

Type B Gas Appliances

Responsibilities and approval process

Gas Bulletin #52

Revised February 2024

The *Gas Act 1997* and *Gas Regulations 2012* require that type B gas appliances and installations be compliant with the following standards before they are operated commercially:

- AS 3814 - Industrial and Commercial Gas Fired Appliances
- AS/NZS 5601 - Gas Installations

Natural gas and LPG entities must not supply gas to an unsafe installation.

Owner / Operator responsibilities

The owner / operator of a gas installation has a legal obligation to ensure that the gas installation complies with the Act and is operated in accordance with technical and safety requirements under the Regulations. The installation must also be safe and safely operated.

The owner can rely on a valid gas certificate of compliance issued by a licensed gas contractor to satisfy part of this requirement.

In relation to new, relocated or modified Type B appliances, the owner / operator must not commercially operate the equipment until certified by an OTR recognised certifier. Certified type B appliances have a hallmark label attached and a Type B Certificate of Compliance issued to confirm certification.

Extract from the Gas Act 1997

55—Responsibility of owner or operator of infrastructure or installation

(1b) A person who owns or operates a gas installation must take reasonable steps to ensure that—

- (a) the installation complies with, and is operated in accordance with, technical and safety requirements imposed under the regulations; and
- (b) the installation is safe and safely operated.

Maximum penalty:

- (a) if the offender is a body corporate—a penalty of \$50 000;
- (b) in any other case—a penalty of \$10 000.

Expiation fee: \$315.

(2) For the purpose of ensuring under this section that a gas installation complies with the technical and safety requirements, a person may, subject to the regulations, rely on a certificate of compliance issued under this Division in relation to the installation.

Gas Contractor responsibilities

The person who; installs, commissions or modifies a type B gas appliance must not supply gas to the appliance until a Commissioning gas letter has been issued by an Authorised Certifier.

To obtain a commissioning letter the gas contractor or commissioning agent engages a recognised Type B certifier to review a technical submission to the AS 3814 standard. If the submission documentation meets the requirements the certifier issues a commissioning gas letter.

The commissioning gas letter is valid for 28 days and allows the appliance to be commissioned by the authorised contractor or commissioning agent in preparation for on-site inspection and testing by the certifier.

Commissioning authority does allow for some trial production to ensure the appliance meets production demands, but this is under the control of the commissioning agent and operator.

Type B appliances must not be handed over to the owner / operator for commercial operation until a certification label has been attached and a Type B Certificate of Compliance has been provided to the owner / operator.

Extract from the Gas Act 1997

56—Certain gas fitting work

(1) A person to whom this section applies who carries out work on a gas installation or proposed gas installation must ensure that—

- (a) the work is carried out as required under the regulations; and
- (b) examinations and tests are carried out as required under the regulations.

Maximum penalty:

- (a) if the offender is a body corporate—a penalty of \$50 000;
- (b) in any other case—a penalty of \$10 000.

Expiation fee: \$315.

(2) If work on a gas installation or proposed gas installation is personally carried out by a registered gas fitting worker under the *Plumbers, Gas Fitters and Electricians Act 1995*, the person to whom this section applies must ensure that the requirements of the regulations as to notification and certificates of compliance are complied with.

Maximum penalty: \$5 000.

Expiation fee: \$315.

(3) This section applies—

- (a) if a licensed gas fitting contractor under the *Plumbers, Gas Fitters and Electricians Act 1995* or licensed building work contractor under the *Building Work Contractors Act 1995* has been engaged to carry out the work (whether personally or not)—to the licensed gas fitting contractor or licensed building work contractor; or
- (b) in any other case—to the person who personally carries out the work.

(4) A prosecution for an offence against this section may be brought at any time within the period of 3 years after the date on which the offence is alleged to have been committed.

GAS REGULATIONS 2012 v 1.1.2017 (SOUTH AUSTRALIA)

Under the Gas Act 1997

43—Installing or commissioning Type B appliances

- (1) For the purposes of section 56 of the Act—
 - (a) a person who installs, commissions or modifies a Type B appliance must ensure that the work is carried out, and examinations and tests are carried out, in accordance with AS 3814 and AS/NZS 5601; and
 - (b) a person who carries out work, or examinations or tests, related to moving a Type B appliance to a different location (whether on the same premises or otherwise) must ensure that the work is carried out, and examinations and tests are carried out, in accordance with AS 3814.
- (2) A person must not commence supplying gas for use in a Type B appliance following installation of the appliance unless the appliance has been approved as complying with the requirements of AS 3814.
- (3) Subregulation (2) does not prevent a person from temporarily supplying gas for the purposes of the commissioning of a Type B appliance or the determination of whether the appliance complies with the requirements of AS 3814.
- (4) For the purposes of this regulation, AS 3814 and AS/NZS 5601 are to be read as if any requirement for approval of a regulatory body were a requirement—
 - (a) if the appliance in question is, or is to be, connected to a distribution system, for approval of the distribution system operator whose system it is or an authorised officer;
 - (b) in any other case, for approval of an authorised officer.
- (5) An approval under this regulation must be in a form approved by the Technical Regulator.
- (6) The person approving a Type B appliance under this regulation must complete a Type B certificate of compliance to the effect that the requirements for approval under this regulation have been complied with.
- (7) The person—
 - (a) must provide a copy of the completed Type B certificate of compliance to—
 - (i) the person on whose behalf the work was carried out; and
 - (ii) the Technical Regulator; and
 - (b) being an authorised officer, must—
 - (i) if the work is associated with the making of a connection or reconnection to a distribution system, provide a copy of the completed Type B certificate of compliance to the distribution system operator; or
 - (ii) if the work is not associated with the making of a connection or reconnection to a distribution system—
 - (A) provide a copy to the supplier of pressurised vessel gas for the installation, if known; or
 - (B) if the supplier is not known, provide a further copy to the person on whose behalf the work was carried out.
- (8) If the person on whose behalf work on a Type B appliance was carried out is not the owner of the appliance, that person must, within 30 days of completing the work, provide a copy of the Type B certificate of compliance to the owner of the appliance.
- (9) Despite regulation 45, the owner of a Type B appliance must—
 - (a) keep a copy of each Type B certificate of compliance provided in relation to the appliance until the appliance is sold or otherwise disposed of; and
 - (b) on sale or transfer of the appliance, deliver copies of all certificates of compliance held in relation to the appliance to the new owner (who must keep any Type B certificate in accordance with paragraph (a)).
- (10) A fee determined on a basis approved by the Commission may be required by the distribution system operator or the authorised officer for determining whether to approve a Type B appliance under this regulation.
- (11) A fee required by a distribution system operator or an authorised officer who is not a Public Service employee may be retained by the operator or officer.
- (12) In this regulation—

Type B certificate of compliance means a certificate of compliance issued for the purposes of Part 9 Division 3 of the Act that certifies that the requirements for approval of a Type B appliance under this regulation have been complied with.

Authorised Certifiers

There are 2 type B appliance approvers recognised by the Technical Regulator as appropriate organisations to examine type B appliance submissions, carry out on-site inspection and testing, and issue approvals of compliance with AS 3814 in South Australia.

Submissions for certification are be forwarded to either:

TG Certifications

A locally registered entity affiliated to Tamar Gas based in Tasmania. TG Certifications is also experienced in this area and is currently performing this function interstate. For more information about TG Certifications contact:

Stephen Wright

TG Certifications
PO Box 219 Gravelly Beach
Tasmania 7276

Ph 0428 381 803
Fax 03 6394 3643 or
Email to tgc@tamargas.com.au

Australian Gas Association (AGA) Limited

Experienced in this area and is currently performing this function interstate. For more information about AGA Limited check their website at aga.asn.au
AGA Limited has an alliance with a local South Australian company, Gassupport Pty Ltd to perform the majority of South Australian approvals. Gassupport has engaged professional combustion engineers to assist in this process where necessary.

Vincent Monsigneur

Gassupport Pty Ltd
PO Box 83
Royal Park
SA 5014

Ph: 0407 774 352 or
Ph: 0408 417 461
Email: admin@gassupport.com.au

Fees

All NG and LPG approvals are chargeable, and you are advised to contact the above certifier regarding cost estimates. On choosing a certifier you will need to complete a submission based on the requirements outlined in Appendix A and B of AS 3814, included below and forward it to the chosen certifier to initiate the certification process. **The certifier may require additional information. If in doubt contact the approver.**

If you have any questions about the arrangements, please contact the Gas trades section of the Office of the Technical Regulator by phoning 08 8226 5722 or by email at otr@sa.gov.au

Regards

Ron Meakins

Manager Gas Installation and Appliance Safety
Office of the Technical Regulator

AS3814 : 2018 Appendix B

Typical Procedure for the Approval of Industrial and Commercial Appliances

This is a guide on the procedure generally adopted by persons or bodies wishing to install or commission appliances covered by this Standard.

Whilst the recognised type B approver may inspect and test the appliance for compliance with the requirements of this Standard, the person(s) or bodies responsible for the installation or commissioning of the appliance should ensure—

- a) Compliance with these requirements;
- b) Adequate instruction of operating personnel; and
- c) The safety of the installed appliance.

The typical procedure for approval is:

- i. The details set out in Appendix A should be submitted to the approvers at least **28 days** before the appliance is due to be commissioned, together with any relevant fee that may be required by the assessor for inspection and testing.
 - ii. The assessor will examine the details submitted and may give its comments or preliminary approval **within 14 days**.
 - iii. No appliance is to have gas turned on until preliminary acceptance of the approver has been given.
 - iv. Upon receipt of preliminary approval, the appliance may be commissioned by a licensed/registered/approved commissioning person.
 - v. At least **7 days** notice should be given to the assessor to inspect and test the commissioned appliance.
 - vi. The assessor may carry out an on-site inspection and test of the installed appliance as soon as possible after the receipt of a request to test and the completion of commissioning.
 - vii. When satisfied that the appliance meets these requirements, the approver will issue a Certificate/Notice of Compliance upon request and will attach an approval label to the appliance.
 - viii. No appliance should be handed over to the owner/operator for operation until the requirements of the assessor have been met.
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AS3814 : 2018 Appendix A
Typical Information and Technical Data Required for a Type B Submission

- a. Name and address of appliance manufacturer/OEM.
- b. Name and address of the authorised installer or conversion contractor.
- c. Name and address of commissioning person or organization
- d. Name and address of organization(s) responsible for the risk assessment.
- e. Name and address of organization where appliance is or is to be installed.
- f. Customer contact and telephone number.
- g. Appliance type, model, operation, and process description.
- h. Number of burners and type.
- i. Nominal gas consumption for total appliance and for each main burner.
- j. Gas consumption at ignition for each burner.
- k. Air flow rate at ignition for each burner.
- l. Volume of each combustion chamber.
- m. Total volume swept by the combustion products from the burner(s) to each flue connection.
- n. Air flow rate during purge periods.
- o. Details and method of operation of any combustion air or flue dampers.
- p. Details of any explosion reliefs including location, cross-sectional area, and weight together with calculations (refer AS 1375 Appendix E).
- q. Appliance marking plate details (see Clause 4.1 for requirements).
- r. Process and instrumentation diagrams for the appliance (see Figure A3).
- s. Schematic drawing of the combustion air control system and fuel valve train specifying all valve train components (i.e. their brand, model number, size and rated working pressure) and the proposed setting of all adjustable devices (refer Figure A1 for a typical example).
- t. Schematic electrical wiring diagram showing the safety and control circuits including details of the brand, model number and method of operation of each major component and the proposed setting of any adjustable device (refer Figure A2).
- u. Purge time calculations.
- v. Calculations of start gas rate conditions (see Clause 3.2.3).
- w. Air dilution rate calculations for processes involving solvents or dusts (refer to AS 1375).
- x. Ventilation provided or to be provided in the area where the appliance is or is to be installed (refer AS/NZS 5601.1).
- y. Method of flueing and location and type of flue material.
- z. Operating instructions.
- aa. Documentation requirements for PES safety instrumented systems (see Clause 2.27.6).

NOTE: Units of measurement should be in accordance with the SI system.

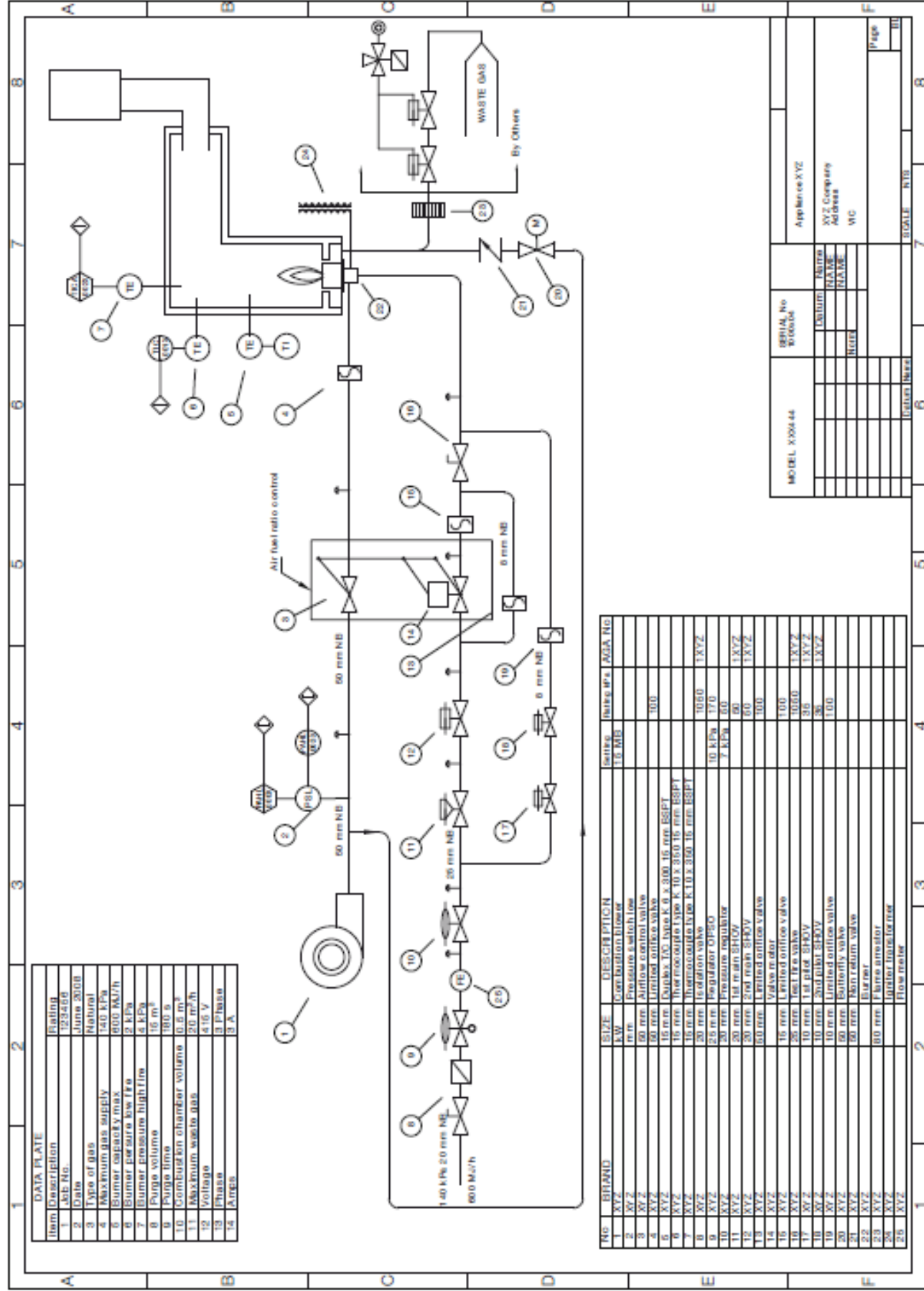


FIGURE A1 EXAMPLE OF A TYPICAL VALVE TRAIN SCHEMATIC

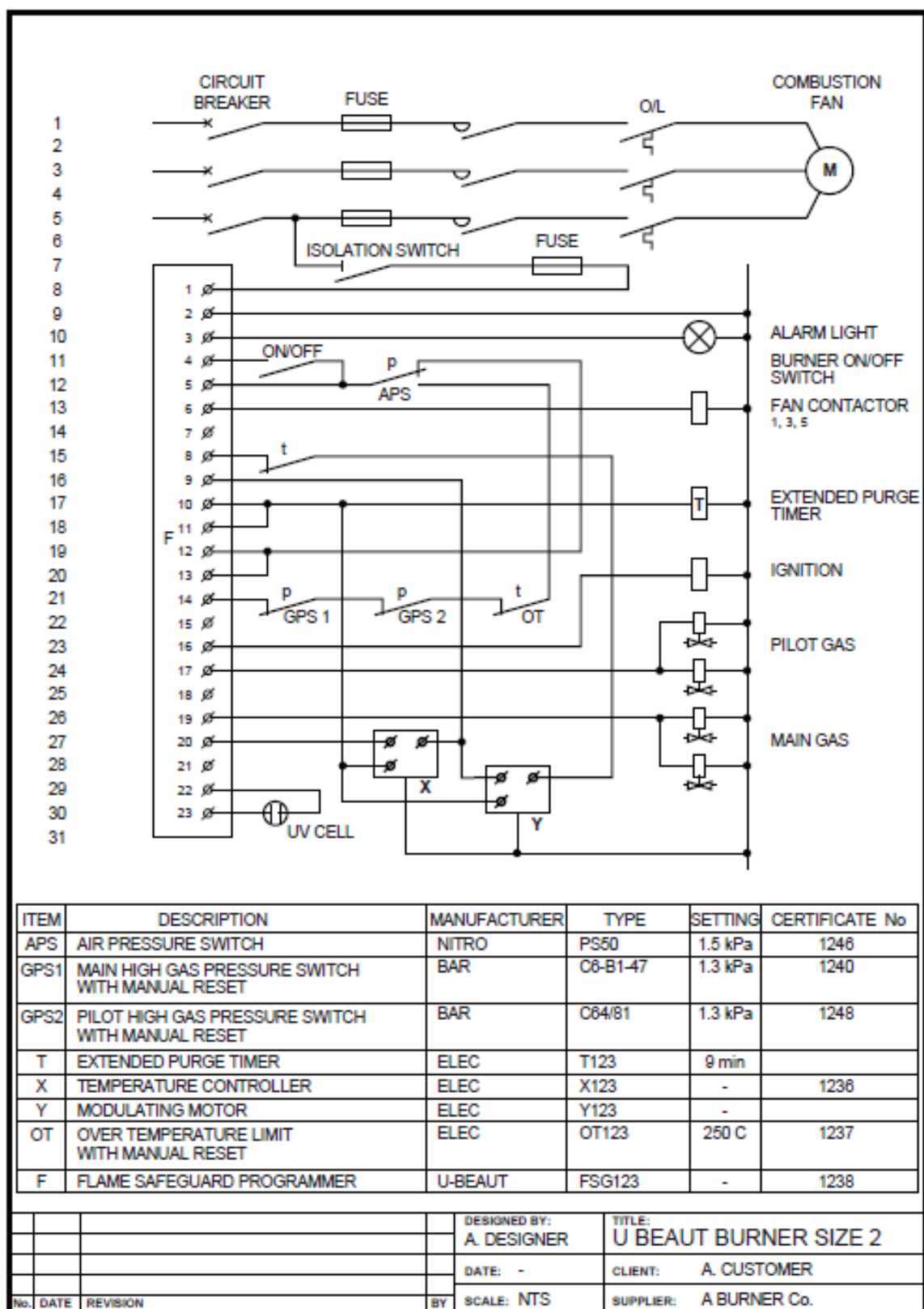


FIGURE A2 EXAMPLE OF A TYPICAL ELECTRICAL SCHEMATIC DIAGRAM

Contact the Office of the Technical Regulator for more information

Online otr.sa.gov.au
Email otr@sa.gov.au
Phone 8226 5722



Government of South Australia