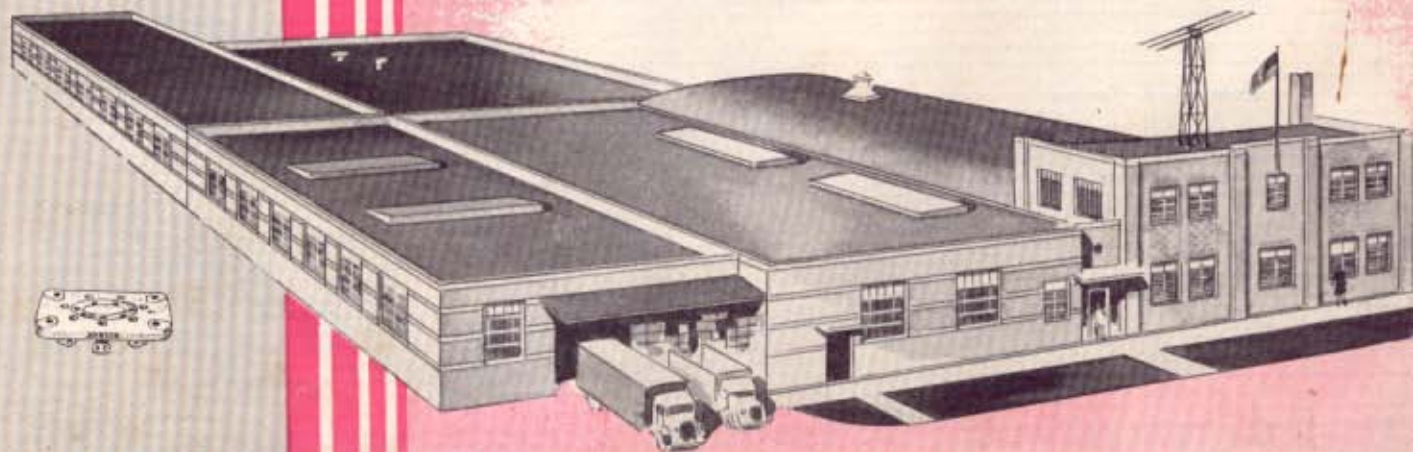


JOHNSON

RADIO ELECTRONIC PRODUCTS

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E. F. JOHNSON COMPANY

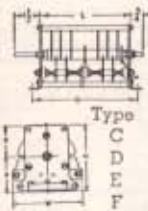
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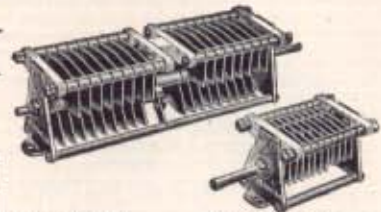
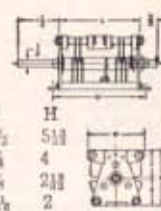
VARIABLE CONDENSERS



Type C Dual Type D Single



Type	T	S	W	H
C	2 1/2"	3 1/2"	5 1/2"	5 1/2"
D	1 5/8"	2 1/2"	4 1/4"	4"
E	1 1/2"	1 3/8"	2 3/4"	2 1/2"
F	1 1/2"	1 1/4"	2 1/2"	2"



Type E Dual Type F Single

JOHNSON C and D condensers are sturdily constructed to give trouble-free operation under the most severe service. Only the finest materials are employed yet these units are lower in price than any other quality condensers.

All dual models have center rotor connections, to insure balanced operation at ultra-high frequencies. Heavy laminated phosphor bronze contact springs insure low resistance circuits.

Important features include: Heaviest aluminum plates of any similar condenser, .051" thick—Silexite insulation—Large laminated rotor brushes—Center rotor contacts on all dual condensers—Heavy 5/16" diameter aluminum tie rods for frame strength and rigidity—1/4" stainless steel shafts.

Supplied with single hole mounting brackets which fit either top or bottom of end plate so that stators may be mounted to top or bottom as preferred.

Designed as rugged, compact units for medium and low power transmitters, type E and F condensers are in a class by themselves. They have more capacity per cubic inch and occupy less panel space for their rating than any other condenser on the market. Their rapid adoption by manufacturers of high grade equipment and discriminating amateurs is ample proof of their excellence.

Points of superiority: Heavy aluminum plates, .032" thick, with rounded edges for maximum voltage rating—Heavy aluminum tie rods 1/4" diameter for frame strength and rigidity—Silexite insulation—Stator mounted above to reduce capacity to ground—heavy phosphor bronze contact springs, cadmium plated—Center contact on dual models—Chassis or panel mounting—Stainless steel shafts.

In addition to mounting foot shown, removable single hole brackets are furnished so that condenser may be inverted from position shown, or other components mounted above.

TYPE C CONDENSERS SINGLE SECTION

Cat. No.	Part No.	Cap. per Sect.		Number Spacing Plates	L	
		Max.	Min.			
250C70	152-1	252	34	.175"	24	6 1/2"
500C70	152-2	496	56	.175"	47	12 1/2"
250C90	152-3	245	45	.250"	31	12 1/2"
350C90	152-4	337	63	.250"	43	14 1/2"
50C110	152-5	51	19	.350"	8	4 1/2"
100C110	152-6	103	30	.350"	17	8 1/2"
250C110	152-7	251	66	.350"	41	18 1/2"
50C130	152-8	51	24	.500"	10	7 1/2"
100C130	1529	102	42	.500"	21	13 1/2"

TYPE C DUAL SECTION

200CD45	152-501	204	21	.125"	15	8 1/2"
300CD45	152-502	290	26	.125"	21	10 1/2"
200CD70	152-503	198	27	.175"	19	12 1/2"
300CD70	152-504	305	37	.175"	29	16 1/2"
150CD90	152-505	147	30	.250"	19	14 1/2"
200CD90	152-506	196	38	.250"	25	18 1/2"
50CD110	152-507	50	18	.350"	8	10 1/2"
65CD110	152-508	66	21	.350"	11	12 1/2"
100CD110	152-509	103	32	.350"	17	16 1/2"
50CD130	152-510	51	24	.500"	10	14 1/2"

TYPE D SINGLE SECTION

50D35	153-1	49	12	.080"	5	2 1/2"
100D35	153-2	99	14	.080"	8	2 1/2"
150D35	153-3	151	18	.080"	12	2 1/2"
250D35	153-4	252	24	.080"	20	4 1/2"
350D35	153-5	343	27	.080"	27	5 1/2"
500D35	153-6	496	36	.080"	39	6 1/2"
100D45	153-7	104	19	.125"	12	4 1/2"
150D45	153-8	146	23	.125"	17	4 1/2"
50D70	153-9	51	17	.175"	7	2 1/2"
70D70	153-10	72	18	.175"	11	4 1/2"
100D70	153-11	98	23	.175"	15	4 1/2"
150D70	153-12	151	31	.175"	23	6 1/2"
250D70	153-13	244	45	.175"	37	10 1/2"
350D70	153-14	351	62	.175"	53	13 1/2"
50D90	153-15	53	20	.250"	10	4 1/2"
70D90	153-16	73	25	.250"	14	5 1/2"
100D90	153-17	99	30	.250"	19	7 1/2"
150D90	153-18	149	43	.250"	29	10 1/2"
250D90	153-19	249	68	.250"	49	15 1/2"

TYPE D DUAL SECTION

100DD35	153-501	95	13	.080"	8	4 1/2"
150DD35	153-502	147	15	.080"	12	5 1/2"
200DD35	153-503	202	19	.080"	16	7 1/2"
300DD35	153-504	291	24	.080"	23	9 1/2"
500DD35	153-505	496	38	.080"	39	13 1/2"
150DD45	153-506	155	24	.125"	18	9 1/2"
200DD45	153-507	198	27	.125"	23	12 1/2"
50DD70	153-508	52	15	.175"	8	5 1/2"
70DD70	153-509	72	17	.175"	11	7 1/2"
100DD70	153-510	97	22	.175"	15	9 1/2"
150DD70	153-511	151	31	.175"	23	13 1/2"
200DD70	153-512	199	39	.175"	30	16 1/2"
50DD90	153-513	52	19	.250"	10	9 1/2"
100DD90	153-514	97	30	.250"	19	14 1/2"

MOUNTING BRACKETS

Extra brackets for mounting other components above condenser.
 Cat. No.
 115-100—Single Hole Bracket for C or D condenser
 115-101—Two Hole Bracket for C or D condenser

TYPE E CONDENSERS SINGLE SECTION

Cat. No.	Part No.	Cap. per Sect.		Number Spacing Plates	L	
		Max.	Min.			
250E20	154-1	244	12	.045"	23	2 1/2"
350E20	154-2	353	15	.045"	33	3 1/2"
500E20	154-3	488	19	.045"	45	4 1/2"
35E30	154-4	39	8	.075"	6	1 1/2"
50E30	154-5	52	9	.075"	8	1 1/2"
70E30	154-6	72	9	.075"	11	2 1/2"
100E30	154-7	100	11	.075"	15	2 1/2"
150E30	154-8	154	14	.075"	23	3 1/2"
250E30	154-9	251	20	.075"	37	4 1/2"
350E30	154-10	347	25	.075"	51	6 1/2"
35E45	154-11	38	11	.125"	12	2 1/2"
50E45	154-12	38	9	.125"	9	2 1/2"
70E45	154-13	74	13	.125"	17	3 1/2"
100E45	154-14	101	16	.125"	23	4 1/2"
150E45	154-15	145	20	.125"	33	6 1/2"
250E45	154-16	241	32	.125"	55	9 1/2"

TYPE E DUAL SECTION

200ED20	154-501	200	10	.045"	19	5 1/2"
300ED20	154-502	312	13	.045"	29	6 1/2"
50ED30	154-503	52	8	.075"	8	4 1/2"
70ED30	154-504	72	8	.075"	11	4 1/2"
100ED30	154-505	99	10	.075"	15	5 1/2"
150ED30	154-506	153	13	.075"	23	7 1/2"
200ED30	154-507	186	15	.075"	29	8 1/2"
50ED45	154-508	52	10	.125"	12	6 1/2"
70ED45	154-509	74	12	.125"	17	7 1/2"
100ED45	154-510	100	15	.125"	23	9 1/2"

TYPE F SINGLE SECTION

35F20	155-1	35	7	.045"	6	1 1/2"
50F20	155-2	54	8	.045"	9	1 1/2"
70F20	155-3	66	8	.045"	11	1 1/2"
100F20	155-4	106	10	.045"	17	2 1/2"
150F20	155-5	154	12	.045"	25	2 1/2"
250F20	155-6	252	17	.045"	41	4 1/2"
35F30	155-7	36	8	.075"	9	1 1/2"
50F30	155-8	52	9	.075"	13	2 1/2"
70F30	155-9	67	11	.075"	17	2 1/2"
100F30	155-10	99	14	.075"	25	3 1/2"
150F30	155-11	148	18	.075"	37	4 1/2"

TYPE F DUAL SECTION

50FD20	155-501	53	7	.045"	9	3 1/2"
70FD20	155-502	66	7	.045"	11	3 1/2"
100FD20	155-503	104	9	.045"	17	4 1/2"
150FD20	155-504	153	11	.045"	25	6 1/2"
200FD20	155-505	202	14	.045"	33	7 1/2"
50FD30	155-506	51	8	.075"	13	4 1/2"
70FD30	155-507	66	10	.075"	17	5 1/2"
100FD30	155-508	99	13	.075"	25	7 1/2"

DEPARTURES FROM STANDARD

Special plate spacings, capacities, shaft extensions, insulation, mounting brackets, terminals, etc., can be furnished to specifications for commercial applications.

CONDENSERS FOR HIGHER VOLTAGES

The JOHNSON line includes heavy duty pressurized or air dielectric fixed and variable condensers for high voltage commercial applications. Data sheets furnished on request.

EXPLANATION OF TYPE NUMBERS

The first part of the type number indicates the capacity per section in mmd. The following letter indicates the frame size or type. A second letter D indicates a two section type. The final number multiplied by 100 is the approximate peak breakdown voltage. Capacity measurements of the E and F types are made with the condensers in the position shown in the above illustration. The C and D types are measured in inverted position.



TYPE H CONDENSER



Two End Plates Single End Plate

The Type H condenser was designed for aircraft transmitters and combines a minimum of weight and size with simple but rugged construction. Capacities and spacings are provided for low and medium power stages. Use of steatite for end plates avoids any possibility of "short circuit loops" and permits panel mounting with both rotor and stator insulated from ground. Has aluminum plates .020" thick. End plate 1 1/2" square. Capacity measurements are taken with condenser in position shown above.

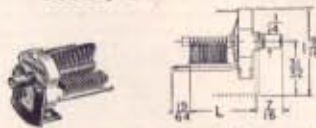
TYPE H CONDENSERS SINGLE SECTION

Cat. No.	Part No.	Cap. per Sect.			Number	L
		Max.	Min.	Spacing Plates		
Single End Plate						
25H15	156-1	25	4	.030"	6	1 1/2
35H15	156-2	35	4	.030"	8	1 3/4
50H15	156-3	49	4	.030"	11	1 7/8
70H15	156-4	69	6	.030"	15	1 7/8
100H15	156-5	97	7	.030"	21	1 7/8
Double End Plate						
150H15	156-6	146	9	.030"	31	2 1/4
250H15	156-7	242	13	.030"	51	3 1/4
25H30	156-8	28	7	.080"	13	2 1/4
35H30	156-9	37	8	.080"	17	2 3/4
50H30	156-10	54	11	.080"	25	3 1/4
70H30	156-11	74	13	.080"	35	4 1/4

TYPE H DUAL SECTION

Cat. No.	Part No.	Cap. per Sect.			Number	L
		Max.	Min.	Spacing Plates		
35HD15	156-512	31	6	.030"	7	1 1/4
50HD15	156-513	51	7	.030"	11	2 1/4
70HD15	156-514	71	8	.030"	15	2 1/2
100HD15	156-515	99	10	.030"	21	3 1/4
35HD30	156-516	38	12	.080"	17	4 1/4
50HD30	156-517	55	15	.080"	25	6

TYPE J CONDENSER



The Type J condenser is a midget with big condenser characteristics. It has wider spacing than most small types, yet occupies little more space and is ideal for oscillator and low power stages. It can be used in conjunction with JOHNSON tube socket type inductors to provide an extremely compact tank unit. The spacing is .025" and universal type mounting brackets make possible a variety of mountings including chassis, panel, or inside tube socket type inductors. Steatite end plate is 1 1/8" wide.

Cat. No.	Part No.	Cap. per Sect.			Number	L
		Max.	Min.	Spacing Plates		
7J12	157-1	8	2.6	.025"	3	3/4
15J12	157-2	17	3.3	.025"	6	7/8
25J12	157-3	29	3.6	.025"	10	1 1/8
50J12	157-4	52	4.9	.025"	19	1 1/2
75J12	157-5	73	6	.025"	25	1 7/8
100J12	157-6	102	7	.025"	36	1 7/8

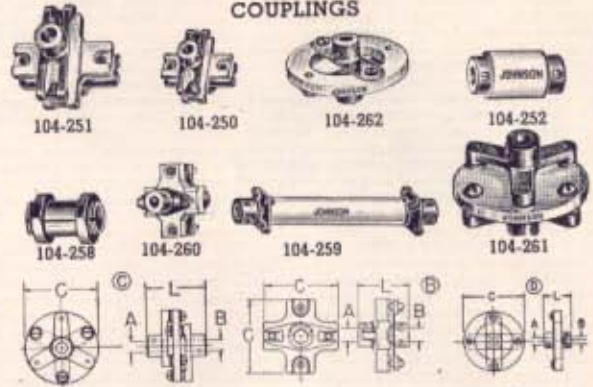
TYPE G CONDENSER



The Type G condenser is extremely popular as a neutralizing condenser for medium and low power stages. It is also widely used for grid and plate tuning at high and ultra-high frequencies. A wide range of capacities and spacing make it adaptable to many applications. It has a single end plate of steatite and low minimum capacity. .032" rounded aluminum plates, universal mounting bracket locking nut, and front and rear shaft extension are among outstanding features.

Cat. No.	Part No.	Cap. per Sect.			Number	L
		Max.	Min.	Spacing Plates		
25G20	165-1	27	4	.045"	5	1 1/8
50G20	165-2	52	5	.045"	9	1 3/8
8G45	165-3	7.7	3.6	.125"	3	1 1/8
13G45	165-4	13	4.7	.125"	5	1 3/8
23G45	165-5	23	6.4	.125"	9	1 3/8
6G70	165-6	5.7	3.5	.225"	3	1 3/8
12G70	165-7	12	6	.225"	7	2 1/8

COUPLINGS



All JOHNSON insulated shaft couplings are characterized by best steatite insulation properly proportioned for electrical and mechanical strength, by accurate metal parts heavily plated, by advanced design, and by skillful manufacture.

The phosphor bronze springs of the -250 and -251 series couplings provide flexibility without backlash and adjust to minor shaft misalignments.

The hub assemblies of the new -260 and -263 coupling move freely on their supporting posts, accommodating misalignment and strain without dependence upon a flexing metal, and yet are well secured to prevent accidental disassembly. Rigid types -252, -262 and -261 meet the requirements of accurate shaft alignment and high torque.

The -259 and -2593 are bar type couplings recommended for high voltages or very high frequencies.

Cat. No.	Modulated Peak Volt.	Dim. Dvg.	C	Dimension		
				L	A	B
104-250	4000	A	1 1/2	1 1/8	1 1/4	
104-2503	4000	A	1 1/2	1 1/8	1 1/4	
104-251	5000	A	2 1/2	1 1/2	1 3/4	
104-251A	5000	A	2 1/2	1 1/2	1 3/4	
104-251B	5000	A	2 1/2	1 1/2	1 3/4	
104-252	1000	F	1 1/2	1 1/8	1 1/4	
104-258		F	1 1/2	1 1/8	1 1/4	
104-259	8000	F	3 1/2	1 1/2	1 3/4	
104-2593	5000	F	2 1/2	1 1/2	1 3/4	
104-260	2500	B	1 1/2	1 1/8	1 1/4	
104-261	7500	C	2 1/2	1 1/2	1 3/4	
104-262	5000	D	2	1 1/2	1 3/4	
104-263	2000	B	1	1 1/8	1 1/4	

PANEL BEARINGS

Nickel plated brass for 1/4" shaft and up to 3/8" panels. Also with 3" and 6" nickel plated brass shafts.

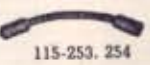


Cat. No. 115-255 Panel bearing only
Cat. No. 115-256 Bearing and 3" shaft
Cat. No. 115-2562 Bearing and 6" shaft

115-255, 256, 2562

FLEXIBLE SHAFTS

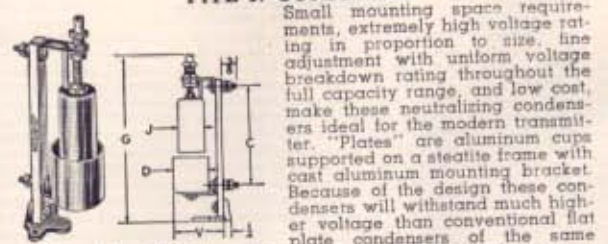
Phosphor bronze, non-rusting with 1/4" hubs. Permit out of line or up to 90 degree angular control.



Cat. No. 115-253 3" flexible shaft
Cat. No. 115-254 6" flexible shaft

115-253, 254

TYPE N CONDENSER



Small mounting space requirements, extremely high voltage ratings in proportion to size, fine adjustment with uniform voltage breakdown rating throughout the full capacity range, and low cost, make these neutralizing condensers ideal for the modern transmitter. "Plates" are aluminum cups supported on a steatite frame with cast aluminum mounting bracket. Because of the design these condensers will withstand much higher voltage than conventional flat plate condensers of the same spacing. The N375 has been improved and now features a bushing for the guide shaft for greater stability and a beaded lower cup for high voltage rating. Peak R.F. Breakdown Ratings at 2 Mc.: N125 8,500, N250 11,500, N375 14,500.

Cat. No.	Part No.	Capacity		D	C	G	V	Spacing
		Max.	Min.					
N125	159-125	11.0	1.1	1 1/4	3 1/2	6 1/2	113	.125"
N250	159-250	10.6	1.4	1 1/2	3 3/4	7 1/2	2 1/2	.250"
N375	159-375	10.7	1.7	2 1/8	5 1/2	8 1/2	2 1/4	.375"



MINIATURE AIR VARIABLE CONDENSERS



The smallest air variables ever built! A necessity in all types of high frequency equipment. Available in single, differential and butterfly types. Single hole mounting flats on mounting bushing to prevent turning. Split sleeve motor bearings — no shaft wobble. Steatite end frames. Voltage breakdown 750 V. RMS at 2.0 mc. — .017 spacing. Nickel-plated finish.

Cat. No.	Capacity	
	Min.	Max.
160-102	1.5	5.1
160-104	1.7	8.7
160-107	2.1	14.6
160-110	2.5	19.7

DIFFERENTIAL		
Cat. No.	Min.	Max.
160-303	1.8	5.6
160-305	2.0	9.3
160-308	2.3	14.8
160-311	2.7	19.3

BUTTERFLY		
Cat. No.	Min.	Max.
160-203	1.7	3.3
160-205	2.1	5.3
160-208	2.7	8.5
160-211	3.2	11.0

Panel mounting space is 3/4" by 1/2". Mounting hole 1/4". Slotted for screw driver adjustment or takes a 3/8" knob. Improved terminal provides dual low inductance path to both stator supports, eliminates possibility of loosening plates when soldering, avoids binding stresses on stator supports caused by wiring.

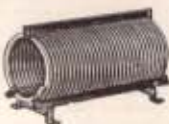
Panel mounting space is 3/4" by 1/2". Mounting hole 1/4". Slotted for screw driver adjustment or takes a 3/8" knob. Improved terminal provides dual low inductance path to both stator supports, eliminates possibility of loosening plates when soldering, avoids binding stresses on stator supports caused by wiring.

TUBE-SOCKET "HI-Q" INDUCTORS



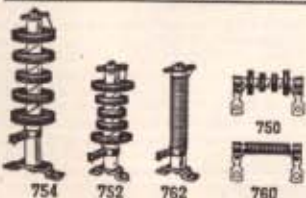
Inductors plug into a five prong tube socket. Numbers —640 through —645 have link at center, —650 through —655 link at bottom. Those with center links are center tapped for split stator circuits. Power rating is 100 watts. All sizes use coil from 1 1/4" in diameter and 3 3/4" high, and have additional terminal at top.

EDGEWISE WOUND "HI-Q" INDUCTORS



Design improvements and mica-lex insulation are new features in this inductor of plated edge-wound copper strip. They are widely used in commercial equipment, and will safely handle more than 1000 watts in continuous service. Other sizes and types of inductors are manufactured for commercial broadcast and industrial electronic applications. More information available on request.

Cat. No.	Band (Meters)	Cap. to tune (mmf.)	Coupling	Dimensions LxD
232-610	33 mh impedance	100	Matching	7 1/2" x 2 1/2"
232-611	14 mh impedance	100	Matching	4 1/2" x 2 1/2"
232-620	160	100	None	8 1/2" x 4"
232-622	80	50	None	6 1/2" x 3 1/4"
232-624	40	25	None	6 1/2" x 3 1/4"
232-626	40	50	None	4 1/2" x 2 1/2"
232-628	20	20	None	4 1/2" x 2 1/2"
232-619	20 mh coupling inductor			4 1/2" x 4"
232-623	8.1 mh coupling inductor			2 1/2" x 3 1/4"
232-627	2.2 mh coupling inductor			1 1/2" x 2 1/2"



RADIO FREQUENCY CHOKES

Uniformly flat in response, JOHNSON R.F. chokes are equally effective over the entire range for which they are designed. Coils are of enameled silk-covered wire impregnated with high grade R.F. lacquer, and are wound on steatite cores. Current ratings are of continuous service and may be increased for intermittent use.

Cat. No.	Frequency	Current Rating	Lgh.
102-750	1.7 to 30 mc	150 ma	1 1/2"
102-752	1.7 to 30 mc	500 ma	2 3/8"
102-754	1.7 to 30 mc	750 ma	4 1/8"
101-760	Ultra-high	250 ma	1 1/2"
101-762	Ultra-high	1500 ma	2 3/8"

TUBE CAP CONNECTORS

Collet types, numbers 119-838 through 119-841 are recommended for heavy current industrial uses. The outside diameter is 3/8" and connector may be tightened with spanner wrench listed below. The 119-843 is a part of the 124-212 socket for 833A tubes and is recommended for other tubes having .567" diameter caps and requiring radiator type connectors for high R.F. currents. The flexible strap is 5 1/4" long and 3/8" wide.



Cat. No.	Tube Cap Diameter
119-838	.375
119-839	.437
119-840	.567
119-841	.676
119-843	.567
119-846	.125
119-848	.070
119-849	.048
119-850	.250
119-851	.360
119-852	.360
119-854	.566

115-838 Spanner wrench for use with Nos. 119-838 through -841

TUBE LOCKING CLAMP

Accurately formed cadmium plated steel band with integral locking device and mounting bracket. Made to hold tubes securely in place under conditions of heavy vibration and shock.

Cat. No.	Tube Dia.
133-817	1.165"
133-818	1.275"
133-819	1.300"
133-820	1.377"



TINNED COPPER SOLDERING TERMINALS



Available in eleven sizes, JOHNSON soldering terminals meet the requirements of most applications. Composed of copper for low resistance, they are tinned to permit easy soldering.

Terminals Illustrated in the Order Listed

Cat. No.	Size Hole	Length
110-880	6-32	1 1/2"
110-881	1/4"	1"
110-882	10-32	1 1/2"
110-883	10-32	1 1/2"
110-884	10-32	1 1/2"
110-885	1/8"	1 1/2"
110-886	1/8"	1 1/2"
110-887	1/8"	1 1/2"
110-888	1/8"	1 1/2"
110-889	1/8"	1 1/2"
110-890	1/8"	1 1/2"

INDUCTOR CLIPS



Clips are plated phosphor bronze Nos. 235-803 and 235-804 are designed for making connections to the above edgewise wound or similar inductors. No. 235-860 will take wire from No. 20 to No. 10 without danger of tilting and shorting adjacent turns.



Cat. No.	Type
235-803	LC4S
235-804	LC4
235-860	860

FUSE CLIP



This cadmium plated phosphor bronze clip provides sure grip for 3/8" diameter fuse or resistor. Mounts with No. 8 screw.

Cat. No. 115-840

SCREW TERMINAL

A convenient and substantial clip for use as antenna and ground connections and power terminals. Furnished complete with 2 screws.

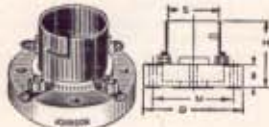


Cat. No. 110-112

110-112



TUBE SOCKETS



123-209
-210, -211, -216

Nos. -209, -210, -211 and -216 all have heavy phosphor bronze, side wiping type contacts, aluminum shells and clear white, glazed porcelain bases.

No. -209 is similar to No. -210, but provides greater spacing between contacts and shell, for higher voltages. No. -211, the standard "50 watt" socket has double filament contacts for carrying heavy currents. Terminals are permanently and plainly marked with identifying letters molded in base both top and bottom.

No. -216 is for tubes having a GIANT 5 pin bayonet base such as the 803, HK28, etc. -210F and -211F are enclosed in lustrous black finished aluminum housing for front of panel mounting.

"S" dimension -209, -210 series 1.385", -211 series 1.885", -216 series 2.198".

Suffix letter "B" identifies sockets with beryllium copper contacts, suffix letter "S" sockets with steatite bases.

Cat. No.	D	H	M	B Base
123-209	2 1/4"	1 1/2"	2 3/8"	Medium
123-209B	2 1/4"	1 1/2"	2 3/8"	Four
123-209S	2 1/4"	1 1/2"	2 3/8"	Pin
123-209SB	2 1/4"	1 1/2"	2 3/8"	Bayonet
123-210	2 1/2"	1 1/2"	2 3/8"	
123-210B	2 1/2"	1 1/2"	2 3/8"	Standard
123-210F	2 1/2"	1 1/2"	2 3/8"	Jumbo
123-211	3"	2 1/2"	2 3/8"	Four
123-211B	3"	2 1/2"	2 3/8"	Pin
123-211S	3"	2 1/2"	2 3/8"	
123-211SB	3"	2 1/2"	2 3/8"	Giant
123-211F	3"	2 1/2"	2 3/8"	Five
123-216	3 3/4"	2 1/2"	3 1/2"	Pin
123-216B	3 3/4"	2 1/2"	3 1/2"	Bayonet
123-216S	3 3/4"	2 1/2"	3 1/2"	
123-216SB	3 3/4"	2 1/2"	3 1/2"	



124-213

No. -213 takes Eimac 1S2TL and 304TL contacts arranged for either series or parallel filaments.

No. -214 takes Eimac 1500TH and similar tubes. Has air jet tube for cooling filament tube seals.

No. -215 is for "250 watt" tubes such as 204A, 849, etc. The plate terminal has a "safety cup" which prevents accidental dislodgement of the tube.



124-214

Cat. No. 124-213 "Eimac" 124-214 "Eimac" 124-215 "250 Watt"



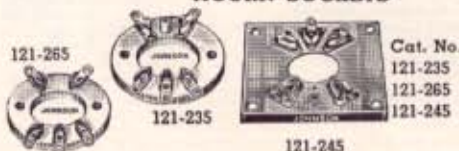
124-215

MINIATURE SOCKETS

Cat. No.	Description
120-267	Miniature socket, all ceramic
120-277B	Miniature socket with shield base
133-277S	Miniature socket, shield base only
133-278A	1 3/8" shield for 277 B or S
133-278B	1 1/4" shield for 277 B or S

Sockets for 9000 series and miniature series such as 1S4, 1S5, 1T4, 1R5, etc. No. -267 all steatite type. No. -277B steatite base with metal mounting ring which extends upward to form a shield. No. -277S is shield base only as used on No. -277B and can be used with No. -267 or other similar sockets. Nos. -278A and B are shield caps to fit No. -277B or No. -277S. Available in two sizes, they include an inside coil spring to hold the tube firmly in position.

ACORN SOCKETS



121-265

121-235

121-245

Cat. No. 121-235 121-265 121-245

Mfg. Cen. 1 1/2 1 1/4 1 1/8

Nos. -235, and -265 were all designed for new "acorn" tubes. Nos. -235 and -265 are similar except for size. No. -235 is more rugged but requires slightly more mounting space. No. -245 is a plated metal base and includes built-in by-pass condensers as an integral part of each contact. Contacts insulated by mica. All contacts silver plated beryllium copper.

THE JOHNSON TUBE SOCKET GUIDE IS AVAILABLE UPON REQUEST.

JOHNSON water sockets are insulated with grade L 4 steatite or better, top and sides glazed, underside impregnated in conformance with latest Army Navy specifications. Contacts are brass with steel spring, cadmium plated and are mounted against phenolic washers in molded recesses to prevent movement. Rivets are countersunk and mounting holes bossed to permit sub-panel mounting. Locating grooves facilitate tube insertion.

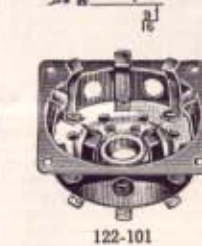
Cat. No.	Base
122-224	4 pin
122-225	5 pin
122-226	6 pin
122-227	7 pin med.
122-217	7 pin small
122-228	Octal

No. -237 is a 7 pin large steatite wafer socket for transmitting tubes having a GIANT 7 pin base such as the HK257, and RCA 813.

No. -247 is a 7 pin steatite wafer socket for transmitting tubes such as the 828. It is furnished with etched aluminum base shield.

No. -248 is the same as the No. -247, except for its small "L" dimension, is also furnished with shield and has the same mounting dimensions.

Cat. No.	Dimension L
122-237	2 3/4"
122-247	2 1/2"
122-248	2 1/8"



122-101

The 122-101 is a 7 pin steatite wafer socket of special design incorporating a base shield, retainer springs and provision for mounting button mica capacitors directly to the socket. Socket is specially designed for UHF use with tubes such as the 826, 829 and 832. Contacts and spring are silver plated and recessed to prevent movement. Grid terminals are designed so connecting wires may be isolated from other circuits and permit small grid coils to be mounted on the terminal ends. Four mounting holes are equally spaced 2.312 inches between centers.

Cat. No. 122-101

The 122-275 is a 5 pin steatite wafer socket for transmitting tubes having a GIANT 5 pin base such as the 4-125A and RK48. Contacts are of a superior construction, brass clip and steel spring, both cadmium plated, and are designed for high currents. Stray capacitance, each contact to ground, 2.1 mmf. (socket mounted on metal chassis). Adequate ventilation for tubes is provided by five 1/4" holes spaced between contacts. Four mounting holes are equally spaced 2 3/4" between centers.

The 122-244 is a 4 pin wafer socket of steatite insulation, for transmitting tubes having a SUPER JUMBO base such as the 8008. Brass clip contacts and reinforcing steel springs are cadmium plated and are designed for high currents. Stray capacity contacts to ground, 1.25 mmf. Four mounting holes spaced 1 7/8" between centers.

Cat. No. 122-244



124-212



124-234

The No. -212 socket for RCA833 or 833A. Base of steatite. Filament clamps incorporate "springs" which minimize strains on the glass tube seals and prevent breakage. Plate leads include laminated phosphor bronze strips for flexibility. Regularly supplied with 5/16" plate leads. Other lengths available on special order.

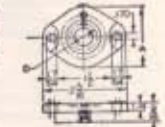
Cat. No. 124-212

No. -234 for Western Electric 5D21, 705A, 715A, 715B Raytheon, RKR72 and RK72 includes heavy steatite base and special locking device for retaining tube in socket.

Cat. No. 122-234



122-228



122-217, -224, -225, -226, -227



122-247, -248

Dimension L 2 3/4 2 1/2 2 1/8

Connectors Plugs, Jacks



JOHNSON

MULTIPLE WIRE CONNECTORS

JOHNSON cable connectors provide a most efficient means of quickly connecting or disconnecting multiple electrical circuits in low-voltage control, audio and instrument service. Contacts accommodate No. 16 stranded wire, or No. 14 solid. Minimum surface creepage path for 12 connector types $\frac{1}{8}$ " for 7 connector types $\frac{1}{4}$ ". Body material of molded black bakelite, back shells are brass dull black finished, shell liners are fibre. Plug and receptacle polarized for quick accurate insertion. The cadmium plated steel mounting yokes fit standard switch boxes and cover plates and are supplied with necessary hardware.

The multiple wire connectors, tip plugs and jacks appearing on this page are former Mallory-Yaxley products.

RECEPTACLES



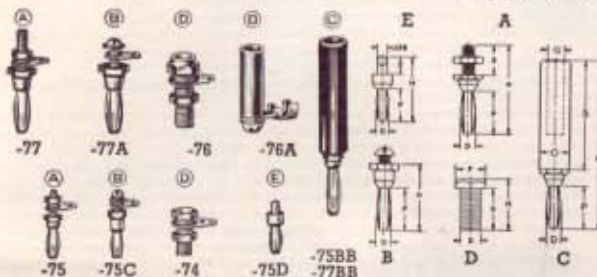
111-615 Chassis Type
Cord Type



PLUGS
111-625 111-617

Catalog Number	No. of Connector Contacts	Type	PIN PLATE		
			Bracket Mounted	Mounting Yokes	
RECEPTACLES					
111-614	12	Chassis		111-682	
111-615	12	Cord			
111-644	7	Chassis			
111-645	7	Cord			
PLUGS					
111-617	12	Chassis		111-602, -6003	
111-625	12	Cord			
111-631	7	Chassis			
111-635	7	Cord			
PIN PLATE BRACKET MOUNTED					
111-680	7			111-602, -6003	
111-682	12				
MOUNTING YOKE					
111-6002	for 7 wire connectors				111-6002, -6003
111-6003	for 12 wire connectors				
MULTIPLE CONDUCTOR CABLE					
144-7	7 wire cable				
144-12	12 wire cable				

PLUGS AND JACKS



"BANANA SPRING" TYPE

Nickel-silver springs and high grade nickel plated brass screw machine parts with accurate threads and milled nuts. Studs extend full length of springs for added support.

75D is designed for riveting. Spring is beryllium copper. 75BB has $\frac{1}{8}$ " black plastic handle; 75BR same but red. 77BB has $\frac{1}{4}$ " black plastic handle; 77BR same but red. 75 or 75A can be furnished with beryllium copper spring on special order, and all plugs can be furnished with nickel, cadmium or silver plating if required.

108-7451 is a red plastic insulated jack similar to the 108-74 and furnished with fibre washers. 108-7452 same but black.

If washers used for insulated mounting fits $\frac{1}{8}$ " holes, $\frac{1}{4}$ " maximum panel thickness.

Cat. No.	Illus.	Dwg.	S	P	D	H	G	O	Thread
108-75	A	$\frac{3}{8}$ "	.53	.170	1.115				6-32
108-75A	A	$\frac{3}{8}$ "	.53	.170	1.490				6-32
108-75BB	C	$1\frac{1}{4}$ "	.53	.170	2.115	.215			
108-75BR	C	$1\frac{1}{4}$ "	.53	.170	2.115	.215			
108-75C	B	$\frac{3}{8}$ "	.53	.170	.94				6-32
108-75D	E	$\frac{3}{8}$ "	.40	.155	.81				
108-77	A	$\frac{3}{8}$ "	.74	.300	1.77				$\frac{1}{4}$ -28
108-77A	B	$\frac{3}{8}$ "	.74	.300	1.15				10-32
108-77BB	C	$1\frac{1}{4}$ "	.74	.300	2.90				
108-77BR	C	$1\frac{1}{4}$ "	.74	.300	2.90				
108-74	D	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "			Thread
108-7451	D	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.155		$\frac{1}{4}$ -28
108-7452	D	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.166		$\frac{1}{4}$ -28
108-76	D	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.166		$\frac{1}{4}$ -28
108-76A	D	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	.277		$\frac{1}{4}$ -24
							.290		$\frac{1}{4}$ -20



"SPRING SLEEVE" TYPE

These jacks have maximum current carrying capacity, minimum resistance, great mechanical strength, and snug fit. Wiping action of spring on insertion insures good electrical contact. Tension is maintained by phosphor bronze "spring sleeves," two sizes available. Furnished regularly nickel plated, but cadmium or silver can be supplied on special order.

Cat. No.	D	S	P	H	Thread
106-71	.375	$\frac{1}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{2}$ "	$\frac{1}{4}$ -28 screw
106-73	.250	$\frac{1}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{2}$ "	10-32 screw
106-73A	.250	$\frac{1}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{2}$ "	10-32 tapped
106-70	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{4}$ -20 screw
106-72	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	10-32 screw

PLASTIC HEAD TIP JACKS

REMOVABLE ROUND HEAD TIP JACK

Removable plastic heads in choice of colors listed. Supplied with fibre shoulder bushing and nickel plated hex nut. Standard finish is nickel plate on body. Mounts in $\frac{3}{16}$ " hole. Maximum panel thickness $\frac{1}{8}$ " where insulating washers are used, $\frac{1}{4}$ " where omitted. $\frac{1}{4}$ "-32 thread.



105-520

Cat. No.	Color
105-520	Red
105-521	Black
105-522	Dark Green
105-524	Brown
105-525	Light Blue
105-526	Orange
105-527	Yellow
105-528	Light Green
105-529	Dark Blue
105-530	Ivory

MOLDED ROUND HEAD TIP JACK

Description same as removable head type except that brass body is molded integral with head, and additional phenolic washer is furnished. $\frac{1}{8}$ "-40 thread.

No. 105-418—Red

No. 105-419—Black

105-418



INSULATED COMBINATION JACK

Supplied with shoulder bushing, phenolic washer and one piece contact and nut. Maximum chassis thickness $\frac{1}{8}$ ". Mounts in $\frac{3}{16}$ " diameter hole. Provides insulated jack for phonotip plugs and No. 75 series "Banana Spring" plugs.



105-420

No. 105-421—Black

No. 105-420—Red

METAL HEAD TIP JACKS

Large Round Head

Supplied with fibre shoulder bushing, phenolic washer and hex nut. Mounts in $\frac{1}{2}$ " hole if shoulder bushing is used, $\frac{1}{4}$ " maximum panel thickness. Contact is phosphor bronze cadmium plated.



105-16

Small Round Head

Mounts in $\frac{3}{16}$ " hole when using fibre shoulder bushing furnished. $\frac{1}{8}$ " maximum panel thickness.



105-416

No. 105-416

No. 105-16

Headless Tip Jack
Metal parts brass. Body nickel plated. $\frac{1}{4}$ "-32 thread.



105-1

Small Hex Head

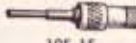
Same as 105-416 except has hex head.



105-417

No. 105-417

Long Solderless Tip Plug



105-15

Short Solderless Tip Plug



105-415

For use with tip jacks Nos. 105-16, and 105-420.

No. 105-15 List

No. 105-14—Solderless Tip Plug

Long Sharpened Point

For use with tip jacks Nos. 105-416, 105-417, 105-418, and 105-529.

No. 105-415

TWIN TIP JACKS



105-401

Mounting holes $\frac{7}{16}$ " centers. Molded black phenolic.

Cat. No.	Marking
105-401	Blank
105-4012	Speaker
105-4015	Phono

SHORTING TYPE TWIN TIP JACKS

Circuit closes automatically when tips are removed.

No. 105-432—Black

No. 105-433—Red



105-432



THE JOHNSON "Q" AND JOHNSON "Q" BEAM COMPLETE "Q" SYSTEMS

Cat. No.	Band (Meters)
137-2Q	2
137-6Q	6
137-10Q	10
137-20Q	20
137-40Q	40

The consistent results obtained by the thousands of users of the JOHNSON Q antenna system are due to the extremely high efficiency of this famous antenna. Applications include half-wave doublet, either horizontal or vertical, harmonic or "long wire" radiator, radiator-reflector, radiator director, "V" Beam, JOHNSON Q Beam and others.

The JOHNSON Q Beam is a special application of the Q system. It consists of two half-wave Q antennas spaced 1-5 wave and Q sections connected in parallel at the bottom. In ordering specify two Q antennas for the lower frequency of the two bands desired. For example if you want a Q Beam to operate on 10 and 20 meters, order two JOHNSON Qs for 20 meters.

The -2Q and -6Q use aluminum tubing for the radiating portion as well as for the matching section. They may be suspended overhead in the conventional manner or are self supporting with their end terminal plugs plugged into a 136-35 Jack Strip mounted on the transmitter. The 136-35 Jack Strip and 136-36 Plug Strip make an ideal feeder connection at the transmitter when the antenna is suspended.

Mycalex insulated fittings for use as described in "Q" antenna discussion above.

Cat. No. 136-35—Mounting Jack Strip
Cat. No. 136-36—Double Plug Strip

ALUMINUM "Q" TUBING

Cat. No.	Band (Meters)	Length
136-ST10	10	2-8'6"
136-ST20	20	4-8'6"
136-ST40	40	8-8'6"

"Q" SUSPENSION ASSEMBLY

Includes new type insulator and all necessary hardware for connecting "Q" matching section to antenna and transmission line. Insulator may also be used to bring off "Zepp" feeders from the flat top.



136-106

Cat. No.

136-39—Suspension Assembly
136-106—Antenna Feeder Insulator only.

FEEDER INSULATORS

Nos. 136-122, -124 and -125 are conventional feeder spreaders of high grade low absorption porcelain. Silicone impregnated for finest water repellent characteristics. No. 136-122 is provided with notches for 1/2" line spacing. All have 3/8x1/2" cross section. No. 136-31 is a glazed porcelain transposition insulator which permits crossing transmission lines at frequent intervals to prevent radiation and provide 2" line spacing.

Cat. No. Lgth.

136-122	2"
136-124	4"
136-125	6"
136-31	



136-122, -124, -125



136-31

"Q" SPACING BARS

Made of dense, highly vitrified white glazed porcelain, with aluminum tubing clamps. Used for spacing tubing in matching transformer applications. Clamps are arranged so that spacing is continuously variable from 1/8" to 3/8" center to center.

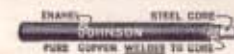


136-33

No. 136-33—Spacing Bar.....

ENAMELLED COPPERWELD ANTENNA WIRE

JOHNSON Enamelled Copperweld Antenna Wire is the ideal material for any system where the wire must not stretch nor sag. The steel core provides almost three times the strength of ordinary copper wire, the copper coating provides a low RF resistance and the enamel prevents corrosion. Prices are per 100 feet. Carried by most suppliers in bulk, it is available from the factory in any specified length.



Cat. No.	B&S Ft. per No. Gauge	lb. Breaking Strength
144-348	10 34 1/2	1130 lbs.
144-350	12 54	720 lbs.
144-352	14 85	400 lbs.

ANTENNA INSULATORS

These insulators are of genuine WET PROCESS porcelain, with smooth white glazing. The all-porcelain types are 1" in diameter. Their long leakage path, low capacity, and freedom from moisture absorption result in exceptional efficiency. The Commercial Type is 1 1/2" in diameter, for uses where much greater strength is necessary. End fittings are of non-corrosive aluminum alloy. No. 136-104 is a dry process 4" antenna insulator, 3/8" square for service where the strength of the 1" types is not required.

Cat. No. Break Strength Lgth.

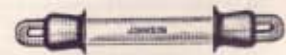
136-104	400 lbs.	4"
136-107	800 lbs.	7"
136-112	800 lbs.	12"

No. Break Strength Net Overall

136-151	5000 lbs.	8"	15 1/2"
136-152	5000 lbs.	12"	19 1/2"
136-153	5000 lbs.	20"	25 1/2"



136-107, 136-112



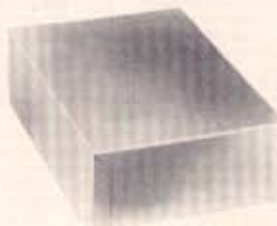
136-151, -152, -153

RELAY RACK PANELS

Durable, resistant 1/8" thick aluminum relay rack panels finished in black wrinkle enamel. Lightness of aluminum cuts down overall weight of relay rack equipment, and is easier to work yet costs no more than steel panels. Fits 19" relay racks with "W.E." type notching, starting 1/4" from the edge and alternating spaces of 1 1/4" and 1/2". Notches are clearly die-cut and edges accurately sheared.

Catalog No.	Height
196-161-4	1 1/4"
196-162-4	3 1/2"
196-163-4	5 1/4"
196-164-4	7"
196-165-4	8 3/4"
196-166-4	10 1/2"
196-167-4	12 1/4"
196-168-4	14"
196-169-4	15 3/4"
196-170-4	17 1/2"
196-171-4	19 1/4"
196-172-4	21"

NEW DIE-CUT CHASSIS AND BOTTOM PLATES



Johnson's new chassis offer the first major design advance in years. Die-cut butt joints in the ends plus smoothly formed corners give the practical equivalent of a solid drawn chassis. Single thickness of metal throughout allows location of components at any point. Wide bottom skirts allow attachment of bottom plates and add rigidity. Heavy 18 (.040") and 14 (.064") gauge aluminum give strength comparable to steel with the added advantages of light weight and easy machining. Etched satin finish—will not rust—no paint to scratch off.

ALUMINUM CHASSIS

Part No.	Size	Gauge
195-350-2	7 x 5 x 2	18
195-351-2	7 x 7 x 2	18
195-352-2	9 x 7 x 2	18
195-353-2	9 1/2 x 5 1/2 x 2	18
195-354-2	10 x 5 x 3	18
195-356-2	11 x 7 x 2	18
195-357-2	12 x 7 x 3	18
195-358-2	12 x 10 x 3	14
195-360-2	13 x 7 x 2	18
195-363-2	14 x 10 x 3	14
195-364-2	15 x 7 x 3	14
195-366-2	17 x 4 x 3	14
195-370-2	17 x 10 x 2	14
195-371-2	17 x 10 x 3	14
195-373-2	17 x 10 x 5	14
195-375-2	17 x 11 x 3	14
195-377-2	17 x 12 x 3	14
195-379-2	17 x 13 x 2	14
195-380-2	17 x 13 x 3	14
195-381-2	17 x 13 x 4	14

ALUMINUM BOTTOM PLATES

195-470	17 x 10	18
195-474	17 x 11	18
195-476	17 x 12	18
195-479	17 x 13	18

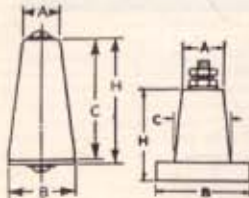


JOHNSON insulators were introduced in the early twenties, and soon established the sort of dominance that occurs occasionally when one line offers more in choice of style and size; in advanced but practical design; and in mass production economy than others. This position has been maintained through the years by careful attention to the product, the line, and the needs of the user.

JOHNSON insulators are specifically designed for high R.F. Insulating materials were selected after exhaustive laboratory tests. Superior grade, low absorption, well glazed electrical porcelain, and Grade L 4 or better steatite are used.

Of the insulators appearing under the headings "Steatite" all but the 500 series and the 135-55 are offered in this finer material for the first time. Their dielectric losses are but a fraction of those for the same parts in porcelain, and they are particularly recommended for high frequency work.

In addition to fine quality insulating materials the JOHNSON line distinguishes itself with a perfection of ceramic design; logical proportions; clean-cut accurate molding; and high grade nickel plated brass hardware, with milled (not stamped) nuts.



STAND-OFF AND CONE INSULATORS

The stand-off insulators feature heavy, breakage-resistant bases and adequate "glaze grooves" around mounting screw holes. Numbers 135-65, 135-66, 135-67 and 135-68 have unbreakable, etched aluminum bases.

The No. 500 cone insulator series are steatite for better high frequency insulation. Threads are tapped directly into the ceramic. Furnished complete with machine screws, brass and cushion washers.



STAND-OFF INSULATORS

Cat. No.	Dimensions				Hard-ware
	A	B	M*	H	
135-20	3/4	1 3/4	1 1/8	1 1/8	10-32
135-20J	3/4	1 3/4	1 1/8	1 1/8	74 Jack
135-22	1 1/8	1 3/8	1 1/8	1	8-32
135-22J	1 1/8	1 3/8	1 1/8	1	74 Jack
135-24	3/8	1	1 1/8	3/8	6-32
135-60	1 1/8	2 1/2	1 3/8	4 1/2	1/4-20
135-62	3/8	1 3/8	1 3/8	2 3/4	1/4-20

Metal Base Types

135-65	3/8	1 7/8	1 1/2	1 3/8	10-32
135-65J	3/8	1 7/8	1 1/2	1 3/8	74 Jack
135-66	1 1/8	1 3/4	1 3/8	2 3/4	1/4-20
135-66J	1 1/8	1 3/4	1 3/8	2 3/4	76 Jack
135-67	1 1/8	2 1/4	1 3/4	4 1/2	1/4-20
135-67J	1 1/8	2 1/4	1 3/4	4 1/2	76 Jack
135-68	1 1/8	1 3/4	1 3/8	2	10-32
135-68J	1 1/8	1 3/4	1 3/8	2	74 Jack

* Mounting centers.

STEATITE CONE INSULATORS

135-500	1/2	3/4	3/8	6-32
135-501	1/2	3/4	1	8-32
135-502	1/2	1	1 1/2	8-32
135-503	3/8	1 1/8	2	10-32
135-504	3/8	1 1/2	3	10-32

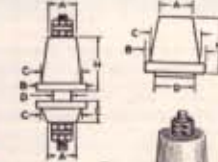
THRU-PANEL INSULATORS AND BUSHINGS

In the thru-panel and bushing series special attention has been given to obtaining high mechanical strength through heavier construction and at the same time increasing the breakdown voltage. Flat mounting surfaces with cushion washers eliminate breakage. Bottom pieces have long internal and external portions for higher breakdown voltage rating, and grooved surfaces to increase leakage path. Jack types have terminals permitting connection above as well as below the panel.

JOHNSON lead-in bushings are designed to have even greater mechanical strength and long leakage path in proportion to size. Numbers 135-53 and 135-54 are supplied as single porcelain parts including cushion washers.

Nos. 135-50 and 135-55 are steatite and have a special interlocking feature which permits mounting on thin panels without extra spacing washers.

Nos. 20, 20J, 22, 22J and 24 are now also steatite with heavily plated brass hardware.



THRU-PANEL INSULATORS

Cat. No.	Dimensions					Hard-ware
	A	B	D	E	H	
135-40	1 1/8	1 1/8	1 1/8	1 1/2	1 1/4	10-32
135-40J	1 1/8	1 1/8	1 1/8	1 1/2	1 1/4	74 Jack
135-42	1 1/8	1 1/8	1 1/8	1 1/2	1 1/4	10-32
135-42J	1 1/8	1 1/8	1 1/8	1 1/2	1 1/4	74 Jack
135-44	3/8	1 1/8	1 1/8	1 1/2	3/8	6-32
135-45	3/8	1 1/8	1 1/8	1 1/2	1 1/8	10-32
135-45J	3/8	1 1/8	1 1/8	1 1/2	1 1/8	74 Jack
135-46	1 1/8	1 1/8	1 1/8	1	2 3/4	1/4-20
135-46J	1 1/8	1 1/8	1 1/8	1	2 3/4	76 Jack
135-47	1 1/8	2 1/8	1 1/8	1 1/2	4 1/2	1/4-20
135-47J	1 1/8	2 1/8	1 1/8	1 1/2	4 1/2	76 Jack
135-48	1 1/8	1 1/8	1 1/8	1 1/2	2	10-32
135-48J	1 1/8	1 1/8	1 1/8	1 1/2	2	74 Jack

LEAD-IN BUSHINGS

Cat. No.	Steatite			Hardware
	A	B	H	
135-50	3/8	3/4	1 1/8	1/4 6-32
135-55	1/2	3/4	1 1/8	1/4 6-32
135-51	3/8	1 1/8	1 1/8	10-32
135-52	3/8	1 1/8	1 1/8	1 1/8 1/4-20
135-53	1 1/8	2 1/8	1 1/8	1 3/4
135-54	1	3 1/2	2 1/8	4

MOUNTING FLANGES

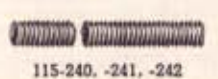
Stamped aluminum Mounting Flanges cast aluminum for Lead-in Bushings 135-53 and 135-54.

Cat. No.	For Bushing No.
135-90	135-53
135-91	135-54

THREADED BRASS ROD

Intended primarily for use with lead-in bushings 135-53 and 135-54. Accurately cut threads, heavy nickel plating, complete with 4 washers and 4 nuts, 1/4" diameter, 1/2-20 thread. It has many other uses in radio construction.

Cat. No.	Length
115-240	8"
115-241	10"
115-242	15"





Gothard INDICATOR LIGHT ASSEMBLIES

Gothard Indicator Light Assemblies were for many years made by the Gothard Manufacturing Co. of Springfield, Illinois, who established a reputation for sound engineering design, excellent material and workmanship, a well rounded line, and fair aggressive merchandising. With its purchase by Johnson, continuance and improvement on these factors at every possible point are assured.

This listing includes most of the standard units in greatest demand, but many other types are readily available. Inquiries are solicited for any not shown. Special assemblies can be furnished in production quantities.

Think of Johnson-Gothard first for Pilot Lights.

1 INCH—CAND. SCREW BASE



Underwriters' approved. Porcelain insulation. Solder terminals. Fits 1 inch hole. 1 inch jewel in friction type holder with polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

Cat. No.

- For S6 bulb, candelabra screw base.
- 147-1000 Faceted Jewel _____
 - 147-1001 Smooth Jewel _____
 - 147-1002 Colored Disc* _____

For NE-45 Neon (T 4 1/2) bulb. No resistor required for 110 volts.

- 147-1003 Faceted Jewel _____
- 147-1004 Smooth Jewel _____
- 147-1005 Colored Disc* _____

1 INCH—CAND. BAYONET BASE



Hard rubber and fiber insulation. Set screw type terminals. Fits 1 inch hole. 1 inch jewel in friction type holder with polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

Cat. No.

- Single contact, for G6 bulb, bayonet base.
- 147-1006 Faceted Jewel _____
 - 147-1007 Smooth Jewel _____
 - 147-1008 Colored Disc* _____

Double contact, for G6 bulb, bayonet base.

- 147-1009 Faceted Jewel _____
- 147-1010 Smooth Jewel _____
- 147-1011 Colored Disc* _____

Double contact, for NE-48 Neon (G6) bulb, requires 30,000 ohm external resistor for 110-115 volts.

- 147-1012 Faceted Jewel _____
- 147-1013 Smooth Jewel _____
- 147-1014 Colored Disc* _____

Jewel Holders all on this page have slotted sleeves which snap in place and hold by friction. All have polished chrome bezels. See next page for similar units with threaded jewel holders.

1 INCH—CAND. SCREW BASE



Underwriters' approved. Molded phenolic insulation. Binding screw terminals. Fits 1 inch hole. 1 inch jewel in friction type holder with polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

Cat. No.

- For S6 bulb, candelabra screw base.
- 147-1032 Faceted Jewel _____
 - 147-1033 Smooth Jewel _____
 - 147-1034 Colored Disc* _____

For NE-45 Neon (T 4 1/2) bulb. No resistor required for 110-115 volts.

- 147-1035 Faceted Jewel _____
- 147-1036 Smooth Jewel _____
- 147-1037 Colored Disc* _____

1 INCH—CAND. BAYONET BASE



Underwriters' approved (except single contact styles). Molded phenolic insulation. Binding screw terminals. Fits 1 inch hole. 1 inch jewel in friction type holder with polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

Cat. No.

- Single contact, for G6 bulb, bayonet base.
- 147-1050 Faceted Jewel _____
 - 147-1051 Smooth Jewel _____
 - 147-1052 Colored Disc* _____

Double contact, for G6 bulb, bayonet base.

- 147-1053 Faceted Jewel _____
- 147-1054 Smooth Jewel _____
- 147-1055 Colored Disc* _____

Double contact, for NE-48 Neon (G6) bulb, requires 30,000 ohm external resistor for 110-115 volts.

- 147-1056 Faceted Jewel _____
- 147-1057 Smooth Jewel _____
- 147-1058 Colored Disc* _____

Double contact, for NE-48 Neon (G6) bulb, with built-in 30,000 ohm resistor for 110-115 volts.

- 147-1076 Faceted Jewel _____
- 147-1077 Smooth Jewel _____
- 147-1078 Colored Disc* _____

1 INCH—DETACHABLE SOCKETS



This series permits installing bulbs from rear, by detaching the spring bracket, as well as from the front. Fits 1 inch hole. 1 inch jewel in friction type holder with polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

Cat. No.

- Min. screw socket, for G3 1/2 and T3 1/4 bulbs.
- 147-800 Faceted Jewel _____
 - 147-801 Smooth Jewel _____

Candelabra screw socket, for S6 bulbs.

- 147-802 Faceted Jewel _____
- 147-803 Smooth Jewel _____

Min. bayonet socket, for G3 1/2 & T3 1/4 bulbs.

- 147-804 Faceted Jewel _____
- 147-805 Smooth Jewel _____

*COLORED DISCS

Where this designation appears, a colored plastic disc is placed behind a clear sandblasted (frosted) smooth jewel, to conceal color until lit. Also prevents external light from giving appearance of bulb being lit.

In addition, lettering, numerals, or insignia may be printed on a plastic disc back of the jewel, and arranged to be invisible either continuously or only after lamp is lit.

Bulbs used on all pilot lights may be identified from these illustrations, but are not included in prices.



DO NOT FAIL TO SPECIFY COLOR OF JEWELS. PRICES DO NOT INCLUDE BULBS.



JOHNSON-GOTHARD PILOT LIGHTS

1 INCH—CAND. SCREW BASE



Underwriters' approved. Threaded jewel holder, otherwise similar to Nos. 147-1000, etc., on previous page. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No.
 147-1200 Faceted Jewel _____
 147-1201 Smooth Jewel _____
 147-1202 Colored Disc* _____

1 INCH—CAND. BAYONET BASE



Underwriters' approved. Threaded jewel holders, otherwise similar to Nos. 147-1032, etc., on previous page.

- Cat. No.
Single contact, for G6 bulb, bayonet base.
 147-1203 Faceted Jewel _____
 147-1204 Smooth Jewel _____
 147-1205 Colored Disc* _____
Double contact, for G6 bulb, bayonet base.
 147-1206 Faceted Jewel _____
 147-1207 Smooth Jewel _____
 147-1208 Colored Disc* _____

Variable light intensity, controlled either by shutters or polarized discs, can be obtained in most styles of Johnson-Gothard pilot lights.

1 INCH—CAND. SCREW BASE



Threaded jewel holders, otherwise similar to Nos. 147-1006, etc., on previous page. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No.
For S6 bulb, candelabra screw base.
 147-1209 Faceted Jewel _____
 147-1210 Smooth Jewel _____
 147-1211 Colored Disc* _____

- For NE-45 Neon (T4 1/2) bulb. No resistor required for 110-115 volts.**
 147-1212 Faceted Jewel _____
 147-1213 Smooth Jewel _____
 147-1214 Colored Disc* _____

1 INCH—LUCITE CAP



Underwriters' approved. Transparent Lucite caps providing forward mounting of bulb for maximum light visibility, especially suitable for neon glow lamps. Fits 1 inch hole. Polished chrome bezel. -1218 has solder terminals, others binding screw terminals. Specify color desired: Red, Green, Amber, Blue, Opal, Clear. Do not use blue or green with neon glow lamps.

- Cat. No.
 147-1217 For NE-45 Neon. No resistor required. _____
 147-1218 For miniature bayonet (T3 1/4) bulbs, filament or neon. NE-51 requires external 200,000 ohm resistor. _____
 147-1219 Double contact cand. bayonet base NE-48 bulb requires external 30,000 ohm resistor. _____
 147-1220 Same as 147-1219 but with built-in 30,000 ohm resistor.

1 1/4 INCH "BEEHIVE" LENS



Underwriters' approved (except single contact style). High visibility is obtained by the beehive shape placing light source in front of panel. Molded phenolic insulation, Navy Spec. 17P5-FBG. Fits 1 inch hole. Polished chrome bezel. Specify color desired: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No.
 147-1600 Candelabra base, S6 bulb.
 147-1604 S.C. bay. base, G6 bulb.
 147-1605 D.C. bay. base, G6 bulb.

For neon glow lamps use red, amber or clear lenses only. No blue or green light is emitted from these lamps.

*See previous page, column 3, for description of items designated with *.

1/2 INCH JEWEL



Fits 1/8 inch mounting hole. Removable (threaded) jewel holder for installing bulb from front. Solder terminals. Specify color desired: Red, Green Amber, Blue, Opal, Clear.

- Cat. No.
For T3 1/4 miniature bayonet bulbs.
 147-1110 Faceted Jewel _____
 147-1111 Smooth Jewel _____
For G3 1/2 miniature bayonet bulbs.
 147-1112 Faceted Jewel _____
 147-1113 Smooth Jewel _____

LUCITE CAP



Underwriters' approved. Fits 1/8 inch hole. Transparent Lucite cap permits bulb to extend far forward for maximum light visibility. Especially suitable for NE-51 neon glow lamp. Solder terminals. Specify color desired: Red, Green, Amber, Opal, Clear (Green is not recommended for neon lamps.)

- Cat. No.
 147-1142 For T3 1/4 bulbs (filament...
 147-1143 For NE-51 neon (T3 1/4) bulb, with built-in 20,000 ohm resistor. _____

- 147-1144 Same as -1143 but 100,000 ohm resistor for brighter glow but decreased life....

PANEL LIGHT



For front panel illumination. Has polished nickel hood, easily removable for lamp replacement; can be rotated to any position. Fits 1/2 inch mounting hole. Made for miniature bayonet or screw base, T3 1/4 or G3 1/2, bulbs.

- Cat. No.
 147-330 Miniature Screw Base _____
 147-329 Miniature Bayonet Base _____

DO NOT FAIL TO SPECIFY COLOR OF JEWELS. PRICES DO NOT INCLUDE BULBS.



JOHNSON-GOTHARD PILOT LIGHTS—BRACKET TYPE

1 INCH REMOVABLE JEWEL

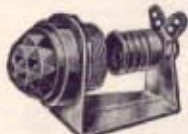


Fits 1 inch hole. Polished chrome bezel. Colors: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No. _____
 Min. screw socket, for G3 1/2 and T3 1/4 bulbs.
 147-100 Faceted Jewel _____
 147-101 Smooth Jewel _____
 Min. bay. socket, for G3 1/2 and TA 1/4 bulbs.
 147-106 Faceted Jewel _____
 147-107 Smooth Jewel _____
 Candelabra screw for S6 bulb.
 147-103 Faceted Jewel _____
 147-104 Smooth Jewel _____

3/4 INCH JEWEL—HORIZONTAL

Fits 3/8 inch hole. For G3 1/2 bulbs. Colors: Red, Green, Amber, Blue, Opal, Clear.



Fits 1/2 inch hole. For G3 1/2 bulbs. Colors: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No. _____
 Miniature screw socket.
 147-700 Faceted Jewel _____
 147-701 Smooth Jewel _____
 Miniature bayonet socket.
 147-703 Faceted Jewel _____
 147-704 Smooth Jewel _____

3/4 INCH JEWEL—VERTICAL

Fits 1/2 inch hole. Colors: Red, Green, Amber, Blue, Opal, Clear.



Fits 1/2 inch hole. Colors: Red, Green, Amber, Blue, Opal, Clear.

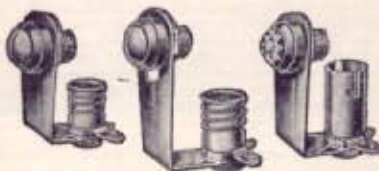
- Cat. No. _____
 Min. screw socket for G3 1/2 bulb.
 147-200 Faceted Jewel _____
 147-201 Smooth Jewel _____
 Min. bay. socket for G3 1/2 bulb.
 147-203 Faceted Jewel _____
 147-204 Smooth Jewel _____
 Candelabra screw for S6 bulb.
 147-206 Faceted Jewel _____
 147-207 Smooth Jewel _____

VARIABLE LIGHT INTENSITY

Pilot lights similar to 147-400 thru 147-404 can be furnished with either polarized or shutter type variable light intensity jewel holders. Information on request.

See Pages J-64 to J-70 for additional listings of the Johnson line of Variable Condensers, Inductors, Chokes, Tube Sockets, Insulators, Antenna Equipment, and miscellaneous hardware.

1/2 INCH JEWEL—VERTICAL



Fits 3/8 inch mounting hole. Colors: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No. _____
 Min. screw socket for G3 1/2 bulb.
 147-300 Faceted Jewel _____
 147-301 Smooth Jewel _____
 Min. bay. socket for G3 1/2 bulb.
 147-306 Faceted Jewel _____
 147-307 Smooth Jewel _____
 Candelabra screw for S6 bulb.
 147-303 Faceted Jewel _____
 147-304 Smooth Jewel _____

3/8 INCH JEWEL—VERTICAL

Fits 3/8 inch mounting hole, otherwise similar to 1/2 inch vertical types listed above. Colors: Red, Green, Amber, Blue, Opal, Clear.

Fits 3/8 inch mounting hole, otherwise similar to 1/2 inch vertical types listed above. Colors: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No. _____
 Min. screw socket for G3 1/2 bulb.
 147-500 Faceted Jewel _____
 147-501 Smooth Jewel _____
 Min. bay. socket for G3 1/2 bulb.
 147-503 Faceted Jewel _____
 147-504 Smooth Jewel _____

JEWEL ASSEMBLIES



Colors, all types: Red, Green, Amber, Blue, Opal, Clear.

1 inch jewel, polished chrome bezel, with mounting sleeve to fit 1 inch hole, fiber washer and nut.

- Cat. No. _____
 147-110 Faceted Jewel _____
 147-111 Smooth Jewel _____
 147-112 Colored Disc _____

3/4 inch jewel in polished chrome holder, fits 1/2 inch mounting hole.

- 147-210 Faceted Jewel _____
 147-211 Smooth Jewel _____

1/2 inch jewel, nickel plated, threaded holder and mounting sleeve to fit 3/8 hole.

- 147-410 Faceted Jewel _____
 147-411 Smooth Jewel _____

1/2 inch jewel, nickel plated holder and nut, fits 3/8 inch mounting hole.

- 147-310 Faceted Jewel _____
 147-311 Smooth Jewel _____

1/2 INCH—REMOVABLE JEWEL



Horizontal type. Fits 1/2 inch mounting hole. For G3 1/2 and T3 1/4 bulbs. Colors: Red, Green, Amber, Blue, Opal, Clear.

- Cat. No. _____
 Miniature screw socket.
 147-400 Faceted Jewel _____
 147-401 Smooth Jewel _____
 Miniature bayonet socket.
 147-403 Faceted Jewel _____
 147-404 Smooth Jewel _____

LUCITE CAP—REMOVABLE



Fits 1/2 inch mounting hole. Bulb sets well forward in Lucite cap for maximum visibility. Colors: Red, Green, Amber, Opal, Clear.

[Avoid green with neon glow lamps.]

- Cat. No. _____
 147-406 Min. bayonet T3 1/4 bulb. _____
 147-407 Same as 147-406 but with 200,000 ohm built-in resistor for NE-51 neon bulb. _____
 147-408 Same as 147-407 but 100,000 ohms. Brighter glow with reduced lamp life. _____

BULB REMOVER

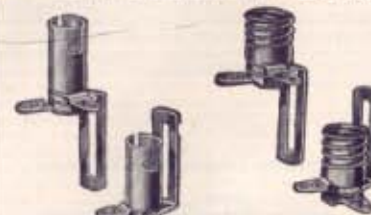


Rubber tool makes easy removal or insertion of bulbs. Double ended, for both miniature and candelabra sizes.

- 147-999 _____

DIAL LIGHT BRACKETS

Brackets insulated on all types. Many other styles and combinations can be furnished from available tools, also with wire leads.



- 147-610 147-611 147-600 147-601 147-620 147-621



- 147-640 147-641 147-630 147-631

- Cat. No. _____ Socket _____
 147-600 Miniature Screw _____
 147-601 Miniature Screw _____
 147-610 Miniature Bayonet _____
 147-611 Miniature Bayonet _____
 147-620 Candelabra Screw _____
 147-621 Candelabra Screw _____
 147-630 Miniature Bayonet _____
 147-631 Miniature Bayonet _____
 147-640 Miniature Screw _____
 147-641 Miniature Screw _____

DO NOT FAIL TO SPECIFY COLOR OF JEWELS. PRICES DO NOT INCLUDE BULBS.



SPEED-X

SPEED-X keys, formerly made by Les Logan Co. of San Francisco, Calif., have attained a pre-eminent position as the leading complete line. Now manufactured by JOHNSON, their reputation will be maintained, and improved wherever possible.

HIGH SPEED SEMI-AUTOMATIC KEYS

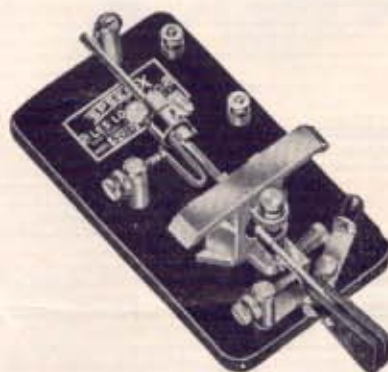
SPEED-X Semi-Automatic Keys are designed and constructed to rigid specifications and are approved by the experienced professional and amateur C. W. operators. They are fully adjustable from lowest to highest speeds. Manufactured in four distinctive and attractive models. Fully guaranteed against any defect in material or workmanship. Bases of all models drilled for stationary mounting.

STANDARD MODEL 114-500. New-Improved Standard Model Semi-Automatic Key mounted on extra heavy steel base $3\frac{1}{2}'' \times 6\frac{1}{4}'' \times \frac{1}{2}''$ finished in attractive wrinkle baked enamel. Mounted on four rubber feet to insure stationary position at all times. The finish will not scratch or chip and will last indefinitely. The frame is finished same as base and has five adjustments with lock nuts, assuring dependable operations at all speeds. Vibrator arm, posts, switch and all machine parts heavily plated in beautiful satin chromium. Complete with adjustable weight, two sets $\frac{1}{8}''$ pure silver contacts, circuit-closing switch and two paddles adjustable to any desired height. Net weight $4\frac{1}{2}$ lbs.

114-500 _____
114-500-L (Left-handed model) _____

MODEL 114-501. New-Improved Beautiful Chrome finish. Heavy steel base $6\frac{1}{4}'' \times 3\frac{1}{2}'' \times \frac{1}{2}''$ with four non-slip rubber feet. Heavy brass connector strips mounted under base. Heavy die cast frame with same finish as base and with five screws for sensitive adjustments. Vibrator is designed to obtain slowest and fastest speeds required by high speed operators. Two sets of $\frac{1}{8}''$ pure silver contacts. Pigtail connections to vibrating arm. Perfectly aligned free acting vibrator bearings. Lock nuts on all adjustments. Paddles adjustable to any required height. All machine parts heavily chrome plated, which makes this the most outstanding semi-automatic key on the market. Furnished with circuit closing switch. Net Weight $4\frac{1}{2}$ lbs.

114-501 _____
114-501-L (Left-handed model) _____



Nos. 500, 501



114-515

AMATEUR MODEL 114-515. Baked Black Wrinkle Enamel Finished Steel Base $6\frac{1}{4}'' \times 3'' \times \frac{3}{8}''$ with four rubber feet to prevent slipping or tilting. Heavy Brass connector strips. Die Cast Frame finished same as base with adjustable trunion screws. Chromium brass vibrator has main spring and U-spring made of clock spring for smooth snappy action. Adjustable weight. Two adjustable black fibre paddles. Two sets $\frac{1}{8}''$ pure silver contacts. Lock nuts for every adjustment. Deadener wheel, post screws, springs and terminals chrome plated. Packed in attractive carton. Net Weight $2\frac{1}{4}$ lbs.

114-515 _____
114-515-L (Left-handed model) _____

JUNIOR MODEL 115-510. Die Cast Base $2\frac{3}{4}'' \times 6'' \times \frac{3}{4}''$ finished in black wrinkle baked enamel concealing heavy brass connector strips. Frame is same finish as base and all other parts are chromium plated. Vibrator Arm same as Standard model with lots of pep. Adjustable from eight words per minute to as high a rate as desired. Two sets of $\frac{1}{8}''$ pure silver contacts adjustable weight and two adjustable paddles. Circuit closing switch mounted on base. Being small, compact and streamlined, this semi-automatic key is an outstanding value. A light-weight but sturdy built machine for clean-cut sending. Net Weight $2\frac{1}{2}$ lbs.

115-510 _____

REPLACEMENT PARTS



114-370



114-330

114-335



- | | |
|--|--|
| 114-330 Adjustable Weight _____ | 114-362 $\frac{3}{4}''$ Chrome Screw _____ |
| 114-335 Key Springs _____ | 114-363 1" Chrome Screw _____ |
| 114-336 Dash Spring _____ | 114-364 $\frac{1}{2}''$ Knurled Nut _____ |
| 114-340 Set $\frac{1}{8}''$ Contacts _____ | 114-375 Vibrator Arm Comp. _____ |
| 114-341 Set $\frac{1}{4}''$ Contacts _____ | 114-376 Vibrator Arm Only _____ |
| 114-345 (2) $\frac{1}{8}''$ Contacts _____ | 114-370 Adjustable Paddle _____ |
| 114-346 (2) $\frac{1}{4}''$ Contacts _____ | 114-390 Cord and Plug _____ |
| 114-350 Knob _____ | 114-390 U-Spring $\frac{1}{8}''$ Contact _____ |
| 114-360 Navy Knob _____ | 114-391 U-Spring $\frac{1}{4}''$ Contact _____ |
| 114-333 Self-Locking Adj. weight _____ | |

114-444 KIT

An assortment of the best selling parts for all makes of keys, selected from the above list, and packed in a beautiful display box.



114-360



114-350



114-390

JOHNSON

FIELD REPRESENTATIVES

Atlanta, Georgia

JAMES MILLAR ASSOCIATES
1000 Peachtree St., N.E.
P.O. Box No. 116, Station C
Phone—Hemlock 1648

Boston 16, Massachusetts

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25 Huntington Ave.
Phone—Kenmore 5580

Chicago 6, Illinois

ELLINGER SALES COMPANY
9 South Clinton Street
Phone—Central 1894

Columbus, Ohio

WILLIAM E. McFADDEN
85 East Gay Street
Phone—Main 3363

Denver 10, Colorado

RONALD G. BOWEN
1886 So. Humboldt St.
Phone—Spruce 9368

Detroit 26, Michigan

WILLIAM S. LEE
2033 Park Ave.
Phone—Randolph 7050

Houston 6, Texas

G. G. WILLISON COMPANY
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Phone—Madison 2-4553

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HERBERT A. ROES & CO.
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Phone—Harrison 2036

Los Angeles 15, California

DON C. & WM. H. WALLACE
Bendix Bldg., 1206 Maple
Phone—Richmond 7-0401

Minneapolis, Minnesota

FRED B. HILL
256 First Avenue North
Phone—Main 8353

New Orleans, Louisiana

J. E. MUNIOT, JR.
Southern Sellers
918 Union Street
Phone—Canal 1881

New York—Jersey City

LLOYD W. OLANDER
880 Bergen Ave.
Jersey City 6, New Jersey
Phone—Journal Sq. 5-5836

Philadelphia 2, Pennsylvania

S. K. MACDONALD
1531 Spruce Street
Phone—Kingsley 5-1205

Pittsburgh 22, Pennsylvania

S. K. MACDONALD
715-716 State Theatre Bldg.
335 Fifth Street
Phone—Atlantic 2253

San Francisco 2, California

LES LOGAN SALES CO.
530 Gough St.
Phone—Hemlock 5281

Seattle 1, Washington

DAVE M. LEE CO.
2626 Second Ave.
Phone—Main 5512

Syracuse 9, New York

WALLY B. SWANK
400 Cherry Rd.
Phone—8-1528

Toronto, Ontario, CANADA

A. C. SIMMONDS & SONS
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Phone—Waverly 8077

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S. K. MACDONALD
217 Riggs Bank Bldg.
14th Park Road N.W.
Phone—Columbia 3938

Winnipeg, Manitoba, CANADA

C. M. ROBINSON CO.
207 Scott Block
Phone—96-789

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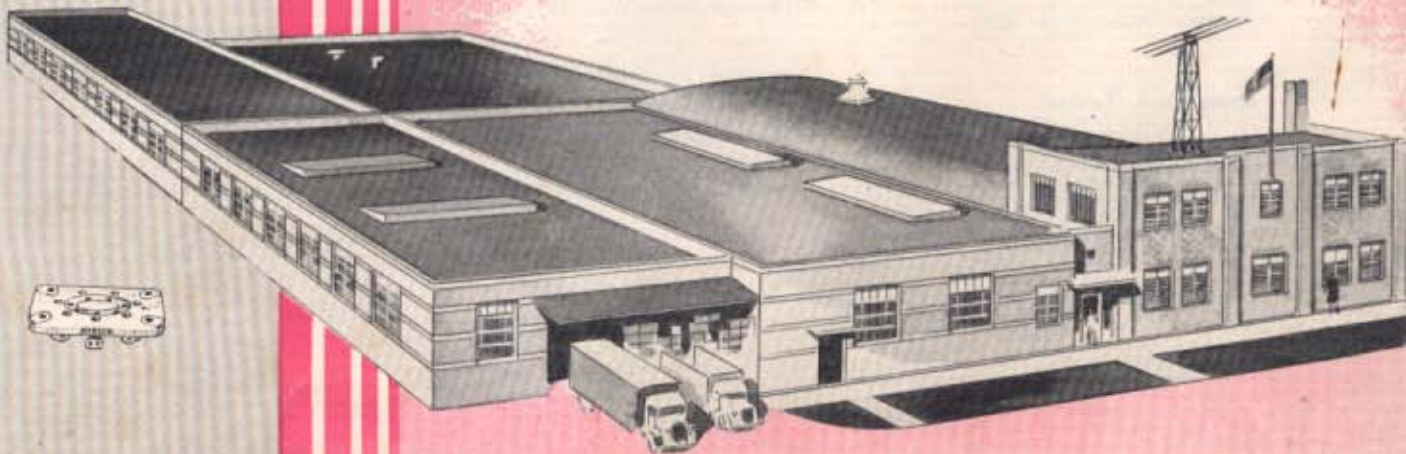
M. SIMONS & SON CO., INC.
25 Warren Street
New York 7, New York
Phone—7-5513
Cable Address—Simontrice, N. Y.

JOHNSON

RADIO ELECTRONIC PRODUCTS

DISTRIBUTED

by





E. F. JOHNSON COMPANY

WASECA, MINNESOTA, U. S. A.

PRICE LIST

EFFECTIVE AUGUST 23, 1948

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

FOR CATALOG 970B

Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price
101-760	3	.60	105-529	.....	5	.20	111-644	.....	5	1.00
101-762	3	1.15	105-530	.....	5	.20	111-645	.....	5	1.25
102-750	3	1.75	106-70	.....	5	.50	111-680	.....	5	1.45
102-752	3	2.50	106-71	.....	5	.25	111-682	.....	5	1.60
102-754	3	3.00	106-72	.....	5	.35	114-300	.....	12	1.75
104-250	2	1.00	106-73	.....	5	.15	114-300L	.....	12	2.00
104-2503	2	1.10	106-73A	.....	5	.15	114-301	.....	12	3.00
104-251	2	1.40	108-74	.....	5	.11	114-301L	.....	12	3.25
104-251A	2	1.40	108-7451	.....	5	.25	114-301S	.....	12	3.5
104-251B	2	1.40	108-7452	.....	5	.25	114-301SL	.....	12	3.75
104-252	2	.90	108-75	.....	5	.12	114-305	.....	12	1.90
104-258	2	.35	108-75A	.....	5	.13	114-306	.....	12	1.90
104-259	2	1.50	108-75BB	.....	5	.40	114-310	.....	12	3.25
104-2593	2	1.45	108-75BR	.....	5	.40	114-310L	.....	12	3.50
104-260	2	1.00	108-75C	.....	5	.13	114-310S	.....	12	3.75
104-261	2	4.25	108-75D	.....	5	.10	114-310SL	.....	12	4.00
104-262	2	.85	108-76	.....	5	.35	114-311	.....	12	4.00
104-263	2	.90	108-76A	.....	5	.30	114-311L	.....	12	4.25
105-1	5	.10	108-77	.....	5	.30	114-311S	.....	12	4.50
105-14	5	.22	108-77A	.....	5	.35	114-311SL	.....	12	4.75
105-15	5	.20	108-77BB	.....	5	.50	114-312	.....	12	3.25
105-16	5	.50	108-77BR	.....	5	.50	114-312L	.....	12	3.50
105-401	5	.60	110-112	.....	3	.07	114-312S	.....	12	3.75
105-4012	5	.60	110-880	.....	3	.40	114-312SL	.....	12	4.00
105-4015	5	.60	110-881	.....	3	.75	114-316	.....	12	3.25
105-415	5	.18	110-882	.....	3	1.50	114-316L	.....	12	3.50
105-416	5	.20	110-883	.....	3	2.75	114-316S	.....	12	3.75
105-417	5	.15	110-884	.....	3	2.75	114-316SL	.....	12	4.00
105-418	5	.30	110-885	.....	3	4.00	114-320	.....	12	4.25
105-419	5	.30	110-886	.....	3	1.90	114-321	.....	12	5.00
105-420	5	.30	110-887	.....	3	2.75	114-326	.....	12	4.25
105-421	5	.30	110-888	.....	3	2.75	114-330	.....	11	.25
105-432	5	.60	110-889	.....	3	4.25	114-333	.....	11	.50
105-433	5	.60	110-890	.....	3	4.25	114-335	.....	11	.10
105-520	5	.20	111-6002	.....	5	.25	114-336	.....	11	.10
105-521	5	.20	111-6003	.....	5	.25	114-340	.....	11	1.00
105-522	5	.20	111-614	.....	5	2.00	114-341	.....	11	2.00
105-524	5	.20	111-615	.....	5	2.30	114-345	.....	11	.20
105-525	5	.20	111-617	.....	5	2.10	114-346	.....	11	.50
105-526	5	.20	111-625	.....	5	2.40	114-350	.....	11	.20
105-527	5	.20	111-631	.....	5	1.45	114-360	.....	11	.30
105-528	5	.20	111-635	.....	5	1.70	114-362	.....	11	.13

Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price
147-330		9	.80	147-1058		8	1.85	153-13	250D70	1	15.50
147-400		10	.55	147-1076		8	2.00	153-14	350D70	1	19.00
147-401		10	.55	147-1077		8	2.00	153-15	50D90	1	10.00
147-403		10	.60	147-1078		8	2.10	153-16	70D90	1	11.00
147-404		10	.60	147-1110		9	1.15	153-17	100D90	1	12.00
147-406		10	.55	147-1111		9	1.15	153-18	150D90	1	14.2
147-407		10	.70	147-1112		9	1.15	153-19	250D90	1	18.75
147-408		10	.70	147-1113		9	1.15	153-501	100DD35	1	11.75
147-410		10	.40	147-1142		9	1.10	153-502	150DD35	1	13.25
147-411		10	.40	147-1143		9	1.25	153-503	200DD35	1	15.75
147-500		10	.33	147-1144		9	1.25	153-504	300DD35	1	18.75
147-501		10	.33	147-1200		9	1.65	153-505	500DD35	1	25.50
147-503		10	.37	147-1201		9	1.65	153-506	150DD45	1	16.25
147-504		10	.37	147-1202		9	1.75	153-507	200DD45	1	18.50
147-600		10	.13	147-1203		9	1.85	153-508	50DD70	1	12.50
147-601		10	.13	147-1204		9	1.85	153-509	70DD70	1	14.25
147-610		10	.16	147-1205		9	1.95	153-510	100DD70	1	16.00
147-611		10	.16	147-1206		9	1.85	153-511	150DD70	1	20.75
147-620		10	.15	147-1207		9	1.85	153-512	200DD70	1	23.75
147-621		10	.15	147-1208		9	1.95	153-513	50DD90	1	14.50
147-630		10	.17	147-1209		9	1.90	153-514	100DD90	1	19.50
147-631		10	.17	147-1210		9	1.90	154-1	250E20	1	6.20
147-640		10	.14	147-1211		9	2.00	154-2	350E20	1	7.00
147-641		10	.14	147-1212		9	1.90	154-3	500E20	1	8.10
147-700		10	.60	147-1213		9	1.90	154-4	35E30	1	4.75
147-701		10	.60	147-1214		9	2.00	154-5	50E30	1	4.95
147-703		10	.65	147-1217		9	1.90	154-6	70E30	1	5.25
147-704		10	.65	147-1218		9	1.60	154-7	100E30	1	5.60
147-800		8	1.05	147-1219		9	2.10	154-8	150E30	1	6.30
147-801		8	1.05	147-1220		9	2.25	154-9	250E30	1	7.50
147-802		8	1.10	147-1600		9	2.00	154-10	350E30	1	8.90
147-803		8	1.10	147-1604		9	2.00	154-11	35E45	1	5.15
147-804		8	1.10	147-1605		9	2.00	154-12	50E45	1	5.50
147-805		8	1.10	152-1	250C70	1	16.50	154-13	70E45	1	5.85
147-999		10	.50	152-2	500C70	1	23.50	154-14	100E45	1	6.35
147-1000		8	1.40	152-3	250C90	1	19.50	154-15	150E45	1	7.35
147-1001		8	1.40	152-4	350C90	1	23.00	154-16	250E45	1	9.35
147-1002		8	1.50	152-5	50C110	1	11.75	154-501	200ED20	1	9.60
147-1003		8	1.40	152-6	100C110	1	15.00	154-502	300ED20	1	11.20
147-1004		8	1.40	152-7	250C110	1	23.25	154-503	50ED30	1	7.85
147-1005		8	1.50	152-8	50C130	1	13.00	154-504	70ED30	1	8.35
147-1006		8	1.60	152-9	100C130	1	17.00	154-505	100ED30	1	9.15
147-1007		8	1.60	152-501	200CD45	1	20.50	154-506	150ED30	1	10.50
147-1008		8	1.70	152-502	300CD45	1	24.00	154-507	200ED30	1	11.75
147-1009		8	1.60	152-503	200CD70	1	23.50	154-508	50ED45	1	8.35
147-1010		8	1.60	152-504	300CD70	1	31.00	154-509	70ED45	1	9.40
147-1011		8	1.70	152-505	150CD90	1	25.00	154-510	100ED45	1	10.85
147-1012		8	1.60	152-506	200CD90	1	29.00	155-1	35F20	1	4.50
147-1013		8	1.60	152-507	50CD110	1	17.50	155-2	50F20	1	4.70
147-1014		8	1.70	152-508	65CD110	1	19.25	155-3	70F20	1	4.90
147-1032		8	1.65	152-509	100CD110	1	24.50	155-4	100F20	1	5.35
147-1033		8	1.65	152-510	50CD130	1	20.00	155-5	150F20	1	6.05
147-1034		8	1.75	153-1	50D35	1	8.00	155-6	250F20	1	7.25
147-1035		8	1.65	153-2	100D35	1	8.75	155-7	35F30	1	4.80
147-1036		8	1.65	153-3	150D35	1	9.75	155-8	50F30	1	5.10
147-1037		8	1.75	153-4	250D35	1	11.25	155-9	70F30	1	5.45
147-1050		8	1.75	153-5	350D35	1	12.50	155-10	100F30	1	6.10
147-1051		8	1.75	153-6	500D35	1	14.75	155-11	150F30	1	7.15
147-1052		8	1.85	153-7	100D45	1	9.50	155-501	50FD20	1	7.65
147-1053		8	1.75	153-8	150D45	1	11.00	155-502	70FD20	1	8.15
147-1054		8	1.75	153-9	50D70	1	8.75	155-503	100FD20	1	8.95
147-1055		8	1.85	153-10	70D70	1	9.75	155-504	150FD20	1	10.30
147-1056		8	1.75	153-11	100D70	1	10.75	155-505	200FD20	1	11.55
147-1057		8	1.75	153-12	150D70	1	12.50	155-506	50FD30	1	8.30

Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price	Part No.	Cat. No.	Page	List Price
155-507	70FD30	1	9.30	195-3602	13x7x2	6	1.70	NOTE: The following 238 series is Amateur Inductors shown in a special catalog.			
155-508	100FD30	1	10.75	195-3632	14x10x3	6	3.60				
156-1	25H15	2	2.70	195-3642	15x7x3	6	3.20				
156-2	35H15	2	2.80	195-3662	17x4x3	6	2.85				
156-3	50H15	2	2.95	195-3702	17x10x2	6	3.40				
156-4	70H15	2	3.20	195-3712	17x10x3	6	4.00				
156-5	100H15	2	3.50	195-3732	17x10x5	6	4.65				
156-6	150H15	2	5.00	195-3752	17x11x3	6	4.20				
156-7	250H15	2	6.60	195-3772	17x12x3	6	4.40				
156-8	25H30	2	4.10	195-3792	17x13x2	6	3.95				
156-9	35H30	2	4.50	195-3802	17x13x3	6	4.60	238-101	1000HCS80	10.25	
156-10	50H30	2	5.05	195-3812	17x13x4	6	5.35	238-102	1000LCS80	10.25	
156-11	70H30	2	5.75	195-470	17x10	6	1.30	238-103	1000HCS40	9.25	
156-512	35HD15	2	4.70	195-474	17x11	6	1.35	238-104	1000LCS40	9.25	
156-513	50HD15	2	5.05	195-476	17x12	6	1.45	238-105	1000HCS20	8.50	
156-514	70HD15	2	5.55	195-479	17x13	6	1.55	238-111	1000LCS20	8.50	
156-515	100HD15	2	6.25	196-1614	19x1 3/4	6	1.10	238-112	1000h/lcs14	8.00	
156-516	35HD30	2	6.05	196-1624	19x3 1/2	6	1.50	238-113	1000h/lcs10	7.50	
156-517	50HD30	2	7.15	196-1634	19x5 1/4	6	1.95	238-121	500HCS80	5.75	
157-1	7J12	2	1.95	196-1644	19x7	6	2.30	238-122	500LCS80	5.75	
157-2	15J12	2	2.10	196-1654	19x8 3/4	6	2.70	238-123	500HCS40	5.25	
157-3	25J12	2	2.30	196-1664	19x10 1/2	6	3.10	238-124	500LCS40	5.25	
157-4	50J12	2	2.70	196-1674	19x12 1/4	6	3.50	238-131	500HCS20	4.50	
157-5	75J12	2	3.15	196x1684	19x14	6	3.85	238-132	500LCS20	4.50	
157-6	100J12	2	3.75	196-1694	19x15 3/4	6	4.25	238-133	500h/lcs14	3.50	
159-125	N125	2	6.50	196-1704	19x17 1/2	6	4.65	238-134	500h/lcs10	3.25	
159-250	N250	2	7.50	196-1714	19x19 1/4	6	5.10	238-135	500h/lcs6	3.25	
159-375	N375	2	9.50	196-1724	19x21	6	5.40	238-141	150HCS80	5.00	
160-102	.....	3	1.60	230-640	.....	3	2.60	238-142	150LCS80	5.00
160-104	.....	3	1.70	230-641	.....	3	2.65	238-143	150HCS40	4.50
160-107	.....	3	1.85	230-642	.....	3	2.70	238-144	150LCS40	4.50
160-110	.....	3	2.00	230-643	.....	3	2.75	238-145	150HCS20	4.00
160-203	.....	3	2.30	230-644	.....	3	2.80	238-146	150LCS20	4.00
160-205	.....	3	2.50	230-645	.....	3	2.85	238-151	150h/lcs14	3.25
160-208	.....	3	2.90	230-650	.....	3	2.35	238-152	150h/lcs10	3.00
160-211	.....	3	3.20	230-651	.....	3	2.40	238-153	150h/lcs6	3.00
160-303	.....	3	2.15	230-652	.....	3	2.45	238-201	1000HCF80	9.90
160-305	.....	3	2.35	230-653	.....	3	2.50	238-202	1000LCF80	9.90
160-308	.....	3	2.60	230-654	.....	3	2.55	238-203	1000HCF40	8.90
160-311	.....	3	2.90	230-655	.....	3	2.40	238-204	1000LCF40	8.90
165-1	25G20	2	3.40	232-610	.....	3	8.50	238-205	1000HCF20	8.50
165-2	50G20	2	3.75	232-611	.....	3	6.50	238-211	1000LCF20	8.15
165-3	8G45	2	3.25	232-619	.....	3	6.00	238-212	1000h/lcf14	7.65
165-4	13G45	2	3.45	232-620	.....	3	9.50	238-213	1000h/lcf10	7.15
165-5	23G45	2	3.75	232-622	.....	3	7.50	238-221	500HCF80	5.60
165-6	6G70	2	3.75	232-623	.....	3	5.50	238-222	500LCF80	5.60
165-7	12G70	2	4.25	232-624	.....	3	7.00	238-223	500HCF40	5.10
195-3502	7x5x2	6	1.25	232-626	.....	3	6.60	238-224	500LCF40	5.10
195-3512	7x7x2	6	1.40	232-627	.....	3	5.20	238-231	500HCF20	4.35
195-3522	9x7x2	6	1.50	232-628	.....	3	6.30	238-232	500LCF20	4.35
195-3532	9 1/2 x 5 1/2 x 2	6	1.40	235-646	.....	3	.85	238-233	500h/lcf14	3.35
195-3542	10x5x3	6	1.65	235-647	.....	3	.85	238-234	500h/lcf10	3.10
195-3562	11x7x2	6	1.60	235-803	.....	3	.25	238-235	500h/lcf6	3.10
195-3572	12x7x3	6	1.95	235-804	.....	3	.30	238-241	150HCF80	4.85
195-3592	12x10x3	6	2.20	235-860	.....	3	.15	238-242	150LCF80	4.85
								238-243	150HCF40	4.35	
								238-244	150LCF40	4.35	
								238-245	150HCF20	3.85	
								238-246	150LCF20	3.85	
								238-251	150h/lcf14	3.10	
								238-252	150h/lcf10	2.85	
								238-253	150h/lcf6	2.85	



E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U. S. A.