Overview collected from Jochen Heilemann, DG2IAQ
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Yaesu FT-817 -- Servicemenu

04.07.2005

no.	content	description	alignment / remarks	Factory "HOME"	GOOD AVERAGE	DG2IAQ actually Base	DG2IAQ actually Portable	CT2IWG	DC0IK 4H870xxx FT-817ND	DF2DD	DF2DD 10W mod	DG2IAQ 1E300163 Portable	DG2IAQ 2J560298 Base	DG4FBC	DJ8UA HD-Elektr.	DK3VZ 5/10W mod	DL5GBL	DL7VDX 817-onair.de	DO1HMA 10W mod	K6XX AM mod	K7HI s/n 1K45	K7HI 10W mod	K7HI s/n 2L60	K7HI 10W mod	KE4IAP	OZ1FIT 10W mod	SGC SG-239
1	HF1RXG	RX GAIN 1.8MHz	The higher, the more sensitive the RX is	160	93	160	160	65	65	64		100	100	80		70	181	70	100		80		71		102	160	
2	HF2RXG	RX GAIN 7MHz		128	79	128	128	62	63	63		81	80	78		68	91	68	90		74		69		87	128	
3	HF3RXG	RX GAIN 21MHz		128	94	128	128	71	72	71		103	105	84		81	123	81	100		89		83		120	128	
4	50MRXG	RX GAIN 50MHz		128	73	128	128	63	62	64		67	60	62		67	66	72	75		73		72		72	128	
5	VHFRXG	RX GAIN 144MHz		128	80	128	128	65	67	67		76	90	73		73	98	74	100		87		79		94	79	
6	UHFRXG	RX GAIN 430MHz		128	94	128	128	68	68	67		74	117	71		93	117	99	110		155		77		82	128	
7	SSB-S9	SSB S-Meter S9	The higher, the more shown level 60 = S0 The higher, the higher the S- Press "A" at test signal given "-3kHz" and "+3kHz" open/close level without RX signal on RX signal of 3 dBµ (Tight = Enge) at Ub=13,8V	80	67	66	67	62	64	66		67	66	64		66	70	66	70		65		66		65	80	
8	SSB-FS	SSB S-Meter Vollausschlag		48	57	59	57	56	57	57		59	58	57		58	59	58	59		60		58		58	48	
9	FM-S1	FM S-Meter S1		48	74	75	75	75	71	74		80	77	69		77	76	77	76		78		79		84	48	
10	FM-FS	FM S-Meter Vollausschlag		100	111	111	111	109	106	111		130	113	102		113	109	111	109		113		113		116	100	
11	DISC-L	FM Center Meter (untere Grenze, -3kHz)		0	34	35	35	36	34	38		35	35	36		40	35	37	35		36		40		35	0	
12	DISC-H	FM Center Meter (obere Grenze, + 3kHz)		255	82	69	69	71	67	71		65	69	68		71	69	70	69		69		72		68	255	
13	FM-TH1	FM Squelch		50	72	70	66	76	76	76		72	75	75		72	82	78	50		77		76		79	50	
14	FM-TH2	FM Squelch		64	76	72	66	77	76	76		73	75	75		72	82	78	82		77		74		80	64	
15	FM-TI1	FM Squelch		12	5	4	12	2	2	2		7	3	2		3	14	3	14		4		1		2	12	
16	FM-TI2	FM Squelch		16	6	4	16	2	2	2		8	3	2		3	14	3	14		4		1		3	16	
17	VCC	Power Supply Voltage		138	136	138	138	138	138	138		138	138	138		138	138	138	138		122		123		138	138	
18	HF1-IC	Over-current Protection 1.8MHz	the lower, the more sensitive the protection is	130	108	100	130	95	92	99	135	126	103	89	103	135	111	103	135		112	122	79	89	80	130	
19	HF2-IC	Over-current Protection 7MHz		130	108	100	130	94	91	98	135	126	103	88	103	135	116	102	140		112	121	79	86	83	130	
20	HF3-IC	Over-current Protection 21MHz		130	110	100	130	98	95	102	135	129	106	92	106	135	111	106	140		114	123	82	86	83	130	
21	50M-IC	Over-current Protection 50MHz		130	103	100	130	95	90	98		127	103	90	103	92	113	103	113		112	130	80	89	82	130	
22	VHF-IC	Over-current Protection 144MHz		130	105	105	130	96	92	100		127	105	90	105	93	126	103	126		112		80		83	130	
23	UHF-IC	Over-current Protection 430MHz		130	105	105	130	99	95	102		131	106	93	106	95	113	106	113		115		83		84	130	
24	HF1-HI	RF Power HI 1.8MHz	5,0W (10,0W)	200	124	100	200	101	106	98	132	101	100	99	100	150	116	101	160		99	150	100	205	117	200	
25	HF1-L3	RF Power L3 1.8MHz	2,5W (5,0W)	133	77	55	133	59	64	58	100	67	77	57	58	95	67	59	90		59	108	58	109	62	133	
26	HF1-L2	RF Power L2 1.8MHz	1,0W (2,5W)	40	35	20	40	22	22	22	60	20	23	21	20	21	21	21	32		21	61	22	58	119	40	
27	HF1-L1	RF Power L1 1.8MHz	0,3W (1,0W)	18	8	0	18	4	5	4	7	9	10	5	3	1	4	4	10		4	26	4	22	2	18	
28	HF2-HI	RF Power HI 7MHz	5,0W (10,0W)	200	128	95	200	105	111	101	132	103	95	102	105	160	119	105	190		104	173	105	180	119	200	
29	HF2-L3	RF Power L3 7MHz	2,5W (5,0W)	133	76	53	133	59	64	58	102	57	70	57	60	95	65	60	105		60	106	58	100	63	133	
30	HF2-L2	RF Power L2 7MHz	1,0W (2,5W)	40	30	19	40	22	22	21	59	20	19	20	21	21	21	22	50		21	60	21	58	20	40	
31	HF2-L1	RF Power L1 7MHz	0,3W (1,0W)	18	7	0	18	4	5	4	6	3	0	3	3	1	3	4	10		4	24	4	21	2	18	
32	HF3-HI	RF Power HI 21MHz	5,0W (10,0W)	200	127	95	200	102	107	98	132	103	95	101	99	170	117	101	190		99	158	100	190	116	200	
33	HF3-L3	RF Power L3 21MHz	2,5W (5,0W)	133	75	52	133	58	63	57	104	58	55	58	60	100	63	58	100		57	106	57	100	60	133	
34	HF3-L2	RF Power L2 21MHz	1,0W (2,5W)	40	29	19	40	21	21	21	58	20	19	20	20	25	20	21	45		20	60	20	57	18	40	
35	HF3-L1	RF Power L1 21MHz	0,3W (1,0W)	18	7	0	18	4	4	4	6	9	0	4	2	1	2	4	10		4	25	4	20	1	18	
36	50M-HI	RF Power HI 50MHz	5,0W (10,0W)	200	121	95	200	99	104	96		104	92	102	92	97	115	99	150		96	200	97	190	118	200	
37	50M-L3	RF Power L3 50MHz	2,5W (5,0W)	133	69	53	133	56	61	53		58	55	58	61	54	64	56	80		52	102	55	104	66	133	
38	50M-L2	RF Power L2 50MHz	1,0W (2,5W)	40	26	19	40	20	20	20		21	18	21	18	19	23	19	23		19	63	19	55	19	40	
39	50M-L1	RF Power L1 50MHz	0,3W (1,0W)	18	8	0	18	7	7	7		7	0	7	1	7	1	7	5		7	26	6	19	2	18	
40	VHF-HI	RF Power HI 144MHz	5,0W (10,0W)	200	99	95	100	95	90	86		88	100	91	90	78	140	79	100		76		83		95	200	
41	VHF-L3	RF Power L3 144MHz	2,5W (5,0W)	133	59	52	60	53	50	50		51	59	51	52	44	93	44	66		42		46		52	133	
42	VHF-L2	RF Power L2 144MHz	1,0W (2,5W)	40	19	19	20	17	17	16		17	23	18	16	13	28	14	20		13		14		16	40	
43	VHF-L1	RF Power L1 144MHz	0,3W (1,0W)	18	5	0	5	3	5	3		5	0	5	3	3	12	3	5		3		3		0	18	
44	UHF-HI	RF Power HI 430MHz	5,0W (10,0W)	200	106	110	110	101	100	95		98	113	97	94	96	103	98	103		97		94		106	200	
45	UHF-L3	RF Power L3 430MHz	2,5W (5,0W)	133	64	66	65	60	58	57		56	63	57	55	56	68	57	68		57		55		58	133	
46	UHF-L2	RF Power L2 430MHz	1,0W (2,5W)	40	24	30	25	25	24	23		22	29	22	19	23	21	22	21		23		22		20	40	
47	UHF-L1	RF Power L1 430MHz	0,3W (1,0W)	18	7	0	7	6	6	6		6	0	6	6	6	9	6	9		6		6		4	18	
48	HF1TXG	TX Gain 1.8MHz	the higher, the higher the TX amplification of driver is (alignment that 5 W FM come out for sure)	128	78	128	128	58	64	91	90	73	76	61	65	90	67	76	100		77		64		63	128	
49	HF2TXG	TX Gain 7MHz		128	72	128	128	55	58	66	90	65	65	57	65	90	62	65	100		64		61		59	128	
50	HF3TXG	TX Gain 21MHz		128	78	128	128	59	61	93	90	72	79	60	65	90	67	79	100		73		64		60	128	
51	50MTXG	TX Gain 50MHz		128	97	128	128	68	73	243		88	95	68	65	94	89	95	90		108		83		70	128	
52	VHFTXG	TX Gain 144MHz		128	86	128	128	60	63	133		88	95	71	65	92	79	95	85		98		71		72	128	
53	UHFTXG	TX Gain 430MHz		128	93	128	128	60	60	114		92	126	71	65	116	69	126	85		140		79		64	128	
54	HF1POM	Power Meter Sensitivity 1.8MHz	the lower, the more level on power meter (alignment to 8 dots)	60	66	59	60	69	70	69		65	65	65	60	69	71	69	50		69		69		66	60	
55	HF2POM	Power Meter Sensitivity 7MHz		60	66	56	60	70	71	70		66	62	67	60	70	72	70	50		70		70		68	60	
56	HF3POM	Power Meter Sensitivity 21MHz		60	68	56	60	73	73	73		70	62	70	60	72	71	73	50		72		73		73	60	
57	50MPOM	Power Meter Sensitivity 50MHz		60	66	56	60	71	72	72		67	60	67	50	70	70	71	50		69		70		69	60	
58	VHFPOM	Power Meter Sensitivity 144MHz		60	60	56	60	62	64	60		61	53	61	45	59	83	58	50		58		60		64	60	
59	UHFPOM	Power Meter Sensitivity 430MHz		60	64	65	60	73	66	71		66	50	66	55	70	64	69	45		70		69		68	60	
60	ALC1-M	ALC Meter	measured: 180 -> value ÷ 4 dots	160	185	205	190	189	181	185		185	180	188	184	180	204	180	204		183		185		188	160	
61	ALC-M	ALC Meter		80	119	122	122	122	122	121		122	122	122	122	122	125	122	125		122		122		121	80	
62	HF1-RV	Reverse ALC 1.8MHz	the lower, the more sensitive protection and reduction of output power	25	8	5	5	3	4	3		2	10	2	10	0	13	7	13		3		5		4	25	20
63	HF2-RV	Reverse ALC 7MHz		25	13	10	10	11	13	12		9	15	9	15	12	11	12	11		12		12		11	25	25
64	HF3-RV	Reverse ALC 21MHz		25	20	20	15	18	19	18		17	20	17	20	18	21	18	21		18		18		21	25	30
65	50M-RV	Reverse ALC 50MHz		25	18	15	15	17	20	18		14	20	14	20	17	15	17	15		17		17		18	25	
66	VHF-RV	Reverse ALC 144MHz		25	11	7	5	7	12	10		10	10	6	10	11	7	11	7		11		11		11	25	
67	UHF-RV	Reverse ALC 430MHz		25	30	20	5	29	33	32		34	25	31	25	34	28	32	28		30		31		27	25	
68	CW-CAR	Carrier Level CW	the lower the higher modulation	255	255	255	255	255	255	255		255	255	255		255	252	255	252		255		255		255	255	
69	AM-CAR	Carrier Level AM		128	211	200	232	218	253	201		240	225	227		232	210	227	210	187	200		185		225	128	
70	DEV-W	FM Modulation	deviation = 5 kHz	200	211	204	200	210	227	204		218	180	215		216	211	212	211		220		215		216	200	
71	DEV-N	FM Modulation	deviation = 2.5 kHz	100	107	110	100	104	112	101		110	115	109		108	103	107	103		110		106		108	100	
72	M-MTR	FM Modulation	the lower, the more meter level	128	160	128	75	176	176	176		80	90	173		176	188	176	188		176		176		167	128	
73	CTCSS	FM Modulation	the higher, the more deviation	128	173	178	187	178	178	178		187	178	187		180	151	180	151		180		178		186	128	
74	DCS	FM Modulation	the higher, the more deviation	128	135	135	143	135	135	135		143	135	142		135	129	135	129		135		135		137	128	
75	LSB-CP	SSB Carrier Point	edge where RF output on 150 Hz + 2.600 Hz test tones is	0	-1	15	5	-3	-1	-6		15	-6	11		-6	-19	0	-19		-5		-5		13	0	
76	USB-CP	SSB Carrier Point		0	12	-15	0	-5	-6	-11		-20	-8	17		-8	-20	254	-20		-11		-11		18	0	
						with INRAD 2.3	with MURATA CFJ455K14	PA transistors: 2X RD0-7MVS1																			
		A+B+C + Power on = start alignment menu						Driver Transistors 2X RD0 1MVS1																			
		Power off = leave alignment menu WITHOUT STORING																									
		HOME = pre-setting factory defaults on each separate content --- see remarks (**)																									

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	A = auto measuring of levels and storing them																										
	F = leave alignment menu WITH STORING ALL PARAMETERS																										
		WARNING LEVELS	These RED marked levels are too high and will produce distortions, too high RX gain, Squelch problems or maybe damages under bad conditions. Please check and correct that !!!						(**) These pre-settings are only "common" values as factory defaults, but they are NO exactly or individual alignments !!! They are good starting values, can sometimes be used without any changes, but it don't replace an exactly alignment as described in the Service Manual !!!																	
		TOO LOW LEVELS	These BLUE marked levels should be raised up not to loose sensitivity or to eliminate strange effects.						Especially the factory "RF POWER" contents might be dangerous on the OLD PA MODULES (FET 2SK2975) as they give a RF output of more than 5 Watts on "HI" position.																	