

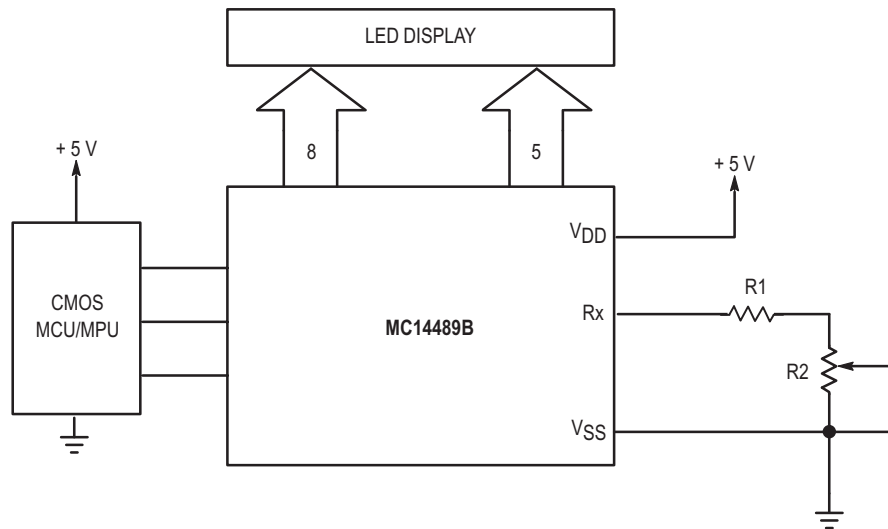
Figure 13. Bit Stream Formats for Five Devices Cascaded

NOTE: ENABLE (which initially must be inactive high) is kept active-low during the entire 13-byte configuration transfer or 15-byte display transfer. When ENABLE is brought back high, either a 13- or 15-byte transfer occurs in the cascaded devices, depending on the number of bytes in the transfer.

Table 2. Register Access for Two or More Cascaded Devices

Criteria*	Configuration Register Access		Display Register Access	
	Total Number of Bytes	Number of Leading "Don't Care" Bytes	Total Number of Bytes	Number of Leading "Don't Care" Bytes
If $3N$ is a Multiple of 4	$3N$	2	$3N + 2$	2
If $3N - 1$ is a Multiple of 4	$3N - 1$	1	$3N + 1$	1
If $3N - 2$ is a Multiple of 4	$3N - 2$	0	$3N$	0
If $3N - 3$ is a Multiple of 4	$3N - 2$	0	$3N$	0

* N = number of devices that are cascaded. For example, to drive 10 digits, 2 devices are cascaded; therefore, N = 2. To drive 35 digits, seven devices are cascaded; therefore N = 7.



NOTE: R1 limits the maximum current to avoid damaging the display and/or the MC14489B due to overheating. See the Thermal Considerations section. An 1/8 watt resistor may be used for R1. R2 is a 1 kΩ or 5 kΩ potentiometer ($\geq 1/8$ watt). R2 may be a light-sensitive resistor.

Figure 15. Common-Cathode LED Display with Dial-Adjusted Brightness