

§ 1193.43

and operable in accordance with each of the following, assessed independently:

(a) *Operable without vision.* Provide at least one mode that does not require user vision.

(b) *Operable with low vision and limited or no hearing.* Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.

(c) *Operable with little or no color perception.* Provide at least one mode that does not require user color perception.

(d) *Operable without hearing.* Provide at least one mode that does not require user auditory perception.

(e) *Operable with limited manual dexterity.* Provide at least one mode that does not require user fine motor control or simultaneous actions.

(f) *Operable with limited reach and strength.* Provide at least one mode that is operable with user limited reach and strength.

(g) *Operable without time-dependent controls.* Provide at least one mode that does not require a response time. Alternatively, a response time may be required if it can be by-passed or adjusted by the user over a wide range.

(h) *Operable without speech.* Provide at least one mode that does not require user speech.

(i) *Operable with limited cognitive skills.* Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

§ 1193.43 Output, display, and control functions.

All information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cues, shall comply with each of the following, assessed independently:

(a) *Availability of visual information.* Provide visual information through at least one mode in auditory form.

(b) *Availability of visual information for low vision users.* Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on audio.

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(c) *Access to moving text.* Provide moving text in at least one static presentation mode at the option of the user.

(d) *Availability of auditory information.* Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form.

(e) *Availability of auditory information for people who are hard of hearing.* Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (i.e., increased amplification, increased signal-to-noise ratio, or combination). For transmitted voice signals, provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, provide at least one intermediate step of 12 dB of gain.

(f) *Prevention of visually-induced seizures.* Visual displays and indicators shall minimize visual flicker that might induce seizures in people with photosensitive epilepsy.

(g) *Availability of audio cutoff.* Where a product delivers audio output through an external speaker, provide an industry standard connector for headphones or personal listening devices (e.g., phone-like handset or earcup) which cuts off the speaker(s) when used.

(h) *Non-interference with hearing technologies.* Reduce interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) to the lowest possible level that allows a user to utilize the product.

(i) *Hearing aid coupling.* Where a product delivers output by an audio transducer which is normally held up to the ear, provide a means for effective wireless coupling to hearing aids.

Subpart D—Requirements for Compatibility With Peripheral Devices and Specialized Customer Premises Equipment

§ 1193.51 Compatibility.

When required by subpart B of this part, telecommunications equipment and customer premises equipment shall be compatible with peripheral devices and specialized customer premises