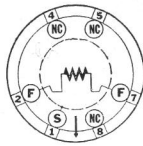
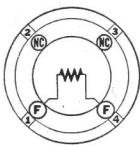


# Sylvania BALLAST TUBES



## CHARACTERISTICS

Type	Use	Ma. Load Current	Average Voltage Drop*	Bulb	Base
1A1	Battery	500	1.0	ST-12	Sm. 4-Pin
1B1	Battery	360	1.0	ST-12	Sm. 4-Pin
1C1	Battery	745	1.0	ST-12	Sm. 4-Pin
1D1	Battery	240	1.0	ST-12	Sm. 4-Pin
1E1	Battery	480	1.0	ST-12	Sm. 4-Pin
1G1	Battery	420	1.0	ST-12	Sm. 4-Pin
1K1	Battery	550	1.0	ST-12	Sm. 4-Pin
1R1G	Battery	540	1.0	ST-12	Octal 6-Pin
1T1G	Battery	560	1.0	ST-12	Octal 6-Pin
1Y1	Battery	540	1.0	ST-12	Sm. 4-Pin
1Z1	Battery	900	1.0	ST-12	Sm. 4-Pin
2	DC or AC-DC	300	9.0	S-14	Med. 4-Pin
3	DC or AC-DC	300	128.0	ST-16	Med. 4-Pin
4	DC or AC-DC	400	115.0	ST-16	Med. 4-Pin
5	DC or AC-DC	460	115.0	ST-16	Med. 4-Pin
6	Battery	685	1.0	ST-12	Sm. 4-Pin
7	DC or AC-DC	300	176.0	ST-16	Med. 4-Pin
8	DC or AC-DC	300	132.0	ST-16	Med. 4-Pin
9	DC or AC-DC	300	50.0	ST-16	Med. 4-Pin
46A1	DC or AC-DC	400	46.1	ST-12	Sm. 5-Pin†
46B1	DC or AC-DC	300	46.1	ST-12	Sm. 5-Pin†

\*The voltage drop shown is for average operation and may vary according to the supply voltage.

†See Page 143.

## CIRCUIT APPLICATION

Ballast tubes may be grouped into two major divisions based upon differences in construction and regulating characteristics. One type is employed mainly in battery operated receivers to maintain substantially constant current over a considerable range of battery voltage variation. The second type is used in AC-DC receivers and 32 volt sets where the voltage drop required may cover a wide range. Such a ballast tube affords some amount of regulation, but the characteristic is not as flat as for regulators intended for use in battery receivers.

The tubes for use in battery sets are designed to permit the operation of 2-volt types from a 3-volt battery source which may consist of two banks of dry cells in parallel, the banks being connected in series. The supply voltage varies from about 3.4 volts to 2.2 volts during the life of the batteries. For this range of supply voltage the types listed above will maintain the socket terminal voltage between 1.8 and 2.2 volts. During the major part of battery life the socket voltage remains very close to the rated value of 2.0 volts. Curve data on these types are shown on Pages 146-148.

To determine the filament current load in series with the ballast tube it is necessary to include the total filament current drain of the receiver tubes plus the current drain of the dial light if the latter is employed. For example, a set using a Type 19, a Type 30, and 3 Type 34 tubes has a normal filament current drain of 500 milliamperes. The correct ballast tube would be a Type 1A1.

The types not included in paragraph two belong to the second general division of ballast tubes. These should be operated as closely as possible to the standard current ratings in order to realize the most efficient performance.

(Continued on Page 148)