Option	Function	Value or range	Description
0	-	-	Unknown.
General Operations			
1	Interface	0..5	Interface speed after power-up or reset.
		0*	2400 bps.
		1	4800 bps.
		2	9600 bps.
		3	19200 bps. Recommended setting.
		4	38400 bps. This speed is not selectable with the 'Interface/Bit per second' menu, but the value '4' and the 'XB38400' command are accepted, and the Intellibox works usually fine at this speed.
		5	16457 bps. For compatibility with Digitrax MS-100. LocoNet mode works also fine at other speeds (preferrably 19200 or 38400).
2	Interface	0..4	Interface protocol selected at startup or after reset.
		0*	P50 protocol only.
		1	P50X protocol only.
		2	Both P50 and P50X protocols (this is the so called 'mixed P50/P50X' protocol mode).
		3	Selectable with 'Interface/Syntax' menu, but not a valid option.
		4	LocoNet protocol.
3	-	-	Unknown.
4	Interface	0..2	CTS signal polarity.
		0*	Positive: +12V means CTS=TRUE (PC class of computers).
		1	Negative: -12V means CTS=TRUE (MAC class of computers).
		2	None: RS232 interface disabled.
5	Interface	1..2	Number of stop bits used by the Interface. Before version 1.500 2 stopbits were mandatory, but now all protocols will work with either 1 or 2 stopbits.
		1	Recommended setting when (sometimes) using software written exclusively for MS-100 or LocoBuffer.
		2*	Default, see also Long RS-232 Break.
6	Interface	0..255	CTS timing with power-off ('stop'). The use of CTS for flow control is independent of the setting of this SO.
		0	CTS will go false permanently with non computer induced track power-off condition (e.g. short-circuit, push of a stop button).
		1..254*	CTS will be false for the specified time in units of 50 ms after a stop button has been pushed. Default 12.7 secs.
		255	CTS will never become false due to pushing of a stop button.
7	Interface	80..95	Lead-In character for P50X protocol (when in mixed P50/P50X mode).
		88*	Default: 'X'.
8	auto S88 reading	0..62	Number of groups of 8 sensor-bits (half S88) to be read automatically.
		16*	Default: 8 S88s with 16 contacts each.
9	-	-	Unknown.
10	Loc protocol	0..8	Protocol used by all loc decoders. May be overridden by individual loc specification.
		0	Motorola Old.
		1*	Motorola New.
		2	DCC 14.

		3	DCC 27.
		4	DCC 28.
		5	DCC 28 DAC.
		6	DCC 128.
		7	DCC 128 DAC.
		8	Selectrix
11	Warm Start	30..100	Time in units of 50 ms that 'Go' and 'Stop' keys must be pressed together before a 'Reset' (warm start cycle) is initiated.
		50*	Default: 2.5 secs.
12	Turnout Protocol	0..8	Protocol used by all turnout decoders. May be overridden by individual turnout specification.
		0*	Motorola protocol.
		1	DCC protocol.
		2..8	Unknown.
13	Minimum Turnout Time	0..255	Mimimum time in units of 50 ms that a turnout must be kept powered on, even when another turnout command arrives.
		2*	Default: 100 msecs.
14	Maximum Turnout Time	0..255	Maximum time in units of 50 ms that a turnout must be left powered on, when no other turnout command arrives.
		100*	Default: 5 secs.
15	Track voltage	0	N-scale voltage.
		1*	H0-scale voltage.
16	Programming Track	0	Programming Track only (relay always turned on). Programming track carries only programming signal.
		1*	Programming Track automatic. Relay turned on when entering programming mode (from Intellibox panel or computer). When not in programming mode the programming track carries the same digital signal as the running track.
17..18	-	-	Unknown.
19	Loc status restore	0*	Do not restore loc status at physical power on or after a reset with X@, X@@ command or with go + stop buttons. See also SO#31.
		1	Restore loc status, dir and F1..4, but set speed to zero.
		2	Restore complete loc status, incl. speed.
20	P50 Loc control	0	P50 loc commands will be discarded when loc is controlled manually (Märklin 6050 emulation).
		1*	P50 loc commands will override manual loc control.
		2..40	Unknown.
21	P50 Turnout control	0*	P50 turnout commands will be discarded when Intellibox is in stop state (Märklin 6050 emulation).
		1	P50 turnout commands will buffered when the Intellibox is in stop state and will be executed after pressing 'Go'. About 16 turnout commands can be buffered.
22	Idle signal	0..21	Number of idle packets sent during power-on. When set to an odd number the value applies to both Märklin and DCC protocol, when set to an even number it applies only to Märklin/Motorola protocol. See also SO#907.
		0	DCC only protocol.
		6	Märklin only protocol.
		7*	Mixed Märklin and DCC protocol.
23	S88 timers	0	Contact timing not active.
		1*..62	Sequence number of the group of 8 sensor bits (half S88) for which timing information is provided.

24	S88 counters	0	Contact counting not active.
		1*..62	Sequence number of the group of 8 sensor bits (half S88) for which contact make counts are provided.
25	Idle signal	0..15	Control of digital signals on the rails (bitmask).
		bit 0	0 - send no DCC signal, unless a DCC loc is active. 1 - always send a DCC signal (Idle-signal when no DCC loc active).
		bit 1	0 - send no Motorola signal, unless a Motorola loc is active. 1 - always send a Motorola signal (Idle-signal when no Motorola loc active).
		bit 2	0 - send no Selectrix signal, unless a Selectrix loc is active. 1 - always send a Selectrix signal (Idle-signal when no Selectrix loc active).
		bit 3	0 - send no ZZZ signal, unless a ZZZ loc is active. 1 - always send a ZZZ signal (Idle-signal when no ZZZ loc active).
26	Interface speed	0	A 'long RS232 break' from the computer does not affect the Interface speed.
		1*	A 'long RS232 break' from the computer resets the Interface speed to 2400 bps.
27	Refresh cycle	0	Never remove a loc from refresh cycle once it is activated.
		1..240	Minimum time in minutes between the last command to a loc and the moment it may be removed from the refresh cycle.
		2*	Default: two minutes.
28	Refresh cycle	0*	Remove loc from refresh cycle only when its speed is currently zero.
		1	May remove loc from refresh cycle even when its current speed is not zero.
29	Refresh cycle	0	Do not remove loc from refresh cycle when 'in-use'.
		1*	May remove loc from refresh cycle even when 'in-use'.
30	-	-	Unknown.
31	Power off	0*	Do not save the status of locs which are not refreshed anymore.
		1	Save status of locs even when not anymore in the refresh cycle but still 'in-use'. Use this value when locs with 'new' Märklin decoders (like 60901) sometimes start in the wrong direction.
32	-	-	Unknown.
33	I2C echo	0	Do not echo **turnout** commands on the internal I2C bus. Recommended setting when no Märklin keyboards or similar devices are connected to the Intellibox.
		1*	Echo turnout commands on the I2C bus.
34..35	-	-	Unknown.
36	Booster control	1..200	Period after startup of the IB (or from 'stop' to 'go') during which the Intellibox will ignore a short-circuit signal from a booster in units of 10 ms.
		20*	Default (200 ms).
		21	(or somewhat higher) Overcome false Märklin 6017 booster short-circuit signal.
37	I2C pause	75..200	Pause time in ms between VI2CL = +V and Go-line = high.
		150*	Default: 0.15 secs.
38	I2C pause	75..200	Pause time in ms between Go-line = high and start of C80(f) numbering procedure (LIPU).
		100*	Default: 0.1 secs.
39	Consist Control	0*	Do not proliferate the functions settings of the top loc of a consist to other locs of this consist.
		1	Copy function settings for the top loc only to other locs of this consist

			with an **odd** address.
		2	Copy function commands for the top loc only to other locs of this consist with an **even** address.
		3	Copy the function settings of the top loc to **all** other locs of this consist.
40..52	-	-	Unknown.
53	Loc protocol	0..255	Loc decoder protocol settings.
		bit 0	Unknown, default 0.
		bit 1	Unknown, default 0.
		bit 2	Unknown, default: 1.
		bit 3	Unknown, default: 0.
		bit 4	0: Do not touch Loc Special Option 4. 1*: Set Loc Special Option 4 of every new Märklin/Motorola loc decoder to 1.
54..79	-	-	Unknown.
Lokmaus 1 loc address (calculation)			
80	Loc 8	0..127	Offset value of address of loc 8 of Lokmaus 1.
		8*	Default
81	Loc 8	0..78	Segment value of address of loc 8 of Lokmaus 1.
		0*	Default
82	Loc 1	0..127	Offset value of address of loc 1 of Lokmaus 1.
		1*	Default
83	Loc 1	0..78	Segment value of address of loc 1 of Lokmaus 1.
		0*	Default
84	Loc 2	0..127	Offset value of address of loc 2 of Lokmaus 1.
		2*	Default
85	Loc 2	0..78	Segment value of address of loc 2 of Lokmaus 1.
		0*	Default
86	Loc 3	0..127	Offset value of address of loc 3 of Lokmaus 1.
		3*	Default
87	Loc 3	0..78	Segment value of address of loc 3 of Lokmaus 1.
		0*	Default
88	Loc 4	0..127	Offset value of address of loc 4 of Lokmaus 1.
		4*	Default
89	Loc 4	0..78	Segment value of address of loc 4 of Lokmaus 1.
		0*	Default
90	Loc 5	0..127	Offset value of address of loc 5 of Lokmaus 1.
		5*	Default
91	Loc 5	0..78	Segment value of address of loc 5 of Lokmaus 1.
		0*	Default
92	Loc 6	0..127	Offset value of address of loc 6 of Lokmaus 1.
		6*	Default
93	Loc 6	0..78	Segment value of address of loc 6 of Lokmaus 1.
		0*	Default
94	Loc 7	0..127	Offset value of address of loc 7 of Lokmaus 1.
		7*	Default
95	Loc 7	0..78	Segment value of address of loc 7 of Lokmaus 1.
		0*	Default
General Operations (cont'd)			

96	–	–	Unknown.
97	Startup mode	0	Startup in 'stop' state.
		1*	Startup in 'go' state.
98..203	–	–	Unknown.
204	DCC decoder programming	0..255	Search address.
		40*	Recommended value, especially with new Arnold decoders.
205..210	–	–	Unknown.
211	DCC decoder programming	0..255	Search address.
		2*	Recommended value, especially with new Arnold Decoders.
212..223	–	–	Unknown.
224	DCC decoder programming	0..255	Read Register.
		8*	Default value.
		10	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 12).
225..243	–	–	Unknown.
244	DCC decoder programming	0..255	Query address (register mode).
		6*	Default
		8	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 10).
245..256	–	–	Unknown.
257	DCC decoder programming	0	Disable page preset before register read.
		1*	Enable page preset before register read.
258..263	–	–	Unknown.
264	DCC decoder programming	0..255	Write Register.
		10*	Default
		12	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 14).
265..276	–	–	Unknown.
277	DCC decoder programming	0*	Disable page preset before register write.
		1	Enable page preset before register write.
278..283	–	–	Unknown.
284	DCC decoder programming	0..255	Paged read.
		6*	Default
		8	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 10).
285..303	–	–	Unknown.
304	DCC decoder programming	0..255	Paged write.
		8*	Default
		10	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 12).
305..32	–	–	Unknown.

3			
324	DCC decoder programming	0..255	Direct byte read.
		6*	Default
		8	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 10).
325..343	-	-	Unknown.
344	DCC decoder programming	0..255	Direct byte write and direct bit write.
		8*	Default
		10	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 12).
345..363	-	-	Unknown.
364	DCC decoder programming	0..255	Direct bit read.
		10*	Default
		12	Recommended value when experiencing programming problems (may also be somewhat higher, e.g. 14).
365..394	-	-	Unknown.
395	Uhlenbrock decoder programming	0*	Turn off the lights of Uhlenbrock decoders during programming, except blinking to indicate result of programming.
		1	Do not control the lights.
396	-	-	Unknown.
397	Uhlenbrock decoder programming	24..80	Maximum time in units of 250 ms for an Uhlenbrock loc decoder to switch from normal mode to programming mode.
		50*	Default: 12.5 secs.
		80	Recommended setting (20 secs).
398	Uhlenbrock decoder programming	12..40	Maximum time in units of 250 ms which an Uhlenbrock decoder requires to show 4 blinks of the lights after succesfully processing a programming command, to indicate it is prepared to receive the expected parameter.
		20*	Default: 5 secs.
		40	Recommended setting (10 secs).
399	Uhlenbrock decoder programming	1..20	Minimum time in units of 250 ms for an Uhlenbrock decoder to accept a new parameter.
		4*	Default: 1 sec.
400..449	-	-	Unknown.
450	Memory mode	2..100	Stepping speed of a programmed route in units of 50 ms.
		10*	Default: 0.5 seconds per step.
451	Memory mode	1..200	Duration of a pause step in a programmed route in units of 50 ms.
		20*	Default: 1 second.
452..454	-	-	Unknown.
455	Lenz decoder programming	0..191	Unknown.
		51*	Default
		63	May improve programming of Lenz decoders, like LE0521D,1024/1025.
456..475	-	-	Unknown.
476	Short circuit detection	1..15	Unit of time for second 'short-circuit' signalling (see SO#478). This value, expressed in units of 50 msecs, divided by the value of SO#477 determines the time after which a second short-circuit is signalled.

		10*	Default. With the default of SO#477, will result in 250 msecs (10 * 50 / 2).
477	Short circuit detection	1..10	Factor for second short-circuit detection (see SO#476).
		2*	Default
478	Short circuit detection	0	Disable second short circuit detection (see also SO#476 and SO#477).
		4*	Enable second short circuit detection. This is a fail safe feature in addition to the primary short circuit detection (controlled with SO#930).
479	Power-on behaviour	0..100	Number of times - with 3 msec intervals - to check for an (illegal) external voltage. If detected the Intellibox starts-up in Power-Off mode.
		15*	Default
480..495	-	-	Unknown.
496	External voltage detection	1..100	Number of times an external voltage has to be detected before signalling this error condition.
		3*	Default
497	External voltage detection	1..250	Interval in units of 1 msecs between external voltage detections.
		100*	Default: 0.1 secs.
498	Booster Control	0	Signal line 'SGNL' always low.
		1*	Signal line active: booster is informed about Power-Off state.
499..661	-	-	Unknown.
662	Loc decoder programming	bit 0	0 - Do not set bit 5 of CV 29 when **reading** a long address. 1* - set bit 5 of CV 29 when reading a long address.
		bit 1	0 - bit 5 of CV 29 is not set when **writing** a long address. 1* - bit 5 of CV 29 is set when writing a long address.
		bit 2	0* - Ignore errors when writing bit 5 of CV 29 as part of reading or writing a long address. 1 - do **not** ignore errors when writing bit 5 of CV 29. This does not apply to a bit write performed through the CV(bit) menu.
		3*	Default: bit0=1 bit1=1, bit2=0. See also version 1.300 updates in file 'changes.txt' of the update package.
663	IntelliBox reset	0*	Disable Intellibox resets by P50X commands.
		1	Do not filter P50X commands which can result in a reset of the IB.
664..698	-	-	Unknown.
IRIS mode			
699	IRIS mode	0..200	Time in units of 150 ms for the Intellibox panel display in IRIS_mode to revert to showing loc speed after having shown turnout status.
		0	No timeout: no automatic fall back to loc speed/direction display.
		33*	Default: approx. 5 seconds.
700	IRIS key	0..255	Command code for IRIS key '0'.
		0*	Default
701	IRIS key	0..255	Command code for IRIS key '1'.
		1*	Default
702	IRIS key	0..255	Command code for IRIS key '2'.
		2*	Default
703	IRIS key	0..255	Command code for IRIS key '3'.
		3*	Default

704	IRIS key	0..255	Command code for IRIS key '4'.
		4*	Default
705	IRIS key	0..255	Command code for IRIS key '5'.
		5*	Default
706	IRIS key	0..255	Command code for IRIS key '6'.
		6*	Default
707	IRIS key	0..255	Command code for IRIS key '7'.
		7*	Default
708	IRIS key	0..255	Command code for IRIS key '8'.
		8*	Default
709	IRIS key	0..255	Command code for IRIS key '9'.
		9*	Default
710..711	-	-	Unknown.
712	IRIS key	0..255	Command code for IRIS key 'Stop'.
		12*	Default: toggle Power Off/On.
713	IRIS key	0..255	Command code for IRIS key 'Loco'.
		14*	Default: Select Loc address.
714	IRIS key	0..255	Command code for IRIS key 'Turnout'.
		15*	Default: Select Turnout address.
715	IRIS key	0..255	Command code for IRIS key 'Route'.
		16*	Default: Select Route number.
716	IRIS key	0..255	Command code for IRIS key '-->'.
		54*	Default: direction forward / emergency stop.
717	IRIS key	0..255	Command code for IRIS key '<--'.
		55*	Default: direction backward, emergency stop.
718	-	-	Unknown.
719	IRIS key	0..255	Command code for IRIS key 'Off'.
		107*	Default: Function (F0) ON while pressed, then OFF.
720	IRIS key	0..255	Command code for IRIS key 'f0'.
		57*	Default: Function (F0) ON.
721	IRIS key	0..255	Command code for IRIS key 'f1'.
		91*	Default: Toggle Function F1 (or F5,F9,F13).
722	IRIS key	0..255	Command code for IRIS key 'f2'.
		92*	Default: Toggle Function F2 (or F6,F10,F14).
723	IRIS key	0..255	Command code for IRIS key 'f3'.
		93*	Default: Toggle Function F3 (or F7,F11,F15).
724	IRIS key	0..255	Command code for IRIS key 'f4'.
		94*	Default: Toggle Function F4 (or F8,F12,F16).
725..728	-	-	Unknown.
729	IRIS key	0..255	Command code for IRIS key 'f+4'.
		20*	Default: Shift key f1..4 to f5..f8.
730	IRIS key	0..255	Command code for IRIS key 'f+8'.
		21*	Default: Shift key f1..4 to f9..f12.
731	-	-	Unknown.
732	IRIS key	0..255	Command code for IRIS key '+'.
		24*	Default: Increase speed.

733	IRIS key	0..255	Command code for IRIS key '-'.
		25*	Default: Decrease speed.
734..739	-	-	Unknown.
740	IRIS key	0..255	Command code for IRIS key 'T0 red'.
		124*	Default: Turnout base_address + 0: RED.
741	IRIS key	0..255	Command code for IRIS key 'T0 green'.
		125*	Default: Turnout base_address + 0: GREEN.
742	IRIS key	0..255	Command code for IRIS key 'T1 red'.
		126*	Default: Turnout base_address + 1: RED.
743	IRIS key	0..255	Command code for IRIS key 'T1 green'.
		127*	Default: Turnout base_address + 1: GREEN.
744	IRIS key	0..255	Command code for IRIS key 'T2 red'.
		128*	Default: Turnout base_address + 2: RED.
745	IRIS key	0..255	Command code for IRIS key 'T2 green'.
		129*	Default: Turnout base_address + 2: GREEN.
746	IRIS key	0..255	Command code for IRIS key 'T3 red'.
		130*	Default: Turnout base_address + 3: RED.
747	IRIS key	0..255	Command code for IRIS key 'T3 green'.
		131*	Default: Turnout base_address + 3: GREEN.
748..767	-	-	Unknown.
768	IRIS to PC	0..15	Select IRIS commands to be forwarded to PC.
		bit 0	0 = Do not forward, 1 = Forward commands **not** coming from an IRIS channel.
		bit 1	0 = Do not forward, 1 = Forward P50X commands (see docs).
		bit 2	0 = Do not forward, 1 = Forward commands coming from an IRIS channel.
		bit 3	0 = Do not forward, 1 = Forward LocoNet commands (see docs).
		1*	Forward P50X commands.
769	Speed steps	1..13	Number of speed steps of controlled loc to jump with the '+' or '-' keys.
		4*	Default
770	IRIS key	0..200	Timeout in units of 0.15 seconds for Loco/Turnout/Route and Function keys.
		67*	Default: approx. 1 second.
771	IRIS key	0..255	Command to be executed when the 'f1' key is pressed after pressing the 'f+4' key.
		95*	Default: toggle the F5 function.
772	IRIS key	0..255	Command to be executed when the 'f2' key is pressed after pressing the 'f+4' key.
		96*	Default: toggle the F6 function.
773	IRIS key	0..255	Command to be executed when the 'f3' key is pressed after pressing the 'f+4' key.
		97*	Default: toggle the F7 function.
774	IRIS key	0..255	Command to be executed when the 'f4' key is pressed after pressing the 'f+4' key.
		98*	Default: toggle the F8 function.
775	IRIS key	0..255	Command to be executed when the 'f1' key is pressed after pressing the 'f+8' key.
		99*	Default: toggle the F9 function.

776	IRIS key	0..255	Command to be executed when the 'f2' key is pressed after pressing the 'f+8' key.
		100*	Default: toggle the F10 function.
777	IRIS key	0..255	Command to be executed when the 'f3' key is pressed after pressing the 'f+8' key.
		101*	Default: toggle the F11 function.
778	IRIS key	0..255	Command to be executed when the 'f4' key is pressed after pressing the 'f+8' key.
		102*	Default: toggle the F12 function.
779	IRIS key debounce	2..21	Mimimum time in units of 150 ms that an IRIS key must have been released before taking the appropriate action. Applies to Function keys.
		2*	Default: 0.3 seconds.
780	IRIS key command	10..255*	Command to be executed when the '0' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
781	IRIS key command	10..255*	Command to be executed when the '1' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
782	IRIS key command	10..255*	Command to be executed when the '2' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
783	IRIS key command	10..255*	Command to be executed when the '3' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
784	IRIS key command	10..255*	Command to be executed when the '4' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
785	IRIS key command	10..255*	Command to be executed when the '5' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
786	IRIS key command	10..255*	Command to be executed when the '6' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
787	IRIS key command	10..255*	Command to be executed when the '7' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
788	IRIS key command	10..255*	Command to be executed when the '8' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
789	IRIS key command	10..255*	Command to be executed when the '9' key is pressed when not entering an address or number sequence.
		255*	Default: no action.
790	IRIS key debounce	1..21	Mimimum time in units of 150 ms that a '-' or '+' key must be pressed before accepting is as valid.
		3*	Default: 0.45 seconds.
791	IRIS route control	0..255*	Command code for turnout key T0 red, when pressed immediately after Route key. See also SO#715.
		255*	No action.
792	IRIS route control	0..255*	Command code for turnout key T0 green, when pressed immediately after Route key.
		255*	No action.

793	IRIS route control	0..255*	Command code for turnout key T1 red, when pressed immediately after Route key.
		255*	No action.
794	IRIS route control	0..255*	Command code for turnout key T1 green, when pressed immediately after Route key.
		255*	No action.
795	IRIS route control	0..255*	Command code for turnout key T2 red, when pressed immediately after Route key.
		255*	No action.
796	IRIS route control	0..255*	Command code for turnout key T2 green, when pressed immediately after Route key.
		255*	No action.
797	IRIS route control	0..255*	Command code for turnout key T3 red, when pressed immediately after Route key.
		255*	No action.
798	IRIS route control	0..255*	Command code for turnout key T3 green, when pressed immediately after Route key.
		255*	No action.
799	Turnout base	0	A common turnout base address is used for all IRIS channels.
		1*	Each IRIS channel uses its own Turnout base address.
Panel operation			
800	display backlight	0..13*	Backlight level of Intellibox panel display.
801	display contrast	0*..100	Contrast voltage level of Intellibox panel display. (0 = 0V, 100 = 5V).
802	LED dimming	0..6	Dimming factor of LEDs (higher value gived reduced brightness).
		4*	Medium brightness.
803	display language	0..8	Language of messages on Intellibox panel display. P50Xa protocol replies are always in English.
		0*	German
		1	English
		2	French
		3	Italian
		4	Dutch
		5	Swedish
		6	Spanish
		7	Portugese
		8	Danish
804..807	-	-	Unknown.
808	Loc direction control	0*	AC style speed control: direction switching by push-button.
		1	DC style automatic direction switching.
809	Speed indication	0*	Absolute step value (protocol dependent).
		1	Percentage of maximum speed.
810	Turnout selection	0	When in keyboard mode each red/green key pair is assigned an address from the keyboard table (SO#871..878).
		1*..255	Address of turnout assigned to key pair '1'(red) and '4'(green) when in keyboard mode. The following 7 addresses are assigned to subsequent pairs of red/green keys.

811	-	-	Unknown.
812	Sensor display	1*..128	Sequence number of the group of 8 sensor bits (half S88) to be displayed on the Intellibox panel display **initially** after power-on or reset.
813..814	-	-	Unknown.
815	Initial panel mode	0..4	Initial 'mode' setting of the Intellibox panel display after power on or reset. The value of this SO is 1 lower than the number of the key to press after the 'mode' key to directly select a mode.
		0*	Keyboard mode.
		1	Memory mode *(not available when memory mode (routes) is not installed)*.
		2	S88 monitor mode.
		3	Programming mode.
		4	IRIS mode.
		5	Lissy mode *(not selectable through the Special Options menu)*.
816	-	-	Unknown.
817	Mode change display	1..255	Time in units of 10 ms during which mode change message is being displayed after hitting the 'mode' key.
		100*	Default (1 second).
818..821	-	-	Unknown.
822	Decoder programming	75..255	Unknown.
		100*	Default. A value of 75 or 150 may be needed to display the correct speed and format values after upgrading to version 1.500 or 1.501.
823..824	-	-	Unknown.
825	Decoder programming	0*..1	Unknown.
		1	May improve reliability of determining address of older DCC decoders, like Märklin 6085.
826	Decoder programming	0..4	Default menu when entering programming mode.
		0*	Uhlenbrock decoder menu.
		1	DCC decoder menu.
		2	Selectrix decoder menu.
		3..4	Unknown.
827	Startup mode	0	No questions (see with value 1).
		1*	Intellibox asks if locs really have to start at the previously saved speed.
828..834	-	-	Unknown.
835	Speed of consists	0	Show speed of a consists in speed steps.
		1*	Show speed of consists in percentage of maximum speed.
836	Loc decoder programming	0*	Do not display sub-menu with decoder address search option.
		1	Display sub-menu of decoder address search option.
837	-	-	Unknown.
838	IRIS mode	0	Disable IRIS mode (automatically set to 1 by the Intellibox upon receiving an IR command). **Note:** Requires power off/on of the Intellibox after any change.
		1*	Enable IRIS mode.
839	IRIS mode	0..200	Time in units of 100 ms of the Intellibox panel display in IRIS_mode to revert to showing loc speed after having shown loc function status.
		0	No timeout: no automatic fall back to speed/direction display.

		25*	Default: 2.5 seconds.
840	Rotary encoder control	0*	Rotary encoders behave normally with respect to the control of locomotive speed and direction.
		1	Pressing the rotary encoder stops the locomotive immediately and, if the rotary encoders have been configured for 'AC mode', inverts the locomotive driving direction.
841..860	-	-	Unknown.
Lokmaus key table			
861	Loc 1	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
862	Loc 2	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus button right pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
863	Loc 3	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
864	Loc 4	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: left Lokmaus button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: left Lokmaus button pressed: FL/function on, released: FL/function off.
865	Loc 5	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
866	Loc 6	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.

		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
867	Loc 7	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
868	Loc 8	1*..4	With each Lokmaus right button press: toggle F1..F4 on/off.
		5..8	Lokmaus right button pressed: F1..F4 on, released: F1..F4 off.
		9..12	As values 1..4. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
		13..16	As values 5..8. In addition: Lokmaus left button pressed: FL/function on, released: FL/function off.
869..870	-	-	Unknown.
Turnout key table			
871	Turnout 1	0..255	Address less 1 of turnout to be assigned to key pair 1(red),4(green).
		10*	Turnout 11 assigned to key pair (1,4).
872	Turnout 2	0..255	Address less 1 of turnout to be assigned to key pair 2(red),5(green).
		20*	Turnout 21 assigned to key pair (2,5).
873	Turnout 3	0..255	Address less 1 of turnout to be assigned to key pair 3(red),6(green).
		30*	Turnout 31 assigned to key pair (3,6).
874	Turnout 4	0..255	Address less 1 of turnout to be assigned to key pair C(red),+(green).
		40*	Turnout 41 assigned to key pair (C,+).
875	Turnout 5	0..255	Address less 1 of turnout to be assigned to key pair 7(red),left-arrow(green).
		50*	Turnout 51 assigned to key pair (7,left-arrow).
876	Turnout 6	0..255	Address less 1 of turnout to be assigned to key pair 8(red),0(green).
		60*	Turnout 61 assigned to key pair (8,0).
877	Turnout 7	0..255	Address less 1 of turnout to be assigned to key pair 9(red),right-arrow(green).
		70*	Turnout 71 assigned to key pair (9,right-arrow).
878	Turnout 8	0..255	Address less 1 of turnout to be assigned to key pair Enter(red),down-arrow(green).
		80*	Turnout 81 assigned to key pair (Enter,down-arrow).
879..900	-	-	Unknown.
Miscellaneous			
901	booster signal control	1*..100	Asymmetry factor of digital signal on booster connection.
		3	When Märklin boosters 6015 or 6017 are used to control DCC decoders.
902	Function decoder control	12	Default
		14	to control the Märklin crane (46715).
		16	(up to about 18) to correct failing command transmission to the Märklin measurement car.
903	-	-	Unknown.

904	-	2..255	?
		28*	Default.
		42	Recommended value when older (but sometimes also newer) DCC decoders are used together with Motorola decoders.
905..906	-	-	Unknown.
907	idle signal	1*	Motorola idle signal is sent until the first Motorola loc is addressed. When SO#25 is '1' the idle signal will be remain to be sent even after the first Motorola loc has been addressed.
		4	A DCC idle signal is sent.
		5	Both Motorola and DCC idle signals are sent.
908	Short Circuit Control	0..255	Reaction time to a short-circuit condition reported by an external Booster.
		3	Default.
909	-	193..202	Controls the time between a Marklin/Motorola and a successive DCC frame.
		198*	Default: approx. 0.9 microseconds.
		199	or slightly higher ensures Märklin C95 decoders (6095) behave correctly. May also apply to Delta decoders and 'special' 6090 decoders with the 701.17 chip.
		202	Maximum: approx. 2.1 microseconds.
910..913	-	-	Unknown.
914	Function decoder control	18*	Default
		24	(up to about 26) to correct failing command transmission to the Märklin measurement car.
		40	to control the Märklin crane (46715).
915..929	-	-	Unknown.
930	Short Circuit control	10..120	Time in units of 5 ms before power shut-off after detection of excessive current flow.
		100*	Default (0.5 seconds).
931	Stop waittime	0..255	Time in units of 7 µs to wait for the I2C Stop signal.
		1*	For Märklin Control Unit 6021 and/or a Märklin keyboard 6040 attachments. Default for SPU versions 1.007 and higher.
		2..3	Alternatives for 1. Value 2 is default for SPU version 1.000.
		5	When Märklin 6027 or another DCC CU is connected. Default setting for SPU versions 1.001 to 1.006.
932	Bit length	0..255	Length of a bit in units of 4 µs.
		4*	Default: 16 µs.
933..934	-	-	Unknown.
935	I2C pause	0..255	High nibble (high order half byte) determines pause in ms after first byte of a (2-byte) I2C command to a C80(f) or keyboard. Low nibble (low order half byte) determines pause in ms after last byte of an I2C message.
		17*	Default (hexadecimal '11'): 1 ms pause for both situations.
936..998	-	-	Unknown.
999	Firmware	fixed	High order digits of firmware version number.

Notes:

- Numeric values are decimal, unless specifically indicated otherwise.
- Bit numbering is right to left (bit 0 is least significant bit): 76543210.
- Ranges are indicated with a double dot. For example 1..255 denotes values 1 through 255, including boundaries.
- * Indicates the factory default setting, which may vary between different software versions of the Intellibox, and country of purchase.
- Some options have a different default setting or are even not available in older versions of the Intellibox software. See IBSWVER.TXT for details.

Examples of Practical Combinations

Below examples of combinations of Special Option settings for some commonly used environments:

You need to enable JavaScript to see the table of Practical Combinations.

Option	Value	Description
Märklin/Motorola only environment		
22	0 or 6	Number of Märklin/Motorola and DCC idle packets after power on.
25	2	Always send a Märklin/Motorola loc signal.
907	1	Only Motorola idle signal.
DCC only environment		
22	0	Number of DCC only idle packets after power on.
25	1	Always send a DCC loc signal.
907	4	Only DCC idle signal.
Mixed Märklin/Motorola and DCC environment		
22	7	Number of Märklin/Motorola and DCC idle signals after power on.
25	1	Always send a DCC loc signal.
907	5	Both Motorola and DCC idle signals.
LocoNet mode (MS-100 compatibility mode)		
1	5	Interface speed: 16457 bps.
2	4	Interface Syntax: LocoNet.
5	1	Number of stopbits: 1.
6	255	disable drop of CTS when entering 'stop' state.
LocoNet mode (LocoBuffer compatibility mode)		
1	3	Interface speed: 19200 bps.
2	4	Interface Syntax: LocoNet.
5	1	Number of stopbits: 1.
6	255	disable drop of CTS when entering 'stop' state.
