

Re: Function of component in flash tube trigger circuit?

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Source: <http://sci.tech-archive.net/Archive/sci.electronics.repair/2008-04/msg01563.html>

- *From:* Sam Goldwasser <sam@xxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* 29 Apr 2008 08:32:03 -0400
-

"N_Cook" <diverse@xxxxxxxx> writes:

hr(bob) hofmann@xxxxxxx <hrhofmann@xxxxxxx> wrote in message
news:13a6408b-dd29-4fac-bfc4-ce2f2275ed5d@xx
On Apr 28, 2:09 pm, "N_Cook" <dive...@xxxxxxxx> wrote:

James Sweet <jamesw...@xxxxxxxx> wrote in message
[news:EkoRj.9384\\$E77.9069@xxxxxxxx](mailto:news:EkoRj.9384$E77.9069@xxxxxxxx)

"N_Cook" <dive...@xxxxxxxx> wrote in message
[news:fv51pt\\$pv1\\$1@xx](mailto:news:fv51pt$pv1$1@xx)

James Sweet <jamesw...@xxxxxxxx>
wrote in message
[news:ArnRj.637\\$PY5.15@xxxxxxxx](mailto:news:ArnRj.637$PY5.15@xxxxxxxx)

What seems
strange is
this
transformer
must be half
or third of
the

volume

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of the ones
in compact
camera
flashes but
the tube is
perhaps
100x

the

volume of
the tube in
one of those
cameras
(1cm
diameter,
20cm

long).

Don't
know the
joules rating
of this one,
a large
studio flash
unit, but

530V

standing
voltage.
Perhaps 2m
of wire
wrapped
around the
flash tube,

as

trigger, all
in all seems
inadequately
tiny in
comparison.

I think I'll
try 2 camera
ones in

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series with
100 ohms
initially to

try

and
localise
why not
triggering. I
may try
subbing this
tiny stepup
transformer
with one 3
times the
size from a
compact
camera, as
am
wondering
if

it

could
be
internally
arcing
actoss turns.

The size is virtually
irrelevant, as Sam says,
almost no current is
required. I've used a tiny
trigger transformer salvaged
from a

disposable

camera to trigger a huge
(about 8" long) 1KJ flash
tube. Some are

bigger,

some are smaller, it has
more to do with age,
manufacturing process,

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and

the

need for compactness.

Is it possible to have a non-functional tube with no signs of problems

,

like the black patches on the ends of a fluorescent tube that is on

the

way out.

This one looks perfect other than the glass is a bit dirty on the

outside,

because the distributed trigger stops any cleaning. Not been dropped,

no

cracked glass, no odd looking deposits on the electrodes or on the

inside

of the glass.

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Diverse Devices, Southampton, England
electronic hints and repair briefs ,
schematics/manuals list on
<http://home.graffiti.net/diverse:graffiti.net/>

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Yes, it's possible, but not terribly likely. You should be able to test

it

by applying voltage to the tube and using a piezo flame igniter to

trigger

it.

I like that suggestion, just connect the arc pin of a piezo gaslighter to the trigger wire, when the standing voltage is across the tube— pure, minimalist test.

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Diverse Devices, Southampton, England
electronic hints and repair briefs , schematics/manuals list

<http://home.graffiti.net/diverse:graffiti.net/>— Hide quoted text —

— Show quoted text —

Let us know what you find.

How do you test for lack of air in a xenon tube?

Putting a neon bulb and dropper over the trigger transformer gave plenty of strike even in room lighting.

I've an old reserve piezo gas lighter that the metal grounding barrel on the end falls off, ideal for testing this tube, but no flash over.

Trying to find a medium size xenon tube I have somewhere or will try with a couple of compact camera xenon tubes or one removed from a xenon burglar alarm flasher, both with some sort of droppers, later today

Basically that's it. Put 300–500 VDC across the tube and apply the output of a Piezo lighter to trigger wire or reflector.

Or, if you have something like a helium–neon laser power supply or neon sign transformer or oil burner ignition transformer, you can apply its output through a ballast resistor to limit current across the flashlamp. It should ionize.

--- sam | Sci.Electronics.Repair FAQ: <http://www.repairfaq.org/>
Repair | Main Table of Contents: <http://www.repairfaq.org/REPAIR/>
+Lasers | Sam's Laser FAQ: <http://www.repairfaq.org/sam/lasersam.htm>

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| Mirror Sites: http://www.repairfaq.org/REPAIR/F_mirror.html

Important: Anything sent to the email address in the message header above is ignored unless my full name AND either lasers or electronics is included in the subject line. Or, you can contact me via the Feedback Form in the FAQs.

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