



BI-DIRECTIONAL AMPLIFIER (BDA) INSPECTIONS

What Is A BDA And Why Is It Necessary?

A Bi-Directional Amplifier (BDA), also known as an Emergency Responder Communications Enhancement System (ERCES), helps ensure reliable public safety radio communication inside buildings. Modern construction materials like reinforced concrete, energy-efficient glass, hurricane-rated windows, and fire-rated walls can block or weaken signals, making it difficult for emergency responders to communicate.

A BDA system captures strong public safety radio signals through a donor antenna, usually located on the roof, amplifies them, and redistributes them inside the building using antennas placed in areas with weak or no signal.

In the City of Fort Lauderdale, two public safety radio networks serve residents, visitors, and workers:

- City of Fort Lauderdale Public Safety Radio System (800 MHz band)
- Broward County Public Safety Radio System (700 MHz band)

Legal Requirements

Florida Statute 633.202(18), the Florida Fire Prevention Code, and the Florida Building Code (Broward County Edition) require buildings over 12,000 square feet to maintain adequate public safety radio coverage, with limited exceptions. Coverage requirements include:

- 90 percent signal coverage in non-critical common areas
- 99 percent signal coverage in critical areas such as stairwells, elevators, areas of refuge and egress, fire alarm control rooms, generator rooms, and fire pump rooms

A BDA system may be necessary to meet these standards and protect building occupants and first responders.

Who Is Exempt From This Requirement?

Most buildings must meet public safety radio signal strength requirements. However, the following occupancies are not required to meet these standards or undergo a radio signal strength assessment:

See reverse side for more information

- One- and two-family dwellings and townhouses
- Buildings under 12,000 total square feet with no underground areas
- Apartments and transient lodging that are less than three stories and have direct exterior exits
- Wood-frame apartment buildings not otherwise required to install two-way radio systems

How Can I Determine If My Building Needs A BDA?

To find out if your building meets public safety radio coverage requirements, consider these options:

1. Request a DAQ test

Email BDA@FortLauderdale.gov to schedule a Delivered Audio Quality (DAQ) test.

A City Telecommunications Coordinator will test both the City and County systems and provide you with the results.

2. Annual fire inspection testing

During your building's annual fire inspection, fire inspectors will conduct sample signal tests in critical areas.

3. Hire a professional for an ERCES Grid Survey

A licensed BDA or fire alarm contractor can perform a full ERCES Grid Survey using specialized radio equipment. The results will be used by an engineer to design a compliant system for permitting, if one is needed.

What should I do if my building fails a DAQ test or receives a citation?

If your building fails a DAQ test or receives a Fire Department citation for inadequate signal coverage, follow these steps:

1. Review the results

Contact the City's Telecommunications Coordinator at BDA@FortLauderdale.gov to discuss the citation or test results and identify areas of concern.

2. Hire a licensed contractor

A qualified BDA or fire alarm contractor can perform a full ERCES Grid Survey to map weak signal areas and inform the design of a compliant system.

3. Submit plans for approval

Work with your contractor and engineer to prepare and submit the BDA system plans for permitting and review.

4. Install and test the BDA system

Once plans are approved, your contractor will install the system. Post-installation testing is required to confirm code compliance.

5. Schedule a re-inspection

Contact the Fire Department for a follow-up inspection to confirm the system resolves any issues and clears the citation.

Contact us

For questions or to schedule a free DAQ test, email the City of Fort Lauderdale Building Services Telecommunications Coordinators at BDA@FortLauderdale.gov.