



Qualification Verification Summary Report

NQ Verification 2018–19

01

Section 1: Verification group information

Verification group name:	Practical Electronics
Verification event/visiting information	Visiting
Date published:	June 2019

National Courses/Units verified:

H25N 74 National 4 Developing an Electronic Solution — added value unit
C860 75 National 5 Practical Activity

02

Section 2: Comments on assessment

Assessment approaches

13 centres were externally verified in round 2 by visiting verification, four centres for National 4 and nine centres for National 5. The visits resulted in nine centres (eight at National 5 and one at National 4) being accepted, with the other four centres being accepted with recommendations. All centres used the available SQA assessments effectively with no problems encountered regarding the approach to assessment.

Assessment judgements

All judgements made by assessors and internal verifiers were found to be consistent across all tasks and aligned with national standards. There was evidence that the amount of detail in candidate progress records kept by assessors and checked by internal verification is consistently improving and cross referenced with the appropriate marking scheme.

Debate in centres between assessors and internal verifiers focuses on terms used in the marking scheme such as 'significantly incomplete' and 'partially

complete'. These discussions ensure a consistent interpretation of the marking scheme within centres. External verification visits frame this in a national context.

03

Section 3: General comments

The marking schemes for the National 5 Practical Activity and National 4 Added Value Unit are seen in centres as being relatively clear, with debate centred around the use of terms such as 'significantly incomplete' and 'partially complete'.

Candidates mainly perform well in the more practical aspects of the task. These mainly consist of circuit construction, wiring and assembly, as well as circuit simulation. For National 5, this accounts for 51 of the available 70 marks. By the time that candidates come to this assignment they should be suitably experienced in these elements. It is essential that candidates have access to a suitable range of tools and equipment, properly maintained, in order to achieve these tasks. In addition, candidates need to be encouraged to give clear, legible, fully annotated and accurate drawings and circuits at all stages in order to achieve maximum marks for the practical stages. All components should be properly labelled on circuits and in diagrams. Candidates should be encouraged to see each major stage of the assignment as a milestone that should be clearly documented and understood by others.

The initial analysis of the given problem is more demanding and accounts for 7 marks. Candidates analysing the task correctly with accurately labelled diagrams can achieve the maximum marks. Others will require some guidance in order to proceed with the rest of the assignment and their marks will reflect this support. Good circuit simulation should also include a range of circuit performance results which will assist candidates when testing the solution that they build as they will be able to compare actual test results with the simulation results. This will also help candidates to achieve a higher band of marks in the construction section as their circuits will include test points. It will also assist them with the reporting section.

The final 12 marks can be demanding for candidates. They consist of 7 marks for testing the solution and 5 marks for reporting and evaluation. Key to gaining these marks is the candidate's ability to keep a clear and accurate project logbook which details key stages in the assignment, and the ability to evaluate the test results of their completed circuit against the simulation test results and the task specification.