

DATE CODES FOR RCA-MADE TUBES

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There is a sort of fascination with the date codes that are found on tubes. The classic information, on early RCA tubes in particular, is Bro. Patrick Dowd's writeup*. This 13-page brochure goes into (necessarily) exhaustive detail on prewar product.

Bits of other "dating data" have surfaced in the radio-collector press and are available in, for example, Tube Lore. Now further - postwar - information has become available via the Dowd-AWA-RCA Harrison archive, and it's time to get it into print.

Before going farther, it is appropriate to point out that there were actually three versions of date codes:

A. Date of manufacture. This was the point of production at *the factory*.

B. Date of shipment. This was the date the tube was sent from the maker's *warehouse* to a set manufacturer (for the original-equipment-manufacturer or OEM market) or a distributor (for the renewal market).

C. Date of warranty expiration. This was a date, usually a year after shipment but with some fudging to allow for time in intermediate stock, at which the end user's guarantee would expire.

RCA seems to have used only (A) and (B). (C) could have gotten unwieldy, as with, for example, RCA-made tubes branded "Magnavox" and shipped to TV-tuner maker Standard Kollsman Industries for installation in tuners which were then sent to Magnavox' TV factory. (C) seems to have pertained mainly to smaller radio manufacturers.

The time from (A) to (B) could vary widely: from only weeks for a high-runner TV tube at the peak of its popularity in new sets, to several years for an obsolete replacement tube.

That said, let's go into some detail, as dug out of the Standardizing Notices. We'll include the known postwar codes for some private-brand tubes (Electrohome, GM Delco, Packard Bell, Philco) - not because they draw any big collector interest, but because they illustrate industry practice. These codes were presumably specified by the customers (say, Philco) themselves, and so probably apply to Philco-brand tubes from makers other than RCA.

1. RCA DATE OF MANUFACTURE FOR GLASS RECEMNG TUBES

The "etched" octagon giving the tube **type** carried breaks indicating the year and month of manufacture, as shown in the Dowd brochure. A break in the corner gave year; in the straight part, the month.

FOR METAL RECEMNG TUBES

The following system apparently went into **use** in November, 1950. The code, stamped into the base ring of the tube, comprised letter for the year and a number (1 through 6) for each two-month interval (Jan.-Feb., etc.) within the year.

* "Dating the RCA (Cunningham) Composition-Base Radio Receiving Tubes - From Mid-1924 thru 1941," available from Antique Electronic Supply, (602) 820-5411, as their No. B-343.

Year letters were:

1944 H 1949 J 1953 T 1957 S 1961 N 1966 Z 1970 P
1945 A 1950 C 1954 X 1958 K 1%3 F 1%7 U 1971 Y
1947 N 1951 Z 1955 R 1959 H 1964 J 1968 T 1972 S
1948 F 1952 U 1956 Y 1960 A 1%5 C 1969 X 1973 K

Note the ambiguous 15-year repeat of the letters, except for "P" and "R."

The month-number and year-letter sequence was reversed each month. For example, "C6" designates Nov. 1950, whereas "6C" designates Dec. 1950.

FOR SPECIAL-PURPOSE TUBES

High-value power and cathode-ray tubes carried serial numbers. The serial identification was a year letter plus a five digit number. The year letters for 1944-73 were the same as shown above for metal tubes, plus the following (reflecting the later demise of the Lancaster power-tube plant compared to Harrison).

1974 H	1977 N	1980 C
1975 V	1978 F	1981 Z
1976 A	1979 J	1982 U

The number part of the identification reverted to "1" at start of a new year, at least on types like the 858B. On some types like 869B, the serial number substituted for a date-of-manufacture code. (S. N. 27-1-1A, p. 3 [6-14-57 and 12-1-69]).

There were exceptions to this plan. Here are three examples.

(A) 4X500As purchased by RCA for resale were serialized, for example, "A8-100." "A" meant Jan., "8" designated 1948, and "100" meant the 100th tube for Jan. 1948.

(B) 826s and 832s had an internal date-of-manufacture code marked on the top mica with India ink, giving the day, week, and year. The day was numbered 1 through 7, the week 01 through 52, and the year was given by a letter as shown above. (S. N. 29-80-10, p. 1.)

(C) The 927 and similar phototubes received a date of manufacture coded on the stem or rear of the cathode with India ink, giving the month and year: "72" indicates the seventh month of 1942; "81" indicates eighth month of 1951. A dot at the end of the code indicates Harrison-made, not Lancaster, product.

Unlike usual practice, many phototubes were type-etched, as well as name-branded, at the warehouse. To identify nonetched tubes, the base lug or base was branded:

A 868	A9 928	B4 5584	F 1P21	N 1P39	T 5581
AI 1P29	B 918	B6 1670	H 930	O 1P28	U 925
A2 1P37	B1 1640	B7 1676	J 931A	P 1P40	V 929
A7 920	B2 1671	C 917	K 1P22	R 5652	
A8 923	B3 1672	D 919	L 935	S 5653	

2. RCA DATE OF SHIPMENT

From 1-1-36 to 7-1-45 The shipping date code for RCA-brand tubes used a letter for the year, plus a number (1 to 6) for each two-month period within the year, plus "E" for OEM sales. Lack of "E" indicates a tube for distributor sale. The year letters followed the Z-U-T-X sequence seen before:

1936	Z	1938	T	1940	R	1942	S	1944	H
1937	U	1939	X	1941	Y	1943	K	1945	V

On Government tubes, the "E" was printed separately, typically below the date code.

Private-brand tubes generally used a shippingdate code of **two or** three characters. **An** initial letter (A through L, including I) gives month, followed by the last digit of the year. Bulk-packed (OEM) tubes also carried an "E"; individual-packed (distributor) ones did not. Thus "J5" indicates distributor shipment in Oct. 1945; "L5E" indicates OEM shipment in Dec. 1945. (Note the opportunity for confusion with the non-private-brand tubes under the system immediately above: "H5E," say, could mean either of two dates.)

From 1-46 to 8-56: For **all** tubes, the code was the last digit of the year) plus a month indicator comprising the RMA/EIA week code, quantized to 04 (Jan.), 08 (Feb.), 52 (Dec.), etc. Included is a "sales basis" code: a dash between year and month indicated tubes sold on an adjustment basis; no dash indicates sale on an allowance-in-lieu-of-adjustment basis (i. e., renewal vs. OEM business). This scheme covers private-brand tubes, except where a buyer's special code applies, but not Government tubes.

From 9-56: For **RCA-brand** renewal entertainment receiving types and (effective Feb. 1970) nuvistors, the code was:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956*								-	KC	K D	K E	K F
1957*	KG	KH	KI	KJ	K K	K L	KM	KN	KO	KP	KQ	KR
1958	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD
1959	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP
1960	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB
1961	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN
1962	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ
1963	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL
1964	NM	AA	AB	AC	A D	A E	AF	AG	AH	AI	AJ	AK
1965	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1966	A x	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
1967	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1968	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1969	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS
1970	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE
1971	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ
1972	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC
1973	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO
1974	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA
1975	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM
1976	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY

* 1956 and 1957 are unconfirmed; the notice sheet is missing.

For other markets (military, professional - all except entertainment receiving tubes sold for renewal/resale), the date of shipment is in the **EIA** format with two-digit year and the week as shown as above. There were some twists:

(A) A plain format ("5652") indicates the tube was sold on an adjustment (renewal) basis, while an added dash ("56-52") means an allowance (OEM) basis.

(B) Purchased types generally carry a following dot ("5652.", "56-52.", or "KC. ").

(C) Types with a preceding dot ("•5652," "•56-52," or "•KC") had been adjusted and returned to stock.

(D) Tubes for export were date-coded with an "X" ("56X52").

(E) The RMA-assigned "274" code identifying RCA as the source was added on tubes lacking the RCA brand, i. e., private-brand. (The "274" code officially indicated "sponsor-of-sale," not necessarily the actual maker, as on types occasionally bought by RCA for private-brand resale.)

(F) Military tubes included a plant-location code.

DATE (AND DESTINATION) CODES FOR GM DELCO TUBES

These originally used the short version of the EIA date code: the last digit of the year, plus a week code. The latter is quantized to the quarter of the year, i. e., 13, 26, 39, or 52. See the example below.

The tubes carried the RCA "source code" (274). In addition, because Delco OEM tubes went to any of several radio manufacturers, the destination (original purchaser) is designated by a symbol after the date code:

- † Colonial
- Crosley
- △ Delco Radio Corp.
- RCA Victor
- Hallicrafters

As an example, "613 O" stamped under the "274" designates a firstquarter 1946 tube for Crosley.

Later the date code became as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1957	RR	RA	RL	RM	RO	RT	RS	RU	RD	RF	A E A N	
1958	AR	AA	A L A M	AO	AT	As	AU	AD	AF	LE	LN	
1959	LR	LA	LL	LM	LO	LT	LS	LU	LD	LF	ME	MN
1960	MR	MA	ML	MM	MO	MT	MS	MU	MD	MF	TE	TN
1961	TR	TA	T L T M	TO	TT	TS	Tu	TD	TF	SE	SN	
1%2	SR	SA	SL	SM	SO	ST	SS	SU	SD	SF	UE	UN
1963	UR	UA	UL	UM	UO	UT	US	UU	UD	UF	DE	DN
1964	DR	DA	DL	DM	DO	DT	DS	DU	DD	DF	EE	EN
1965	ER	EA	EL	EM	EO	ET	ES	EU	ED	EF	NE	NN
1966	NR	NA	NL	NM	NO	NT	NS	NU	ND	NF	RE	RN
1967	RR	RA	RL	RM	RO	RT	RS	RU	RD	RF	AE	AN
1968	AR	AA	A L A M	AO	AT	AS	AU	AD	AF	LE	LN	

DATE CODES FOR PHILCO TUBES

The code is the full version of the EIA code: the last two digits of the year plus the week code. The week code is restricted to even numbers only, thus indicating the first or last half of the relevant month. The year and week are separated by a dash, indicating the tube was sold on an "allowance" (OEM) basis. The date is predated 3 mos. in advance of actual shipment, ± 1 week.

This scheme applied as of June, 1949, and apparently was used to at least 1966. It included tubes branded for Philco subsidiaries like the Sierra Electronic Corporation.

Writer Nan Douglas found an earlier version of this code using the letters O, P, U,

and S, starting in 1935. RCA files confirm it was in use as of 12-45. The code was:

Shipment from RCA	Code <u>Letter</u>	Code <u>Period</u>
11-1 to 1-31	O	1-1 to 3-31
2-1 to 4-30	P	4-1 to 6-30
5-1 to 7-31	U	7-1 to 9-30
8-1 to 10-30	S	10-1 to 12-31

DATE CODE FOR PACKARD BELL TUBES

The following code covered Packard Bell (later, Teledyne Packard Bell) tubes:

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
1963	EBA	ELA	EAA	ECA	EKA	EHA	EOA	EERA	ESA	BEA	BBA	BLA
1964	EBC	ELC	EAC	ECC	EKC	EHC	EOC	ERC	ESC	BEC	BBC	BLC
1965	EBK	ELK	EAK	ECK	EKK	EHK	EOK	ERK	ESK	BEK	BBK	BLK
1966	EBH	ELH	EAH	ECH	EKH	EHH	EOH	ERH	ESH	BEH	BBH	BLH
1967	EBO	ELO	EAO	ECO	EKO	EHO	EOO	ERO	ESO	BEO	BBO	BLO
1968	EBR	ELR	EAR	ERC	EKR	EHR	EOR	ERR	ESR	BER	BBR	BLR
1969	EBS	ELS	EAS	ECS	EKS	EHS	EOS	ERS	ESS	BES	BBS	BLS
1970	EBE	ELE	EAE	ECE	EKE	EHE	EOE	ERE	ESE	BEE	BBE	BLE
1971	EBB	ELB	EAB	ECB	EKB	EHB	EOB	ERB	ESB	BEB	BBB	BLB
1972	EBL	ELL	EAL	ECL	EKL	EHL	EOL	ERL	ESL	BEL	BBL	BLL
1973	EBA	ELA	EAA	ECA	EKA	EHA	EOA	ERA	ESA	BEA	BBA	BLA
1974	EBC	ELC	EAC	ECC	EKC	EHC	EOC	EKC	ESC	BEC	BBC	BLC

DATE CODE FOR ELECTROHOME (CANADIAN) TUBES

These carried a letter (A thru L) for the month, plus the last digit of the year.

3. SPECIAL CODES ON CRTs

Many early CRTs like the 7JP4 carried a special three-letter code for quality-assurance use (S. N. 27-3-7). The first letter indicated the work day of the month; letters ran A through Z, I and Q included. The second letter (A, B, etc.) designated the sealing machine. The third letter (A, B, C) indicated first, second, or third shift.

Monoscope tubes like the 1699 that used a custom-ordered test-pattern design were to be stamped, above the type number, with an indication of the customer, for example, "KSTP-TV."

Color kinescopes carried a year letter on the brand stamp. The letter was the same as that seen earlier on metal and power tubes:

Pre-		1965	B	1968	T	1971	Y	1974	H
1964	C	1966	Z	1969	X	1972	S	1975	V
1964	J	1967	U	1970	P	1973	K	1976	A

RCA marked kinescopes purchased for resale as follows:

274A	Lansdale	274H	Eitel-McCullough*	274W	Westinghouse
2748	American Television	274K	GE	274X	Thomas
274C	National Video	274P	Hytron	274Y	Tung-Sol
2740	Sylvania	274S	DuMont		
274E	Arcturus Electronics	274U	Rauland Corp.		

* Eitel-McCullough arid CRTs? Yes, Eimac made some 10BP4s and similar types for RCA ca. 1950 at its Salt Lake City plant.