

# HEATH October FLYER

There was no regular September FLYER. Our customers continue to express amazement at purchasing professional quality test equipment kits at low Heathkit prices. The secret is in the method of selling. Our customers do most of the actual selling by praising Heathkits and recommending them to their friends. It is not unusual for one customer in a community to account for the sale of ten or more Heathkits. Thus while most companies add 40 to 50% for selling costs, the cost of selling Heathkits is but a few pennies out of every dollar.

There have been large increases in the cost of some Heathkit parts. Meters are up 10%, all transformers 10%, etc., but it is the aim of the Heath Company to absorb these if possible. As long as our customers continue the wonderful job they are doing, we will endeavor to do our part. This also enables us to give helpful informative articles in our FLYER as evidence of our appreciation. Let's keep it up.

## Heathkit FM & TELEVISION SWEEP GENERATOR KIT

The newest and one of the most interesting family of Heathkits. A sweep generator brings to the service shop or experimenter the most essential instrument for properly aligning television and FM receivers. This Heathkit completely covers the entire FM and TV bands 2 Megacycles to 230 Megacycles. The unit is 110V 60 cy power transformer operated. Uses two 6J6 tubes, two 6C4 tubes and a 6X5 rectifier. An electronic sweep circuit is incorporated using both triodes of a 6J6 to allow a range of 0 to over 10 Megacycles.

A selector switch allows either frequency modulated or R.F. signals to be used. An interesting new type of miniature high frequency socket is used with terminals spaced extremely wide for easy assembly. The panel incorporates a large easily read calibrated scale and the assembled unit is easily adjusted by beating against a known radio station.

A sawtooth horizontal sweeping voltage is provided for the oscilloscope assuring that the trace will always be synchronized. A phasing control is included to correct for phase shift.

The coils are ready assembled and precision adjusted to exact frequency. As in all Heathkits, the best of parts are supplied, Mallory metal cased filter condenser (60 MFD of filter compared to an average of 16 MFD), zero coefficient ceramic condensers for high frequency, all punched and formed parts, grey crackle cabinet, 5 tubes, test leads, etc. Better get it built now and be ready for the FM and TV business.



Shipping  
WEIGHT  
6 POUNDS

\$24.50

Nothing  
ELSE TO BUY



## Identifying SURPLUS TRANSFORMERS

Most surplus power transformers are of very high quality and if properly identified will give long trouble free service.

Many, however, are not marked sufficiently to allow identification. After establishing continuity with an ohmmeter, a few volts of AC applied to the most likely winding will allow the other windings to be measured with an AC voltmeter. A comparison of these will identify the high voltage and filament windings. 110 Volts AC can then be applied to the identified primary and the actual outputs measured. The outputs will read 5 to 10% higher than actual when no load is applied. If the wire used in winding the transformer can be measured, the amperage of each filament winding can be established from the following chart.

WIRE SIZE	CURRENT	WIRE SIZE	CURRENT
A.W.G.	DIA.	A.W.G.	DIA.
10	.102	14	.051
12	.081	9	.040
14	.064	6	.032
		20	.022

In general, a winding under load which supplies rated voltage is not overloaded. Excessive drop of voltage is always an indication of drawing too much current. In average transformer construction, it is usual to provide 50 milliamperes of high voltage for every ampere of working tube filament. (Exclusive of rectifier filament.) (I.E. 6.3 at 4 Amps would give a 200 MA high voltage winding.)

## Heathkit HIGH FIDELITY PUSH PULL AMPLIFIER KIT



\$14.95

Shipping weight 20 lbs.

### Accessories Available

- 12" high quality FM speaker matches the amplifier.....\$6.95
- MacGregor speaker cabinet size 14" x 14" x 8" for above speaker.....\$8.75
- Push pull circuit with one preamp stage and phase inverter stage. Response with  $f = 1$  db. between 50 cycles and 15,000 cycles. 110V plate with all tubes, punched chassis, volume and tone controls, etc. 110V 60 cy transformer operated.

The shipping weight of 20 pounds for the Heathkit Amplifier proves that the transformer used are quality conservatively rated parts.

The real surprise is when it is connected to an FM tuner or new long playing record player. The reproduction is truly superb. You hear the breath of the singer and the colorful harmonics of the musical instruments.

Many of the components of this Heathkit are surplus and when they are gone, there will be a considerable increase in price--better order one now.

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