



EMPIRE VIDEO

MAJOR VIDEO

CHROMA VIDEO

Picture Tube Interchangeability Guide

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TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
9V		13VBHP22	13VBFP22	15QP22	15NP22	16VAWP22	16VBMP22
9VACP22	9VACP22	13VBJP22	13VBJP22		14VADP22	16VAXP22	16VAXP22
9VBAP22	9VBAP22	13VBLP22	13VBLP22	15RP22	15NP22	16VBDP22	16VBMP22
10V-11"		13VBMP22	13VBMP22		15LP22	16VBEP22	16VBEP22
10VABP22	10VADP22	13VBRP22	13VBRP22	15SP22	15SP22	16VBFP22	16VBFP22
10VADP22	10VADP22	13VBSP22	13VBJP22		15AGP22	16VBGP22	16VBGP22
10VAHP22	10VAHP22	13VBTP22	13VAHP22	15TP22	15NP22	16VBHP22	16VBFP22
11SP22	11WP22	13VBUP22	13VBUP22		14VADP22	16VBMP22	16VBMP22
11WP22		13VBWP22	13VBWP22	15V-16"		17EJP22	17ENP22
12"		13VBMP22	13VBMP22	15VADTC01	15VAETC01	17ENP22	17ENP22
12DCP22	12DCP22	13VCAP22	13VCAP22	15VADTC02	15VAETC02	17ETP22	17FAP22
12V-13"		13VCBP22	13VCAP22	15VAETC01	15VAETC01		16VACP22
12VADP22	12VADP22	14V-15"		15VAETC02	15VAETC02	17EVP22	17EVP22
12VAHP22	12VAHP22	14VABP22	14VABP22	15VAKTC02	15VAETC02		16VAFP22
12VAJP22	12VADP22	14VACP22	14VADP22	15VAFP22	15VAFP22	17EXP22	17EXP22
12VALP22	12VAHP22	14VADP22	14VADP22	15VAGP22	15VAGP22		16VBMP22
12VARP22	12VARP22	14VAEP22	14VAGP22	15VAHP22	15VAHP22	17EJP22	17FAP22
12VASP22	12VAHP22	14VAFP22	14VABP22	15VALP22	15VAFP22		16VACP22
12VATP22	12VAHP22	14VAGP22	14VAGP22	15VARP22	15VARP22	17FAP22	17FAP22
13GP22	13GP22	14VAGP22	14VAGP22	15VASP22	15VAGP22		16VACP22
	12VADP22	14VAHP22	14VADP22	15VATP22	15VATP22	17FBP22	17FBP22
13JP22	13JP22	14VAJP22	14VAJP22	15VAWP22	15VAWP22		16VACP22
	12VAHP22	14VAKP22	14VAKP22	15VAYP22	15VAYP22	17FEP22	17FAP22
13LP22	13GP22	14VALP22	14VAGP22	15VAZP22	15VARP22		16VACP22
	12VADP22	14VAMP22	14VAGP22	16CSP22	16DAP22	17FGP22	17FAP22
13MP22	13GP22	14VANP22	14VANP22		400CUB22		16VACP22
	12VADP22	14VAQP22	14VAQP22	16CYP22	16CYP22	17FHP22	17FHP22
13V		15ABP22	15ABP22		400CVB22	17FJP22	17EXP22
13VAEP22	13VAEP22	15ACP22	15ACP22	16DAP22	16DAP22		16VBMP22
		15AEP22	15AGP22		400CUB22	17FKP22	17FAP22
13VAFP22	13VAHP22		14VAGP22	16V-17"			16VACP22
13VAGP22	13VAHP22	15AFP22	15AGP22	16VABP22	16VACP22	17V	
13VAHP22	13VAHP22		14VAGP22	16VACP22	16VACP22	17VABP22	17VABP22
13VAKTC02	13VAKTC02	15AGP22	15AGP22	16VADP22	16VADP22	17VACP22	17VADP22
13VAMP22	13VAMP22		14VAGP22	16VAEP22	16VAEP22	17VADP22	17VADP22
13VATP22	13VBFP22	15AHP22	14VAGP22	16VAFP22	16VAFP22	17VAEP22	17VAEP22
13VAUP22	13VAUP22	15AJP22	15NP22	16VAHP22	16VACP22	17VAFP22	17VAFP22
			14VADP22	16VAKP22	16VAKP22	17VAGP22	17VAEP22
13VAYP22	13VAYP22	15KP22	15NP22	16VAMP22	16VAKP22	17VAHP22	17VAHP22
13VAWP22	13VAWP22			16VANP22	16VBGP22	17VAKP22	17VAKP22
13VBAP22	13VBMP22	15LP22	15NP22	16VASP22	16VASP22	17VANTC01	17VAITC01
13VBEP22	13VBFP22		15LP22	16VATP22	16VATP22		17VAITC02
13VBFP22	13VBFP22	15MP22	15MP22	16VAUP22	16VAUP22	17VAQP22	17VBAP22
13VBGP22	13VAHP22						

MAY 1, 1990

This CRT Replacement Guide is to be used for information purposes only. Because a tube is listed in the chart does not necessarily imply that it is in stock or carried in our line. For types listed as replacements in this guide, BUT NOT LISTED on our Price Sheet, please check with the factory for availability.

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
17VARP22	17VARP22 17VAUP22	18VBDP22	18VBDP22		19EXP22	19VAKP22	19VATP22
		18VBEP22	18VBEP22	19JBP22	19EYP22 18VAHP22	19VAMP22	19VBRP22 19VEKP22
17VASP22	17VASP22	18VBFP22	18VAKP22				
17VATTC02	17VAZTC02	18VBGP22	18VBDP22 18VBGP22	19JCP22	18VBJP22	19VANP22	19VBQP22
17VAUP22	17VAUP22	18VBHP22	18VASP22		19EXP22 19EYP22 18VAHP22	19VAQP22	19VCBP22
17VAWP22	17VASP22	18VBJP22	18VBJP22	19JDP22	19EYP22 18VAHP22	19VATP22	19VATP22 19VBRP22 19VEKP22
17VAXP22	17VBAP22	18VBKP22	18VASP22	19JEP22	19JEP22	19VAUP22	
17VAYTC01	17VAYTC01	18VBMP22	18VBMP22	19JFP22	19JFP22	19VAWP22	19VATP22
17VAYTC02	17VAYTC02	18VBTP22	18VASP22			19VAXP22	19VBRP22 19VEKP22
17VAZTC02	17VAZTC02	18VBUP22	18VAZP22	19JGP22	19HNP22 18VAZP22	19VAYP22	19VECP22
17VBAP22	17VBAP22	18VBWP22	18VAKP22		19EYP22 19HCP22 18VAHP22 18VASP22	19VAZP22	19VAZP22
17VBCP22	17VBAP22	19EXP22	19EXP22 19EYP22 18VAHP22	19JHP22	19HCP22 18VAHP22 18VASP22	19VBAP22	19VBAP22
17VBDP22	17VBDP22			19JKP22	18VAHP22 18VASP22	19VBCP22	19VECP22
17VBGP22	17VBAP22			19JLP22	19JLP22	19VBDP22	19VATP22 19VBRP22 19VEKP22
17VBHP22	17VBAP22			19JNP22	19HCP22 18VASP22	19VBFP22	
17VBLP22	17VBLP22	19EYP22	19EYP22 19HCP22 18VAHP22 18VASP22			19VBGP22	19VBAP22
17VBMP22	17VBMP22			19JQP22	19EXP22 19EYP22 18VAHP22	19VBHP22	19VAZP22
17VBNP22	17VBNP22	19FMP22	19EYP22				
17VBQP22	17VBAP22	19FXP22	19HCP22	19JSP22	18VBDP22 18VBGP22	19VBJP22	19VATP22 19VBRP22 19VEKP22
17VBRP22	17VBAP22	19GLP22	18VAHP22				
17VBSP22	17VBAP22	19GSP22	18VASP22	19JWP22	19JWP22 19HNP22 18VAZP22	19VBKP22	19VBKP22
17VBTP22	17VBTP22	19GVP22	19EXP22 19EYP22 18VAHP22			19VBLP22	19VBLP22
17VBUP22	17VBAP22			19JXP22	18VANP22	19VBQP22	19VBQP22
17VBWP22	17VBAP22	19GWP22	19EYP22 19HCP22 18VAHP22 18VASP22			19VBRP22	19VBRP22
17VBXP22	17VBAP22			19JYP22	19EYP22 19HCP22 18VAHP22 18VASP22	19VBSP22	19VCBP22 19VEGP22
17VBYP22	17VBMP22	19GXP22	19EXP22			19VBUP22	19VBUP22
17VBZP22	17VBMP22	19GYP22	19EYP22 18VAHP22	19JZP22	19HCP22 18VASP22	19VBWP22	19VBRP22 19VEKP22
				19KAP22	19HMP22 18VBMP22	19VCAP22	19VCAP22
				19KBP22	18VBGP22 18VBDP22	19VCBP22	19VCBP22 19VEGP22
18V-19"				19KCP22	18VBDP22 18VBGP22	19VCFP22	19VBRP22
18VABP22	18VASP22	19GZP22	19EYP22 19HCP22 18VAHP22 18VASP22			19VCNP22	19VEKP22
18VACP22	18VASP22 18VAHP22	19HBP22	18VASP22	19KDP22	19HTP22 18VBJP22	19VCQP22	19VDZP22
18VADP22	18VASP22					19VCRP22	19VBRP22 19VEKP22
18VAEP22	18VBMP22	19HCP22	19HCP22 18VASP22	19KEP22	19EYP22 19HCP22 18VAHP22 18VASP22	19VCSP22	19VCSP22 19VEWP22
18VAFP22	18VBJP22	19HFP22	19HFP22 19HCP22 18VAHP22 18VASP22			19VCTP22	19VBRP22 19VEKP22
18VAGP22	18VBDP22			19KFP22	19HCP22 18VASP22	19VCWP22	19VCWP22
18VAHP22	18VASP22 18VAHP22	19HJP22	19HCP22			19VCXP22	19VBRP22 19VEKP22
18VAJP22	18VASP22	19HKP22	18VASP22	19KGP22	19HMP22 18VBMP22	19VDCP22	19VFBP22
18VAKP22	18VAKP22	19HLP22	19HMP22 18VBMP22			19VDBP22	19VDBP22
18VALP22	18VBDP22 18VBGP22	19HMP22	19HMP22 18VBMP22	19KHP22	19HMP22 18VBMP22	19VDCP22	19VFBP22
18VAMP22	18VBDP22 18VBGP22	19HNP22	19HNP22 18VAZP22			19VDFP22	19VBRP22 19VEKP22
18VANP22	18VANP22			19KJP22	19HTP22 18VBJP22	19VDKTC02	19VEJTC02
18VAQP22	18VASP22	19HQP22	19EXP22 19EYP22 18VAHP22			19VDLTC02	
18VARP22	18VASP22 18VAHP22			19KLP22	19HMP22 18VBMP22	19VDMP22	19VCBP22
18VASP22	18VASP22	19HRP22	19EYP22 19HCP22 18VAHP22 18VASP22			19VDNP22	19VEGP22
18VATP22	18VASP22					19VDQP22	19VBRP22 19VEKP22
18VAZP22	18VAZP22	19HTP22	19HTP22 18VBJP22			19VDRP22	19VDRP22
18VBAP22	18VASP22	19HXP22	19HCP22 18VASP22	19VABP22	RE21FJP22		
18VBCP22	18VASP22 18VAHP22			19VACP22			
		19HYP22	18VBDP22	19VAFP22	19VAFP22		
		19JAP22		19VAGP22			

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
19VDS2P22	19VDS2P22	19VHFC02	19VEJTC02	19VLJP22	19VJMP22	20VAJP22	
	19VATP22	19VHJP22	19VEKP22	19VLKP22	19VLKP22	20VAKP22	20VABP22
19VDTP22	19VBRP22	19VHKP22	19VHKP22	19VLM2P22	19VKXP22	20VALP22	
	19VEKP22	19VHNP22	19VFBP22	19VLMP22	19VJDP22	20VAMP22	20VABP22
19VDUP22	19VBRP22	19VHSP22	19VJNP22	19VLNP22	19VLNP22	20VANP22	20VAGP22
	19VEKP22	19VHTP22	19VHTP22	19VLQP22	19VMFP22	20VARP22	
19VDWP22	19VATP22	19VHWP22	19VLBP22	19VLRP22	19VLRP22	20VASP22	20VABP22
19VDXP22	19VBRP22	19VHXP22	19VFBP22	19VLS2P22	19VLS2P22	20VAUP22	
	19VEKP22	19VHYP22	19VHYP22	19VLT2P22	19VMFP22		21"
19VDYP22	19VBRP22	19VHZP22	19VJCP22	19VLUP22	19VLUP22	21AXP22	21FBP22
	19VEKP22	19VJBP22	19VJCP22	19VLWP22	19VJTP22	21CYP22	21FBP22
19VDZP22	19VDZP22	19VJCP22	19VJCP22	19VLXP22	19VJTP22	21FBP22	21FBP22
19VEBP22	19VATP22	19VJCP22	19VJCP22	19VLYP22	19VLS2P22	21FJP22	21FJP22
19VECP22	19VECP22	19VJDP22	19VJDP22	19VLZP22	19VMFP22	21FKP22	21FJP22
19VEDP22	19VEKP22	19VJFP22	19VJTP22	19VMAP22	19VJTP22	21FNP22	22JP22
19VEFP22	19VCSP22	19VJKP22	19VJMP22	19VMBP22	19VJTP22	21FQP22	22UP22
	19VEWP22	19VJLP22	19VJLP22	19VMCP22	19VMFP22	21GFP22	21GFP22
19VEGP22	19VEGP22	19VJMP22	19VJMP22	19VMDP22	19VMDP22	21GLP22	22JP22
19VEHP22	19VEKP22	19VJNP22	19VJNP22	19VMEP22	19VMEP22	21GNP22	22UP22
19VEJTC01	19VEJTC01	19VJQP22	19VJQP22	19VMFP22	19VMFP22	21GRP22	
19VEJTC02	19VEJTC02	19VJRP22	19VGZP22	19VMFP22	19VMFP22	21GUP22	21FBP22
19VEJTC05	19VEJTC05	19VJRP22	19VJRP22	19VMGP22	19VMGP22	21GVP22	21FJP22
19VEKP22	19VEKP22	19VJSP22	19VJSP22	19VMHP22	19VLP22	21GWP22	22JP22
19VELP22		19VJTP22	19VJTP22	19VMJP22	19VLP22	21GYP22	21FJP22
19VEQP22	19VEQP22	19VJUP22	19VJMP22	19VMKP22	19VMFP22	21GZP22	
19VESP22	19VEKP22	19VJWP22	19VJWP22	19VMLP22	19VMFP22	21HAP22	
19VETP22		19VJXP22	19VJXP22	19VMNP22	19VLP22	21HBP22	22JP22
19VEUP22	19VBRP22	19VJYP22	19VJXP22	19VMRP22	19VMFP22		21V
	19VEKP22	19VKDP22	19VJMP22	19VMSP22	19VMFP22	21VABP22	21VACP22
19VEWP22	19VEWP22	19VKEP22	19VKEP22	19VMTP22	19VLBP22	21VACP22	21VACP22
19VEXP22	19VEWP22	19VKFP22	19VKFP22	19VMWP22	19VMWP22	21VADP22	21VARP22
19VEZP22	19VEKP22	19VKGP22	19VLNP22	19VMYP22	19VMFP22	21VAFP22	21VACP22
19VFAP22	19VFAP22	19VKHP22	19VFBP22	19VMZP22	19VMZP22	21VAJP22	21VACP22
	19VEKP22	19VKJP22	19VFBP22	19VNAP22	19VLP22	21VAKP22	21VACP22
19VFBP22	19VFBP22	19VKLP22	19VFBP22	19VNB2P22	19VMFP22	21VALP22	21VALP22
19VFJP22		19VKMP22	19VMFP22	19VNC2P22	19VMFP22	21VAMP22	21VACP22
19VFHP22	19VHTP22	19VKNP22	19VKNP22	19VNDP22	19VMFP22	21VAQP22	21VACP22
19VFKP22	19VBRP22	(m)19VEGP22		19VNEP22	19VMFP22	21VARP22	21VARP22
	19VEKP22	19VKRP22	19VKRP22	19VNF2P22	19VNF2P22	21VAUP22	21VACP22
19VFLP22	19VFLP22	19VKSP22	19VJTP22	19VNGP22	19VMFP22	21VAWP22	21VACP22
19VFMP22	19VFMP22	19VKTP22	19VKRP22	19VNHP22	19VNHP22	21VAXP22	21VAXP22
19VFQP22	19VEGP22	19VKUP22	19VJTP22	19VNJP22	19VMFP22	21VAYP22	21VACP22
19Vfsp22	19VEKP22	19VKWP22	19VKWP22			21VAZP22	21VACP22
19VFXP22	19VFBP22	19VKXP22	19VKXP22		20V	21VBAP22	21VARP22
19VGKTC02	19VEJTC02	19VJDP22	19VJDP22	20VABP22	20VABP22	21VBCP22	21VBCP22
19VGLP22	19VFBP22	19VKYP22	19VKYP22	20VACP22	20VACP22	21VBDP22	21VBDP22
19VGNP22	19VFBP22	19VLAP22	19VEKP22	20VADP22	20VABP22	21VBEP22	
19VGQTC01	19VGQTC01	19VLBP22	19VLBP22	20VAEP22	20VABP22	21VBFP22	21VBHP22
19VGRP22	19VFBP22	19VLC2P22	19VLC2P22	20VAFP22	20VACP22	21VBGP22	
19VGTP22	19VFBP22	19VLDP22	19VJTP22	20VAGP22	20VABP22	21VBHP22	
19VGZP22	19VGZP22	19VLEP22	19VLEP22	20VAHP22	20VAHP22	21VBLP22	21VBLP22
19VHBP22	19VEKP22	19VLGP22	19VJTP22				21"
19VHCP22	19VHCP22	19VLHP22	19VLEP22			21VBM2P22	21VBLP22
19VHDP22	19VHDP22						
19VHFC01	19VEJTC01						

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
21"		23V-25"		23V-25"		23V-25"	
21VBNP22	21VBNP22	23VARP22	23VANP22 23VAQP22	25ABP22	25AJP22 25A/XP22 23VAQP22 23VANP22	25BRP22	25AJP22 25A/XP22 23VANP22 23VAQP22
21VBQP22	21VBQP22	23VASP22	23VALP22 23VANP22 23VAQP22 23VAYP22	25ACP22	25ACP22	25BSP22	25AJP22 23VAQP22
22"		23VATP22	23VAQP22 23VAYP22	25ADP22	25AJP22 23VAQP22	25BTP22	25AJP22 23VAQP22
22ABP22	22JP22	23VAUP22	23VAVP22	25AEP22	25A/XP22 23VANP22	25BVP22	25AJP22 25A/XP22 23VANP22 23VAQP22
22ACP22	22ACP22	23VAWP22	23VAQP22 23VAYP22	25AFP22	25A/XP22 23VANP22 23VAQP22	25BWP22	25AJP22 23VAQP22
22ADP22	22UP22		23VALP22 23VANP22 23VAQP22 23VAYP22	25AGP22	25AJP22 23VAQP22	25BXP22	25AJP22 25A/XP22 23VANP22 23VAQP22
22AEP22	22AEP22	23VAXP22	23VAYP22 23VAQP22	25AHP22	25AHP22 23VBXP22	25BYP22	25BYP22
22AGP22	22UP22		23VBP22	25AJP22	25AJP22 23VAQP22	25BZP22	25AJP22 25A/XP22 23VANP22 23VAQP22
22AHP22	22UP22	23VAYP22	23VALP22 23VANP22	25AKP22	25AMP22	25CP22	23VANP22 23VAQP22
22ALP22		23VAZP22	23VAYP22 23VAQP22	25ALP22	25ALP22	25CAP22	25CAP22
22AMP22	22JP22 22UP22	23VBAP22	23VBP22	25AMP22	25AMP22	25CBP22	25AJP22 25A/XP22 23VANP22 23VAQP22
22ANP22	20VAHP22	23VBCP22	23VAQP22 23VAYP22	25ANP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25EGP22	25EGP22
22ARP22	22JP22 22UP22	23VBDP22	23VANP22 23VAQP22 23VAYP22	25ASP22	25AJP22 23VAQP22 23VAYP22	25FP22	25AJP22
22ASP22	22UP22	23VBEP22	23VBP22	25ATP22	25ATP22	25GP22	25A/XP22
22ATP22	22ATP22	23VBF22	23VAQP22 23VAYP22	25AVP22	25AVP22	25RP22	23VANP22
22AVP22	22VABP22	23VBGP22	23VBP22	25AWP22	25AJP22 23VAQP22 23VAYP22	25SP22	23VAQP22
22AWP22	20VACP22	23VBHP22	23VANP22 23VAQP22 23VAYP22	25AXP22	25AJP22 23VAQP22 23VAYP22	25UP22	25UP22
22EP22	22JP22	23VBJP22	23VBP22	25AYP22	25AMP22	25VP22	25VP22
22JP22	22JP22 22UP22	23VBKP22	23VBP22	25AZP22	25AJP22 23VAQP22	25WP22	25AJP22
22KP22	22JP22	23VBMP22	23VBP22	25BP22	25A/XP22 23VANP22	25XP22	25A/XP22
22LP22	22JP22 22UP22	23VBNP22	23VAQP22 23VAYP22	25BAP22	25BAP22 23VALP22 23VCGP22 23VAYP22	25YP22	23VANP22
22RP22	22JP22	23VBRP22	23VANP22 23VAQP22 23VALP22	25BCP22	23VCGP22 23VAYP22	25ZP22	23VAQP22
22SP22	22JP22 22UP22	23VBUP22	23VANP22 23VAQP22 23VALP22	25BDP22	23VAQP22 23VAYP22 2VCGP22	25V-26"	
22UP22	22UP22	23VBWP22	23VANP22 23VAQP22	25BFP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25VABP22	25VABP22 25-UNIV.
22VP22	22VP22	23VBXP22	23VBP22	25BJP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25VACP22	25-UNIV.
22WP22	22WP22	23VBYP22	23VBP22	25BKP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25VADP22	25VABP22 25-UNIV.
22XP22	22UP22	23VCEP22	23VBP22	25BMP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25VAEP22	25VABP22 25-UNIV.
22YP22	22JP22 22UP22	23VCFP22	23VBP22	25BNP22	25AJP22 25A/XP22 23VANP22 23VAQP22	25VAFP22	25-UNIV.
23"		23VCGP22	23VBP22			25VAGP22	25VBEP22
23EGP22	23EGP22	23VCHP22	23VBP22			25VAJP22	25VABP22
23V-25"		23VCHP22	23VBP22			25VAKP22	25VABP22
23VABP22	23VANP22 23VAQP22 23VALP22	23VCJP22	23VBP22			25VALP22	25-UNIV.
23VACP22	23VAQP22	23VCKP22	23VBP22			25VAMP22	
23VADP22	23VAQP22	23VCM22	23VBP22			25VAQP22	25-UNIV.
23VAEP22	23VAEP22	23VCP22	23VBP22			25VARP22	25-UNIV.
23VAHP22	23VANP22 23VAQP22 23VALP22	23VCRP22	23VBP22			25VASP22	25VABP22
23VAJP22	23VAJP22	25AP22	25AJP22 25A/XP22 23VAQP22 23VANP22			25VATP22	25V-UNIV.
23VALP22	23VALP22 23VANP22 23VAQP22					25VAUP22	
23VAMP22	23VAQP22 23VAYP22					25VAWP22	25V-UNIV.
23VANP22	23VANP22 23VAQP22					25VAXP22	25VAXP22
23VAQP22	23VAQP22 23VANP22					25VAYP22	25VAYP22
						25VAZP22	25V-UNIV.

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
25V-26"		25V-26"		25V-26"		FOREIGN TYPES	
25VBAP22	25VABP22 25V-UNIV.	25VDNP22	25VCZP22	25VGLP22	25VGLP22 25VFP22	270JB22	270JB22
		25VDRP22	25VDRP22			270KB22	270KB22
25VBCP22	25VAXP22	25VDSP22	25VCZP22	25VGMP22	25VGMP22 25VGEP22	270KCB22	270KCB22
25VBDP22		25VDWP22	25VDWP22	25VGNP22	25VGNP22	270LB22	270KB22
25VBEP22	25VBEP22	25VDXP22	25VCK /DXP22 25VCZP22	25VGQP22	25VHAP22	270MB22	270MB22
25VBGP22	25V-UNIV.	25VEBP22	25VCZP22	25VGRP22	25VGRP22	270NB22	270NB22
25VBHP22	25VABP22 25V-UNIV.	25VECP22	25VXP22	25VGSP22	25VHGP22	270RB22	270RB22
25VBJP22	25VAXP22	25VEDP22	25VCZP22	25VGTP22	25VGTP22	270SB22	270SB22
25VBKP22	25VBEP22	25VEFP22	25VDRP22	25VGUP22	25VGUP22	270TB22	270TB22
25VBLP22	25VABP22 25V-UNIV.	25VEGP22		25VGWP22	25VGWP22	270UB22	270UB22
25VBMP22	25VABP22 25V-UNIV.	25VEHP22	25VCZP22	25VGXP22	25VGXP22	270VB22	270VB22
		25VEJP22		25VGY22	25VGY22		
		25VEKP22	25VEKP22	25VGZP22	25VGZP22	310FGB22	310FGB22
25VBNP22		25VEMP22	25VEMP22	25VHAP22	25VHAP22	320ADB22	320ADB22
25VBQP22	25V-UNIV.	25VENP22	25VCZP22	25VHBP22	25VHBP22	320AEB22	13JP22
25VBRP22		25VEQP22	25VEQP22	25VHCP22	25VGZP22	320AGB22	320AGB22
25VBSP22	25VBEP22	25VERP22	25VDWP22	25VHDP22	25VHDP22	320AHB22	320AHB22
25VBTP22		25VES22	25VEMP22	25VHEP22	25VHEP22 25VHGP22	320AKB22	320AKB22
25VBUP22	25V-UNIV.	25VETP22	25VETP22	25VHFP22	25VHFP22	320ARB22	320ARB22
25VBWP22		25VEUP22	25VEUP22	25VHJP22	25VHJP22 25VHAP22	320AWB22	320BUB22Q
25VBXP22	25VABP22 25V-UNIV.	25VEWP22	25VEWP22	25VHMP22	25VHMP22 25VHAP22	320AYB22	320AYB22
25VBYP22	25VBEP22	25VEXP22	25VCZP22	25VHNP22	25VHNP22	320BJB22	320BJB22
25VBZP22		25VEYP22	25VEYP22	25VHQ22	25VHJP22 25VHAP22	320KB22	320KB22
25VCAP22	25V-UNIV.	25VEZP22	25VEZP22	25VHRP22	25VHRP22 25VGNP22	320LB22	13JP22
25VCBP22		25VFAP22	25VDMP22	25VHSP22	25VHSP22	320NB22	320NB22
25VCDP22	25VBEP22	25VFBP22	25VFBP22	25VHTP22	25VGEP22	320RB22	13GP22
25VCEP22		25VFCP22	25VETP22	25VHUP22	25VHUP22	320WB22	320WB22
25VCFP22	25V-UNIV.	25VFEP22	25VFEP22	26AP22	25VAQP22 25VABP22	330GB22	330GB22
25VCGP22		25VFGP22	25VCZP22	26DP22	25VAQP22		
25VCHP22		25VFHP22	25VFHP22 25VFBP22	26EP22	25VBEP22	370AB22	15NP22 15LP22
25VCJP22	25VBEP22	25VFJP22	25VFJP22				
25VCKP22	25VCK /DXP22 25VCZP22	25VFKP22	25VEWP22	26FP22	25VAQP22 25VABP22 25VAEP22	370ACB22	370ACB22
25VCLP22	25VAXP22	25VFLP22	25VEZP22			370AFB22	15SP22
25VCNP22	25VCZP22	25VFP22	25VFMP22	26GP22	25VAQP22	370AGB22	
25VCSP22	25VAXP22	25VFRP22	25VFMP22	26HP22	25VBEP22	370ARB22	370ARB22
25VCTP22	25VXP22	25VFSP22	25VFSP22	26KP22	25VAQP22 25VABP22	370AUB22	370AUB22
25VCUP22	25VCZP22	25VFTP22	25VFTP22			370AWB22	15NP22
25VCWP22	25V-UNIV.	25VFXP22	25VFTP22			370BKB22	370BKB22
25VCXP22	25VXP22	25VFYP22	25VFMP22			370BYB22-TC01	370BYB22-TC01
25VCYP22	25V-UNIV.	25VZP22	25VFZP22			370CAB22	370CAB22
25VCZP22	25VCZP22	25VGAP22	25VGDP22			370CB22	15LP22
25VDAP22	25VCK /DXP22 25VCZP22	25VGBP22	25VEZP22			370CFB22	370CFB22
25VDBP22		25VGDP22	25VGDP22			370CGB22	370CGB22
25VDCP22	25VCZP22	25VGEP22	25VGEP22			370CHB22	370CUB22
25VDEP22	25VCK /DXP22 25VCZP22	25VGHP22	25VGEP22				
25VDFP22	25VBEP22	25VGJP22	25VGJP22				
25VDGP22	25VAXP22	25VGKP22	25VGKP22 25VFTP22				
25VDHP22	25VAXP22						
25VDJP22	25VABP22 25V-UNIV.						
25VDKP22	25VCK /DXP22 25VCZP22						
25VDMP22	25VDMP22						

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
FOREIGN TYPES		FOREIGN TYPES		FOREIGN TYPES		FOREIGN TYPES	
370CNB22	(m)370CNB22	370LMB22	370LMB22	420AVB22	420BAB22	430DB22	430DB22
370CRB22-TC03	370EHB22-TC01	370LUB22	370MVB22 370KUB22	420AWB22	420AWB22	440AJB22	440AJB22
370CSB22-TC01	370CSB22-TC01	370MEB22	370MEB22	420AYB22	420AYB22	440AKB22	440AKB22
370CUB22	370CUB22	370MLB22	370MLB22	420AZB22	420AZB22	440ALB22	440ALB22
370DEB22	370DEB22	(m) 370MVB22	370MVB22	420BAB22	420BAB22	440ASB22	440ASB22
370DFB22	370FMB22	370NB22	13VAEP22	420BCB22	420BCB22	440AXB22	440AXB22
370DHB22	370DHB22	370NVB22	370NVB22	420BFB22	420BFB22	440AZB22	440AZB22
370DJB22	370DJB22	370NWB22	370NWB22	420BGB22	420BGB22	440BCB22	440BCB22
370DKB22	370DKB22	370RJB22	370RJB22	420BHB22	420BHB22	440BDB22	440BDB22
370DRB22-TC01	370EHB22-TC01	370RKB22	370RKB22	420BJB22	420BJB22	440BEB22	440BEB22 16VAUP22
(m) 370DYB22	(m)370DYB22	370WVB22	370AUB22	420BKB22	420BKB22	440BFB22	440BFB22
370DZB22	370FNB22	J370VBK1VST	J370VBK1VST	420BLB22	420BLB22	440BHB22	440BHB22
370EB22	14VAGP22	AT1419 L	AT1419 L	420BMB22	420BMB22	440BKB22	17FAP22
370ECB22	370ECB22	AT1429RA	AT1429RA	420BNB22	420BNB22	440BNB22	440BNB22
370EGB22	370EGB22	AT1429ZC	AT1429ZC	420BRB22	420BRB22	440CLB22	440CLB22
370EHB22 TC01	370EHB22 TC01	37GDA85X	37GDA85X	420BSB22	420BSB22	470BFB22	470BFB22
370EKB22	370EKB22	37GDA86X	37GDA86X	420BTB22	420BTB22	470BGB22	470BGB22
370ESB22	370ESB22	37JGG68	37JGG68	420BUB22	420BUB22	470BHB22	470BHB22
370ETB22	370ETB22	3701	370FCB22	420BVB22	420BVB22	470BIB22	470BIB22
370FCB22	370FCB22	3702	3702	420BZB22	420BAB22	470BJB22	470BJB22
370FJB22	370FJB22	3707	3707	420CB22	420CB22	470BKB22	470BKB22
370FLB22	370FLB22Q	3708	370HRB22	420CDB22	420CDB22	470BLB22	470BLB22
370FMB22	370FMB22	3708	370HRB22	420CEB22	420CEB22	470BMB22	470BMB22
370FNB22	370FNB22	3710	370FCB22	420CFB22	420CFB22	470BNB22	470BNB22
370FTB22	370FTB22	3720	370FXB22	420CHB22	420CHB22	470BRB22	470BRB22
370FXB22	370FXB22	400BDB22	400BDB22	420CUB22	420CUB22	470BTB22	470BTB22
370GKB22	370GKB22	400BNB22	400BNB22	420CYB22	420CYB22	470BUB22	470BUB22
370HAB22	370HAB22	400BRB22	400BRB22	420CZB22	420CZB22	470BVB22	470BVB22
370HEB22	370HRB22	400CLB22	400CLB22	420DB22	420DB22	470BWB22	470BWB22
370HRB22	370HRB22	400CUB22	400CUB22	420DCB22	420AZB22	470BXB22	470BXB22
(m) 370HYB22	370HYB22	400CVB22	16CYP22	420DHB22	420DHB22	470BYB22	470BYB22
370IB22	13VBF22	400DFB22	400DFB22	420DMB22	420DMB22	470CAB22	470CAB22
370JDB22	13VBLP22	400DKB22	400DKB22	420EB22	420EB22	470CDB22	470CDB22
370JFB22	13VBF22	400DMB22	400DMB22	420ESB22	420ESB22	470CEB22	470CEB22
370JKB22	370FCB22	410AYB22	410AYB22	420ETB22	420ETB22	470CFB22	470CFB22
370JLB22	370JLB22	410BRB22	410BRB22	420FB22	420FB22	470CJB22	470CJB22
(m) 370JTB22	(m)370JTB22	420AB22	420AB22	420FTB22	420FTB22	470CKB22	470CKB22
370KAB22	370KAB22	420ACB22	420ACB22	420GB22	420GB22	470CLB22	470CLB22
370KLB22	370KUB22	420ADB22	420ADB22	420HB22	420HB22	470CNB22	470CNB22
370KNB22	370KNB22	420AFB22	420AFB22	420JB22	420JB22	470CTB22	470CTB22
370KSB22	370KSB22	420AGB22	420AGB22	420KB22	420KB22	470CVB22	470CVB22
(m) 370KTB22	(m)370KTB22	420AGB22	420AGB22	420LB22	420LB22	470CWB22	470CWB22
370KUB22	370KUB22	420AHB22	420AHB22	420MB22	420MB22	470CYB22	470CYB22
370KZB22	370KZB22	420AKB22	420AKB22	420NB22	420NB22	470CZB22	470CZB22
370LGB22	370LGB22	420ALB22	420ALB22	420RB22	420RB22	470DEB22	470DEB22
370LHB22	370LHB22	420AMB22	420AMB22	420SB22	420SB22	470DFB22	470DFB22
370LJB22	370LJB22	420ASB22	420ASB22	420UB22	420UB22	470DHB22	470DHB22
		420ATB22	420ATB22	420WB22	420WB22	470DKB22	470DKB22
		420AUB22	420AZB22	420XB22	420XB22	470DMB22	470DMB22
				420YB22	420YB22		

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
FOREIGN TYPES		FOREIGN TYPES		FOREIGN TYPES		FOREIGN TYPES	
470DTB22	470DTB22		18VAHP22	490DHB22	18VBDP22	510GB22	19VBRP22
470DUB22	470DUB22	490AHB22	18VASP22	490DJB22	18VBEP22	510BHB22	19VBRP22
470DXB22	470DXB22		19EXP22	490DKB22	18VBEP22	510JB22	510DZB22
470ECB22	470ECB22		18VAHP22	490EB22		510BLB22	510BLB22
470EHB22	470EHB22	490AJB22	18VASP22	490FB22		510BHB22	19VATP22
470EJB22	470EJB22		19HCP22	490GB22	18VAHP22	510BNB22	19VBRP22
470EMB22	470EMB22		19EYP22	490HB22	18VASP22	510BRB22	19VBRP22
470EVB22	470EVB22	490AKB22	18VAHP22	490JB22	19EXP22	510BSB22	19VBRP22
470EXB22	470EXB22	490ALB22	18VASP22	490KB22		510BTB22	19VBRP22
470EYB22	470EYB22	490AMB22	19EXP22	490LB22		510BUB22	19VBRP22
470EZB22	470EZB22	490ANB22		490MB22		510BVB22	19VBRP22
470FCB22	470FCB22		18VAHP22	490NB22	18VAHP22	510BWB22	510DZB22
470FGB22	470GMB22	490ARB22	18VASP22	490RB22	18VASP22	510BXB22	510DZB22
470FJB22	470FJB22	490ASB22	19HCP22	490SB22	19HCP22	510BYB22	510DZB22
470FRB22	470FRB22		19EYP22	490TB22	19EYP22	510ZB22	510DZB22
470FTB22	470FTB22	490AXB22	18VAKP22	490UB22	18VAHP22	510CB22	19VBRP22
470FXB22	470FXB22		18VAHP22		18VASP22	510CAB22	510DZB22
470GEB22	470GEB22	490BAB22	19EXP22		19EXP22	510CEB22	510CDB22
470GEB22-TC05	470GEB22-TC05		18VAHP22	490VB22	18VAHP22	510CFB22	510CFB22
470GMB22	470GMB22	490BCB22	18VASP22		18VASP22	510CGB22	19VBRP22
470GNB22	470GNB22	490BDB22	19HCP22		19HCP22	510CHB22	510CHB22
470GVB22	470GVB22		19EYP22	490WB22	18VAHP22	510CJB22	510CJB22
470GZB22	470GZB22	490BGB22	18VAHP22		18VASP22	510CKB22	510CKB22
470HAB22-TC01	470GEB22-TC01		18VASP22	490XP22	18VAHP22	510CLB22	510CLB22
470HAB22	470GEB22	490BHB22	19EXP22	490YB22	18VASP22	510CMB22	19VCBP22
470HDB22	470HDB22		18VAHP22	490ZB22	19HCP22	510CNB22	19VBRP22
470HEB22	470HEB22	490BKB22	19HCP22		19EYP22	510CRB22	19VBRP22
470HFB22	470HFB22		19EYP22	510AB22	19VBRP22	510CSB22	19VBRP22
470HJB22	470HJB22	490BLB22	18VAKP22	510ABEB22	510ABEB22	510CTB22	510CZB22
470HRB22	470HRB22	490BLB22	490BLB22	510ABFB22	510ABFB22	510CUB22	19VBRP22
470HTB22	470HTB22	490BNB22	19HNP22	510ABMB22	19VMFP22	510CVB22	510DZB22
470HUB22	470HUB22		19JWP22	510ABYB22	19VMFP22	510CWB22	19VBRP22
470HWB22	470HWB22	490BRB22	18VAHP22	510ACB22	19VBRP22	510CXB22	19VBRP22
470HXB22	470HXB22		18VASP22	510ACFB22	510ACFB22	510CYB22	510CZB22
470JAB22	470GEB22		19EYP22	510ADB22	19VBRP22	510CZB22	510CZB22
470JWB22	470JWB22	490BSB22	19HNP22	510AEB22	510AEB22	510DB22	510DB22
470JZB22	470JZB22		19JWP22	510AFB22	19VBRP22	510DAB22	510DAB22
470KCB22	470KCB22	490BUB22	490BLB22	510AGB22	19VBRP22	510DCB22	510DZB22
470KDB22	470KDB22	490BVB22	19HNP22	510AHB22	510AHB22	510DEB22	510DEB22
470KRB22	470KRB22	490BXB22	19JWP22	510AJB22	19VBRP22	510DFB22	19VBQP22
470KUB22	470KUB22	490BYB22	490BLB22	510AKB22	510AKB22	510DJB22	510DJB22
470LXB22	470LXB22		18VAHP22	510ALB22	510CZB22	510DKB22	510DKB22
470RDB22	470RDB22	490CAB22	18VASP22	510AMB22	19VBRP22	510DLB22	510DLB22
			19HCP22	510ANB22	510DZB22	510DRB22	510AEB22
		490CB22	19EYP22	510ARB22	19VCBP22	510DSB22	510AEB22
			18VAHP22	510ASB22	19VBRP22	510DTB22	510DTB22
		490CDB22	18VASP22	510ATB22	19VBRP22	510DVB22	510DVB22
			19EXP22	510AUB22	510AUB22	510DXB22	510DXB22
		490CHB22	18VAHP22	510AVB22	510CZB22	510DZB22	510DZB22
			18VASP22	510AWB22	19VBRP22		
		490CJB22	19EXP22	510AXB22	19VBRP22		
			18VAHP22	510AYB22	19VBRP22		
		490CMB22	490BLB22	510AZB22	19VBRP22		
			18VAHP22	510BAB22	510DZB22		
		490CSB22	18VASP22	510BCB22	510DZB22		
		490CUB22	19HCP22	510BDB22	510DZB22		
		490DB22	19EYP22	510BEB22	510DZB22		
			18VAKP22	510BFB22	510DZB22		
		490DCB22	19HNP22				
			19JWP22				
		490DEB22	19VBRP22				

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
FOREIGN TYPES		FOREIGN TYPES		FOREIGN TYPES		WORLD WIDE TYPE DESIGNATIONS	
510EB22	510DZB22	510LEB22	19VJXP22	510UEB22	19VMFP22	12V	
510EFB22	510BLB22	510LGB22	510LGB22	510UFB22	19VJTP22	A29JBP00X	A29JBP00X
510ELB22	19VEDP22	510LNB22-TC01	510LNB22-TC01	510UJB22	19VJTP22	13V	
510ERB22	510ERB22	510LRB22-TC01	510LRB22-TC01	510UKB22	A48ABW20X/25X	A33AAB10X	A33AAB10X
510ETB22	19VEDP22	510LTB22	510LTB22	510UTB22	19VMFP22	A33AAB16X	A33AAB10X
510FB22	510DZB22	510LUB22	510LUB22	510UXB22	19VJXP22	A33AAB20X	A33AAB30X/35X
510FLB22	510GLB22	510LZB22	19VJCP22	510UZB22	19VLXP22	A33AAB30X	A33AAB30X/35X
510FVB22-TC01	510LNB22-TC01	510MB22	19VBRP22	510VB22	510DZB22	A33AAB35X	A33AAB30X/35X
510FWB22	510FWB22	510MAB22	510MAB22	510WB22	510DZB22	A33AAB36X	A33AAB36X
510FXB22	510FXB22	510MCB22	510MCB22	510WEB22	19VMFP22	A33AAF00X	A33AAF00X
510FYB22	19VJCP22 Y	510MDB22	510MDB22	510WNB22	19VMFP22	A33AAL01X	A33AAL01X
510FZB22	510FZB22	510MHB22	19VJCP22	510XB22	510DZB22	A33AAL02X	A33AAL02X
510HFB22-TC02	19VEJTC02	510MJB22	510MJB22	510XDB22	510XDB22	A33AAL03X	A33AAL03X
510HFB22-TC05	19VEJTC05	510MKB22	510MKB22	510XTB22	(m)510XTB22	A33AAS40X	A33AAS40X
510GB22	510GB22	510MRB22	19VJCP22	510YB22	510DZB22	A33AAS50X	A33AAS50X
510GCB22-TC01	510LNB22-TC01	510MVB22	510MVB22	510YTB22	19VLXP22	A33ABE60X	A33ABE60X
510GJB22	510GJB22	510MWB22	A48ABW20X/25X	510YWB22	A48ABK01X/05X	A33ABE61X	A33ABE62X
510GLB22	510GLB22	510NB22	19VBRP22	510ZB22	510AKB22	A33ABE62X	A33ABE62X
510GSB22	19VJCP22	510NEB22	19VJXP22	510ZDB22	510ZDB22	A33ABE67X	A33ABE67X
510HCB22	510HCB22	510NFB22-TC01	510LNB22-TC01	510ZEB22	510ZEB22	A33ABL20X	A33ABL20X
510HJB22	510HJB22	510NHB22	19VJXP22	5108B22	19VMFP22	A33ABL30X	A33ABL30X
510HKB22	510HKB22	510NJB22	A48ABW20X/25X	5110B22	A48ABW20X/25X	A33ABM26X	A33ABM26X
510HMB22-TC01	510LNB22-TC01	510NLB22	19VJXP22	5120B22	A48ABW20X/25X	A33ABM40X	A33ABM40X
510HNB22	510HNB22	510NVB22	(m)510NVB22	550AB22A	22JP22	A33ABW60X	A33ABW60X
510HRB22	19VJXP22 Y	510NYB22	510NYB22	670BDB22	670BDB22	A33ABW62X	A33ABW62X
510HSB22	510HSB22	510ORB22	19VBRP22	670BTB22	670BTB22	A33ACB00X	A33ACB00X
510HWB22	510HWB22	510RCB22	19VJXP22	670CTB22	670CTB22	A33ACB01X	A33AAB30X/35X
510HZB22	510HZB22	510RDB22	19VJXP22	670CUB22	670CUB22	A33ACB02X	A33ACB00X
510JB22	510CZB22	510REB22	510REB22	670DRB22	670DRB22	A33ACB21X	A33ACB30X/35X
510JGB22	510JGB22	510RJB22	510RJB22	670EAB22	670EAB22	A33ACB51X	A33ACB00X
510JHB22	510JHB22	510RKB22	510RKB22	670EKB22	670EKB22	A33ACD02X	A33ACD30x
510JUB22-TC03	510LRB22-TC01	510RSB22	A48ABW20X/25X	670ETB22	670ETB22	A33ACD25X	A33ACD25X
510JVB22	19VJXP22	510RUB22	19VJXP22	A37-570X	13VBFP22	A33ACD30X	A33ACD30X
510JYB22	19VJXP22	510RWB22	510RWB22	A49-12X	19HCP22	A33ACD42X	A33ACD25X
510JZB22-TC01	510LNB22-TC01	510SB22	19VBRP22	A49-14X	18VAHP22 18VASP22 19HCP22 19EYP22	A33ACF60X	A33ACF60X
510KB22	510DZB22	510SFB22	510SFB22	A51-572X	19VJXP22	A33ACS01X	A33ACS01X
510KDB22	510KDB22	510SGB22	510SGB22	A51-582X	19VLXP22	A33JKL00X	A33AAB10X
510KEB22	510KEB22	510SJB22	510SJB22	A51-592X	19VMFP22	A33JKL60X	A33AAB10X
510KHB22	510KHB22	510SKB22	19VLXP22	A55-13X	22UP22	A34EAE00X	A34EAE01X
510KLB22	510MVB22	510SLB22	19VLXP22	A56-120X	A56-120X	A34EAE01X	A34EAE01X
510KTB22	19VJXP22	510TB22	510DZB22	A63-11X	A63-16X	A34JAJ01X	A34JAN90X
510KWB22	19VJCP22	510TDB22	510KHB22	A63-17X	A63-18X	A34JAN00X	A34JAN00X
510LB22	510LB22	510TFB22	510TFB22	A63-19X	25UP22	A34JAN30X	A34JAN90X
510LAB22	510LAB22	510TLB22	19VJDP22	A67-100X	25VDMP22	A34JAN31X	A34JAN90X
510LCB22	19VJXP22	510TSB22	19VLXP22	A67-110X	A67-110X	A34JAN40X	A34JAN90X
510LDB22	19VJXP22	510UB22	510CZB22			A34JAN51X	A34JAN00X
						A34JAN80X	A34JAN90X
						A34JAN90X	A34JAN90X

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS	
13V		15V		19V		19V	
A34JAN92X	A34JAN92X	A38ABE61X	A38ABE61X	A48AAB60X	A48AAB30X/35X	A48ACB00X	A48AAB30X/35X
A34JAN99X	A34JAN99X	A38ABE62X	A38ABE62X	A48AAD10X	A48AAD10X	A48ACB01X	A48AAB21X/26X
A34JBB00X	A34JBB00X	A38ABE63X	A38ABE63X	A48AAG01X	A48AAN01X	A48ACB02X	A48AAB30X/35X
A34JBB02X	A34JBB02X	A38ABE67X	A38ABE67X	A48AAG02X	A48AAN01X	A48ACB12X	A48AAB21X/26X
A34JBB60X	A34JBB60X	A38ABL30X	A38ABL30X	A48AAJ00X	A48AAN01X	A48ACB32X	A48AAB30X/35X
A34JBH53X	A34JBH53X	A38ABW60X	A38ABW60X	A48AAJ10X	A48AAN01X	A48ACB52X	A48AAB30X/35X
A34JBH80X	A34JBH80X	A38ABW61X	A38ABW61X	A48AAJ33X	A48AAN01X	A48ACD30X	A48ACD30X
A34JBH99X	A34JBH99X	A38ABW62X	A38ABW62X	A48AAK03X	A48AAK03X	A48ACD35X	A48ACD35X
A34JCD00X	A34JCD90X	A38ACF60X	A38ACF60X	A48AAK04X	A48AAK04X	A48ACE26X	A48ACE26X
A34JCD01X	A34JCD91X	A38JAK70X	A38JAK70X	A48AAK05X	A48AAN01X	A48ACE40X	A48ACE26X
A34JCD05X	A34JCD05X	A38JDB36X	A38JDB36X	A48AAN01X	A48AAN01X	A48ADE00X	A48ABK01X/05X
A34JCD30X	A34JCD90X	A38JJB90X	A38JJB90X	A48AAN02X	A48AAN01X	A48ADE01X	A48ABK03X/04X
A34JCD31X	A34JCD91X	A38JRL00X	A38JRL00X	A48AAP02X	A48AAK04X	A48ADE22X	A48ABK03X/04X
A34JCD90X	A34JCD90X	A38JSM00X	A38JSM00X	A48AAR00X	A48AAK04X	A48EAB00X	A48EAB00X
A34JCD91X	A34JCD91X			A48AAR21X	A48AAK03X	A48EAB01X	A48EAB01X
A34JFQ40X		16V		A48AAR25X	A48AAN01X	A48JAF01X	A48JAF01X
A34JFQ41X	A34JFQ40X	A41JHR00X	A41JHR00X	A48AAR28X	A48AAN01X	A48JAF03X	A48AAN01X
A34JFQ42X				A48AAR29X	A48AAK03X	A48JAH05X	A48JAH05X
A34JFQ90X	A34JFQ90X	17V		A48AAR30X	A48AAN01X	A48JAK70X	A48JAK70X
A34JFY00X	A34JAN90X	A43AAZ00X	A43AAZ00X	A48AAR50X	A48AAN01X	A48JAN33X	A48ABK01X/05X
A34JFY50X	A34JAN90X	A43AAZ21X	A43AAZ21X	A48AAR60X	A48AAR60X	A48JAN34X	A48ABK01X/05X
A34JFY80X	A34JAN90X	A43AAZ25X	A43AAZ25X	A48AAX01X	A48AAX01X	A48JAN35X	A48ABK01X/05X
A34JFY83X	A34JAN90X	A43ACR24X	A43ACR24X	A48AAX02X	A48AAX02X	A48JAN40X	A48JAN40X
A34JFY90X	A34JAN90X	A43JAY00X	A43JAY00X	A48AAX26X	A48AAZ26X	A48JAN43X	A48ABK01X/05X
A34JLL00X	A34JAN90X	A43JAY02X	A43JAY02X	A48AAZ26X	A48AAZ26X	A48JAN44X	A48ABK01X/05X
A34JLL20X	A34JLL20X	A43JBE50X	A43JBE50X	A48AAZ40X	A48AAZ26X	A48JAN45X	A48ABK01X/05X
A34JLN60X	A34JAN90X	A43JBT01X	A43JBT01X	A48ABB00X	A48ABB00X	A48JAN46X	A48ABK01X/05X
A34JMW20X	A34JMW20X	A43JCT02X	A43JAY02X	A48ABE10X	A48ABE10X	A48JAN50X	A48ABK01X/05X
A34JRY00X	A34JRY00X	A43JDS00X	A43JDS00X	A48ABE60X	A48ABE60X	A48JAN83X	A48ABK01X/05X
A34JRY01X	A34JRY01X	A43JEH05X	A43JEH05X	A48ABE65X	A48ABE65X	A48JAN90X	A48ABK03X/04X
A34JRY04X	A34JRY04X	A43JFF00X	A43JFF00X	A48ABH20X	A48AAN01X	A48JAN92X	A48JAN92X
A34JRY21X	A34JRY21X	A43JGW01X	A43JGW01X	A48ABH26X	A48AAN01X	A48JAU00X	A48JAU00X
A34JRY24X	A34JRY24X	A43JLP06X	A43JLP06X	A48ABK00X	A48ABK03X/04X	A48JAZ70X	A48JAZ70X
A34JTJ00X	A34JTJ00X			A48ABK01X	A48ABK01X/05X	A48JAZ90X	A48JAZ90X
		18V		A48ABK02X	A48ABK01X/05X	A48JBH00X	A48ABK03X/04X
		A46JHR00X	A46JHR00X	A48ABK03X	A48ABK03X/04X	A48JBH40X	A48ABK03X/04X
		A46JHR30X	A46JHR30X	A48ABK04X	A48ABK03X/04X	A48JBK00X	A48JBK00X
		A46JL00X	A46JL00X	A48ABK05X	A48ABK01X/05X	A48JBM05X	A48JBM05X
14V				A48ABK06X	A48ABK03X/04X	A48JBS01X	A48JBS01X
A36ACG10X	A36ACG10X	19V		A48ABK07X	A48ABK03X/04X	A48JBV00X	A48JBV00X
A36JAR01X	A36JAR50X	A48AAB00X	A48AAB00X	A48ABS51X	A48ABS51X	A48JCL00X	A48JCL00X
A36JAR10X	A36JAR50X	A48AAB10X	A48AAB10X/11X	A48ABS52X	A48ABS52X	A48JDD00X	A48ABK01X/05X
A36JAR32X	A36JAR50X	A48AAB11X	A48AAB10X/11X	A48ABT02X	A48AAN01X	A48JDD01X	A48ABK01X/05X
A36JAR39X	A36JAR50X	A48AAB20X	A48AAB30X/35X	A48ABT51X	A48AAN01X	A48JDD02X	A48ABK01X/05X
A36JAR50X	A36JAR50X	A48AAB21X	A48AAB21X/26X	A48ABT52X	A48AAN01X	A48JDK00X	A48JDK00X
A36JAR53X	A36JAR83X	A48AAB22X	A48AAB21X/26X	A48ABW20X	A48ABW20X/25X	A48JDK01X	A48JDK01X
A36JAR80X	A36JAR90X	A48AAB26X	A48AAB21X/26X	A48ABW25X	A48ABW20X/25X	A48JDS00X	A48JDS00X
A36JAR83X	A36JAR83X	A48AAB27X	A48AAB21X/26X	A48ABW60X	A48ABW20X/25X	A48JEH05X	A48JEH05X
A36JAR90X	A36JAR90X	A48AAB30X	A48AAB30X/35X	A48ABY00X	A48ABW20X/25X	A48JEX01X	A48JEX01X
A36JAR93X	A36JAR93X	A48AAB35X	A48AAB30X/35X				
		A48AAB50X	A48AAB30X/35X				
15V							
A38AAB10X	A38AAB10X						
A38ABE60X	A38ABE60X						

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS	
19V		20V		20V		22V	
A48JEX03X	A48JEX03X	A51ACG31X	A51ACG30X/31X	A51JCC09X	A51JCC11X	A56JKX00X	A56JKX00X
A48JGR36X	A48JGR36X	A51ACG50X	A51ACG50X	A51JCC11X	A51JCC11X	A56JKX30X	A56JKX30X
A48JGR40X	A48JGR40X	A51ACG51X	A51ACG51X	A51JCC21X	A51JCC11X	A56JKZ30X	A56JKZ30X
A48JJB90X	A48JJB90X	A51ACG55X	A51ACG55X	A51JCC23X	A51JCC11X	A56JKZ60X	A56JKZ60X
A48JJY01X	A48JJY01X	A51ACG65X	A51ACG30X/31X	A51JCC51X	A51JCC51X	A56JMQ30X	A56JMQ30X
A48JJY61X	A48JJY61X	A51ACT00X	A51ABU25X	A51JCC61X	A51JCC61X	A56JMQ60X	A56JMQ60X
A48JY81X	A48JY81X	A51ADL00X	A51ADL00X	A51JCC90X	A51JCC90X		
A48JKL00X	A48JKL00X	A51ADM20X	A51ADM20X	A51JCC91X	A51JCC90X	23V	
A48JKL08X	A48AAB21X/26X	A51ADM25X	A51ADM25X	A51JEW00X	A51JEW00X	A59EAF00X	A59EAF00X
A48JKL60X	A48JKL60X	A51ADR26X	A51ACG30X/31X	A51JFC00X	A51JFC60X	A59EAS00X	A59EAS00X
A48JKL68X	A48AAB21X/26X	A51ADR40X	A51ACG30X/31X	A51JFC01X	A51JFC60X	A59JJZ01X	A59JJZ01X
A48JLL20X	A48AAB21X/26X	A51ADY00X	A51ADY00X	A51JFC09X	A51JFC60X		
A48JMX20X	A48JMX20X	A51ADY01X	A51ADY01X	A51JFC30X	A51JFC60X	25V	
A48JNW00X	A48JNW00X	A51ADY02X	A51ADY02X	A51JFC60X	A51JFC60X	A63AAD10X	A63AAD10X
A48JNW20X	A48JNW20X	A51EAT00X	A51EAT00X	A51JFC61X	A51JFC60X	A63AAM00X	A63AAM05X
A48JPZ60X	A48JPZ60X	A51EBD00X	A51ADL00X	A51JFC61X	A51JFC60X	A63AAM01X	A63AAM05X
A48JQA60X	A48JQA60X	A51JAR00X	A51JAR90X	A51JF00X	A51JF00X	A63AAM02X	A63AAM10X
A48JQG50X	A48ABK03X/04X	A51JAR03X	A51JAR90X	A51JF01X	A51JF01X	A63AAM03X	A63AAM11X
A48JQG60X	A48ABK03X/04X	A51JAR10X	A51JAR90X	A51JF60X	A51JF60X	A63AAM04X	A63AAM11X
A48JQG90X	A48ABK03X/04X	A51JAR30X	A51JAR90X	A51JL00X	A51JL90X	A63AAM05X	A63AAM05X
A48JQG93X	A48ABK03X/04X	A51JAR31X	A51JAR90X	A51JL30X	A51JL90X	A63AAM06X	A63AAM11X
A48JQH00X	A48ABK03X/04X	A51JAR33X	A51JAR90X	A51JL90X	A51JL90X	A63AAM07X	A63AAM05X
A48JQH30X	A48ABK03X/04X	A51JAR34X	A51JAR90X	A51JKY04X	A51JKY04X	A63AAM08X	A63AAM10X
A48JQH40X	A48ABK03X/04X	A51JAR35X	A51JAR90X	A51JKY34X	A51JKY34X	A63AAM09X	A63AAM10X
A48JQH50X	A48ABK03X/04X	A51JAR40X	A51JAR90X	A51JML03X	A51JML11X	A63AAM10X	A63AAM10X
A48JQH60X	A48ABK03X/04X	A51JAR43X	A51JAR90X	A51JML11X	A51JML11X	A63AAM11X	A63AAM11X
A48JQH90X	A48ABK03X/04X	A51JAR44X	A51JAR90X	A51JML81X	A51JML81X	A63AAM12X	A63AAM10X
A48JQH93X	A48ABK03X/04X	A51JAR45X	A51JAR90X	A51JPD60X	A51JPD60X	A63AAM13X	A63AAM05X
A48JQL60X	A48JQL60X	A51JAR50X	A51JAR90X	A51JPE30X	A51JPE30X	A63AAM30X	A63AAT30X
A48JRV20X	A48JRV20X	A51JAR59X	A51JAR59X	A51JPE43X	A51JPE90X	A63AAT31X	A63ABZ26X
A48JSN20X	A48JSN20X	A51JAR60X	A51JAR90X	A51JPE60X	A51JPE60X	A63AAT32X	A63AAT32X
A48JSZ60X	A48JSZ60X	A51JAR61X	A51JAR90X	A51JPE90X	A51JPE90X	A63AAT36X	A63ABZ26X
		A51JAR62X	A51JAR90X	A51JPE96X	A51JPE96X	A63AAX00X	A63ABZ26X
		A51JAR65X	A51JAR96X	A51JPE99X	A51JPE99X	A63AAX01X	A63AAX01X
20V		A51JAR66X	A51JAR96X	A51JQE01X	A51JQE01X	A63AAX02X	A63AAX02X
A51ABU10X	A51ABU10X	A51JAR67X	A51JAR96X	A51JRR60X	A51JRR60X	A63AAX12X	A63AAX02X
A51ABU14X	A51ABU14X	A51JAR83X	A51JAR90X	A51JSV11X	A51JSV11X	A63AAX42X	A63AAX02X
A51ABU25X	A51ABU25X	A51JAR90X	A51JAR90X	A51JSY01X	A51JSY01X	A63AAY00X	A63AAY00X
A51ABU55X	A51ABU55X	A51JAR91X	A51JAR90X	A51JTA60X	A51JTA60X	A63AAY01X	A63AAY00X
A51ACB02X	A51ACB02X	A51JAR92X	A51JAR90X			A63AAY02X	A63AAY00X
A51ACB12X	A51ACG20X/25X	A51JAR93X	A51JAR96X	21V		A63AAY11X	A63AAY11X
A51ACC10X	A51ACC10X	A51JAR95X	A51JAR96X	A53EAB00X	A53EAB00X	A63AAY12X	A63AAY11X
A51ACG10X	A51ACG10X	A51JAR96X	A51JAR96X	A53JBM05X	A53JBM05X	A63AAY71X	A63AAY11X
A51ACG14X	A51ACG20X/25X	A51JAR97X	A51JAR96X	A53JBM35X	A53JBM35X	A63ABF00X	A63ABF00X
A51ACG20X	A51ACG20X/25X	A51JAR98X	A51JAR96X	A53JBM95X	A53JBM95X	A63ABG05X	A63AAM11X
A51ACG21X	A51ACG21X	A51JAR99X	A51JAR96X	A53JDE50X	A53JDE50X	A63ABG20X	A63AAM10X
A51ACG25X	A51ACG20X/25X	A51JCC01X	A51JCC11X	A53JDE60X	A53JDE60X	A63ABG25X	A63AAM10X
A51ACG26X	A51ACG20X/25X	A51JCC03X	A51JCC11X	A53JDH00X	A53JDH00X	A63ABG27X	A63AAM10X
A51ACG27X	A51ACG20X/25X			A53JHA00X	A53JHA00X	A63ABG35X	A63ABG35X
A51ACG30X	A51ACG30X/31X			A53JHK00X	A53JHK00X	A63ABL15X	A63ABL15X

TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**	TUBE TYPE	REPLACEMENT TYPE**
WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS		WORLD WIDE TYPE DESIGNATIONS			
25V		26V		27V			
A63ABP00X	A63ABP00X/05X	A66AAM00X	A66AAM00X	A68ACC11X	A68ACC10X		
A63ABP05X	A63ABP00X/05X	A66AAM01X	A66AAM01X	A68ACC12X	A68ACC10X		
A63ABP10X	A63ABP10X/12X	A66AAM02X	A66AAM02X	A68ACC14X	A68ACC35X		
A63ABP11X	A63ABP11X/13X	A66AAM03X	A66AAM03X	A68ACC30X	A68ACC35X		
A63ABP12X	A63ABP10X/12X	A66AAM04X	A66AAM04X	A68ACC35X	A68ACC35X		
A63ABP13X	A63ABP11X/13X	A66ABU00X	A66ABU00X/05X	A68ACT00X	A68ACT00X		
A63ABP20X	A63ABP20X/25X	A66ABU05X	A66ABU00X/05X	A68ACT11X	A68ACT11X		
A63ABP25X	A63ABP20X/25X	A66ABU10X	A66ABU10X	A68ACT30X	A68ACT11X		
A63ABP26X	A53ABP26X	A66ABU11X	A66ABU10X	A68ACT63X	A68ACT11X		
A63ABP50X	A63ABP50X	A66ABU14X	A66ABU14X	A68ADZ00X	A68AEC00X		
A63ABP51X	A63ABP51X	A66ABU30X	A66ABU30X/35X	A68AEC00X	A68AEC00X		
A63ABP55X	A63ABP55X	A66ABU32X	A66ABU32X/37X	30V			
A63ABZ06X	A63ABZ26X	A66ABU35X	A66ABU32X/35X	A76JTS90X	A76JTS90X		
A63ABZ26X	A63ABZ26X	A66ABU36X	A66ABU36X/39X	A76JTS99X	A76JTS90X		
A63ABZ40X	A63ABZ26X	A66ABU37X	A66ABU32X/37X	A76JYQ90X	A76JYQ90X		
A63ABZ60X	A63ABZ26X	A66ABU38X	A66ABU38X	A76JYQ96X	A76JYQ90X		
A63ACM71X	A63ACM71X	A66ABU39X	A66ABU36X/39X	A76JYQ98X	A76JYQ90X		
A63ACP00X	A63ABG35X	A66ABU40X	A66ABU51X	31V			
A63ACP26X	A63AAM05X	A66ABU50X	A66ACZ26X	A78JVB30X	A78JVB30X		
A63ACP27X	A63AAM05X	A66ABU51X	A66ABU51X	A78JVB60X	A78JVB60X		
A63ACQ00X	A63AAM10X	A66ABU52X	A66ABU38X	A78JVB61X	A78JVB60X		
A63ACQ01X	A63AAM10X	A66ABU55X	A66ABU55X	A78JVB63X	A78JVB60X		
A63ADG25X	A63AAM10X	A66ABU56X	A66ABU55X	M79JWW11X	M79JWW11X		
A63ADG27X	A63AAM05X	A66ACZ26X	A66ACZ26X	M79JWW31X	M79JWW31X		
A63ADG35X	A63AAM10X	A66ACZ40X	A66ACZ26X	M79JWW61X	M79JWW61X		
A63ADN26X	A63AAM05X	A66ADQ01X	A66ABU30X/35X	M79JWW81X	M79JWW81X		
A63ADN40X	A63AAM05X	A66ADS26X	A66ABU38X	35V			
A63AEH20X	A63AAM05X	A66ADS40X	A66ABU38X	A89JKA31X	A89JKA31X		
A63JAV00X	A63JAV00X	A66EAF00X	A66EAF00X	A89JKA61X	A89JKA31X		
A63JBG00X	A63JBG00X	A66EAS00X	A66EAS00X	A89JKA81X	A89JKA81X		
A63JBG20X	A63JBG20X	A66JKA01X	A66JKA01X	A89JKA91X	A89JKA81X		
A63JDF00X	A63JDF00X	A66JLH50X	A66JLH50X	A89JVU11X	A89JVU11X		
A63JEC00X	A63JEC00X	A66JLH70X	A66JLH50X	A89JVU31X	A89JVU31X		
A63JEC30X	A63JEC30X	A66JLH86X	A66JLH86X	A89JVU60X	A89JVU60X		
A63JEZ00X	A63JEZ00X	A66JMJZ00X	A66JMJZ00X	A89JVU61X	A89JVU61X		
A63JGC01X	A63JGY93X	A66JPP01X	A66ABU36X/39X	A89JVU80X	A89JVU80X		
A63JGY33X	A63JGY93X	A66JPP03X	A66ABU36X/39X	A89JVU81X	A89JVU81X		
A63JGY93X	A63JGY93X	A66JPQ01X	A66JPQ01X	A89JVU91X	A89JVU91X		
A63JKC00X	A63JKC00X	27V					
A63JLQ90X	A63JLQ90X	A68ACC10X	A68ACC10X				

1.X-RADIATION WARNING: For servicing and continued consumer protection, it is important that only the recommended replacements and operating conditions as indicated in the guide or on the tube carton label be used.

2. Mechanical and electrical equivalency are the two most important criteria used in tube interchangeability. **The replacement type for the**

original tube is mechanically and electrically correct, however, the reverse may not always hold true. All safety precautions required by the TV receiver for picture tube mounting and insulation should be carefully observed by the TV servicer. For all applications, the external conductive coating must be grounded. Care must be taken that this coating does not contact any

support straps or brackets which might result in voltage appearing on trim or external hardware of the receiver.

3. Tube Type numbers beginning with A33, A48, and A63 are world-wide type designations. The two digits following "A" indicate screen diagonal in centimeters; i.e., A33 = 13V, A48 = 19V and A63 = 25V.

4. (m) = Monitor

Y = with old yoke

5. This CRT Replacement Guide is to be used for information purposes only. Because a tube is listed in the chart does not necessarily imply that it is in stock or carried in our line. For types listed as replacements in this guide, BUT NOT LISTED on our Price List, please check with the factory for availability.