

**INSTALLATION AND
TUNING INSTRUCTIONS
PH SERIES - RES-LOK
PRESELECTORS
CM-1001**

“PH” Series

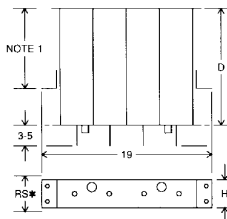
This highly versatile Res-Lok™ construction preselector can be rack, wall or floor mounted to suit any system need. The “PH” series can also be used as a transmitter filter.

PH-SERIES RES-LOK PRESELECTORS 138-940 MHz

Electrical Specifications

	PH-2040E	PH-3040E	PH-3080E	PH-3060C	PH-4040E	PH4060C	PH-4030F
Frequency Range: MHz	138-174	406-512		450-470	806-940		896-930
Number of Cavities	4		8	6	4	6	3
Pass Band							
Approx. Bandwidth	1	2*		4*	10*	5*	0.4
Typical Ins. Loss	2.0		3.5	1.0	0.5	2.2	3.4
Off Channel							
Approx. Bandwidth	10		6	14	45	14	5
Attenuation	50	40	75	50		60	
Termination							
Input	Type 'N' Female						
Output	Type 'N' Female						
Power Rating	400			500			
Note: *Larger bandwidth versions are available on request.							
VSWR	1.5:1						
	Max across pass band - ref. to 50 ohms						

Mechanical Specifications

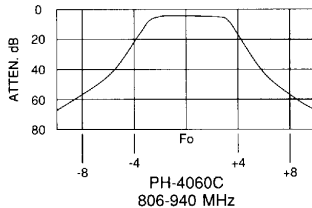
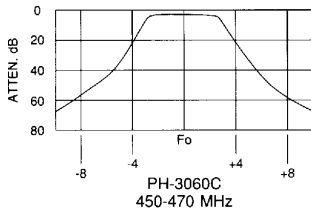


MODEL	FREQ. BAND (MHz)	H	RS*	D
PH-2040 E	138-174	4.17	5.25	24.2
PH-3040 E	406-512	4.17	5.25	10.3
PH-3080 E	406-512	8.35	8.75	10.3
PH-3060 C	450-470	4.17	5.25	10.3
PH-4060 C	806-940	4.17	5.25	5.5
PH-4030 F	896-930	5.25	5.25	13.4
PH-4040 E	806-940	4.17	5.25	5.5

RS*: Vertical Rack space required.

Note 1: Mounting brackets are adjustable front to rear.

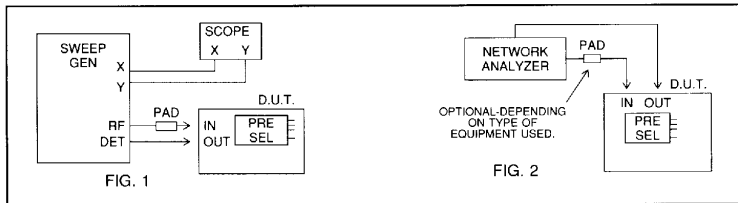
TYPICAL SELECTIVITY



REFER TO ELECTRICAL SPECIFICATIONS
BLOCK FOR OTHER MODELS

RETUNING INSTRUCTIONS

Typical test, equipment set up.



The preselector is tuned using either test setup as shown in figures 1 or 2. It is recommended to use a 6-10 db, 50 ohm pad in the input lines, in order to reduce VSWR reflections which may be introduced in the test equipment being used.

To retune the preselector, loosen the tuning rod locks and feed the frequency to be passed into one input and detect it at the other. Adjust all tuning rods for maximum passband.

Adjust all tuning rods beginning with the center first for maximum response (minimum insertion loss) at the desired center frequency (f_0). Repeat adjustments on all rods until the desired response is obtained for passband, insertion loss, and VSWR. VSWR should be 1.5:1 maximum as referenced to 50 ohms.

Finally tighten all tuning rod lock nuts securely.

REFER TO PAGE CI-1012 FOR ELECTRICAL SPECIFICATIONS AND TYPICAL SELECTIVITY CURVES FOR ALL MODELS.

GENERAL INFORMATION

Sinclair PH Series Preselectors consist of 3, 4, or 5 inch square Res-Lok aperture coupled cavities and two rotatable coupling loops at the input and output.

ELECTRICAL SPECIFICATIONS

These preselectors are shipped factory tuned to specific passbands and insertion loss setting as specified by the customer.

TUNING PROCEDURE

The coupling loops have been factory set for the required insertion loss and preselector selectivity at the time of order. The aperture sizes have been cut to obtain the specific passband in the frequency band as ordered by the customer and cannot be changed in the field.

When retuning the preselector to another frequency in the band, it is not necessary to readjust the coupling loops unless a change is to be made in insertion loss and selectivity.

BASIC RULES IN RETUNING:

Pushing the tuning rod into the cavity lowers its resonant frequency - and conversely, pulling the tuning rod out, raises the resonant frequency.

Retuning of the preselector is accomplished by the adjustment of the tuning rods to shift the passband across the frequency band.

