



MHG HEATING LTD

Parameter set ProCon_HT_225_

To change the display language of the controller undertake the following;

Press the ESC button several times to display the DEFAULT SCREEN.

Press the OK button once, turn the wheel clockwise one click to highlight 'Bedieninheit', Press the OK button, The screen displays 'Bedieninheit Sprache' 'Deutsch', Press the OK button to make 'Deutsch' flash, Turn the wheel one click anticlockwise to select 'English'. Press the OK button. The screen indicates 'OPERATOR SECTION, LANGUAGE', Press the ECS button twice, to return to the main screen.

To access the most useful menu press the OK button once then press and hold the INFO button for 5 seconds until the lower section of the screen changes. Use the wheel to highlight the ENGINEER setting. Press the OK button. Access to all setting below is now possible.

Line no.	Data point	Default Value	Unit	Additional Comments
Clock				
	Clock time	Set Actual Date and Time		
	Summertime start	25 March ----		
	Summertime end	25 October ----		
Wireless				
130	Room unit 1	-----		
131	Room unit 2	-----		
132	Room unit 3/P	-----		
133	Outside sensor	-----		
134	Repeater	-----		
135	Operator unit 1	-----		
136	Operator unit 2	-----		
137	Operator unit 3/P	-----		
138	Service unit	-----		
140	Delete all devices	No		
Time switch				

program 1				
501-506	Time switch program HC1 Monday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Tuesday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Wednesday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Thursday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Friday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Saturday	06:00 (On); 22:00 (Off)		
501-506	Time switch program HC1 Sunday	06:00 (On); 22:00 (Off)		
516	Standard values TSP heating circuit 1	No		
Time switch program 5				
601-606	Time switch program 5 Monday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Tuesday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Wednesday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Thursday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Friday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Saturday	06:00 (On); 22:00 (Off)		
601-606	Time switch program 5 Sunday	06:00 (On); 22:00 (Off)		
616	Standard values TSP 5	No		
Holiday programs HC1				
642	Holiday period 1 HC1: first day	-----		

643	Holiday period 1 HC1: last day	-----		
642	Holiday period 2 HC1: first day	-----		
643	Holiday period 2 HC1: last day	-----		
642	Holiday period 3 HC1: first day	-----		
643	Holiday period 3 HC1: last day	-----		
642	Holiday period 4 HC1: first day	-----		
643	Holiday period 4 HC1: last day	-----		
642	Holiday period 5 HC1: first day	-----		
643	Holiday period 5 HC1: last day	-----		
642	Holiday period 6 HC1: first day	-----		
643	Holiday period 6 HC1: last day	-----		
642	Holiday period 7 HC1: first day	-----		
643	Holiday period 7 HC1: last day	-----		
642	Holiday period 8 HC1: first day	-----		
643	Holiday period 8 HC1: last day	-----		
648	Holiday operating level HC1	Frost		
Heat circuit 1				
700	Operating mode heat circuit 1	Protection		
710	Room temperature Comfort setpoint HC1	21	°C	
712	Room temp reduced	16	°C	

	setpoint heat circuit 1			
714	Room temp frost protection setpoint HC1	10	°C	
716	Comfort setpoint max heating circuit 1	35	°C	
720	Heating curve 1 slope	3.2		
721	Heating curve parallel displacement HC1	0	°C	
726	Heating curve adaptation heat circuit 1	Off		
730	Summer/winter changeover temp heat circuit 1	18	°C	
732	24-hour heating limit HC1	-3	°C	
740	Flow temp min limitation heat circuit 1	8	°C	
741	Flow temp max limitation heat circuit 1	80	°C	
750	Room temp gain factor heat circuit 1	20	%	
760	Room temperature limitation heating circuit 1	1	°C	
770	Room temp setpoint boost HC1 (boost heating)	5	°C	
780	Quick setback heat circuit 1	Down to reduced setp		
790	Optimum start control max forward shift HC1	00:00	h:m	
791	Optimum stop control max forward shift HC1	00:00	h:m	
800	Start reduced room temp setpoint increase HC1	-----	°C	
801	End reduced room temp setpoint increase HC1	-1	°C	
820	Pump heating circuit overtemp protection HC1	On		
830	Mixing valve setpoint boost heating circuit 1	5	°C	

832	Actuator control mode heat circuit 1	Three-position		
833	Actuator switching differential heat circuit 1	2	°C	
834	Actuator running time heat circuit 1	120	s	
835	P-band (Xp) heat circuit 1	32	°C	
836	Integral action time (Tn) heat circuit 1	120	s	
850	Flooring plaster dry up function HC1	Off		
851	Floor setpoint manually HC1	25	°C	
861	Overtemperature drop heating circuit 1	Always		
870	Heating circuit 1 with buffer	Yes		
872	Heating circuit 1 with precontr/primary pump	Yes		
900	Operating mode changeover heating circuit 1	Protection		
Cascade				
3510	Cascade control strategy	Early on, late off		
3511	Power range, lower limit (Pmin)	20	%	
3512	Power range, upper limit (Pmax)	85	%	
3530	Release limit producer sequence	25	°C*min	
3531	Reset limit producer sequence	20	°C*min	
3532	Restart lock time	30	s	
3533	Switch-on delay lag heat source	1	min	
3534	Forced time basic stage during producer turn on	0	s	

3540	Time to automatic producer sequence switching	10	h	
3541	Exclude at automatic producer sequence switching	none		
3544	Leading producer	Producer 1		
3550	Protective startup cascade pompe	Off		
3560	Cascade return setpoint minimum	8	°C	
3561	Cascade return setpoint minimum OEM	8	°C	
3562	Cascade return flow	On		
3570	Actuator running time return temp limitation	120	s	
3571	P-band (Xp) return temp limitation	32	°C	
3572	Integral action time (Tn) return temp limitation	120	s	
3590	Min temp differential hydraulic balancing	2	°C	
Configuration				
5710	Heating circuit 1	On		
5711	Cooling circuit 1	Off		
5712	Mixing valve 1 application	Heating and cooling		
5715	Heating circuit 2	Off		
5730	DHW sensor B3	Sensor		<i>Change to Thermostat if Volt Free is required.</i>
5731	DHW actuating device Q3	Charging pump		
5736	Dhw dedicated	Off		
5770	Producer type	Single-stage burner		
5840	Solar actuating device	Charging pump		
5841	External solar exchanger	Commonly		

5890	Relay output QX1	None		
5930	Sensor input BX1	Segment flow sensor B10		
5931	Sensor input BX2	Cascade return sensor B70		
5950	Input H1 function selection	Operating mode changeover HCs+DHW / 0-10 Volt Input		<i>Change to HCS only or 010 Volt Control. If 0-10 Volt control is required reduce #720 to as low as possible</i>
5951	Type of contact H1	normal opened		<i>Change to NC if Volt Free enabling is required.</i>
5952	Function value contact H1	90	°C	<i>Change to 80 °C</i>
5953	Voltage value 1 H1	0	V	
5954	Function value 1 H1	0		
5955	Voltage value 2 H1	10	V	
5956	Function value 2 H1	100		<i>Change to 80 °C</i>
6014	Function mixing valve group 1	Heat circuit 1		
6020	Function extension module 1	Heat circuit 2		
6021	Function extension module 2	No function		
6030	Relay output QX21	None		
6031	Relay output QX22	None		
6032	Relay output QX23	None		
6040	Sensor input BX21	None		
6041	Sensor input BX22	None		
6046	Input H2 function selection	Operating mode changeover HCs+DHW		
6047	Type of contact H2	normal opened		
6048	Function value contact H2	70	°C	
6049	Voltage value 1 H2	0	V	
6050	Function value 1 H2	0		
6051	Voltage value 2 H2	10	V	

6052	Function value 2 H2	100		
6097	Sensor type collector	NTC		
6098	Measured value corr collector sensor 1 (B6)	0	°C	
6099	Measured value corr collector sensor 2 (B61)	0	°C	
6100	Outside temp sensor measuring correction	0	°C	
6101	Sensor type flue gas temperature	NTC		
6102	Measured value corr flue gas sensor (B8)	0	°C	
6110	Building time constant	15	h	
6112	Gradient room model	60	min/°C	
6116	Time constant setpoint compensation	0	min	
6117	Central setpoint shift	3	°C	
6118	Setpoint reduction delay	60	K/min	
6120	Frost protection for the plant	Off		
6128	Heat demand release below outside temp thresh	-----	°C	
6129	Heat demand release above outside temp thresh	-----	°C	
6131	Heat req with economy mode	Off		
6135	Air dehumidifier	Off		
6136	Release air dehumidifier	24h/day		
6137	Air dehumidifier r.h. on	55	%	
6138	Air dehumidifier r.h. SD	5	%	
6140	Water pressure max	-----	bar	
6141	Water pressure min	-----	bar	
6142	Water pressure critical min	-----	bar	

6150	Water pressure 2 max	-----	bar	
6151	Water pressure 2 min	-----	bar	
6152	Water pressure 2 critical min	-----	bar	
6200	Store sensor	No		
6204	Store parameter	No		
6205	Reset parameter	No		
6212	Control number heat generation 1	0		
6213	Control number heat generation 2	0		
6215	Control number storage tank	0		
6217	Control number heating circuits	2		
6220	Device SW version	3.4		
6222	Device operating hours	2112	h	
6224	Device identification	RVS43.143/109		
	Partial diagram oil/gas-fired boiler	0		
	Partial diagram solar collector	0		
	Partial diagram heat circuit 1	2		
	Partial diagram cooling circuit 1	0		
	Partial diagram heat circuit 2	0		
	Partial diagram heat circuit P	0		
	Partial diagram buffer	0		
	Partial diagram dhw storage	0		
	Partial diagram converter	0		
	Partial diagram solid fuel boiler	0		

	Partial diagram swimming pool	0		
	Partial diagram hydraulic balancing	2		
	Partial diagram instantaneous heater	0		
	Partial diagram H1	No		
	Partial diagram H2	No		
	Cascade status	Active		
LPB				
6600	LPB address	S0/G1		
6604	LPB power supply function selection	Automatic		
6605	LPB power supply status	On		
6610	Display system message	Yes		
6612	Alarm delay	-----	min	
6620	Central switch-over working area	System		
6621	Summer/winter changeover automatic	Local		
6623	Operating mode changeover	Central		
6624	Manuall producer lock	local		
6625	Dhw allocation	All controllers within system		
6627	Cool demand	Local		
6630	Cascade master	Always		
6631	Ext source with eco mode	Off		
6632	Outside temp limit external source accept	No		
6640	Clock time source	Controller is the clock time master		
6650	Outside temp source	S0/G1		
Error				
6710	Reset alarm relay	No		

6740	Time flow temperature alarm HC1	-----	min	
6741	Time flow temperature alarm heating circuit 2	-----	min	
6743	Time boiler temperature alarm	-----	min	
6745	Time DHW charging alarm	-----	h	
6746	Time flow temperature alarm cooling circuit 1	-----	min	
6800	Time stamp error history entry 1	-----		
6801	Error code history entry 1	-----		
6802	Time stamp error history entry 2	-----		
6803	Error code history entry 2	-----		
6804	Time stamp error history entry 3	-----		
6805	Error code history entry 3	-----		
6806	Time stamp error history entry 4	-----		
6807	Error code history entry 4	-----		
6808	Time stamp error history entry 5	-----		
6809	Error code history entry 5	-----		
6810	Time stamp error history entry 6	-----		
6811	Error code history entry 6	-----		
6812	Time stamp error history entry 7	-----		
6813	Error code history entry 7	-----		
6814	Time stamp error history entry 8	-----		
6815	Error code history entry 8	-----		
6816	Time stamp error history entry 9	-----		
6817	Error code history entry 9	-----		

6818	Time stamp error history entry 10	-----		
6819	Error code history entry 10	-----		
6820	Reset error history	No		
Service/special operation				
7040	Burner hours run maintenance interval	-----	h	
7041	Burner hours run since maintenance	0	h	
7042	Burner starts maintenance interval	-----		
7043	Burner starts since maintenance	0		
7044	Maintenance interval	-----	Mont hs	
7045	Time since maintenance	0	Mont hs	
7053	Flue gas temp limit	-----	°C	
7054	Delay flue gas temp signal	0	min	
7119	Eco function	Locked		
7120	Eco operation	-----		
7130	Chimney sweep function	Off		
7140	Manual operation	Off		
7150	Outside temp simulation	-----	°C	
7170	Telephone customer service			
IO test				<i>Used to check inputs and outputs</i>
7700	Relay test	No test		
7730	Outside temperature B9	-----	°C	
7732	Flow temperature B1	-----	°C	
7750	DHW temperature B3	-----	°C	
7760	Boiler temperature B2	-----	°C	

7820	Sensor temperature BX1	23.1	°C	
7821	Sensor temperature BX2	-----	°C	
7830	Sensor temperature BX21 module 1	-----	°C	
7831	Sensor temperature BX22 module 1	-----	°C	
7832	Sensor temperature BX21 module 2	-----	°C	
7833	Sensor temperature BX22 module 2	-----	°C	
7840	Voltage signal H1	0	V	
7841	Contact state H1	Open		
7845	Voltage signal H2	0	V	
7846	Contact state H2	Open		
7870	Signal burner fault S3	0V		
7881	Signal 1st burner stage E1	0V		
Status				
8000	Status heating circuit 1	Room frost protection active		
8001	Status heating circuit 2	---		
8002	Status heating circuit P	---		
8003	Status DHW	---		
8004	Status cooling circuit 1	---		
8005	Status boiler	---		
8007	Status solar	---		
8008	State solid fuel boiler	---		
8010	Status buffer	---		
8011	Status pool	---		
Diagnostic Cascade				
8100	Priority producer 1	0		
8101	Status producer 1	Not released		
8102	Priority producer 2	2		

8103	Status producer 2	Released		
8104	Priority producer 3	3		
8105	Status producer 3	Not released		
8106	Priority producer 4	1		
8107	Status producer 4	Not released		
8108	Priority producer 5	0		
8109	Status producer 5	Not available		
8110	Priority producer 6	0		
8111	Status producer 6	Not available		
8112	Priority producer 7	0		
8113	Status producer 7	Not available		
8114	Priority producer 8	0		
8115	Status producer 8	Not available		
8116	Priority producer 9	0		
8117	Status producer 9	Not available		
8118	Priority producer 10	0		
8119	Status producer 10	Not available		
8120	Priority producer 11	0		
8121	Status producer 11	Not available		
8122	Priority producer 12	0		
8123	Status producer 12	Not available		
8124	Priority producer 13	0		
8125	Status producer 13	Not available		
8126	Priority producer 14	0		
8127	Status producer 14	Not available		
8128	Priority producer 15	0		
8129	Status producer 15	Not available		
8130	Priority producer 16	0		
8131	Status producer 16	Not available		
8138	Cascade supply	23.1	°C	

	temperature actual value			
8139	Cascade supply temperature setpoint	29.4	°C	
8140	Cascade return temp actual value	-----	°C	
8141	Cascade return temp actual setpoint	-----	°C	
8150	Time to automatic producer sequence switching	10	h	
	State cascade pump (Q25)	-----		
	Status cascade return mixing valve opens (Y25)	-----		
	Status cascade return mixing valve closes (Y26)	-----		
Diagnosis producer				
8300	State burner stage 1 (T2)	-----		
8310	Boiler temp actual value	-----	°C	
8311	Boiler temp setpoint	-----	°C	
8312	Boiler switch point	0	°C	
8314	Return temp actual value	-----	°C	
8315	Boiler return temp setpoint	-----	°C	
8316	Flue gas temp actual value	-----	°C	
8318	Flue gas temp max actual value	-----	°C	
8330	Burner hours run stage 1	0	h	
8331	Number of burner starts stage 1	0		
8510	Collector temp 1 actual value (B6)	-----	°C	
8511	Collector temp max actual value 1 (B6)	-----	°C	
8512	Collector temp min actual value 1 (B6)	-----	°C	

8513	Temp differential collector 1/DHW	-----	°C	
8514	Temp differential collector 1/buffer	-----	°C	
8515	Temp differential collector 1/pool	-----	°C	
8519	Solar flow sensor for yield measurement B63	-----	°C	
8520	Solar return sensor for yield measurement B64	-----	°C	
8526	24-hour yield solar energy	0	kWh	
8527	Total yield solar energy	0	kWh	
8530	solar yield operating hours	0	h	
8531	Collector overtemp protection operating hours	0	h	
8547	Collector temp 2 actual value (B61)	-----	°C	
8548	Collector temp max actual value 2 (B61)	-----	°C	
8549	Collector temp min actual value 2 (B61)	-----	°C	
8550	Temp differential collector 2/DHW	-----	°C	
8551	Temp differential collector 2/buffer	-----	°C	
8552	Temp differential collector 2/pool	-----	°C	
8560	Solid fuel boiler temperature B22	-----	°C	
8570	Operating hours solid fuel boiler	0	h	
	Status boiler pump (Q1)	-----		
	Status return mixing valve opens (Y7)	-----		
	Status return mixing valve closes (Y8)	-----		
	Status boiler bypass pump	-----		

	(Q12)			
	Producer locking via contact H	Inactive		
	Status collector pump 1 (Q5)	-----		
	Status collector pump 2 (Q16)	-----		
	Status solar pump ext. Exchanger K9	-----		
	Status solar actuator buffer (K8)	-----		
	Status solar actuator pool (K18)	-----		
	Status Solid fuel boiler pump (Q10)	-----		
	Flue gas relay	-----		
Diagnosis consumer				
8700	Outside temp	-----	°C	
8703	Outside temp attenuated	-3.4	°C	
8704	Outside temp composite	-1.6	°C	
8720	Relative room humidity	-----	%	
8721	Room temperature	-----	°C	
8722	Dewpoint 1	-----	°C	
8730	Status heat circuit pump (Q2)	On		
8731	Status heat circuit mixing valve opens (Y1)	-----		
8732	Status heat circuit mixing valve closes (Y2)	-----		
8740	Room temp actual value heat circuit 1	-----	°C	
8741	Room temp setpoint actual HC1	10	°C	
8742	Room model temperature HC1	10	°C	

8743	Flow temp actual value heat circuit 1	-----	°C	
8744	Flow temp setpoint resulting HC1	29.4	°C	
8751	State cooling circuit pump 1	-----		
8752	State cooling circuit mixing valve 1 opening	-----		
8753	State cooling circuit mixing valve 1 closing	-----		
8754	State diverting valve cooling	-----		
8756	Flow temperature actual value cooling circuit 1	-----	°C	
8757	Flow temp setpoint resulting CC1	-----	°C	
8760	State heating circuit pump 2	-----		
8761	State heating circuit mixing valve 2 opening	-----		
8762	State heating circuit mixing valve 2 closing	-----		
8770	Room temp actual value heat circuit 2	-----	°C	
8771	Room temp setpoint actual HC2	-----	°C	
8772	Room model temperature HC2	-----	°C	
8773	Flow temp actual value heat circuit 2	-----	°C	
8774	Flow temp setpoint resulting HC2	-----	°C	
8800	Room temperature actual value HC3/P	-----	°C	
8801	Room temperature setpoint current HC3/P	-----	°C	
8802	Room model temperature HC3/P	-----	°C	

8803	Flow temperature setpoint resulting HC3/P	-----	°C	
8820	State DHW pump (Q3)	-----		
8830	DHW temperature actual value top (B3)	-----	°C	
8831	DHW temperature setpoint current	-----	°C	
8832	DHW temperature actual value bottom (B31)	-----	°C	
8835	DHW circulating temperatur	-----	°C	
8836	DHW charging temperature	-----	°C	
8850	DHW precontroller temperatur actual value	-----	°C	
8851	DHW precontroller temperatur setpoint	-----	°C	
8852	DHW consumption temp	-----	°C	
8853	DHW instantaneous heater setpoint	-----	°C	
8900	Actual value of the swimming pool temp B13	-----	°C	
8901	Setpoint temperature swimming pool	-----	°C	
8930	Precontroller actual value	-----	°C	
8931	Precontroller setpoint	29.4	°C	
8950	Segment flow temperature actual value	23.1	°C	
8951	Segment flow temperature setpoint	29.4	°C	
8952	Segment return temp	-----	°C	
8957	Common flow setp refrig	-----	°C	
8980	Buffer temp actual value top (B4)	-----	°C	
8981	Buffer storage tank setpoint	-----	°C	
8982	Buffer temp actual value	-----	°C	

	bottom (B41)			
8983	Buffer temp actual value middle (B42)	-----	°C	
9000	Flow temperature setpoint H1	-----	°C	
9001	Flow temperature setpoint H2	-----	°C	
9005	Water pressure H1	-----	bar	
9006	Water pressure H2	-----	bar	
9031	State multifunctional relay (QX1)	Off		
9050	State multifunctional relay (QX21 Modul 1)	-----		
9051	State multifunctional relay (QX22 Modul 1)	-----		
9052	State multifunctional relay (QX23 Modul 1)	-----		
9053	State multifunctional relay (QX21 Modul 2)	-----		
9054	State multifunctional relay (QX22 Modul 2)	-----		
9055	State multifunctional relay (QX23 Modul 2)	-----		
	State 2nd speed heating circuit pump (Q21)	-----		
	Operating mode changeover heating circuit 1	Inactive		
	State 2nd speed heating circuit pump (Q22)	-----		
	Operating mode changeover heating circuit 2	Inactive		
	State heating circuit pump 3/P	-----		
	Stat 2nd speed heating circuit pump (Q23)	-----		
	Operating mode	Inactive		

	changeover HC3/P			
	State DHW circulating pump (Q4)	-----		
	State electric immersion heater DHW	-----		
	Operating mode changeover DHW	Off		
	Flowswitch	Off		
	State pump H1 (Q15)	-----		
	State pump H2 (Q18)	-----		
	Status primary pump (Q14)	-----		
	Status precontroller mixing valve opens (Y19)	-----		
	Status precontroller mixing valve closes (Y20)	-----		
	Output heat generation lock (Y4)	-----		
	Status time program 5 relais (K13)	-----		
	Status return temp valve (Y15)	-----		
	Status heat demand (K27)	-----		
	Status cool demand (K28)	-----		
	State air dehumidifier (K29)	-----		
	Status DHW charging controller Y31	-----		
	Status DHW charging controller Y32	-----		
	Status instantaneous heater pump (Q34)	-----		
	Status instantaneous heater opens (Y33)	-----		
	Status instantaneous heater closes (Y34)	-----		
	State storage transfer	-----		

	pump (Q11)			
	State DHW stirring pump (Q35)	-----		
	DHW intermediate circuit pump (Q33)	-----		
Info				
6700	Error signal	-----		
	Error origin	-----		
	Error signal 2	-----		
	Error origin	-----		
7000	Maintenance message	No maintenance message pending		
	Maintenance origin	S0/G1		
	Maintenance message 2	No maintenance message pending		
	Maintenance origin	S0/G1		
2214	Boiler temperature setpoint in manual operation	-----	°C	
7131	Chimney sweep function burner output	High-fire		
855	Flow temp setpoint flooring plaster dry up HC1	-----	°C	
856	Flooring plaster dry up day HC1	-----		
857	Floor curing HC1 days fulfilled	0		
1155	Flow temp setpoint flooring plaster dry up HC2	-----	°C	
1156	Flooring plaster dry up day HC2	-----		
1157	Floor curing HC2 days fulfilled	0		
8310	Boiler temp actual value	-----	°C	
8700	Outside temp	-----	°C	

8701	Outside temperature min	-----	°C	
8702	Outside temperature max	-----	°C	
8830	DHW temperature actual value top (B3)	-----	°C	
8510	Collector temp 1 actual value (B6)	-----	°C	
8560	Solid fuel boiler temperature B22	-----	°C	
8980	Buffer temp actual value top (B4)	-----	°C	
8900	Actual value of the swimming pool temp B13	-----	°C	
	Status heating circuit 1	Frost protection active		
	Status cooling circuit 1	---		
	Status heating circuit 2	---		
	Status heating circuit P	---		
	Status DHW	---		
	Status boiler	---		
	Status solar	---		
	State solid fuel boiler	---		
	Status buffer	---		
	Status pool	---		
	Clock time	Actual Time		
7170	Telephone customer service	08456448802		