



# INSTRUCTIONS and Call Letter Tabs

For Model 10S690 and other AUTOMATIC 10 TUBE COMBINATIONS using AC CHASSIS No. 10B2

## GENERAL

**Circuit**—Ten-tube three gang superheterodyne with three tuning ranges covering standard broadcast and short wave. R.F. amplification effective on all bands. Electrostatically Shielded Wavemagnet and six button Radiorgan.

The maximum power output is 14 watts.

**Tubes**—7G7/1232—6A8G—6K7G—3-6J5G—6F5G—2-6V6G—5Y4G (See Fig. 5). G and GT type tubes are interchangeable where space permits and tube shields are not used.

### Tuning Ranges—

Broadcast—540 Kc. to 1620 Kc. (555-185 meters)

Short Wave—5.7 Mc. to 18.3 Mc. (52.6-16.4 meters)

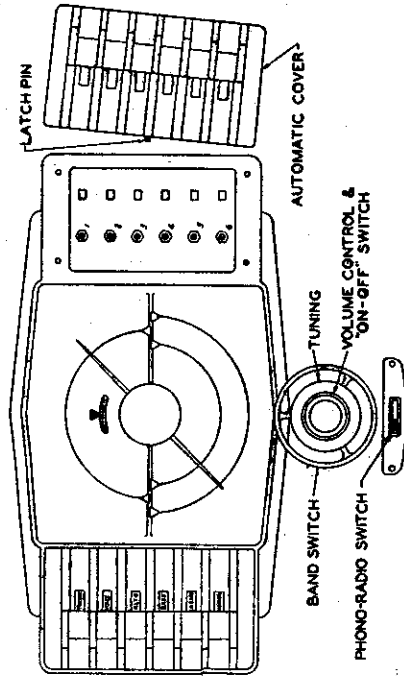
Police—1.52 Mc. to 5.2 Mc. (197.3-57.7 meters)

**Power Supply**—This receiver is designed to operate on 110-125 volts 60 cycle alternating current. **DO NOT CONNECT TO DIRECT CURRENT (D.C.)**

If a hum is apparent, reverse the power plug in socket.

The power consumption is 125 watts, including phono motor.

**Important**—Precaution against audio howl. The bolts supporting the radio chassis should be loosened sufficiently to allow it to float freely on the supporting springs. The control shafts should be centered so they do not touch or bind on the cabinet.



DIAL PANEL FIG. 1

## ANTENNA

Your Zenith receiver incorporates a built-in electrostatically shielded WAVEMAGNET which eliminates the need for an external antenna or ground under all ordinary conditions. The WAVEMAGNET is slightly directional to station reception, and may require turning of the receiver or WAVEMAGNET for best results. Extraneous electrical noises may be reduced or entirely eliminated by rotating the receiver or WAVEMAGNET. A little practice will reveal the position of best reception with least interference. Sometimes the last traces of noise may be eliminated by reversing the power plug in the socket. Extreme care should be taken to keep the A.C. cord as far removed from the Wavemagnet and Wavemagnet leads as possible.

In rural or isolated sections of the country, an antenna from 25 to 100 feet long is recommended. It should be connected to terminal (A) on the rear of the chassis after the connecting link is removed (See Fig. 2). A ground may be connected to the ground terminal.

In many cases improved short wave reception can be had by attaching approximately 20 feet of wire to terminal A, leaving the connecting link in place for Wavemagnet operation. When using a Zenith Doublet Antenna, remove connecting link between Z and G and attach Doublet lead-in to A and Z.

## TUNING

The position and purpose of each control is shown in Fig. 1.

The volume control should be rotated to the right to turn the receiver on. Approximately 30 seconds is required for the tubes to heat before reception will be obtained. Continued rotation to the right of this control increases the volume.

The Phono-Radio switch should be in the Radio position for Radio operation.

The tuning knob should be turned very slowly when tuning in distant or short wave stations. When a station is tuned in, the pointer should be moved over the station until the exact center of the wave is found. Unless this is done, the tone will be impaired. Tuning is divided into three bands represented by the three scales on the dial. When manual tuning over the standard broadcast or either of the two short wave bands is desired, the band switch should be turned until the indicating arrows on the dial point to the desired band.

## SPINNER TUNING

For quickly covering the dial scale and eliminating slow movement in changing from one setting to another, give the tuning knob a twist in the direction desired. The momentum created by an internal flywheel arrangement will keep the dial indicator in motion until a slight pressure is applied to the tuning knob at the point where it is desired to stop. This speed action does not in any way affect the accuracy needed for slow tuning.

When the band switch is turned so that the indicating arrows on the dial point to "Automatic" the manual tuning is no longer operative and the pre-set automatic buttons may be used.

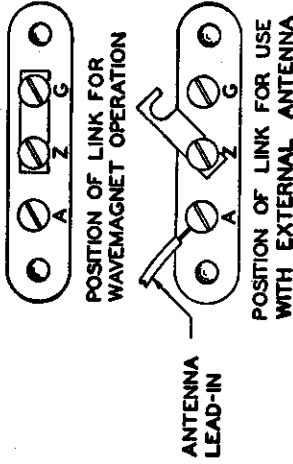


FIG. 2

# RADIORGAN

The six buttons at the left side of the dial provide means of tonal compensation to give the most pleasing tone for the type of program being received. To operate the buttons they must be pulled out or pushed in. The portion of the tonal range affected is shown on each button.

Sixty-four different tone variations may be obtained by different combinations of IN and OUT positions as shown in Fig. 3.

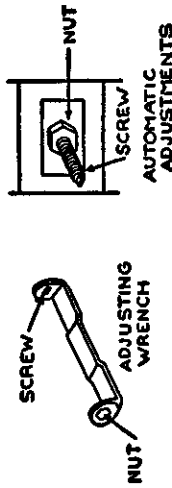


FIG. 4

## AUTOMATIC

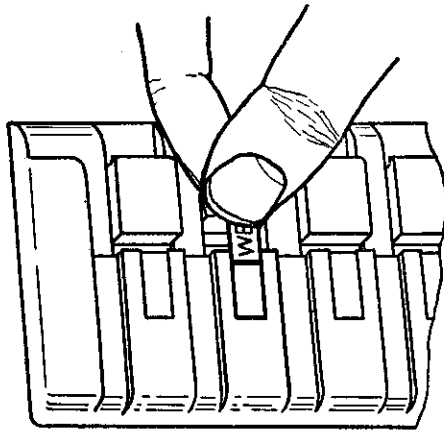
It will be necessary first to set the automatic tuning adjustments to six preselected stations before the automatic tuning can be used.

Each button and its associated tuning adjustment will tune over a portion of the broadcast band, and any station within its tuning range may be selected for automatic tuning on that button.

The tuning ranges are as follows: (See Fig. 1).

No. 4 Button	.....	740 Kc. to 1300 Kc.
No. 5 Button	.....	880 Kc. to 1600 Kc.
No. 6 Button	.....	880 Kc. to 1600 Kc.

FIG. 6



- A. Remove the automatic cover plate by pressing on latch pin and lifting away from escutcheon.
- B. Select a station within the range of the No. 1 button.
- C. Turn the band switch to Broadcast and tune in the selected station on the dial—then turn the band switch to Automatic position.
- D. Press the No. 1 button and tune in the same station on the adjacent automatic adjustments by using the special wrench furnished with the receiver (See Fig. 4). First adjust the screw and then the hexagonal nut to the setting which gives the loudest and clearest reception of the desired station. Repeat the operation for greatest accuracy.
- E. Follow the above procedure in setting the remaining buttons. Always select a station within the range of the button being set.
- F. Remove the call letters of the stations selected from the call letter sheets in this booklet. Press the buttons in and slide the call letter tabs into the slots adjacent to the push buttons (See Fig. 6). Replace the automatic cover plate.

## PHONO

Your receiver is equipped with an automatic record changer capable of playing and automatically changing either twelve ten-inch or ten twelve-inch records at one loading.

To play records the Phono-Radio switch must be in the Phono position.

The Volume and Tone are regulated by the same controls used for Radio reception.

This record player is equipped with a light weight pickup and a long life needle. Several thousand records may be played if it is used with care. Never drop the pick-up arm or let the pick-up rest on a record while not in use; the pick-up arm should be placed on the rest provided for it. See the enclosed automatic record changer instruction book for further information.

## HOW TO ENJOY THE FULL VALUE OF YOUR ZENITH SHORT WAVE RECEIVER

A real thrill awaits you in tuning distant and foreign short wave stations, for your Zenith receiver is capable of bringing you short wave broadcasts from many foreign countries in various parts of the world. The table below will help to acquaint you with the best time to dial for foreign stations at various hours.

Short wave broadcast stations are not found throughout the entire short wave range, as on the standard broadcast band. Most short wave stations are grouped at 16, 19, 25, 31 and 49 meters, though some stations can be found at other wave-lengths. An examination of your Zenith short wave dial will illustrate this.

The table below shows the band on which best reception is most likely at different times. This table is compiled for reception in North America, and does not necessarily hold for other parts of the world. In any case it is only approximate, as there are seasonal and other variations to be considered.

The heavy line over the names of the countries listed on the receiver dial gives the approximate coverage of the group of stations in that area. (Study the dial.)

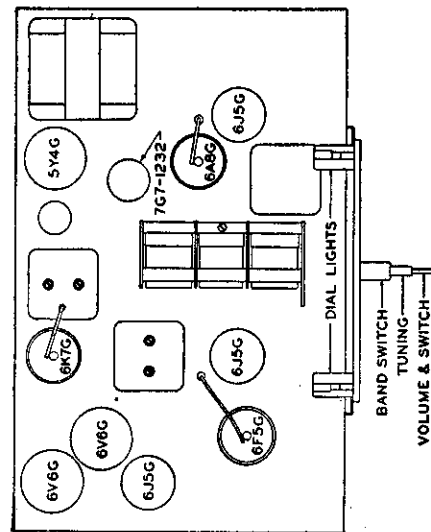


FIG. 5. TUBE POSITION

SHORT WAVE BAND	TIME OF BEST RECEPTION	
	A.M. (Morning hours)	P.M. (Afternoon)
16 meters and below		
19 and 25 meters		
25 and 31 meters		
31 and 49 meters		

When a station is tuned in, the pointer across this is done, the tone will be impaired. Tuning is impaired over the standard broadcast or either of the two

The Zenith Radio Corporation guarantees each new Zenith receiver, and each ZENITH QUALITY TUBE to be free from defects in workmanship and material.

Our obligation under this warranty is limited to making good at our factory any part or parts of the receiver which within ninety days from date of purchase shall be returned to us with transportation charges prepaid and which upon examination shall be found to our satisfaction to have been thus defective. This warranty is expressly in lieu of all other warranties expressed or implied, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of ZENITH receivers or ZENITH QUALITY TUBES.

This warranty shall not apply to any receiver which shall have been repaired or altered outside of our factory, nor which has been subject to misuse, negligence or accident, nor which has had the serial number of name altered, defaced or removed. Neither shall this warranty apply to any receiver in which other than ZENITH QUALITY TUBES have been used.

## ZENITH RADIO CORPORATION

## CHICAGO, ILL.

STATION CALL LETTERS

[C]	CBA	CBF	CBFW	CBFX	CBFY	CBFZ	CBJ	CBK	CBL	CBM	CBO	CBR	CBV	CBY
	CFAC	CFAR	CFCF	CFCH	CFCN	CFCT	CFCX	CFCY	CFGP	CFJC	CFLC	CFNB	CFOS	CFPL
	CFPR	CFQC	CFRB	CFRC	CFRN	CFRP	CHAB	CHCK	CHGB	CHGS	CHLN	CHLP	CHLT	CHML
	CHNC	CHNS	CHNX	CHRC	CHSJ	CHWK	CJBR	CJCA	CJCB	CJCJ	CJCS	CJCX	CJGX	CJIC
	CJKL	CJLS	CJOC	CJOR	CJRC	CJRM	CJRX	CKAC	CKBI	CKCA	CKCH	CKCK	CKCL	CKCO
	CKCR	CKCV	CKCW	CKFX	CKGB	CKLN	CKMC	CKMO	CKNB	CKNX	CKOC	CKOV	CKPC	CKPR
	CKRN	CKSO	CKTB	CKUA	CKVD	CKWX	CKY	CMAN	CMBD	CMBF	CMBH	CMBL	CMBQ	CMCD
	CMCF	CMCK	CMCQ	CMCY	CMGN	CMHM	CMK	CMKD	CMKE	CMKN	CMKV	CMQ	CMW	CMZ
[F]	FQN	[H]	HIN	HIX	[K]	KABC	KABR	KADA	KALB	KALE	KAND	KANS	KARK	KARM
	KASA	KAST	KATE	KAYE	KAWM	KBIX	KBKR	KBND	KBPS	KBST	KBTM	KBUR	KBWD	KCKN
	KCMC	KCMO	KCRC	KCRJ	KDAL	KDB	KDFN	KDLR	KDNT	KDON	KDRO	KDTH	KDYL	KECA
	KELA	KELD	KELO	KENO	KERN	KEUB	KEYR	KEX	KFAB	KFAC	KFAM	KFAR	KFBB	KFBC
	KFBI	KFBK	KFDA	KFDM	KFDY	KFEL	KFEQ	KFH	KFI	KFIO	KFIZ	KFJB	KFJI	KFJM
	KFJZ	KFKA	KFKU	KFMB	KFNF	KFOR	KFOX	KFPL	KFPY	KFQD	KFRC	KFRO	KFRU	KFSD
	KFSG	KFUO	KFVD	KFVS	KFWB	KGEX	KGEZ	KGFF	KGFI	KGFL	KGB	KGBS	KGBU	KGBX
	KGCU	KGCX	KGDE	KGDM	KGDK	KGER	KGEZ	KGFF	KGFI	KGFL	KGFW	KGFX	KGGF	KGGM
	KGHF	KGHI	KGHL	KGIR	KGIW	KGKB	KGKL	KGKO	KGKY	KGLU	KGMB	KGNC	KGNF	KGNO
	KGO	KGU	KGVO	KGW	KGY	KHAS	KHBC	KHBG	KHJ	KHMO	KHQ	KHSL	KHUB	KICA
	KID	KIDO	KIDW	KIEM	KIEV	KINY	KIRO	KITE	KIUL	KIUN	KIUP	KJBS	KJR	KLBM
	KLCN	KLO	KLPM	KLRA	KLS	KLUF	KLX	KMA	KMAC	KMBC	KMED	KMJ	KMLB	KMMJ

STATION CALL LETTERS

[K]	KMO	KMOX	KMPC	KMTR	KMYC	KMYR	KNEL	KNET	KNOW	KNX	KOA	KOAC	KOAM	KOB
	KOBH	KOCA	KODL	KOH	KOIL	KOIN	KOKO	KOL	KOMA	KOME	KOMO	KONB	KONO	KOOS
	KORE	KORN	KOVG	KOVO	KOWH	KOY	KPAB	KPAC	KPDN	KPFA	KPHO	KPLC	KPLT	KPMC
	KPO	KPOF	KPPC	KPQ	KPRC	KQV	KQW	KRBA	KRBC	KRBM	KRE	KRGV	KRIC	KRIS
	KRJF	KRKO	KRLC	KRLD	KRLH	KRMC	KRMD	KRNR	KRNT	KROC	KROD	KROW	KROY	KRRV
	KRSC	KSAC	KSAM	KSAN	KSCJ	KSD	KSEI	KSFO	KSL	KSLM	KSO	KSOO	KSRO	KSTP
	KSUB	KSUN	KTAR	KTBC	KTBS	KTEM	KTFI	KTHS	KTKC	KTMS	KTOH	KTOK	KTRB	KTRH
	KTRI	KTSA	KTSW	KTUC	KTUL	KTW	KUIN	KUJ	KUOA	KUSD	KUTA	KVAK	KVAN	KVCV
	KVEC	KVFD	KVGB	KVI	KVIC	KVNU	KVOA	KVOE	KVOL	KVOD	KVOR	KVOS	KVOX	KVRS
	KVSF	KVSO	KVWC	KWAL	KWAT	KWBG	KWEW	KWFC	KWFT	KWIL	KWJB	KWJJ	KWK	KWKH
	KWLC	KWLK	KWNO	KWOC	KWOC	KWSC	KWSC	KWTO	KWYO	KXA	KXO	KXOK	KXOX	KXRO
	KXYZ	KYA	KYAN	KYCA	KYOS	KYSM	KYUM	KYW	TILS	TIPG	TIX	TIXD	[V]	VAS
[W]	WAAB	WAAF	WAAT	[ ]	WABI	WABY	WACO	WADC	WAGA	WAGE	WAGF	WAGM	WAIM	WAIR
	WAJR	WAKR	WALA	WALB	WAML	WAOV	WAPI	WARD	WARM	WASH	WATL	WATN	WATR	WATW
	WAVE	WAWZ	WAYX	WAZL	WBAA	WBAB	WBAL	WBAX	WBBC	WBBL	WBBM	WBBR	WBBZ	WBCM
[ ]	WBHP	WBIG	WBIR	WBLJ	WBLK	WBML	WBNS	WBNX	WBNY	WBOC	WBOW	WBRB	WBRC	WBRE
	WBRW	WBRY	WBT	WBTA	WBTH	WBTM	WBZ	WBZA	WCAD	WCAE	WCAL	WCAM	WCAO	WCAP
	WCAT	WCAU	WCAX	WCAZ	WCBA	WCBD	WCBI	WCBM	WCBS	WCBT	WCCO	WCED	WCFL	WCFS
	WCKY	WGLE	WCLO	WCLS	WCMI	WCNC	WCNW	WCOA	WCOC	WCOL	WCOP	WCOS	WCOU	WCOV
	WCRW	WCSC	WCSE	WDAE	WDAK	WDAK	WDAN	WDAS	WDAY	WDBG	WDBJ	WDBO	WDEF	WDEL

STATION CALL LETTERS

WDEV	WDLP	WDNC	WDOO	WDRC	WDSM	WDSU	WDWS	WDZ	WEAN	WEAU
WDEB	WEDC	WEEI	WEED	WELL	WEMP	WEDA	WENR	WENY	WERC	WEST
WESX	WEXL	WFAM	WEAS	WFBC	WFBL	WFBI	WFBR	WFBR	WFDF	WFEA
WFHR	WFLA	WFMJ	WFNC	WFOR	WFOY	WFPG	WFTC	WFTL	WFYA	WGAC
WGAL	WGAU	WGBF	WGBI	WGBR	WGCM	WGES	WGGG	WGH	WGKV	WGL
WGN	WGOV	WGR	WGRB	WGRC	WGRM	WGST	WGTC	WGTM	WHA	WHAT
WHAT	WHAT	WHB	WHBB	WHBC	WHBF	WHBI	WHBL	WHBQ	WHBY	WHCU
WHDF	WHDL	WHFC	WHIO	WHIP	WHIS	WHIZ	WHJB	WHK	WHKY	WHLB
WHLD	WHLS	WHNY	WHO	WHOM	WHOP	WHP	WHUB	WHYN	WIBC	WIBG
WIBM	WIBW	WICC	WIGM	WIL	WILL	WILM	WINC	WIND	WINN	WINS
WINX	WIRED	WISE	WISH	WISN	WITH	WIZE	WJAC	WJAG	WJAS	WJAX
WJBC	WJBW	WJDX	WJEJ	WJHL	WJHO	WJHP	WJIM	WJJD	WJLS	WJMC
WJMS	WJOB	WJPR	WJRD	WJSV	WJTN	WJW	WJZM	WKAQ	WKAR	WKAT
WKBB	WKBN	WKBW	WKBZ	WKEU	WKIP	WKMO	WKNE	WKOK	WKPA	WKPT
WKRC	WKST	WKZO	WLAG	WLAG	WLAK	WLAP	WLAW	WLB	WLBC	WLBK
WLBL	WLEU	WLOF	WLOG	WLOK	WLOL	WLPM	WLS	WLVA	WLW	WMAL
WMAM	WMAS	WMAZ	WMBD	WMBG	WMBH	WMBI	WMBQ	WMBR	WMC	WMCA
WMDF	WMFF	WMFJ	WMFR	WMGA	WMIN	WMJM	WMMN	WMOB	WMPC	WMPS
WMRC	WMRO	WMSL	WMT	WMUR	WMVA	WMWH	WNAB	WNAC	WNAX	WNBC
WNBH	WNBZ	WNLC	WNOE	WNOX	WNYC	WDAI	WOC	WOCB	WOKO	WOL

STATION CALL LETTERS

WOLF	WOLS	WOMI	WOMT	WOOD	WOPI	WOR	WORC	WORD	WORK	WORL	WOSU	WOV	WOW
WOWO	WPAB	WPAD	WPAT	WPAX	WPAY	WPER	WPER	WPIC	WPID	WPRA	WPRO	WPRP	WPTF
WQAM	WQAN	WQBC	WQXR	WRAC	WRAL	WRBW	WRBL	WRC	WRDD	WRDW	WREC	WREN	WRGA
WRJN	WRLC	WRNL	WROL	WRR	WRUF	WRVA	WSAI	WSAJ	WSAM	WSAN	WSAR	WSAU	WSAV
WSAY	WSAZ	WSB	WSBT	WSFA	WSGN	WSIX	WSJS	WSKB	WSLB	WSLI	WSLS	WSM	WSMB
WSNJ	WSOC	WSOO	WSPA	WSPB	WSPD	WSPR	WRRR	WSTP	WSTV	WSUI	WSUN	WSVA	WSVS
WSYB	WSYR	WTAD	WTAG	WTAK	WTAM	WTAQ	WTAR	WTAW	WTAX	WTBO	WTCM	WTCN	WTEL
WTHT	WTIC	WTJS	WTMA	WTMC	WTMJ	WTNJ	WTOC	WTOL	WTRC	WTRY	WTSP	WVFW	WWDG
WWJ	WWL	WWNC	WWNY	WWRL	WWSW	WWVA	WXYZ	W3XDD	W3XJ	W8XAL	W8XNU	W8XO	W8XUJ
XEAC	XEAD	XEAF	XEAI	XEAW	XEB	XEBG	XEBH	XEBT	XECL	XECL	XED	XEDP	XEDS
XEEN	XEFO	XEGM	XEHV	XEKW	XELA	XELO	XEM	XEMO	XEN	XENT	XEON	XEP	XEQ
XEQK	XEQQ	XERA	XERB	XERH	XERK	XERL	XET	XETB	XEUN	XEW	XEWI	XEWW	XEXT

BLANKS

ZNS

YSS

F.M.	K45LA	K47SL	W39B	W45CM	W45D	W45RG	W45V	W47A	W47C	W47NV	W47P	W49BN	W49FW	W51C
W51NY	W53H	W55M	W55NY	W57A	W57PH	W59C	W59NY	W63C	W63NY	W63SY	W65H	W67B	W67C	W67PH
W71NY	W71RF	W75NY	W75P	W81SP	W3XMC	NEW	KROS	WLAN	WMIS	WBYN	WISR	KEVE	KSKY	KTNM
KTRN	KWBW	WAYS	WBBB	WBYN	WEIM	WGAA	WIAC	WISR	WJMA	WLDS	WSON	K51L	K53LA	W31NY
W35NY	W39NY	W41MM	W43B	W47NY	W47PH	W49D	W49PH	W51R	W51SL	W53PH	W67NY	W69PH	W71SB	W75C
W99NY														

FOR 'N	PHONO	AMA-TEUR	BROAD-CAST	SHORT-WAVE	PHONO GRAPH	TELEVISION	DIAL	TIME ON	TIME OFF
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