

1965

CB TUBE SUBSTITUTION DIRECTORY

HUNDREDS OF REPLACEMENTS FOR POPULAR CB TUBES

by **STEPHEN DEDALUS, 12W5415**

Last year the editors of S9 asked me to compile a listing of substitutes for tubes commonly found in CB rigs. The listing ran in the August 1963 issue.

The status today is somewhat different, new tubes have gone incorporated into transceiver design, other tubes have gone out of vogue. The list we present for 1965 reflects the current trends in transceiver design and replacement art. The substitutions shown here for 1965 are suggested *only* for the receiver and audio portions of the transceiver, we have not included substitutes or replacements for tubes in the transmitter or oscillator portions of CB rigs, as the substitute of these components can cause off frequency operation.

Reader mail forwarded to me by S9 indicates that our last listing was put to good use by many of you. As we anticipated last August, many CB'ers found that a tube "went west" while they were at home, or away on business or vacation. In any event, the exact type tube from their rig could not be secured on such short notice and the S9 Tube Substitution Directory saved the day.

The tubes shown in the right hand column as substitutes for those in the left hand column should give results which approximate the original tubes, with the following exceptions: tube types shown in parentheses are "emergency" substitutions which will get your rig back in action but *without* its original zip—in some circuits they *might* not function at all. The tubes which are shown in bold face are better tubes than the originals which they replace.

These bold face replacements, in many cases, are so-called "premium tubes," that is, they cost a bit more for the additional performance. The plusses of these tubes vary individually, but some examples are: 5654 is a 6AK5 with reduced microphonics and vibrational output, longer life, ruggedized construction, extra reliability—the tube is about 25¢ more than the 6AK5; the 7320 is a version of the 6BQ5 designed especially for mobile use, it's about 75¢ more expensive than the "original." If you are interested in making certain that you are getting one of these ruggedized tube types, look for them under their special trade names; RCA *Special Red* and RCA *Command*, GE *5 Star* are notable.

Sometimes the "better" tube can be too much of a good thing. Some of the replacements have considerably more gain than the originals—in an RF stage this might possibly cause receiver overload, in an IF stage possibly "motorboating," in a modulator it might cause overmodulation. Then again, they might not have any effect but to make the rig work better!

Some tubes in CB rigs cannot be replaced with substitutes, so if your rig contains any of the following popular CB tubes we suggest that you keep a spare on hand: 6AN8, 6BZ7, 6FM8, 6CM6, 12AB5, 6EM5, 12X4, 6AZ8, 6BJ7, 6EQ7, 6BH7, 12AL5, 6AZ6, 12BR7 and 12BW4.

Keep the S9 Tube Substitute Directory inside the service manual of your transceiver, or in the glove compartment of your mobile unit. Here's a hint: in a pinch you can try to *bulb snatch* replacement tubes from TV sets, hi-fi units, radios, home intercoms and tape recorders.

CB'ers ATTENTION

5th Year Celebration

All CB items 15% off Net Price. Send us a list of your needs from Transceivers to Microphones, etc. We carry the largest antenna and crystal selection in California.

VICTOR ELECTRONICS

3519 MacArthur Blvd., Oakland, Calif. 94619

LYNDHURST CAMERA HOUSE

All major makes & models. Largest CB Selection in New Jersey. New & used sets from \$24.50
Accessories & Xtals.

213 Stuyvesant Ave., Lyndhurst, N. J.
Tel. 939-4260

S9 CB TUBE SUBSTITUTION CHART

ORIG.

REPLACE WITH

6AK5	(EF95) 6AG5 6AH6 (6AJ5) 6BA6 6BC5 6BH6 6BJ6 6CB6 6CE5 6CF6 (6CY5) (6EA5) (6EV5) 403A 403B 731A 1220 1381HQ 5590 5591 5595 5654 6096 6968 (9001) 9003
6AL5	D717 EAA91 EB91 5726 6097 6663 7631
6AQ5	EL90 (6BF5) 6BM5 6005 6095 6669
6AU6	EF94 (6AG5) (6AL5) (6AK5) (6AK6) (6AW6) 6BA6 (6BC5) 6BD6 (6CB6) (6CE5) (6CF6) (6DE6) (6DK6) (5590) (5591) 5749 6136 7543 (9001) (9003)
6AV6	EBC91 6AQ6 6AT6 6BK6 6BT6 6066
6BA6	EF93 6AL5 6AU6 6BC5 6BD6 (6BZ6) 6CB6 6CG6 5749 6136 6660 6661 7496 7543 9003
6BC8	EF93 X155 6BK7 6BS8 6BQ7 6BX8 6BZ7 6BZ8 6HK8
6BE6	EK90 6BY6 6CS6 1217 5750 5915 6660 7036 7502
6BH6	E90F 6AW6 (6BC5) 6CB6 6CF6 6DC6 6265 6661
6BJ6	E99F 6AS6 6BA6 (6BC5) 6BH6 6662 7694
6BJ8	(6BN8)
6BN8	(6BJ8)
6BQ5	EL84 N709 7189 7320
6BS8	X155 6BC8 6BQ7 6BX8 6BZ7 6BZ8 6HK8 6RHH2
6BZ6	(6BA6) 6CB6 6DC6 6DE6 6DK6 6HQ6 6JH6
6BZ8	X155 6BC8 6BK7 6BQ7 6BS8 6BZ7 6HK8
6CB6	EF190 6AG5 (6AJ5) 6AK5 (6AN5) (6AS6) (6AU6) 6AW6 (6BC5) (6BH6) 6BZ6 (6CE5) 6CF6 6DC6 6DE6 6DK6 6HQ6 (6HS6) 5590 5591 5654 6676 7732 (9001) (9003)
6CM8	(6CR8) (6CS8)
6CW4	6DS4 7895
6DC6	(6AG5) (6AU6) 6AW6 (6BC5) 6BH6 6BZ6 6CB6 (6CE5) 6CF6 6DE6 6DK6
6DS4	6CW4 7895
6EA8	(6CQ8) 6GH6 6GJ8 6U8A
6ES8	ECC189 6DJ8 6FW8 6KN8
6GH8	6AX8 (6CQ8) 6EA8 6GJ8 6U8A
6T8	6AK8 6R8
6U8A	ECF82 6AX8 6BL8 (6CQ8) 6EA8 6GH8 6GJ8 1252 6678 7731
6X4	EZ90 U707 WTT-100 6AV4 6BX4 6063 6202
12AL5	HAA91
12AQ5	12BM5
12AT7	A2900 B739 ECC81 12AU7 12AV7 12AX7 12AY7 12AZ7 12BH7 12DF7 6060 6201 6671 6679 7492 7728
12AU7	B749 ECC82 ECC186 ECC802 12AT7 12AV7 (12AX7) 12AY7 12DF7 5814 5963 6067 6189 6680 7318 7489 7730
12AX7	B339 B759 ECC83 ECC803 12AD7 12AT7 (12AU7) 12AV7 12AY7 (12AZ7) 12BH7 12BZ7 12DF7 12DM7 12DT7 5721 6057 6681 7025 7494 7729
12AZ7	12AT7 (12AU7) 12AV7 (12AX7) (12AY7) 12BH7 12DT8
12BA6	HF93 12AU6 12BD6 (12BZ6)
12BE6	HK90 12CS6

Editor's note. The information contained in this article was compiled from material supplied by tube manufacturers. S9 Magazine presumes that this information is correct, but does not guarantee the degree of results which will be obtained by the application of

the information. It must be remembered that slight electrical and mechanical differences may exist between the "original" tubes and the suggested substitutions.

