



## DESKTOP DYNAMIC MICROPHONE

# MD-200<sub>A8X</sub>

## Technical Supplement

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### Introduction

The **MD-200<sub>A8X</sub>** Desktop Microphone is designed for base station operation with the latest generation of Yaesu HF transceivers, including those with VHF/UHF capability. Designed especially for ultra-low distortion and the highest fidelity, the **MD-200<sub>A8X</sub>** includes a new-technology "Variable Side Pressure Control" (VSPC), which allows precise adjustment of the microphone's audio response without resorting to "active" equalization circuits that can introduce distortion and/or degrade signal-to-noise ratio.

Servicing this equipment requires expertise in handling surface mount chip components. Attempts by unqualified persons to service this equipment may result in permanent damage not covered by warranty.

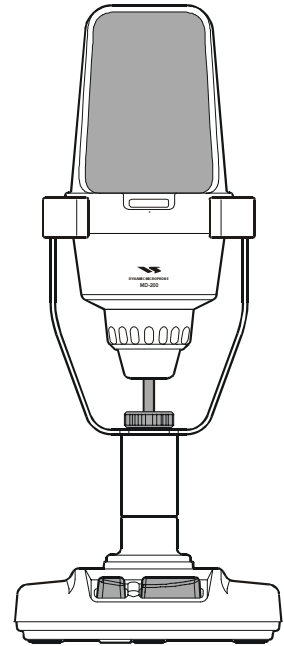
While we believe the technical information in this manual is correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

VERTEX STANDARD reserves the right to make changes in this transceiver and the alignment procedures, in the interest of technological improvement, without notification of owners.

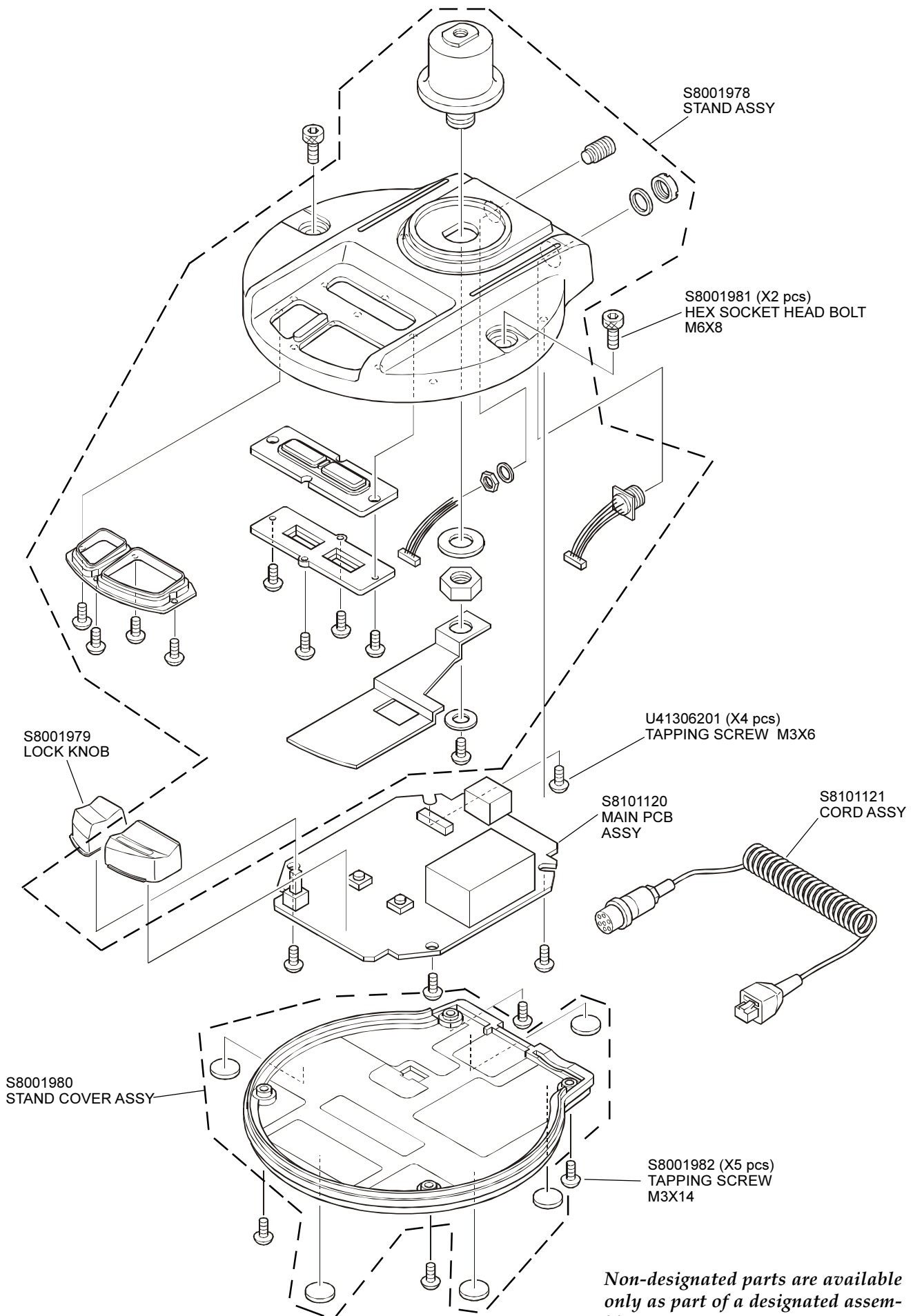
### Specifications

<b>Microphone Element Type:</b>	Dynamic
<b>Frequency Range:</b>	30 - 17000 Hz
<b>Sensitivity:</b>	-62 dB (1 kHz, 0 dB = 1 V/1 pa)
<b>Impedance:</b>	600 Ohms
<b>Dimensions (WHD):</b>	4.7" x 11.4" x 4.9" (120 x 290.5 x 124.5 mm)
<b>Weight:</b>	Approx. 2.2 lb. (1 kg.)

*Specifications are subject to change without notice or obligation.*

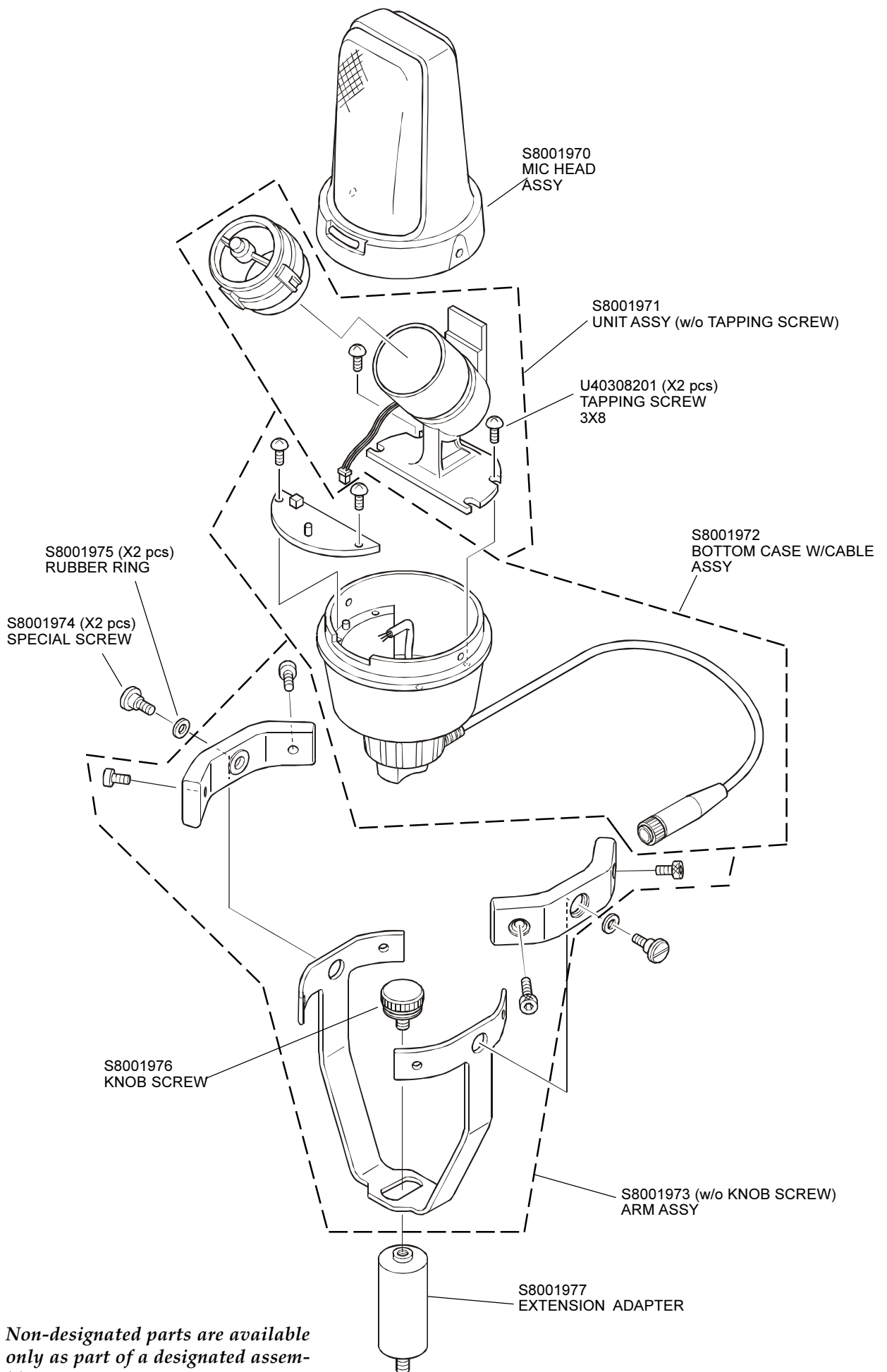


# Exploded Views & Mechanical Parts



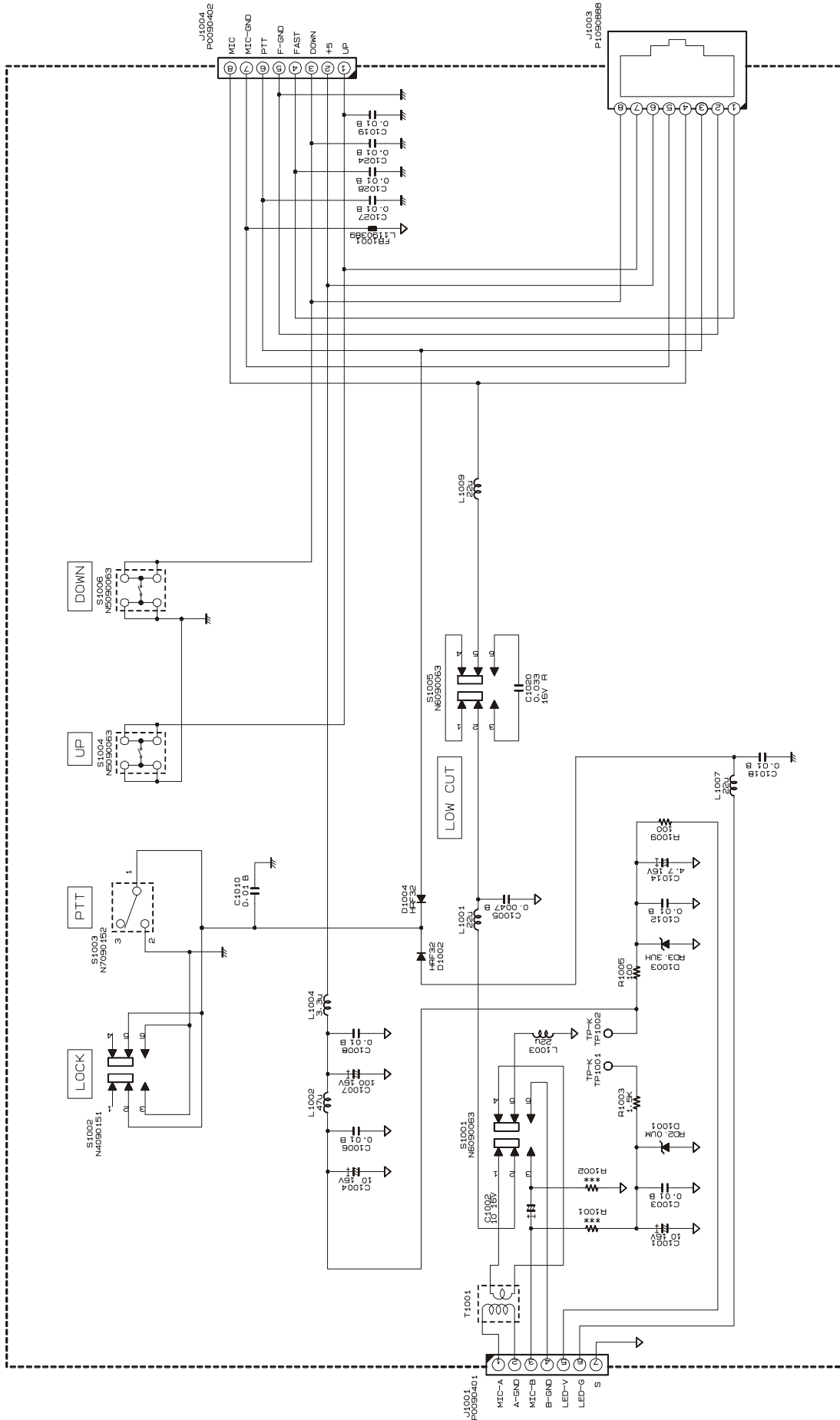
*Non-designated parts are available only as part of a designated assembly.*

# Exploded Views & Mechanical Parts



# Circuit Diagram

## BASE Unit Circuit Diagram

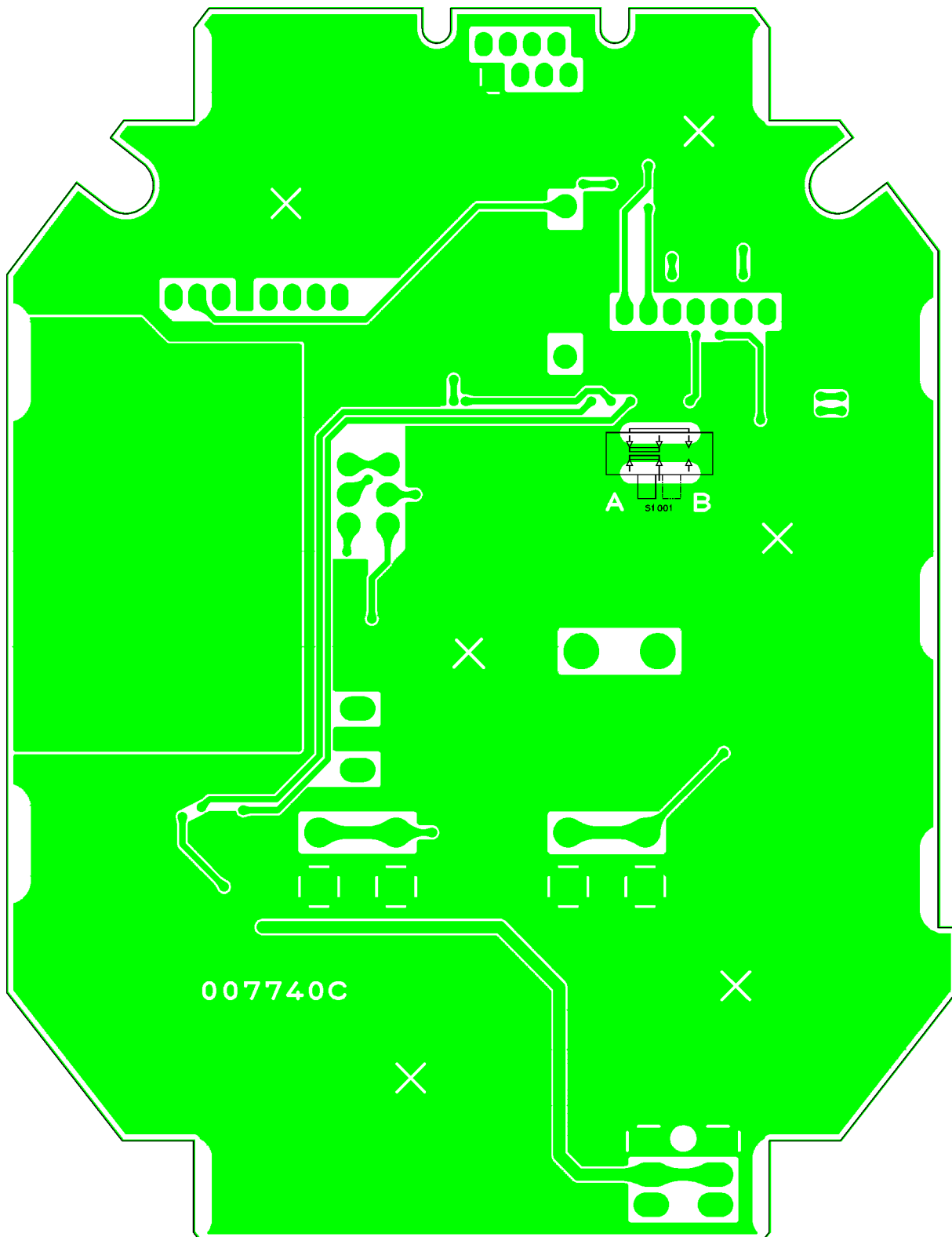


from JP2001



# Parts Layout

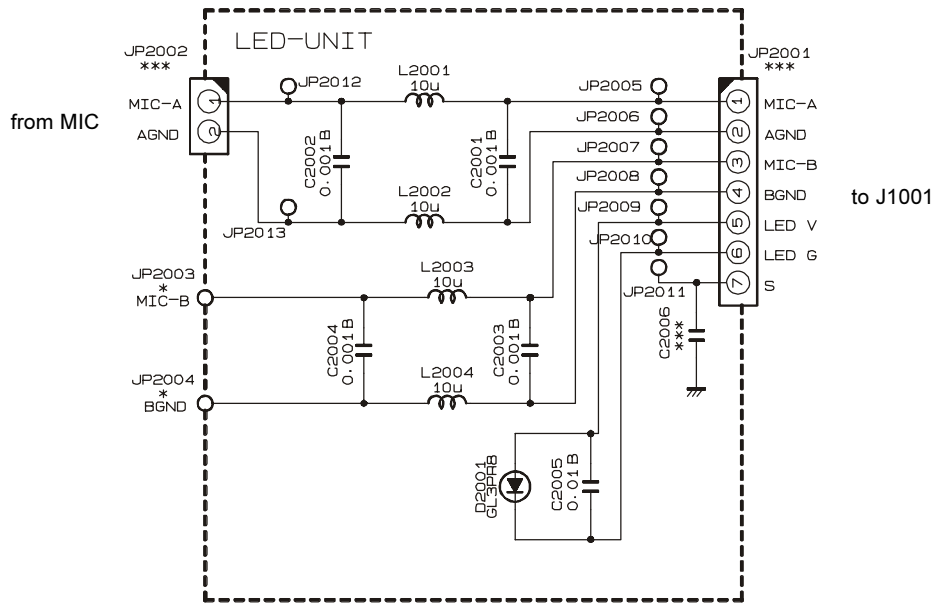
## BASE Unit Parts Layout



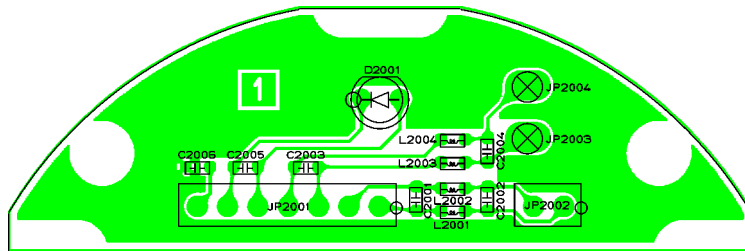
Side B

# Circuit Diagram

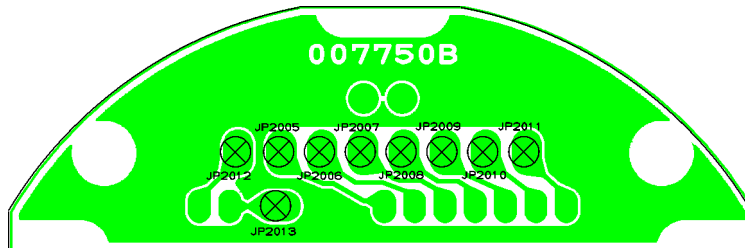
## LED Unit Circuit Diagram



## LED Unit Parts Layout



Side A



Side B

# Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	LOT.	SIDE.
*** BASE-UNIT ***								
	PCB with Component					S8101120		
C1001	CHIP TA. CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025	1-	A
C1002	CHIP TA. CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025	1-	A
C1003	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1004	CHIP TA. CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025	1-	A
C1005	CHIP CAP.	0.0047uF	50V	B	GRM39B472K50PT	K22174833	1-	A
C1006	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1007	CHIP TA. CAP.	100uF	16V		TEMSVD1C107M-12R	K78120059	1-	A
C1008	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1010	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1012	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1014	CHIP TA. CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031	1-	A
C1018	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1019	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1020	CHIP CAP.	0.033uF	16V	R	GRM39R333K16PT	K22124801	1-	A
C1024	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1027	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
C1028	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
D1001	DIODE				RD2.0UM-T2	G2070190	1-	A
D1002	DIODE				HRF32-TR	G2070792	1-	A
D1003	DIODE				RD3.3UH-T2	G2070192	1-	A
D1004	DIODE				HRF32-TR	G2070792	1-	A
FB1001	M.REC				FBA04VA600KE-00	L1190408	1-	A
J1001	CONNECTOR				B7B-PH-K-S	P0090401	1-	A
J1003	CONNECTOR				TM5RJ2-88	P1090888	1-	A
J1004	CONNECTOR				B8B-PH-K-S	P0090402	1-	A
JP1001	WIRE ASSY				CW-ASSY #242238	T9318177	1-	A
L1001	M.RFC	22uH		20%	LK1608 220M-T	L1691030	1-	A
L1002	M.RFC	47uH		5%	FLC32T-470J	L1690223	1-	A
L1003	M.RFC	22uH		20%	LK1608 220M-T	L1691030	1-	A
L1004	M.RFC	3.3uH		10%	FLC32T-3R3K	L1690209	1-	A
L1007	M.RFC	22uH		20%	LK1608 220M-T	L1691030	1-	A
L1009	M.REC	22uH		20%	LK1608 220M-T	L1691030	1-	A
R1003	CHIP RES.	1.5k	1/16W	5%	RMC1/16 152JATP	J24185152	1-	A
R1005	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101	1-	A
R1009	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101	1-	A
R1016	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1017	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1018	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1019	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1026	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1027	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1031	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
R1032	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	1-	A
S1001	SLIDE SWITCH				SSSS223200	N6090063	1-	B
S1002	PUSH SWITCH				SPPH41-*W	N4090151	1-	A
S1003	MICRO SWITCH				AV444461	N7090152	1-	A
S1004	TACT SWITCH				SKQJABA010	N5090120	1-	A
S1005	SLIDE SWITCH				SSSS223200	N6090063	1-	A
S1006	TACT SWITCH				SKQJABA010	N5090120	1-	A
TP1001	TP-K				TP-K IPS-1136	Q5000050	1-	A
TP1002	TP-K				TP-K IPS-1136	Q5000050	1-	A
T1001	MIC TRANS					S8101123	1-	A
	SHIELD CASE					S8001984	1-	A
*** LED-UNIT ***								
C2001	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821	1-	A
C2002	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821	1-	A
C2003	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821	1-	A
C2004	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821	1-	A
C2005	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823	1-	A
L2001	M.RFC	10uH		10%	LK1608 100K-T	L1690689	1-	A
L2002	M.RFC	10uH		10%	LK1608 100K-T	L1690689	1-	A
L2003	M.RFC	10uH		10%	LK1608 100K-T	L1690689	1-	A
L2004	M.RFC	10uH		10%	LK1608 100K-T	L1690689	1-	A
D2001	LED				GL3PR8	G2090433	1-	A
JP2002	CONNECTOR				B2B-PH-K-S	P0090396	1-	A