

"TRADER" SERVICE SHEET

579

COSSOR VALVE REPLACEMENT GUIDE

**I**N an effort to assist dealers with the replacement of valves in Cossor Receivers, for which in many cases the original valves are not now available, the manufacturers have compiled a list of modern preferred equivalents to the old obsolete types. In many cases, except where the preferred type has a seven-pin base, the new valves are direct substitutes for the old ones, but in some cases certain modifications are recommended.

The first table below shows the original

valves and their preferred replacement types, together with the model numbers of Cossor Receivers affected. Where the model number is printed in light type, the preferred valve can be plugged in as a direct equivalent; where the model number is printed in heavy type, certain modifications are recommended.

These modifications are described in the second table (below and overleaf), where the model numbers of the Cossor Receivers are indicated against the valve concerned. Where

valve-holder replacements are necessary, diagrams are given, at the bottom of the page overleaf, showing the base connections of old and new valves.

Where valve base diagrams are given, the pins are assumed to be viewed from their free ends, as seen from beneath the valve. In some cases, reference is made to socket numbers on seven-pin valves, and in order to assist in identifying these, a numbered seven-pin base is given in the drawing.

Original	Alternative	Cossor Receivers Affected
DD4	DDL4	364, 374, 374A, 535, 736, 836
MSG/HA	MS/PEN	<b>635, 833</b>
MSG/LA	MS/PEN	<b>235</b>
MVSG	MVS/PEN	<b>336, 337, 338, 347, 356, 357, 358, 435, 435A, 533, 533A, 536, 3467, 3468</b>
2 XP	2 P	53, 62, 64, 71, 72, 73, 81, 397, 398, 1210, 1210A
4/100 BU	45 IU	437T, 1210, 1210A
41 MH	41 MTL	222, 222A, 235, MR331, 336, 337, 338, 347, 533, 533A, 3467, 3468
41 MHL	41 MTL	233, MR331, 836
41 MRC	41 MTL	MK530, MR532
41 MSG	MS/PEN	<b>MK530, MR532, 833</b>
41 PGD	41 MPG	836
42 MP/PEN	42 OT	<b>364, 374, 374A, 535, 736, 837, 3764, 3864</b>
202 SPB	202 VPB	M44
210 PGA	210 PG	394
210 RC	210 HL	BK4, BR431, BK531, BK631
215 P	220 P	344, 366, 435B, 437B, 3456
215 SG	210 SPT	<b>BK4, BR431, BK531, BK631, 731</b>
220 HPT	220 OT	<b>238, 341, 342, 352, 353, 355, 362, 363, 336A, 370, 373, 3455, 3535, 3733</b>
220 PA	220 P	<b>376B, 436B, 3774, 6874</b>
220 PT	220 OT	<b>BR231, BR431, 634, 634A, 732M</b>
220 SG	210 SPT	<b>234</b>
220 VS	210 VPT	<b>340, 341, 342, 344, 350, 352, 353, 355, 435B, 634, 634A, 735, 3455, 3456, 3535</b>
220 VSG	210 VPA	<b>333, 334, 335, 732, 732M</b>
240 B	220 B	366
402 PEN	402 OT	<b>375U, 377U</b>
410 P	220 P	<b>MK530, MR532</b>
415 XP	220 P	<b>MR331</b>
442 BU	43 IU	All models originally fitted with 442BU
460 BU	43 IU	437T, 836, 3884, 3974, 3974A
1A7VG	1A7G	AD41, 55
1N5VG	1N6G	AD41, 55

MODELS AFFECTED	ALTERATION REQUIRED
<b>MVS/Pen (Substitute for MVSG)</b>	
336 357 533A 337 358 536 338 435 3467 347 435A 3468 356 533	No modification to circuit. Replace the existing 5-pin valve holder by a 7-pin type, connecting together pins 1, 3 and 6. Replace valve top cap connector with a suitable type. If the MVS/PEN has a 5-pin base the valve holder and connections thereto remain unchanged.
<b>42 OT (Substitute for 42 MP/Pen)</b>	
364 374 736	Base connections, no alteration. Replace 50,000 O grid stopper (R11 in Cossor manual for 364, 736; R12 in <i>Trader Service Sheet 76</i> ; not in 374 at all) with 100,000 O. Earth the speaker chassis. Fit 0.0002μF condenser between control grid socket (pin 2) of V4 valve holder and chassis.
374A	Base connections, no alteration. Break leads connected to control grid socket of V4 valve holder, and insert stopper resistor of 50,000 O. Fit 0.0002μF condenser between control grid socket (pin 2) and chassis. Earth the speaker chassis.
535	Base connections, no alteration. Replace 50,000 O grid stopper (R19 in Cossor manual; R17 in <i>Trader Service Sheet 35</i> ) with 100,000 O. Fit 0.0002μF condenser between control grid socket (pin 2) of V4 valve holder and chassis. Earth the speaker chassis.

MODELS AFFECTED	ALTERATION REQUIRED
<b>220 P (Substitute for 215 P, 220 PA, 410 P and 415 XP)</b>	
366 436B	Insert GB-1 plug into -6-volt or 7½-volt socket of grid bias battery.
376B 3774 6874	Increase GB-2 to -6 or 7½ volts.
MK530 MR532 MR331	Insert 10 O ½-watt resistor in either heater lead to 220 P valve holder.

<b>MS/Pen (Substitute for MSG/HA, MSG/LA and 41 MSG)</b>	
( 35 833 235 MK530 MR532	Fit 7-pin valve holder in place of existing type (V4). Replace valve top cap connector with suitable adaptor. The new base connections are the same as shown under MVS/PEN. If the MS/PEN has a 5-pin base the valve holder and connections thereto remain unchanged.

<b>220 OT (Substitute for 220 HPT and 220 PT)</b>	
238 355 373 341 362 3455 342 363 3535 352 366A 3733 353 370	Increase grid stopper (R7) of output valve from 100,000 O to 250,000 O. (This is R3 in 341/2; R4 in 352; R9 in 353, 355 and 3455; R11 in 3733 in Cossor manuals; and R12 in <i>Trader Service Sheet 163</i> ). Fit a 0.002µF condenser between anode socket of valve holder and chassis. Earth the speaker chassis, except on model 366A.
BR231 BK431	Remove existing 4-pin valve holder and replace with 5-pin type. Connect side terminal lead (of 220 PT) to centre socket on 5-pin holder, and the other leads to sockets corresponding to those on the original valve holder.
732M	Increase grid stopper resistor value in output circuit (R9 in Cossor manual) to 250,000 O. Fit 0.002µF condenser between anode socket of valve holder (V4) and chassis.

<b>210 SPT; 210 VPA (Substitute for 215 SG and 220 SG; 220 VSG)</b>	
BK4 BR531 BK431 BK631 234 334 731 333 335 732 732M	Substitute 7-pin valve holder in place of 4-pin type, connecting together pins 1, 3 and 4. Replace top cap connector with suitable adaptor. If the new valve has a 4-pin base the valve holder and connections thereto remain unchanged.

<b>210 VPT (Substitute for 220 VS)</b>	
340 352 634A 341 353 735 342 355 3455 344 435B 3456 350 634 3535	Replace existing valve holder (V1) with 7-pin type. For base connections see sketch below. If the 210 VPT has a 4-pin base, the valve holder and connections thereto remain unchanged.

<b>402 OT (Substitute for 402 Pen)</b>	
375U	Insert 100,000 O stopper resistor (under chassis) in control grid lead to top cap of valve (V4). Fit a 0.0002µF condenser between control grid end of stopper resistor and chassis. Earth the speaker chassis.
377U	Earth the speaker chassis.

