



## SIMPLECIRCUIT™

## **Self-Dialing Alarm Sensor**

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## INTRODUCTION

The low cost and minimal size of the PIC12C5XX, especially the 8-pin SOIC package, makes it possible to build an alarm dialer into individual burglar alarm sensors. The alarm loop is replaced by a telephone line connected to the sensors in parallel. To disarm the alarm, a key switch opens the telephone line.

The PIC12C508 is normally powered down. When the alarm condition switch closes, the PICmicro<sup>™</sup> is powered up. As soon as it starts, it turns on Q1 to latch the condition. After an interval that lets C1 charge, so the PICmicro<sup>™</sup> would turn off otherwise. The PIC12C508 uses Q1 to dial the alarm monitoring center by opening the line and Q2 to modulate line current with a tone. A coded sequence of tones identifies the particular device. The In-circuit Serial Programming capability is used to load the telephone number and the code number.





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