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NOTICE OF APPROVAL
AVIS D'APPROBATION

E-140

Ottawa, May 18, 1976

GENERAL ELECTRIC TYPES "D-52" AND "D-53" PULSE INITIATORS

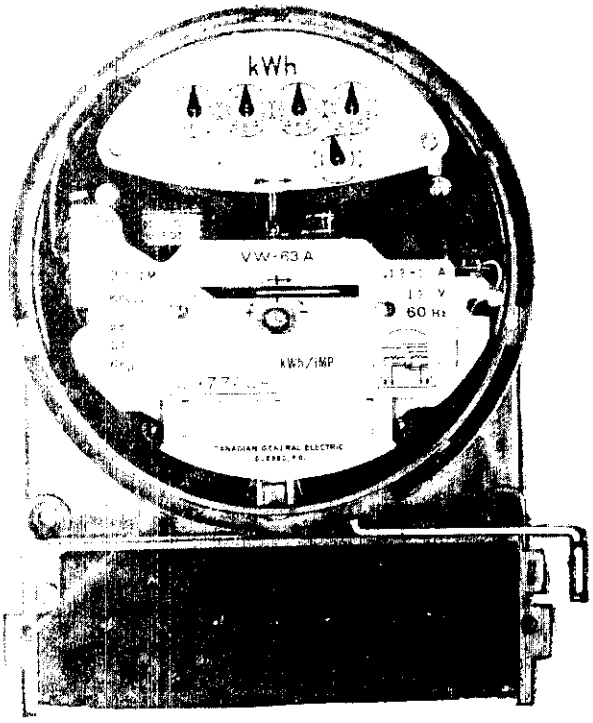
Type	Photoelectric with gear driven shutter disc
Output	S.P.D.T. "KYZ" output from Form C mercury wetted contact on relay
Relay	"Midtex 160-261UA1, 9929515-5"
Capacity of Contacts	2 amperes maximum, 500 volts maximum 100 voltamperes maximum
Max. Pulse Rate	4 per second
Watthour per pulse	Marked on meter nameplate
Highest Pulse Ratio(R/P)	D-52(1), 1/12 for uni-directional energy flow
	D-53(2), 1/10 for uni-directional energy flow
Power Supply (3)	120, 240, 277, 480 volts, 50 - 60 Hz
Burden on Power Supply	2 voltamperes
Temperature Range	-30 °C to 66 °C (-22 °F to 150 °F)

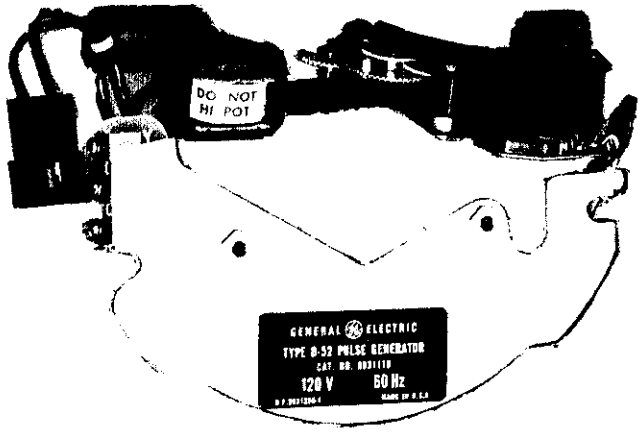
(1) When energy flow is bi-directional, the highest R/P is limited to 1/4. The R/P ratio could be extended to 1/6 by installing the available secondary anti-reverse detent.

(2) When energy flow is bi-directional, the highest R/P is not to exceed 1/4, as no secondary detent is available for I-70 single-phase watthour meter for which it was specifically designed.

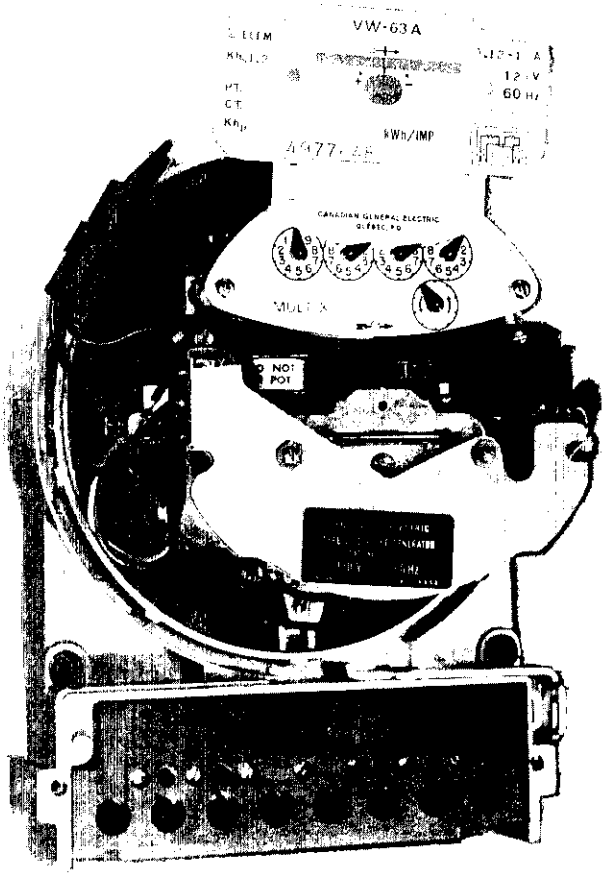
(3) The pulse initiator power supply is taken from the same source as the potential coil of the meter on which it is installed.

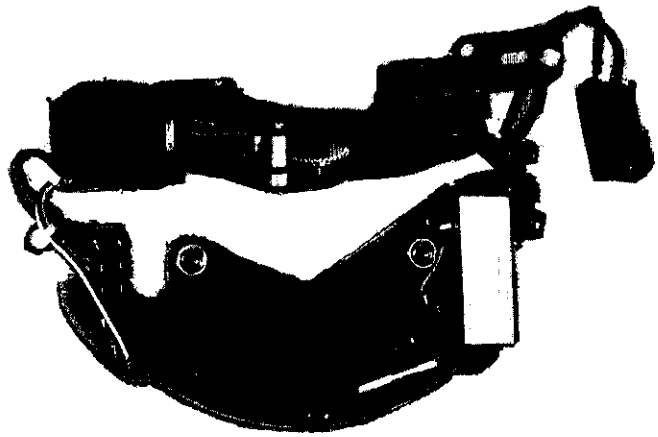
D-52	D-53
120, 240, 277, 480 volts	120, 240, 480 volts





TYPE D-52
Pulse Initiator





Description

The type "D-52" Pulse Initiator operates on the identical photo-electric and mechanical principles as the type "D-51" approved under E-105 of July 9, 1971. It uses the same components and circuitry, but is constructed in two parts for use on General Electric polyphase watthour demand meters in combination with the approved type "M--" demand registers, for those applications requiring both demand indication and pulse output.

With the exception of the power transformer, photocells and lamp, which are assembled to the ratio-gear-train support plate, all other electronic components are mounted on a printed circuit board. The two parts are interconnected electrically and mounted on the front of the meter, completely inside of the meter cover.

The take-off spur gear, as in the type "D-51", engages an 8-tooth pinion gear on the meter disc shaft.

The built-in detent has 40 teeth engaging the ratchet gear and the shutter disc has 10 slots.

The type "D-53" Pulse Initiator incorporates the same principles as the type "D-51" Impulse Generator and is also of a single unit construction, but it differs in its configuration.

It was designed specifically for use on approved type "I-70" single-phase watthour meters with or without demand register. All components are assembled on a single support plate designed for mounting on the front of a meter with a single brake magnet. It will not fit on the original two brake magnet "I-70" meters.

The type "D-53" pulse initiator mounts onto the meter nameplate posts behind the nameplate and below the disc, and it fits within the standard meter cover.

It differs from "D-51" and "D-52" in the following:
The take-off gear is driven by a 10-tooth spline instead of 8.
The ratchet gear has 50 teeth instead of 40.
The shutter disc could have 2, 4, 8 or 10 disc slots instead of standard 10.

The description pertaining to type "D-51" impulse generator in the Notice of Approval E-105 applies in general to types "D-52" and "D-53" pulse initiators and more information is contained in the G.E. Instructions GEH-2786 and GEH-2787 respectively.

Approval granted to:

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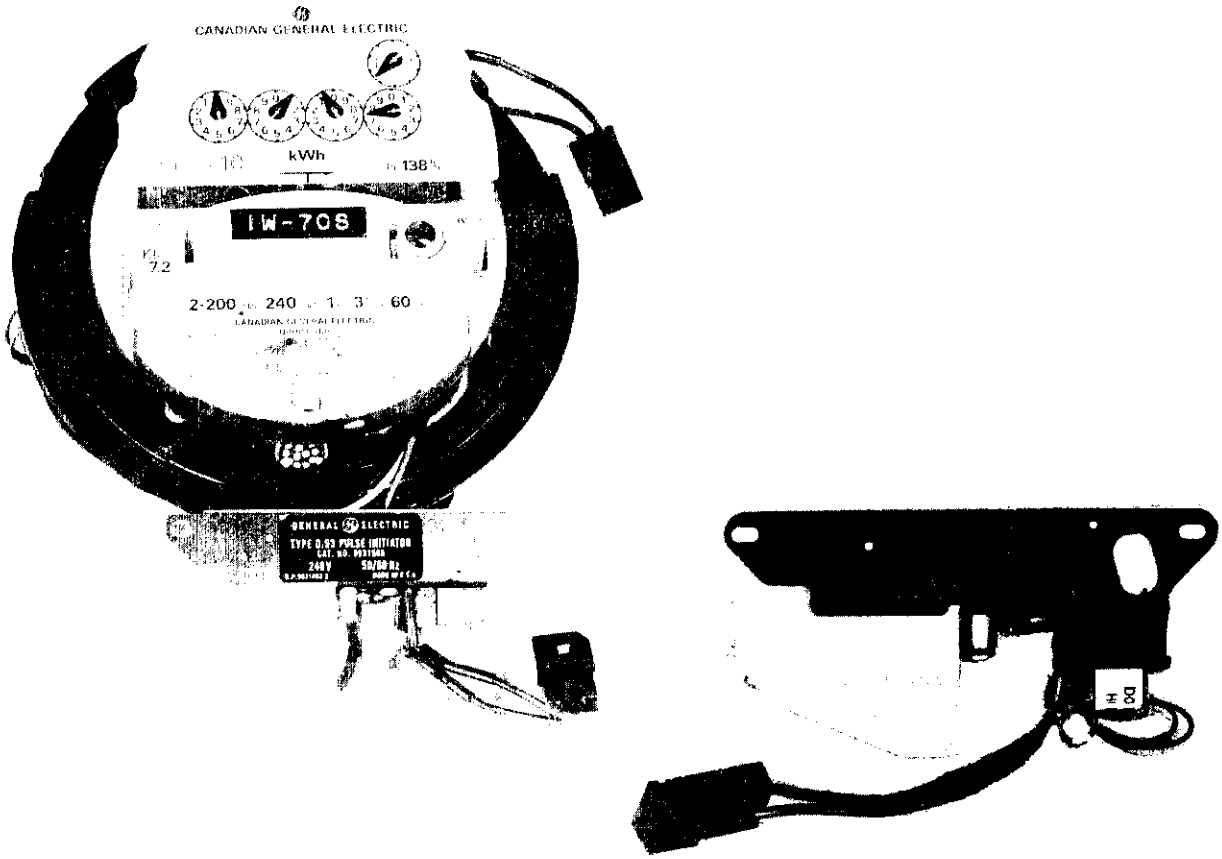
Ref: G 6565-C2-43



TYPE - D 53

Pulse Initiator