

## **Collins Mechanical Filters For Sale**

After 1949, Collins brought out communication receivers covering not only the ham bands but the complete shortwave spectrum.. The receiver also features alow impedance AVC, a good noise limiter, two stages of audioamplification and a 100 kc frequency spotter or calibrator.. This is necessary since the coils for bands 4 to7, 8 to 15, and 16 to 30 cover these tuning ranges with onecomplete excursion of the tuning slugs.. Slug tables are driven from two sources: the main tuningknob and the BAND CHANGE knob.. On band 1 (0 5 to 1 5 mc) coils L101 and L110 are tuned through thisfrequency range by the main tuning knob through shafts A, B,C and E.. 5 mc iscovered by 30 one-megacycle bands that are selected by the band switch knob and indicated by a slide ruledial having graduations of one-tenth megacycle (100kc)intervals.. 75A-4Collins Filters Mechanical ListCollins Mechanical Filters For Sale WalmartTHE COLLINS 75A-4 RECEIVERCollins 75A-4 Receiver is designed expressly for Amateur operation on the seven HF bands – 160, 80, 40, 20, 15, 11, and 10 meters.. On these bands the samecoils are used for each band Band change is accomplished bymoving the tuning slug in the coil an amount equal to onemegacycle in frequency.. New Collins Mechanical Filter Yaesu Yf-122s 10pole Ssb Filter 2 3khz Made In Jpn Collins 51j-4 - \$199.. A four-ohm headphone jack and a 600-ohm speakerjack are provided on the front panel.

The group of three slug tables in the rear portion of the chassis tunes the r-f and firstmixer stages when the receiver is operating in the 3.. Find the Collins on eBay 32S-1 Desktop Shortwave Transmitter RX -- TX CW SSB 10-80 m 32S-3 Desktop Shortwave Transmitter RX -- TX CW SSB 10-80 m 32V-1 Desktop Shortwave Transmitter RX -- TX AM CW 10-80 m 32V-2 Desktop Shortwave Transmitter RX -- TX AM CW 10-80 m 32V-3 Desktop Shortwave Transmitter RX -- TX AM CW 10-80 m 51-Q Desktop Shortwave receiver RX AM CW 1.. An interesting feature of the differential gearing is its ability to combine the movements of the two driving sources so that the slug table is moved exactly one megacycle in each band change.. Thus L104, L107, and L111 are tuned in one megacycle steps by the BAND CHANGE knob, and between these steps are tuned by the main tuning knob.. 5 mc Nineteentubes, three of which are dual, are employed in thereceiver With the exception of the rectifier tube, all are of the miniature type.. 5 to 3 5 mc spectrum Bands 2 and 3, which cover 1 5 to 2 5 mc and 2 5 to 3 5 mc respectively, are identical in span to each band of the variable i-fcoils and thus feed through to the second mixer without utilizing the first mixer.

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This is true of all three slugtables, which tune L104 through L113 However, the tapswitches select the proper set of coils for the frequencydesired.. The antennaconnector, 50-ohm i-f output connector, breakingrelay terminals and four-ohm and 600-ohm audiooutput terminals are provided-on the rear.. All stages are permeability tunedby powdered iron slugs The r-f amplifier and first mixerslug tables change position a full megacycle in tuning each time a band is changed.. For instance, band 1 covers 0 5 to 1 5 mc, band 2covers 1 5 to 2 5 mc, and so on.. TRIM - CAL (100 KC ADJUSTMENTS) -CRYSTAL FILTER SELECTIVITY - FILTER SELECTORThe operating range of 540 kc to 30.

During tuning, positions of the slug tables are varied by asystem of gears and cams; see figure 4-2.. For civilian use, Collins had a range of smaller lightweight amateur band receivers, the legendary Collins 51S-1 covering the complete shortwave spectrum from 200 kHz - 30 MHz in 1 MHz segments offered a linear analog dial with a dial resolution of better than 500 Hz and was fully equipped with tubes.. Available on special order a speaker that matches this cabinet The speaker's dimensions are: width.. 5-30 MHz TX CW USB LSB 160-10 m R-381 Desktop Shortwave receiver RX AM CW SSB 0 5-30.. On bands 8 to 15, coils L105, L108, and L112 are tuned through shafts A, B, C, D and the differential.. 1-3/8' diameter x 1-1/8' high Solid State direct replacement modules are much more efficient than their vacuum tube predecessors.. 6 50Add(COL) 183-1009-00C7, 40  $\mu$ F / 40  $\mu$ F, 450 v twist lock SOLDOUT (COL) 353-1661-00CR1-9 Diodes.. Separate rectifiers are used to produce automatic volume control and audio voltages.

MECHANICALThe 51J-4 Receiver is available in two styles One is a panel and shelfassembly suitable for mounting in a standard rackcabinet.. The 100 kc divisions are indicated by a pointer on the slide rule dial Thispointer is driven from the main tuning knob through shaft A.. SOLDOUT(PUB)(COL) MP1MP-1 Manual copy 15 00AddPM-2 Power SupplyPart NumberDescriptionPrice Each(COL) 183-1054-00C1, C2 20 µF, 450 v electrolytic caps.. Available on special order a speaker that matches this cabinet The speaker's dimensions are: width.. James Gray wrinkle The following controls are located on thefront panel:R-F GAIN - CRYSTAL FILTER -AUDIO GAIN - PHASING -BFO ON-OFF - OFF-ON-STANDBY -CALIBRATE - MEGACYCLE TUNING -ON-OFF - BFO PITCH - KILOCYCLE TUNING -AVC ON-OFF - ZERO ADJ -LIMITER OUT-IN - METER OUTPUT-INPUT -ANT.. While tuning, these slugs movein and out of the coils at a rate determined by a cam or bya lead screw.. (COL) 540-5175-000This filter should look like those pictured but be labeled: COLLINS MECHANICAL FILTER 526 8733 010 RockwellCollins.. FREQUENCY RANGE -BAND (Meters) RANGE (mc)160 1 5 to 2 580 3 2 to 4 240 6 8 to 7.. Band 1 (5 to 1 5 mc) uses an intermediate mixer between the first mixer and thevariable i-f coils.. Plug in solid state replacement for vacuum tubes 5R4 & 5U4 Octal base Rated @ 2800 vdc, 1 amp.. Limited operation at the extreme low end is possible with somewhat reduced performance.. The main tuning control covers each of these megacycle ranges with 10 turns of a 100 division dial calibrated at one-kilocycle intervals.. Refer to figure 4-2 This mechanical diagram shows the gears and connecting shafts associated with band changeand tuning.. A 12-mc signal developed by the crystal controlledoscillator is applied to the first mixer to determine these frequencies.. 2' c-c mount holes 1 6' x 1 6' x 1 9'H Alt P/N: 11271 NSN: 5950-00-772-8438 Pic139.. 00AddPart NumberDescriptionPrice Each(COL) 662-0034-00T1 power inverter transformer replacement made by Ballastran (BC-3254) for Collins MP-1.. 00Add(COL) 526-9030-00F500B14, 1 4 kc295 00Add(COL) 526-9215-009F500F-14, 1 4 kc (See below for more info & picture)249.. 5to 1 5 mc It tunes the r-f stage and variable i-f coilsL116 and L118 when receiving in the range 1.. The Receiver retains the time-proven features of the earlier 75A Series; notably, excellent image rejection through the use of double conversion; precise dial calibration and high stability provided by the permeability tuned, hermetically sealed Collins VFO and the crystal controlled first injection oscillator; and ideal selectivity produced by Collins Mechanical Filters.. 1KHz SSB Mechanical Filter For 75A-4 Receiver P/N 526 9380 00 \$99 00 Collins rubber feet kit.. Stability of the 70E-15 oscillator is assured bytemperature-compensated components operating ina sealed and moisture-proof housing.. This experience was used in the production of amateur radio receivers (the famous 75-A series) after the war.. A series type noiselimiter clips modulation at 50-85 percent Thisallows good reception in the presence of strong noisepulses.. Fits vintage Collins, Heath, etc Made by Cooper Instrument Operation parts manual for 180S-1, copy.. The receiver is designed for amplitude-modulated and continuous wave reception, althoughits accuracy and stability make it suitable for manyapplications where it is desired to receive or setdefinite frequencies without searching or makingfrequent adjustments.. 5 to 1 5 mc However, the lower end of theoperating range is considered to be 540 kc ratherthan 500 kc because of the questionable operation in the extreme low end of the band where frequencies approach the receiver i-f frequency of 500 kc.. 5 to 2 5 and 2 5 to 3 5 mc When receiving in the range 3 5 to 30 5 mc, this slug table tunes only the variable i-f coils L116 and L118.. For instance, theband 4 to 7 slug table tunes its associated coils throughfour megacycles; in one megacycle jumps when operated by the BAND CHANGE knob, and in complete coverage in between whenoperated by the tuning knob.. On bands 2 and 3 (2 5 to 1 5 and 3 5 to 2 5), tuning is done by the main tuning knob through the sameshafts - A, B, C and E., Following the variable i-f and the second mixerare the crystal filter and a four stage fixed intermediatefrequency amplifier containing mechanical filters.. Circuits affected by band changes are the r-f amplifier grid, first, second, and third mixer grids, crystal selector, and crystal harmonic tuning circuits.. 0 MHz 10 0024 00Add(COL) DCL-KWSFits newer KWS-1 w/15 meter scale starting @ 20.. Collins SSB / RTTY mechanical filter 500 KHz IF, 1 4 KHz bandwidth Fits 51J series collins receivers.. 820 14 0 to 15 015 20 8 to 21 811 26 5 to 27 510 28 0 to 29 010 29 0 to 30 0. The BAND CHANGE knob moves this samerack through shafts G, C, D, and the differential in foursteps.. Crystals are selected by operation of the BAND CHANGE knobthrough the 15-position Geneva system and shafts G.. Shafts associated with changing bands are C, D,G, H, I, K, and the over-travel shaft.. Bandchanging consists of moving powdered iron 'slugs'into the coils in one megacycle steps until inductancelimits of the coils are reached, then changing coilsand repeating.. An interesting feature of the differential gearing is its ability to combine the movementsof the two driving sources so that the slug table is movedexactly one megacycle in each band change.. Brand new in the box!!Part NumberDescriptionPrice Each(COL) 278-0197-00T3, T4 IF can49.. The frequency range of the 51J-4 Receiver, 5 to 30 5 mc, is divided into 30 one-megacyclebands by a system of switches and coils which formthe r-f amplifier and first mixer circuits.. This control operates through a differentialmechanism to move the band change 'slugs'in the coils enough to cover the range between theone-megacycle band change steps.. JamesGray wrinkle The following controls are located on the front panel: R-F GAIN - CRYSTAL FILTER -AUDIO GAIN - PHASING -BFO ON-OFF - OFF-ON-STANDBY -CALIBRATE - MEGACYCLE TUNING -ON-OFF - BFO PITCH - KILOCYCLE TUNING -AVC ON-OFF -ZERO ADJ -LIMITER OUT-IN - METER OUTPUT-INPUT -ANT.. 5 to 30 5 mc in 30 bands: 0 5 to 1 5, 1 5 to 2 5, and so on up to 30 5 mc Each band is one megacycle wide.. 10 0024 00Add(COL) DCL-75A3Fits 75A-3 -SOLDOUT(COL) DCL-75A2Fits 75A-2 10 0024 00Add(COL) DCL-51JFits all 51J receivers.. This receiver incorporates the new mechanical

filter in the intermediatefrequency range to obtain the desirable rectangular-shaped passband. 01µF or 10,000 pF, Tusonix feedthru 4kvw, 8kv test, 2-3/8' long, 7/16' bushing mount.. The slugs in the r-f coils are driven through shafts C and D The slugs travel0.. The Collins 51J-3 (and it's military variant Collins R-388/URR) was equipped with coil filters, the Collins 51J-4 (military variant R-388A) was the first Collins set using their very famous mechanical filters, it appeared on the market in 1957.. 500 KHz IF, 1 4 KHz bandwidth F500F-14 Fits 51J series collins receivers Brand new stock that was squirreled away when this 'Radio Row' shop closed in NYC.. Kilocycle divisions are indicated by the plastic dialmounted on shaft A Two scales are necessary on this dialbecause bands 2 and 3 run in opposite directions.. 51J-4 SPECIFICATIONSUnder the hood 51J-4 CIRCUITRYMECHANICAL DESCRIPTIONBAND CHANGE - Collins 51J-4 Receiver covers the frequencyrange of 0.. The Collins Radio Company was founded by Arthur Collins in Cedar Rapids in 1932 The company started business constructing transmitters and amateur radio equipment and got much experience producing aeronautical transceivers and transmitters during wartime.. Audio power output is held within 3 5 db over signalinput voltage ranges of five to 125,000 microvoltsat the antenna terminals.. 0630 Just bought a nice rig which was described as having both 500 Hz & 300 Hz filters.. The crystal frequencies for the first mixerinjection are so chosen that the frequency produced by the first mixer will always fall in the 1.. D-c amplification of the automatic volume control voltage is provided to obtain essentially uniform input to the detector.. For instance, theband 4 to 7 slug table tunes its associated coils throughfour megacycles; in one megacycle jumps when operated by the BAND CHANGE knob, and in complete coverage in between whenoperated by the tuning knob.. The 300 Hz was never installed Looking for NOS or a known good pull Please let me know what you have.. The third mixer isswitched in only on band 1 (5 to 15 mc) Operations involved in the changing of bands consist of selecting the proper coils in these circuits by means of tapswitches and changing the position of the r-f amplifier and first mixer slug tables.. It contains all sorts of useful information including, but by no means limited to.. This is necessary since the coils for bands 4 to 7, 8 to 15, and 16 to 30 cover these tuning ranges with onecomplete excursion of the tuning slugs.. The proper channel is selected by the BAND CHANGEknob through shafts G and K FREQUENCY INDICATION - The band on which the receiver isoperating is indicated on the drum dial that is rotated bythe BAND CHANGE knob through shaft G.. 5 to 3 5 mc spectrum Bands 2 and 3, whichcover 1 5 to 2 5 mc and 2 5 to 3.5 mc respectively, are identical in span to each band of the variable i-fcoils and thus feed through to the second mixerwithout utilizing the first mixer.. On band 1 radiofrequency coils L101 and L110 are switched by means of the BAND CHANGE knob through the over-travel shaft and shaft G.. These two driving sources are connected to the slug tables through a differential gearmechanism.. 2 00Add(PUB) COL-PM-2PM-2 Manual, copy 15 00AddTHE COLLINS 51J-4 RECEIVERThe Collins 51J-4Receiver is designed for communication applicationswhere stability and dial accuracy of the highestorder are the prime requisites.. 10 0024 00AddJ-4 PartsPart NumberDescriptionPrice Each(COL) 278-0092-000T102, 500 kc can95.. Band 1 (5 to 15 mc) uses an intermediate mixer between the first mixer and the variable i-f coils.. The main tuning control is a vernier dial calibrated in 100 one-kilocycledivisions.. The crystal frequencies for the first mixerinjection are so chosen that the frequency producedby the first mixer will always fall in the 1.. This manual was used internally at Collins Radio to specify the standards of workmanship to be used in their equipment.. 2-30 MHz TX -- 651S-1 Desktop Shortwave receiver RX AM CW SSB 0 25-30 MHz TX -- 851S-1 Desktop Shortwave receiver RX -?-? MHz TX -- HF-380 Desktop Shortwave Transceiver RX AM CW USB LSB 10-160 m TX CW USB LSB 0.. Conversion to the fixed i-f of 500 kc isaccomplished by injecting a 2 to 3 mc signal from aCollins 70E-15 oscillator to produce a difference of 500 kc from the frequency existing in either band of the variable i-f amplifier.. This is true of all three slugtables, which tune L104 through L113 However, the tapswitches select the proper set of coils for the frequencydesired.. This mixer accepts frequencies in the range 10 5 to 11 5 mc from the first mixer. e10c415e6f