



Figure 1. Remove the output card using a small screwdriver to dislodge it from its connector.



Figure 2. Switch settings

## Features

- Transfer the programmed sensing window limit settings from any Q45U sensor to the master window limit programming card
- Card stores window limit settings in non-volatile memory
- Transfer window limit settings stored on a card back to the Q45U sensor at any time
- Transfer window limit settings stored on one card to any Q45U which has the same sensing range as the sensor used to store the limit settings (i. e. - either long range or short range)

## Description

The Q45UML plugs into any Q45U ultrasonic proximity mode sensor in place of the sensor's output card. It can download the sensing window limit settings from the sensor it is plugged into. Those sensing limit settings are stored on the card in non-volatile memory, until new sensing limit settings are downloaded to it.

The sensor limit settings residing on the Q45UML card may be transferred to any Q45U sensor, as long as that sensor has the same range (long or short range) as the sensor used to store the limit settings on the Q45UML.

## Storing Window Limit Settings on the Q45UML Card

Use the following procedure to copy sensing window limit settings from a Q45U sensor to the Q45UML master window limit programming card:

- 1) Remove power from the Q45U sensor.
- 2) Remove the output card from the Q45U sensor (Figure 1). Use a small screwdriver, or similar tool, to dislodge the output card from its connector. Then, slide the card out of the sensor.
- 3) Turn switch #1 on the Q45UML card to "off" (see Figure 2). Note that only switch #1 is used. Switches #2, 3, and 4 have no function.
- 4) Slide the Q45UML card into the sensor in place of the sensor output card (Figure 3). Push it firmly into place.
- 5) Apply power to the sensor. The window limits are copied to the Q45UML card when power is applied to the sensor. The center three segments of the 5-segment LED indicator on the Q45UML will flash simultaneously to verify that the limit settings have been copied to the card.
- 6) Remove power from the Q45U sensor.
- 7) Remove the Q45UML card in the same manner used to remove the output card in step 2 (Figure 1).
- 8) Turn switch #1 on the Q45UML to "on" (Figure 2) to lock the window limit settings into memory.
- 9) Slide the output card back into the Q45U sensor, and push firmly into place.





**Figure 3.** Slide the Q45UML card into the sensor and push it firmly into place.

## **Transferring Window Limit Settings from the Q45UML to a Sensor**

Use the following procedure to copy sensing window limit settings stored on a Q45UML card to a Q45U sensor:

- 1) Remove power from the Q45U sensor.
- 2) Remove the output card from the Q45U sensor (Figure 1). Use a small screwdriver, or similar tool, to dislodge the output card from its connector. Then, slide the card out of the sensor.
- 3) Check to be certain that Switch #1 on the Q45UML card is set to "on" (see Figure 2).
- 4) Slide the Q45UML card into the sensor in place of the sensor output card (Figure 3). Push it firmly into place.
- 5) Apply power to the sensor. The window limits are copied from the Q45UML card when power is applied to the sensor. The outermost two segments of the 5-segment LED indicator on the Q45UML will flash simultaneously to verify that the limit settings have been copied to the sensor.
- 6) Remove power from the Q45U sensor.
- 7) Remove the Q45UML card in the same manner used to remove the output card in step 2 (Figure 1).
- 8) Slide the output card back into the Q45U sensor, and push firmly into place.