Release No. 633

January 26, 1948

SYLVANIA ELECTRIC PRODUCTS INC.

Type 1B27

The Type 1B27 is a TR gas switching tube of the separate cavity type, with a tuning mechanism built into the tube. The type is designed primarily for operation in the vicinity of 3000 Mc but the region of operation is dependent on the external cavity.

Electrical Data - General

Tuning Range*	2600 to 3000	Mc
Leakage Power** (at 5 Kw, 1000 pps, 0.5 u sec.):		
zero keep-alive current	40	mw max.
100 uAdc keep-alive current	25	mw max.
Intrinsic Q (at zero keep-alive current)	2250	min.
Keep-Alive Interaction (at 200 uAdc)	0.1	db max.
Recovery Time (at 50 Kw; 3 db down)	5	u sec. max.
Frequency Change with Temperature (0 to 100°C)	0 to-10	Mc
Keep-Alive Voltage Drop (at 100 uAdc)	415 to 525	Vdc
Keep-Alive Ignition Time	5.0	sec. max.
Keep-Alive Starting Voltage	-750	Vdc max.

Mechanical Data - General

Number of Keep-Alive Electrodes	One	
Net Weight (approximate)	2	oz.
Mounting Position	Any	
Mounting	In External Cavity	
Dimensions	(See Outline Drawing)	

Ratings

Maximum Transmitter Peak Power	150	Kw
Keep-Alive Supply Voltage (open circuit)	-750 to -1,000	Vdc
Keep-Alive Current	100 to 200	uAdc
Ambient Temperature Range (non-operating)	-40 to +100	°C

* With fixed cavity, using tuning mechanism on tube. Region of operation depends on cavity.

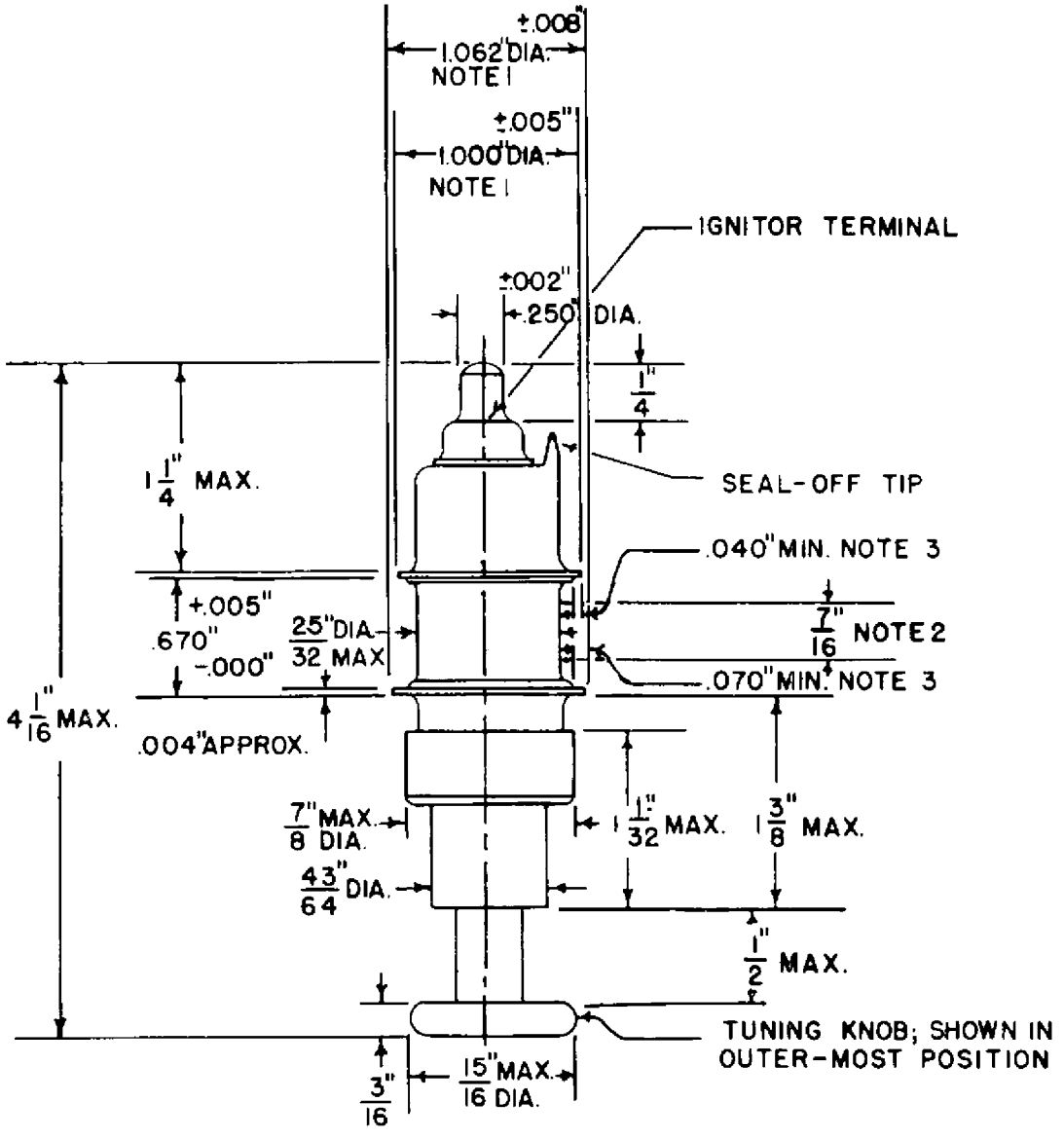
** Total averaged over pulse.

mo 12/15/47

SYLVANIA ELECTRIC PRODUCTS INC.

OUTLINE DRAWING

TYPE IB27



NOTE 1. CONTACT DISCS CONCENTRIC WITH RESPECT TO EACH OTHER WITHIN $\frac{1}{64}$"

NOTE 2. CYLINDRICAL LENGTH LOCATED CENTRALLY BETWEEN CONTACT DISCS.

NOTE 3. CONTACT PORTION OF DISC.

12-18-47