

ENGINEERING BULLETIN

Subject: Instinct Carbon Monoxide Alarm Revisions

Date: 08/08/25

Triangle Tube is releasing a technical bulletin to align our carbon monoxide alarm requirements across our product range, in accordance with ANZI Z21.13, CPSC and AHJ's.

The following changes are being implemented in the Installation and Maintenance Manual, User Manual, and Vent Supplement.

Wall Hung and Floor Standing Installation and Maintenance Manuals

Page xi – Warning



The installer must verify that at least one carbon monoxide alarm has been installed within a residential living space or home following the alarm manufacturer's instructions and applicable local codes before putting the appliance into operation. This paragraph follows the minimum requirements from CSA/ANSI code

A byproduct of any gas fired appliance is carbon monoxide. Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms powered by the electrical service with battery backup meaning either plugged into an electrical outlet or hard wired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

For all carbon monoxide requirements see section 2.7 of this manual or section 1.1 of the vent supplement. Consult the local authority having jurisdiction for any additional carbon monoxide alarm requirements in your area. See section 2.8 of this manual or Chapter 5 of the vent supplement for additional requirements in Massachusetts.



Failure to comply with these instructions can result in substantial property damage, serious injury, or death.

Page 10 - 2.7 Carbon Monoxide Alarm Installation

The installer must verify that at least one carbon monoxide alarm has been installed within residential living space or home following the alarm manufacturer's instructions and applicable local codes before putting the appliance into operation. This paragraph follows the minimum requirements from CSA/ANSI code

Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms with an alarm and battery back-up powered by the electrical service meaning either plugged into an electrical outlet or hardwired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

In the US, each carbon monoxide detector shall comply with NFPA 72 and be ANSI/UL 2034 listed and IAS 6-96 certified and in Canada shall comply with CAN/ULC-S524 and CSA 6.19 listed and must follow NBC and NFC code.

Consult the local authority having jurisdiction for any additional carbon monoxide alarm requirements in your area. See Section 2.8 on page 8 for additional carbon monoxide detector requirements in Massachusetts.



Page 10 - 2.8 Commonwealth of Massachusetts Installation Requirements

For all appliances in all installations the following must be adhered to in Massachusetts.

Page 10 - 2.8.1 Installation of Carbon Monoxide Detectors (Alarms)

1. At the time of installation of the gas appliance the installing plumber or gasfitter shall observe that a hard-wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed.
2. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard-wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the gas appliance.
3. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard-wired carbon monoxide detectors.

- a. No installation or replacement of a vented gas appliance shall be permitted unless a battery powered or electrically hard wired carbon monoxide detector is present on the same floor as the appliance or on the next adjacent floor when the appliance is located in a crawl space or an attic.
- b. Prior to putting the gas appliance into service, the installer must verify a carbon monoxide detector has been installed and is operational in requirements with local code. Under no circumstances should the gas appliance be operated without a functional carbon monoxide detector.

Page 10 - 2.8.2 Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720/72 and be ANSI/UL 2034 listed and IAS 6-96 certified.

Page 11 - 2.8.3

Whenever any through-the-wall vent is installed less than seven feet above the finished grade, a metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight feet above grade directly in line with the exhaust vent terminal. The sign shall read, in print size no less than 0.5 inches in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS.

Page 81 - 17.21 Check Carbon Monoxide Alarms

Verify that at least two (2) carbon monoxide alarms are installed and operating properly. One must be installed on the same floor as the mechanical room where the Instinct is located and another installed in the living area outside the bedroom(s). Inspect all CO alarms, making sure that they are powered and functional. Follow the manufacturers' maintenance and testing instructions for periodic alarm testing. If any are not functional follow the manufacturers' instructions for any remedial corrections. If these do not correct the issue inform the owner that faulty alarms require replacement as soon as possible by a qualified professional.

Vent supplement

Page VI – Danger

The installer must verify that at least one carbon monoxide alarm has been installed within a residential living space or home following the alarm manufacturer's instructions and applicable local codes before putting the appliance into operation. . This paragraph follows the minimum requirements from CSA/ANSI code



A byproduct of any gas fired appliance is carbon monoxide. Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms powered by the electrical service with battery backup meaning either plugged into an electrical outlet or hard wired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

For all carbon monoxide requirements see section 1.1 of this manual or section 2.7 of the installation and Maintenance Manual. Consult the local authority having jurisdiction for any additional carbon monoxide detector requirements in your area. See chapter 5 of this manual or section 2.8 of the Installation and Maintenance Manual for additional requirements in Massachusetts.

Failure to comply with these instructions can result in substantial property damage, serious injury, or death.

Page VIII – 1.1 Carbon Monoxide Alarms

The installer must verify that at least one carbon monoxide alarm has been installed within residential living space or home following the alarm manufacturer's instructions and applicable local codes before putting the appliance into operation. This paragraph follows the minimum requirements from CSA/ANSI code

Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms with an alarm and battery back-up powered by the electrical service meaning either plugged into an electrical outlet or hardwired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

In the US, each carbon monoxide detector shall comply with NFPA 72 and be ANSI/UL 2034 listed and IAS 6-96 certified and in Canada shall comply with CAN/ULC-S524 and CSA 6.19 listed and must follow NBC and NFC code.

Consult the local authority having jurisdiction for any additional carbon monoxide alarm requirements in your area. See Chapter 5 for additional carbon monoxide detector requirements in Massachusetts.

Page 33 – chapter 5

For all appliances in all installations the following must be adhered to in Massachusetts.

Page 33 - 5.1

1. At the time of installation of the gas appliance the installing plumber or gasfitter shall observe that a hard-wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed.
2. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard-wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the gas appliance.
3. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard-wired carbon monoxide detectors.
 - a. No installation or replacement of a vented gas appliance shall be permitted unless a battery powered or electrically hard wired carbon monoxide detector is present on the same floor as the appliance or on the next adjacent floor when the appliance is located in a crawl space or an attic.
 - b. Prior to putting the gas appliance into service, the installer must verify a carbon monoxide detector has been installed and is operational in requirements with local code. Under no circumstances should the gas appliance be operated without a functional carbon monoxide detector.

Page 33 - 5.2 Approved Carbon Monoxide Detectors (Alarms)

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720/72 and be ANSI/UL 2034 listed and IAS 6-96 certified.

Page 33 - 5.3 Signage

Whenever any through-the-wall vent is installed less than seven feet above the finished grade, a metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight feet above grade directly in line with the exhaust vent terminal. The sign shall read, in print size no less than 0.5 inches in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS."



User Manual

Page V - Carbon Monoxide Alarms

This product burns gas to produce heat. The appliance must be properly installed, operated, and maintained to avoid exposure to appreciable levels of carbon monoxide and the installer is required to confirm that at least one carbon monoxide alarm is installed in the living space before the appliance is put into operation. It is important for the carbon monoxide alarms to be installed, maintained, and replaced following the alarm manufacturer's instructions and applicable local codes. This paragraph follows the minimum requirements from CSA/ANSI code.

Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms powered by the electrical service with battery backup meaning either plugged into an electrical outlet or hard wired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

In the US, each carbon monoxide alarm shall comply with NFPA 72 and be ANSI/UL 2034 listed and IAS 6-96 certified and in Canada shall comply with CAN/ULC-S524 and CSA 6.19 listed and must follow NBC and NFC code.

Make sure that the carbon monoxide alarms are installed by professionals that inform you of all the maintenance required to keep the carbon monoxide alarms functional.

Page vii – Boxed Information

A byproduct of any gas fired appliance is carbon monoxide. Triangle Tube follows the recommended advice of CPSC and requires the installation of a minimum of two (2) carbon monoxide alarms powered by the electrical service with battery backup meaning either plugged into an electrical outlet or hard wired. One in the mechanical room where the boiler is located and another installed in the area outside each sleeping area for all installations.

For all carbon monoxide requirements see section 2.7 of the installation and Maintenance Manual or section 1.1 of the vent supplement. Consult the local authority having jurisdiction for any additional local requirements in your area. See section 2.8 of the Installation and Maintenance Manual or Chapter 5 of the vent supplement for additional requirements in Massachusetts.

Failure to comply with these instructions can result in substantial property damage, serious injury, or death.

Page 6 – 3.2.4 Check CO Alarms

Verify that at least two (2) carbon monoxide alarms are installed and operating properly. One must be installed on the same floor as the mechanical room where the Instinct is located and another installed in the living area outside the bedroom(s). Inspect all CO alarms, making sure that they are powered and functional. Follow the manufacturers' maintenance and testing instructions for periodic alarm testing. If any are not functional follow the manufacturers' instructions for any remedial corrections. If these do not correct the issue the non-functional alarm(s) must be replaced as soon as possible by a qualified professional.