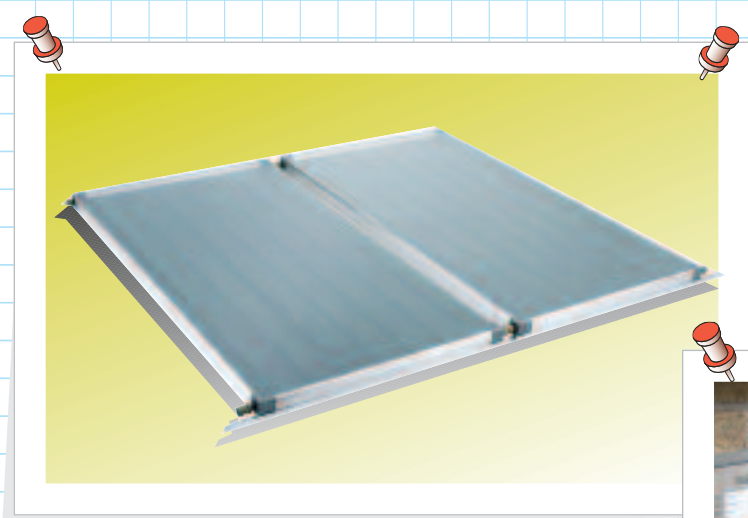
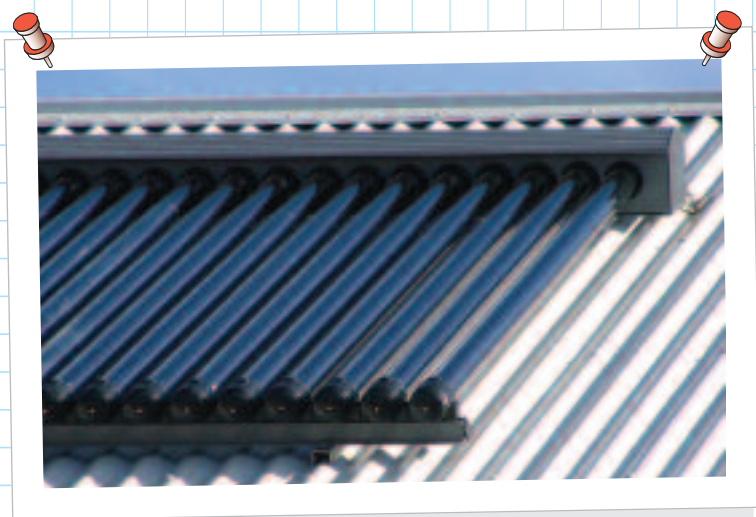


# Solar Water Heater Training Course Installer and User Manual



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## **I. ABOUT THIS BOOK**

This Installation manual has been compiled to replace the *Solar Water Heater Training Course, Installer and User Guide* published by the Solar Energy Industries Association of Australia (SEIAA) in 1996.

SEIAA was one of the industry associations that merged to become the Business Council for Sustainable Energy (BCSE), an industry association that covers the full range of sustainable energy, including the major suppliers of solar water heater systems in Australia. Solar water heaters not only include the flat plate and evacuated tube systems commonly seen in Australia, but also 'heat pumps' that utilise heat from the air.

The use of solar water heaters has been recognised as one of the main ways that households can save on fossil fuel energy and reduce the resultant greenhouse gas emissions that are recognised as the cause of global warming.

These benefits have been recognised by the Federal and State Governments, with a range of financial incentives being available. A number of different state planning schemes now encourage the installation of solar water heaters for use in new homes.

The book has been developed with the assistance of the New Zealand Solar Industries Association for use in both countries.

## **II. THE ROLE OF PLUMBING PROFESSIONALS**

With solar water heaters being recognised as a key part of a sustainable home, there is a greater demand for plumbers with relevant installation skills. Solar water heaters utilise free energy from the sun, and even in southern Australia and southern New Zealand households and businesses can save at least 60% of the annual fossil fuel energy usually required by a water heater. Special installation skills and knowledge will ensure that systems are installed to efficiently capture this energy. In effect, the use of fossil fuel energy is replaced by solar collection components and the installer's skills.

This book has been produced as a reference book for plumbers and apprentices in learning more about solar water heaters, as well as a practical book for use in the field to cover real installation issues and troubleshooting. The BCSE hopes that the book will be a practical and valuable tool.

The term 'installer' has been used throughout the book. While most parts of a solar water heater installation must be done by a qualified plumber, including any water connections, some parts of the work may be done by someone with relevant training. These might include sizing a system, choosing the best system type, siting collectors to achieve maximum solar contribution and to avoid shading, and assisting with collector and system installation.

We hope that this training book, in conjunction with practical training if required, will provide plumbers with the specialist knowledge of solar water heaters that will complement their existing skills and enable them to be more involved in this growing part of the water heater market.

### **III. FURTHER ACKNOWLEDGEMENTS AND CONTRIBUTIONS**

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## IV. CONTENTS

1. Solar Water Heating Overview.....	1
1.1 Common types of solar water heaters .....	2
1.2 Economic benefits of solar water heating systems .....	10
1.3 Environmental benefits of solar water heating systems .....	20
2. Solar Radiation and Positioning of Collectors .....	33
2.1 Best flat plate collector orientation and inclination .....	34
2.2 Shading .....	41
3. Solar System Components, Configurations and Operating Principles .....	51
3.1 Principles of water heating.....	52
3.2 Collector types and operating principles .....	59
3.3 Storage tanks .....	70
3.4 Close coupled solar water heater systems .....	79
3.5 Pump-circulated (or split) systems.....	88
3.6 Thermosiphon remote storage systems.....	99
3.7 Heat pump water heating systems .....	104
4. Boost Heating .....	113
4.1 The need for boost heating.....	114
4.2 Connection to an uncontrolled heat source .....	125
5. System Control and Protection .....	137
5.1 The need for controls and protection .....	138
5.2 Frost protection (overview) .....	159
5.3 Corrosion protection techniques .....	163
6. System Design and Installation.....	171
6.1 Pre-installation.....	172
6.2 The installation .....	185
6.3 Retrofitting to existing hot water systems .....	205
6.4 Mounting of tanks .....	211
6.5 Other components .....	216
6.6 Multiple unit installations.....	222
7. Maintenance and Troubleshooting.....	229
7.1 Preventative maintenance .....	230
7.2 Trouble shooting – problems .....	232
8. Combined Central Heating and Solar Hot Water .....	239
8.1 Introduction.....	240

8.2	Requirements for solar central heating .....	241
9.	Extra Information.....	245
9.1	Glossary of terms .....	246
9.2	Answers to revision questions .....	258
9.3	Government solar water heater incentives .....	306
9.4	Technical standards and other references and resources.....	308
9.5	Installation check list.....	314
9.6	Significant water temperatures .....	319
9.7	Legionnaire's disease temperature table.....	320
9.8	Occupational health and safety considerations .....	321
9.9	Solar water heater manufacturers and distributors .....	329
9.10	Credits – photos, diagrams, tables .....	330
9.11	Special tools .....	331
Appendix	Detailed information.....	333
Annex 1.1	Non-technical barriers to solar water heaters.....	334
Annex 1.2	Life cycle costing .....	336
Annex 1.3	Solar energy in more detail.....	339
Annex 2.1	Further details on frost protection.....	357

## V. LIST OF EXAMPLES

Example 1.1 – Simple payback time calculation .....	16
Example 1.2 – Simple payback time adjusted for different system lifetimes .....	16
Example 3.1 – Improving the collector performance in winter .....	40
Example A.1 – Energy received by a solar collector over one day .....	342
Example A.2 – Converting megajoules to kilowatt hours .....	343
Example A.3 – Effect of latitude in Melbourne .....	346
Example A.4 – Shading from a tree on a roof-mounted solar hot water system .....	354

## VI. LIST OF RULES OF THUMB

Rule of Thumb 1.1 – System lifetimes .....	14
Rule of Thumb 2.1 – Best collector orientation and inclination .....	33
Rule of Thumb 2.2 – Orientations less than 45° east or west of true north .....	34
Rule of Thumb 2.3 – Orientations greater than 45° east or west of true north .....	34
Rule of Thumb 2.4 – Minimum collector inclination or tilt angle is 10° .....	40
Rule of Thumb 2.5 – Maximum recommended tilt angle for close coupled, thermosiphon systems equals latitude angle plus 10° (for orientations facing north).....	41
Rule of Thumb 2.6 – Avoid all shade between 9am and 3pm.....	41
Rule of Thumb 2.7 – Shading check at midday, for shortest day of year .....	44
Rule of Thumb 3.1 – For flat plate collectors, use 2m <sup>2</sup> of collector area per 150 litres of storage .....	91
Rule of Thumb 6.1 – Height of tanks above collectors.....	193

## VII. LIST OF TABLES

Table 1.1 – Potential energy and cost savings at centres in Australia and New Zealand.....	11
Table 1.2 – Installed and operating costs of common size/type water heaters .....	12
Table 1.3 – Additional costs for solar water heaters (June 2006) .....	13
Table 1.4 – Comparison of life cycle energy consumption of solar versus electric storage water heaters.....	26
Table 2.1 – Sun’s angle above the horizon at 9am, noon and 3pm for various latitudes and cities for winter, spring and autumn .....	45
Table 3.1 - Litres of hot water per hour by ambient temperature .....	108
Table 4.1 – Solar input and water temperature rise in storage tank (boost energy and solar input estimated from SCF program) .....	115
Table 5.1 – Classification of water hardness .....	163
Table 5.2 – Saturation index .....	164

Table 5.3 – Recommended water quality for stainless steel .....	166
Table 5.4 – Anode colour code and composition .....	167
Table A1.1 – Average daily irradiation per month (MJ/m <sup>2</sup> ) for common roof pitches .....	348

## VIII. LIST OF FIGURES

Figure 1.1.1 – Flat plate collector.....	3
Figure 1.1.2 – Heat pipe evacuated tube system.....	4
Figure 1.1.3 – Remote storage, thermosiphon system .....	5
Figure 1.1.4 – One of the authors beside a successful installation at Roadvale, Qld .....	6
Figure 1.1.5 – Forced circulation (pumped) system .....	6
Figure 1.1.6 – Heat pump water heating systems.....	7
Figure 1.3.1 – The greenhouse effect.....	22
Figure 1.3.2 – Contribution of various water heaters to greenhouse gas emissions (Brisbane) .....	24
Figure 1.3.3 – Contribution of various water heaters to greenhouse gas emissions (Melbourne) .....	25
Figure 2.1.1 – Required solar hot water performance by inclination and azimuth.....	35
Figure 2.1.2 – Use of roof mounting frames to optimise collector orientation and tilt .....	37
Figure 2.1.3 – Optimum Collector Inclination = Latitude Angle .....	39
Figure 2.1.4 – Frame-mounted solar hot water system.....	40
Figure 2.2.1 – Partial shading of collectors from chimneys and interconnecting pipes .....	41
Figure 2.2.2 – Extreme shading of solar hot water systems .....	42
Figure 2.2.3 – Sun's path across the sky .....	43
Figure 3.1.1 – Heat transfer via conduction, convection and radiation in a collector .....	54
Figure 3.1.2 – Thermosiphon flow in a close coupled system.....	56
Figure 3.1.3 – Cross-section through a close coupled system storage tank .....	57
Figure 3.2.1 – Construction details of a flat plate collector.....	60
Figure 3.2.2 – Cross-section of a flat plate collector .....	60
Figure 3.2.3 – Types of absorber plates .....	62
Figure 3.2.4 – Fin and tube collectors – a stack of riser/headers (left) and absorber plates (right) ready for assembly .....	63
Figure 3.2.5 – Cross-section of evacuated tube collector types.....	65



Figure 3.2.6 – Constructions details for a U-tube type evacuated tube collector .....	66
Figure 3.2.7 – Heat pipe evacuated tube system.....	67
Figure 3.3.1 – Cut-away view of a typical horizontal storage tank .....	72
Figure 3.3.2 – Surface area for conduction between layers in storage tanks.....	73
Figure 3.3.3 – Pipe connections between collector and tank – split system .....	75
Figure 3.3.4 –Heat exchanger as a tank around the inner drinking (potable) water tank .....	76
Figure 3.3.5 – Mains pressure copper coil heat exchanger inside the storage tank.....	76
Figure 3.4.1 – Typical close coupled system and components.....	80
Figure 3.4.2 – Over-heating dissipater.....	83
Figure 3.4.3 – Close coupled system with integral gas boosting and heat dissipater .....	84
Figure 3.4.4 – Close coupled low-pressure, plastic system .....	85
Figure 3.5.1 – Pump-circulated system.....	89
Figure 3.5.2 – Direct (open circuit) pump-circulated system .....	90
Figure 3.5.3 – Forced circulation (pumped) system .....	91
Figure 3.5.4 – Evacuated tube split system with electric boosting .....	95
Figure 3.5.5 – Evacuated tube split system with in-line gas boosting .....	96
Figure 3.6.1 – Typical thermosiphon remote storage system configuration .....	99
Figure 3.6.2 – Plumbing connections that prevent reverse thermosiphon flow .....	101
Figure 3.7.1 – Components of a split (left) and compact (right) heat pump water heater.....	105
Figure 3.7.2 – Split and compact heat pumps.....	106
Figure 3.7.3 – Rheem heat pump .....	108
Figure 3.7.4 – Separate sections of compact heat pump.....	109
Figure 3.7.5 – Cutaway view of Rheem heat pump .....	109
Figure 3.7.6 – Rheem heat pump refrigerant flow diagram.....	110
Figure 4.1.1 – Anticipated solar contribution for various Australian and New Zealand cities using modified figures from Australian Standard AS NZS 3500.....	114
Figure 4.1.2 – Hot water demand in Victorian homes .....	116
Figure 4.1.3 – Common electric boost element sizes .....	117
Figure 4.1.4 – Ideal location of the electric boost element and the collector connections to the storage tank for different tariffs. ....	119
Figure 4.1.5 – Tank-mounted gas booster .....	121
Figure 4.1.6 – Installation of slow combustion booster .....	122

Figure 4.2.1 – Coal and firewood are common sources of solid fuel in New Zealand and Australia.....	125
Figure 4.2.2 – Cooker providing water heating in winter.....	126
Figure 4.2.3 – Wood heater with boiler coil.....	126
Figure 4.2.4 – Boilers (wet backs).....	127
Figure 4.2.5 – Flue jacket boiler.....	127
Figure 4.2.6 – Typical connection for solid fuel and solar system.....	130
Figure 4.2.7 – Heat exchanger using copper tube coil.....	132
Figure 4.2.8 – Mains pressure coils in the Rinnai Beasley factory in Adelaide .....	133
Figure 4.2.9 – Boiler connection to close coupled solar water heater.....	134
Figure 4.2.10 – Heat exchanger constructed from 40mm and 25mm tube .....	134
Figure 4.2.11 – Heat exchanger to conduct more heat.....	135
Figure 4.2.12 – Roof penetration for heat exchanger.....	135
Figure 5.1.1 – Various isolating valves .....	141
Figure 5.1.2 – RMC duo valve model N175 .....	142
Figure 5.1.3 – RMC LS50A line strainer .....	142
Figure 5.1.4 – RMC NR50F non-return valve .....	143
Figure 5.1.5 – Pressure reducing/limiting valves .....	143
Figure 5.1.6 – Expansion or pressure relief valve.....	144
Figure 5.1.7 – Pressure and temperature relief valve .....	145
Figure 5.1.8 – Pressure temperature relief valve .....	146
Figure 5.1.9 – Combined valve .....	147
Figure 5.1.10 – Cutaway combined valve .....	147
Figure 5.1.11 – Air vent valve .....	148
Figure 5.1.12 – Float valve .....	149
Figure 5.1.13 – Tempering valve .....	150
Figure 5.1.14 – Instantaneous hot water system bypass valve (detail).....	150
Figure 5.1.15 – Instantaneous hot water bypass valve.....	151
Figure 5.1.16 – Sunstat valve .....	152
Figure 5.1.17 – Overheating dissipater.....	153
Figure 5.1.18 – Circulating pump.....	154
Figure 5.1.19 – Five-way connector.....	156
Figure 5.1.20 – Fabricating a five-way connector .....	156
Figure 5.1.21 – Anti-reverse circulation (ARC) valve .....	157
Figure 5.1.22 – Symbols for valves.....	158

Figure 5.2.1 – Cut-away diagram of heat exchanger for horizontal tank.....	160
Figure 5.2.2 – Filling a close coupled solar water heater with anti-freeze.....	160
Figure 5.2.3 – Heat exchanger system .....	161
Figure 5.2.4 – Frost dump valve at the bottom of a solar collector .....	161
Figure 5.3.1 – Noble metal scale .....	165
Figure 5.3.2 – Sacrificial anode within a tank.....	166
Figure 5.3.3 – Head of sacrificial anode.....	167
Figure 5.3.4 – New anode and two corroded anodes .....	168
Figure 5.3.5 – Segmented anode to improve ease of installation .....	168
Figure 6.1.1 – Relocating a hot water service .....	173
Figure 6.1.2 – Recommended hot water storage by house size .....	176
Figure 6.1.3 – Installation check list.....	180
Figure 6.2.1 – Getting the solar storage tank onto the roof.....	186
Figure 6.2.2 – Ensure that all equipment is available.....	187
Figure 6.2.3 – Ensuring proper angling of collectors.....	188
Figure 6.2.4 – Ensuring 25mm rise for collectors.....	188
Figure 6.2.5 – Placing collectors on a roof.....	189
Figure 6.2.6 – Use of frames to mount collectors on a roof .....	189
Figure 6.2.7 – Good thermosiphon circulation .....	191
Figure 6.2.8 – Poor thermosiphon circulation .....	192
Figure 6.2.9 – Reverse circulation .....	192
Figure 6.2.10 – Ground-mounted collectors.....	193
Figure 6.2.11 – Use of anti-reverse thermosiphon valve.....	194
Figure 6.2.12 – Anti-reverse siphon valves.....	194
Figure 6.2.13 – Reverse flow prevention .....	195
Figure 6.2.14 – Internal tank connections to prevent reverse flow .....	195
Figure 6.2.15 – Squat versus tall collectors .....	196
Figure 6.2.16 – Correct slope for connecting pipes.....	197
Figure 6.2.17 – Overall gradient when horizontal sections of pipe are used.....	197
Figure 6.2.18 – Thermosiphon system with three or more collectors.....	198
Figure 6.2.19 – Gravity feed storage tank on plastic safe tray .....	199
Figure 6.2.20 – Pipe insulation .....	201
Figure 6.2.21 – Safe (spill) tray sitting on an in-ceiling tank prior to despatch .....	202
Figure 6.2.22 – Terminator™ water shut-off valve .....	203
Figure 6.2.23 – Installation of ‘hot’ sensor .....	204

Figure 6.2.24 – Sensor on hot water pipe from collector.....	204
Figure 6.3.1 – Modifications to existing tank for use with solar collectors or solid fuel boiler.....	208
Figure 6.3.2 – Fitting to an existing set of nipples.....	209
Figure 6.4.1 – Steps for installing tank in roof space.....	212
Figure 6.4.2 – Step 2: saw tile battens.....	213
Figure 6.4.3 – Step 3 providing entry for cylinder.....	214
Figure 6.5.1 – Tempering valve installed on a hot water tank.....	217
Figure 6.5.2 – Deterioration of water pipe insulation.....	218
Figure 6.5.3 – Insulation of pipe and fittings.....	219
Figure 6.5.4 – Roof flashings.....	219
Figure 6.5.5 – Flashing installation at flat angles.....	220
Figure 6.5.6 – Protection of copper pipe insulation using galvanised steel down-pipe.....	220
Figure 6.5.7 – Cartridge on cold water supply to reduce acidity.....	221
Figure 6.5.8 – Flow switch and pump installation.....	222
Figure 6.6.1 – Parallel connection of hot water systems.....	223
Figure 6.6.2 – Discharge options for expansion lines.....	224
Figure 6.6.3 – An installation with multiple collectors, multiple solar hot water storage tanks and multiple boost heaters.....	224
Figure 8.1 – Central heating system including solar.....	242
Figure 8.2 – Central heating system with solar input.....	243
Figure A1.2.1 – Life cycle discounted cash flow analysis solar versus gas (output from Solwatt program).....	337
Figure A1.3.1 – Direct and diffuse radiation.....	340
Figure A1.3.2 – Path of the sun across the sky for the longest, shortest and mid-year days.....	344
Figure A1.3.3 – Tools of measuring orientation and collector inclination.....	345
Figure A1.3.4 – Optimum collector inclination = latitude angle.....	346
Figure A1.3.5 – Average daily irradiation (MJ/m <sup>2</sup> ) of roofs.....	349
Figure A1.3.6 – Altitude and azimuth angles.....	351
Figure A1.3.7 – True north and magnetic north.....	352
Figure A1.3.8 – True north and magnetic north (b).....	352
Figure A1.3.9 – Latitude, longitude and magnetic deviation from true north.....	353
Figure A1.3.10 – Tree shading a roof mounted solar water heating system.....	354
Figure A1.3.11 – Sun path diagram for Brisbane with shading from a tree shown.....	355

Figure A1.3.12 – AS NZS 3500 simple site assessment tool.....	356
Figure A1.3.13 – Solar Pathfinder.....	356
Figure A2.1.1 – Double-glazed solar collectors .....	359
Figure A2.1.2 – Electric heating element frost protection.....	359
Figure A2.1.3 – Frost on collectors with frost dump valves.....	360
Figure A2.1.4 – Operation of plastic NOK frost dump valve.....	361
Figure A2.1.5 – Schematic of frost dump valve operation in a close coupled solar water heater .....	362
Figure A2.1.6 – Exploded view of Hitachi frost dump/frost protection valve.....	363
Figure A2.1.7 – Draining frost valves .....	364
Figure A2.1.8 – Close coupled system showing frost protection valve .....	365
Figure A2.1.9 – Rheem drain back system of frost protection .....	366
Figure A2.1.10 – Tapered collector risers .....	367
Figure A2.1.11 – Anti-freeze circulating around a tank .....	368
Figure A2.1.12 – External heat exchanger.....	369
Figure A2.1.13– Heat pipe operation .....	370

## Introduction