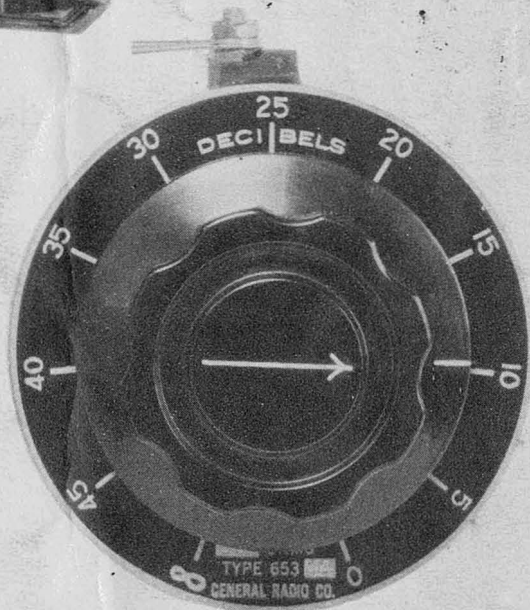
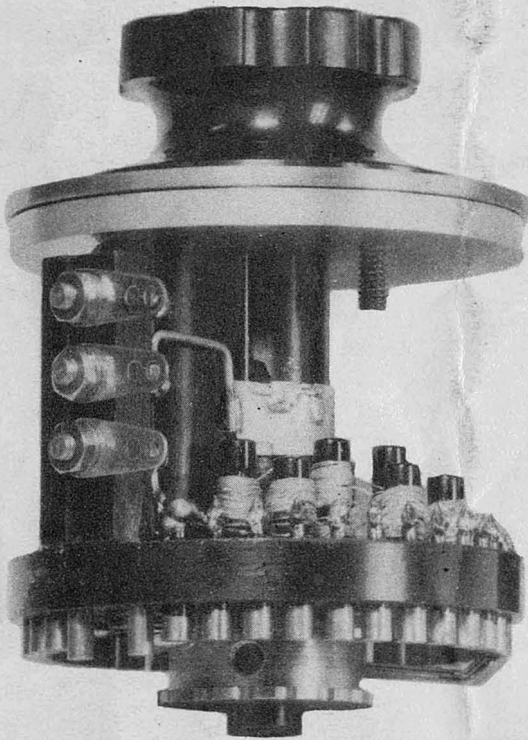
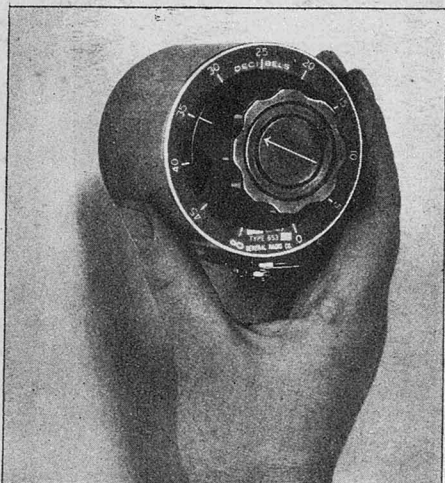


GENERAL RADIO Type 653 MIXER CONTROL  
(Exact size)

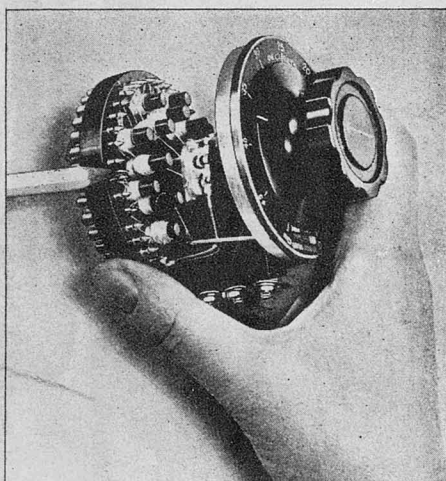


GENERAL RADIO COMPANY  
30 State Street - Cambridge A, Massachusetts

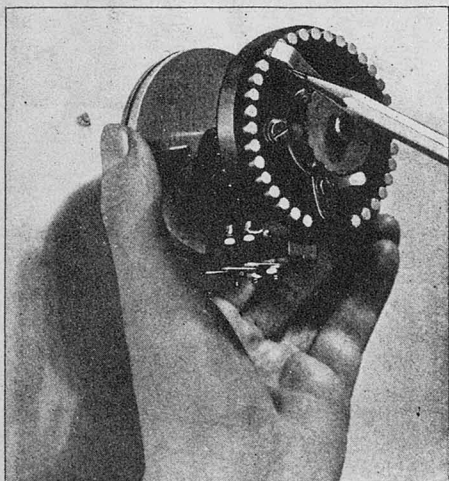


THE NEW GENERAL RADIO TYPE 653 VOLUME CONTROL  
An All-Purpose Mixer Control

All high-grade voice circuits, broadcast or talking picture, require mixer controls which operate with the minimum of electrical noise, have a flat frequency characteristic and are of first-class mechanical construction. When these essential features are combined in a unit which is sold at a low price, all of the requirements are met. The General Radio Type 653 Volume Control is a universal unit, equally suitable for carbon, condenser, dynamic, or ribbon microphones. It has these features:



1. Large number of attenuation steps - giving smooth action of slide-wire type.
2. Ladder-type network - requiring only one set of sliding contacts - substantially constant impedance.
3. Perfect frequency characteristic - flat at all settings - not found in many other "constant-impedance" controls.
4. Can be mounted on metal panel - metal frame and shield at ground potential.
5. Body capacitance pickup eliminated at all levels through use of insulated shaft - heavy front casting - metal dial plate.
6. New design knob - moulded bakelite - easy to grasp - comfortable to handle.
7. Very low noise level - special contact alloys prevent contact potential noise.
8. Contacts moulded in bakelite - cannot work loose
9. Stops work against knob - eliminating electrostatic clicking - no overriding.
10. Multi-blade contactor - insuring smooth action and perfect electrical contact.
11. Small in size - requiring same panel space as famous General Radio Type 652 - (2-3/4 inches) - only 2-5/8 inches behind panel - light weight for portable use.
12. Easily mounted - standard 1-1/2 inch spacing between the two mounting holes.
13. Dial calibrated - accurately and directly in decibels.
14. Complete cut-off at lowest setting.
15. Completely shielded - dust cover readily removed.
16. Thorough inspection - attenuation, impedance, and noise of each unit checked.
17. Unusually low priced - through advanced design and not sacrifice in quality.



Available in three ranges for 50-, 200-, and 500-ohm circuits.

Type 653-MA ( 50-ohm circuit)  
Type 653-MB (200-ohm circuit)  
Type 653-MC (500-ohm circuit)

Price: \$12.50 each

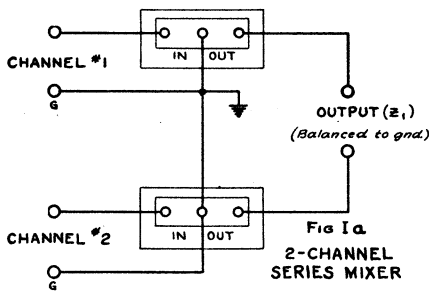
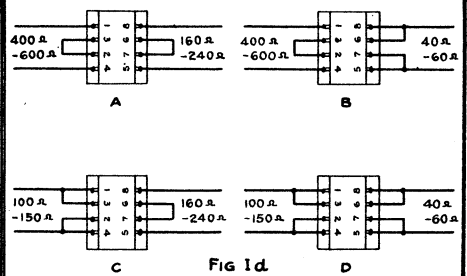


Fig 1a  
2-CHANNEL  
SERIES MIXER

TYPE OF CONTROLS USED	INPUT IMPEDANCE OF EACH CHANNEL	OUTPUT IMPEDANCE OF MIXER ( $Z_1$ )
653-MA	50 $\Omega$	100 $\Omega$
653-MB	200 $\Omega$	400 $\Omega$
653-MC	500 $\Omega$	1000 $\Omega$



CONNECTIONS FOR 585-C  
IMPEDANCE-MATCHING TRANSFORMER

Note: Transformer may be operated in either direction, that is, either winding may be used as primary

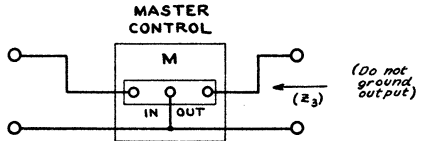
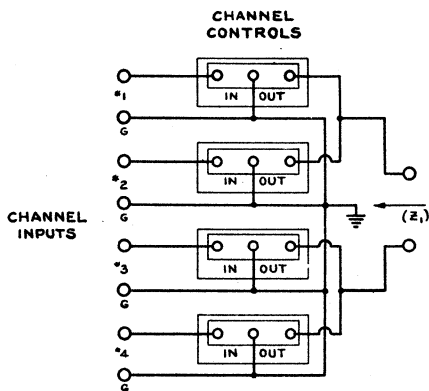


Fig 1b  
4-CHANNEL  
SERIES-PARALLEL MIXER

TYPE OF CONTROLS ON CHANNELS	INPUT IMPEDANCE OF EACH CHANNEL	OUTPUT IMPEDANCE OF MIXER ( $Z_1$ )	TYPE OF CONTROL USED AS MASTER (M)	OUTPUT IMPEDANCE WITH MASTER ( $Z_3$ )
653-MA	50 $\Omega$	50 $\Omega$	653-MA	50 $\Omega$
653-MB	200 $\Omega$	200 $\Omega$	653-MB	200 $\Omega$
653-MC	500 $\Omega$	500 $\Omega$	653-MC	500 $\Omega$

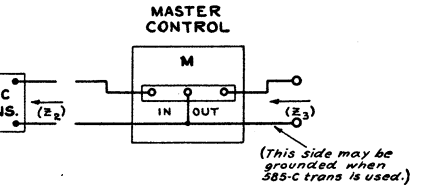
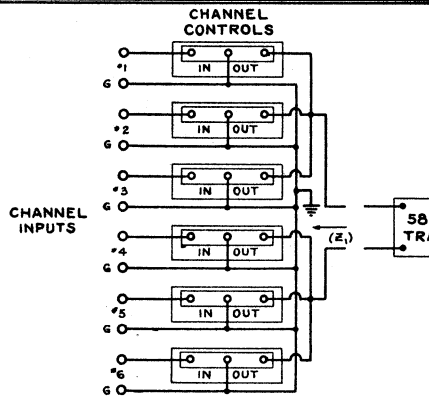


Fig 1c  
6-CHANNEL  
SERIES-PARALLEL MIXER

TYPE OF CONTROLS ON CHANNEL	INPUT IMPEDANCE OF EACH CHANNEL	OUTPUT IMPEDANCE OF MIXER ( $Z_1$ )	585-C CONNECTIONS (SEE FIG 1d)	$Z_2$	TYPE OF CONTROL USED AS MASTER (M)	OUTPUT IMPEDANCE WITH MASTER ( $Z_3$ )
653-MA	50 $\Omega$	33 $\Omega$	B (1-4 as SEC.)	500 $\Omega$	653-MC	500 $\Omega$
653-MB	200 $\Omega$	123 $\Omega$	C	200 $\Omega$	653-MB	200 $\Omega$
653-MC	500 $\Omega$	333 $\Omega$	NOT USED	---	653-MB	200 $\Omega$

FIGURE I CONVENTIONAL MIXER CIRCUITS

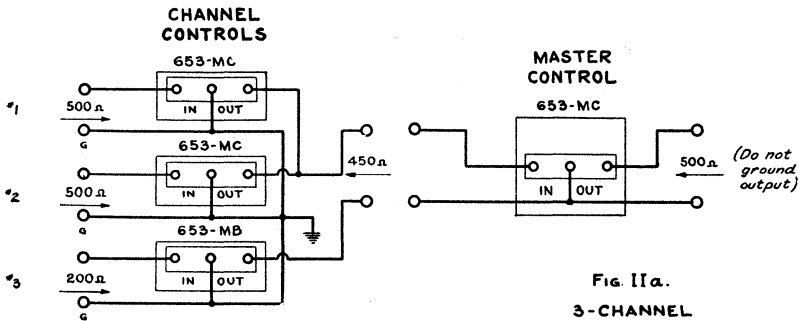


Fig II a.  
3-CHANNEL  
SERIES-PARALLEL MIXER.

