

This revision outlines changes that have occurred since the printing of your manual. Use this information to supplement your manual.

## REVISION CHANGES

- On page v, replace the XTVA Model/Option Chart with the new XTVA Model/Option Chart, below:

## XTVA Model/Option Chart

MODEL NUMBER						DESCRIPTION					
N1799_	N2001_					XTVA, Closed-Face, Mini-UHF					
	N2002_	N2003_					XTVA, Open-Face, Mini-UHF				
		N2003_	N2048_					XTVA, Open-Face, BNC			
			N2048_	N2003_					XTVA, Closed-Face, BNC		
				N2048_					XTVA, Dimetra Only, Open-Face, BNC		
					KIT NUMBER	DESCRIPTION					
S					NTN8561_	XTVA, Closed-Face, Mini-UHF					
	S				NTN8560_	XTVA, Open-Face, Mini-UHF					
		S		S	NTN1606_	XTVA, Open-Face, BNC					
			S		NTN1607_	XTVA, Closed-Face, BNC					
					OPTION NUMBER	KIT NUMBER(S) PROVIDED		DESCRIPTION			
•	•	•	•			NLD1976_		Power Amplifier, RF, VHF (136-175 MHz)			
•	•	•	•			NLE1784_		Power Amplifier, RF, UHF Range 1 (403-470 MHz)			
•	•	•	•			NLE1785_		Power Amplifier, RF, UHF Range 2 (450-512 MHz)			
•	•	•	•			NLF1258_		Power Amplifier, RF, 800MHz			
						HKN6455_		Cable, PA/Speaker, 6-Watt			
•	•	•	•	•		HSN1000_		PA/Speaker, 6-Watt (Phased Out)			
•	•	•	•	•	Q229AB	PLN7737_		Control Head, Hand-Held (HHCH)			
•	•	•	•	•	Q760AA	HMN4069_		Microphone, Next Generation Mobile (NGMM)			
•	•	•	•	•	B382XX	HMN4072_		Microphone, Classic Mobile			
•	•	•	•	•		NTN8940_		Kit, XTVA Trunnion Mount			
•	•	•	•	•		NTN8941_ (3085856B01)		Kit, XTVA Data Cable			
•	•	•	•	•		NTN8982_		Kit, XTVA Troubleshooting			
•	•	•	•	•		NKN6516_		Cable, RFPA			
•	•	•	•	•		NTN9027_		Cable, XTVA Programming			
•	•	•	•	•		FLN8834_ (FLN9299_)		Switch, External Push-to-Talk (PTT)			
•	•	•	•	•	H672AB	HMN1073_ (FMN1616_)		Microphone, Hands-Free Visor			
•	•	•	•	•		GLN7280_		Switch, Hand, Emergency			
				•		GLN7282_		Buzzer			
				•		HLN9328_		Relay, External Alarm			
•	•	•	•	•		HLN9330_ (GLN7278_)		Switch, Foot, Emergency			
•	•	•	•	•	Q147AB	HSN1006_		PA Speaker and Cable, 6-Watt			
•	•	•	•	•		NTN8943_		Kit, XTVA Accessory Connector			
•	•	•	•	•		NTN8327_ **		Switch, RF			
•	•	•	•	•		NTN8270_ ** (6685687A01)		Tool, Wrench			
•	•	•	•	•		6881088C76		Manual, User Guide			
•	•	•	•	•		6881088C77		Manual, Installation			
•	•	•	•	•		6881088C78		Manual, Service			

**Note:** Items in parentheses are alternate selections

S = Standard

• = Compatible Option/Kit

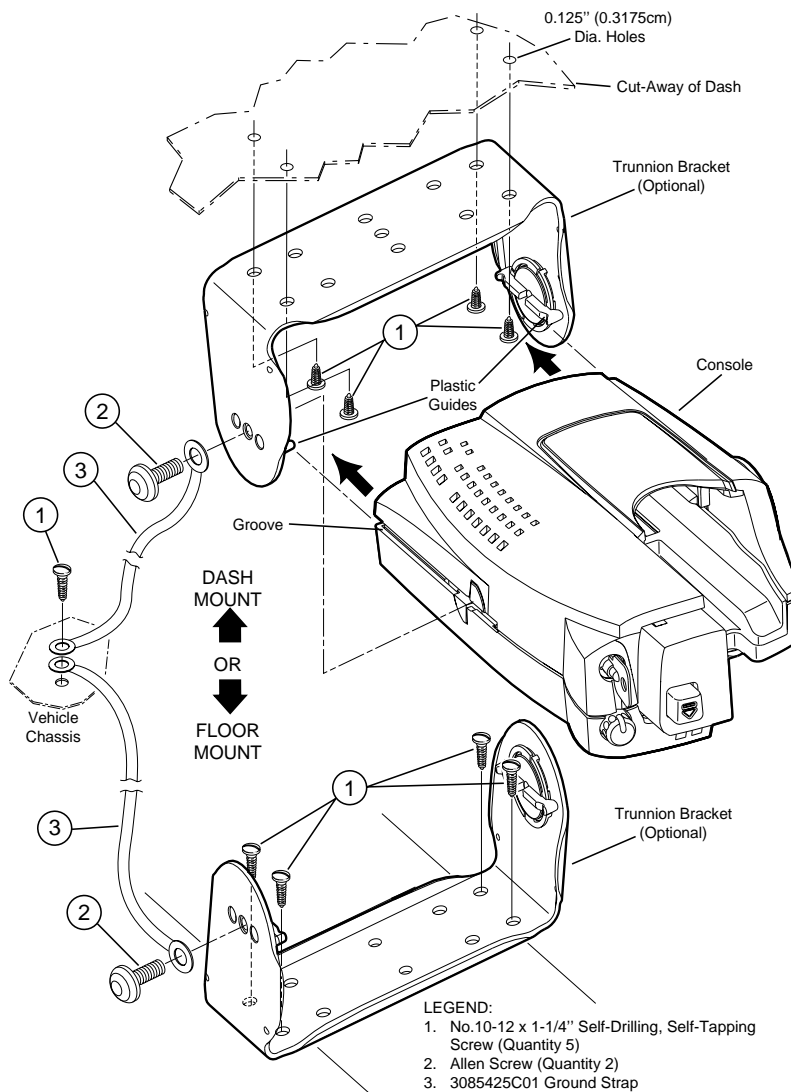
\*\* = Required for XTVA



2. On page 8, after the second paragraph of "Console Installation," add:

**Important Note:** To ensure compliance with Electromagnetic Compatibility (E.M.C.) in Europe, a 3085425C01 Ground Strap must be installed. Referring to Figure 1, install one end of the ground strap between the trunnion bracket Allen screw head and the trunnion bracket; connect the other end of the ground strap to chassis ground.

3. On page 9, replace Figure 1 with the new Figure 1, below:



MAEPF-26514-A

**Figure 1 Console Installation Detail**

4. On the inside of the back cover, add:

**EUROPEAN ORDERING INFORMATION**

Replacement Parts:

Motorola G.m.b.H  
European Parts Department  
D-65232 Taunusstein  
Germany

Level 3 Maintenance:

Motorola European Radio Support Center ERSC  
Heinrich Hertz Strasse 1  
D-65232 Taunusstein  
Germany

The ERSC Customer Information Desk is available through the following service numbers:

Austria: 06 60 75 41  
Belgium: 08 00 72 471  
Denmark: 80 01 55 72  
Finland: 08 00 11 49 10  
France: 05 90 30 90  
Germany: 01 30 18 75 24  
Greece: 00 80 04 91 29 020  
UK: 08 00 96 90 95  
Ireland: 18 00 55 50 21

Italy: 16 78 77 387  
Luxemburg: 08 00 23 27  
Netherlands: 60 22 45 13  
Norway: 80 01 11 15  
Portugal: 05 05 49 35 70  
Spain: 90 09 84 902  
Sweden: 02 07 94 307  
Switzerland: 1 55 30 82  
Iceland: 80 08 147

Or dial Customer Care Center:

Tel: 0049 6128 70 2618

**Please use these numbers for repair enquiries only.**

5. After page 53, add the following Electrical Parts List, Component Location Diagram, and Schematic Diagram:

# 0105956T35 XTVA Rev. P8 Printed Circuit Board

## Electrical Parts List

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
		<b>CAPACITOR, Fixed; pF:</b> unless otherwise stated
C1 thru 3	2113741F09	220
C5 thru 10	2113741F09	220
C11, thru 14	2311049A36	1.0µF±10%; 20V
C17	2113741F09	220
C18,	2311049C08	33µF±10%; 20V
C19	2311049A01	0.1µF±10%; 25V
C20, 21	2113740F67	470
C22 thru 24	2311049A01	0.1µF±10%; 25V
C25	2113740F67	470
C26	2311049A01	0.1µF±10%; 25V
C27	2113741F09	220
C28, 29	2311049A01	0.1µF±10%; 25V
C30	2113740F67	470
C33	2113741F09	220
C34, 35	2311049A01	0.1µF±10%; 25V
C37, 38	2113743C11	0.33µF; 20V
C39	2113740F67	470
C40	2311049A01	0.1µF±10%; 25V
C41	2113741F09	220
C42 thru 45	2113740F36	24
C46	2113740F67	470
C47	2113741F09	220
C50 thru 52	2113740F67	470
C54, 55	2113740F67	470
C59	2113741F09	220
C60, 61	2113740F67	470
C62	2113741F09	220
C631	2113740F67	470
C64, 65	2113741F09	220
C67	2113740F67	470
C68	2113741F27	1200
C69, 70	2113740F67	470
C71,	2311049A36	1.0µF±10%; 20V
C72	2311049C08	33µF±10%; 20V
C73,	2311049A36	1.0µF±10%; 20V
C75	2311049A36	1.0µF±10%; 20V
C77 thru 82	2311049A36	1.0µF±10%; 20V
C83	2311049C08	33µF±10%; 20V
C86	2311049J11	4.7µF±10%; 16V
C87	2113741F27	1200
C88	2113741F09	220
C89	2311049C08	33µF±10%; 20V
C90, 91	2113740F36	24
C94	2311049A36	1.0µF±10%; 20V
C95	2113741F09	220
C96	2113741F27	1200
C97, 98	2113740F67	470
C100, 101	2113740F36	24
C102 thru 104	2113741F09	220
C105, 106	2113740F67	470
C107	2113741F09	220
C109 thru 111	2113741F09	220
C112	2311049A01	0.1µF±10%; 25V
C113	2113741F09	220
C114,	2311049A01	0.1µF±10%; 25V
C115	2113741F09	220
C167, 168	2113741F09	220
C171	2113741F09	220
C172	2113740F67	470
C173, 174	2113743C11	0.33µF; 20V
C175	2113741F09	220

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
C202	2113741F09	220
C204, 205	2113741F09	220
C208	2311049C08	33µF±10%; 20V
C209	2311049A01	0.1µF±10%; 25V
C210	2311049A05	0.47µF±10%; 25V
C212	2311049A36	1.0µF±10%; 20V
C214, 215,	2113740F67	470
C217	2113740F67	470
C220 thru 224	2113741F09	220
C225, 226	2311049J11	4.7µF±10%; 16V
C229, 230	2311049A36	1.0µF±10%; 20V
C231	2113741F09	220
C232,	2311049A01	0.1µF±10%; 25V
		<b>DIODE:</b> See Note 1
D1, 2	4885949B01	LED
D4	4805218N57	Dual Common-Cathode
D6	4805129M41	Schottky
D9 thru 13	4805218N57	Dual Common-Cathode
D15, 16	4805129M41	Schottky
D17	4805218N57	Dual Common-Cathode
D19 thru 23	4805218N57	Dual Common-Cathode
		<b>INDUCTOR:</b>
E1	2484657R01	Bead
		<b>JACK:</b>
J1	0985123C02	SOCKET, Molex, 6-Pin
J2	0985170C01	SOCKET, Molex, 4-Pin
J4	0905763Z01	SOCKET, RJ11 Style, 8-Pin Telco
J5	0960113D03	25-Pin, Female, Thru-Hole
J6	0905257V03	SOCKET, ZIF, 18-Pin
		<b>COIL, RF:</b>
L1 thru 14	2462575A14	270nH
		<b>TRANSISTOR:</b> See Note 1.
Q1 thru 3	4813822A10	PNP, DPAK
Q4, 5	4813821A32	MOSFET, P-Channel
Q6, 7	4813823A07	MOSFET, N-Channel
Q9	4813824A21	PNP, Gen Purpose
Q10 thru 13	4813824A10	NPN, Gen Purpose
Q15	4813823A07	MOSFET, N-Channel
Q16	4813824A10	NPN, Gen Purpose
Q17	4805128M19	NPN, Darlington
Q18	4813823A07	MOSFET, N-Channel
Q19	4805128M19	NPN, Darlington
Q20 thru 22	4813824A10	NPN, Gen Purpose
Q23 thru 26	4813823A07	MOSFET, N-Channel
Q27	4813824A10	NPN, Gen Purpose
Q29	4813824A10	NPN, Gen Purpose
Q30	4813824A21	PNP, Gen Purpose
Q31	4813823A07	MOSFET, N-Channel
Q34, 35	4813824A21	PNP, Gen Purpose
Q36	4813823A07	MOSFET, N-Channel
Q37	4813824A10	NPN, Gen Purpose
Q38 thru 40	4813823A07	MOSFET, N-Channel
		<b>RESISTOR: Ohms ±5%;</b> <b>1/8W</b> unless otherwise stated
R1	0662057P10	10k±1%; 1/10W
R2 thru 4	0662057A97	100k; 1/10W
R6, 7	0662057A97	100k; 1/10W
R8	0662057A33	220; 1/10W
R9	0662057P10	10k±1%; 1/10W
R11	0662057P51	51k±1%; 1/10W

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
R12	0662057B22	1M;1/10W
R13, 14	0662057A97	100k;1/10W
R16	0662057B06	220k;1/10W
R17, 18	0662057P10	10k±1%;1/10W
R20 thru 26	0662057P10	10k±1%;1/10W
R27	0662057P20	20k±1%
R28	0662057P51	51k±1%;1/10W
R29 thru 31	0662057P10	10k±1%;1/10W
R32	0662057B14	470k;1/10W
R33	0662057P10	10k±1%;1/10W
R35	0662057P10	10k±1%;1/10W
R36	0662057Z42	33k±1%;1/10W
R37, 38	0662057P10	10k±1%;1/10W
R40	0662057P10	10k±1%;1/10W
R41	0662057A33	220;1/10W
R42	0662057P10	10k±1%;1/10W
R43	0662057B47	0±.05?
R44	0662057P10	10k±1%;1/10W
R47	0662057A97	100k;1/10W
R48	0662057A49	1k;1/10W
R49	0662057P51	51k±1%;1/10W
R52 thru 54	0662057A49	1k;1/10W
R57	0662057A33	220;1/10W
R58	0662057B47	0±.05?
R59	0662057A49	1k;1/10W
R60 thru 67	0662057P10	10k±1%;1/10W
R68 thru 71	0660076A32	200
R72	0662057P10	10k±1%;1/10W
R73 thru 81	0662057P20	20k±1%
R84	0662057A17	47;1/10W
R85	0662057A33	220;1/10W
R86, 87	0662057A29	150;1/10W
R88 thru 90	0662057A33	220;1/10W
R91	0662057A29	150;1/10W
R92	0662057A33	220;1/10W
R93	0662057A49	1k;1/10W
R94	0662057Y13	680±1%
R95 thru 97	0662057A45	680;1/10W
R98, 99	0662057A43	560;1/10W
R100	0660076A56	2k
R103	0660076A56	2k
R106	0660076A56	2k
R109, 110	0662057P20	20k±1%
R111	0662057Z42	33k±1%;1/10W
R112	0662057P10	10k±1%;1/10W
R113	0662057A56	2k;1/10W
R114 thru 117	0662057A25	100;1/10W
R118	0662057A49	1k;1/10W
R119	0662057A33	220;1/10W
R120 thru 122	0662057Z42	33k±1%;1/10W
R123	0662057P10	10k±1%;1/10W
R126	0662057B06	220k;1/10W
R128	0662057A97	100k;1/10W
R131	0662057B22	1M;1/10W
R133, 134	0662057A97	100k;1/10W
R135	0660076E17	47±1%
R136	0662057A56	2k;1/10W
R137 thru 139	0680195M62	1.0;1/2W
R140	0605846S01	0.2±1%
R141	1886266A01	Potentiometer, 10k or 50k
R164	0662057A29	150;1/10W
R166	0662057B06	220k;1/10W
R167	0662057P10	10k±1%;1/10W
R168, 169	0662057A17	47;1/10W
R180	0662057P10	10k±1%;1/10W

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
R200	0662057P20	20k±1%
R203	0662057B06	220k;1/10W
R204	0662057A49	1k;1/10W
R208	0662057A97	100k;1/10W
R209 thru 212	0662057A43	560;1/10W
R214	0662057Z42	33k±1%;1/10W
R215, 216	0662057P10	10k±1%;1/10W
R217	0662057B47	0±.05?
R219	0662057A25	100;1/10W
R221	0662057P10	10k±1%;1/10W
R222	0662057A25	100;1/10W
R223, 224	0662057B47	0±.05?
R226	0662057B47	0±.05?
R230	0662057B47	0±.05?
R330	0662057B06	220k;1/10W
R331, 332	0662057P10	10k±1%;1/10W
R335	0662057P10	10k±1%;1/10W
R336	0660076A56	2k
R341	0662057P10	10k±1%;1/10W
R343	0662057P10	10k±1%;1/10W
R346	0662057A97	100k;1/10W
R347	0662057A49	1k;1/10W
R348	0660076A56	2k
R349 thru 351	0662057P10	10k±1%;1/10W
R352 thru 354	0662057A97	100k;1/10W
R355	0662057P10	10k±1%;1/10W
R358, 359	0660079U13	3.3±1%
R360	0662057A45	680;1/10W
R362	0662057A97	100k;1/10W
R363	0660079U13	3.3±1%
R364	0662057Z42	33k±1%;1/10W
R365	0662057B47	0±.05?
R369	0662057A97	100k;1/10W
R370	0662057B22	1M;1/10W
R374	0662057P20	20k±1%
R375	0662057P03	4.75k
R376	0662057P20	20k±1%
R377	0662057A49	1k;1/10W
R378, 379	0662057P20	20k±1%
R380, 381	0662057A90	51k
R382	0662057Z42	33k±1%;1/10W
R383	0662057A97	100k;1/10W
R384	0662057B47	0±.05?
R385	0662057A97	100k;1/10W
R386	0662057A49	1k;1/10W
R387	0662057A49	1k;1/10W
R388	0662057B14	470k;1/10W
R389	0662057P24	24.3k
R390	0662057B14	470k;1/10W
R391	0662057P10	10k±1%;1/10W
R397	0662057B47	0±.05?
R401, 402	0662057B47	0±.05?
R403	0662057B14	470k;1/10W
R404	0662057P51	51k±1%;1/10W
R405	0662057P10	10k±1%;1/10W
		<b>INTEGRATED CIRCUIT MODULE:</b> See Note 1.
U1	5105469E65	Regulator, 5v
U2	5113806A20	MUX, 3 of 2 Channel
U3, 4	5102198J28	Op Amp, Quad
U5	5185130C98	Microprogrammer, 68HC11E9
U6	5113815A02	Sensor, Undervoltage, 5v
U7	5113816A53	Regulator, Programmable
U8	5143206U01	Level Shifter, RS232
U9	5180580A01	Regulator, Voltage

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
VR2, 3	4880140L10	<b>DIODE:</b> See Note 1. Zener, 5.6V
VR8	4813832C75	
VR11	4880140L10	
VR12	4880140L07	
VR15	4880140L07	
VR16	4813830A22	
VR17	4880140L07	
VR18	4813830A22	
VR19	4880140L17	
VR20	4813830A22	
VR21, 22	4813830A40	
VR25	4813832C75	
VR27	4813830A40	
VR29	4802197J32	
VR31	4813832C75	
VR33, 34	4805656W10	
VR35	4813830A40	
VR36 thru 43	4805656W10	
VR51	4813832C75	
VR52	4813830A22	
VR62	4813832C75	
VR63 thru 65	4880140L17	
VR66	4813830A40	
VR69	4813830A40	
VR70	4802197J32	
VR71	4880140L10	
VR72	4880140L17	
Y1	4860875A01	<b>CRYSTAL:</b> See Note 2. 7.3728MHz
	0105956V68	<b>MISCELLANEOUS:</b> Flex, Rev A
	8486144A03	Board, PC (Not Orderable)

**Notes:**

- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
- When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
- Part value notations:
 

$p=10^{-12}$	$m=10^{-3}$
$n=10^{-9}$	$k=10^3$
$\mu=10^{-6}$	$M=10^6$

---

## **Introduction**

This manual revision details changes to the ASTRO XTS / DIMETRA MTP Vehicular Adapter Instruction Manual (Motorola publication number 68P81088C78-O). These are changes that have occurred since the publication of FMR1908-2 on 9/15/00.

## **General Instructions**

Replace pages 47 to 54 with the replacement pages provided.







## 0105956U22 XTVA Revision Level A Printed Circuit Board Electrical Parts List

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
		<b>CAPACITOR, Fixed; pF: unless</b> otherwise stated
C1 thru 3	2113740F67	470
C5, 6	2113740F51	100
C7 thru 10	2113740F67	470
C11, thru 14	2311049A36	1.0μF±10%; 20V
C17	2113740F67	470
C18,	2311049C08	33μF±10%; 20V
C19	2311049A01	0.1μF±10%; 25V
C20, 21	2113740F67	470
C22 thru 24	2311049A01	0.1μF±10%; 25V
C25	2113740F67	470
C26	2311049A01	0.1μF±10%; 25V
C27	2113740F67	470
C28, 29	2311049A01	0.1μF±10%; 25V
C30 thru 33	2113740F67	470
C34, 35	2311049A01	0.1μF±10%; 25V
C37 thru 39	2113740F67	470
C40	2311049A01	0.1μF±10%; 25V
C41	2113740F67	470
C42 thru 45	2113740F36	24
C46, 47	2113740F67	470
C50 thru 52	2113740F67	470
C54, 55	2113740F67	470
C58 thru 67	2113740F67	470
C68	2113741F27	1200
C69, 70	2113740F67	470
C71,	2311049A36	1.0μF±10%; 20V
C72	2311049C08	33μF±10%; 20V
C73,	2311049A36	1.0μF±10%; 20V
C75	not used	
C77 thru 82	2311049A36	1.0μF±10%; 20V
C83	2311049C08	33μF±10%; 20V
C85, 86	2311049J11	4.7μF±10% ;16V
C87	2113741F27	1200
C88	2113741F09	220
C89	2311049C08	33μF±10%; 20V
C90, 91	2113740F36	24
C93	2311049A01	0.1μF±10%; 25V
C94	2311049A36	0.1μF20V
C95	2113740F67	470
C96	2113741F27	1200
C97, 98	2113740F67	470
C99	2311049A01	0.1μF±10%; 25V
C100, 101	2113740F36	24
C102 thru 107	2113740F67	470
C109 thru 111	2113740F67	470
C112	2311049A01	0.1μF±10%; 25V
C113	2113740F67	470
C114,	2311049A01	0.1μF±10%; 25V
C115	2113740F67	470
C167, 168	2113740F67	470
C170	2311049J11	4.7μF±10% ;16V
C171 thru 176	2113740F67	470
C202 thru 205	2113740F67	470
C206	2311049A36	1.0μF±10%; 20V
C208,	2311049C08	33μF±10%; 20V
C209,	2311049A01	0.1μF±10%; 25V
C210	2311049A05	0.47μF±10%; 25V
C212	2311049A36	1.0μF±10%; 20V

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
C214, 215,	2113740F67	470
C217	2113740F67	470
C218	2311049A36	1.0μF±10%; 20V <b>DIODE:</b> See Note 1
D1, 2	4885949B01	LED
D4	4805218N57	Dual Common-Cathode
D6	4805129M05	Schottky
D9 thru 13	4805218N57	Dual Common-Cathode
D14 thru 16	4805129M05	Schottky
D17	4805218N57	Dual Common-Cathode <b>JACK:</b>
J1	0985123C02	SOCKET, Molex, 6-Pin
J2	0985170C01	SOCKET, Molex, 4-Pin
J4	0905763Z01	SOCKET, RJ11 Style
J5	0960113D03	D-SU, 25-Pin
J6	0905257V03	SOCKET, ZIF, 18-Pin <b>COIL, RF:</b>
L1 thru 14	2462575A14	270nH <b>TRANSISTOR:</b> See Note 1.
Q1 thru 3	4813822A10	PNP, DPAK
Q4, 5	4813821A14	MOSFET, P-Channel
Q6, 7	4802393L01	MOSFET, N-Channel
Q9	4805128M40	PNP, Gen Purpose
Q10 thru13	4805128M12	NPN, Gen Purpose
Q15	4802393L01	MOSFET, N-Channel
Q16	4813824A10	NPN, Gen Purpose
Q17 thru 19	4805128M19	NPN, Darlington
Q20 thru 22	4813824A10	NPN, Gen Purpose
Q23 thru 26	4802393L01	MOSFET, N-Channel
Q27	4805128M12	NPN, Gen Purpose
Q28	4805128M40	PNP, Gen Purpose
Q29, 30	4805128M12	NPN, Gen Purpose <b>RESISTOR: Ohms ±5%; 1/8W</b> unless otherwise stated
R1	0662057P10	10k±1%; 1/10W
R2 thru 4	0662057A97	100kΩ, 5%, 1/10W
R6, 7	0662057A97	100kΩ, 5%, 1/10W
R8	0662057A33	220; 1/10W
R9	0662057P10	10k±1%; 1/10W
R11, R12	0662057A97	100kΩ, 5%, 1/10W
R13	0662057B06	220kΩ,
R14	not placed	
R15	0662057P10	10k±1%; 1/10W
R16	0662057B06	220k; 1/10W
R17, 18	0662057P10	10k±1%; 1/10W
R20 thru 26	0662057P10	10k±1%; 1/10W
R27	0662057P20	20k±1%
R28	0662057P51	51k±1%; 1/10W
R29 thru 31	0662057P10	10k±1%; 1/10W
R32	0662057B14	470k; 1/10W
R33	0662057P10	10k±1%; 1/10W
R35 thru 38	0662057P10	10k±1%; 1/10W
R40	0662057P10	10k±1%; 1/10W
R41	0662057A33	220; 1/10W
R42 thru 44	0662057P10	10k±1%; 1/10W
R45	0662057A97	100kΩ, 5%, 1/10W
R47	0662057P03	4.75kΩ
R48	0662057Z42	33k±1%; 1/10W
R49	0662057P51	51k±1%; 1/10W
R52	0662057A49	1k; 1/10W
R53	0662057A33	220Ω
R54, R55	0662057A49	1k; 1/10W
R57	0662057A33	220; 1/10W

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
R58	0662057B47	0Ω±1/20%
R59	0662057A49	1k;1/10W
R60 thru 67	0662057P10	10k±1%;1/10W
R68 thru 71	0660076A32	200
R72	0662057P20	20k±1%
R73	0662057P03	4.75kΩ
R74 thru 81	0662057P20	20k±1%
R83	0662057B14	470k;1/10W
R84	0662057A17	47;1/10W
R85	0662057A33	220;1/10W
R86, 87	0662057A29	150Ω,5%,1/10W
R88 thru 90	0662057A33	220;1/10w
R91	0662057A29	150Ω,5%,1/10W
R92, 93	0662057A33	220;1/10W
R94	0660076E45	680±1%
R95 thru 97	0662057A45	680;1/10W
R98, 99	0662057A43	560;1/10W
R100	0660076A56	2k
R103	0660076A56	2k
R106	0660076A56	2k
R109, 110	0662057P20	20k±1%
R111	0662057Z42	33k±1%;1/10W
R112	0662057P10	10k±1%;1/10W
R113	0662057A56	2k;1/10W
R114 thru 117	0662057A25	100;1/10W
R118	0662057A45	680;1/10W
R120 thru 121	0662057Z42	33k±1%;1/10W
R122	0662057P10	10kΩ
R123	0662057A49	1k;1/10W
R126	0662057B06	220k;1/10W
R128	0662057A97	100kΩ,5%,1/10W
R131	0662057B22	1M;1/10W
R133, 134	0662057A97	100kΩ,5%,1/10W
R135	0660076E17	47±1%
R136	0662057A56	2k;1/10W
R137 thru 139	0680195M62	1.0;1/2W
R140	0605846S01	0.2±1%
R141	1886266A01	50k, Potentiometer
R144, 145	0662057A97	100kΩ,5%,1/10W
R164	0662057A29	150Ω,5%,1/10W
R165	0662057A97	100kΩ,5%,1/10W
R166	0662057B06	220k;1/10W
R167	0662057P10	10k±1%;1/10W
R168, 169	0662057A17	47;1/10W
R180	0662057P10	10k±1%;1/10W
R200	0662057P10	10kΩ
R203	0662057B06	220k;1/10W
R204	0662057P10	10k±1%;1/10W
R205	0662057B47	0Ω±1/20%
R208	0662057A97	100kΩ,5%,1/10W
R209 thru 212	0662057A43	560;1/10W
R214, 215	0662057P10	10k±1%;1/10W
R216	0662057B06	220k;1/10W
R217	0662057B47	0Ω±1/20%
R219	0662057A25	100;1/10W
R220	0662057A97	100kΩ,5%,1/10W
R221	0662057P10	10k±1%;1/10W
R222	0662057A25	100;1/10W
R223, 224	0662057B47	0Ω±1/20%
R226	0662057B47	0Ω±1/20%
R230	0662057B47	0Ω±1/20%
R330	0662057B06	220k;1/10W
R331, 332	0662057P10	10k±1%;1/10W

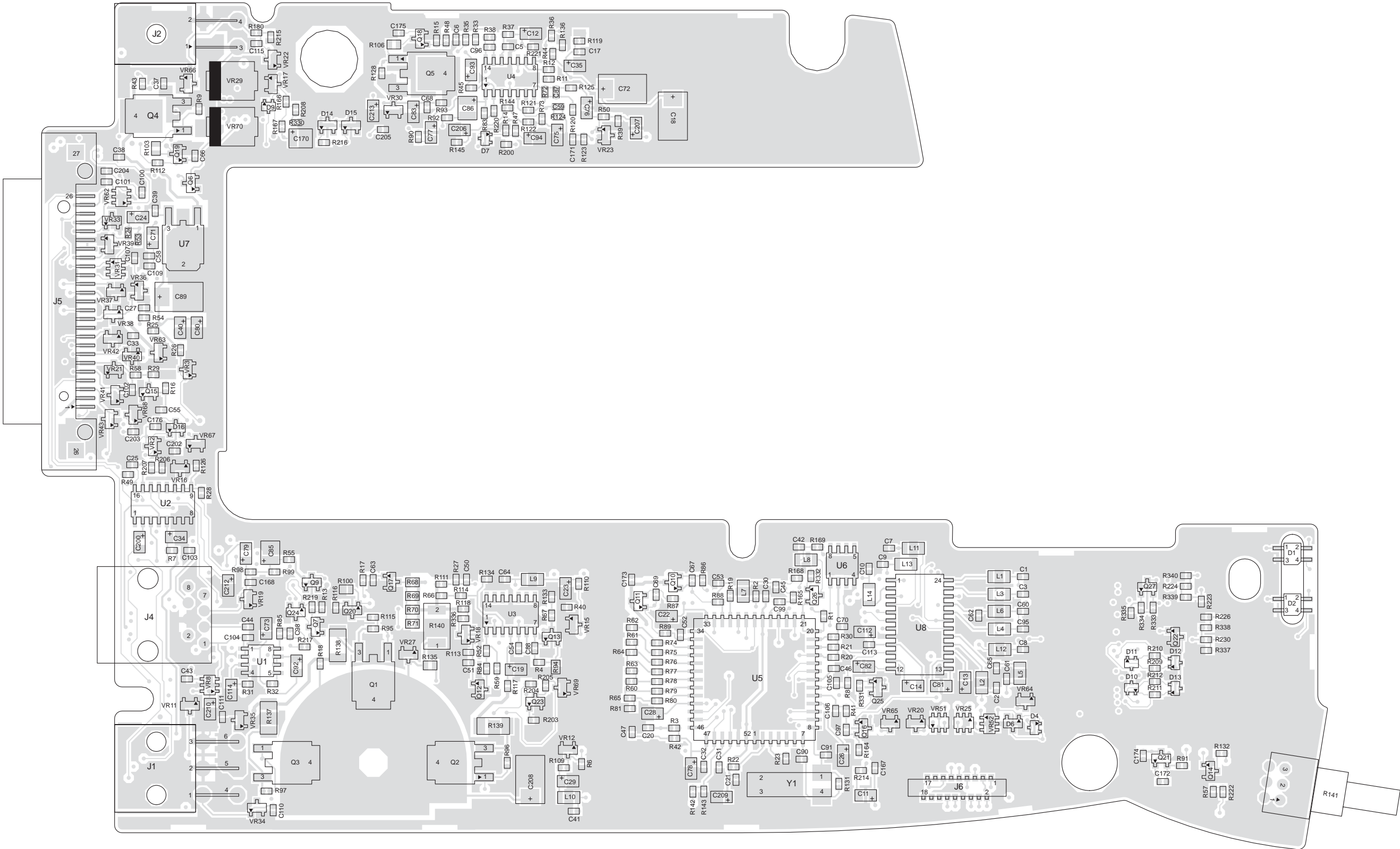
ITEM	MOTOROLA PART NUMBER	DESCRIPTION
R335	0662057P10	10k±1%;1/10W
R336	0662057A43	560;1/10W
R341 thru 343	0662057P10	10k±1%;1/10W
R344	0662057P20	20k±1%
R346	0662057A97	100kΩ,5%,1/10W
R347	0662057A49	1k;1/10W
R348	0660076A56	2k
R349, 350	0662057P10	10k±1%;1/10W
		<b>INTEGRATED CIRCUIT MODULE:</b> See Note 1.
U1	5105469E65	Regulator, 5v
U2	5113806A20	MUX, 3 of 2 Channel
U3, 4	5102198J28	Op Amp, Quad
U5	5113802A03	Microprocessor, 68HC11E9
U6	5113815A02	Sensor, Undervoltage, 5v
U7	5113816A07	Regulator, Programmable
U8	5143206U01	Level Shifter, RS232
		<b>DIODE:</b> See Note 1.
VR2, 3	4880140L07	Zener, 5.6V
VR8	4805656W08	Zener, Quad 5.6V
VR11, 12	4880140L07	Zener, 5.6V
VR15	4880140L07	Zener, 5.6V
VR16	4813830A22	Zener, 9.1V
VR17	4880140L07	Zener, 5.6V
VR18	4813830A22	Zener, 9.1V
VR19 thru 21	4880140L17	Zener, 12V
VR25	4805656W08	Zener, Quad 5.6V
VR29	4802197J32	Zener, Transorber
VR30	4813830A22	Zener, 9.1V
VR31	4805656W08	Zener, Quad 5.6V
VR33, 34	4805656W10	Zener, Dual 15V ca
VR35	4813830A40	Zener, 33V
VR36 thru 43	4805656W10	Zener, Dual 15V ca
VR51, 52	4805656W08	Zener, Quad 5.6V
VR62	4805656W08	Zener, Quad 5.6V
VR63 thru 65	4880140L17	Zener, 12V
VR67 thru 69	4880140L17	Zener, 12V
VR70	4802197J32	Zener, Transorber
		<b>CRYSTAL:</b> See Note 2.
Y1	4860875A01	7.3728MHz
		<b>MISCELLANEOUS:</b>
	8486144A01	Board, PC

**Notes:**

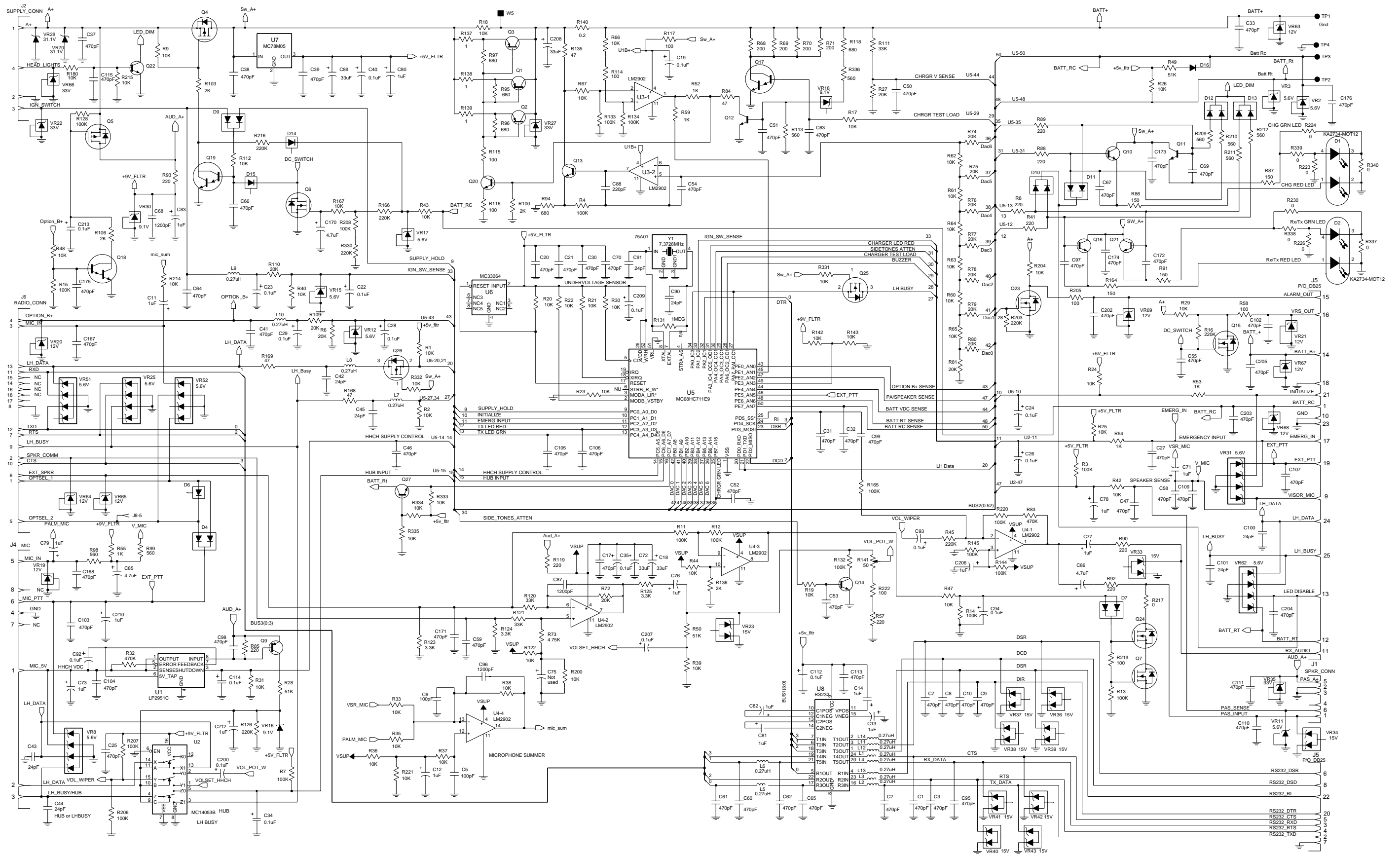
1. For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
2. When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
3. Part value notations:  

$p=10^{-12}$	$m=10^{-3}$
$n=10^{-9}$	$k=10^3$
$\mu=10^{-6}$	$M=10^6$

VIEWED FROM SIDE 1



MAEPF-26683-O



ASTRO XTS Vehicular Adapter Console  
Revision Level A Printed Circuit Board Schematic Diagram

Notes

Notes

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
		<b>CAPACITOR, Fixed; pF: unless</b> otherwise stated
C1 thru 3	2113740F09	220
C5 thru10	2113740F09	220
C11, thru 14	2311049A36	1.0μF±10%; 20V
C17	2113740F09	220
C18,	2311049C08	33μF±10%; 20V
C19	2311049A01	0.1μF±10%; 25V
C20, 21	2113740F67	470
C22 thru 24	2311049A01	0.1μF±10%; 25V
C25	2113740F67	470
C26	2311049A01	0.1μF±10%; 25V
C27	2113740F09	220
C28, 29	2311049A01	0.1μF±10%; 25V
C30	2113740F67	470
C31 thru 33	2113740F09	220
C34, 35	2311049A01	0.1μF±10%; 25V
C37	2113740F09	220
C38, 39	2113740F67	470
C40	2311049A01	0.1μF±10%; 25V
C41	2113740F09	220
C42 thru 45	2113740F36	24
C46	2113740F67	470
C47	2113740F09	220
C50 thru 52	2113740F67	470
C54, 55	2113740F67	470
C58, 59	2113740F09	220
C60, 61	2113740F67	470
C62	2113740F09	220
C631	2113740F67	470
C64, 65	2113740F09	220
C66, 67	2113740F67	470
C68	2113741F27	1200
C69, 70	2113740F67	470
C71,	2311049A36	1.0μF±10%; 20V
C72	2311049C08	33μF±10%; 20V
C73,	2311049A36	1.0μF±10%; 20V
C75	not used	
C77 thru 82	2311049A36	1.0μF±10%; 20V
C83	2311049C08	33μF±10%; 20V
C85, 86	2311049J11	4.7μF±10% ;16V
C87	2113741F27	1200
C88	2113741F09	220
C89	2311049C08	33μF±10%; 20V
C90, 91	2113740F36	24
C93	2311049A01	0.1μF±10%; 25V
C94	2311049A36	1μF/ 20V
C95	2113740F09	220
C96	2113741F27	1200
C97, 98	2113740F67	470
C99	2311049A01	0.1μF±10%; 25V
C100, 101	2113740F36	24
C102 thru 104	2113740F09	220
C105, 106	2113740F67	470
C107	2113740F09	220
C109 thru 111	2113740F09	220
C112	2311049A01	0.1μF±10%; 25V
C113	2113740F09	220
C114,	2311049A01	0.1μF±10%; 25V
C115	2113740F09	220
C167, 168	2113740F09	220
C170	2311049J11	4.7μF±10% ;16V
C171	2113740F09	220
C172 thru 174	2113740F67	470
C175, 176	2113740F09	220

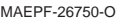
ITEM	MOTOROLA PART NUMBER	DESCRIPTION
R47	0662057P03	4.75kΩ
R48	0662057A49	1k;1/10W
R49	0662057P51	51k±1%;1/10W
R52	0662057A49	1k;1/10W
R53	0662057A33	220Ω
R54, R55	0662057A49	1k;1/10W
R57	0662057A33	220;1/10W
R58	0662057B47	0Ω±1/20%
R59	0662057A49	1k;1/10W
R60 thru 67	0662057P10	10k±1%;1/10W
R68 thru 71	0660076A32	200
R72	0662057P20	20k±1%
R73	0662057P03	4,75kΩ
R74 thru 81	0662057P20	20k±1%
R83	0662057P20	20k±1%
R84	0662057A17	47;1/10W
R85	0662057A33	220;1/10W
R86, 87	0662057A29	150Ω,5%,1/10W
R88 thru 90	0662057A33	220;1/10w
R91	0662057A29	150Ω,5%,1/10W
R92, 93	0662057A33	220;1/10W
R94	0660076E45	680±1%
R95 thru 97	0662057A45	680;1/10W
R98, 99	0662057A43	560;1/10W
R100	0660076A56	2k
R103	0660076A56	2k
R106	0660076A56	2k
R109, 110	0662057P20	20k±1%
R111	0662057Z42	33k±1%;1/10W
R112	0662057P10	10k±1%;1/10W
R113	0662057A56	2k;1/10W
R114 thru 117	0662057A25	100;1/10W
R118	0662057A45	680;1/10W
R119	0662057A33	220;1/10W
R120, 121	0662057Z42	33k±1%;1/10W
R122	0662057P10	10kΩ
R123	0662057A56	2k;1/10W
R126	0662057B06	220k;1/10W
R128	0662057A97	100kΩ,5%,1/10W
R131	0662057B22	1M;1/10W
R133, 134	0662057A97	100kΩ,5%,1/10W
R135	0660076E17	47±1%
R136	0662057A56	2k;1/10W
R137 thru 139	0680195M62	1.0;1/2W
R140	0605846S01	0.2±1%
R141	1886266A01	50k, Potentiometer
R144, 145	0662057A97	100kΩ,5%,1/10W
R164	0662057A29	150Ω,5%,1/10W
R165	0662057A97	100kΩ,5%,1/10W
R166	0662057B06	220k;1/10W
R167	0662057P10	10k±1%;1/10W
R168, 169	0662057A17	47;1/10W
R180	0662057P10	10k±1%;1/10W
R200	0662057P10	10kΩ
R203	0662057B06	220k;1/10W
R204	0662057P10	10k±1%;1/10W
R208	0662057A97	100kΩ,5%,1/10W
R209 thru 212	0662057A43	560;1/10W
R214, 215	0662057P10	10k±1%;1/10W
R216	0662057B06	220k;1/10W
R217	0662057B47	0Ω±1/20%
R219	0662057A25	100;1/10W
R220, 221	0662057P10	10k±1%;1/10W
R222	0662057A25	100;1/10W
R223, 224	0662057B47	0Ω±1/20%
R226	0662057B47	0Ω±1/20%
R230	0662057B47	0Ω±1/20%
R330	0662057B06	220k;1/10W

**Notes:**

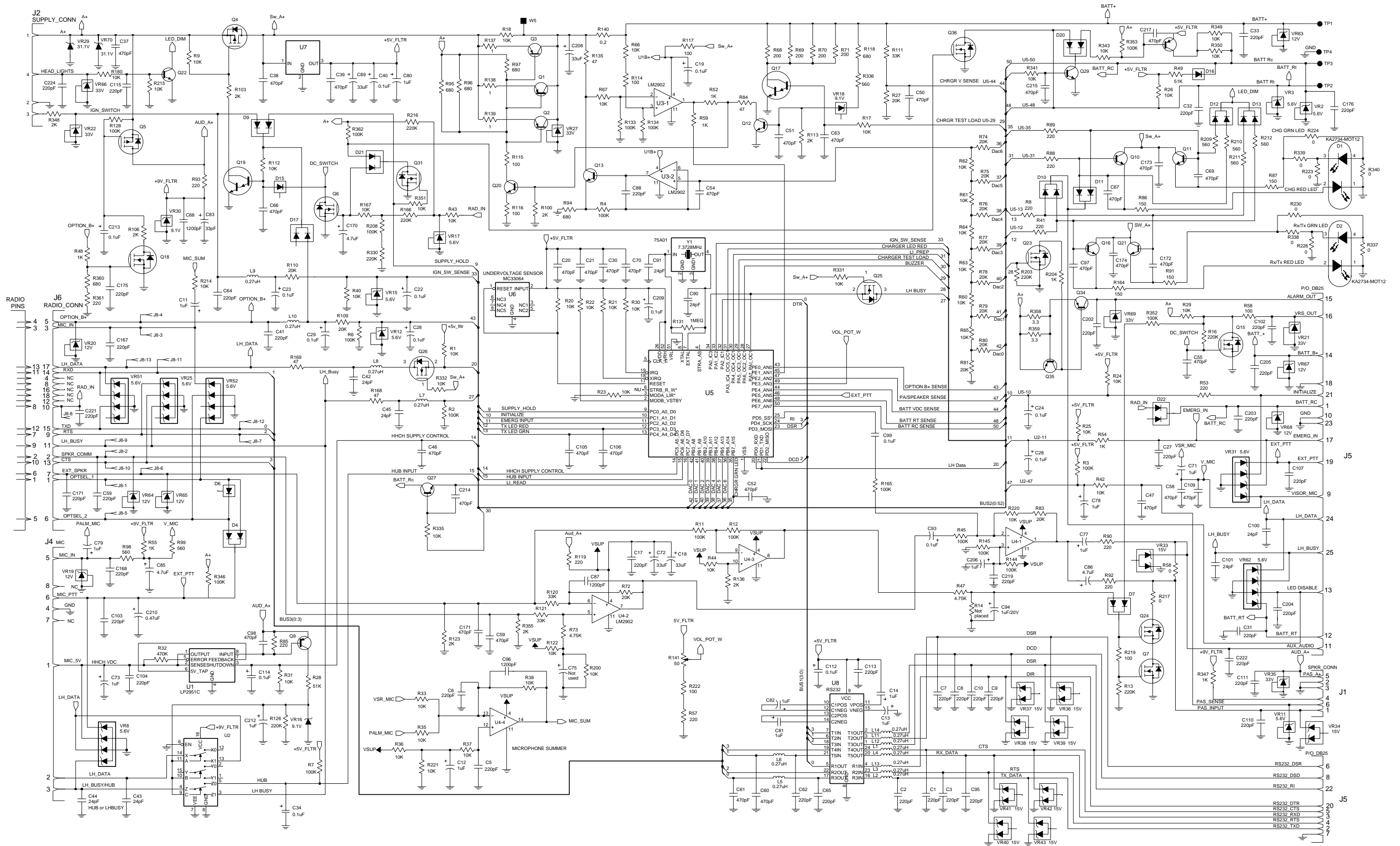
- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
- When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
- Part value notations:

$p=10^{-12}$	$m=10^{-3}$
$n=10^{-9}$	$k=10^3$
$\mu=10^{-6}$	$M=10^6$

---







63A81090C67-A

ASTRO XTVA Console  
Exploded View Parts List

ITEM NO.	MOTOROLA PART NUMBER	DESCRIPTION
1	1585760A04	HOUSING, Front (Closed)
	or 1585760A05	HOUSING, Front (Open)
2	4586149A01	LINK (part of item 31)
3	4185768A01	SPRING, Kicker
4	4585767A01	KICKER
5	1585762A03	HOUSING, Pocket (includes item 28)
6	0105956V42	ASSEMBLY, Latch
7	0286146A01	NUT, Trunnion (2 req'd)
8	2785761A02	CHASSIS (includes item 9)
9	7586151A01	PAD, Thermal (part of item 8)
10	4185770A01	SPRING, Eject
11	0105956U22	KIT, PCB Assembly (for Rev. B and higher consoles only)
12	3985878B01	CONTACT, Charge (4 req'd)
13	3985879B01	CONTACT, PCB (4 req'd)
14	1585822A03	HOUSING, Back
15	0310908A96	SCREW, Back Cover (5 req'd)
16	5405247W06	LABEL, Date Code
17	3305409X32	LABEL, Nameplate
18	6186158A01	LIGHTPIPE
19	3605371Z01	KNOB, Volume
20	4305372Z01	INSERT, Knob
21	3205082E98	O-RING
22	1485923B02	INSULATOR
23	5586156A01	LOCK (includes item 24)
24	5586156A02	KEY (part of item 23)
25	0385881B01	SCREW, Button Head (2 req'd)
26	1585763A02	HOUSING, Pocket Lid
27	3886293A01	BUTTON, Eject
28	3305455U08	LABEL, Caution (part of item 5)
29	4386148A01	BUSHING, Universal
30	4786150A01	PIN
31	0105956V68	ASSEMBLY, Universal Coax (includes item 2) (for Rev. B and higher consoles only)
---	3005297Y03	CABLE, Power (Not Shown)

