

Equipment Bulletin: PPM™ Encoders

Best Practices to Prevent an “OVER TEMP” Warning

Arbitron’s PPM encoders are studio-grade pieces of audio equipment that have been designed to heat tolerances similar to those of other pieces of broadcasting equipment. Properly installed in a temperature-controlled environment, Arbitron’s PPM encoders should provide years of maintenance-free encoding. In extreme environmental conditions, however, the encoder may overheat and shut down. This document will provide you with important information about the circumstances that may cause an encoder to overheat, steps to take in case of overheating and reminders on ways to minimize the potential for an encoder overheating.

Are Arbitron Encoders Overly Sensitive to Heat?

In and of itself, the PPM encoder’s tolerance to heat is neither greater nor less than the heat tolerance of other pieces of broadcast equipment. Unlike other pieces of equipment, however, under extreme heat the encoder may shut down and stop encoding. Overheat-related shutdown is a design feature of the encoder, and is intended to protect the quality of the station’s audio from any audible artifacts that may result from the overheating and to protect the encoder itself from additional damage.

How Will I Be Notified of an Encoder Shutdown?

You will be notified that your encoder has shut itself down by an alarm from your encoding monitor. As a properly installed encoding monitor is continually listening for your station’s encoding, loss or interruption of encoding—for any reason—will cause the monitor to alarm within three minutes of the interruption in encoding.

What Should I Do if My Encoder Has Shutdown?

If your monitor alarms, you should immediately activate the station’s backup encoder. Doing so will minimize the duration of any unencoded interval. Upon restoration of encoding, you can then begin to research the cause of the encoding interruption.

How Can I Tell if My Encoder Has Overheated?

If your encoder has overheated, the encoder’s LCD readout will display the message “OVER TEMP Encoder Disabled.” If this message is displayed, you should immediately switch the overheated encoder to “Bypass” mode. While the encoder is not actively encoding while it is shut down, if the encoder is not in bypass mode it will automatically resume encoding once its internal temperature is normalized. Setting the overheated encoder into bypass mode will prevent the encoder from any unintended encoding.

Should I Contact My Arbitron Engineer?

Yes. It is recommended that you contact your Arbitron broadcast engineer any time your station experiences an interruption in encoding. Your station’s Arbitron engineer will work with you to determine the best course of action.

What Can I Do to Prevent Encoders From Overheating?

You can minimize this risk by following some basic engineering ‘rules of thumb’ while installing your PPM encoding equipment:

- Install the encoding equipment in an air-conditioned environment. Encoders installed in temperature-controlled environments are unlikely to overheat.
- Install the encoding equipment in the rack with adequate ventilation above and below the unit. While rack space is always at a premium, Arbitron recommends installing the equipment with one-half inch (e.g., one open space) clearance above and below the encoder.
- Install the PPM encoding monitor and integrate it into your station’s critical alarm system. Installation of a PPM encoding monitor is critical to the successful encoding of your station. Without the aid of a properly installed encoding monitor, your station will have no reliable way of verifying that your station is actually encoded.

- Install backup encoding equipment at an accessible location. Installation of backup encoding equipment at the studio, at a location with round-the-clock staff or at another easily accessible location helps to ensure that the backup encoder can be turned on quickly as the need arises.

Future Encoder Designs

As of this writing, Arbitron has developed several next-generation encoder prototypes, some of which include internal ventilation mechanisms. It is expected that these mechanisms will increase the encoder's heat tolerance. These prototypes are currently in the late stages of development, and may have been installed by some stations that are subject to extreme environmental conditions. Should these prototypes become the future standard, they will be offered to additional stations.

For Additional Information

For additional information regarding Arbitron's Encoding and Reporting Policy, contact:

John M. Budosh

Principal Policy Analyst

john.budosh@arbitron.com

(410) 312-8722

For additional technical information regarding Arbitron encoding equipment, contact:

Lang Sturgeon

Manager, Syndicated Encoding Operations

lang.sturgeon@arbitron.com

(410) 312-8568

PPM™ is a mark of Arbitron Inc.

PPM-09-04125

Headquarters

9705 Patuxent Woods Drive
Columbia, Maryland 21046
(410) 312-8000

Atlanta

9000 Central Parkway
Suite 300
Atlanta, Georgia 30328
(770) 668-5400

Chicago

222 South Riverside Plaza
Suite 630
Chicago, Illinois 60606
(312) 542-1900

Dallas

13355 Noel Road
Suite 1120
Dallas, Texas 75240
(972) 385-5388

Los Angeles

10877 Wilshire Blvd.
Suite 1400
Los Angeles, California 90024
(310) 824-6600

New York

142 West 57th Street
New York, New York 10019
(212) 887-1300