

MODEL : WMS-20			CIRCUIT : 3PTM15 81005		
COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
1PTM1580901	1PTM1580901	1.2mm	PCB	1	
1RTC333	R101	33K	SMD resistor /50V,5% 0603	1	
1RTC104	R102	100K	SMD resistor /50V,5% 0603	1	
1RTC102	R103	1K	SMD resistor /50V,5% 0603	1	
1RTC105	R104	1M	SMD resistor /50V,5% 0603	1	
1RTC184	R105	180K	SMD resistor /50V,5% 0603	1	
1RTC473	R201	47K	SMD resistor /50V,5% 0603	1	
1RTC822	R202	8K2	SMD resistor /50V,5% 0603	1	
1RTC154	R203	150K	SMD resistor /50V,5% 0603	1	
1RTC104	R301	100K	SMD resistor /50V,5% 0603	1	
1RTC104	R302	100K	SMD resistor /50V,5% 0603	1	
1RTC103	R303	10K	SMD resistor /50V,5% 0603	1	
1RTC473	R304	47K	SMD resistor /50V,5% 0603	1	
1RTC473	R305	47K	SMD resistor /50V,5% 0603	1	
1RTC103	R306	10K	SMD resistor /50V,5% 0603	1	
1RTC103	R307	10K	SMD resistor /50V,5% 0603	1	
1RTC103	R308	10K	SMD resistor /50V,5% 0603	1	
1RTC822	R309	8K2	SMD resistor /50V,5% 0603	1	
1RTC103	R310	10K	SMD resistor /50V,5% 0603	1	
1RTC473	R311	47K	SMD resistor /50V,5% 0603	1	
1RTC473	R312	47K	SMD resistor /50V,5% 0603	1	
1RTC153	R313	15K	SMD resistor /50V,5% 0603	1	
1RTC473	R314	47K	SMD resistor /50V,5% 0603	1	
1RTC473	R315	47K	SMD resistor /50V,5% 0603	1	
1RTC152	R401	2K2	SMD resistor /50V,5% 0603	1	
1RTC562	R402	5K6	SMD resistor /50V,5% 0603	1	
1RTC223	R403	22K	SMD resistor /50V,5% 0603	1	
1RTC221	R404	220R	SMD resistor /50V,5% 0603	1	
1RTC222	R405	3K9	SMD resistor /50V,5% 0603	1	
1RTC561	R501	560R	SMD resistor /50V,5% 0603	1	
1RTC472	R502	4K7	SMD resistor /50V,5% 0603	1	
1RTC010	R503	10R	SMD resistor /50V,5% 0603	1	
1RTC474	R504	470K	SMD resistor /50V,5% 0603	1	
1RTC104	R505	100K	SMD resistor /50V,5% 0603	1	
1RTC332	R506	3K3	SMD resistor /50V,5% 0603	1	
1RTC563	R601	56K	SMD resistor /50V,5% 0603	1	
1RTC222	R602	2K2	SMD resistor /50V,5% 0603	1	
1RTC104	R603	100K	SMD resistor /50V,5% 0603	1	
1RTC103	R604	10K	SMD resistor /50V,5% 0603	1	
1RTC472	R605	4K7	SMD resistor /50V,5% 0603	1	
1RTC103	R606	10K	SMD resistor /50V,5% 0603	1	
1RTC047	R607	47R	SMD resistor /50V,5% 0603	1	
1RTC221	R608	220R	SMD resistor /50V,5% 0603	1	
1RTC472	R609	4K7	SMD resistor /50V,5% 0603	1	
1RTC047	R610	47R	SMD resistor /50V,5% 0603	1	

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COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
1RTC471	R611	470R	SMD resistor /50V,5% 0603	1	
1RTC472	R612	4K7	SMD resistor /50V,5% 0603	1	
1RTC472	R613	4K7	SMD resistor /50V,5% 0603	1	
1RTC221	R614	220R	SMD resistor /50V,5% 0603	1	
1RTC022	R615	22R	SMD resistor /50V,5% 0603	1	
1RTC000	R616	0R	SMD resistor /50V,5% 0603	1	
1RTC223	R617	22K	SMD resistor /50V,5% 0603	1	
1RTC103	R618	10K	SMD resistor /50V,5% 0603	1	
1RTC221	R619	220R	SMD resistor /50V,5% 0603	1	
1RTC331	R620	330R	SMD resistor /50V,5% 0603	1	
1RTC103	R621	10K	SMD resistor /50V,5% 0603	1	
1RTC332	R622	3K3	SMD resistor /50V,5% 0603	1	
1RTC022	R623	22R	SMD resistor /50V,5% 0603	1	
1RTC000	R624	0R	SMD resistor /50V,5% 0603	1	
1RTC822	R701	8K2	SMD resistor /50V,5% 0603	1	
1RTC103	R702	10K	SMD resistor /50V,5% 0603	1	
1RTC102	R703	1K	SMD resistor /50V,5% 0603	1	
1RTC105	R704	1M	SMD resistor /50V,5% 0603	1	
1RTC104	R705	100K	SMD resistor /50V,5% 0603	1	
1RTC105	R706	1M	SMD resistor /50V,5% 0603	1	
1RTC562	R707	5K6	SMD resistor /50V,5% 0603	1	
1RTC103	R708	10K	SMD resistor /50V,5% 0603	1	
1RTC103	R709	10K	SMD resistor /50V,5% 0603	1	
1RTC123	R710	12K	SMD resistor /50V,5% 0603	1	
1RTC331	R711	330R	SMD resistor /50V,5% 0603	1	
1RTC103	R712	10K	SMD resistor /50V,5% 0603	1	
1RTC106	R713	10M	SMD resistor /50V,5% 0603	1	
1RTC103	R714	10K	SMD resistor /50V,5% 0603	1	
1RTC123	R715	12K	SMD resistor /50V,5% 0603	1	
1RTC273	R716	27K	SMD resistor /50V,5% 0603	1	
1RTC104	R717	100K	SMD resistor /50V,5% 0603	1	
1RTC102	R718	1K	SMD resistor /50V,5% 0603	1	
1RTC333	R719	33K	SMD resistor /50V,5% 0603	1	
1RTC102	R720	1K	SMD resistor /50V,5% 0603	1	
1RTC103	R721	10K	SMD resistor /50V,5% 0603	1	
1RTC104	R722	100K	SMD resistor /50V,5% 0603	1	
1RTC106	R723	10M	SMD resistor /50V,5% 0603	1	
1RTC123	R724	12K	SMD resistor /50V,5% 0603	1	
1RTC123	R725	12K	SMD resistor /50V,5% 0603	1	
1RTC010	R726	10R	SMD resistor /50V,5% 0603	1	
1RTC123	R727	12K	SMD resistor /50V,5% 0603	1	
1RTC332	R728	3K3	SMD resistor /50V,5% 0603	1	
1RTC103	R729	10K	SMD resistor /50V,5% 0603	1	
1RTC333	R730	33K	SMD resistor /50V,5% 0603	1	
1RTC472	R731	4K7	SMD resistor /50V,5% 0603	1	
1RTC223	R732	22K	SMD resistor /50V,5% 0603	1	
1RTC223	R733	22K	SMD resistor /50V,5% 0603	1	

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COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
IRTC393	R734	39K	SMD resistor /50V,5% 0603	1	
IRTC223	R735	22K	SMD resistor /50V,5% 0603	1	
IRTC105	R801	1M	SMD resistor /50V,5% 0603	1	
IRTC153	R802	15K	SMD resistor /50V,5% 0603	1	
IRTC123	R803	12K	SMD resistor /50V,5% 0603	1	
IRTC123	R804	12K	SMD resistor /50V,5% 0603	1	
IRTC103	R805	10K	SMD resistor /50V,5% 0603	1	
IRTC103	R806	10K	SMD resistor /50V,5% 0603	1	
IRTC010	R807	10R	SMD resistor /50V,5% 0603	1	
IRTC333	R808	33K	SMD resistor /50V,5% 0603	1	
IRTC153	R809	15K	SMD resistor /50V,5% 0603	1	
IRTC102	R810	1K	SMD resistor /50V,5% 0603	1	
IRTC331	R811	330R	SMD resistor /50V,5% 0603	1	
IRTC153	R812	15K	SMD resistor /50V,5% 0603	1	
IRTC821	R901	820R	SMD resistor /50V,5% 0603	1	
IRTC821	R902	820R	SMD resistor /50V,5% 0603	1	
IRTC821	R903	820R	SMD resistor /50V,5% 0603	1	
IRTC821	R904	820R	SMD resistor /50V,5% 0603	1	
IRTC473	R905	47K	SMD resistor /50V,5% 0603	1	
IRTC473	R906	47K	SMD resistor /50V,5% 0603	1	
IRTC473	R907	47K	SMD resistor /50V,5% 0603	1	
IRTC473	R908	47K	SMD resistor /50V,5% 0603	1	
IRTC332	R909	3K3	SMD resistor /50V,5% 0603	1	
IRTC683	R910	68K	SMD resistor /50V,5% 0603	1	
IRTC683	R911	68K	SMD resistor /50V,5% 0603	1	
IRTC273	R912	27K	SMD resistor /50V,5% 0603	1	
IRTC333	R913	33K	SMD resistor /50V,5% 0603	1	
ICTT225	C101	2U2	SMD tanatlum capacitor 16V	1	
ICTS105	C102	1U	SMD tanatlum capacitor 25V	1	
ICCU104	C103	104P	SMD capacitor /50V,0603 Z5U	1	
ICTU107	C201	100U	SMD tanatlum capacitor 10V	1	
ICCU222	C202	222P	SMD capacitor /50V,0603 X7R	1	
ICCU101	C203	100P	SMD capacitor /50V,0603 NPO	1	
ICCU681	C204	680P	SMD capacitor /50V,0603 X7R	1	
ICTU107	C205	100U	SMD tanatlum capacitor 10V	1	
ICTU107	C206	100U	SMD tanatlum capacitor 10V	1	
ICTU107	C207	100U	SMD tanatlum capacitor 10V	1	
ICTU107	C208	100U	SMD tanatlum capacitor 10V	1	
ICTT475	C301	4U7	SMD tanatlum capacitor 10V	1	
ICCU103	C302	103P	SMD capacitor /50V,0603 X7R	1	
ICTT106	C303	10U	SMD tanatlum capacitor 10V	1	
ICTT106	C304	10U	SMD tanatlum capacitor 10V	1	
ICCU103	C305	103P	SMD capacitor /50V,0603 X7R	1	
ICTT336	C306	33U	SMD tanatlum capacitor 10V	1	
ICCU103	C401	103P	SMD capacitor /50V,0603 X7R	1	
ICTT225	C402	2U2	SMD tanatlum capacitor 16V	1	
ICTT476	C403	47U	SMD tanatlum capacitor 16V	1	

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1CCU103	C501	103P	SMD capacitor /50V,0603 X7R	1	
1CTS104	C502	0U1	SMD tanatlum capacitor 35V	1	
1CCU005	C503	5P	SMD capacitor /50V,0603 NPO	1	
1CCU035	C504	35P	SMD capacitor /50V,0603 NPO	1	
1CCU222	C505	222P	SMD capacitor /50V,0603 X7R	1	
1CTT225	C506	2U2	SMD tanatlum capacitor 16V	1	
1CTS474	C601	0U47	SMD tanatlum capacitor 25V	1	
1CCU***	C602	*C602	SMD capacitor /50V,0603 NPO	1	
1CCU***	C603	*C603	SMD capacitor /50V,0603 NPO	1	
1CCU018	C604	18P	SMD capacitor /50V,0603 NPO	1	
1CCU012	C605	12P	SMD capacitor /50V,0603 NPO	1	
1CCU018	C606	18P	SMD capacitor /50V,0603 NPO	1	
1CTT225	C607	2U2	SMD tanatlum capacitor 16V	1	
1CCU102	C608	102P	SMD capacitor /50V,0603 X7R	1	
1CTT226	C609	22U	SMD tanatlum capacitor 16V	1	
1CCU103	C610	103P	SMD capacitor /50V,0603 X7R	1	
1CCU103	C611	103P	SMD capacitor /50V,0603 X7R	1	
1CCU101	C612	100P	SMD capacitor /50V,0603 NPO	1	
1CCU010	C613	10P	SMD capacitor /50V,0603 NPO	1	
1CTT226	C614	22U	SMD tanatlum capacitor 16V	1	
1CCU103	C615	103P	SMD capacitor /50V,0603 X7R	1	
1CCU102	C616	102P	SMD capacitor /50V,0603 X7R	1	
1CCU102	C617	102P	SMD capacitor /50V,0603 X7R	1	
1CCU103	C618	103P	SMD capacitor /50V,0603 X7R	1	
1CCU102	C619	102P	SMD capacitor /50V,0603 X7R	1	
1CCU***	C620	*C620	SMD capacitor /50V,0603 NPO	1	
1CCU103	C621	103P	SMD capacitor /50V,0603 X7R	1	
1CCU103	C622	103P	SMD capacitor /50V,0603 X7R	1	
1CCU103	C623	103P	SMD capacitor /50V,0603 X7R	1	
1CTT225	C624	2U2	SMD tanatlum capacitor 16V	1	
1CCU***	C625	*C625	SMD capacitor /50V,0603 NPO	1	
1CCU102	C626	102P	SMD capacitor /50V,0603 X7R	1	
1CCU***	C627	*C627	SMD capacitor /50V,0603 NPO	1	
1CCU***	C628	*C628	SMD capacitor /50V,0603 NPO	1	
1CCU***	C629	*C629	SMD capacitor /50V,0603 NPO	1	
1CCU***	C630	*C630	SMD capacitor /50V,0603 NPO	1	
1CCU***	C631	*C631	SMD capacitor /50V,0603 NPO	1	
1CCU103	C701	103P	SMD capacitor /50V,0603 X7R	1	
1CCU103	C702	2U2	SMD tanatlum capacitor 16V	1	
1CCU681	C703	680P	SMD capacitor /50V,0603 X7R	1	
1CCU101	C704	100P	SMD capacitor /50V,0603 NPO	1	
1CTS474	C705	0U47	SMD tanatlum capacitor 25V	1	
1CTT225	C706	2U2	SMD tanatlum capacitor 16V	1	
1CCU101	C707	100P	SMD capacitor /50V,0603 NPO	1	
1CCU101	C708	100P	SMD capacitor /50V,0603 NPO	1	
1CTS104	C709	0U1	SMD tanatlum capacitor 35V	1	
1CTT475	C710	4U7	SMD tanatlum capacitor 10V	1	

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COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
ICTT475	C711	4U7	SMD tanatlum capacitor 10V	1	
ICTT225	C712	2U2	SMD tanatlum capacitor 16V	1	
ICCU056	C713	56P	SMD capacitor /50V,0603 NPO	1	
ICTS474	C714	0U47	SMD tanatlum capacitor 25V	1	
ICTT225	C715	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C716	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C717	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C718	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C719	2U2	SMD tanatlum capacitor 16V	1	
ICCU103	C720	103P	SMD capacitor /50V,0603 X7R	1	
ICCU472	C721	472P	SMD capacitor /50V,0603 X7R	1	
ICTT225	C722	2U2	SMD tanatlum capacitor 16V	1	
ICCU003	C723	3P	SMD capacitor /50V,0603 NPO	1	
ICTT476	C724	47U	SMD tanatlum capacitor 16V	1	
ICCU010	C725	10P	SMD capacitor /50V,0603 NPO	1	
ICTT225	C726	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C727	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C728	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C729	2U2	SMD tanatlum capacitor 16V	1	
ICCU103	C730	103P	SMD capacitor /50V,0603 X7R	1	
ICTS474	C731	OU47	SMD tanatlum capacitor 25V	1	
ICTT225	C732	2U2	SMD tanatlum capacitor 16V	1	
ICCU472	C733	472P	SMD capacitor /50V,0603 X7R	1	
ICTT225	C734	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C735	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C736	2U2	SMD tanatlum capacitor 16V	1	
ICCU103	C801	103P	SMD capacitor /50V,0603 X7R	1	
ICCU033	C802	33P	SMD capacitor /50V,0603 NPO	1	
ICCU473	C803	473P	SMD capacitor /50V,0603 X7R	1	
ICTT475	C804	4U7	SMD tanatlum capacitor 10V	1	
ICTS104	C805	0U1	SMD tanatlum capacitor 35V	1	
ICCU473	C806	473P	SMD capacitor /50V,0603 X7R	1	
ICTT106	C807	10U	SMD tanatlum capacitor 10V	1	
ICTS224	C808	0U22	SMD tanatlum capacitor 35V	1	
ICCU101	C901	100P	SMD capacitor /50V,0603 NPO	1	
ICTT225	C902	2U2	SMD tanatlum capacitor 16V	1	
ICTT225	C903	2U2	SMD tanatlum capacitor 16V	1	
ICTT475	C904	4U7	SMD tanatlum capacitor 10V	1	
ITS1427	Q101	Q101	SMD Transister	1	
ITS2812	Q102	Q102	SMD Transister	1	
ITS0596	Q301	Q301	SMD Transister	1	
ITS1180	Q302	Q302	SMD Transister	1	
ITS1180	Q303	Q303	SMD Transister	1	
ITS0596	Q304	Q304	SMD Transister	1	
ITS1180	Q401	Q401	SMD Transister	1	
ITS2812	Q501	Q501	SMD Transister	1	
ITS3082	Q601	Q601	SMD Transister	1	

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COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
1TS3082	Q602	Q602	SMD Transister	1	
1TS3082	Q603	Q603	SMD Transister	1	
1TS3356	Q604	Q604	SMD Transister	1	
1TS3356	Q605	Q605	SMD Transister	1	
1TS2812	Q701	Q701	SMD Transister	1	
1TS2812	Q702	Q702	SMD Transister	1	
1TS1180	Q703	Q703	SMD Transister	1	
1TS0596	Q801	Q801	SMD Transister	1	
1TS1180	Q802	Q802	SMD Transister	1	
1TS0596	Q901	Q901	SMD Transister	1	
1TS0508	K501	K501	SMD Transister	1	
1TS0209	K701	K701	SMD Transister	1	
1DS217	D101	DAN-217	SMD diode	1	
1DS160	D201	RB160	SMD diode	1	
1DS4148	D301	1N4148	SMD diode	1	
1DS4148	D302	1N4148	SMD diode	1	
1DS451	D303	RB451	SMD diode	1	
1DS217	D304	DAN-217	SMD diode	1	
1DS210LT	D401	LED	RED LED	1	
1DT217	D601	SV217	SMD Varicap	1	
1DS214	D602	SV214	SMD Varicap	1	
1DS217	D701	DAN217	SMD diode	1	
1IS3578	IC201	IC201	SMD IC	1	
1IS0536	IC301	IC301	SMD IC	1	
1IS7250	IC302	IC302	SMD IC	1	
1IS7230	IC401	IC401	SMD IC	1	
1IS2068	IC701	IC701	SMD IC	1	
1IS0572	IC702	IC702	SMD IC	1	
1IS1504	IC801	IC801	SMD IC	1	
1IS9346	IC901	IC901	SMD IC	1	
1IS1628	IC902	IC902	SMD IC	1	
1RHT103	VR201	VR10K	SMD resistor,variable 10K	1	
1RHT105	VR501	VR1M	SMD resistor,variable 1M	1	
1RHX103	VR701	VR10K	Resistor,variable 10K	1	
1RHX103	VR702	VR10K	Resistor,variable 10K	1	
1RHT103	VR703	VR10K	SMD resistor,variable 10K	1	
1KTS32K	X501	32.768K	SMD crystal	1	
1KTS4M	X801	4M	SMD crystal	1	
1SR224	P701	4PIN 2.0mm	PIN	1	
1SP431	P901	6 PIN 1.27mm	PIN	1	
1QK031	SW901	Dip switch	Rotary switch	1	
1QK029	S101	Power switch	Toggle switch	1	
1CVC030	VC801	VC3~30P	SMD capacitor variable	1	
1L1277	L201	270UH	SMD coil	1	
1L1277	L202	270UH	SMD coil	1	
1LO107	L601	100UH	SMD coil	1	
1LO***	L602	*L602	SMD coil	1	

Dept: R&D
Date: 2/16/03
Writer: C.Deming

APA Audio Group Int'l.

WMS-20 PARTS LIST (BOM)

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MODEL : WMS-20		CIRCUIT : 3PTM15 81005			
COMPUTER NO.	PART TYPE	SPEC	DESCRIPTION	Q'TY	NOTE
1L0***	L603	*L603	SMD coil	1	
1L0***	L604	*L604	SMD coil	1	
1L0***	L605	*L605	SMD coil	1	
1L1333	L606	33nH	SMD coil	1	
1L0***	L607	*L607	SMD coil	1	
1L0***	L701	*L701	SMD coil	1	
1L0105	L702	1UH	SMD coil	1	
1L0105	L703	1UH	SMD coil	1	
1L0***	L901	*L901	SMD coil	1	