



**National Qualifications 2014
Internal Assessment Report
Applied Practical Electronics**

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

National Courses

Intermediate 1 Applied Practical Electronics (X119)

General comments

All 10 centres visited in session 2013–14 were subject to successful visiting verification on completion of the Course. This Course is now in its completion period with most centres changing over next session to the new National 4 and National 5 Courses in Practical Electronics.

All centres have a clear and accurate understanding of the requirements of the national standards. Centres are gaining consistency, in relation to previous sessions, with regard to the general accepted standard of required evidence, both written and practical. The biggest variable is still the accepted standard of practical work: from circuit layout, to soldering then eventual testing.

With regard to written submissions, the minimum acceptable standard appears to be the norm but there were also good examples where candidates were encouraged to be more reflective, and analytical with the conclusions in their written submissions.

There are still clear differences in the amount of detail given by assessors and Internal Verifiers for external verification. Not all centres were able to provide clear written detail with regard to assessment decisions but most decisions were found to be accurate when explored during the external verification process.

Adjustments were made when necessary. Some centres lacked written evidence that internal verification had taken place. This was cleared up in subsequent discussions but centres should be encouraged to provide clear documentary evidence that internal verification has taken place.

Course Arrangements, Unit specifications, instruments of assessment and exemplification materials

All centres are familiar with the current necessary documentation required to deliver this award effectively. Some centres use the cycle lights project, whereas others use the traffic light controller project.

Evidence Requirements

All centres demonstrate a clear understanding of the Evidence Requirements for the Course. In relation to previous sessions, there are still some differences in the general accepted standard of required practical evidence. The biggest variable, as stated above, is the accepted standard of practical work from circuit layout, to soldering then eventual testing. With regard to written submissions, the minimum acceptable standard appears to be the norm, as stated above, but

there were also good examples where candidates were encouraged to be reflective and more analytical with conclusions in their written submissions.

Administration of assessments

Most assessment decisions were found to be accurate. However, there were clear differences in the amount of detail given by assessors and Internal Verifiers for external verification. Not all centres were able to provide clear written detail with regard to assessment decisions but most decisions were found to be accurate when explored during the external verification process and adjustments were made where necessary. As stated above, some centres lacked written evidence that internal verification had taken place. This was cleared up in subsequent discussions but centres should be encouraged to provide clear documentary evidence that internal verification has taken place.

Areas of good practice

The following areas of good practice were identified in reports during session 2013–14 and should raise standards if implemented in all centres, where possible and applicable:

- ◆ Each candidate's work was marked by two teachers and these marks discussed, and then a final mark was given.
- ◆ The materials produced by all the pupils were all working and of a high standard.
- ◆ The professional numbering system used for labelling the wire loom and the use of plastic sleeving to raise the boards all added to the quality of the project.
- ◆ The additional sheet produced by the centre to explain mark allocation was helpful.
- ◆ One centre had also produced a Report Review form for the pupils, which identified omissions and further Evidence Requirements to ensure everything was present in their final pack.
- ◆ The pupils produced a very high standard of work.
- ◆ The presentation of the completed project work was of a very high standard.
- ◆ The pupils clearly displayed all the skills from the earlier Units in the final project.
- ◆ There was a clear progression in ability from the lower graded projects to those graded at the top band.
- ◆ One centre appeared to have an effective verification system in place. This system is being implemented by an enthusiastic, experienced and diligent team of staff. It is hoped that this system is further expanded to include clear standardised documentation regarding such items as team discussions regarding resources, assessments, etc.

Specific areas for improvement

The following areas for improvement were noted in certain centres and are highlighted here in order to raise awareness where applicable. These points should prove helpful for centres moving over to the new National 4 and National 5 Practical Electronics Courses.

- ◆ Internal verification needs to be more rigorous with minutes of meetings and agreement on acceptable standards.
- ◆ A pro forma should be developed which could be used to explain the marks awarded under each heading of the Marking Scheme. For example, pupils should not be given 15 marks for just choosing the most complex circuit.
- ◆ A record should be kept detailing the amount of help and support each pupil required. Pupils who worked independently should also have this noted. This record will assist the Internal Verifier when checking the marks awarded under each heading.
- ◆ A candidate checklist should be introduced (similar to page 35 in the cycle lights project). This would help the pupil and the assessor check that all the required materials are kept and made available to the verifiers.