UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

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NAME		
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COURSE NO.	COURSE NAME	2
MDA	Battery Discharge Circuit	

$V_{Battery}$

78L09 +9V

1µF   100nF

100R ¼W   100R ¼W

100R ¼W   100R ¼W

241R 1W

Relay

10M

243K

1K

33µF   49.9K

10k

+9V   3K

+9V

100R

N-Ch MOSFET

47R 20W   47R 20W

LM393AM
Comparator
Open-Collector Output

+9V

P1
100K

Main Load

Note: +24V fan may be connected to $V_{Battery}$ and GND
→ resistors require active cooling!! (i.e. a fan).

This circuit is designed to discharge a nominal +24V battery until the battery voltage reaches a voltage set by adjusting potentiometer P1. It is designed to have a small degree of hysteresis.

* MAXIMUM BATTERY VOLTAGE: 30V *