

SHURE

"CONTROLLED RELUCTANCE" MICROPHONES



510C
Hercules
(Without switch)
List Price \$12⁹⁵



***505B**
Ranger
(Hand Type)
List Price \$25⁰⁰

510S
Hercules
(With switch)
List Price \$14⁹⁵

505C
Ranger
(Hand Type)
List Price \$25⁰⁰



520
Green Bullet
(Microphone Only)
List Price \$16⁵⁰



520SL-7'
Dispatcher
(Complete assembly with switch & stand)
List Price \$32⁰⁰



520SL-20'
Dispatcher
(Complete assembly with switch & stand)
List Price \$33⁵⁰

R5
Cartridge Only
List Price \$9⁰⁰

*150-250 ohms (All other models high impedance).

See Shure Catalog No. 159 for complete details of these models.

Distributed By

Manufactured By

SHURE BROTHERS, Inc.

225 WEST HURON STREET, CHICAGO 10, ILLINOIS
CABLE ADDRESS: SHUREMICRO

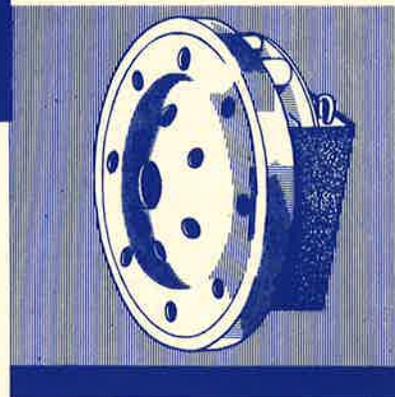
SHURE Patented

Printed in United States of America

Controlled Reluctance

12/16/49

**A
NEW
MICROPHONE
PRINCIPLE**



**WHAT IT IS ...
HOW IT WORKS ...
WHAT IT MEANS
TO YOU ...**

SHURE

Controlled Reluctance

WHAT IT IS...

Controlled Reluctance Microphones are improved designs of a magnetic microphone developed by Shure engineers for the armed forces. They are extremely rugged units that can be used both as microphones and soft speakers. They are practically immune to extreme conditions of humidity and temperature. They have high output level (-52.5 db), good frequency response, and are priced surprisingly low!

HOW IT WORKS...

The illustration shows how the sound wave forces the diaphragm to move forward and backward. The diaphragm is firmly attached to the balanced armature by a drive pin. The action of the diaphragm moves the armature in the magnetic field between the two pole pieces. The movement of the armature induces a current in the coil. The current flows first in one direction and then in the other, depending upon the direction of movement of the armature. Thus, an alternating current is generated that has substantially the same wave form as that of the sound wave acting upon the diaphragm.

In a Controlled Reluctance microphone the coil is stationary instead of in motion. This makes it possible to wind the coil to any impedance, thus eliminating the extra cost for a transformer. This economy is reflected in the price to the user.

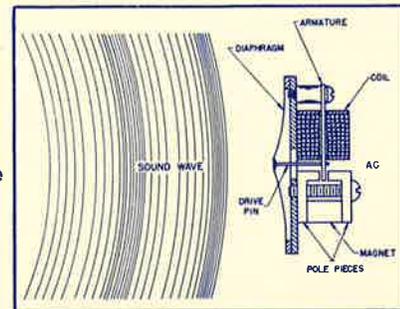
Shure Controlled Reluctance microphones have many outstanding features of construction found in expensive units, such as—Alnico V magnet for higher output . . . scientifically designed shield for better shielding . . . Dural diaphragm for greater sensitivity and durability . . . "Tropicalized" coil for longer life in any climate. The unique control of the reluctance of the magnetic system achieves great stability and permanent centering of the armature.

WHAT IT MEANS TO YOU...

The Shure Controlled Reluctance microphone was originally developed during the war. Although these civilian models are not intended to pass battle tests, a testimony to the ruggedness of the Controlled Reluctance principle is the fact that the military models successfully passed all destructive shock, tumble, heat, cold, blast, and the several other tests which determined the fitness of microphones for battle operation.

Thus, Shure Controlled Reluctance provides the ruggedness, the clear reproduction, the high output, and the low price long needed for certain public address, communication and recording requirements . . . such as outdoor public address; mobile communications; hams; audience participation shows; announcing and mobile public address systems (including carnivals, circuses, parking lots, athletic fields, paging systems, etc.); dictating machines; portable recording machines; home recording; intercommunication; and low-cost Southern or tropical installations.

**Controlled
Reluctance
Microphone
Cartridge**
(Magnetic
Structure)



A New Microphone Principle