










INSTALLER MENU						
<p>Touch the the centre of the display to activate, then touch the  symbol for 2 seconds</p> <p>Touch the  and  buttons simultaneously the  symbol is extinguished [C000] is displayed on the left side.</p> <p>Use the  button until [0015] is visible on the display, then tap the  button parameter [P001] will now be displayed.</p> <p>Use the  button to adjust the parameter to the required value then press the  button to move to the next parameter.</p> <p>Once the required parameters have been adjusted, touch the  key to save the values [P] will be displayed to confirm.</p>						
MENU	PARAMETER MODE	RANGE	REC	DEFAULT	NOTES	
P001	Boiler type	0 to 3	0	0	0 = Combi	
					1 = Boiler + Cylinder (PDHW X-Plan)	
					2 = DHW heater only	
					3 = System boiler	
P010*	Set maximum central heating output	25 to 100	see notes	see notes	Default 75% = 36 Kw model 100% = 24 & 30 kw models	
P030	Central heating pump setting	0 to 3	0	0	0 = Pump overrun active 1 = Pump continuous (DHW function off)	
P031	Maximum capacity of modulating central heating pump	15 to 100	65	65	Displayed as %	
P032	Minimum capacity of modulating central heating pump	15 to 100	35	35	Displayed as %	
P033	Central heating pump overrun after heating demand	0 to 15	1	1	Time in minutes	
P034	Central heating pump overrun after dhw production	0 to 15	1	1	Time in minutes (N/A for Combination boiler)	
P035	Pump step modulation	0 to 1	1	1	0 = Off 1 = On	
P036	Anti-Cycle time central heating	0 to 15	5	5	Active after target temp achieved / burner off	
P040	Activate clock program CH operation	0 to 1	As required	1	0 = Inactive 1 = Active	
P057	Response for OpenTherm room thermostat	1 to 3	1	1	0 = Do not respond to heat demand if requested temp is < 30°C	
					1 = Respond to CH demand with minimum flow temp limited at 30°C	
					2 = Respond to CH demand with a max set flow temp (on/off function)	
P059	Maximum setting value of flow temperature	10 to 90	80	80	Displayed in °C	
P070	Maximum DHW output	20 to 100	100	100	Displayed as %	
P074	Number of ECO days	0 to 10	7	7	0 = controlled via OpenTherm (1 to 10 absolute days)	
P075	Control temperature during boiler operation	60 to 90	75	75	Displayed in °C (when heating an external hot water cylinder)	
P077	Waiting time central heating demand after DHW	0 to 15	0	0	Displayed in minutes	
P081	Setting of 3 - way valve or electric shut-off valve		0	1	0 = Powered during CH demand	
					1 = Powered during DHW operation	
P087	Activate clock program DHW operation		0	0	0 = Inactive	
					1 = Active	
P010*	Desired central heating output in KW (approximately)	24	30	36	Note	
		100%	13.8	19.4	25.7	The output during combustion will be slowly increased and decreased as soon as the set flow temperature is achieved.
		75%	10.6	14.6	19.3	
		50%	7.3	9.8	12.8	Output is directly related to the setting of P009. (Modulation on temperature flow)
		35%	5.4	7.0	9.0	
	25%	-	5.1	6.4		
FAULT CODES						
LOCKOUT CODES		Possible Cause & Solution (Refer to the installation manual)				
F000	Sensor S0 is defective	● Replace heat exchanger sensor S0				
F001	Temperature is too high during central heating demand	● Air in system (Vent the heating to purge out air)				
		● Pump not operating (Check the power supply, free impellor or replace the pump)				
		● Check the wiring to the CH flow sensor S1 (To ensure it's connected and not damaged)				
		● Check the CH flow sensor S1 (Is located and installed correctly)				
		● Check for the correct operation of the central heating flow sensor S1				
F002	Temperature is too high during DHW demand	● Replace central heating sensor S1				
		● Check the wiring to the DHW sensor S3 (To ensure it's connected and not damaged)				
		● Check the DHW sensor S3 (Is located and installed correctly)				
		● Check for the correct operation of the domestic hot water sensor S3				
F003	Flue gas temperature is too high	● Replace domestic hot water sensor S3				
		● Check the heat exchanger for contamination or restrictions				
F004	No flame during start up	● Gas isolation valve is closed or no gas supply				
		● Gas working inlet pressure below 17 mbar (20 mbar recommended)				
		● Check to ensure the condensate drain or trap is not blocked				
		● Check ignition module, ignition lead or electrode including spark gap				
		● Check electrical supply to Ignition module or gas valve				
F005	Flame failure during normal operation	● Poor earth to Ionisation probe or boiler				
		● Check to ensure the condensate drain or trap is not blocked				
		● Gas working inlet pressure below 17 mbar (20 mbar recommended)				
		● Check ignition module, ignition lead or electrode including spark gap				
		● Check adjustment of gas valve (See the manual for CO <sub>2</sub> values)				
F006	Flame simulation	● Check the flue integrity for possible recirculation or blockages				
		● Poor earth to Ionisation probe or boiler				
F007	No or insufficient ionisation current	● Check or replace the gas valve				
		● Check the ionisation / Ignition probe is clean and correctly located				
		● Check the wiring to the ionisation / Ignition electrode				
F008	Incorrect fan speed detected	● Replace the ionisation / Ignition electrode				
		● Check fan wiring				
F009	Internal burner control fault	● Check or replace fan assembly				
		● Replace PCB				
F010	S0 Sensor fault	● Replace PCB				
		● Check the wiring to the heat exchanger sensor S0 (To ensure its connected and not damaged)				
F011	S0 Sensor fault	● Check the sensor resistances are correct				
		● Check or replace the S0 sensor				

F012	S5 Sensor fault (Flue gas sensor)	<ul style="list-style-type: none"> <li>Check the wiring to the flue gas sensor S5 (To ensure its connected and not damaged)</li> <li>Check the sensor resistances are correct</li> <li>Check or replace the S5 sensor</li> </ul>			
F014	S0 sensor mounting fault	<ul style="list-style-type: none"> <li>Heat exchanger sensor S0 not mounted correctly, locate sensor and attach correctly</li> </ul>			
F015	S1 sensor mounting fault (Flow temperature sensor)	<ul style="list-style-type: none"> <li>Central heating sensor S1 not mounted correctly, locate sensor and attach correctly</li> </ul>			
F016	S3 sensor mounting fault (DHW temperature sensor)	<ul style="list-style-type: none"> <li>Domestic hot water sensor S3 not mounted correctly, locate sensor and attach correctly</li> </ul>			
F018	Flue and or air supply duct blockage or restriction	<ul style="list-style-type: none"> <li>Check or clean the flue / air ducts including seals or gaskets</li> </ul>			
F019	BMM fault (PCB Memory card)	<ul style="list-style-type: none"> <li>Check the wiring or connector plug onto the memory card / possibly replace the card</li> </ul>			
F027	S6 outside weather sensor fault	<ul style="list-style-type: none"> <li>Check the wiring to the outside sensor S6 or the sensor for faults replace if necessary</li> </ul>			
F028	Reset error	<ul style="list-style-type: none"> <li>Check the reset button for unintentional operation e.g. when cleaning the fascia / or replace the PCB</li> </ul>			
F029	Gas valve fault	<ul style="list-style-type: none"> <li>Check the wiring to the gas valve or resistance of the coil If ok replace the PCB</li> </ul>			
F030	S3 sensor fault DHW temperature sensor	<ul style="list-style-type: none"> <li>Check the wiring to the DHW sensor S3 or check the sensor resistances, replace if faulty</li> </ul>			
F031	S1 sensor fault Flow temperature sensor	<ul style="list-style-type: none"> <li>Check the wiring to the flow sensor S1 or check the sensor resistances, replace if faulty</li> </ul>			
MENU	<b>TRAINED ENGINEERS MENU</b>				
	<p>Touch the the centre of the display to activate, then touch the ☺ symbol for 2 seconds</p> <p>Touch the ☺ and ↻ buttons simultaneously the ↻ symbol is extinguished [C000] is displayed on the left side.</p> <p>Use the — + button until [0020] is visible on the display, then tap the ☺ button parameter [P001] will now be displayed.</p> <p>Use the — + button to adjust the parameter to the required value then press the ☺ button to move to the next parameter.</p> <p>Once the required parameters have been adjusted, touch the ↻ key to save the values [P] will be displayed to confirm.</p>				
	<b>PARAMETER MODE</b>				
		<b>RANGE</b>	<b>REC</b>	<b>DEFAULT</b>	<b>NOTES</b>
P001	Boiler type	0 to 3	0	0	(See P001 installer menu)
P002	Display viewing option	0 to 2	2	0	0 = Flame on only 1 = Flame on & demand symbol 2 = Flame on, demand symbol & sequence code
P009	Boiler Input load %	-5 to 5	0	0	Nominal Load adjustment +/- 5%
P010*	Set maximum central heating output	25 to 100	see notes	see notes	Default 75% = 36 Kw model 100% = 24 & 30 kw models
P011	Minimum CH output	0 to 100*	16	16	Output read as % *variable dependent on P001 option (Max as P010)
P012	Fan speed during CH Ignition phase	40 to 100	see notes	see notes	RPM shown as % (24kW = 70, 30kW = 60, 36kW = 50)
P030	Central heating pump setting	0 to 3	0	0	0 = Pump overrun active 1 = Pump continuous (DHW function off)
P031	Maximum capacity of modulating central heating pump	15 to 100	65	65	Displayed as %
P032	Minimum capacity of modulating central heating pump	15 to 100	35	35	Displayed as %
P033	Central heating pump overrun after heating demand	0 to 15	1	1	Time in minutes
P034	Central heating pump overrun after dhw production	0 to 15	1	1	Time in minutes (N/A for Combi boiler)
P035	Pump step modulation	0 to 1	1	1	0 = Off 1 = On
P036	Anti-Cycle time central heating	0 to 15	5	5	Active after target temp achieved / burner off
P037	Delay time post CH demand	0 to 15	0	0	Displayed in minutes
P038	Summer / Winter setting	0 to 1	As required	1	0 = Inactive 1 = Active (Only if P039 = 0)
P039	Summer / Winter (user menu)	0 to 3	1	1	0 = Inactive 1 = for UK (SU on display) DHW active only (no heating)
P040	Activate clock program CH operation	0 to 1	As required	1	0 = Inactive 1 = Active
P050	Maxim CH flow temperature (user setting)	10 to 90	75 to 80	80	Displayed as °C
P051	Min CH flow temp setting for outside weather comp	10 to 90	25	25	Displayed as °C
P052	Min outside temp setting for outside weather comp	-30 to 10	-9	-9	Displayed as °C
P053	Max outside temp setting for outside weather comp	10 to 30	25	25	Displayed as °C
P056	Min CH flow temp OTC & RF options	10 to 60	10	10	Displayed as °C
P057	Reaction OTC & RF thermostat	0 to 3	1		0 = Ignore OT demand (When RT demand below P056 setting) 1 = Restrict OT setting (Only if flow temperature < P056 setting) 2 = On/Off (No boiler modulation control from Room thermostat) 3 = Low load (Boiler operates at min output OT temp setting ignored)
P059	Maximum value adjustment of P050	10 to 90	80	80	Displayed as °C
P060	Max flow temp (Low temp zone)	10 to 90	40	40	Displayed as °C
P070	Max DHW output	20 to 100	100	100	Displayed as %
P071	Min DHW output	13 to 50	13	13	Displayed as %
P072	Fan speed during DHW Ignition phase	40 to 100	see notes	see notes	RPM shown as % (24kW = 70, 30kW = 60, 36kW = 50)
P073	Stand-by temp at comfort level	0 to 65	0	0	Displayed as °C (0 = user set temperature, 1 to 65 absolute temp)
P074	Amount ECO-days	0 to 10	7	7	0 = controlled via OpenTherm (1 to 10 absolute days)
P075	Flow temperature during DHW demand	60 to 90	75	75	Displayed as °C (when heating an external hot water cylinder)
P076	DHW comfort setting	0 to 2	1	1	0 = Disabled, 1 = Eco mode active, 2 = Full comfort mode active
P077	CH delay time post DHW demand	0 to 15	0	0	Displayed in minutes
P078	DHW temperature setting	10 to 55	0	50	Displayed as °C
P081	3 way valve position (X4 Terminal 3 output)	0 to 3	0		0 = Powered during a heating demand 1 = Powered during a hot water demand 2 = Powered during a heating demand and standby 3 = Powered during a hot water demand and standby
P085	Legionella protection				0 = Inactive 1 = Active (only with an external cylinder P001 = 1)
P086	Comfort offset	0 to 60	17	17	Comfort offset temperature reduction during low DHW demand period
P087	Domestic hot water timer enable / disable	0 to 1	As required	0	0 = Inactive 1 = Active
P090	Relay 1 function (Terminal 3 on X4)	0 to 6	0	0	0 = Output depending on setting of P081 1 = Output when heat demand on LT zone 2 = Output during all heating demands 3 = Output for external heat source 4 = Output for external central heating pump 5 = Output during DHW demand (P001 set to 1) Solo boiler 6 = Output during DHW demand (P001 set to 0) Combination boiler
P091	Relay 2 function (Terminal 3 on X3)	0 to 6	0	0	0 = Output during CH demand ( 1 to 6 as per Relay 1 defenitions)
P097	Alarm relay function	0 to 1	0	0	0 = Inactive 1 = Active
P100	Function-T ext1 (Input control Terminals 3 - 4 X13)	0 to 3	0	0	1 = Safety sensor active (LT Zone)
P101	Function-T ext2 (Input control Terminals 4 - 5 X13)	0 to 2	0	0	0 = NTC Cylinder sensor active
P104	X10 output Pin 1=0-10v+, 2=0-10v-, 3=Gnd, 4=24v aux	0 to 2	0	0	0 = Inactive, 1 = 0-10v power, 2 = 0-10v temp control
P255	Factory setting restore	0 to 9	0	0	Set to value 9, reset to restore factory settings