

TECHNICAL SPECIFICATION

Sensor Box Features

- Connection for Control Sensor
- Connect to multiple sensor boxes in a network (Modbus)
- Connection for motion (safety) PIR
- Connection for ventilation circuit
- Maximum number of sensor boxes in a single network = 31

Usage

Suitable for indoor use only.

Materials

Sensor Box: PC/ABS.

Configuration Tool

The programmer software available is designed to run on Microsoft Windows 7, XP and Vista operating systems.

Standards and Approvals

The Rada Sense upgrade kit complies with all relevant directives for CE marking.

Sense Network Control Panel	
Protection Rating	IP47
Ambient Temperature	Greater than 1 °C, max. 40 °C
Maximum Relative Humidity	95% non-condensing
Supply Voltage	9 V DC
Maximum Load	5 W
Cable Length	3.5 m supplied

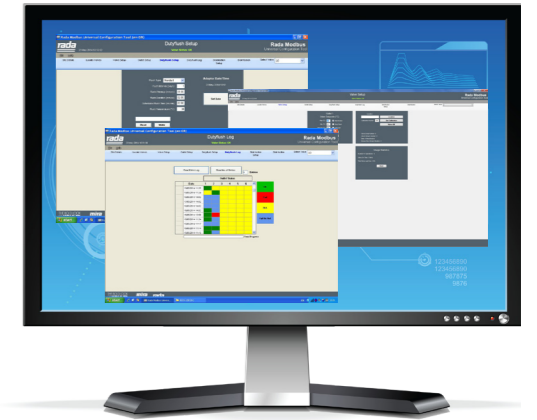
Network Sensor Box	
Protection Rating	IP20
Ambient Temperature	Greater than 1 °C, max. 40 °C
Maximum Relative Humidity	95% non-condensing
Supply Voltage	12 V DC from the Mixer Valve
Maximum Load	20 W
Cable Length	1.5 m to the Mixer Valve

Default Settings & Programmable Ranges		
Parameter	Default Setting	Programmable Range
Outlet Water Temperature	Shower = 38 °C Washbasin = 38 °C  Bath / Shower Mixer: Bath = 40 °C Shower = 38 °C	30 - 50 °C (full cold also available)
Flow Time to Auto Shut-Off	Shower = 30 seconds Washbasin = 15 seconds  Bath / Shower Mixer: Bath = 300 seconds Shower = 30 seconds	min. 5 seconds max. 60 minutes
Duty Flush Cycle	DISABLED (Duty Flush Type = None) Use Rada Universal Configuration Tool to enable and alter settings	
Duty Flush Type	None	None / Standard / Smart
Duty Flush Interval	3 days	1 - 983 hours
Duty Flush Warmup	1 minute	1 - 59 minutes
Duty Flush Duration	2 minutes	1 - 59 minutes
Scheduled Flush Time	02:00 am	24 hour clock
Duty Flush Temperature	36 °C	30 - 45 °C
Thermal Disinfection	Use Rada Universal Configuration Tool to enable and alter settings	
Thermal Disinfection Type	Standard	Standard / Exponential / Standard cold supply / Exponential cold supply
Max. Warmup Time	2 minutes	1 - 59 minutes
Target Disinfection Time	5 minutes	1 - 59 minutes
Disinfection Timeout	10 minutes	1 - 59 minutes
Target Temperature	60 °C	60 - 80 °C

RADA INFORMATION RECORDING & MONITORING



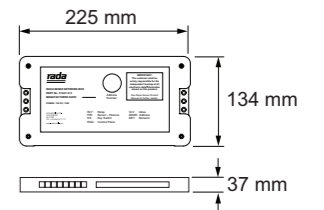
- Rada Information Recording & Monitoring Upgrade Packs are available for Rada Sense Washbasin, Shower, Bath Shower Mixer and Dual Shower
- Saves time and saves resources
- Remotely program temperature, flow times and duty flush settings
- Datalog and extract usage, duty flush and thermal disinfection data for Legislative compliance
- Program valves and access data through an intuitive Windows based Configuration Tool
- USB connection to laptop/PC. Modbus protocol connection to Building Management Systems
- Holds data detailing last 12 months duty flush history and the latest supervised thermal disinfection data
- Connectivity for auxiliary functions such as PIR (Passive Infra Red) Occupancy Sensors, Extractor Fans and System Key Switches
- Link up to 31 Rada Sense units together
- Upgrade pack choice dependent on Sense valve manufacture date & application



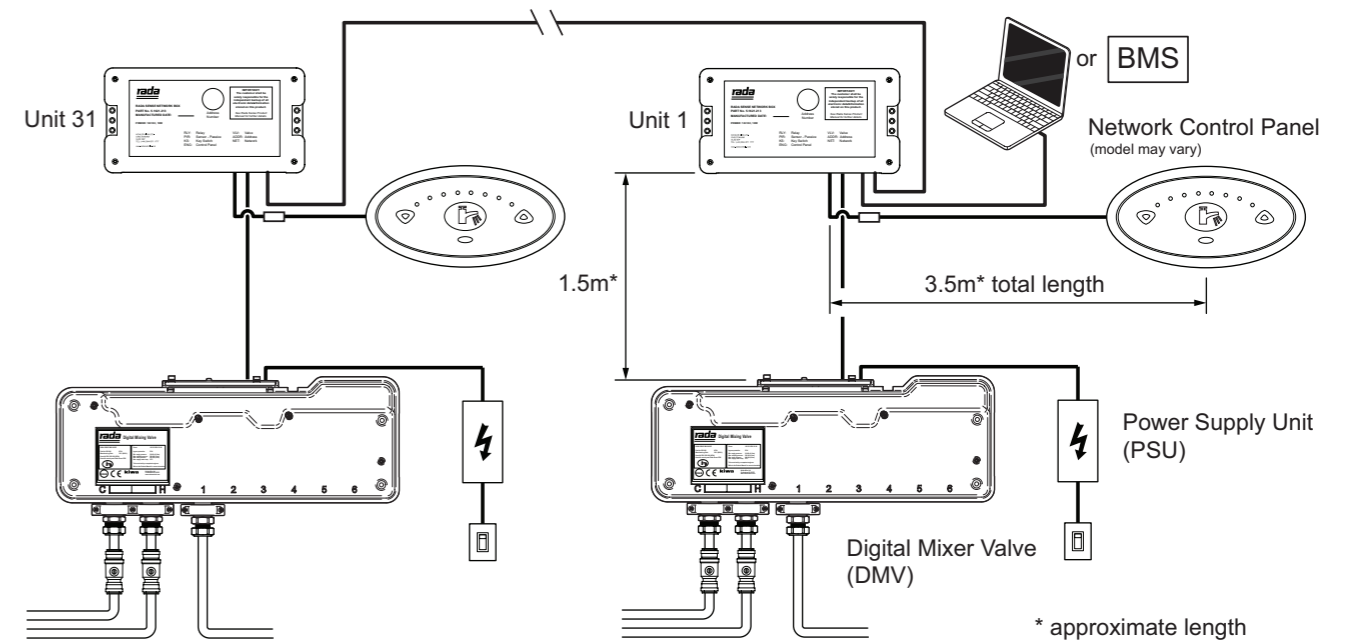
Universal Configuration Tool



Sensor Box

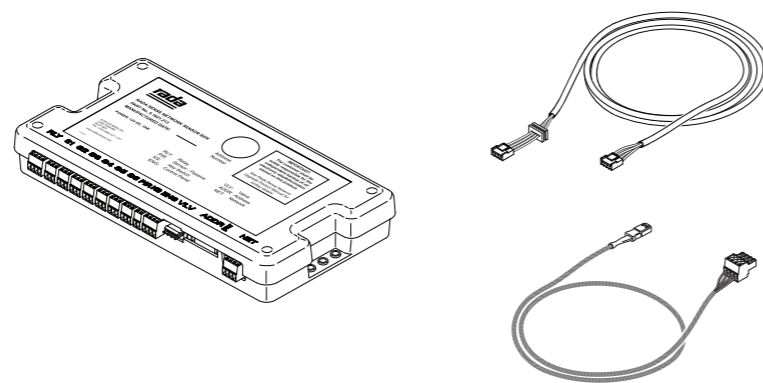


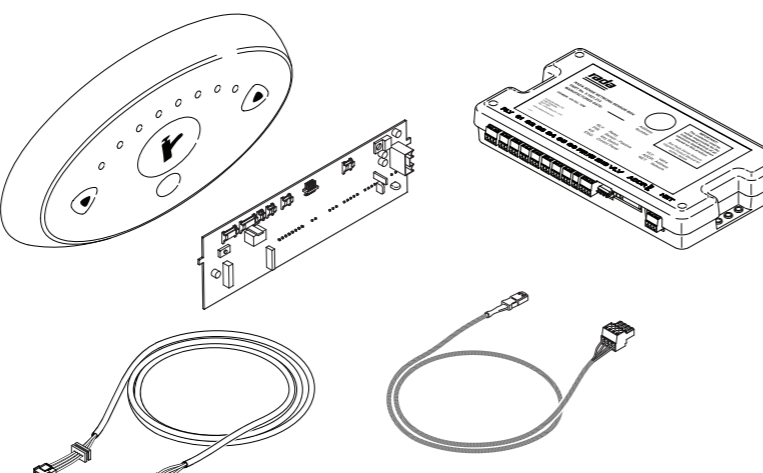
Wire Length Schematic

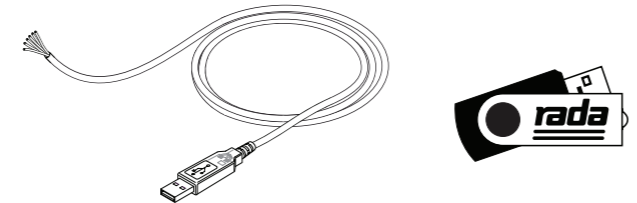


UPGRADE PACK SELECTION

- Each installed Rada Sense valve requires one Upgrade Pack. Only one Universal Configuration Tool is required per site.
- Upgrade Pack choice is dependent on:
  - Rada Sense manufacture date
  - Rada Sense product type

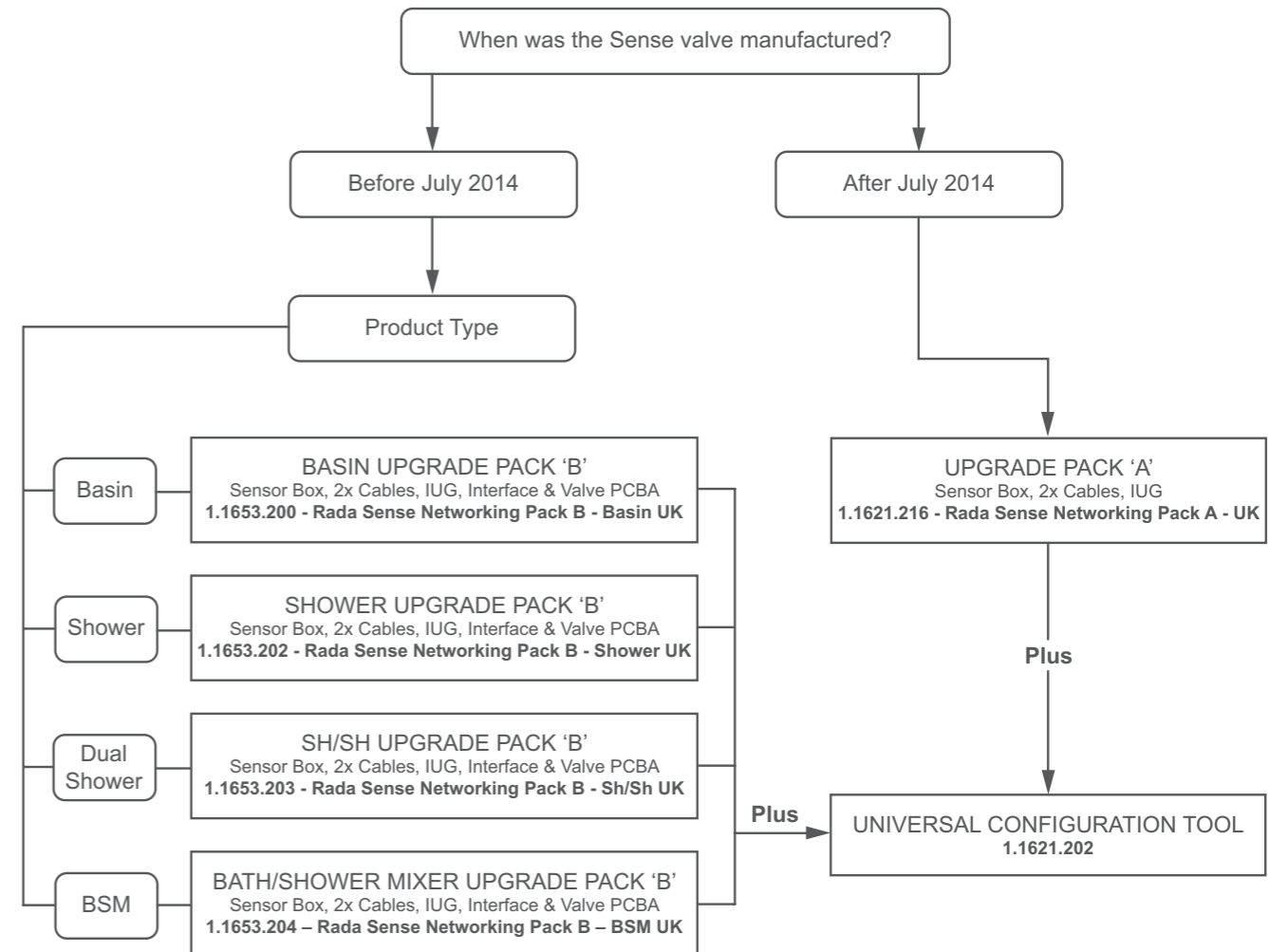
UPGRADE PACK A	
<p>Rada Sense products <b>manufactured after July 2014</b> are 'network-ready'.</p> <p>Pack contents:</p> <ul style="list-style-type: none"> <li>Sensor box</li> <li>2 sets of cables (valve-to-box, interface-to-box)</li> <li>Installation manual (IUG)</li> </ul>	

UPGRADE PACK B	
<p>Rada Sense products <b>manufactured before July 2014</b> are not network-ready. Pack B is available in four options, Basin, Shower, Dual Shower and BSM.</p> <p>Pack contents:</p> <ul style="list-style-type: none"> <li>Sensor box</li> <li>Replacement Interface and Valve PCBA</li> <li>2 sets of cables (valve-to-box, interface-to-box)</li> <li>Installation manual (IUG)</li> </ul>	

UNIVERSAL CONFIGURATION TOOL	
<p>Pack contents:</p> <ul style="list-style-type: none"> <li>Rada RS485 - USB cable</li> <li>Rada Modbus Universal Configuration Tool</li> </ul>	

See flow chart opposite to help specify the right product for your installation.

UPGRADE PACK SELECTION



Specify as:

**All Products Upgrade Pack A**  
Part No. 1.1621.216 - Rada Sense Networking Pack A (UK)

**Bath/Shower Mixer Upgrade Pack B**  
Part No. 1.1653.204 - Rada Sense Networking Pack B BSM (UK)

**Basin Upgrade Pack B**  
Part No. 1.1653.200 - Rada Sense Networking Pack B Basin (UK)

**For each site:**  
Universal Configuration Tool  
Part No. 1.1621.202 - Universal Configuration Tool

**Shower Upgrade Pack B**  
Part No. 1.1653.202 - Rada Sense Networking Pack B Shower (UK)

**Dual Shower Upgrade Pack B**  
Part No. 1.1653.203 - Rada Sense Networking Pack B Sh/Sh (UK)