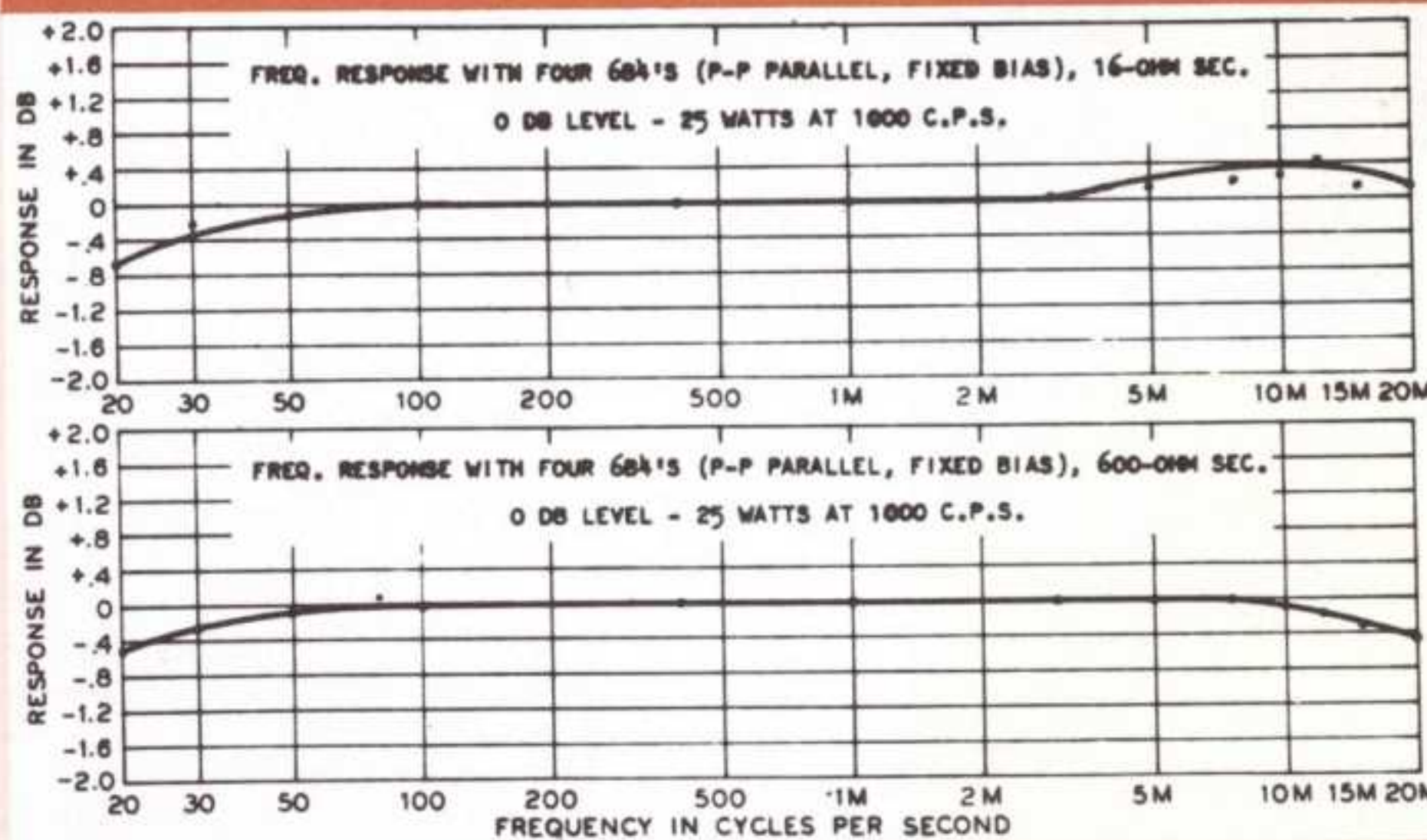
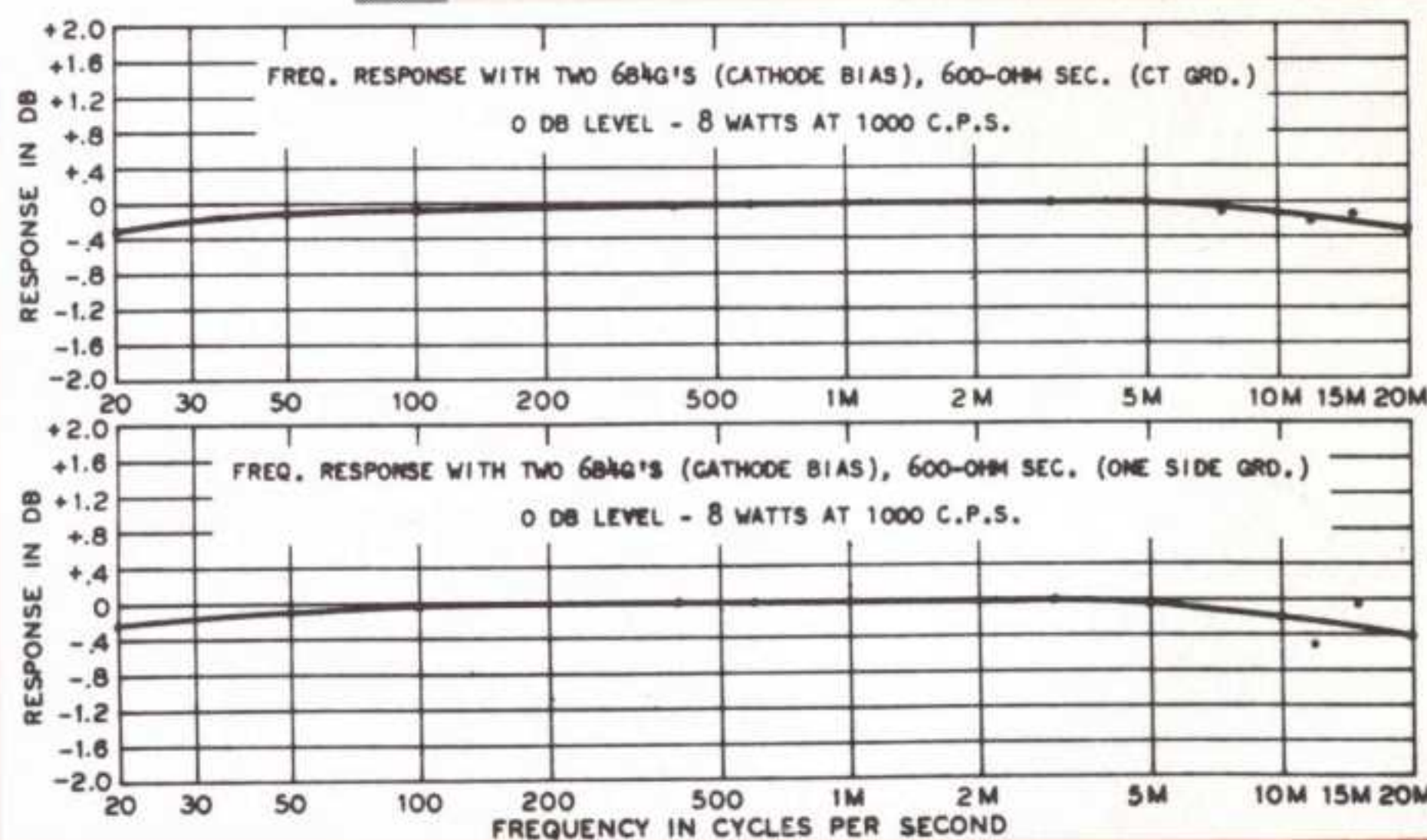
### TYPICAL FREQUENCY RESPONSE CURVES FOR OUTPUT TRANSFORMERS Nos. BO-3, BO-8, BO-9

The curves at right are drawn from data taken in actual laboratory tests. "Bread-board" style circuits were used, with tubes selected at random. In finished circuits, with lead lengths kept at minimum and with balanced tubes, frequency response may be better than shown in the curves.

Response scales are marked off in tenths of a db; with scales normally used, many of the curves would appear as straight lines. Test equipment used included a Hewlett-Packard 200-C Oscillator, a General Radio 1923A Distortion Meter, and a Ballantine Model 300 VTVM.

### DATA ON REPRESENTATIVE HIGH FIDELITY SPEAKERS

Model No.	Input Impedance	Watts Output
<b>ALTEC LANSING</b>		
400-B	8 ohms	12
600-B	8 ohms	20
603-B	8 ohms	25
604-B	16 ohms	30
<b>ELECTRO-VOICE</b>		
SP8B	8 ohms	15-20
SP12	8 ohms	25
SP12B	8 ohms	15-20
SP15	16 ohms	30
<b>JENSEN</b>		
K-210	8 ohms	12
K-310	16 ohms	16
G-610	16 ohms	35
H-510	16 ohms	25
<b>JAMES LANSING</b>		
D-130	16 ohms	20
D-131	16 ohms	12
<b>PERMOFLUX</b>		
8UP-8-1	8 ohms	10
8T-8-1	8 ohms	8
12UP-8-1	8 ohms	12
12T-8-1	8 ohms	10
<b>QUAM</b>		
12A6CO	6-8 ohms	14
15A10CO	6-8 ohms	20
<b>RCA</b>		
515S1	16 ohms	25
515S2	16 ohms	25
<b>STEPHENS "TRUSONIC"</b>		
102FR	16 ohms	20
106AX	16 ohms	20
<b>UNIVERSITY</b>		
6200	8 ohms	30
6201	8 ohms	25
<b>WESTERN ELECTRIC</b>		
728B	4 ohms	30
755A	4 ohms	8
756A	4 ohms	20





# CHICAGO

## world's toughest transformers

### NEW EQUIPMENT TRANSFORMERS AND REACTORS

# b

## PUBLIC ADDRESS RANGE AUDIO TRANSFORMERS

Frequency Response, 50 to 10,000 cycles

As indicated by the representative curves shown below, the frequency response of the transformers in this CHICAGO series is within .5 db from 50 to 10,000 cycles, the maximum range usually required for PA and other types of equipment.

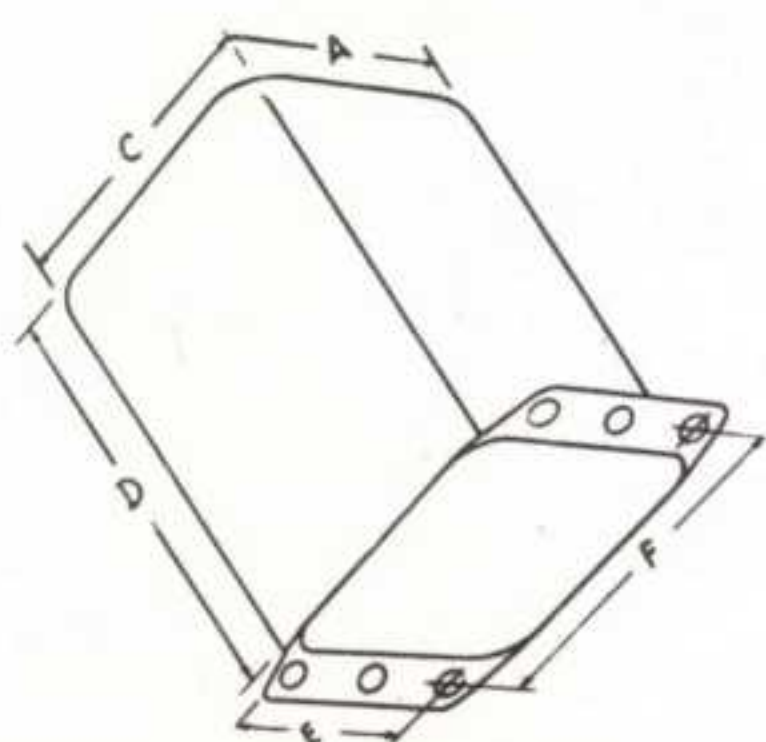
Line and voice impedances used in the output transformers are those recommended as standard by RMA. The 4, 8, and 16-ohm voice coil impedances can also be used with 3.2, 6, and 20-ohm speakers, without appreciable mismatch.



**C-TYPE  
MOUNTING**



**S-TYPE  
MOUNTING**



**DIMENSIONS FOR  
S- AND C-TYPE MOUNTINGS**

Case Size	Dimensions in Inches					
	A	B	C	D	E	F
14	2 1/2	3	2 3/8	3 1/16	1 3/4	2 1/16
15	2 1/2	3	2 3/8	3 3/16	1 3/4	2 1/16
18	3 1/4	4	3	3 7/8	2 1/4	3 1/2
19	3 1/4	4	3	4 1/4	2 1/4	3 1/2
20	3 1/16	4 7/16	3 3/16	4 5/16	2 3/4	3 7/8
22	4 9/16	5 1/4	4 1/8	5 5/16	2 1/2	4 3/4

### DRIVER TRANSFORMERS

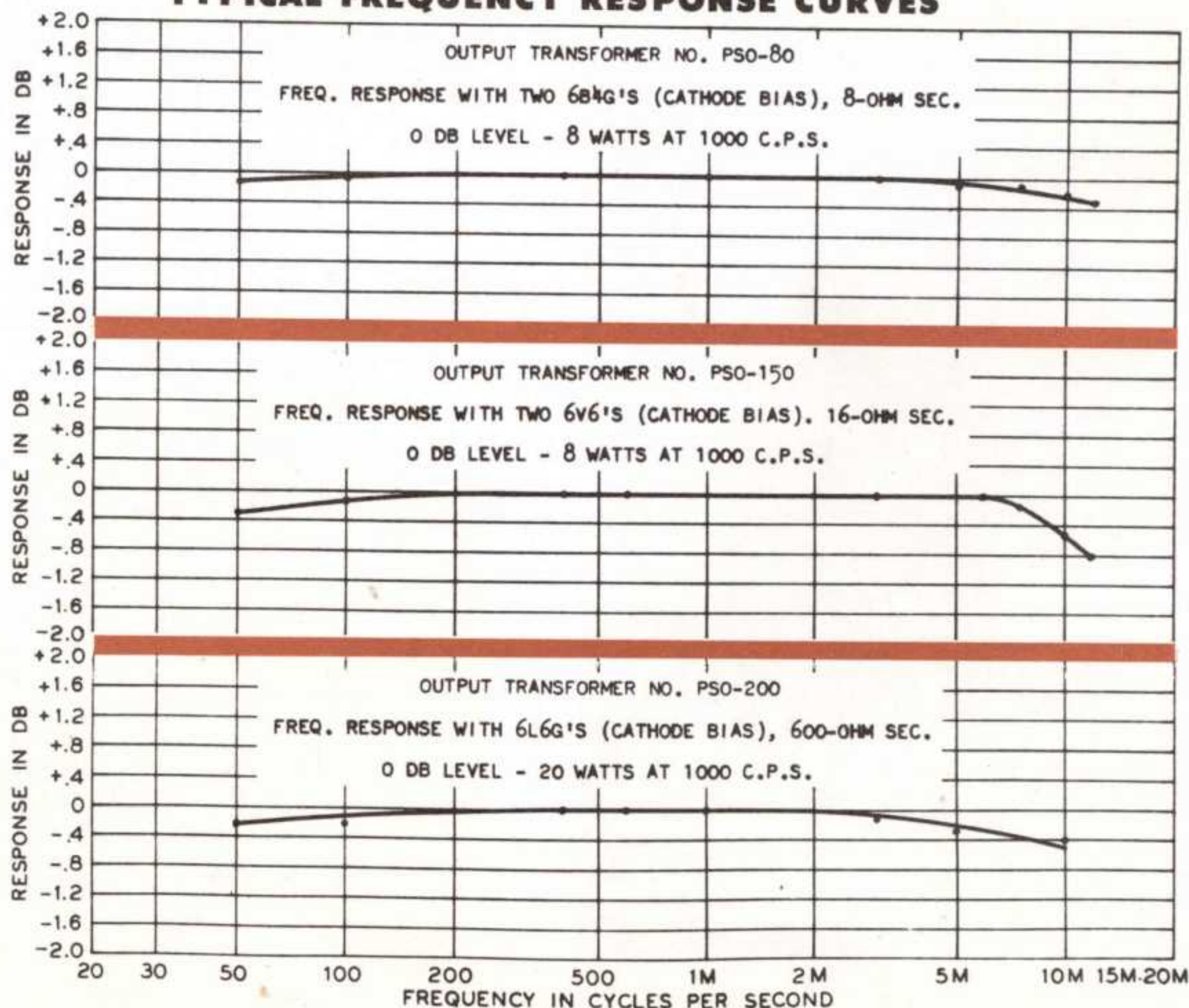
Catalog No.	Typical Driver Tubes	Primary Impedance	Max. D-C in Pri.	Mounting Pri./1/2 Sec.	Mounting Type Size	Wt., Lbs.	List Price
PCD-10 PSD-10	P-P 6N7's, 6A6's, 6J5's, 6C4's, etc.	20,000 ohms CT	10 ma.	3:1	C 14 S 14	2 1/4	\$ 5.40 7.85
PCD-25 PSD-25	P-P, 6N7's, 6A6's, 6J5's, 6C4's, etc.	20,000 ohms CT	25 ma.	3:1	C 15 S 15	2 1/4	5.10 7.60
PCD-100 PSD-100	P-P 6B4G's, 45's, 2A3's, 6L6's, etc.	5,000/10,000 ohms CT	100 ma.	5:1	C 18 S 18	4 1/2	9.20 13.00

### OUTPUT TRANSFORMERS

Catalog No.	Typical Output Tubes	Class	Impedances Primary-Secondary	Max. D-C in Pri.	Power Level	Mounting Type Size	Wt., Lbs.	List Price
PCO-80 PSO-80	P-P 6B4G's, 6L6's P-P 6V6's	A <sub>1</sub> AB	Pri: 5,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	120 ma.	20 watts	C 20 S 20	6 1/2	\$11.95 16.30
PCO-150 PSO-150	P-P 6V6's, 6F6's P-P 6K6's	AB AB <sub>1</sub>	Pri: 10,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	200 ma.	15 watts	C 19 S 19	5	10.30 14.65
PCO-200 PSO-200	P-P 6L6's P-P Parallel 6V6's	B AB <sub>2</sub> †	Pri: 6,000 ohms CT Sec: 600/150/ * 16/8/4 ohms	250 ma.	30 watts	C 22 S 22	9	13.55 17.90

\*Has tertiary winding to provide 10% inverse feedback. †For low distortion, use fixed bias.

### TYPICAL FREQUENCY RESPONSE CURVES





# CHICAGO

world's toughest transformers

## COMMUNICATIONS RANGE AUDIO TRANSFORMERS

Frequency Response, 200 to 3,500 cycles

The transformers and reactors on this page are particularly adapted to use in receiving and transmitting equipment, such as amateur, police, railroad, and aircraft types. Frequency response for the input, output, driver and modulation trans-

formers is within  $\pm 1$  db over the stated voice range. All units, with the exception of Modulation Transformer No. CMS-3, are mounted in drawn steel cases for maximum protection. No. CMS-3 has a heavy duty, frame-and-shield construction.

### INPUT TRANSFORMERS

Catalog No.	Application	Impedances Primary-Secondary	Mounting Type	Size	Wt., Lbs.	List Price
CIC-1 CIS-1	Low Level Line to Single or P-P Grids	Pri: 600/150 ohms CT *Sec: 100,000 ohms CT	C S	9 9	 3/4	\$ 8.15 11.40
CIC-2 CIS-2	Low Level SB or DB Micro- phone to Sgl. or P-P Grids	Pri: 125/50 ohms, 80 ma. Sec: 125,000 ohms CT *Split and balanced windings.	C S	9 9	 3/4	4.00 6.50

### DRIVER TRANSFORMERS

Catalog No.	Application	Primary Impedance	Max. D-C in Pri.	Ratio Pri./1/2 Sec.	Mounting Type	Size	Wt., Lbs.	List Price
CDC-1 CDS-1	P-P 2A3's, 6B4G's, 807's to P-P Grids	5,000 ohms CT	100 ma.	3:1	C S	17 17	 3 1/2	\$ 6.20 8.90

### MODULATION TRANSFORMERS

#### Class B Plates to Class C Load

Catalog No.	Typical Mod. Tubes	Impedances Primary-Secondary	D-C Ma. Pri. Sec.	Power Level	Mounting Type	Size	Wt., Lbs.	List Price
CMS-1	203A's, 805's, 75TL's, 203Z's	Pri: 9000/6700 ohms CT Sec: 8000/6000/4000 ohms	350 350	250-350 watts	SX	26	22	\$43.45
CMS-3	810's, 822's, 4-250A's, etc.	Pri: 18,000/12,000 ohms CT Sec: 6250 ohms	500 500	500-750 watts	FS	65	43	81.50

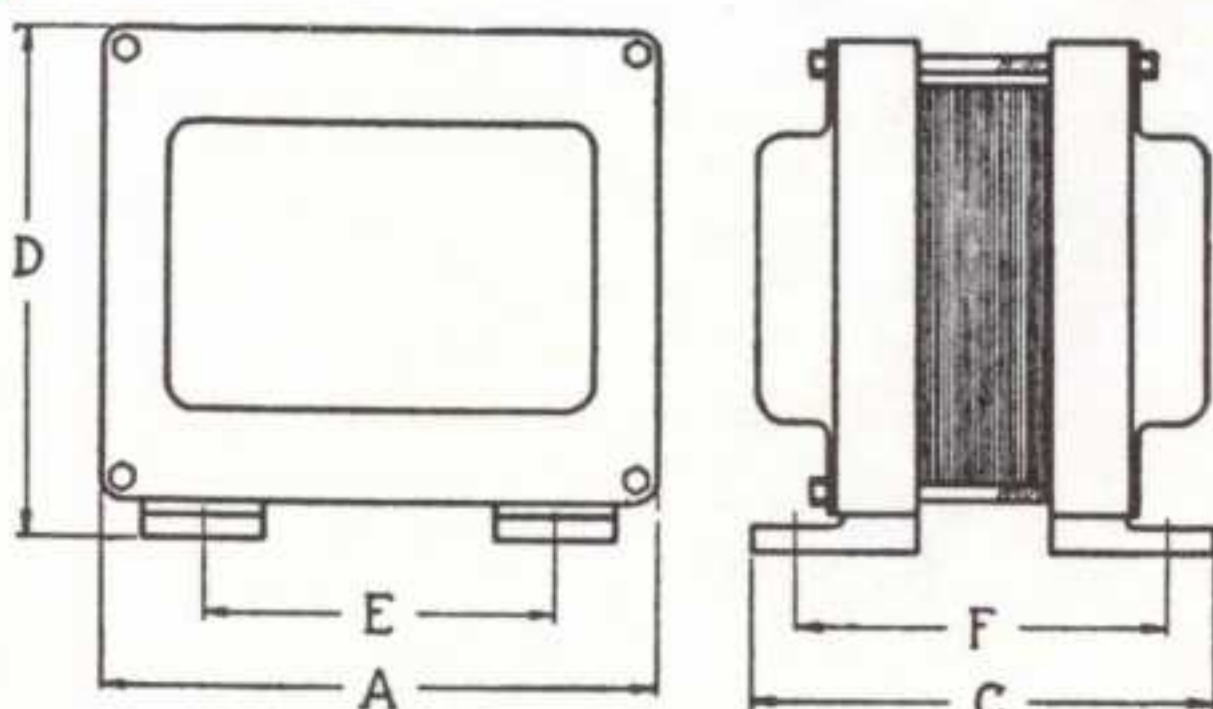
### OUTPUT TRANSFORMERS

#### Single Plate to Line or Voice Coil

Catalog No.	Typical Output Tubes	Class	Impedances Primary-Secondary	Max. D-C in Pri.	Power Level	Mounting Type	Size	Wt., Lbs.	List Price
COC-1 COS-1	Sgl. 6L6, 6V6, 25A6, etc.	A	Pri: 5,000 ohms Sec: 600/150/ 16/8/4 ohms	55ma.	5 watts	C S	14 14	 2 1/4	\$ 5.10 8.10
COC-2 COS-2	Sgl. 6F6, 6V6, 6N6, 6K6, 7B5	A	Pri: 8,000 ohms Sec: 600/150/ 16/8/4 ohms	55 ma.	5 watts	C S	14 14	 2 1/4	5.40 8.35

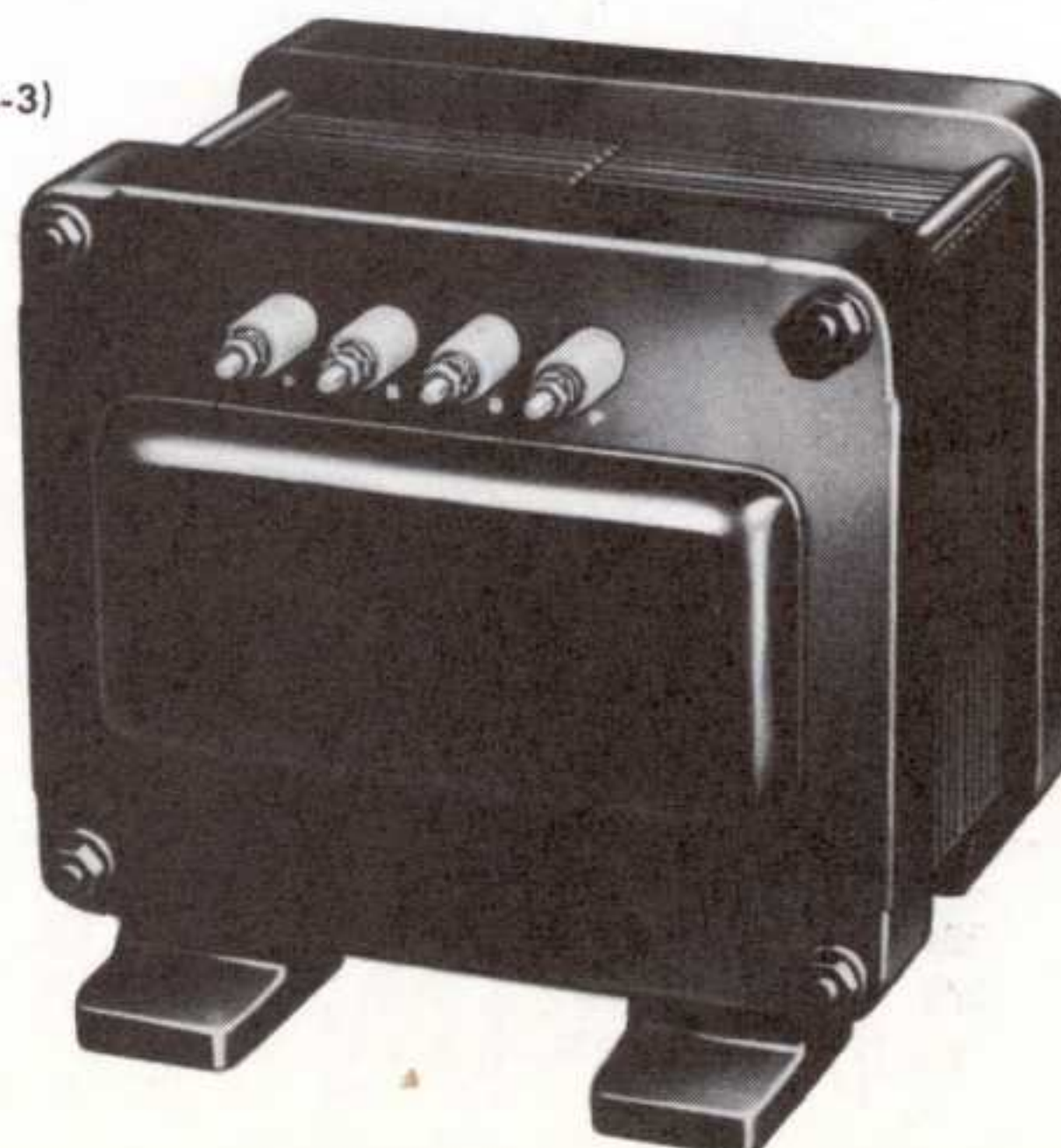
### FS-TYPE MOUNTING

(Modulation Transformer No. CMS-3)



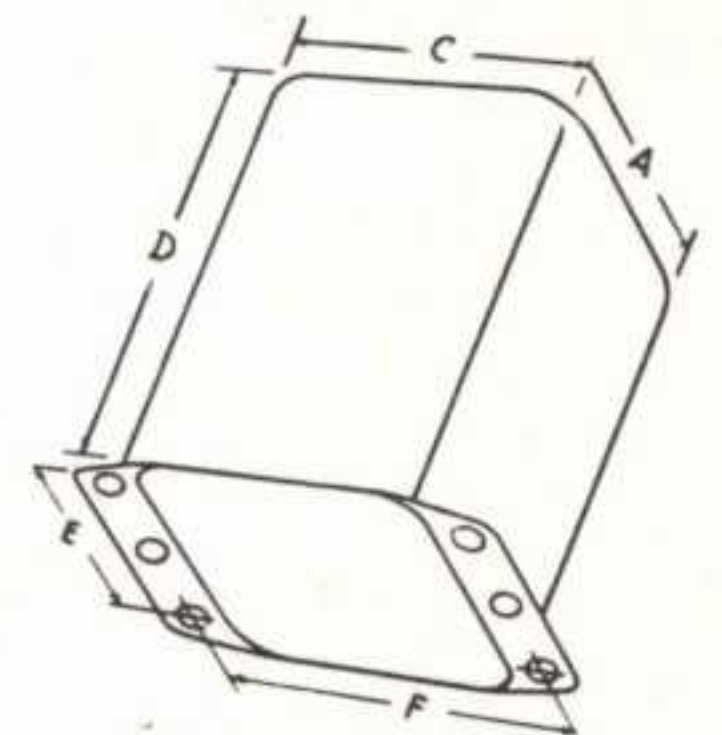
#### DIMENSIONS FOR FS-TYPE MOUNTING

Size	A	B	C	D	E	F
65	7 1/2		7 13/16	7	4 3/4	6 7/8



### SX-TYPE MOUNTING (No. CMS-1)

CHICAGO'S No. CMS-1 Modulation Transformer and matching Driver Transformer No. CDS-1, at left, are ideally suited for use in ham and commercial speech transmitters. No. CMS-1 will deliver 250-350 watts of Class B audio power from P-P 203A's, 211's, 805's, 75TL's, etc. to a Class C load with response variations not exceeding  $\pm 1$  db. over the stated frequency range. Primary impedances, 9000/6700 ohms ct; secondary, 8000/6000/4000 ohms.



### DIMENSIONS FOR C-, S-, AND SX-TYPE MOUNTINGS

Dimensions in Inches						
Size	A	B	C	D	E	F
9	1 1/2	2 1/4	1 1/2	2 1/8	CHO*	1 7/8
13	2 1/4	2 11/16	2 1/8	2 13/16	1 1/2	2 3/8
14	2 1/2	3	2 3/8	3 1/16	1 3/4	2 11/16
17	2 7/8	3 1/2	2 11/16	3 3/4	2	3 1/8
22	4 1/16	5 1/4	4 1/8	5 5/16	2 1/2	4 3/4
24	5 5/16	5 7/8	4 13/16	6 1/16	3 1/2	5 3/8
26	6 1/8	6 1/2	5 1/4	7 1/16	4 1/4	6

\*CHO—Center hole only on each side.



# CHICAGO

## world's toughest transformers

### NEW EQUIPMENT TRANSFORMERS AND REACTORS

# b

## LARGE CAPACITY TRANSFORMERS AND REACTORS

### Full Frequency Range Driver and Modulation Transformers

Ideally suited for use by the small-to-medium size, high fidelity broadcast station, the three matched sets of driver and modulation transformers listed below provide frequency response within  $\pm 1$  db over the range from 30 to 15,000

cycles. A uniformly low percentage of distortion has been proven in use. Three specially designed modulation reactors complete the sets. Conservative design and quality construction assure years of trouble-free operation.

### DRIVER TRANSFORMERS

Catalog No.	In:	Recommended Application Tubes:	Ratio Pri./ $\frac{1}{2}$ Sec.	Mounting Type	Size	Wt., Lbs.	List Price
BD-1	250-watt transmitter	From two 2A3's, 6B4's, or similar P-P plates to Class B 838's, 805's, 203A's	3.5:1	B	20	6 $\frac{1}{2}$	\$ 32.60
BD-2	1-KW transmitter	From four 2A3's, 6B4's, or similar P-P plates to two 833A's or similar P-P grids	3:1	*	24	12 $\frac{1}{4}$	67.35
BD-3	5-KW transmitter	From four 845's, two 152-TL's or similar P-P plates to 891-R's or similar P-P grids	3.5:1	BX	26	24	173.85

\*Similar to SX-Type mounting, but with screw terminals on a terminal board.

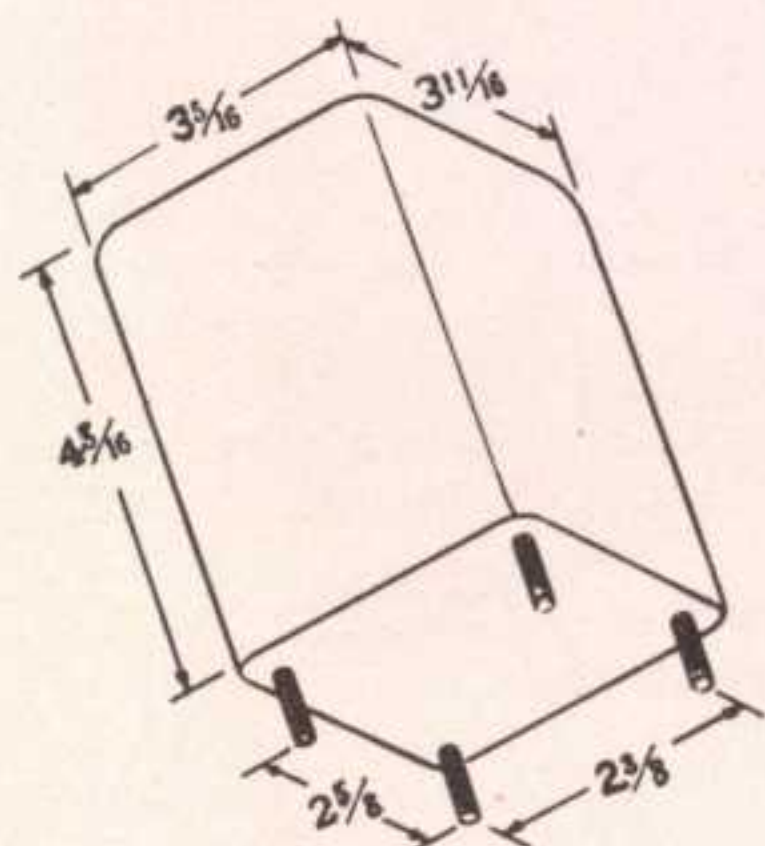
### MODULATION TRANSFORMERS

Catalog No.	In:	Recommended Application With:	Mod. Tubes	Impedances (Pri. Plate to Plate)	Mounting Type	Size	Wt., Lbs.	List Price
BM-1	250-watt transmitter	Driver Transformer BD-1	203-A, 838, 805, etc.	Pri: 7,500 ohms CT Sec: 5,000 ohms	BX	26	25	\$ 72.80
BM-2	1-KW transmitter	Driver Transformer BD-2	833-A, etc.	Pri: 9,000 ohms CT Sec: 7,500 ohms	FS	84	175	423.85
BM-3	5-KW transmitter	Driver Transformer BD-3	891-R, etc.	Pri: 13,500 ohms CT Sec: 10,250 ohms	WC		1100	777.00 (net)

### MODULATION REACTORS

Catalog No.	In:	Recommended Application With:	Inductance, Henries	D-C Ma.	Mounting Type	Size	Wt., Lbs.	List Price
BR-1	250-watt Xmitter	Mod. Transformer BM-1	65	250	BX	28	41	\$105.42
BR-2	1-KW transmitter	Mod. Transformer BM-2	100	500	FS	81	165	201.06
BR-3	5-KW transmitter	Mod. Transformer BM-3	120	900	WC		1100	652.08 (net)

**B-TYPE MOUNTING**  
(Driver Transformer No. BD-1)



**BX-TYPE MOUNTING**

**S-TYPE MOUNTING**

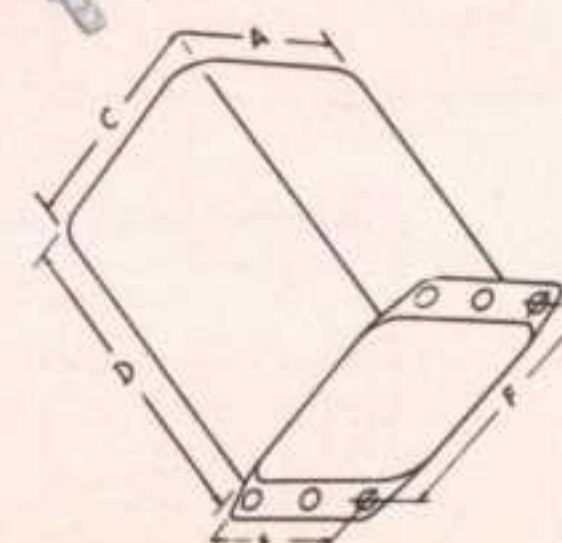


**SX-TYPE MOUNTING**



### DIMENSIONS FOR BX, S AND SX-TYPE MOUNTINGS

Case Size	Dimensions in Inches					
	A	B	C	D	E	F
22	4 $\frac{1}{16}$	5 $\frac{1}{4}$	4 $\frac{1}{8}$	5 $\frac{5}{16}$	2 $\frac{1}{2}$	4 $\frac{3}{4}$
24	5 $\frac{5}{16}$	5 $\frac{7}{8}$	4 $\frac{13}{16}$	6 $\frac{1}{16}$	3 $\frac{1}{2}$	5 $\frac{3}{8}$
26	6 $\frac{1}{8}$	6 $\frac{1}{2}$	5 $\frac{1}{4}$	7 $\frac{1}{16}$	4 $\frac{1}{4}$	6
28	7 $\frac{1}{16}$	7 $\frac{7}{8}$	6 $\frac{1}{8}$	8 $\frac{1}{16}$	5	7





# CHICAGO world's toughest transformers

## BROADCAST, COMMUNICATIONS AND INDUSTRIAL USE

### Plate Transformers and Matching Reactors

The plate voltages and currents of the following CHICAGO Plate transformers fit the requirements of both commercial and ham transmitters and of many industrial applications, including induction heating and electronic control equipment. Both the transformers and the matching filter reactors are con-

servatively designed and have ample insulation throughout. They operate with a temperature rise of 40° to 50°C at full load, 60 cycles, under CCS duty. Under ICAS conditions, the duty cycle is 15 minutes time on and 15 minutes time off, with the same temperature rise applying as under CCS duty.

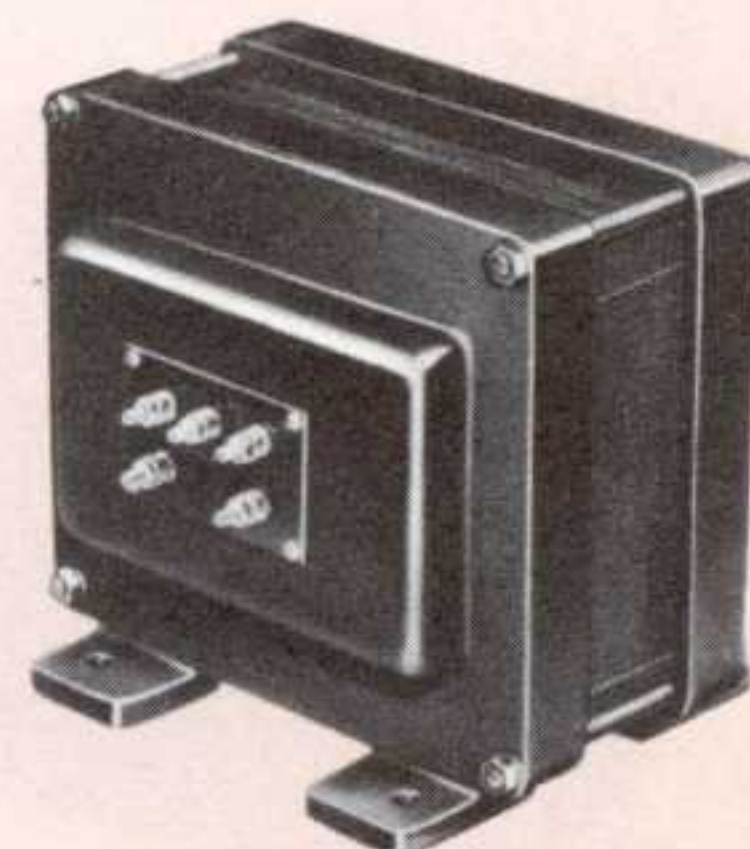
### PLATE TRANSFORMERS Primary: 115/230 volts, 50/60 cycles

Catalog No.	Max. Pri. VA	Secondary A-C Load Volts	D-C Volts after filter	D-C Ma. CCS	D-C Ma. ICAS	Mounting Type	Size	Wt., Lbs.	List Price
P-45	185	675-0-675 575-0-575	500 400	250	325	S	22	12	\$ 19.55
P-67	250	900-0-900 735-0-735	750 600	250	325	S	22	13½	23.35
P-107	310	1150-0-1150 870-0-870	1000 750	250	350	FS	60	37	54.35
P-1240	360	1425-0-1425* 600-0-600	1250 400	150 200	200 260	S	24	26	35.30
P-1512	550	1710-0-1710 1430-0-1430	1500 1250	300	425	FS	63	43	70.65
P-2520	915	2820-0-2820 2260-0-2260	2500 2000	300	425	FS	70	71	108.70
P-2126	1600	2900-0-2900 2320-0-2320	2600 2100	500	700	†	64	95	135.00
P-3025	1850	3450-0-3450 2850-0-2850	3000 2500	500	700	FS	81	137	190.20
P-4353	3050	4600-0-4600 4050-0-4050 3400-0-3400	4000 3500 3000	600	800	FS	90	150	244.00

\*Both secondaries may be rectified simultaneously. †Similar to FS but without cast frames.

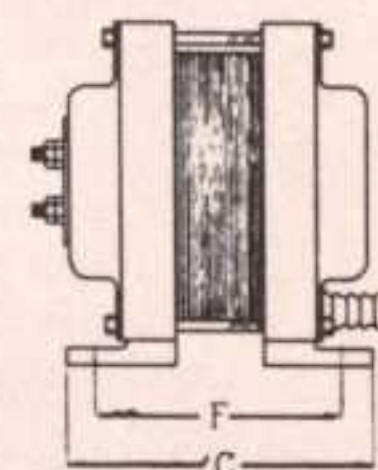
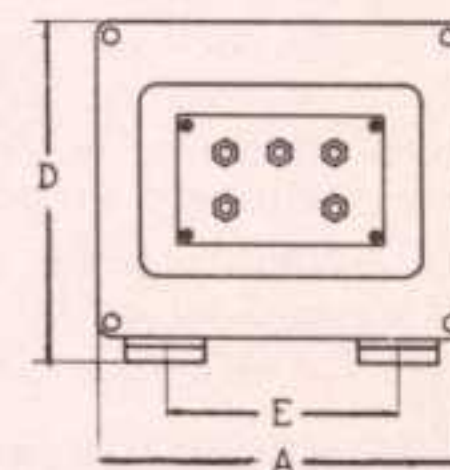
### FILTER REACTORS

Catalog No.	Inductance in Henries	Max. D-C Ma.	D-C Resistance, Ohms	Insulation Volts RMS	Mounting Type	Size	Wt., Lbs.	List Price
R-67	6	700	35	10,000	FS	61	35	\$43.45
R-105	10	500	40	9,000	FS	62	35	38.00
R-65	6	500	35	9,000	FS	60	35	35.30
R-103	10	300	40	7,500	SX	26	22	21.70
R-63	6	300	35	7,500	SX	24	16½	18.45



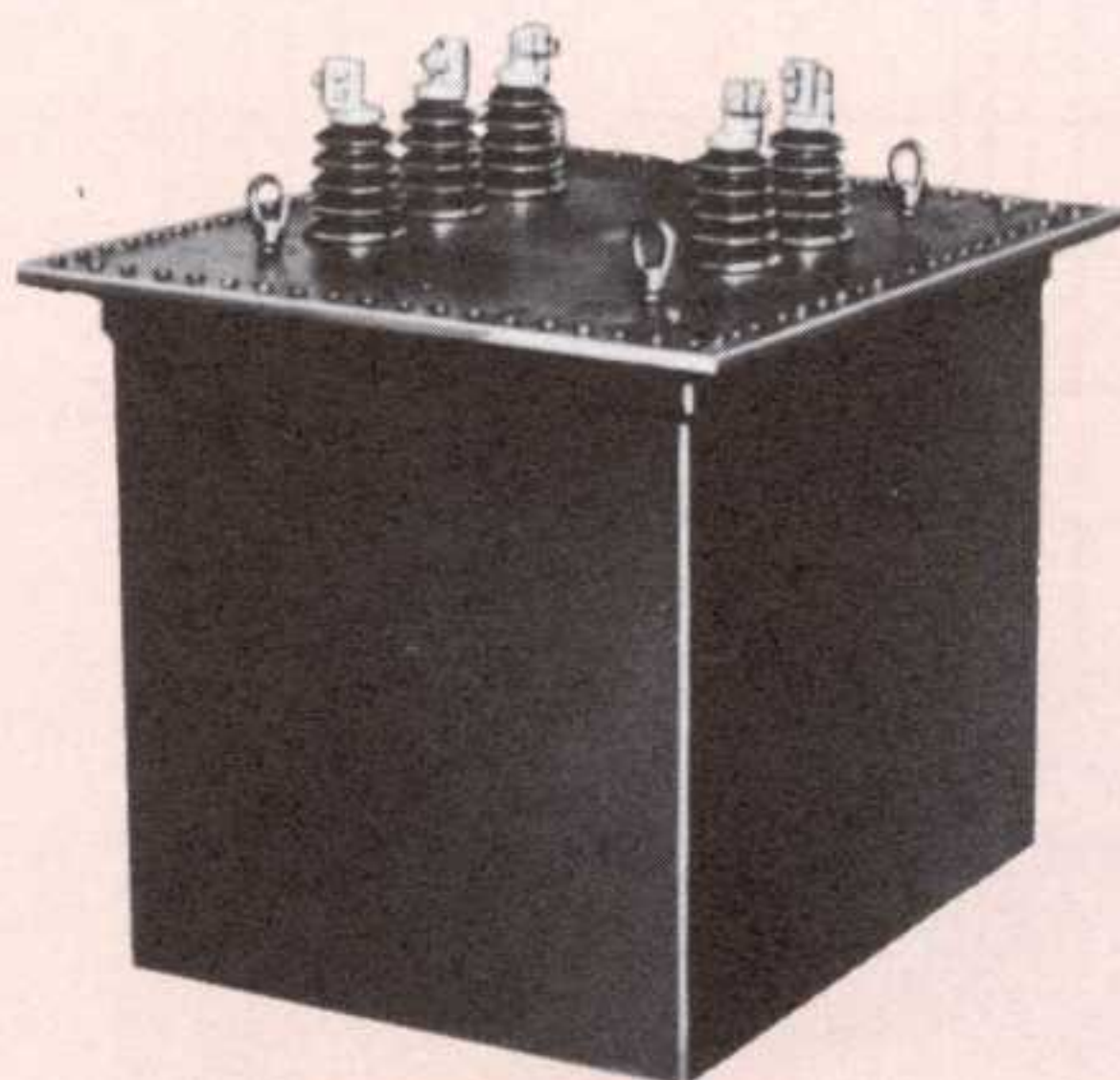
**FS-TYPE MOUNTING**

Heavy duty, cast frames and formed steel shields are bolted to the core. Shield sections are compound-filled to protect coil windings from corrosion by atmospheric moisture. Screw terminals on the primary side; bushing-insulated terminals on the secondary.



### DIMENSIONS FOR FS-TYPE MOUNTING

Size	Dimensions in Inches				
	A	C	D	E	F
60	7½	6⅞	7	4¾	5½
61	7½	6⅞	7	4¾	5⅞
62	7½	7⅞	7	4¾	6¼
63	7½	7½	7	4¾	6⅞
64	7⅞	10	8⅞	6	7¾
70	8⅞	7⅞	8½	5½	6
81	11½	10¼	10½	7½	8¼
84	11½	13⅞	10½	7½	11⅞
90	13⅞	10⅞	12¾	9	8⅞



**WC-TYPE MOUNTING**

Modulation Transformers, and Reactors, Nos. BM-3 and BR-3 respectively, are mounted in large oil-filled cases. Cases are constructed of heavy, welded steel plates. Case dimensions overall: 31½"x26½"x23½".





# CHICAGO

world's toughest transformers



## SPLATTER CHOKES

- Eliminate splatter caused by heavy modulation.
- Limit band width to 3,000 cycles.
- Effectively increase "get through" ability of phone signals.
- Prevent negative peak clipping.

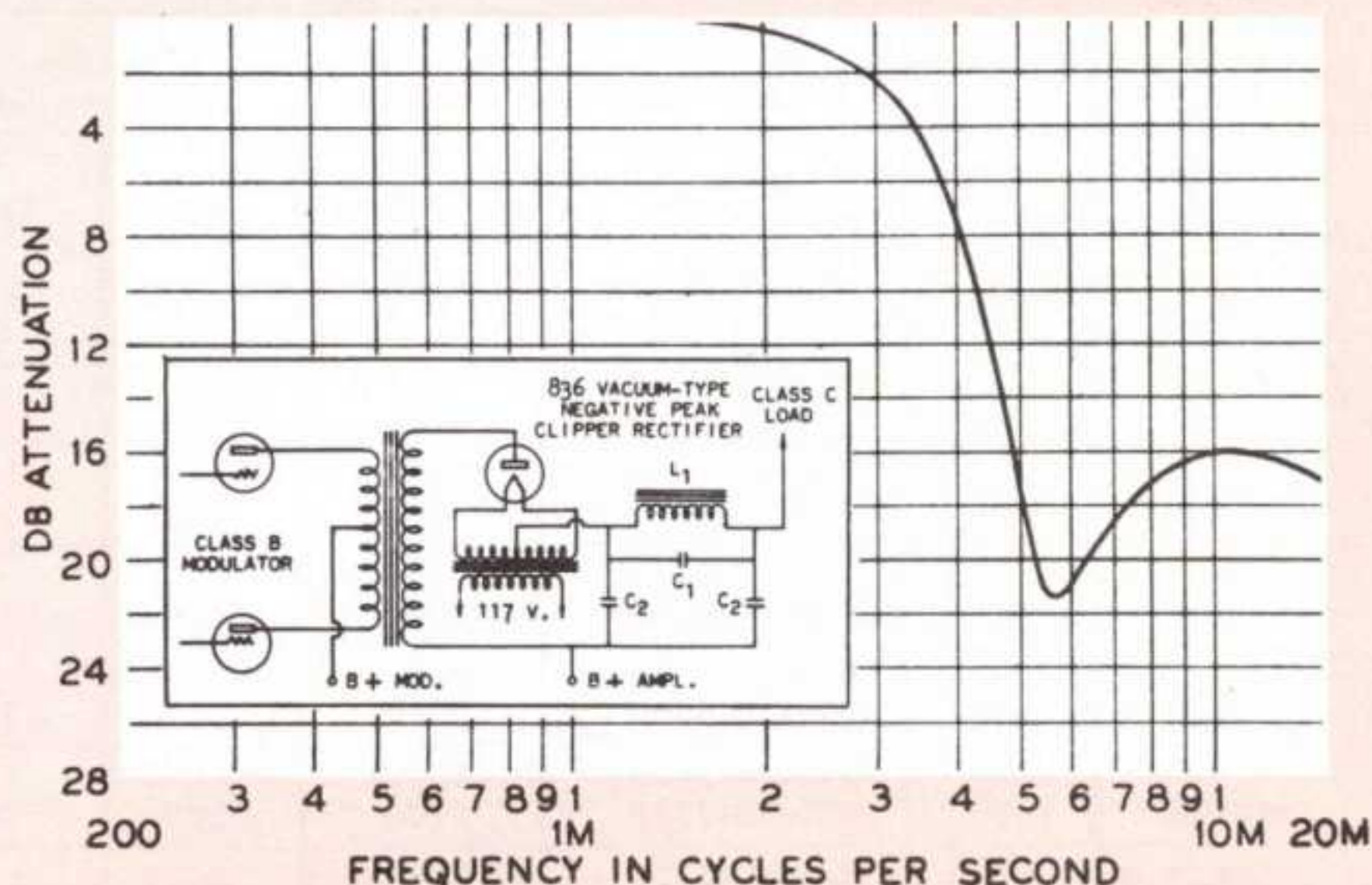
CHICAGO Splatter Chokes, Nos. SR-300 and SR-500, are designed specifically for use in high level "clipper" filters. Windings are tapped to cover an inductance range from .02 to 1.5 henries at relatively constant Q. Their insulation is adequate to withstand the high peak voltages developed during extended periods of extremely heavy modulation.

A high vacuum "clipper" rectifier precedes the filter and provides a proper gating effect, conducting at modulation levels up to 100%. When the modulation level exceeds 100%, the output of the modulator stage swings the instantaneous plate voltage on the final amplifier below zero. The rectifier then stops conducting and negative peak clipping is confined to the rectifier and is not imposed on the modulated amplifier.

The filament transformer for the rectifier must have adequate insulation and should have low capacity between windings and winding to core. Transformer No. F-210H, p. 6, is recommended.

Catalog No.	D-C Ma.	Insulation Volts	Inductance in Henries	Mounting Type	Size	Wt., Lbs.	List Price
SR-300	300	7,500	.02 to 1.5 Hy	(See Cut)*	22	10	\$18.45
SR-500	500	10,000	.02 to 1.5 Hy	(See Cut)*	24	14½	23.90

\*See page 17 for dimensions.



## LOW PASS FILTER No. LPF-1



For attenuating frequencies above 3,000 cycles in low level speech amplifiers.

Designed to provide optimum attenuation of the audio frequencies above 3,000 cycles, the LPF-1 fills a long felt need for an economical, yet effective, means of confining a speech signal within narrow frequency limits.

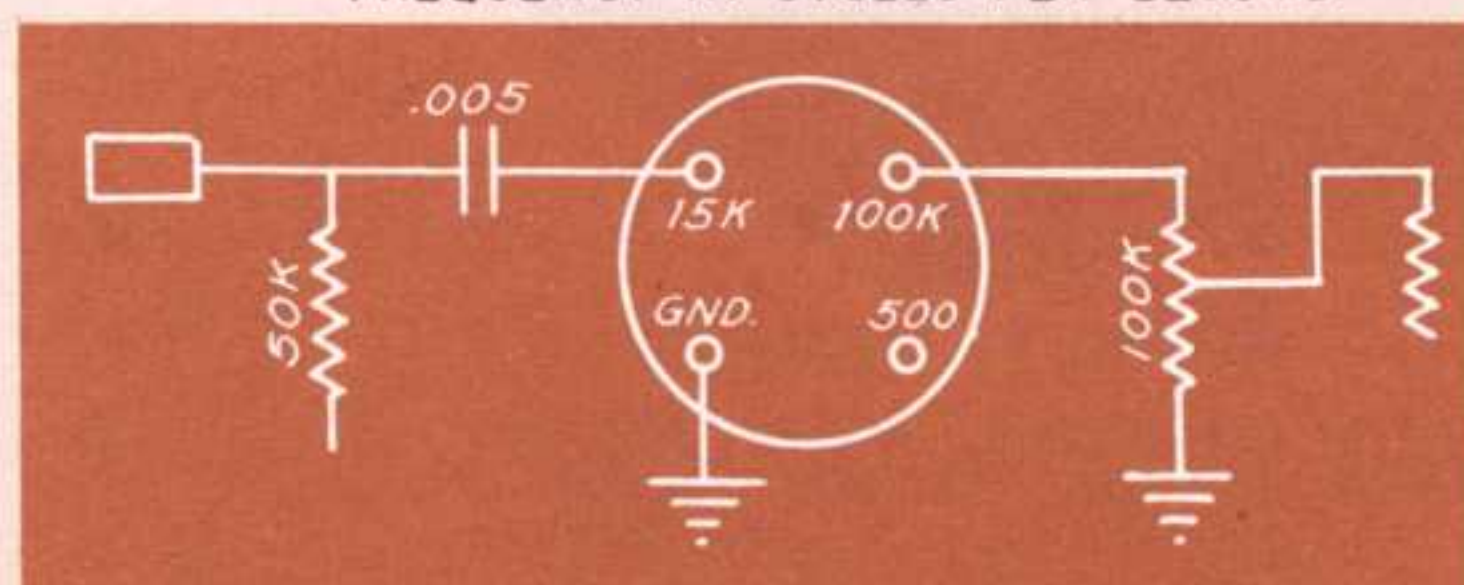
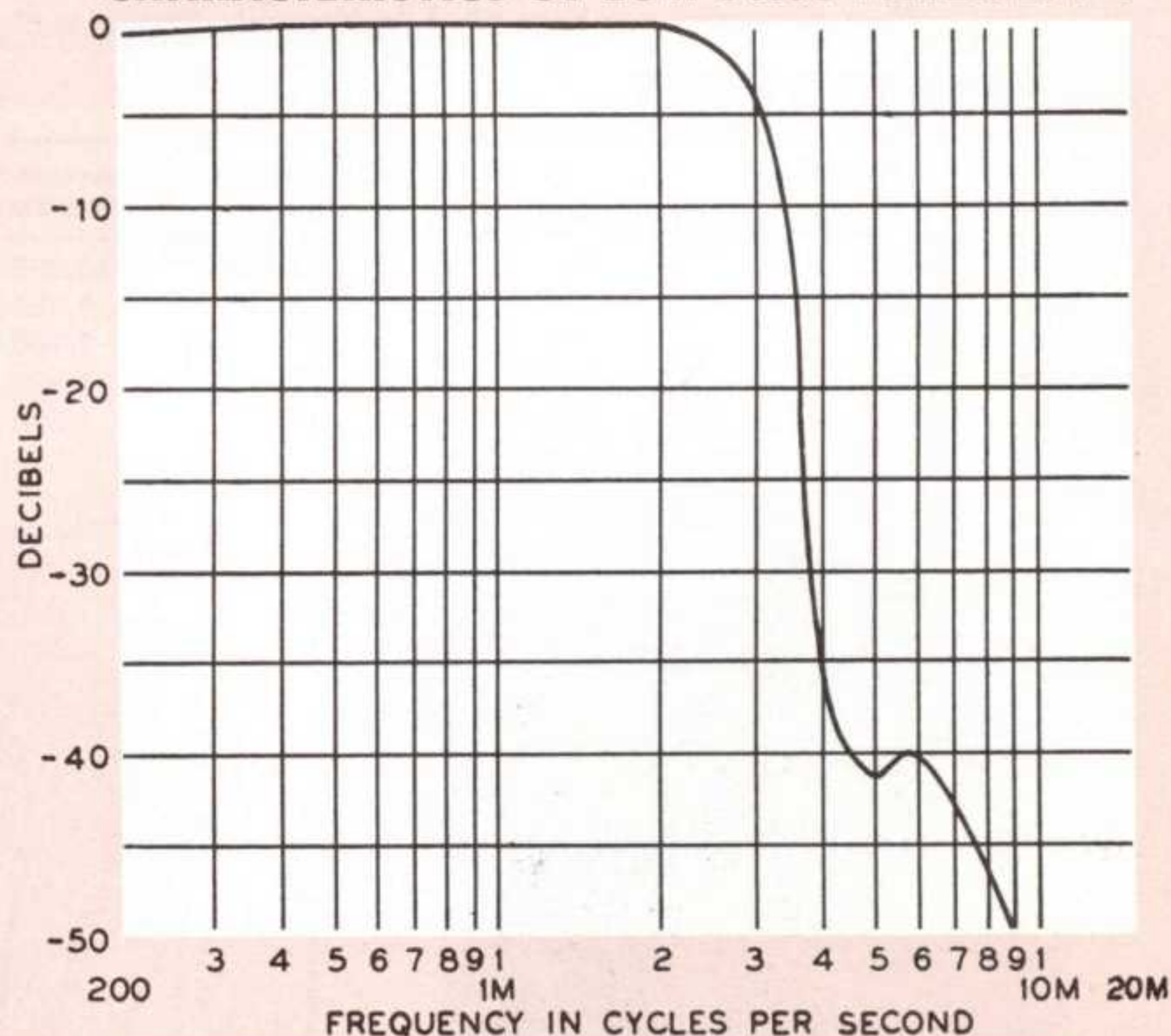
Electrically, the filter operates out of a source impedance of 15,000 ohms, such as presented by the plate of a single 6C5, 6J5, or triode-connected 6J7, into a 100,000 ohm grid. A step-up ratio of 1: 2.63 is obtained when the primary is connected to the 100,000-ohm secondary. A plate blocking condenser is required to prevent D-C from saturating the coils in the filter proper.

The filter operates satisfactorily at signal levels of +10 volts RMS across the 100,000-ohm secondary or of +0.7 volts RMS at 500 ohms. Attenuation characteristics are indicated by the curve at right and the manner in which the filter can be connected is shown by the circuit diagram below.

The filter is constructed in S-type mounting with solder-lug terminals, as illustrated. Case size 13 (see page 17); shipping weight, 3 lbs. No. LPF-1.....List Price, \$13.55

(Right) Circuit Connections for Low Pass Filter No. LPF-1

## CHARACTERISTICS OF LOW PASS FILTER LPF-1





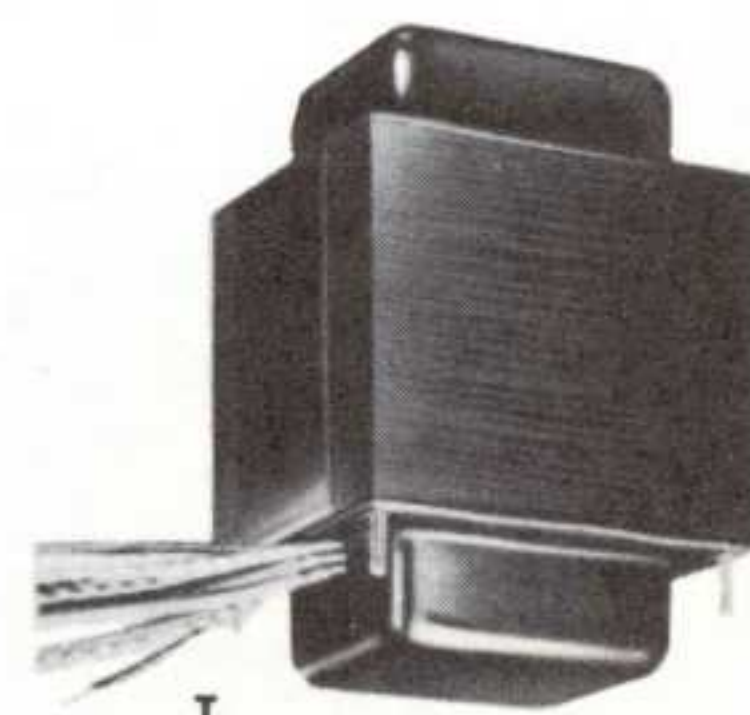
# CHICAGO world's toughest transformers

TELEVISION REPLACEMENT  
TRANSFORMERS AND REACTORS

## TELEVISION POWER TRANSFORMERS

CHICAGO is the leading maker of Television Power Transformers for the nation's foremost TV set manufacturers. Most of the units listed below are identical electrically and physically to the original equipment—an important factor for quicker, more dependable replacement.

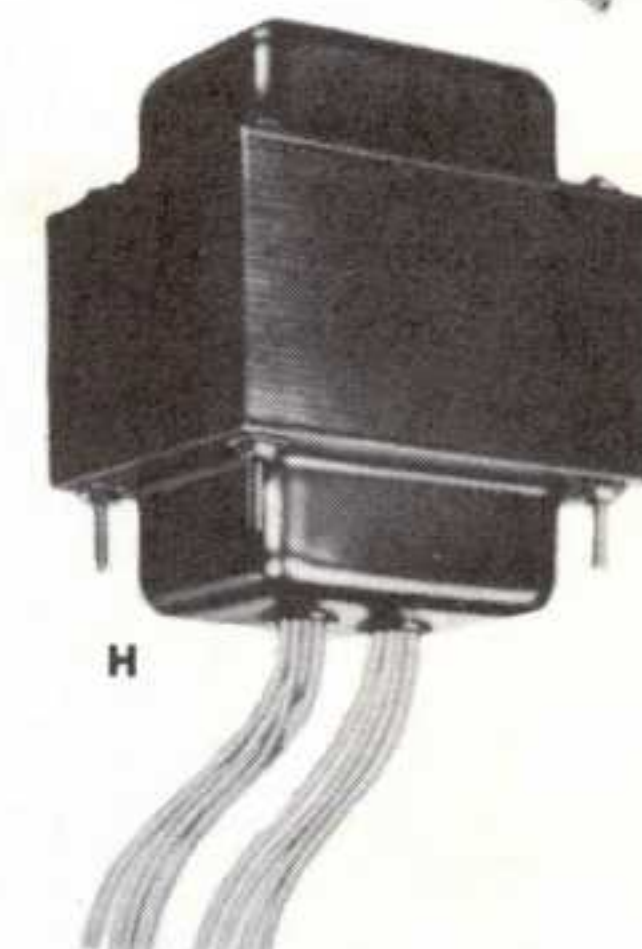
Cat. No.	HV Secondary		Filaments		Rectifier		Other		Mounting Centers (Inches)	Dimensions Inches			Mtg. Type	Wt. Lbs.	List Price
	Volts	DC Ma.	V.	A.	V.	A.	V.	A.		H	W	D			
TP-210	233-0-233	90	5	2	6.3	5.3			2 1/4 x 2 13/16	2 13/16	3 3/8	3 15/16	H	4 1/2	\$ 9.50
TP-225	310-0-310	225	5	3	6.3	9			3 x 3 11/16	3 7/16	4 1/8	4 9/16	T	8 1/2	15.80
TP-280	117	280			6.3	9.5									
					6.3	6									
					6.3	1.2			3 3/16 x 4 1/16	3 3/4	4 1/2	4 5/16	T	8	15.40
TP-315	315-0-315	225	5	3	6.3	8.25			3 5/16 x 4 1/16	3 3/4	4 1/2	4 1/2	HT	8 1/2	18.00
TP-319	316-0-316	310	5	6	6.7	10									
					6.4	1.6			3 1/4 x 3 3/4	3 13/16	4 9/16	5 3/16	H	12 1/2	20.40
TP-324	324-0-324	255	5	3	12.6 CT	5.25			3 x 3 3/4	4 3/4	3 3/4	5	V	8 1/2	15.80
TP-350	356-0-356	200	5	3	6.4	8.7									
	2380	2			6.4	.6									
					1.25	.3			3 x 3 3/4	6	4 9/16	5	C	15	38.00
TP-355	360-0-360	250	5	3	5	2									
					6.4	8									
					6.4	.6			3 3/16 x 4 1/16	3 3/4	4 1/2	4 9/16	T	12 1/2	20.10
TP-356	356-0-356	270	5	6	6.3	9.5									
					6.3	1.65									
					6.3	2.4			3 3/16 x 4 1/16	3 3/4	4 1/2	5 3/8	T	12	21.20
TP-358	358-0-358	175	5	3	12.6 CT	5.45									
	220-0-220	110	5	2					3 x 3 9/16	4 3/4	3 3/4	4 3/4	V	11	20.10
TP-360	365-0-365	260	5	6	6.3	8.85									
					6.3	1.2			3 3/16 x 4 1/16	3 3/4	4 1/2	5 7/16	T	13	20.10
TP-362	362-0-362	220	5	3	12.8 CT	5.8									
	220-0-220	110	5	2					3 x 4	4 3/4	3 3/4	5 3/16	V	11 1/2	19.50
TP-364	364-0-364	170	5	3	12.6	4.25									
	200-0-200	84	5	2					3 x 3 3/16	4 3/4	3 3/4	4 3/8	V	9	18.60
TP-365	362-0-362	295	5	6	5	2									
					12.6 CT	5			3 3/16 x 4 1/16	3 3/4	4 1/2	6 5/16	T	17	28.25
TP-368	368-0-368	190	5	3	6.3	7.75									
					6.3	1.2			3 3/16 x 4 1/16	3 3/4	4 1/2	5	T	11	19.90
TP-370	348-0-348	215	5	3	6.3	9									
					6.3	1.2			3 3/16 x 4 1/16	3 3/4	4 1/2	5	T	11 1/2	20.10
TP-375	354-0-354	185	5	3	6.45	12									
	163-0-163	65							3 x 3 3/4	3 3/4	4 1/2	4 11/16	T	10 1/2	18.45
TP-380	380-0-380	180	5	3	6.3	9			3 x 3 11/16	3 7/16	4 1/8	5	HT	9	16.30
TP-382	382-0-382	200	5	3	6.3	6.6									
					6.3	1.65			3 5/16 x 4 1/16	3 3/4	4 1/2	4 3/4	HT	9	18.25
TP-383	383-0-383	230	5	3	5	2									
					6.3	9			3 3/16 x 4 1/16	3 3/4	4 1/2	5 1/2	T	13	21.75
TP-390	400-0-400	180	5	3											
	330-0-330	180	5	3					3 x 3 9/16	4 9/16	3 3/4	4 3/4	V	11	19.55
TP-392	383-0-383	230	5	3	5	2									
					6.45	7.4									
					6.3	1.6			3 3/16 x 4 1/16	3 3/4	4 1/2	5 7/16	T	13	21.75
TP-393	366-0-366	270	5	6	6.7	4.5			3 3/16 x 4 1/16	3 3/4	4 1/2	4 3/4	T	10	19.00
TP-395	360-0-360	260	5	6	5	2									
					6.3	8.85			3 3/16 x 4 1/16	3 3/4	4 1/2	5 7/16	T	13	22.80
TP-400	374-0-374	205	5	3	5	2									
					6.3	5.6			3 x 3 3/4	3 3/4	4 1/2	4 1/4	H	8 1/2	16.30
TP-405	350-0-350	270	5	6	5	2									
					6.3	1.6									
					6.6	7.8			3 3/16 x 4 1/16	3 3/4	4 1/2	5 7/16	T	13	22.80
TP-409	360-0-360	240	5	6	6.5	9.3			3 3/16 x 4 1/16	3 3/4	4 1/2	5	T	10 1/2	19.00
TP-410	385-0-385	240	5	3	5	2									
					6.3	8.6			3 x 3 3/4	3 3/4	4 1/2	5 1/16	H	11 1/2	20.65
TP-450	364-0-364	195	5	3	5	2									
	229-0-229	105	5	2	6.3	8.25									
					6.3	0.6			4 1/16 x 3 5/16	3 3/4	4 1/2	5	T	11 1/4	22.50



T



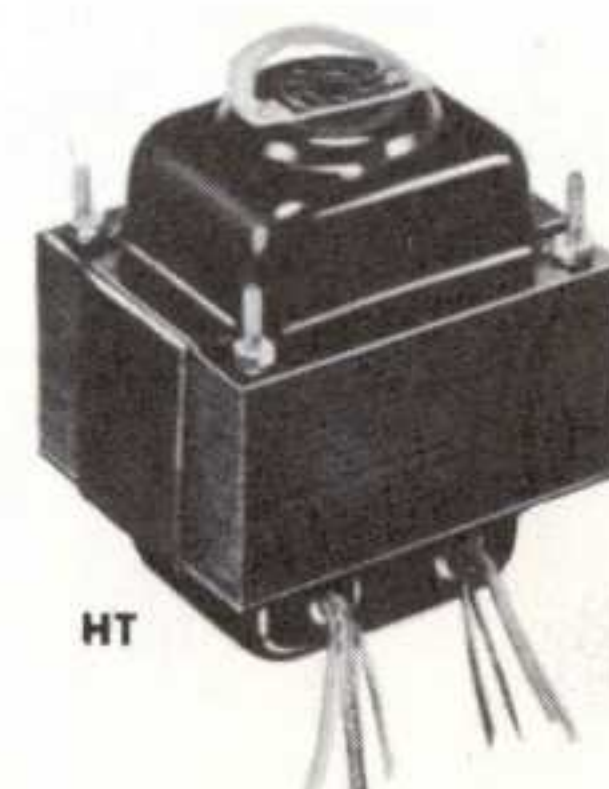
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C



HT



# CHICAGO

world's toughest transformers

## HORIZONTAL DEFLECTION OUTPUT AND HIGH VOLTAGE TRANSFORMERS

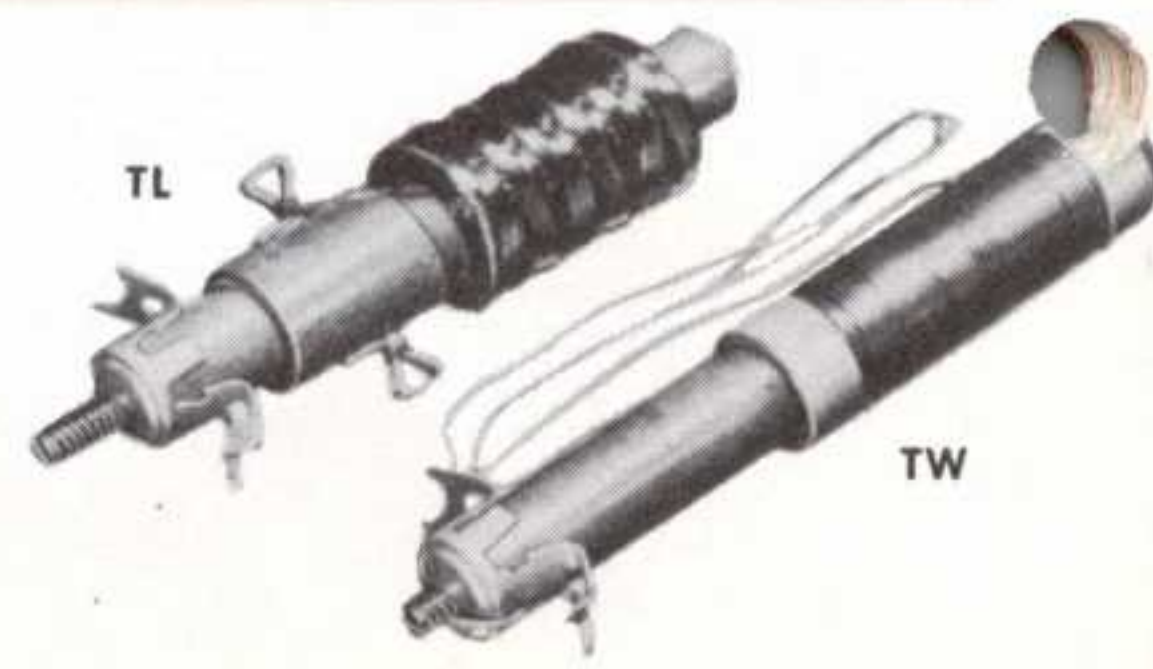
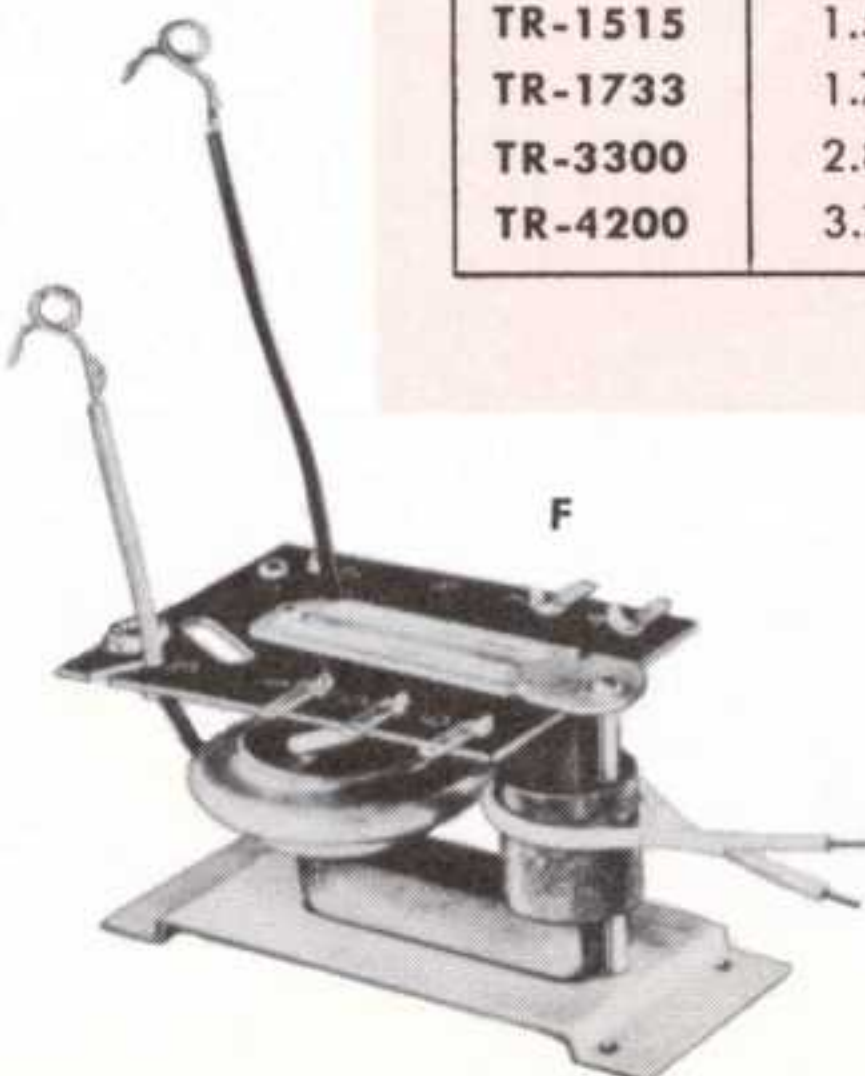
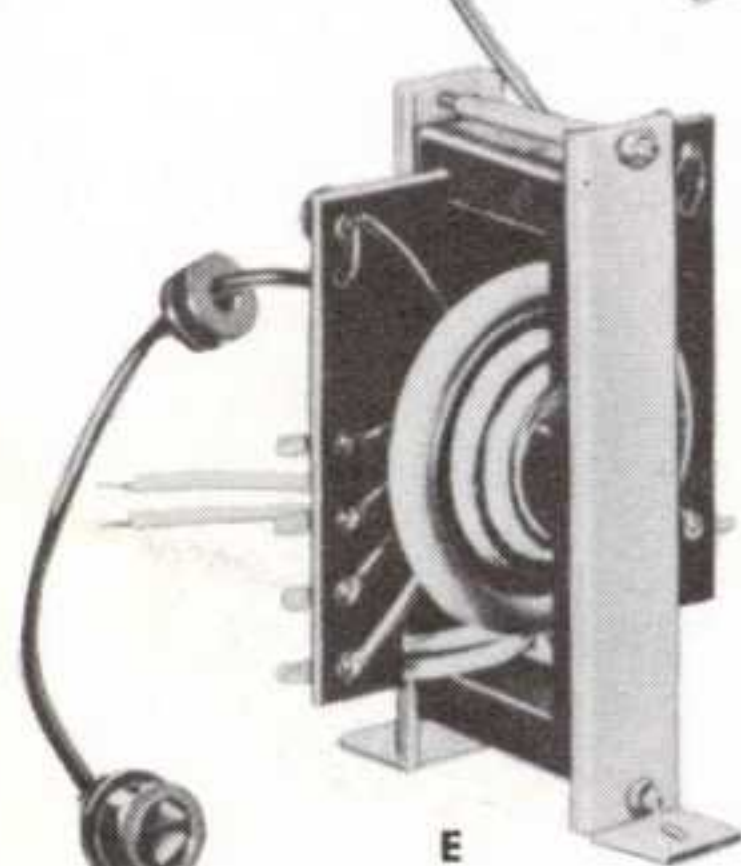
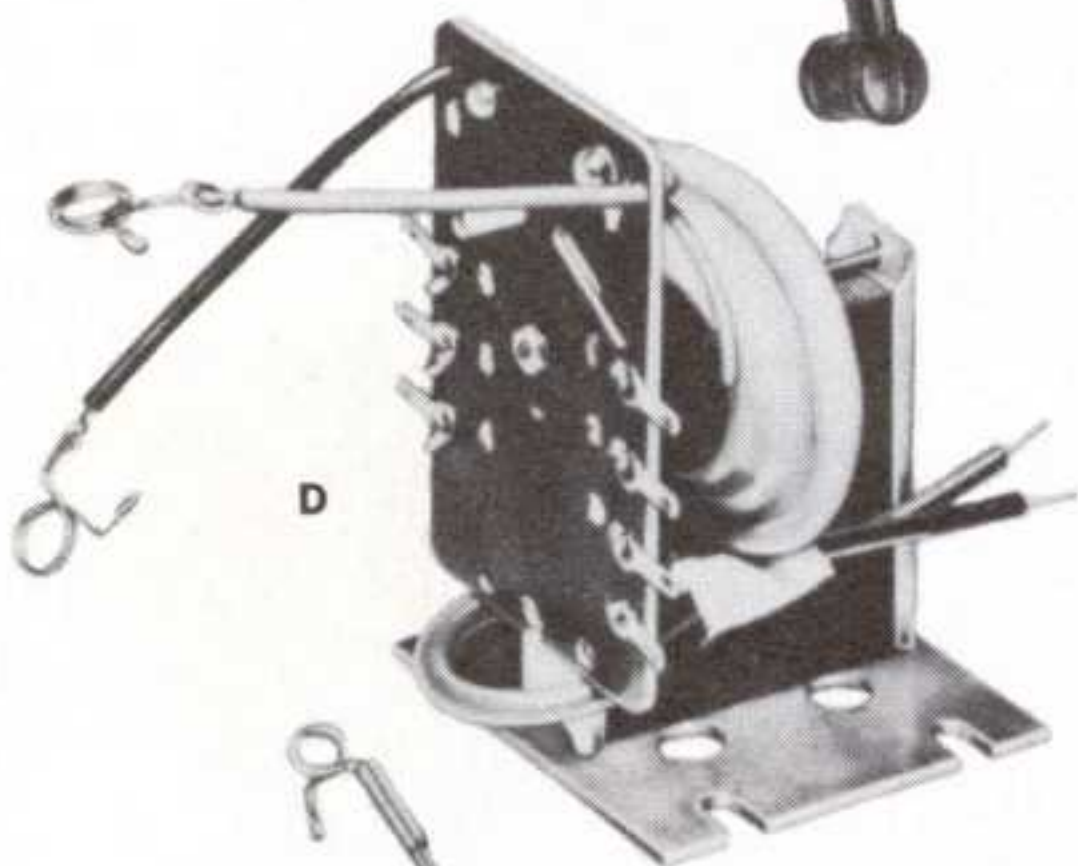
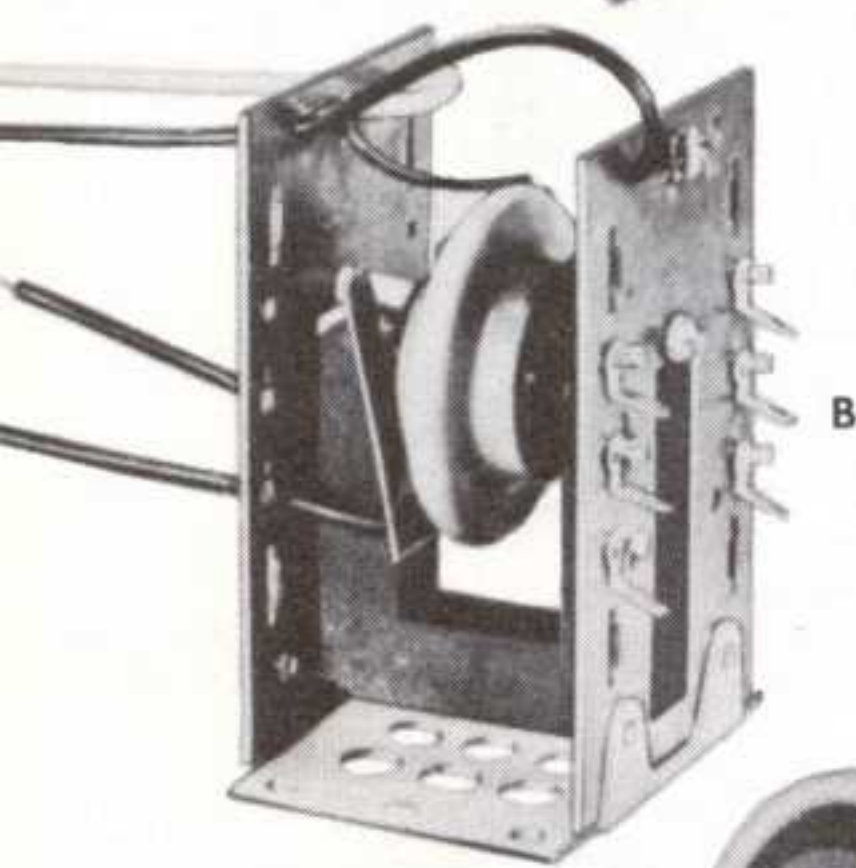
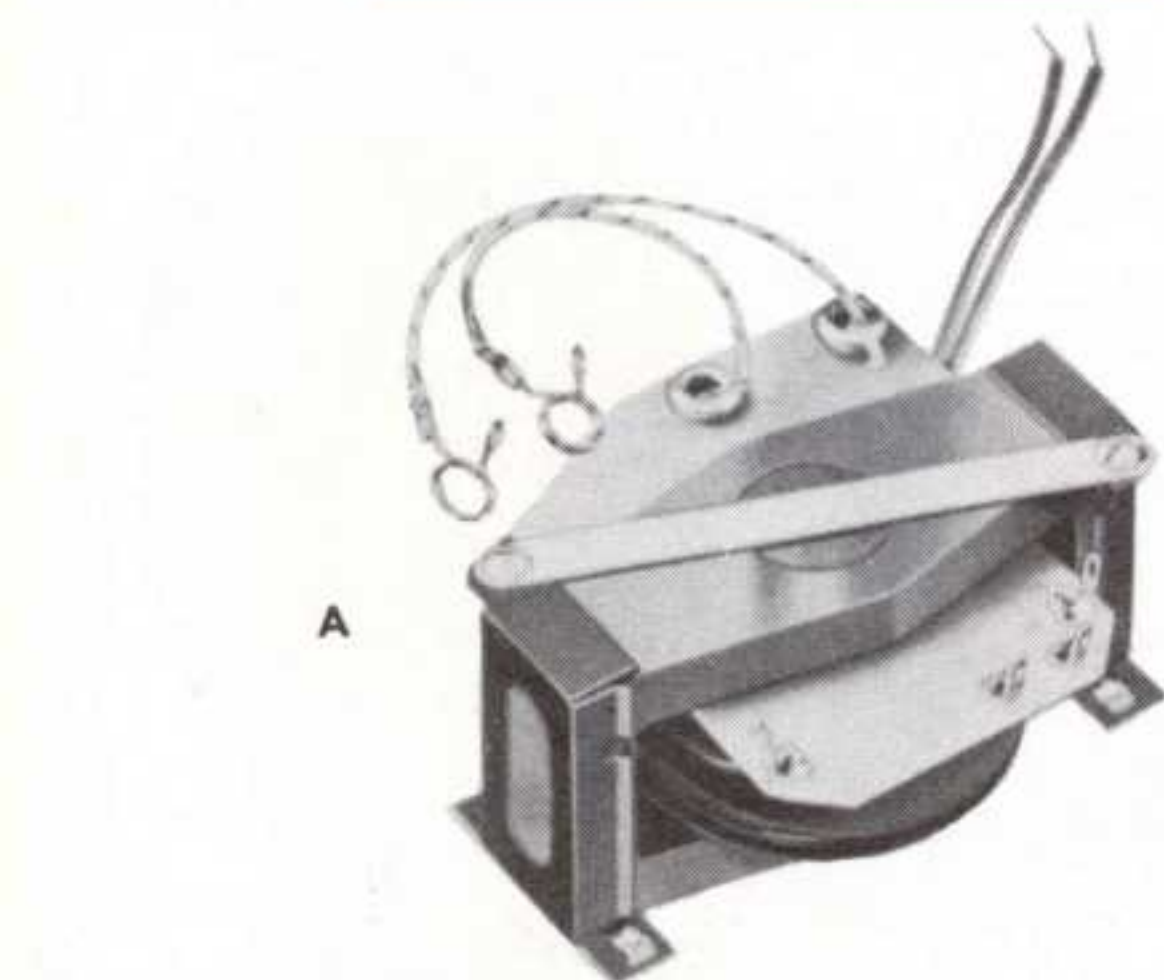
Cat. No.	Approx. Anode KV.	Max. Scan	Core Material	Height Over-all	Base Area	Mtg. Type	Wt. in Lbs.	List Price
TFB-1	10-11	53°	Powdered Iron	4 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub> x 3 <sup>3</sup> / <sub>4</sub>	A	2	\$ 7.60
TFB-2	9-10	53°	Powdered Iron	4 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub> x 3 <sup>3</sup> / <sub>4</sub>	A	2	7.60
TFB-3	9-10	53°	Powdered Iron	4 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub> x 3 <sup>3</sup> / <sub>4</sub>	A	2	10.30
TFB-4	13-14	53°	Powdered Iron	4 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub> x 3 <sup>3</sup> / <sub>4</sub>	A	2	10.30
TFB-5	10-14	70°	Ferrite	4 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub> x 2 <sup>7</sup> / <sub>8</sub>	B	1	11.00
TFB-6	11-13	70°	Air	3	3 <sup>1</sup> / <sub>4</sub> dia.	C	1/2	7.00
TFB-7	13.5-15	70°	Ferrite	4	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>7</sup> / <sub>8</sub>	D	1	10.50
TFB-8	14	70°	Ferrite	2 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub> x 4 <sup>1</sup> / <sub>4</sub>	F	1	10.50
TFB-9	14	70°	Ferrite	4 <sup>1</sup> / <sub>16</sub>	2 x 2 <sup>7</sup> / <sub>8</sub>	B	1	10.50
TFB-10	12.5-14	70°	Ferrite	4	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>7</sup> / <sub>8</sub>	D	1	10.50
TFB-11	14-15	70°	Ferrite	4	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>7</sup> / <sub>8</sub>	D	1	10.50
TFB-12	14	70°	Ferrite	2 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub> x 4 <sup>1</sup> / <sub>4</sub>	F	1	10.00
TFB-13	16-17.5	70°	Ferrite	4 <sup>1</sup> / <sub>16</sub>	2 x 2 <sup>7</sup> / <sub>8</sub>	B	1	11.50
TFB-14	13	70°	Ferrite	2 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub> mtg. c.	G	1	10.00
TFB-15	13-15	70°	Ferrite	4 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> mtg. c.	E	1	10.50
TFB-16	13-15	70°	Ferrite	4 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> mtg. c.	E	1	10.50
TFB-17	11	70°	Ferrite	2 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub> mtg. c.	G	1	10.00

## WIDTH AND LINEARITY COILS

Cat. No.	Description	Inductance (mh)	Resistance (ohms)	List Price
TW-1	Width coil	.050-.250	0.53	\$0.75
TW-2	Width coil	.170-.610	1.0	.90
TW-3	Width coil with keyed AGC winding	Pri. .160-.700 sec. 3.2-9	1.0 28.0	1.60
TWL-1	G.E. type width and linearity coil	3.5-29.5	30.0	1.00
TL-1	Linearity coil	5-20	32.0	.75
TL-2	Tapped linearity coil	.550-2.3	8.3	1.00
TL-3	Tapped linearity coil	1.3-4.1	5.6	1.30

## FILTER REACTORS FOR TELEVISION

Catalog No.	Inductance in henries	Maximum D-C		Insulation Test Volts	Mtg. Type	Mtg. Centers	Dimensions			Wt. Lbs.	List Price
		D-C Current Ma.	Resistance in ohms				H	W	D		
TR-1515	1.5	150	60	1500	L	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	3/4	\$2.95
TR-1733	1.7	330	50	1000	L	3 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	2	1 <sup>1</sup> / <sub>2</sub>	3.75
TR-3300	2.8	300	60	2500	L	3 <sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	4	2	2 <sup>1</sup> / <sub>2</sub>	4.25
TR-4200	3.7	200	60	2500	L	3 <sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	4	2	2 <sup>1</sup> / <sub>2</sub>	4.25





# CHICAGO

world's toughest transformers

## VERTICAL SCANNING OUTPUT TRANSFORMERS

For use in the vertical deflection circuits of television receivers  
to couple the vertical output tube to the deflection yoke.

Catalog No.	Turns Ratio Pri. to Sec.	Mtg. Centers	Dimensions H W D			Mtg. Type	Shp. Wt.	List Price
TSO-1	10:1	1 <sup>15</sup> / <sub>32</sub> x 2	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	FV	2 <sup>1</sup> / <sub>2</sub>	\$5.65
TSO-2	8:1	2 <sup>3</sup> / <sub>8</sub> x 1 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	FH	2 <sup>1</sup> / <sub>2</sub>	5.10
TSO-3	8:1	1 <sup>15</sup> / <sub>32</sub> x 2	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	FV	2 <sup>1</sup> / <sub>2</sub>	5.40
TSO-4	10:1	1 <sup>15</sup> / <sub>32</sub> x 1 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>4</sub>	FV	2	4.55
TSO-5	10:1	3 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	L	2	3.80
TSO-6	44.6:1	1 <sup>15</sup> / <sub>32</sub> x 1 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	FV	2 <sup>1</sup> / <sub>4</sub>	4.90
TSO-7	9:1	Spl. Frame	2 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	Spl.	2	5.75
TSO-8	11:1	2 <sup>13</sup> / <sub>16</sub>	2	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	L	1	4.00
TSO-9	10:1	2 <sup>13</sup> / <sub>16</sub>	2	3 <sup>1</sup> / <sub>4</sub>	2	L	1 <sup>1</sup> / <sub>4</sub>	4.25
TSO-10	10:1	3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	4	2 <sup>1</sup> / <sub>4</sub>	L	2 <sup>1</sup> / <sub>2</sub>	5.50
*TSO-11	10:1	1 <sup>15</sup> / <sub>32</sub> x 1 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	FV	2	4.40
*TSO-12	18:1	3 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	L	1 <sup>1</sup> / <sub>2</sub>	5.35

\*Autotransformers

## VERTICAL BLOCKING OSCILLATOR TRANSFORMERS

These units generate 60-cycle pulse required to drive grids of  
vertical discharge tubes in television circuits.

Catalog No.	Turns Ratio Pri. to Sec.	Mtg. Center	Dimensions H W D			Mtg. Type	Shp. Wt.	List Price
TBO-1	1:4.2	1 <sup>15</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>17</sup> / <sub>32</sub>	CC	1	\$2.95
TBO-2	1:4.2	1 <sup>7</sup> / <sub>32</sub>	1 <sup>25</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>32</sub>	CB	1/2	2.70
TBO-3	1:4	2	1 <sup>21</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>32</sub>	CC	1	3.25
TBO-4	1:1.5	2	1 <sup>11</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	L	1/2	2.50
TBO-5	1:4.2	1 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	L	1/2	2.50

## DEFLECTION YOKES

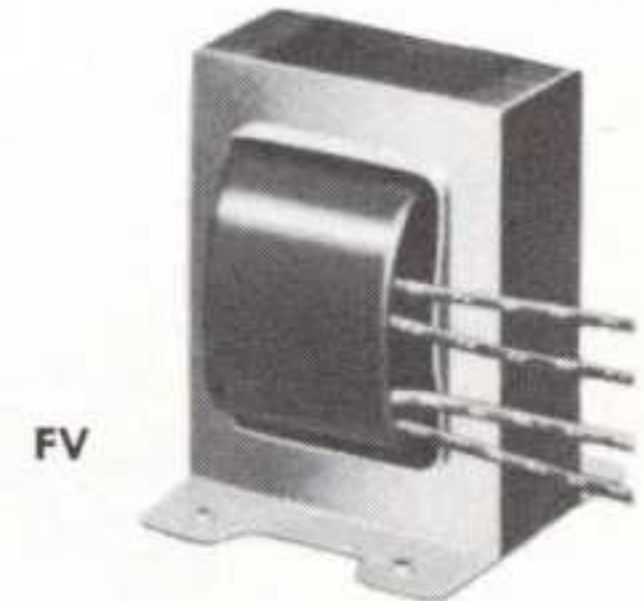
Catalog No.	Horiz. Scanning Coil in mh.	Vert. Scanning Coil in mh.	Max. Scan.	Core Material	Case Dia.	Unit Length	Mtg. Type	List Price
TY-1	8.3	50	53°	Iron wire	3 <sup>1</sup> / <sub>8</sub>	3	TY-1	\$ 7.50
TY-2*	8.3	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.75
TY-3*	13.6	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.75
TY-4*#	30.0	3.2	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.75
TY-5*	10.3	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.00
TY-6*	17.0	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.00
TY-7*	20.0	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.00
TY-8*	30.0	50	70°	Ferrite	3 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	TY-2	10.00

\*Has cosine winding for anti-astigmatic focusing.

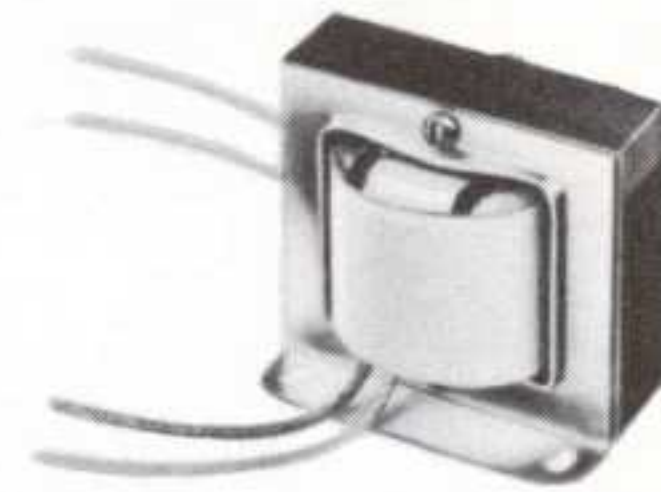
#For direct coupled systems.

## FOCUS COILS

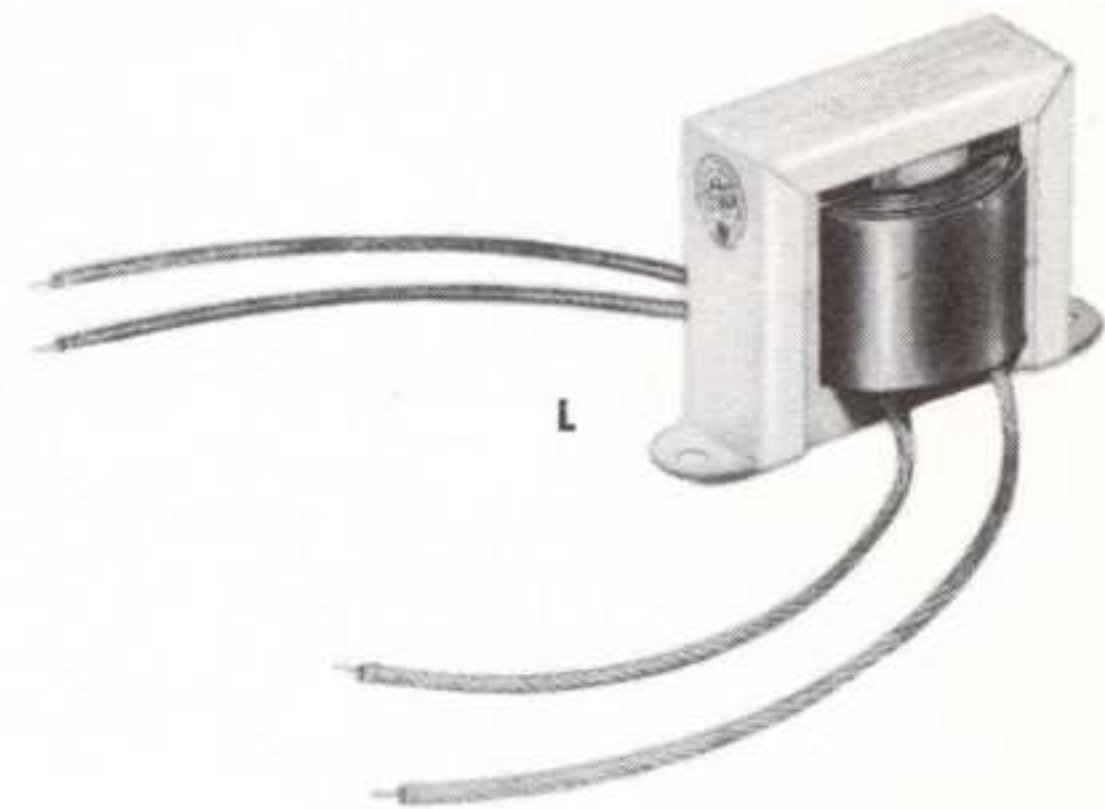
Catalog No.	Resistance D-C ohms	Maximum D-C ma.	Case Dim.	Case Depth	Mounting Centers	Mtg. Type	Shp. Wt.	List Price
TC-1	247	200	3 <sup>3</sup> / <sub>8</sub> dia.	1 <sup>1</sup> / <sub>2</sub>	8-32 screw	TC	2	\$ 7.50
TC-2	470	140	4 <sup>3</sup> / <sub>4</sub> dia.	1 <sup>1</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub> radius	TC	3 <sup>1</sup> / <sub>2</sub>	10.75



FV



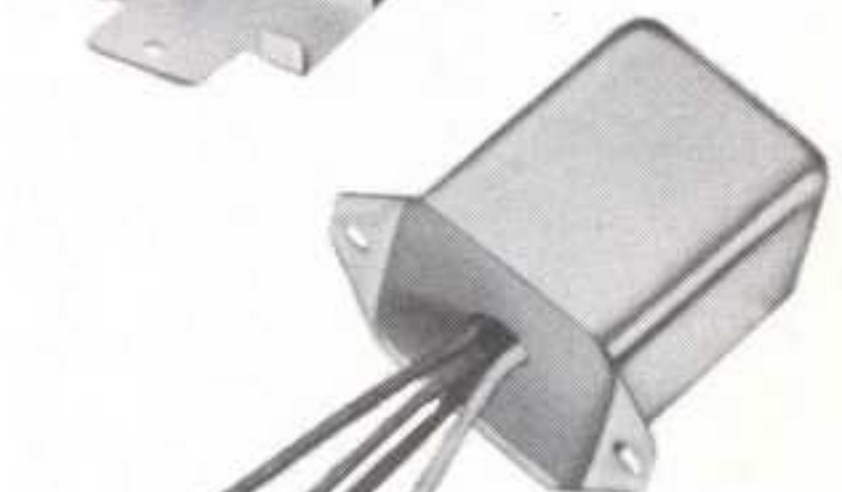
FH



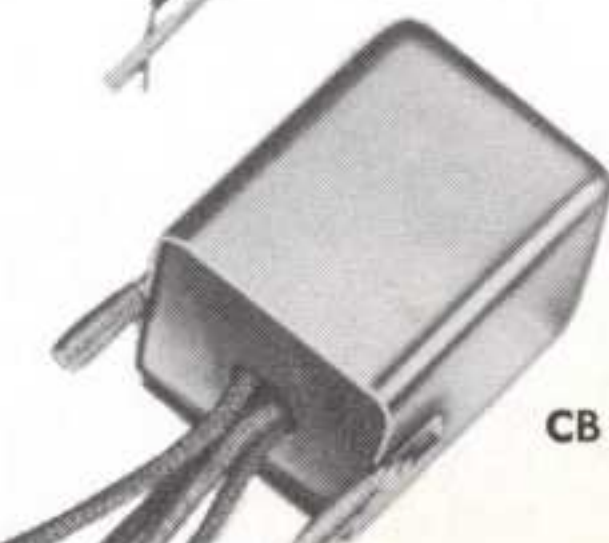
L



SPL



CC



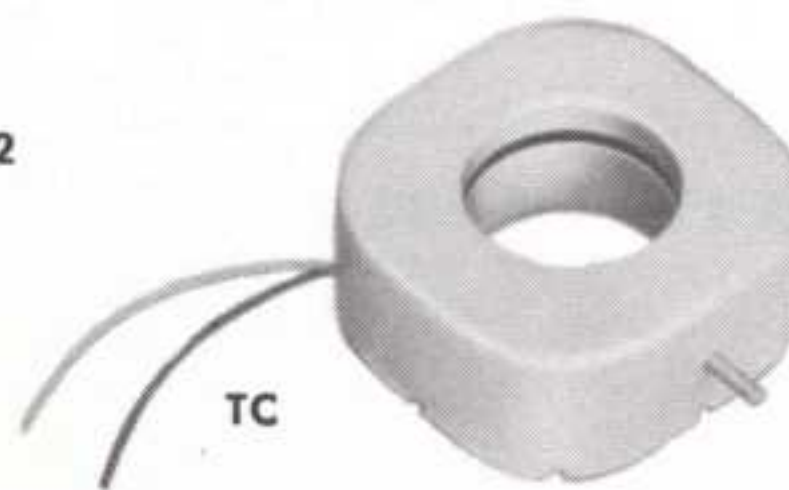
CB



TY-1



TY-2



TC



# CHICAGO

## world's toughest transformers

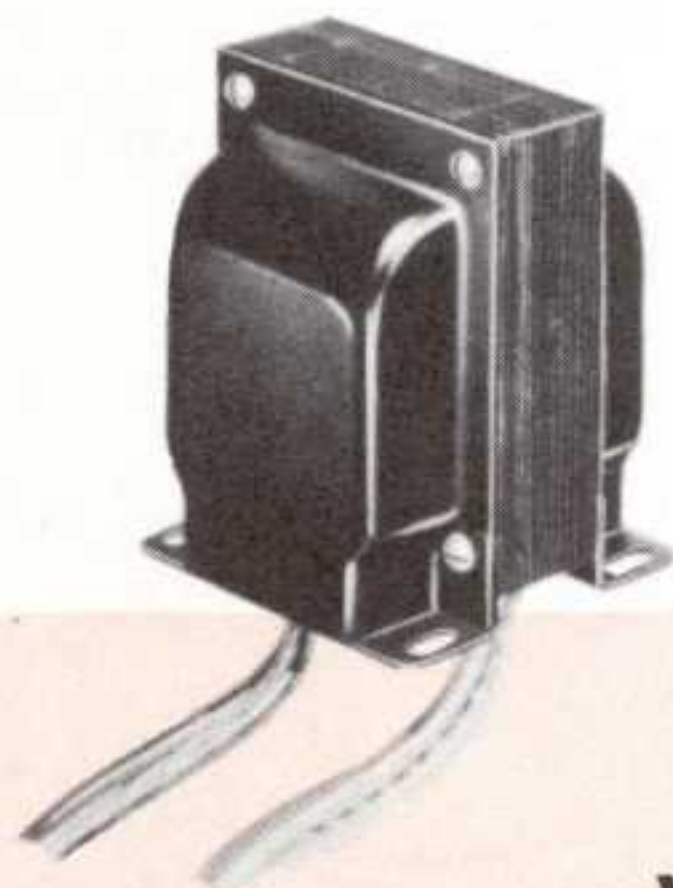
### GENERAL REPLACEMENT TRANSFORMERS AND REACTORS

# d

CHICAGO Replacement-Type Transformers not only fit the serviceman's most frequent requirements but fill, as well, the needs of the amateur, experimenter, builder and industrial user for efficient, high-quality units in standard ratings at moderate cost.

RMA color-coded leads, tinned lead ends, and standard-dimension mountings make for easy installation. Every unit is backed by CHICAGO's reputation . . . established in 25 years of making original equipment transformers for leading set manufacturers.

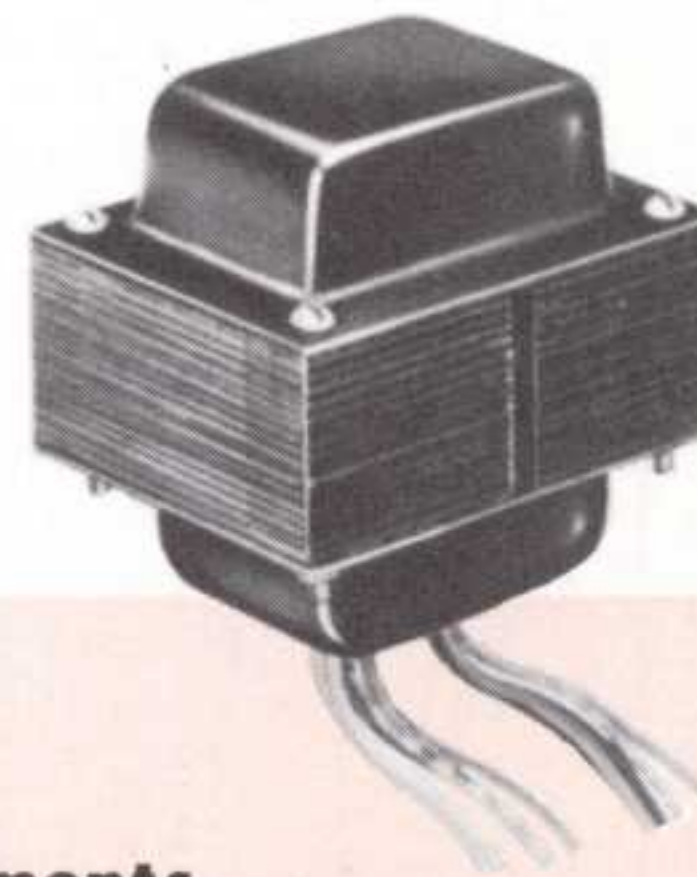
### POWER TRANSFORMERS



V



\*  
PV-10S  
PV-20S  
PV-50A



H

#### VERTICAL SHIELD TYPE (V)—6.3-Volt Filaments

Catalog No.	High Voltage Secondary		Rectifier Filament		Other Filaments		Mtg. Centers	Dimensions			Wt. Lbs.	List Price
	A-C Volts	D-C Ma.	Volts	Amps	Volts	Amps		H	W	D		
* PV-10S	250-0-250	10			6.3	0.6	2 3/8	2 1/4	2 7/8	2 1/8	1	\$ 8.80
					6.3	1.2						
* PV-20S	250-0-250	20			6.3	0.6	2 13/16	2 5/8	3 5/16	2 1/4	1 1/2	8.60
					6.3	1.2						
PV-40	225-0-225	40	5	2	6.3 C-T	1	2 x 1 5/8	3 1/8	2 1/2	2 1/2	2 1/4	7.15
PV-50	325-0-325	50	5	3	6.3 C-T	2	2 1/2 x 2 1/4	3 1/2	2 7/8	2 7/8	3 3/4	8.05
* PV-50A	117	50			6.3	1.75	2 3/4	2 5/8	3 5/16	2 1/4	1 1/2	4.15
PV-60	250-0-250	60	5	2	6.3 C-T	2	2 3/16 x 2 1/8	3 1/8	2 1/2	3	3	8.60
PV-70	350-0-350	70	5	3	6.3 C-T	3	2 3/4 x 2 1/2	3 7/8	3 1/8	3 1/8	4 1/2	9.25
PV-70A	300-0-300	70	5	3	6.3 C-T	3	2 1/4 x 2 1/4	3 1/2	2 7/8	3 1/8	4	9.15
PV-90	350-0-350	90	5	3	6.3 C-T	3.5	2 3/4 x 2 1/2	3 7/8	3 5/16	3 1/2	5 1/4	10.30
PV-100	350-0-350	100	5	3	6.3 C-T	5	2 3/4 x 3	3 7/8	3 5/16	3 3/8	7 1/2	10.65
PV-110	350-0-350	110	5	2	6.3 C-T	3						
					6.3 C-T	3	2 3/4 x 3	3 7/8	3 5/16	3 7/8	5 1/2	13.25
PV-120	300-0-300	120	5	3	6.3 C-T	5	2 3/4 x 2 3/4	3 7/8	3 5/16	3 3/4	5 3/4	10.85
PV-120A	350-0-350	120	5	3	6.3 C-T	4.5	2 5/8 x 2 1/2	3 7/8	3 5/16	3 5/8	6	11.95
PV-145	372-0-372	145	5	3	6.3 C-T	5	2 1/2 x 3	4 7/8	3 3/4	4	7 1/2	12.85
PV-200	400-0-400	200	5	4	6.3 C-T	5.5	3 1/4 x 3	4 5/8	3 3/4	4 1/2	9	15.00

#### HORIZONTAL SHIELD TYPE (H)—6.3-Volt Filaments

PH-20S	250-0-250	20			6.3	0.6	1 7/8	2 3/8	2 5/8	2 3/16	1	9.50
					6.3	1.2						
PH-40	250-0-250	40	5	2	6.3 C-T	1.6	2 1/2 x 2	3	3	2 1/2	2 1/2	7.40
PH-50	250-0-250	50	5	2	6.3 C-T	2	2 1/2 x 2	3 1/2	3	2 1/2	3	7.50
PH-50A	280-0-280	50	5	3	6.3	1.5						
					6.3	.6	2 1/2 x 2	3 1/4	3	2 1/2	3 1/2	7.70
PH-70	300-0-300	70	5	3	6.3 C-T	3	2 13/16 x 2 1/4	3 1/2	3 3/8	2 13/16	4	7.80
PH-70B	350-0-350	70	5	3	6.3 C-T	2.5	2 1/2 x 2	3 3/4	3	2 1/2	4 1/2	7.95
PH-90	350-0-350	90	5	3	6.3 C-T	3.5	3 1/8 x 2 5/16	3 3/8	3 3/4	3 1/8	5 1/4	8.35
PH-120	300-0-300	120	5	3	6.3 C-T	5	3 1/8 x 2 5/16	3 7/8	3 3/4	3 1/8	5 3/4	9.25
PH-120B	350-0-350	120	5	3	6.3 C-T	4.5	3 1/8 x 2 5/16	4	3 3/4	3 1/8	6	9.25
PH-145	372-0-372	145	5	3	6.3 C-T	5	3 3/4 x 3	3 7/8	4 1/2	3 3/4	9	10.85
PH-200	350-0-350	200	5	3	6.3 C-T	6	3 3/4 x 3	4	4 1/2	3 3/4	8	13.30

#### HORIZONTAL SHIELD TYPE (H)—6.3-Volt and 2.5-Volt Filaments

PH-60	300-0-300	60	5	3	6.3 C-T	2.5						
					2.5 C-T	7.5	2 13/16 x 2 1/4	3 1/2	3 3/8	2 13/16	4 1/2	8.95

#### HORIZONTAL SHIELD TYPE (H)—2.5-Volt Filaments

PH-70A	325-0-325	70	5	3	2.5 C-T	9	3 1/8 x 2 1/2	3 5/8	3 3/4	3 1/8	4 1/2	8.95
PH-120A	325-0-325	120	5	3	2.5 C-T	12.5						
					2.5 C-T	3.5	3 7/16 x 2 3/4	3 7/8	4 1/8	3 1/2	6	11.40

All transformers above are designed for 117 volts, 50/60 cycles.



# CHICAGO

world's toughest transformers

## REPLACEMENT VIBRATOR TRANSFORMERS

CHICAGO's line of Vibrator Transformers provides replacements that are exact, both electrically and mechanically, for a wide range of popular auto radio models. Howard W. Sams' PHOTOFACT FOLDERS show auto set model numbers, manufacturer's part numbers for the original vibrator transformers, and the proper CHICAGO replacement unit by catalog number.

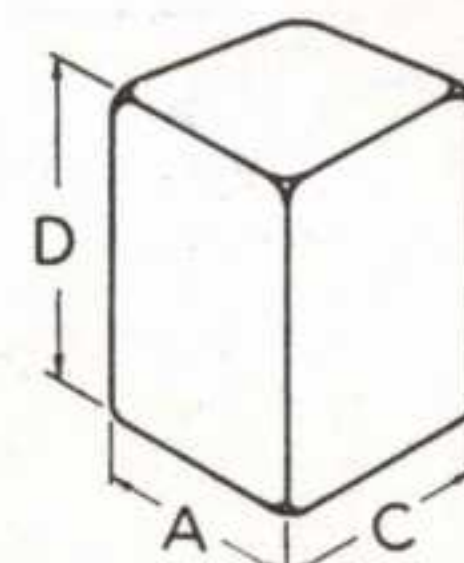
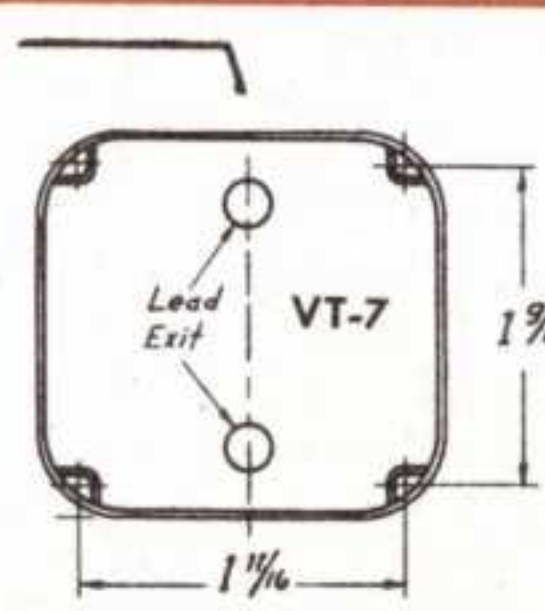
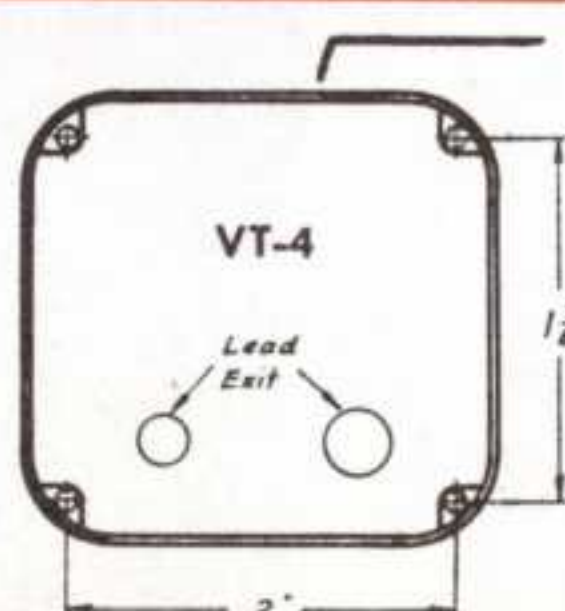
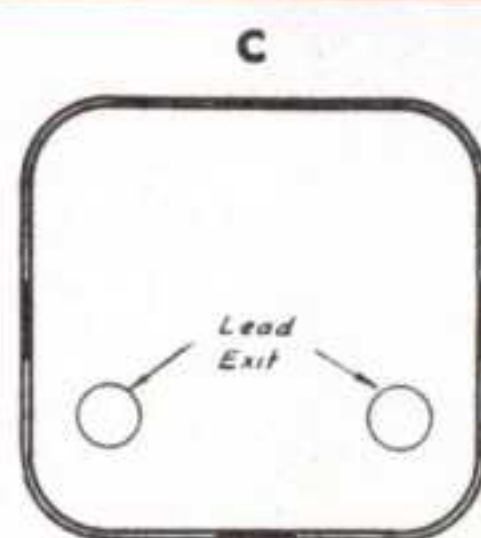
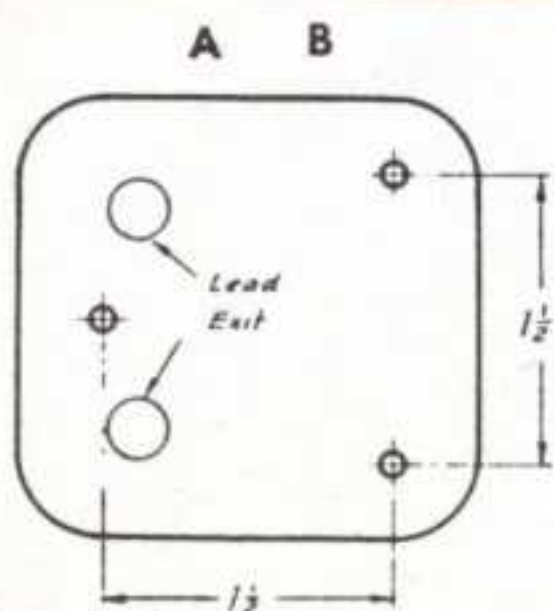
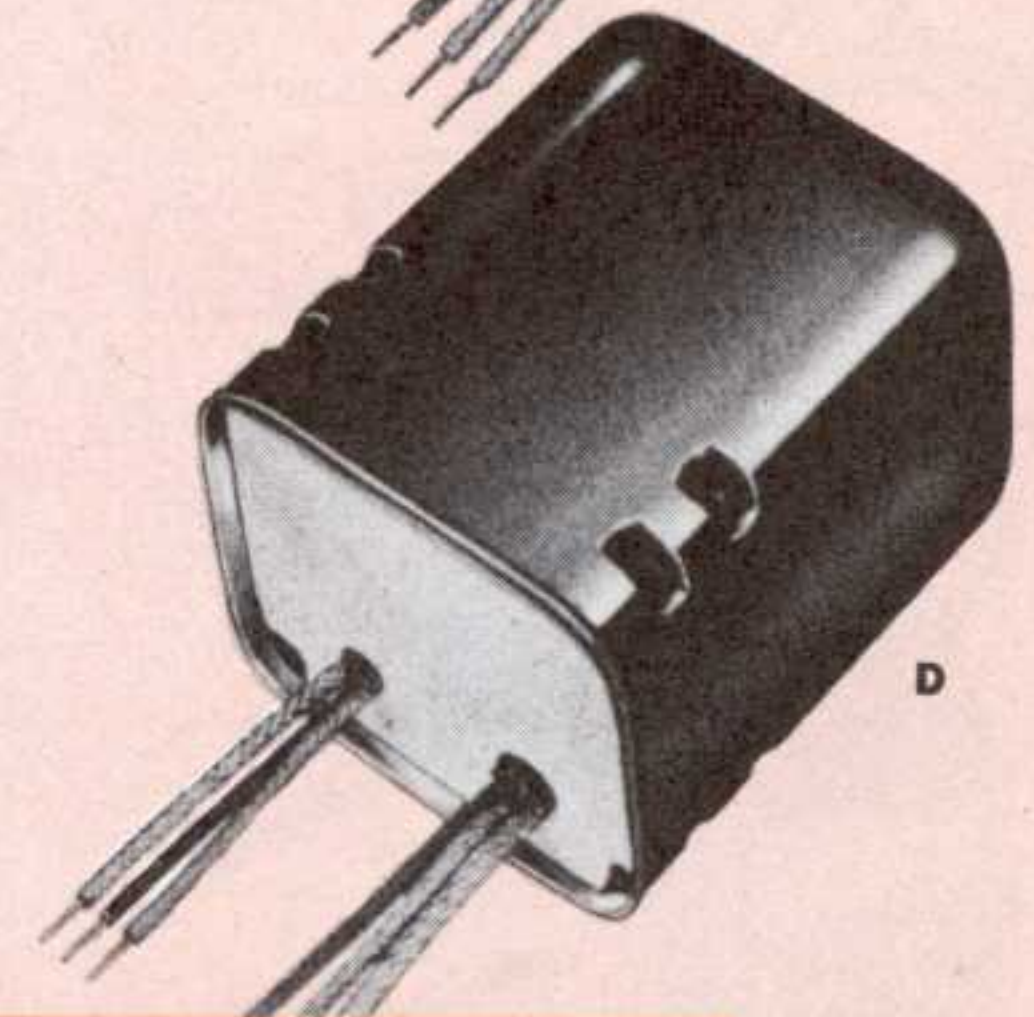
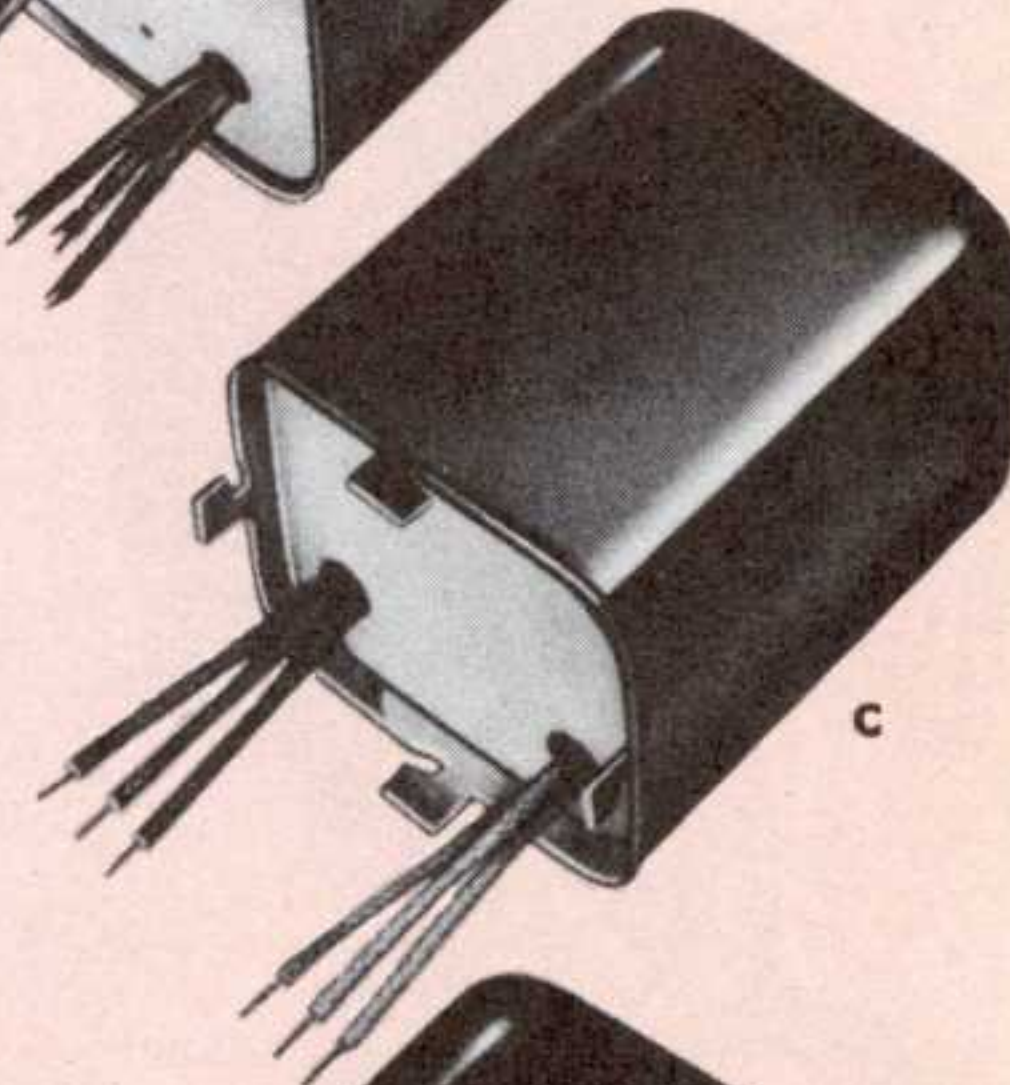
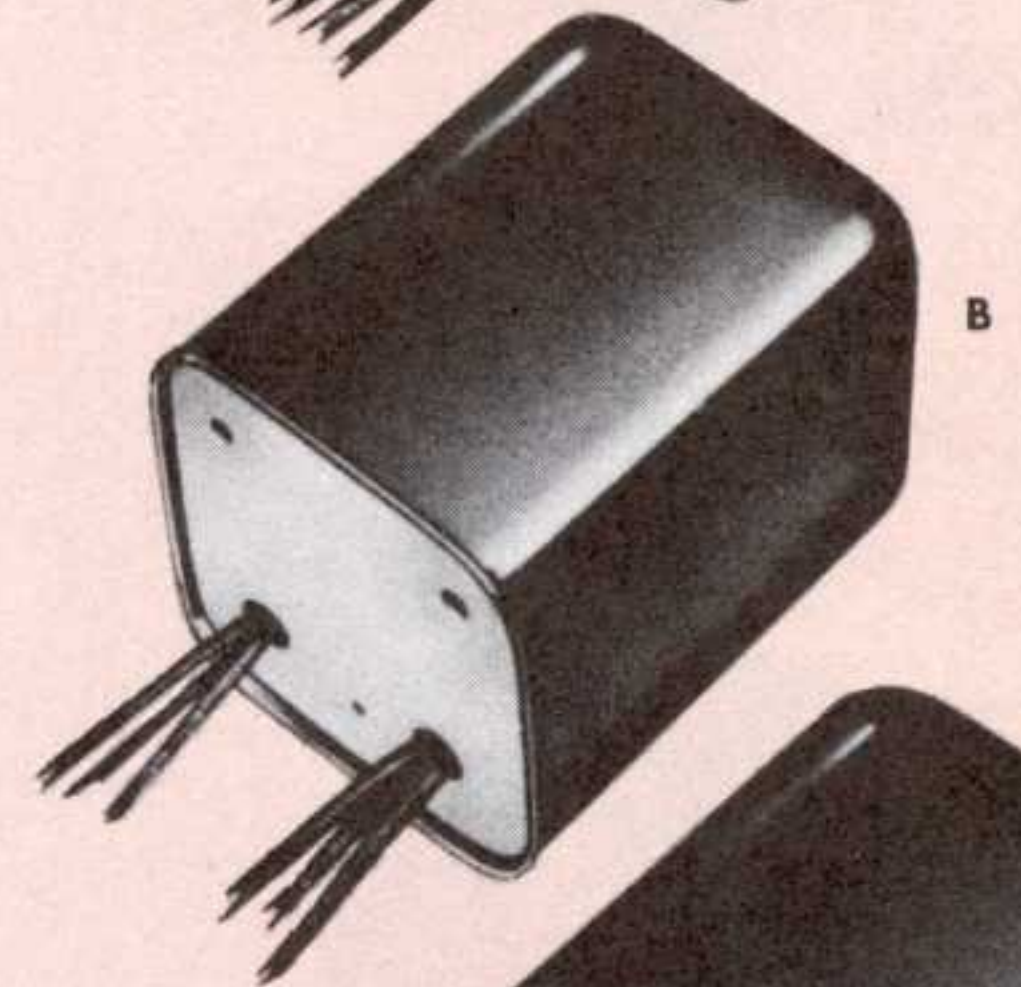
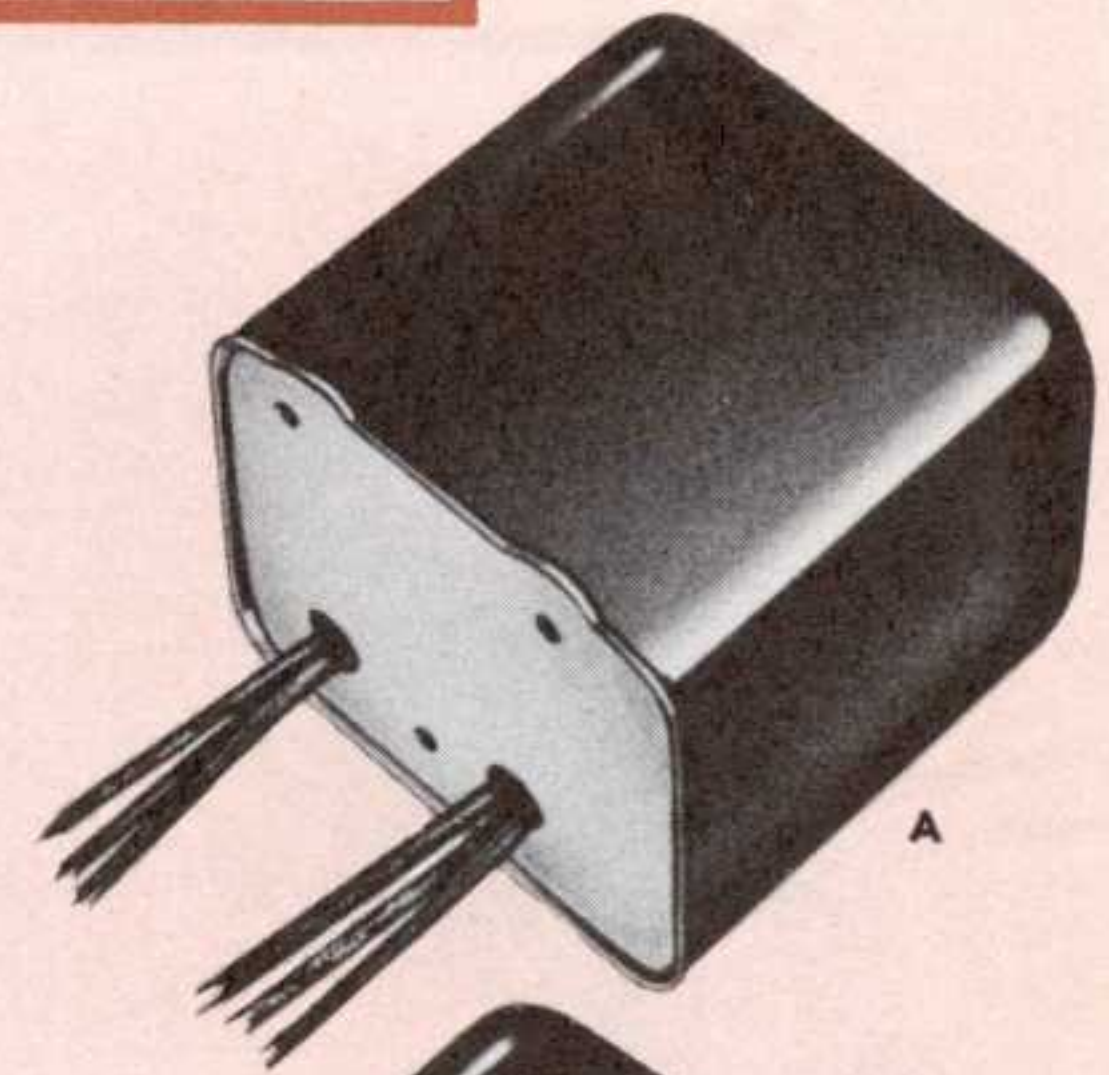
The electrical characteristics for the vibrator transformers listed in Sams' PHOTOFACT FOLDERS are given in Sections A and B of the table below, together with dimensions and mounting types corresponding to the illustrations and diagrams elsewhere on this page.

For auto radio makes and models NOT listed in PHOTOFACT, suitable replacements can be determined, in many cases, by using the following procedure: (1) Refer to the manufacturer's circuit information—usually shown on cover of set, or available in service manuals—for the d-c output voltage and current requirements of the original transformer; (2) From Section B of the table below, select the CHICAGO unit(s) with the closest corresponding ratings; and (3) Check suitability of the mounting(s) illustrated below on this page.

### FOR OPERATION FROM 6-VOLT BATTERY

Catalog No.	SECTION A		SECTION B		Case Type	Overall Dimensions in Inches			Wt., Lbs.	List Price
	Secondary A-C Volts	D-C Ma.	Secondary D-C Output* Volts	Ma.		A	C	D		
VT-1	240-0-240	40	246 231 214	40 50 60	A	2 3/4	2 1/4	2 5/8	2 1/4	\$7.60
VT-1A	Same as VT-1		Same as VT-1		B	2 1/2	2 3/8	3 1/16	2 1/2	7.60
VT-2	240-0-240	50	249 238 231	40 50 60	C	2 1/2	2 3/8	3 1/16	2 1/2	7.85
VT-3	235-0-235	60	262 242 236	40 50 60	B	2 3/8	2 1/4	3	2 1/4	8.15
VT-4	270-0-270	70	316 300 280 264 245	40 50 60 70 80	D	2 1/2	2 3/8	3 1/16	2 1/2	8.40
VT-5	240-0-240	70	276 263 249 237	40 50 60 70	B	2 1/2	2 3/8	3 1/16	2 1/2	8.70
VT-6	250-0-250	80	284 272 261 251 238	40 50 60 70 80	B	2 7/8	2 3/4	3 1/4	3 1/2	9.25
VT-7	195-0-195	60	188 180 172 167 162	40 50 60 70 80	D	2 3/16	2 3/32	2 11/16	1 3/4	7.05

\*D-C output voltage measured at input filter capacitor.





# CHICAGO

## world's toughest transformers

### GENERAL REPLACEMENT TRANSFORMERS AND REACTORS

# d

#### FILAMENT TRANSFORMERS

Catalog No.	Secondary Volts	Amps	Primary Volts	Cycles	Insulation Test Volts	Mtg. Type	Mtg. Centers	Dimensions H W D	Wt. Lbs.	List Price
FO-26	2.5 C-T	6	107/117	60	2000	U	2 3/8	2 3/8 2 7/8 1 7/8	1	\$ 3.80
FO-210H	2.5 C-T	10	107/117	60	7500	U	3 1/8	3 1/8 3 5/8 2 1/2	2 1/2	6.15
FO-53	5.0 C-T	3	107/117	60	2000	U	2 3/8	2 3/8 2 7/8 2	1	4.15
FO-56	5.0 C-T	6	107/117	60	2000	U	2 11/16	2 5/8 3 5/16 2 1/4	2	5.40
FO-513	5.0 C-T	13	107/117	60	2000	UN*	2 1/8 x 2 7/8	3 3/8 2 13/16 2 3/4	4	6.65
FV-520H	5.0 C-T	20	117	50/60	9000	V	2 1/2 x 3	4 1/2 3 3/4 3 3/4	7	14.55
FV-530	5.0 C-T	30	117	50/60	2000	V	2 3/4 x 3	4 1/2 3 3/4 4	6	14.05
FO-615	6.3 C-T	1.5	107/117	60	2000	L	2 3/8	1 5/8 2 7/8 1 3/4	3/4	2.95
†FO-615H	6.3	1.5	107/117	60	7000	L	2 13/16	2 3/4 3 5/16 2 1/2	1 1/2	3.60
FO-63	6.3 C-T	3	107/117	60	2000	U	2 3/8	2 3/8 2 7/8 2	1 1/4	4.15
†FO-63H	6.3	3	107/117	60	7000	L	3 1/16	2 5/8 4 2 5/8	2	4.75
FO-66	6.3 C-T	6	107/117	60	2000	L	3 1/8	2 1/4 3 5/8 2 1/2	2	5.65
FO-610	6.3 C-T	10	107/117	60	2000	UN*	2 1/8 x 2 7/8	3 3/8 2 13/16 2 3/4	3 1/4	7.05
FO-75	7.5 C-T	5	107/117	60	2000	U	3 1/8	3 3 3 5/8 2 1/2	2 1/4	5.15
FO-105	10 C-T	5	107/117	60	2000	FV	2 1/8 x 2	3 1/16 2 1/2 2 7/8	3	7.15
FV-1010	10 C-T	10	117	50/60	2000	V	2 3/4 x 2 3/4	3 7/8 3 1/4 3 5/8	5	9.35
FO-122	12.6 C-T	2	107/117	60	2000	L	3 1/8	2 1/4 3 5/8 2 1/8	1 1/2	4.65
FV-6107	123.3@	.75								
	6.3	10.7	117	60	1500	V	2 1/8 x 2 13/16	3 1/8 2 1/2 3 1/2	3	8.75
FV-7665	7.0	6.5								
	6.3	5.0	117	60	1500	V	2 1/8 x 2 1/4	3 1/16 2 7/8 3	5	11.50

\*Universal mounting frames.

†Low capacity (under 50 mmfd.), high voltage for damper tube service  
@Auto extension of primary (Motorola No. 25B721779B)

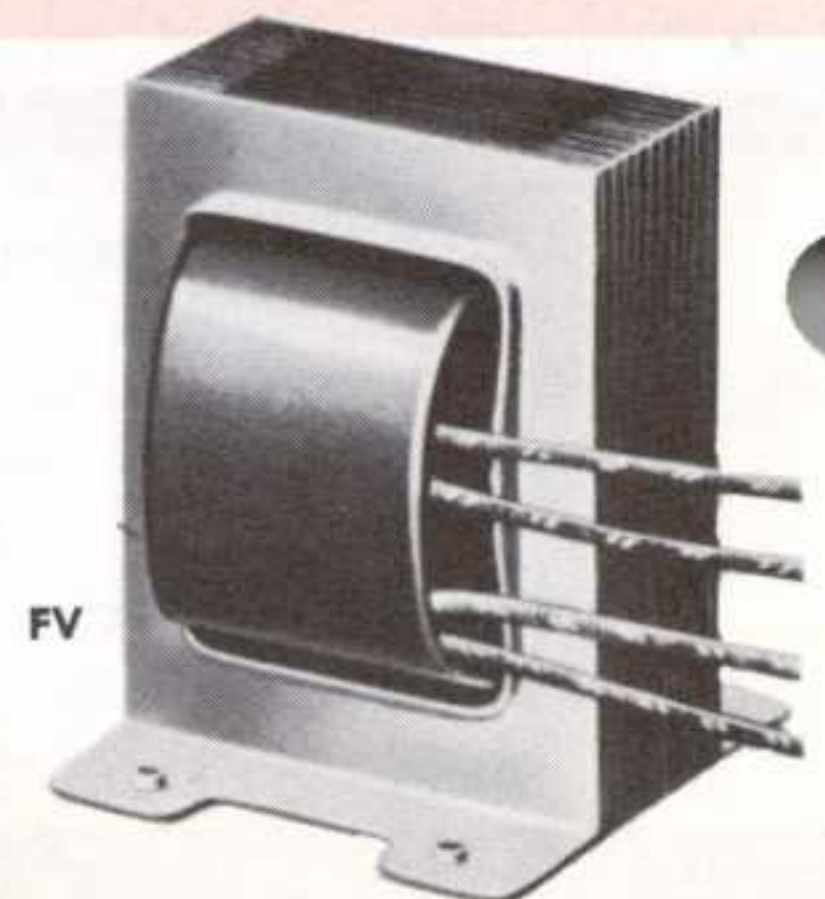
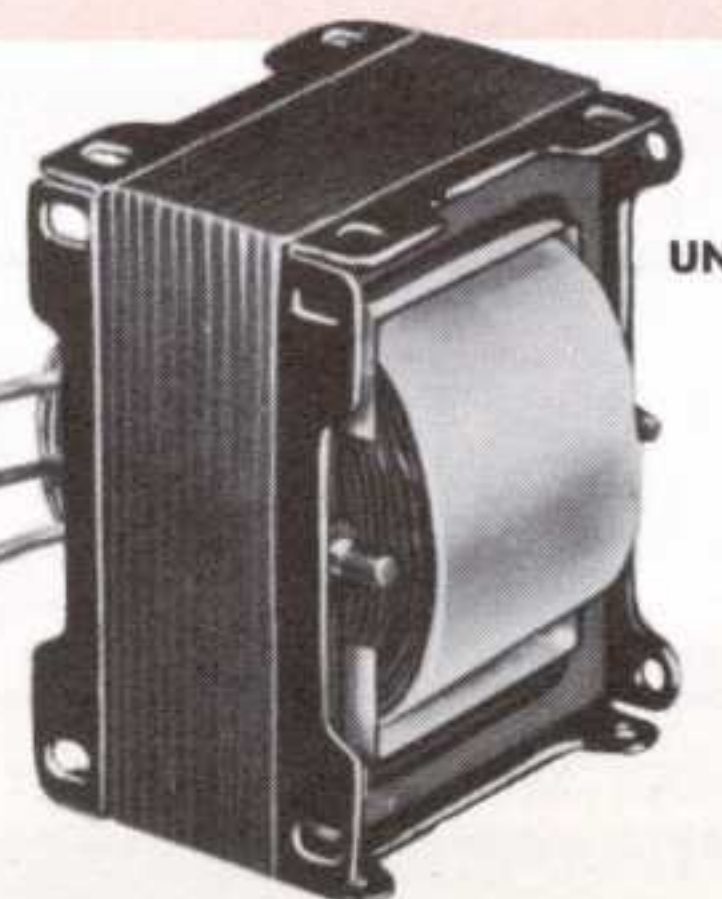
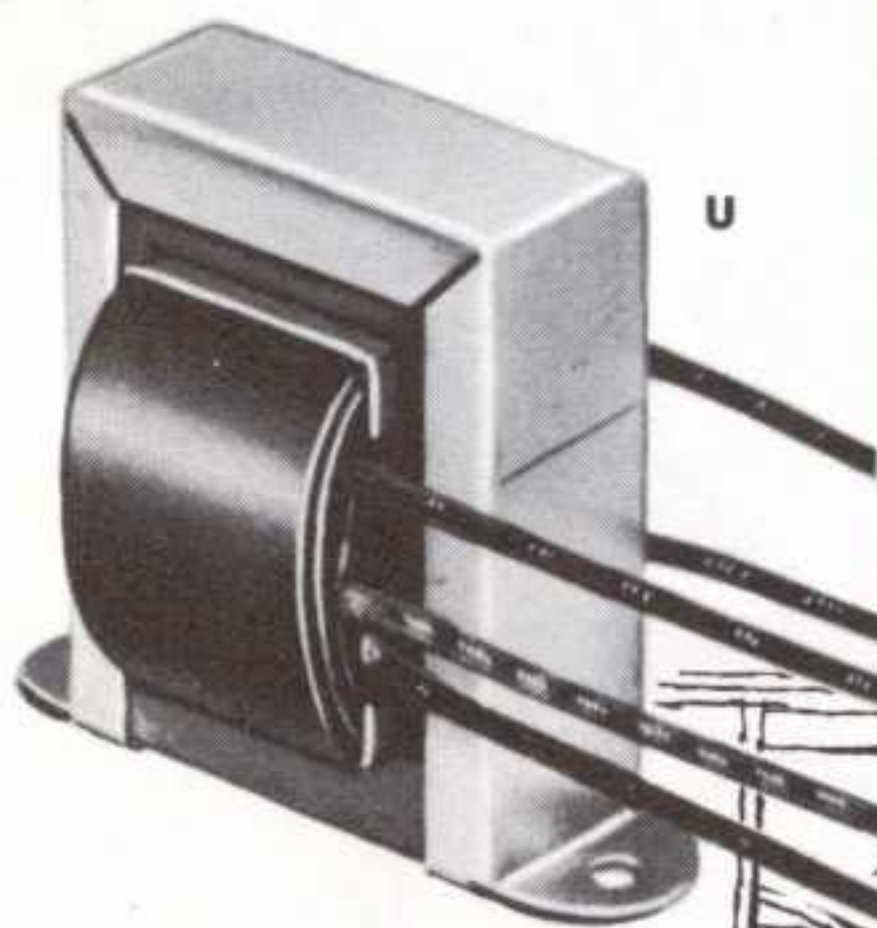
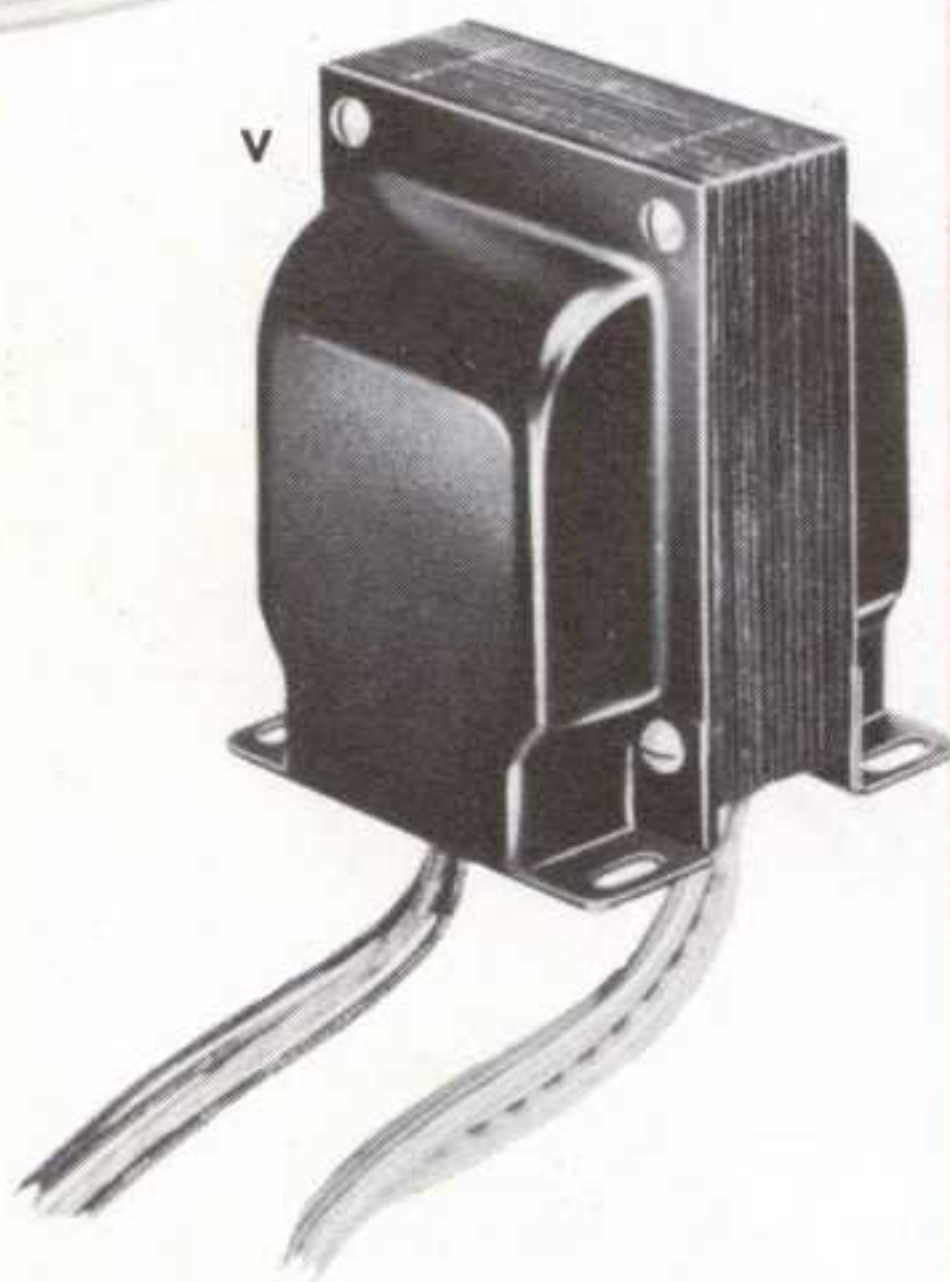
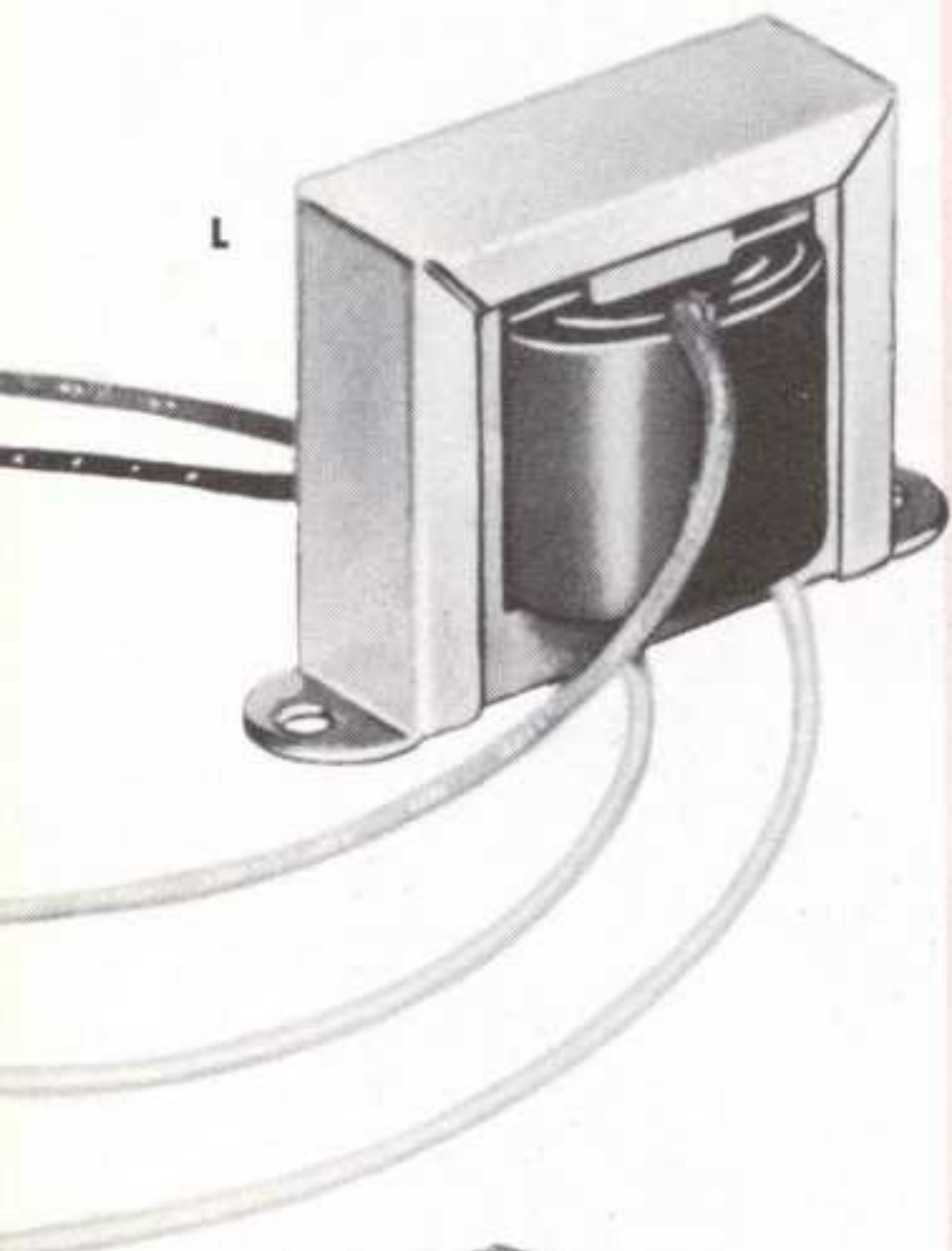
#### FILTER REACTORS

Catalog No.	Inductance in henries	Max. D-C Ma.	D-C Resist. in ohms	Insulation Test Volts	Mtg. Type	Mtg. Centers	Dimensions H W D	Wt. Lbs.	List Price
R-1230	12	30	400	2000	L	2	1 3/8 2 3/8 1 3/8	1/2	\$ 1.65
R-1240	12	40	400	2000	L	2 3/8	1 5/8 2 3/4 1 1/8	3/4	1.70
R-650	6	50	300	1500	L	2 3/8	1 5/8 2 7/8 1 3/8	3/4	1.75
R-1365	13	65	500	2000	L	3 1/8	2 1/4 3 3/4 1 3/4	1 1/2	2.70
R-885	8	85	250	2000	L	3 1/8	2 3/8 3 5/8 2	1 1/2	2.95
R-23110	23	110	250	2000	V	2 1/8 x 1 3/4	3 1/8 2 1/2 2 3/4	2 1/2	4.15
R-8120	8	120	350	1500	L	3 1/2	2 1/2 4 2	2 1/2	4.25
R-7150	7.5	150	160	2000	V	2 1/8 x 2 1/8	3 1/8 2 1/2 3	2 1/2	5.45
R-7200	8	200	125	3000	V	2 1/8 x 2 1/4	3 1/2 2 7/8 2 7/8	3 1/2	6.85
R-8300	8	300	60	3500	V	3 x 3 1/4	4 3/4 3 3/4 4 1/2	8	12.35

#### INTERSTAGE TRANSFORMERS

Cat. No.	Application	Class	Ohms	Impedance	Prim. D-C Ma.	Ratio	Mtg. Type	Mtg. Centers	Dimensions H W D	Wt. Lbs.	List Price
IN-10	Sgl. Plate to P-P Grids	A	10000	160,000	10	4:1	L	2 13/16	2 3 1/4 1 3/4	1	\$3.45
IN-11	Sgl. Plate to P-P Grids	A	10000	122,500	10	3.5:1	L	2 3/8	1 5/8 2 3/4 1 1/2	5/8	2.80
IN-13	Sgl. Plate to P-P Grids	A	10000	90,000	10	3:1	L	2 13/16	2 3 1/4 1 7/8	1	3.45
IN-14	Sgl. Plate to P-P Grids	A	10000	90,000	10	3:1	L	2 3/8	1 5/8 2 3/4 1 1/2	5/8	3.15
IN-15	P-P Plates to P-P Grids	A	10000	*90,000	10	3:1	L	2 13/16	2 3 1/4 1 7/8	1	4.40
IN-16	Sgl. or P-P Input & Output	A			10	1:1, 3:1, or 6:1	L	2 13/16	2 3 1/4 2 1/4	1 1/2	4.60

\*Universal type: center-tapped primary, split secondary.





# CHICAGO

## world's toughest transformers

### GENERAL REPLACEMENT TRANSFORMERS AND REACTORS

d

#### DRIVER TRANSFORMERS

Catalog No.	Typical Applications From Driver Tubes	To Output Tubes	Class	Ratio Pri: 1/2 Sec.	Max. Pri. D-C Ma.	Mtg. Centers	Mtg. Type	Dimensions H W D			Wt. Lbs.	List Price
D-15	Single 30	P-P 19 or 30's	B	2.5:1	15	2 3/8	L	1 5/8	2 7/8	1 1/2	3/4	\$2.80
D-30	6C5, 6R7, or Triode 6F6	P-P 6L6's	AB	3:1	30	2 13/16	L	2	3 1/4	1 3/4	1	4.00
D-35	Triode Plate	P-P Grids		1:1, 1.5:1 or 2:1	35	2 13/16	L	2	3 1/4	1 7/8	1	4.30
D-40	6C5, 6R7, or Triode 6F6	P-P 6L6's	AB	3:1	40	1 5/8 x 2 3/16	V	3 1/8	2 1/2	2 1/2	2 1/2	5.95

#### AUDIO OUTPUT TRANSFORMERS—Single Plate to Voice Coil

Catalog No.	Application Typical Output Tubes	Ohms Impedance Pri. Sec.	Max. Pri. D-C Ma.	Audio Watts	Mtg. Type	Mtg. Center	Dimensions H W D			Wt. Lbs.	List Price
RO-2	25L6, 35A5, 2A3, 6B4	2000 3 to 6	50	4	L	2	1 3/8	2 3/8	1 1/4	1/2	\$1.85
RO-3	25L6 (10-ohm tap on primary)	2000 3 to 6	50	4	L	2	1 3/8	2 3/8	1 3/8	1/2	2.25
RO-6	12A5, 25A6, 45, 71A	4000 4-8-15	40	10	L	2 13/16	2	3 1/4	1 3/4	1	2.80
RO-8	2A5, 25A6, 43	4500 3 to 6	35	5	L	2	1 3/8	2 3/8	1 1/4	1/2	2.00
RO-9	6V6, 25A7G, 30, 31, 50	5000 4-8-15	50	8	L	2 13/16	2	3 1/4	1 5/8	1	2.80
RO-11	1S4	6000 3 to 6	5	2	L	1 3/4	1 1/4	2 1/8	1 1/8	3/8	1.70
RO-13	7B5, 18, 31, 33, 42, 46, 47, 59, 69	7000 3 to 6	35	5	L	2	1 3/8	2 3/8	1 1/4	1/2	1.85
RO-16	1C5G, 1G5G, 1J6G, 6A4, 6A6, 6G6, 6K6, 38, 41	10000 3 to 6	30	5	L	2	1 3/8	2 3/8	1 1/4	1/2	1.95
RO-18	1A5G, 1E7G, 1N6G, 6V7G	25000 3 to 6	10	5	L	2 3/8	1 5/8	2 7/8	1 3/8	5/8	1.80

#### Push-Pull Plates to Voice Coil

RO-110	P-P, 2A5, 6AC5G, 6A6, 6N7, Pentode 6F6, 6V6, 45	10000 4-8-15	80	12	U	2 7/16	2 3/8	2 7/8	1 3/4	1	3.25
RO-111	P-P, 6B5, 6K6, 6N6G, 7B5, 31 33, 46, 47, 49, Triode 89	14000 4-8-15	80	15	U	2 7/16	2 3/8	2 7/8	1 3/4	1	3.45
RO-113	P-P, 1A5G, 1E7G, 1N6G, 6V7G	50000 3 to 6	20	8	L	2 3/8	1 5/8	2 7/8	1 1/2	5/8	3.15

#### Universal Type—Single Plate to Voice Coil

Catalog No.	Range of Ohms Impedance Primary	Secondary	Pri. D-C Ma.	Audio Watts	Mtg. Type	Mtg. Center	Dimensions H W D			Wt. Lbs.	List Price
RO-201	4000, 7000, or 10000	3 to 6	40	8	L	2 3/8	1 5/8	2 7/8	1 1/2	5/8	2.80

#### Universal Type—Single or Push-Pull Plates to Voice Coil

RO-301	2500 to 14000	2, 4, 6, 8, 15, etc	30	4	L	2	1 3/8	2 3/8	7/8	1/2	2.85
RO-302	2500 to 15000	2, 4, 6, 8, 15	50	4	L	2	1 3/8	2 3/8	1 5/8	5/8	2.85
RO-303	2500 to 14000	2, 4, 6, 8, 15, etc.	40	8	L	2 3/8	1 5/8	2 7/8	1 7/8	5/8	2.95
RO-304	2500 to 13000	2, 4, 6, 8, 15	70	8	U	2	2	2 1/2	1 7/8	13/16	3.25
RO-305	2500 to 14000	2, 4, 6, 8, 15, etc.	60	12	L	2 13/16	2	3 1/4	2 3/8		4.45
RO-307	2500 to 14000	2, 4, 6, 8, 15, etc.	50	10	U	2 7/16	2 3/8	2 7/8	2 1/4	1	3.45
RO-401	2500 to 13000	2, 4, 6, 8, 15	70	15	U	2 7/16	2 3/8	2 7/8	2 3/8	1 1/2	4.55

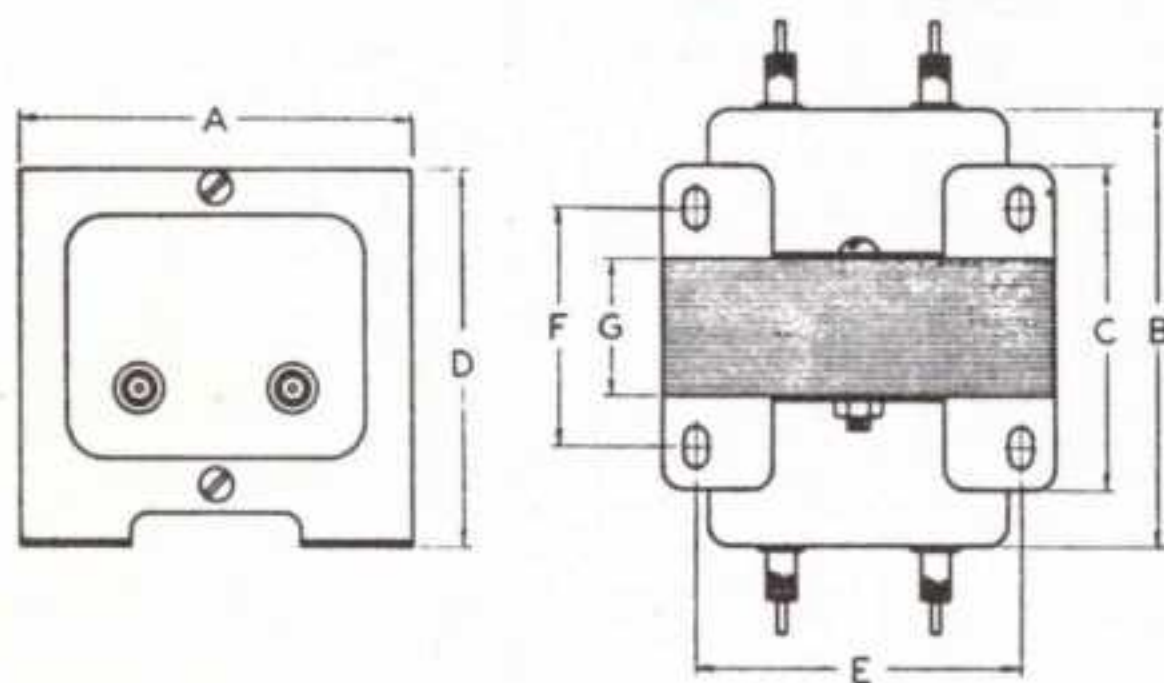
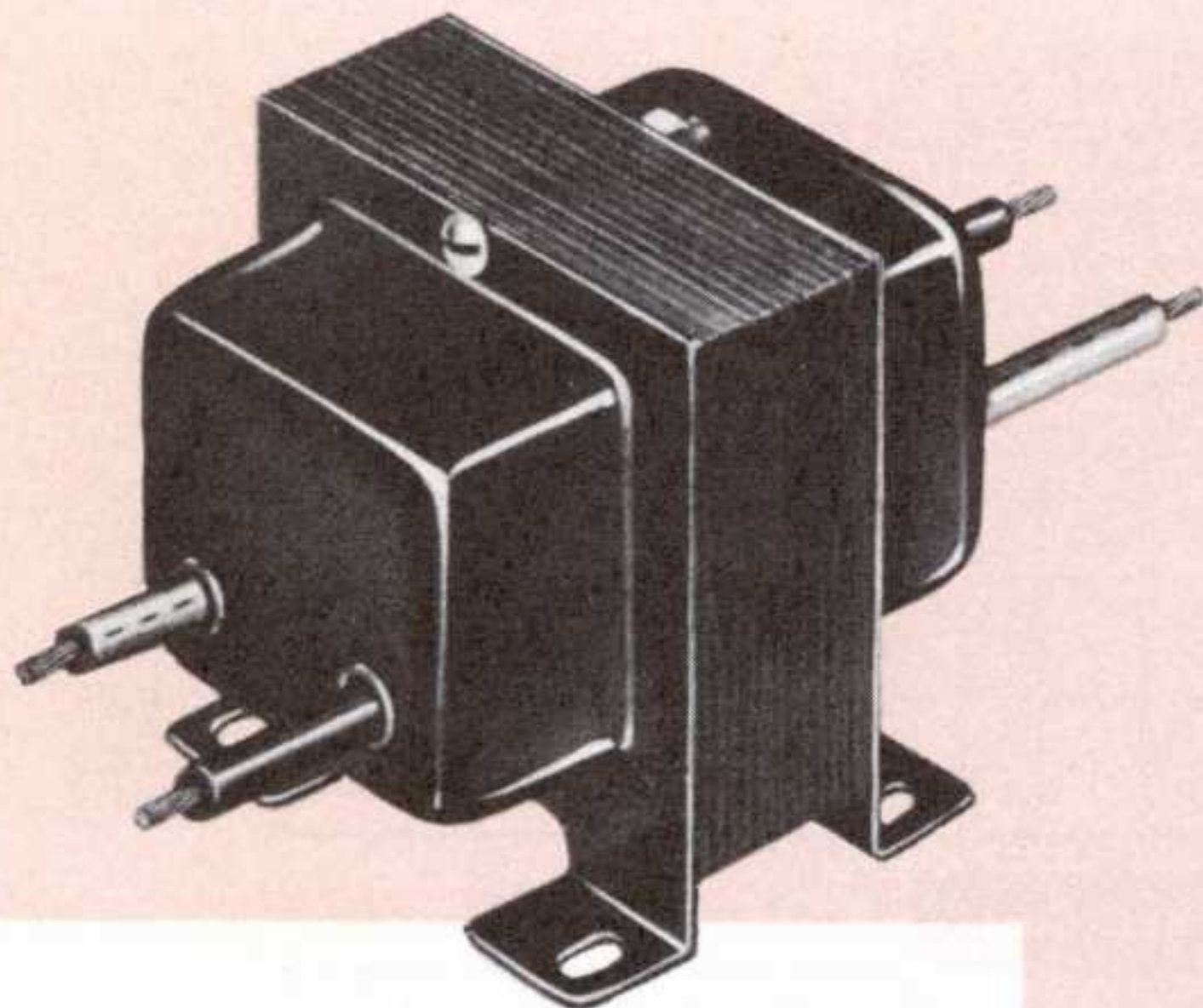
#### Line or Lines to Voice Coil

Catalog No.	Ohms Impedance Primary	Secondary	Pri. D-C Ma.	Max. Watts	Mtg. Type	Mtg. Center	Dimensions H W D			Wt. Lbs.	List Price
SM-1	500-1000-1500-2000	6-8	80	12	U	2 3/8	2 3/8	2 3/4	1 7/8	1	4.05
SM-2	2500-4000-6000-8000	6-8	80	12	U	2 1/2	2 3/8	2 7/8	1 7/8	1	4.35
SM-3	500-1000-1500-2000	6-8	60	5	U	2 1/16	2 1/2	2 1/2	1 1/2	3/4	2.50





# CHICAGO world's toughest transformers



## CONTROL TRANSFORMERS

Relays  
Solenoids  
Small Motors  
Devices Controlled by Thermostats  
Speed Changers  
Control Valves for Fluids and Gases  
Recording Devices  
Elevators  
Door Openers  
Sprinkler Systems  
Burglar and Fire Alarms

Automatic Musical Instruments  
Coin-Operated Devices  
Low Voltage Lighting Signal Lamps, Etc.  
Spark Plug Testers  
Fans and Blowers  
Pumps  
Electronic Tubes  
Heating Elements  
Mechanical and Electrical Signs  
Bells, Buzzers, and Annunciators  
and for similar applications

CHICAGO Control Transformers are intended for operation on 115-volt power to supply low voltages to the types of industrial and household equipment listed above. They are correctly designed and conservatively rated and, because of their proven efficiency and dependability, have been preferred by nationally-known control and machine-tool manufacturers for many years.

Coils are wound of high-grade magnet wire on automatic multiple-coil winding machines. Windings and lead connections are insulated with acid-free and non-corrosive materials of high dielectric strength.

Cores are made of high quality, non-aging silicon steel, the electrical properties of the laminations brought to a high degree of efficiency, after punching, by scientific heat-treating in CHICAGO's own annealing furnaces.

## NORMAL REACTANCE TYPE CONTROL TRANSFORMERS

CHICAGO Control Transformers of the normal reactance type are equipped with eight-inch leads of approved type for installations using standard code wiring on both the primary and secondary. For convenience of wiring, primary and secondary leads are brought out through opposite sides of the transformers. They are sturdily constructed with single-piece, steel shield-and-frame units, which have mounting feet with easily accessible slots. All transformers in the normal reactance series meet the requirements of the Underwriters' Laboratories for air-cooled transformers.

Because of their compactness and convenient provisions for mounting and wiring, they are readily adaptable for use

with modern machines and appliances, where mounting in machine bases or housings, or in control cabinets, is required.

The National Electrical Code requires closed conduit wiring from the secondary of any normal reactance transformer regardless of voltage. However, when the transformer and low-voltage control devices are installed in a single cabinet, the complete equipment may, under certain conditions, meet code requirements and receive approval from the Underwriters' Laboratories for annunciator-type wiring.

C.T. normal reactance transformers may be operated continuously in ambient temperatures up to 50° C. at the rated capacities shown in the specifications.

**Primary: 115 volts, 50/60 cycles**

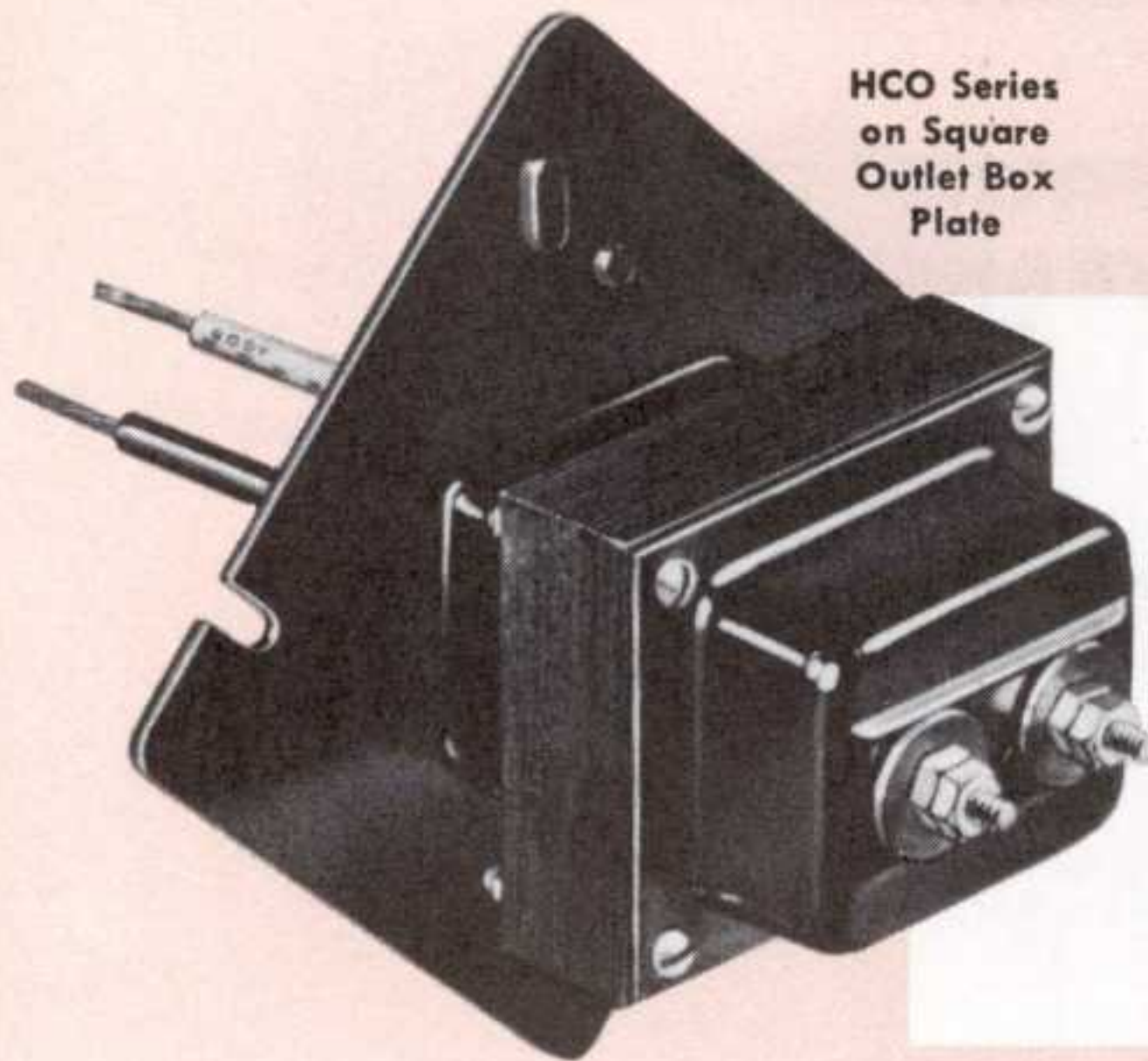
Volts	Secondary		Catalog Number	Dimensions in Inches							Approx. Weight Lbs.	List Price
	Amps.*	V-A Cap		A	B	C	D	E	F	G		
6	8.33	50	NCF-650	3	3	2 1/8	2 13/16	2 3/8	1 1/2	3/4	2 1/4	\$ 7.90
8	3.15	25	NCF-825	3	3	2 1/8	2 13/16	2 3/8	1 1/2	3/4	2 1/4	7.90
8	6.25	50	NCF-850	3	3 1/2	2 5/8	2 13/16	2 3/8	2	1 1/4	3 1/2	9.90
16	1.55	25	NCF-1625	3	3	2 1/8	2 13/16	2 3/8	1 1/2	3/4	2 1/4	7.90
16	3.15	50	NCF-1650	3	3 1/2	2 5/8	2 13/16	2 3/8	2	1 1/4	3 1/2	9.90
24	1.05	25	NCF-2425	3	3	2 1/8	2 13/16	2 3/8	1 1/2	3/4	2 1/4	7.90
24	2.1	50	NCF-2450	3	3 1/2	2 5/8	2 13/16	2 3/8	2	1 1/4	3 1/2	9.90
24	3.15	75	NCF-2475	3 1/2	3 5/8	2 7/8	3 3/16	3	2 1/4	1 7/16	4 1/2	11.20
24	4.15	100	NCF-24100	3 15/16	4 1/8	3 13/16	3 1/2	3 3/16	2 15/16	1 15/16	5 1/4	12.05
24	6.25	150	NCF-24150	4 1/2	3 13/16	3 7/16	4	3 3/4	2 11/16	1 3/16	8 1/2	13.15
32	1.55	50	NCF-3250	3	3 1/2	2 5/8	2 13/16	2 3/8	2	1 1/4	3 1/2	9.90
32	2.35	75	NCF-3275	3 1/2	3 5/8	2 7/8	3 3/16	3	2 1/4	1 7/16	4 1/2	11.20
32	3.15	100	NCF-32100	3 15/16	4 1/8	3 13/16	3 1/2	3 3/16	2 15/16	1 15/16	5 1/4	12.05
32	4.7	150	NCF-32150	4 1/2	3 13/16	3 7/16	4	3 3/4	2 11/16	1 3/16	8 1/2	13.15
550	(NL)	50	NCF-1550	2 7/8	3	3	3 1/2	2 1/4	2 1/8	1 1/8	3 1/2	10.30

\*Current Rating for Continuous Operation.

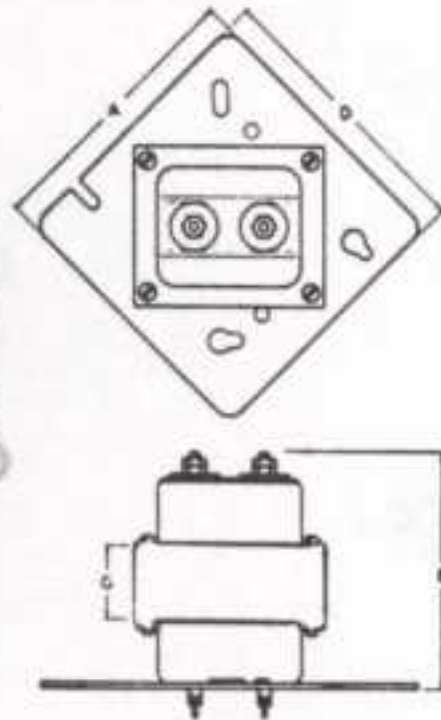


**CHICAGO**

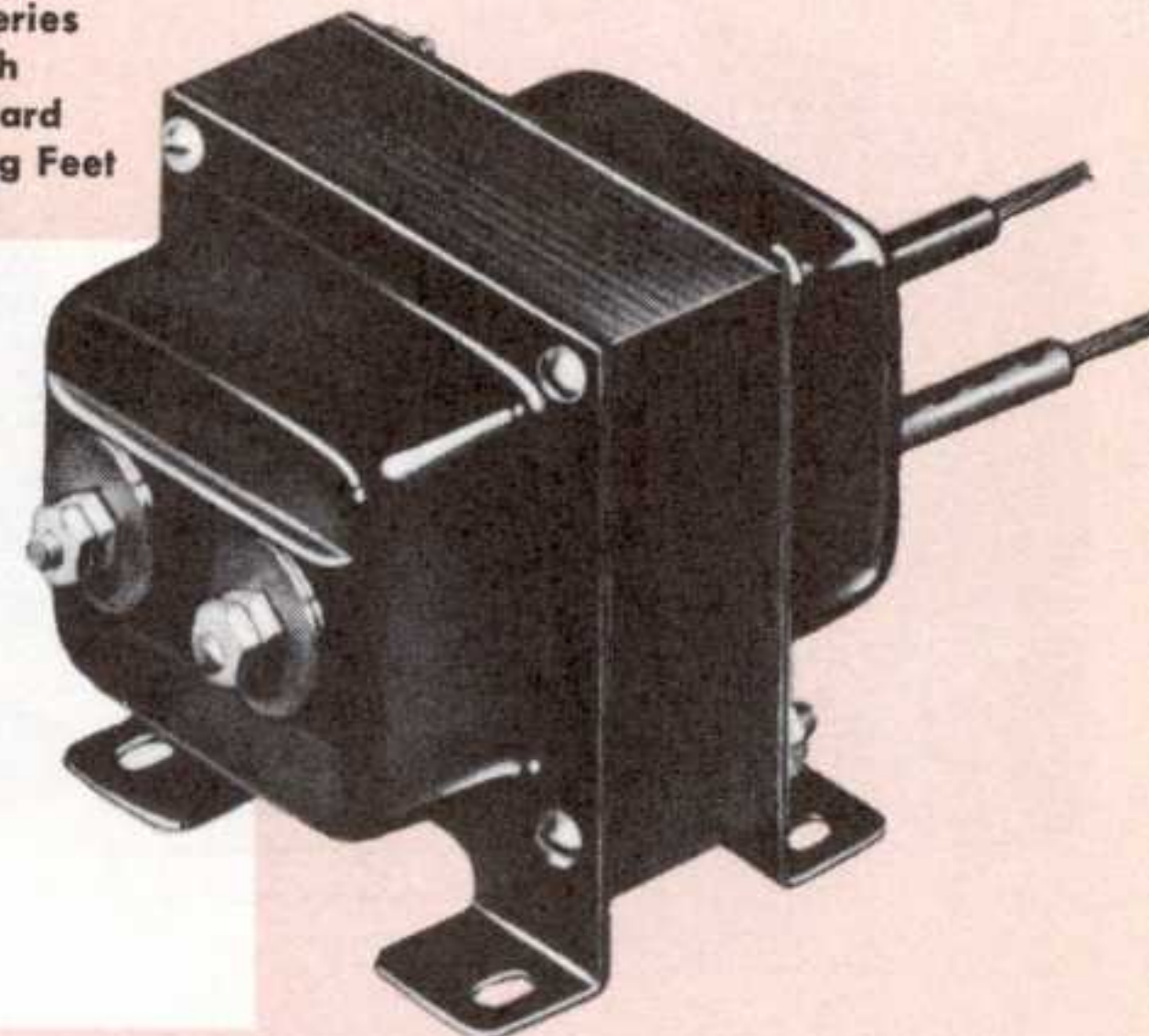
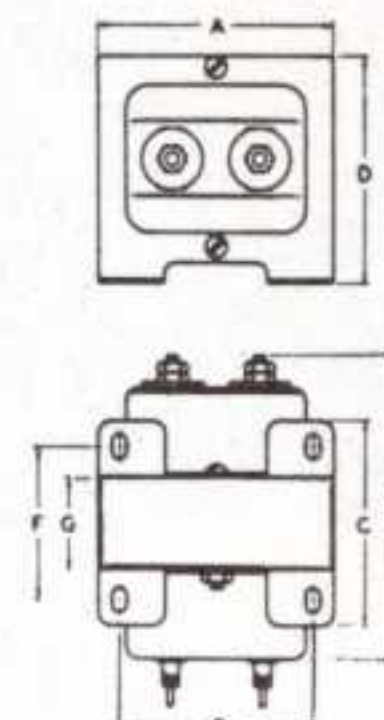
**world's toughest transformers**



**HCO Series  
on Square  
Outlet Box  
Plate**



**HCF Series  
with  
Standard  
Mounting Feet**



## HIGH REACTANCE TYPE CONTROL TRANSFORMERS

CHICAGO Control Transformers of the high leakage reactance type meet the requirements of the Underwriters' Laboratories for bell-ringing transformers, and therefore will not blow fuses or overheat with the secondary short-circuited. This permits their use without additional enclosure and with open bell, or annunciator-type, wiring from the screw terminals of the secondary. They fit a wide variety of applications where greater power is needed than that available from the ordinary door-bell

transformer and where the advantages of open wiring, not afforded by the normal reactance control series, are desirable.

C.T. standard high reactance control units are available either with standard mounting feet or fitted to square outlet box covers for mounting on 3½-inch and 4-inch octagon or 4-inch square boxes. They are furnished with insulated eight-inch leads of approved type on the primary, screw terminals on the secondary.

### Mounted on Square Outlet Box Plate—Primary: 115 volts, 60 cycles

Secondary			Catalog Number	Dimensions in Inches							Approx. Weight Lbs.	List Price
Volts <sup>1</sup>	Amps. <sup>2</sup>	V-A Cap. <sup>3</sup>		A	B	C	D	E	F	G		
25	2.1	20	HCO-2520	4 1/4	3 3/4	...	4 1/4	...	...	1 1/8	2 1/4	\$10.50
25	2.8	30	HCO-2530	4 1/4	4 1/8	...	4 1/4	...	...	1 1/2	2 3/4	12.20
25	4.2	40	HCO-2540	4 1/4	3 11/16	...	4 1/4	...	...	1	3 1/4	13.45
25	5.5	60	HCO-2560	4 1/4	4 5/16	...	4 1/4	...	...	1 5/8	4 1/4	15.10
30	1.75	20	HCO-3020	4 1/4	3 3/4	...	4 1/4	...	...	1 1/8	2 1/4	11.55
30	2.4	30	HCO-3030	4 1/4	4 1/8	...	4 1/4	...	...	1 1/2	2 3/4	13.45
30	3.2	40	HCO-3040	4 1/4	3 11/16	...	4 1/4	...	...	1	3 1/4	14.75
30	4.6	60	HCO-3060	4 1/4	4 5/16	...	4 1/4	...	...	1 5/8	4 1/4	16.60
30	6.0	80	HCO-3080*	...	...	...	...	...	...	...	...	.....

### With Standard Mounting Feet—Primary: 115 volts, 60 cycles

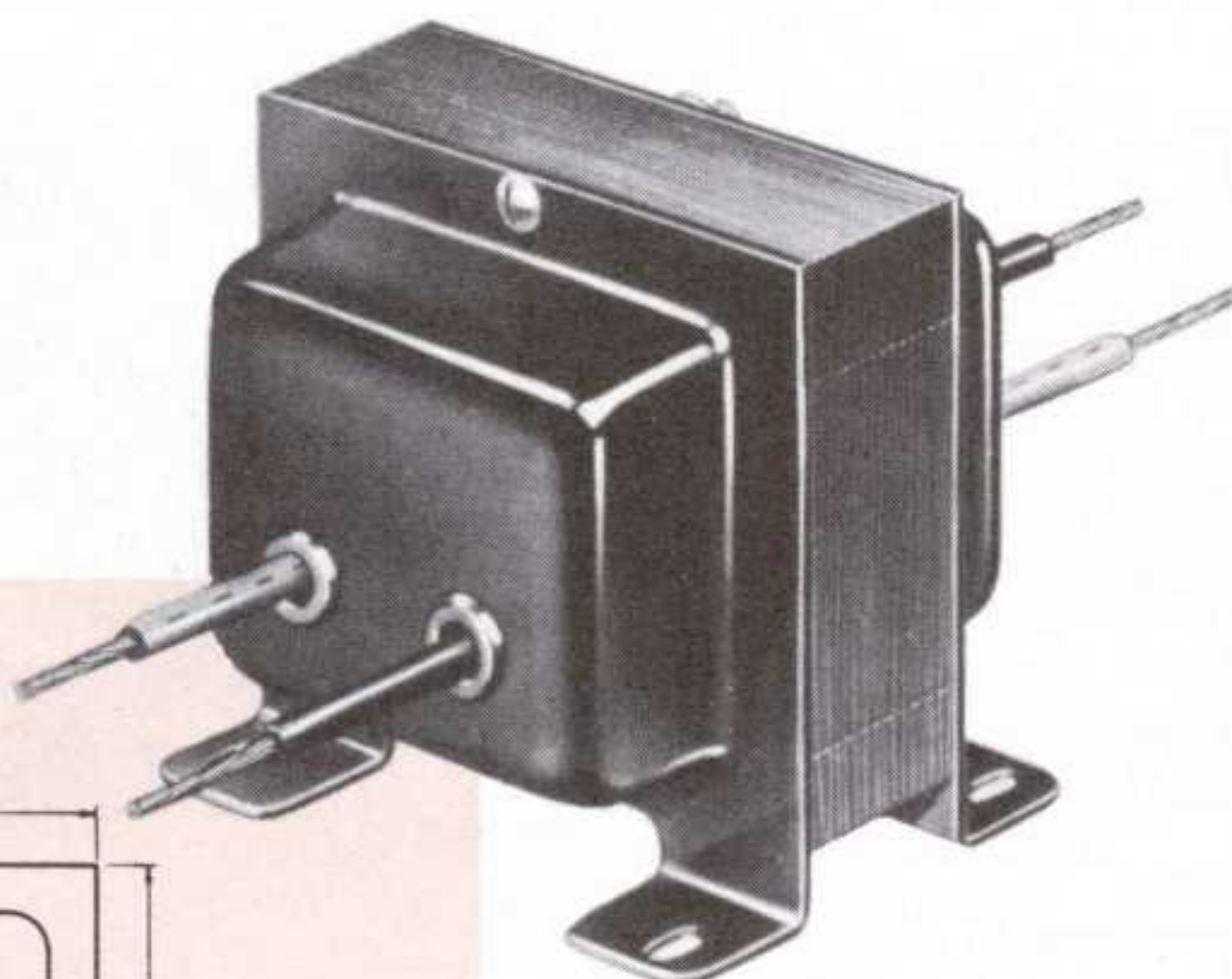
25	2.1	20	HCF-2520	3	3 13/16	2 1/2	2 13/16	2 3/8	1 7/8	1 1/8	2	8.75
25	2.8	30	HCF-2530	3	4 3/16	2 7/8	2 13/16	2 3/8	2 1/4	1 1/2	2 1/2	10.50
25	4.2	40	HCF-2540	3 5/8	3 13/16	2 7/16	3 3/16	3	1 13/16	1	3	11.70
25	5.5	60	HCF-2560	3 5/8	4 7/16	3 1/16	3 3/16	3	2 7/16	1 5/8	4	13.35
30	1.75	20	HCF-3020	3	3 13/16	2 1/2	2 13/16	2 3/8	1 7/8	1 1/8	2	9.65
30	2.4	30	HCF-3030	3	4 3/16	2 7/8	2 13/16	2 5/8	2 1/4	1 1/2	2 1/2	11.50
30	3.2	40	HCF-3040	3 5/8	3 13/16	2 7/16	3 3/16	3	1 13/16	1	3	12.85
30	4.6	60	HCF-3060	3 5/8	4 7/16	3 1/16	3 3/16	3	2 7/16	1 5/8	4	14.70
30	6.0	80	HCF-3080*	...	...	...	...	...	...	...	...	.....

<sup>1</sup>Open Circuit Voltage. <sup>2</sup>Short Circuit Current. <sup>3</sup>Maximum Output into a Resistance Load. \*Special—Details and Prices on Request.



# CHICAGO

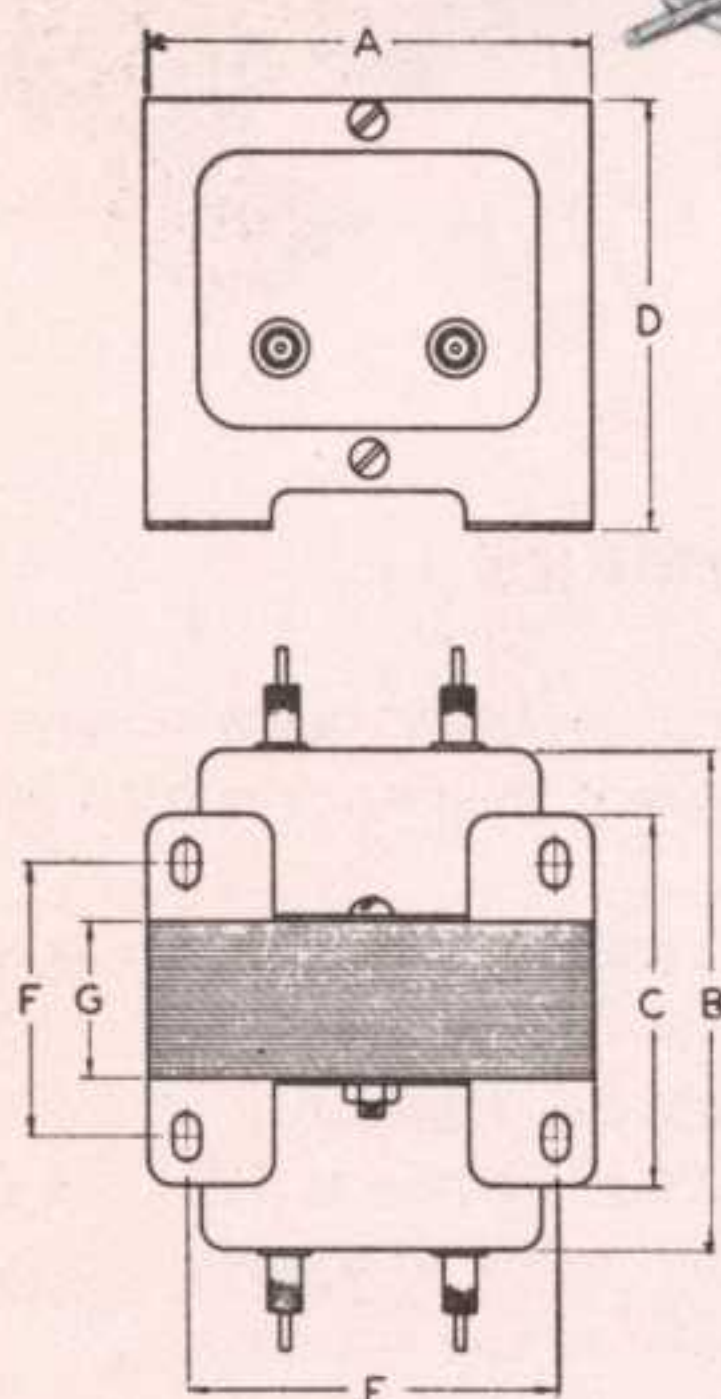
world's toughest transformers



## POWER CIRCUIT TRANSFORMERS

### PCF Series

Capacities from 25 to 250 va.  
for IN-Compartment Wiring



It has become standard practice in most large industrial plants to wire main circuits for single phase, 230, 460, or 575 volts, and to use power circuit transformers for stepping down to lower voltage wherever needed. This method of installation requires only one power service with a single metering and eliminates multiple circuits to each point of use. Valuable savings in copper, conduit, and fittings are thus effected, to say nothing of economies in installation and maintenance.

CHICAGO Power Circuit Transformers are offered in three different series, each of which is made up of units with ratings and types of mountings designed to meet a maximum number of the requirements ordinarily encountered in this field. Their use in industry over a period of many years has proven them to be practical in application and dependable in performance.

The units of all of the three series, described on this and the following page, are normal reactance, dry-type transformers, designed for operation on either 50- or 60-cycle current. Many have double primary windings that can be connected in parallel for 230 volts or in series for 460 volts. All meet the requirements of the Underwriters' Laboratories for air-cooled transformers.

Installations of modern machine tools and other types of production equipment, which operate on one of the service voltages, frequently incorporate supplementary, 115-volt electrical appliances, such as machine lighting, controls, small motor-driven tools, fans, blowers, and heating elements. For operating these 115-volt devices, CHICAGO Power Circuit Transformers of the PCF Series are used by nationally-known machine tool manufacturers, who mount the units in the bases of their machines, or in other compartments provided for control equipments.

Transformers in the PCF series are constructed with standard steel shields and mounting feet. Wire leads of approved type are brought out through the shields, primary and secondary leads on opposite sides for ease of wiring.

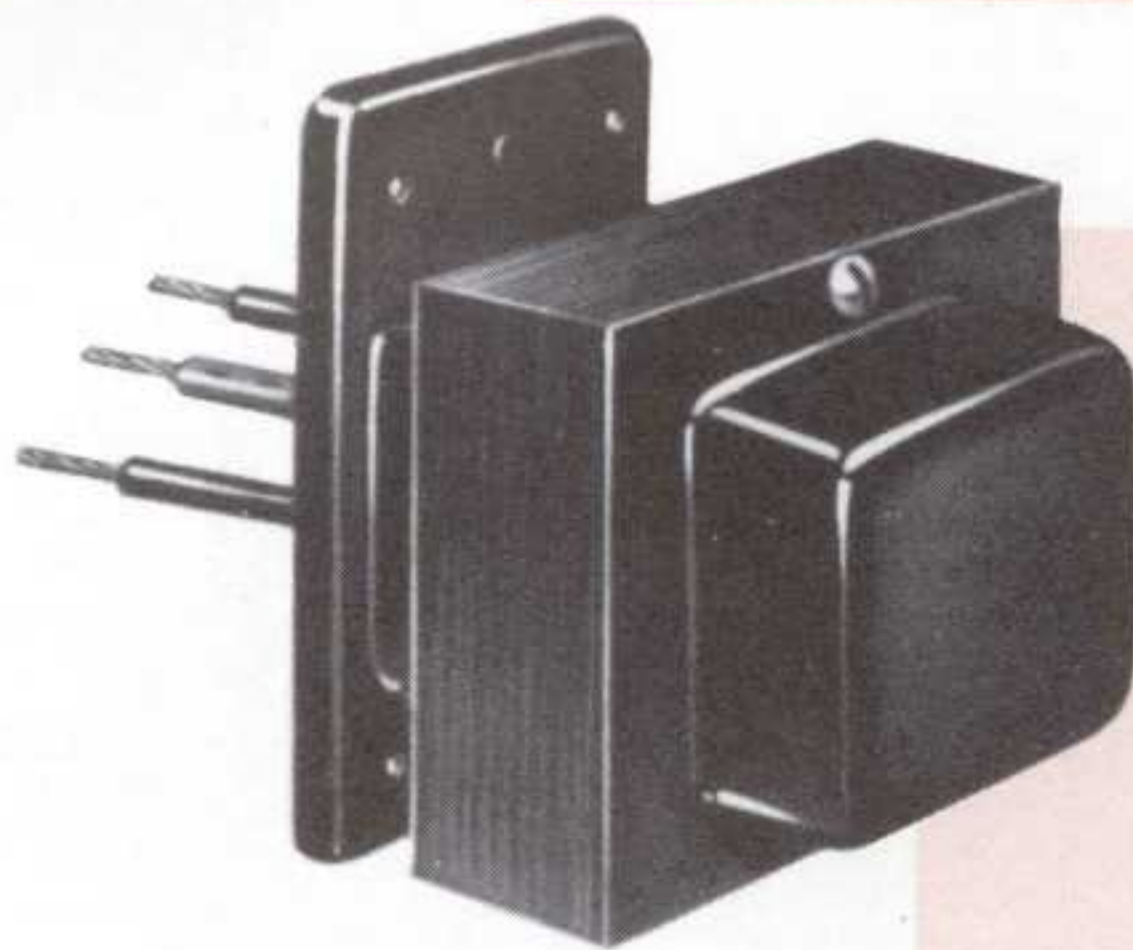
### PCF SERIES with Mounting Feet—Primary 50/60 cycles

Primary Volts	Volts	Secondary Amps.*	V-A Cap.	Catalog Number	Dimensions in Inches							Approx. Weight Lbs.	List Price
					A	B	C	D	E	F	G		
230	115	.25	25	PCF-2025	3	3	2 1/8	2 13/16	2 3/8	1 1/2	3/4	2	\$ 7.35
230	115	.45	50	PCF-2050	3	3 1/2	2 5/8	2 13/16	2 3/8	2	1 1/4	2 3/4	9.25
230/460	115	.65	75	PCF-24075	3 1/2	3 5/8	2 7/8	3 3/16	3	2 1/4	1 7/16	4 1/4	10.45
230/460	115	.85	100	PCF-24100	3 15/16	4 1/8	3 13/16	3 1/2	3 3/16	2 15/16	1 9/16	5 1/4	11.25
230/460	115	1.5	150	PCF-24150	4 1/2	4 1/8	3 3/4	4	3 3/4	3	1 1/2	7 3/4	12.30
230/460	115	2.2	250	PCF-24250	5 1/4	4 9/16	3 15/16	4 9/16	4 1/4	3	1 11/16	12	13.65
575	115	.65	75	PCF-5075	3 1/2	3 5/8	2 7/8	3 3/16	3	2 1/4	1 7/16	4 1/4	11.30
575	115	.85	100	PCF-5100	3 15/16	4 1/8	3 13/16	3 1/2	3 3/16	2 15/16	1 9/16	5 1/4	12.15
575	115	1.5	150	PCF-5150	4 1/2	4 1/8	3 3/4	4	3 3/4	3	1 1/2	7 3/4	13.25
575	115	2.2	250	PCF-5250	5 1/4	4 9/16	3 15/16	4 9/16	4 1/4	3	1 11/16	12	14.75

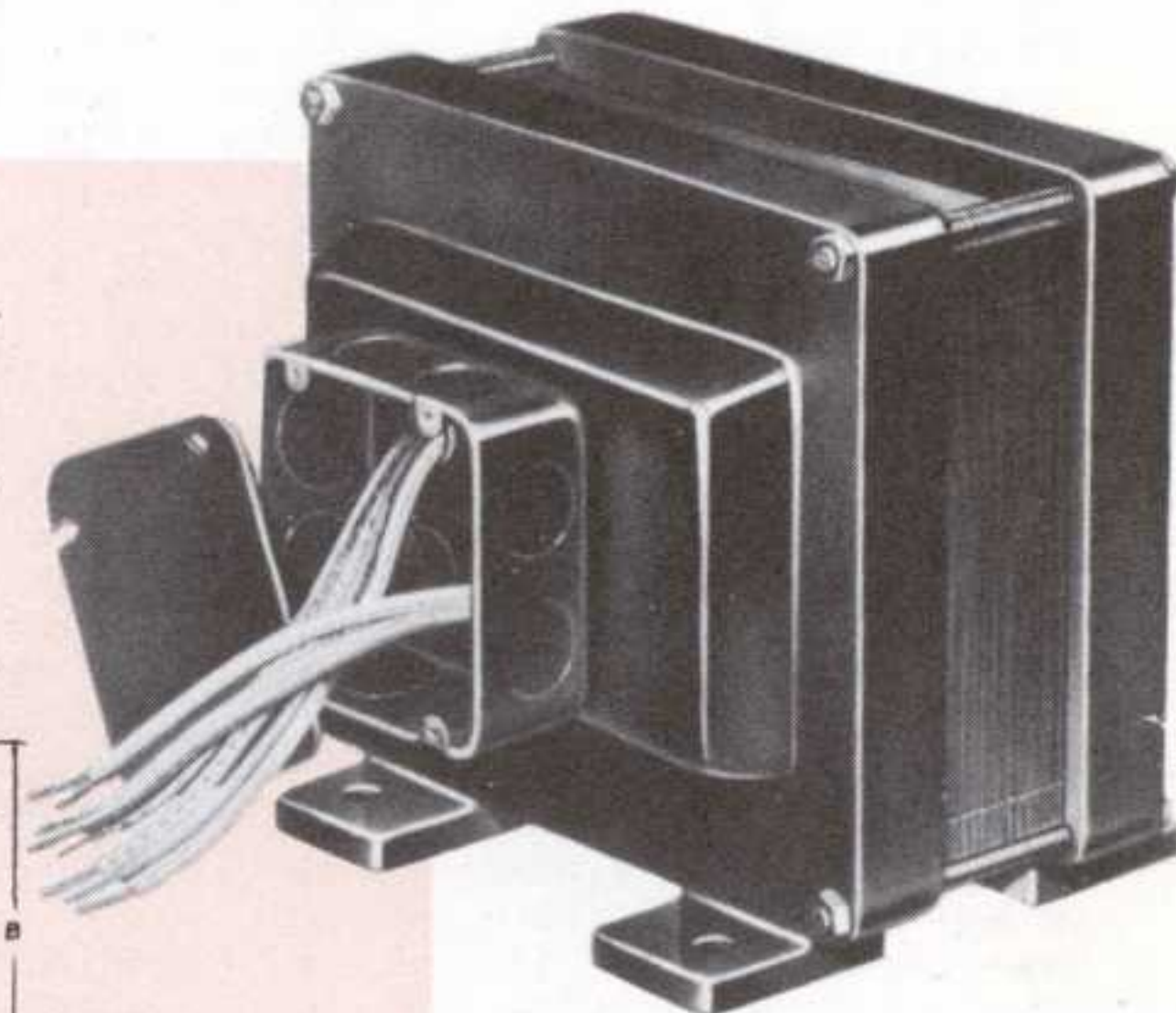
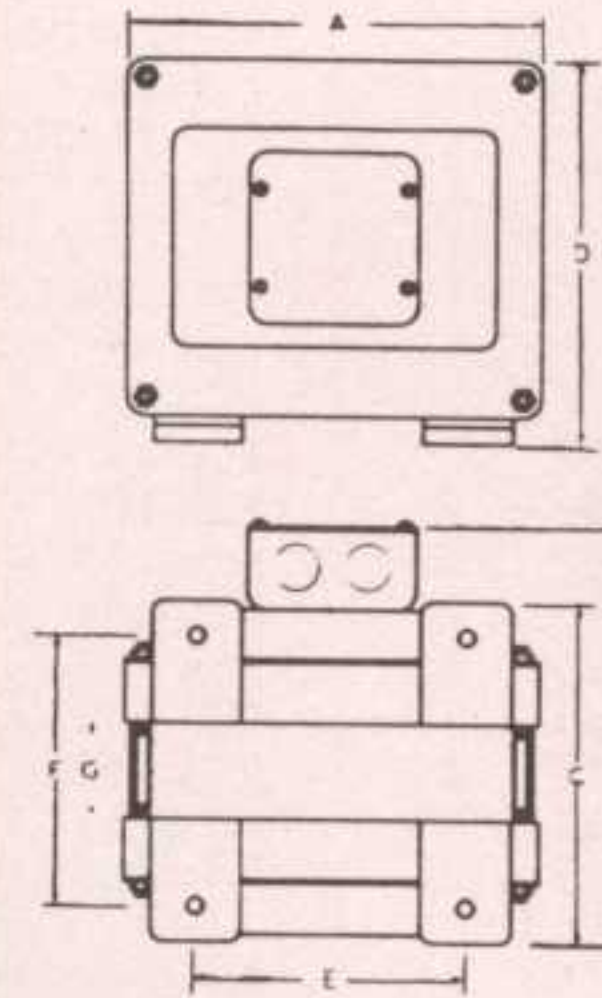
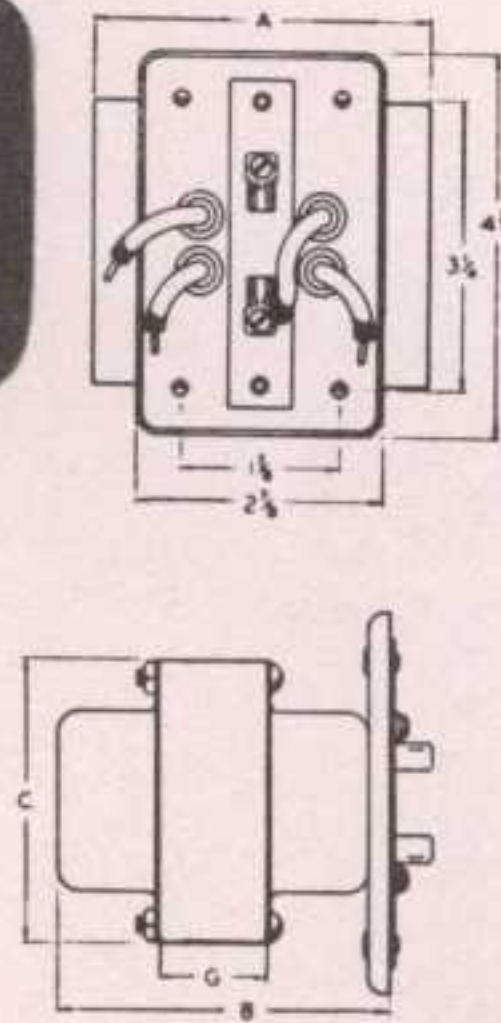
\*Current rating for continuous operation.



# CHICAGO world's toughest transformers



**PCC  
Series**



**PCB  
Series**

## PCB SERIES—Capacities from 1/2 to 10 KVA. For Use with Conduit Wiring

The larger size of the CHICAGO Power Circuit Transformers in capacities from 1/2 to 10 KVA, as compared to those in the PCF Series, opposite page, makes them more adaptable to installation on overhead structures, posts, or on machines, rather than inside control compartments.

Accordingly, on all units in the PCB Series, the heavily insulated leads are brought out through roomy outlet boxes, which have standard knock-outs for receiving rigid or flexible conduit, or armored cable.

Rugged frames and mounting feet provide strong, rigid support in any mounting position. Coil structure and internal wiring are protected by heavy gauge steel shields.

Ratings of this series supplement those of the PCF units on opposite page and their general application is the same. However, those of 1 KVA capacity and greater provide additional flexibility in use, double secondaries supplying current for 230-volt as well as 115-volt equipment.

## PCB SERIES with Mounting Feet, Outlet Boxes; Primary 50/60 cycles

Primary Volts	Secondary Volts	KVA Capacity	Catalog Number	A	B	Dimensions in Inches					F	G	Approx. Weight Lbs.	List Price
230/460	115	.500	PCB-24500	7 1/2	8	6 3/8	7	4 3/4	5 1/2	1 3/4	32			
230/460	115	.750	PCB-24750	8 7/8	8 11/16	7 1/8	8 1/2	5 1/2	5 1/2	1 5/8	50			\$ 30.00
230/460	115/230	1.0	PCB-241M	8 7/8	9 9/16	7 5/8	8 1/2	5 1/2	6	2 1/8	57			38.00
230/460	115/230	2.5	PCB-242M5	11 1/2	12 1/16	10 1/8	10 1/2	7 1/2	8 1/8	3 3/8	108			48.00
230/460	115/230	5.0	PCB-245M	13 13/16	16	11 3/4	12 3/4	9	9 5/8	3 3/8	195			80.00
230/460	115/230	7.5	PCB-247M5	13 13/16	15 7/8	11 1/2	12 3/4	9	10 7/16	4 3/16	245			135.00
230/460	115/230	10.0	PCB-2410M	16 1/8	18	13 7/8	14 9/16	11 3/8	12 3/8	5 1/8	330			185.00
														225.00
575	115	.500	PCB-5500	7 1/2	7 15/16	6 7/8	7	4 3/4	5 15/16	2 1/8	32			35.00
575	115	.750	PCB-5750	8 7/8	8 13/16	7 3/4	8 1/2	5 1/2	6 1/8	2 1/8	50			43.00
575	115/230	1.0	PCB-51M	8 7/8	9 15/16	8 1/4	8 1/2	5 1/2	6 5/8	2 5/8	57			53.00
575	115/230	2.5	PCB-52M5	11 1/2	12 1/16	10 1/4	10 1/2	7 1/2	8 1/4	3 3/8	108			85.00
575	115/230	5.0	PCB-55M	13 13/16	13 7/8	12 1/4	12 3/4	9	10 3/8	4 3/16	195			145.00
575	115/230	7.5	PCB-57M5	13 13/16	14 11/16	12 7/8	12 3/4	9	11 1/4	5	245			195.00
575	115/230	10.0	PCB-510M	16 1/8	14 13/16	14	14 9/16	11 3/8	12 1/2	5 1/8	330			240.00

## PCC SERIES—Capacities from 100 to 250 va. For Mounting on Conduit Boxes

Mounted on rectangular covers that fit standard FS and FD-type conduit boxes, these CHICAGO Power Circuit Transformers offer a handy, economical method of installation at machine tools, welders, and other equipment where step-down from 230 or 460 volts to 115-volts is required. They are widely used in manufacturing plants to operate 115-volt lamps for machine lighting and to supply signalling, heating, and other miscellaneous power loads.

These transformers are equipped with fused secondaries for over-

load protection. Both primary and secondary leads are brought out through the conduit box covers. Shields and conduit box covers have durable cadmium plated finish.

Unit No. 4100SP in the table below is specially constructed with primary tapped at 10% under and over voltage for the purpose of stabilizing line voltage fluctuations. This feature improves the operation, boosts the performance, and steps up the accuracy of a wide variety of electrical devices.

Primary Volts	Cycles	Secondary Volts	Amps.*	V-A Cap.	Catalog Number	Dimensions in Inches				Approx. Weight Lbs.	List Price
230/460	50-60	115	.85	100	PCC-24100	3 3/4	4 3/16	3 1/8	1 1/16	5 1/4	\$14.75
460	50-60	115	.85	100	PCC-4100SP	3 3/4	4 3/16	3 1/8	1 1/16	5 1/4	14.80
230/460	50-60	115	1.5	150	PCC-24150	4 1/2	4 3/8	3 3/4	1 1/2	7 3/4	15.80
230/460	50-60	115	2.2	250	PCC-24250	5 1/4	4 7/8	4 5/16	1 11/16	11 1/2	17.40

\*Current ratings are for continuous performance.



# INDEX OF CHICAGO TRANSFORMERS AND REACTORS

By Catalog Number and Page Number

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2BC-150	10	F-25	11	HCO-3040	29	PCF-2025	30	PSC-200	10	RH-8300	6	TL-1	22
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BD-2	18	F-65	11	IN-10	26	PCF-5150	30	PSD-10	16	RO-2	27	TP-225	21
BD-3	18	F-75	11	IN-11	26	PCF-5250	30	PSD-25	16	RO-3	27	TP-280	21
BI-1	13	F-104	11	IN-13	26	PCF-24075	30	PSD-100	16	RO-6	27	TP-315	21
BI-2	13	F-106	11	IN-14	26	PCF-24100	30	PSO-80	16	RO-8	27	TP-319	21
BI-3	13	F-210	11	IN-15	26	PCF-24150	30	PSO-150	16	RO-9	27	TP-324	21
BI-4	13	F-210H	11	IN-16	26	PCF-24250	30	PSO-200	16	RO-11	27	TP-350	21
BI-5	13	F-215H	11	IS-50	12	PCO-80	16	PSR-55	10	RO-13	27	TP-355	21
BI-6	13	F-510H	11	IS-100	12	PCO-150	16	PSR-70	10	RO-16	27	TP-356	21
BI-7	13	F-516	11	IS-150	12	PCO-200	16	PSR-85	10	RO-18	27	TP-358	21
BI-8	13	F-520HB	11	IS-250	12	PCR-55	10	PSR-105	10	RO-110	27	TP-360	21
BI-9	13	F-530	11	LPF-1	20	PCR-70	10	PSR-120	10	RO-111	27	TP-362	21
BIH-1	7	F-610	11	NCF-650	28	PCR-85	10	PSR-150	10	RO-113	27	TP-364	21
BIH-2	7	F-615	11	NCF-825	28	PCR-105	10	PSR-200	10	RO-201	27	TP-365	21
BIH-3	7	F-712	11	NCF-850	28	PCR-120	10	PSR-300	10	RO-301	27	TP-368	21
BIH-4	7	F-725	11	NCF-1550	28	PCR-150	10	PSR-300A	10	RO-302	27	TP-370	21
BIH-5	7	F-1010	11	NCF-1625	28	PCR-200	10	PV-10S	24	RO-303	27	TP-375	21
BIH-6	7	F-1110	11	NCF-1650	28	PCR-300	10	PV-20S	24	RO-304	27	TP-380	21
BIH-7	7	FH-25	6	NCF-2425	28	PCR-300A	10	PV-40	24	RO-305	27	TP-382	21
BIH-8	7	FH-54	6	NCF-2450	28	PH-20S	24	PV-50	24	RO-307	27	TP-383	21
BIH-9	7	FH-58	6	NCF-2475	28	PH-40	24	PV-50A	24	RO-401	27	TP-390	21
BM-1	18	FH-63	6	NCF-24100	28	PH-50	24	PV-60	24	RS-1055	11	TP-392	21
BM-2	18	FH-65	6	NCF-24150	28	PH-50A	24	PV-70	24	RS-1085	11	TP-393	21
BM-3	18	FH-104	6	NCF-3250	28	PH-60	24	PV-70A	24	RS-1540	11	TP-395	21
BO-1	14	FH-106	6	NCF-3275	28	PH-70	24	PV-90	24	RS-1555	11	TP-400	21
BO-2	14	FH-210	6	NCF-32100	28	PH-70A	24	PV-100	24	RS-1585	11	TP-405	21
BO-3	14	FH-210H	6	NCF-32150	28	PH-70B	24	PV-110	24	RS-8105	11	TP-409	21
BO-4	14	FH-215H	6	NSI-1	14	PH-90	24	PV-120	24	RS-8150	11	TP-410	21
BO-5	14	FH-510H	6	NSI-2	14	PH-120	24	PV-120A	24	RS-8200	11	TP-450	21
BO-6	14	FH-516	6	P-45	19	PH-120A	24	PV-145	24	RS-8250	11	TR-1515	22
BO-7	14	FH-520HB	6	P-67	19	PH-120B	24	PV-200	24	RS-8300	11	TR-1733	22
BO-8	14	FH-530	6	P-107	19	PH-145	24	R-63	19	RS-12105	11	TR-3300	22
BO-9	14	FH-610	6	P-1240	19	PH-200	24	R-65	19	RS-12150	11	TR-4200	22
BO-10	14	FH-615	6	P-1512	19	PHC-10	5	R-67	19	RS-12200	11	TSO-1	23
BO-11	14	FH-1010	6	P-2126	19	PHC-20	5	R-103	19	SD-50	12	TSO-2	23
BO-12	14	FH-1110	6	P-2520	19	PHC-40	5	R-105	19	SD-100	12	TSO-3	23
BOH-1	7	FO-26	26	P-3025	19	PHC-55	5	R-650	26	SD-150	12	TSO-4	23
BOH-2	7	FO-53	26	P-4353	19	PHC-60	5	R-885	26	SD-250	12	TSO-5	23
BOH-3	7	FO-56	26	PCB-24500	31	PHC-70	5	R-1230	26	SD-500	12	TSO-6	23
BOH-4	7	FO-63	26	PCB-24750	31	PHC-85	5	R-1240	26	SD-1000	12	TSO-7	23
BOH-5	7	FO-63H	26	PCB-241M	31	PHC-105	5	R-1365	26	SM-1	27	TSO-8	23
BOH-6	7	FO-66	26	PCB-242M5	31	PHC-120	5	R-7150	26	SM-2	27	TSO-9	23
BOH-7	7	FO-75	26	PCB-245M	31	PHC-150	5	R-7200	26	SM-3	27	TSO-10	23
BOH-8	7	FO-105	26	PCB-247M5	31	PHC-165	5	R-8120	26	SR-300	20	TSO-11	23
BOH-9	7	FO-122	26	PCB-2410M	31	PHC-200	5	R-8300	26	SR-500	20	TSO-12	23
BOH-10	7	FO-210H	26	PCB-5500	31	PHC-200A	5	R-23110	26	TBO-1	23	TW-1	22
BR-1	18	FO-513	26	PCB-5750	31	PHC-250	5	RC-1055	11	TBO-2	23	TW-2	22
BR-2	18	FO-610	26	PCB-51M	31	PHD-10	8	RC-1085	11	TBO-3	23	TW-3	22
BR-3	18	FO-615	26	PCB-52M5	31	PHD-25	8	RC-1540	11	TBO-4	23	TWL-1	22
CDC-1	17	FO-615H	26	PCB-55M	31	PHD-100	8	RC-1555	11	TBO-5	23	TY-1	23
CDH-1	8	FV-520H	26	PCB-57M5	31	PHO-80	8	RC-1585	11	TC-1	23	TY-2	23
CDS-1	17	FV-530	26	PCB-510M	31	PHO-150	8	RC-8105	11	TC-2	23	TY-3	23
CIC-1	17	FV-1010	26	PCC-40	10	PHO-200	8	RC-8150	11	TFB-1	22	TY-4	23
CIC-2	17	FV-6107	26	PCC-55	10	PHR-55	5	RC-8200	11	TFB-2	22	TY-5	23
CIH-1	8	FV-7665	26	PCC-60	10	PHR-70	5	RC-8250	11	TFB-3	22	TY-6	23
CIH-2	8	HCF-2520	29	PCC-70	10	PHR-85	5	RC-8300	11	TFB-4	22	TY-7	23
CIS-1	17	HCF-2530	29	PCC-85	10	PHR-105	5	RC-12105	11	TFB-5	22	TY-8	23
CIS-2	17	HCF-2540	29	PCC-105	10	PHR-120	5	RC-12150	11	TFB-6	22	VT-1	25
CMS-1	17	HCF-2560	29	PCC-120	10	PHR-150	5	RC-12200	11	TFB-7	22	VT-1A	25
CMS-3	17	HCF-3020	29	PCC-150	10	PHR-200	5	RH-1055	6	TFB-8	22	VT-2	25
COC-1	17	HCF-3030	29	PCC-200	10	PHR-300	5	RH-1085	6	TFB-9	22	VT-3	25
COC-2	17	HCF-3040	29	PCC-250	10	PSC-40	10	RH-1510	6	TFB-10	22	VT-4	25
COH-1	8	HCF-3060	29	PCC-300	10	PSC-55	10	RH-1520	6	TFB-11	22	VT-5	25
COH-2	8	HCF-3080	29	PCC-4100SP	31	PSC-60	10	RH-1540	6	TFB-12	22	VT-6	25
COS-1	17	HCO-2520	29	PCC-24100	31	PSC-70	10	RH-1555	6	TFB-13	22	VT-7	25
COS-2	17	HCO-2530	29	PCC-24150	31	PSC-85	10	RH-1585	6	TFB-14	22		
D-15	27	HCO-2540	29	PCC-24250	31	PSC-105	10	RH-8105	6				

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