

OUTPUT CONTROL UNIT MODEL 6GC

1. GENERAL

Model 6GC Output Control Unit has now superseded model RB310 both for use as initial equipment with some C.A.V. generators and also as a replacement for Lucas and C.A.V. RB310 units already in service. Units are identified as 'Lucas' or 'C.A.V.' by their cover marking.

Internally, model 6GC retains the same regulator and cut-out assembly as RB310, but this assembly is mounted on an RB340 type baseplate.

An extension foot enables model 6GC to be used as a direct replacement for RB310. Terminals are normally of 'Lucar' pattern, although certain units supplied as service replacements have screw terminals for direct interchangeability.

2. TECHNICAL DATA

From the foregoing it will be seen that existing RB310 servicing instructions remain generally applicable to 6GC. However, to obviate the need for referring to earlier Workshop Manual sections statistical information covering the present range of 6GC units is given overleaf.

Notes concerning the use of the tables overleaf:

1. The electrical checking and setting of all Lucas 6GC units and C.A.V. units with Part Numbers 37506-8-9-10-11-15 must be carried out with their terminals uppermost. All remaining 'C.A.V.' units with terminals lowermost.
2. Some units have voltage-regulator open-circuit voltage reset limits which differ from the checking limit figures given in the preceding column. Adjust these units to the closer (reset) limits **only if the open circuit voltage is found to be outside the checking limits**. Units that are satisfactorily controlling the output voltage **within** the checking limits **MUST NOT BE DISTURBED**.

When electrically resetting ANY unit, aim for the mean voltage of the limits given.

3. For ease of identification resistors are painted at one end with a particular colour.

The colours, nominal values and duties of the resistors employed with 6GC units are:

Blue	...	240 ohms	} Contact resistors.
Orange	...	100 "	
Red	...	60 "	
Yellow	...	40 "	} Swamp resistor.
Green	...	30 "	
			Field parallel resistor.

Output Control Unit Model 6GC

Part No.	Voltage	VOLTAGE REGULATOR OPEN-CIRCUIT VOLTAGE (AT 20°C)			CURRENT REGULATOR		CUT-OUT		ARMATURE-TO- CORE AIRGAP SETTING		RESISTOR VALUE (Ohms)		
		Checking Limits	Reset To	Generator Rev/Min	Setting Amperes	Generator Rev/Min	Cut-In Voltage	Drop-Off Voltage	Voltage Regulator	Current Regulator	Contacts Resistor	Field Parallel	Swamp
37433, 37434, 37453, 37454, 37455, 37465, 37506, 37511, 37513, 37515	24	28.0- 28.5	28.0- 28.5	3000	14-15	3000	26.5- 27.0	19.0- 23.0	0.025"- 0.028"	0.025"- 0.028"	240	30	40
37435, 37436, 37456, 37457, 37507	24	28.0- 28.5	28.0- 28.5	3000	17-18	3000	26.5- 27.0	19.0- 23.0	0.025"- 0.028"	0.025"- 0.028"	240	30	40
37437, 37458, 37459	24	28.0- 28.5	28.0- 28.5	3000	21-22	3000	26.5- 27.0	19.0- 23.0	0.025"- 0.028"	0.025"- 0.028"	240	30	40
37441, 37462, 37492	12	14.1- 14.5	14.1- 14.5	3000	19-20	3000	13.0- 13.5	9.5- 11.0	0.017"- 0.020"	0.020"- 0.023"	100	—	—
37442, 37463, 37466	12	14.1- 14.5	14.1- 14.5	3000	24-25	3000	13.0- 13.5	9.5- 11.0	0.017"- 0.020"	0.020"- 0.023"	100	—	—
37469	12	14.8- 15.1	14.8- 15.1	1500	29-31	4000	12.7- 13.3	9.5- 11.0	0.019"- 0.022"	0.019"- 0.022"	60	—	40
37470	12	14.8- 15.1	14.8- 15.1	1500	35-36	4000	12.7- 13.3	9.5- 11.0	0.019"- 0.022"	0.019"- 0.022"	60	—	40
37471, 37477	12	14.6- 15.8	14.9- 15.5	3000	24-26	4000	12.7- 13.3	9.5- 11.0	0.017"- 0.020"	0.017"- 0.020"	60	—	—
37472, 37475, 37483	12	14.6- 15.8	14.9- 15.5	3000	21-23	4000	12.7- 13.3	9.5- 11.0	0.017"- 0.020"	0.017"- 0.020"	60	—	—
37473, 37485	12	14.2- 14.8	14.2- 14.8	1500	33-35	4000	12.7- 13.3	9.5- 11.0	0.019"- 0.022"	0.019"- 0.022"	60	—	40
37474, 37478	12	14.6- 15.8	14.9- 15.5	3000	18-20	4000	12.7- 13.3	9.5- 11.0	0.017"- 0.020"	0.017"- 0.020"	60	—	—
37476, 37481	12	14.4- 15.0	14.4- 15.0	3000	28.5- 31.5	4000	12.7- 13.3	9.5- 11.0	0.019"- 0.022"	0.019"- 0.022"	60	—	40
37490	12	14.6- 15.8	14.9- 15.5	3000	10.5- 11.5	4000	12.7- 13.3	9.5- 11.0	0.019"- 0.022"	0.019"- 0.022"	60	—	—
37504	12	14.6- 15.8	14.9- 15.5	3000	19-21	4000	12.7- 13.3	9.5- 11.0	0.017"- 0.020"	0.017"- 0.020"	60	—	—
37505	12	14.2- 14.8	14.2- 14.8	1500	33-34	3000	12.7- 13.3	9.5- 11.0	0.019"- 0.023"	0.019"- 0.022"	60	—	40
37508, 37510	24	28.0- 28.5	28.0- 28.5	3000	11-12	3000	26.5- 27.0	19.0- 23.0	0.025"- 0.028"	0.025"- 0.028"	240	30	40
37509	24	28.0- 28.5	28.0- 28.5	3000	13-14	3000	26.5- 27.0	19.0- 23.0	0.025"- 0.028"	0.025"- 0.028"	240	30	40