

## Quick Start Guide for Demo Board DC460

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Demonstration circuit 460 is a DC-DC flyback converter using the LT3420 to rapidly charge an output capacitor to 320V for photo flash applications. It demonstrates a simple application circuit operating at high efficiency and shows appropriate layout techniques for the LT3420. The circuit uses small surface mount components and has very small board space compared to conventional solutions. This demonstration circuit is particularly useful for applications such as digital cameras and high voltage supplies that require high efficiency and small size.

### Quick Start Procedure

Refer to Figure 1 for proper measurement equipment setup and follow the procedure below:

1. Connect input power source  $V_{batt}$  to the  $V_{batt}$  and GND terminals. Input voltage is limited to between 1.8V to 10V.
2. Set JP1 to DISCONNECT position for separate input power operation. Connect input power source  $V_{cc}$  to the  $V_{cc}$  and GND terminals, and limit the input voltage from 2.5V to 10V. Refer to Figure 1 for proper measurement equipment setup.
3. Connect load (photoflash capacitor) between the +Strobe Cap and –Strobe Cap terminals.
4. For single source operation, set the input source selector Jumper JP1 to CONNECT position. Remove the connection of power source  $V_{cc}$ . Limit the input voltage from 2.5V to 10V.  $V_{cc}$  will be powered from  $V_{batt}$ .
5. To shut down the circuit, connect the JP2 to OFF position. The output Capacitor charging is disabled.
6. For safe operation, always shield the circuit when power is on, and always discharge the high voltage output capacitor after power is off.

Warning: Operate by high voltage trained personnel only.