Canada

Shell diameter, federal operator qualifications and the written approval for a display.

What 2, 4 and 6 inches mean

Vulcan lists all three diameters for its Red Strobe 7001. Mystical's Canadian catalogue identifies its Allure assortment as 2 inches. Record the variant named on the stock label or invoice. [5–6]

2 in	4 in	6 in
50.8 mm exact conversion	101.6 mm exact conversion	152.4 mm exact conversion

The federal distinction

Consumer or display. Canada classifies authorized products by type. F.1 covers consumer fireworks and F.2 covers display fireworks. A product's assigned class determines which federal rules apply. Its diameter alone cannot establish that class. [1]

Display Assistant. Since October 21, 2026, the separate federal assistant certificate has been removed. An assistant must complete a Minister-certified display fireworks safety and legal awareness course before starting and every five years thereafter, and work under a Display Supervisor's direct supervision. [2]

Display Supervisor. Section 429 sets the large-shell threshold at **more than 155 mm**. NRCan calls that boundary "6 inches." Exactly 155 mm is within the ordinary diameter limit. Above it, the supervisor needs the applicable endorsement or direct supervision by the endorsed supervisor in charge. Certain effects and site types have separate endorsements. [3]

Local approval. Section 432(2) requires the written display plan to be submitted to the local authority and its written approval obtained before the event. Record the province or territory and municipality for the actual show. [4]

SOURCE LINKS

[1] Justice Canada · Explosives Regulations, s. 36
[2] Canada Gazette · SOR/2026-206, ss. 128–129, 160
[3] Justice Canada · Explosives Regulations, s. 429
[3] NRCan · Large-shell endorsement and units
[4] Justice Canada · Explosives Regulations, s. 432
[5] Vulcan · Red Strobe, item 7001, listed calibres
[6] Mystical Distributing · 2-inch Allure assortment

United States

For a U.S. event, start with the product classification, the activity and the event location.

Federal and local rules

Display fireworks. ATF regulates display fireworks as explosives under 27 CFR Part 555. The federal license or permit depends on the activity, such as importing, manufacturing, dealing in, receiving or transporting display fireworks. A six-inch catalogue entry does not determine which authorization applies. [7]

Consumer reloadables. CPSC identifies reloadable tube aerial shell fireworks devices that use shells larger than 1.75 inches in outer diameter as banned hazardous substances under 16 CFR §1500.17(a)(11). This provision concerns that consumer device category. [8]

Public displays. Add the host state and the local permitting authority to the show record. For example, Washington requires a permit from the authority having jurisdiction for any public fireworks display. Other states and localities have their own requirements. [7, 9]

Reading an inventory entry

Nominal shell diameter. Use the listed size for the exact product or assortment member. Vulcan Red Strobe 7001 comes in six sizes from 2 to 7 inches. Wald's U.S. display catalogue independently lists 2-, 4- and 6-inch Dancing assortments. A separate inventory line for each confirmed size preserves that distinction. [5, 10]

Single-shot unit or kit. Retain a published preloaded-unit diameter as a unit measurement. Canister length, package dimensions and a demonstration's label do not establish the diameter of a shell in inventory. An unverified shell size can stay unspecified until the exact variant is identified.

Sound, duration and distance. The Studio distinguishes published sound characteristics or relative ratings from estimated audio, and a visible-effect duration from a whole-product runtime. Audience distance changes the simulated viewpoint and sound delay. Site approval and spectator separation require a separate local review.

SOURCE LINKS

[5] Vulcan · Red Strobe, item 7001, listed calibres
[7] ATF · Fireworks and 27 CFR Part 555
[8] CPSC · Fireworks FAQ, consumer reloadable shells
[9] Washington Legislature · WAC 212-17-270
[10] Wald & Co. · 2025 Display Catalog, assortments