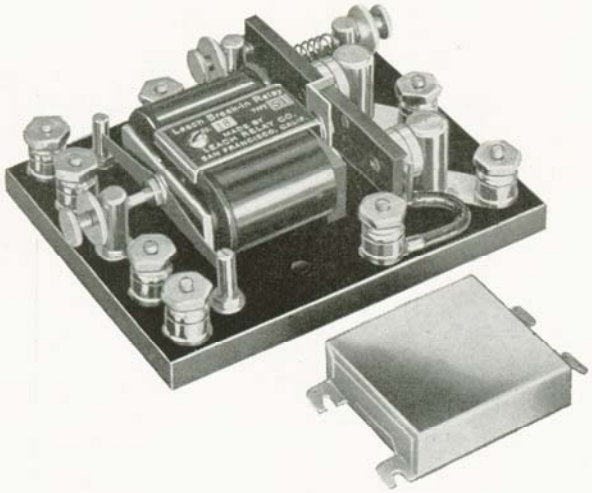
LEACH
EQUIPMENT

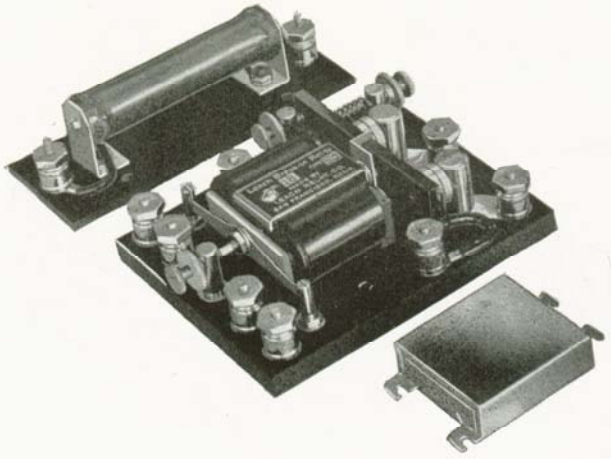
✧ Relays ✧

LEACH RELAY CO.

860 SO. LOS ANGELES STREET
LOS ANGELES, CALIFORNIA, U.S.A.

"The LEACH BREAK-IN RELAY"
MODEL 18





The primary purpose of this relay is to function in such a manner that it acts as an automatic antenna switch and power relay. The two being combined into one unit in a very novel and extremely practical manner. When the power contacts (which control the current in the main keying circuit of the transmitter) are open, the receiver is always connected to the antenna. Just before these power contacts close, for the next dot or dash, the antenna lead is DISCONNECTED from the receiver and completes the transmitter circuit. This action is extremely fast and even though the relay be connected to an automatic sending machine operating from 75 to 100 words per minute, the receiver will always be connected in the circuit between every dot and dash and out of the circuit while these characters are actually "going-out." THIS MAKES IT POSSIBLE TO "LISTEN IN" WHILE SENDING. One antenna being used for the entire layout.

The advantages of such a system are very apparent and are briefly described as follows: Let us consider the old style system first. Suppose two stations NOT equipped with LEACH BREAK-IN RELAYS are exchanging traffic,—one receiving from the other. Now suppose this receiving operator gets interference from some source such as heavy static, other stations, local disturbances or weak signals. With this old Hand Antenna Switch System it would not be possible for him to stop the sender. It would be necessary for him to wait until the sending operator finished his message (possibly several of them) and then ask for a repetition of parts here and there, or possibly of all that was sent. The sender then goes ahead cluttering up the ether with a lot of wasted time and energy, keeping wave bands crowded, using the transmitter much more than is necessary, delaying and interfering with other stations, traffic, etc.

Now suppose these two stations are equipped with LEACH BREAK-IN RELAYS. The interference comes along,—it is NOT necessary for the receiving operator to wait at all. All he has to do to stop the sender is to hold his key down a second or so and give the signal "BK". The sender would hear this between his own dots and dashes and stop sending immediately, to be advised ON THE SPOT, whether to wait until the interference was over or where to begin sending again. Neither of these operators would have thrown a single switch in sending back and forth as this is all taken care of automatically by the LEACH BREAK-IN RELAY.

Think what all this means during heavy static, or interference from other sources. It means that traffic gets "through" rapidly, accurately and in less than half the time usually required with the old system.

This LEACH BREAK-IN RELAY may be operated from a small Morse Key, SPEEDOPLEX No. 2, or any similar transmitting device. It is very "FAST" and will not "lag" nor "drag." It is designed for tube or spark transmitters up to and including 2 K. W.

3/8" black bakelite base 4"x5". Highly polished nickel finish. Two pair 5/8" and one pair 1/8" silver contacts. Hard-rubber shelled coils.

Model 18—

Type S-1 complete, operates on 6 volts D. C.
Price—**$23.00**

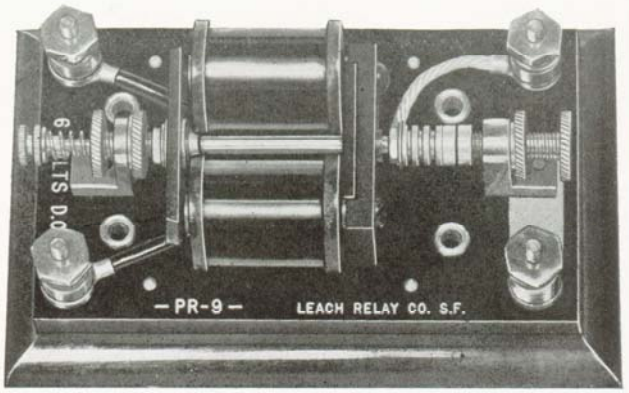
Type S-3 complete, operates on 120 volt D. C.
Price—**$25.00**

(Wiring diagram furnished with each relay)

PR-5 RELAY

Recommend for circuits carrying anything up to 250 watts.

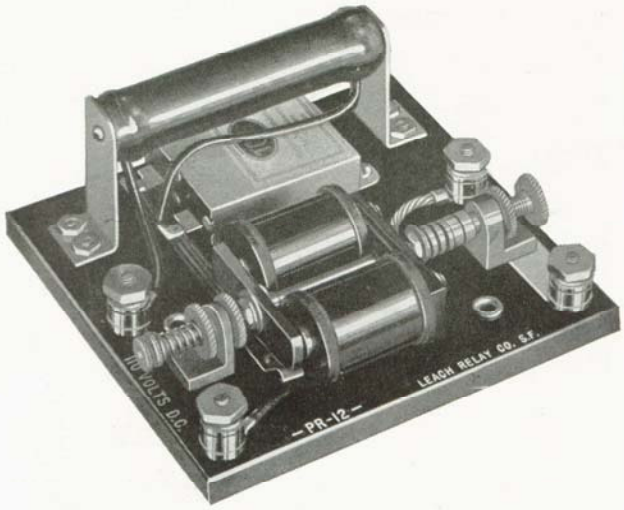
Lacquered brass finish, operates on 6 volts D. C. coil resistance 7.5 ohms. 1/4" PURE SILVER contacts. Copper cooling flanges on moving contact. Bakelite insulation between drive rod and coil mounting also between drive rod and armature. Main base 3/16" Bakelite 3"x5". Cedar sub-base nicely beveled and finished in gloss black lacquer. Over-all measurements 3 3/4"x5 3/4"x1 7/8". Price.....**$9.00**



PR-9 RELAY

Recommend for circuits carrying anything up to one K. W.

Polished nickel finish, operates on 6 volts D. C., coil resistance 7.5 ohms. 3/8" PURE SILVER contacts. Copper cooling flanges on moving contact. Bakelite insulation between drive rod and coil mounting, also between drive rod and armature. Carefully engraved black Bakelite base 3"x5"x3/16". Cedar sub-base. Beveled edges. Gloss black lacquer finish. Over-all measurements 3 3/4"x5 3/4"x1 7/8". Price.....**$12.00**



PR-12 RELAY

Recommend for circuits carrying anything up to one K. W.

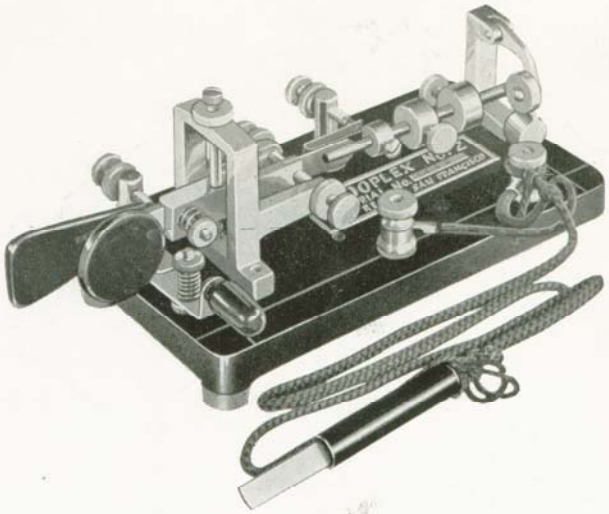
Operates on 120 volts D. C. Coil resistance 160 ohms. Resistor unit 500 ohms. Arc absorbing condenser shunted across coils—½ M. F. Copper cooling flanges on moving contact. Bakelite insulation between drive rod and coil mounting. Also between drive rod and armature. Engraved black Bakelite base 5″x5¼″x⅜″. Price..... **$18.00**

General Data on PR Relays

The "PR Relays" are all very "fast" instruments. They are designed primarily for short-wave tube transmitters and are insulated accordingly. They have three adjustments as follows: The stationary contact is mounted in the end of an adjustment screw which varies the space between the armature and the coil poles. The space adjustment varies the distance that the contacts "break." The spring adjustment is on the very end of the drive rod, and varies the tension on the movable contact. The moving element is so arranged that the contacts make a "full contact," no matter how the rest of the instrument is adjusted. There are no hinges, levers nor pivots. They have in reality, "a full floating action."

A "PR Relay" should be used in every short-wave tube transmitter to handle the high-voltage of some circuits and the high amperage of others. The ideal combination for faster, snappier and better "sending" is a PR Relay operating in conjunction with our "Speedoplex No. 2."

PIG-TAILED



SPEEDOPLEX No. 2

This is an exceptionally fine key of the vibrating type. Adjustable to all required speeds. Balanced to perfection. Our system of "Pig-Tailing," insures a perfect electrical circuit through all moving parts. We do not depend on the current to make a good circuit through the bearings and high resistance steel springs. The four PURE SILVER contacts have the highest conductivity practically available.

The vibrating spring is of exactly the right length, width thickness and temper to give the instrument plenty of "pep" and "life." There is none of that "dead" feeling in this key. The base is finished in gloss black lacquer while all upper parts are finished in polished nickel. Aside from being durable this combination finish gives the Speedoplex No. 2 a very beautiful appearance.

Weight: Ready for operation, approximately 3¾ lbs.

Price complete..... **$17.00**