

## **“P” and “Q” Series Duplexers**

### **Description**

The Sinclair 7 inch diameter filters for installation and tuning instructions are described on the following pages as they apply to the bandpass and “Q” circuit duplexers.

Typical models and specifications are described for reference only. Other models and additional specifications are available through their catalog or by contacting sales or engineering departments but the same tuning instructions will apply.

Basic advantages for using a duplexing system.

- (a) Single antenna required-with appropriate gain and band width.
- (b) Only one transmission line required with no extra filters.
- (c) Reduced installation costs.
- (d) Reduced congestion of antennas on towers, allowing for additional antenna space.

### **“P” Series Duplexers**

This series combines the high performance cavities into a bandpass duplexer for superior performance in the LOW, VHF and UHF MHz bands and are suitable for extremely congested areas to relieve IM from high level in receiver front ends and to reduce transmitter spurious and overall extraneous radiations.

### **“Q” Series Duplexers**

This series also utilize the same high performance cavities, but in a Sinclair “Q” circuit design in the VHF and UHF MHz bands. These duplexeres have a broader rejection characteristic then those of a standard notch filter and have special tuning circuits which give a bandpass characteristic around the TX and RX frequencies.

### **“R” Series Duplexers**

This series of band-reject duplexers covering the low frequency band of 30-50 MHz are also available, but because of a special helical coil design, reduced lengths, and tuning procedures, they are described in a separate manual.