

PHILCO TRANSITONE SERVICE BROADCAST

JUNE, 1934

RESISTOR DATA

THE STANDARD R.M.A. color code is used to indicate the values of the various carbon and flexible type resistors used in the Philco Auto Radio Receivers. A working knowledge of the code is a valuable aid to any serviceman and will save considerable time when inspecting and repairing Receivers. Keep the color code given below and the list of resistors in a handy place for ready reference, since they can be used universally in servicing all modern Receivers.

Philco carbon resistors are made in five sizes, $\frac{1}{3}$ watt, $\frac{1}{2}$ watt, 1 watt, 2 watts and 3 watts. These are shown, actual size, in Fig. 1. The color code markings are the same for all sizes; the solid end indicates the tip color, the center marking the dot and the shaded area, the body color.

The body color indicates the value of the first digit of the resistance. The tip color indicates the value of the second digit. The dot color indicates the number of ciphers after the second digit.

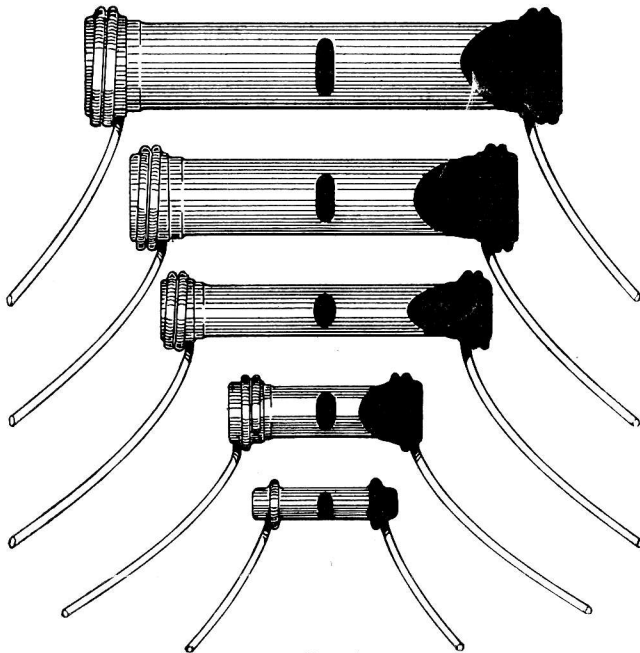


FIG. 1.

The standard R.M.A. color code is:

0—Black	5—Green
1—Brown	6—Blue
2—Red	7—Violet
3—Orange	8—Gray
4—Yellow	9—White

In determining the value of a resistor, the whole number is made up of body-tip-dot. For instance, a resistor has a red body, yellow tip and yellow dot. The body color is red, which indicates that 2 is the first digit; the tip is yellow, which indicates 4 is the second digit, and the dot indicates 4, which means there are four ciphers after the second digit. The value of the resistor is

$$\frac{2}{\text{body}} \quad \frac{4}{\text{tip}} \quad \frac{0000}{\text{dot} = \text{four ciphers after 2nd digit}}$$

Take, for another example, a 99,000 ohm resistor. The body is white, the tip is likewise white and the dot is orange. A 490,000 ohm resistor has a yellow body, a white tip and a yellow dot, which is the same color as the body.

The code is universal and can be used to indicate any value from 1 to 99 billion.

1/3 WATT

Part No.	Resistance	Part No.	Resistance
33-1028	1,000	33-1115	51,000
33-1029	2,000	33-1116	70,000
33-1100	2,500	6099	99,000
33-1030	3,000	33-1035	100,000
33-1031	4,000	33-1097	190,000
33-1001	5,000	33-1097	240,000
33-1032	7,000	6097	490,000
33-1114	8,000	33-1036	500,000
33-1033	9,000	33-1096	1,000,000
33-1000	10,000	33-1037	1,000,000
8267	13,000	33-1025	2,000,000
33-1013	25,000	33-1002	4,000,000
33-1034	50,000		

1/2 WATT

Part No.	Resistance	Part No.	Resistance
5837	1,000	33-1079	60,000
7951	1,500	5385	70,000
6984	2,000	33-1080	75,000
7775	2,500	33-1046	85,000
5309	2,900	4411	99,000
33-1038	3,000	33-1047	100,000
7238	3,300	5331	160,000
33-1039	3,500	33-1117	190,000
33-1040	4,000	33-1048	200,000
5310	5,000	4410	240,000
7352	6,000	33-1081	250,000
33-1041	7,000	33-1049	300,000
33-1077	7,500	6046	330,000
5838	8,000	33-1050	400,000
33-1042	9,000	4517	490,000
4412	10,000	33-1051	500,000
33-1110	12,000	4409	1,000,000
33-1043*	12,500	7009	1,500,000
6208	15,000	5872	2,000,000
6650	20,000	33-1052	2,500,000
4516	25,000	33-1053	3,000,000
33-1078	30,000	33-1082	3,500,000
5279	32,000	6010	4,000,000
33-1044	40,000	33-1054	5,000,000
5256	45,000	33-1055	6,000,000
33-1045	50,000	33-1056	10,000,000
4518	51,000		

1 WATT

Part No.	Resistance	Part No.	Resistance
4590	1,000	33-1060	50,000
33-1057	1,500	4237	51,000
4515	2,000	33-1004*	58,000
33-1058	2,500	33-1084	60,000
7831	3,000	3542	70,000
33-1059	3,500	33-1085	75,000
7832	4,000	3767	99,000
3526	5,000	33-1061	100,000
33-1003*	5,880	33-1086	150,000
7833	6,000	33-1104	160,000
7834	7,000	33-1007*	165,000
33-1083	7,500	33-1106	170,000
7835	8,000	33-1022*	172,200
7501	9,000	5023	190,000
3524	10,000	33-1011*	200,000
3766	13,000	33-1107	200,000
5278	15,000	3768	240,000
33-1005*	15,804	33-1087	250,000
33-1020*	16,300	33-1062	300,000
6649	20,000	33-1008*	339,000
33-1093*	20,000	33-1105	340,000
7836	25,000	33-1108	350,000
3525	30,000	33-1023*	354,600
33-1006*	32,209	33-1012*	400,000
33-1021*	33,300	33-1109	400,000
33-1027	39,000	3769	490,000
7837	40,000	33-1063	500,000
33-1010*	40,000	33-1095*	910,000

* Marked with label

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1 WATT

Part No.	Resistance	Part No.	Resistance
4414.....	1,000,000	33-1014*	2,000,000
33-1094*	1,000,000	33-1089.....	2,500,000
33-1088.....	1,500,000	33-1064.....	3,000,000
33-1111.....	1,800,000	33-1090.....	3,500,000
33-1009*	1,820,000	33-1065.....	4,000,000
33-1112.....	2,000,000	33-1066.....	5,000,000

2 WATTS

Part No.	Resistance	Part No.	Resistance
3655.....	1,000	33-1026.....	32,000
33-1067.....	2,000	33-1098.....	37,000
33-1068.....	3,000	33-1073.....	50,000
33-1069.....	4,000	5868.....	51,000
33-1070.....	5,000	33-1074.....	75,000
33-1071.....	7,500	33-1075.....	100,000
33-1024.....	10,000	33-1076.....	250,000
5718.....	15,000	33-1091*	1,820,000
5649.....	20,000	33-1092*	2,000,000
33-1072.....	25,000		

3 WATTS

Part No.	Resistance	Part No.	Resistance
6450.....	13,000	33-1018.....	30,000
7500.....	16,000		

* Marked with label

FLEXIBLE RESISTORS

1/3 WATT

Part No.	Resist. Ohms	Part No.	Resist. Ohms
33-3010.....	300	6106.....	1,250
6443.....	700	7688.....	2,500

1/2 WATT

Part No.	Resist. Ohms	Part No.	Resist. Ohms
6511.....	2.7	6977.....	500
7217.....	200	33-3022.....	800
33-3016.....	400	33-3017.....	1,000

1 WATT

Part No.	Resist. Ohms	Part No.	Resist. Ohms
33-3040.....	5	33-3121.....	300
33-3041.....	10	33-3122.....	400
33-3042.....	15	33-3031.....	500
33-3043.....	20	33-3123.....	600
33-3119.....	30	33-3124.....	700
33-3044.....	50	33-3125.....	800
33-3027.....	75	33-3126.....	1,000
33-3023.....	100	33-3127.....	1,250
33-3045.....	150	33-3047.....	1,500
33-3120.....	200	33-3048.....	2,000
33-3046.....	250		

2 WATTS

Part No.	Resist. Ohms	Part No.	Resist. Ohms
5110.....	7	7155.....	30
33-3035.....	7	33-3036.....	30
33-3130.....	7	33-3019.....	700

MICA CONDENSER DATA

The moulded bakelite mica condensers used in Philco radios are marked with a colored dot or dots to indicate the capacities of the condensers. In the table below the capacities of the condensers are given in microfarads (mfd.). Ofttimes, these small capacities are given in micro-microfarads (mmfd.). To change from microfarads to micro-microfarads multiply by 1,000,000; thus, .00025 mf. becomes 250 mmf.; .006 mf. becomes 6000 mmf. and .00003 mf. becomes 30 mmf.

MICA CONDENSERS

Part No.	Capacity	Color Code
30-1030.....	.000015.....	Yellow Yellow Yellow
6897.....	.000025.....	Blue Blue
30-1008.....	.000030.....	Stamped with capacity
4990.....	.000035.....	Green Yellow
30-1009.....	.000040.....	Stamped with capacity
3774.....	.000050.....	White
4587.....	.000050.....	Blue White
30-1029.....	.000050.....	Blue White
30-1010.....	.000070.....	Stamped with capacity
30-1011.....	.000080.....	Stamped with capacity
30-1012.....	.000100.....	Stamped with capacity
4519.....	.000110.....	Blue Yellow
30-1005*.....	.000110.....	Red Yellow
30-1006.....	.000110.....	Blue Yellow
30-1020.....	.000110.....	Blue Yellow
	.000250.....	Yellow Yellow
30-1031.....	.000110.....	Blue Yellow
30-1033.....	.000150.....	Yellow Yellow Yellow
30-1013.....	.000200.....	Stamped with capacity
3082.....	.000250.....	Yellow
5858.....	.000250.....	Yellow
30-1032.....	.000250.....	Yellow
8311.....	.000300.....	Red Green
30-1004**.....	.000325.....	Red Blue
30-1014.....	.000400.....	Stamped with capacity
5120.....	.000410.....	Yellow Orange
30-1000**.....	.000410.....	Yellow Orange
30-1027**.....	.000410.....	Yellow Orange Green
3910.....	.000500.....	Green
6898.....	.000600.....	Orange
4520.....	.000700.....	White Yellow
5863.....	.000700.....	White Yellow
5878.....	.000800.....	Green Orange
6021.....	.000800.....	Green Orange
30-1015.....	.000900.....	Stamped with capacity
5215.....	.001000.....	Green White
6773***.....	.001000.....	Green Green
30-1007.....	.001000.....	Green White
5886**.....	.001250.....	Blue Orange
7007**.....	.001400.....	Red Red
7139**.....	.001500.....	Red White
5877**.....	.001650.....	Green Blue
6018.....	.001800.....	White White
6022.....	.001800.....	White White
4059.....	.002000.....	Blue
6853***.....	.002000.....	Yellow Yellow
7006**.....	.002500.....	Red
30-1026**.....	.002500.....	Red
6009.....	.003000.....	Orange White
7301**.....	.003000.....	Red Orange
30-1028**.....	.003000.....	Red Orange
30-1016.....	.004000.....	Stamped with capacity
30-1017.....	.005000.....	Stamped with capacity
5981.....	.006000.....	Orange
6359.....	.006000.....	Orange
30-1001.....	.006000.....	Orange
30-1002***.....	.006000.....	Orange Green Orange
30-1018.....	.008000.....	Stamped with capacity
30-1019.....	.01.....	Stamped with capacity

NOTES: *Capacity held to within $\pm 3\%$.
 **Capacity held to within $\pm 5\%$.
 ***Condenser tested to withstand 2000 volts.

PHILCO TRANSITONE

REG. U. S. PAT. OFF.

PHILADELPHIA, PA.