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COURSE INFORMATION

Alternate Title: Intro to Cable Acc/Standards

Description:

10-451-104 INTRODUCTION TO CABLE ACCESSORIES AND STANDARDS ...introduces the fundamentals and characteristics of cable accessories and carrier installation standards for a broad cross section of wireless construction. This includes communication cables, weather proofing, handling and support, grounding, and the components of cell systems.

Instructional Level: 10

Total Credits: 2

Total Hours: 54

COURSE HISTORY

Status: Active

Active Date: 5/23/2021

Last Revision Date: 3/14/2022

Revised By: Kristina Wendricks (15002977)

Last Approval Date: 3/14/2022

Approved By: Kristina Wendricks (15002977)

COURSE COMPETENCIES

1. **Perform RF cable operations.**

     Status: Active

    Assessment Strategies

    1.1. hands-on demonstration, discussion

    Criteria

    1.1. Determine the correct size

    1.2. Cut coax to length

    1.3. Strip back outer jacket

    1.4. Install connectors

    Learning Objectives

    1.a. Identify usage of coax cables

    1.b. Make coax connectors

2. **Perform Power cable operations.**

     Status: Active

Assessment Strategies

2.1. hands-on demonstration, discussion

Criteria

Learners will be successful when they are able to:

2.1. Strip back wire

2.2. Apply lug

2.3. Apply heat shrink

2.4. Determine the correct size

2.5. Evaluate size to electrical current

Learning Objectives

2.a. Identify power cable usage and standards

2.b. Make power cable connections

3. Perform fiber optics operations.

Status: Active

Assessment Strategies

3.1. hands-on demonstration, discussion

Criteria

Learners will be successful when they are able to:

3.1. Identify fiber management boxes

3.2. Identify a fiber connection point

3.3. Identify the type of needed fiber

3.4. Strip the fiber to bare fiber

3.5. Cleave the fiber

3.6. Place fibers in the fusion splicer

3.7. Heat shrink protection sleeve onto fiber

3.8. Clean fiber connections

3.9. Perform load test

3.10. Laser test fiber optic cable

Learning Objectives

3.a. Identify which LTE/4G cell site components contain fiber optic materials.

3.b. Identify usage and properties

3.c. Splice fiber optic cables

3.d. Troubleshoot fiber optic cables

4. Perform grounding wire operations.

Status: Active

Assessment Strategies

4.1. hands-on demonstration, discussion

Criteria

Learners will be successful when they are able to:

4.1. Determine the correct sizes

4.2. Apply routing techniques

4.3. Strip back wire jacket

4.4. Apply lug

4.5. Apply weather proof heat shrink

Learning Objectives

4.a. Identify grounding standards.

4.b. Terminate ground wires.

5. Perform Cat 5, 6, and 7 operations.

   Status: Active

Assessment Strategies

5.1. hands-on demonstration, discussion

Criteria

Learners will be successful when they are able to:

5.1. Compare Data transfer speeds

5.2. Strip wire

5.3. Separate wires to standard

5.4. Apply RJ45 connector

5.5. Punch into alarm block

Learning Objectives

5.a. Describe the purpose.

5.b. Make RJ45 connectors