

**1. Module details****Module name****Television Signal Source and Distribution  
Component Installation****Module duration**

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 36 – 40 hours.

**Module code**

NUE009

**Discipline code****2. Module purpose**

To provide participants with the underpinning knowledge and skills to install television signal sources and distribution components in a variety of buildings and structures.

**3. Prerequisites**

For the purpose of the Television Antenna Installer Traineeship the following modules must be completed first:- NE175, NUE002

If this module is to be delivered outside the Traineeship students would need to have demonstrated competencies in Workplace Health and Safety, Mathematics and signal sources and distribution components to the standards required for the above module.

**4. Relationship to competency standards**

This module provides some of the knowledge and skills underpinning competency in the following standards:

Electrical Contracting Industry Award Standards:

Electrical Stream Units 5.1 - 5.10

Electronic Stream Units 5.1 - 5.7

**5. Content****Work organisation**

job planning

component selection

vehicle preparation

tool kits

**Buildings**

structures and layouts - hi-rise, domestic

building plans and schematics

power and communications cable layouts

product - building match

safety - around buildings

site security systems

**Tools and equipment:**

work platforms

ladders

**Cable laying**

cable runs: cavity, surface, ceiling  
 conduit  
 positioning of cables - bend radius  
 where and how to tie cables (laying cables)  
 cable support  
 cable layout plans and diagrams

**Hardware: fixings and mountings**

installation etc.  
 standards: (knowledge of only) AS1367 and AS3000  
 hanging and fixing guide wires, masts

**6. Assessment strategy**

**Assessment methods**

A short answer and/or multi choice test is suggested for theoretical criteria only. Most outcomes should be completed and assessed on-the-job. (see “on-the-job competencies” in the Television Antenna Installer Traineeship trainee log book). It is expected the assessment strategy would suit the mix of on/off-the-job content delivery chosen.

**Conditions of assessment**

Students will be provided appropriate tools, manufacturers data where appropriate, building plans and schematics. For on-the-job assessment, checklists for van/vehicle preparation and all other appropriate paperwork should be provided.

**7. Learning outcome details**

**Learning outcome 1**

**Prepare for a days work.**

**Assessment criteria**

- 1.1 Select tools and equipment required
- 1.2 Load and prepare the van/vehicle
- 1.3 Complete appropriate paperwork

**Learning outcome 2**

**Select system components, cables and hardware to match building construction.**

**Assessment criteria**

- 2.1 Describe the construction of various commercial and domestic buildings
- 2.2 Interpret building plans
- 2.3 Locate power distribution cables
- 2.4 Demonstrate safety around buildings and building sites

<b>Learning outcome 3</b>	<b>Demonstrate the correct use of tools and equipment in the installation of components, cables and hardware.</b>
<b>Assessment criteria</b>	3.1 Select appropriate tools for installation tasks 3.2 Select an appropriate ladder for an installation task 3.3 Apply occupational health and safety practices in the use of tools and equipment
<b>Learning outcome 4</b>	<b>Install distribution cables.</b>
<b>Assessment criteria</b>	4.1 Run distribution cables in the following building structures: - cavity - ceilings - external and internal surfaces 4.2 State appropriate standards for installation of cables 4.3 Interpret cable layout diagrams
<b>Learning outcome 5</b>	<b>Install fixings and mountings.</b>
<b>Assessment criteria</b>	5.1 Describe the purpose of various fixings and mountings, including guides and masts 5.2 State appropriate standards for the installation of fixings and mountings 5.3 Select appropriate fixings and mountings for an installation
<b>Learning outcome 6</b>	<b>Install signal sources.</b>
<b>Assessment criteria</b>	6.1 Carry out a site survey 6.2 Select the correct signal source for the site 6.3 Locate and orient the signal source with the use of appropriate instrumentation

**8. Delivery of the module**

**Delivery strategy**

This module may be highly integrated on and off-the-job. Where possible the off-the-job training provider should deliver the use of hand tools. Collaboration between the training provider and employers may enable other elements to be initially delivered off-the-job, e.g. cable laying, fixings and mountings and building structures. Visits to a variety of building sites are highly recommended.

**Resource requirements**

**Physical resources for off-the-job training**

- tools
- work platforms
- examples of building structures
- building plans and schematics
- fixings and mountings

**Human Resources**

Teachers would be expected to hold a trade qualification equal to or higher than the content delivered in this module and possess or be undertaking an appropriate teaching/training qualification  
On-the-job teachers would require formal workplace trainer and assessor qualifications

**Suggested Learning Resources**

Hills Industries, LTD, 1991, *Antenna Installation Manual*, Hills Industries

**Occupational health and safety requirements**

Students must be made aware of relevant workplace health and safety issues in all situations and are required to demonstrate safe working practices at all times