

Ordering ESI-33 Parts

Parts can be ordered by written order or by phone. When ordering parts, you must order by E-mu part number. The minimum charge for parts orders is \$15.00. Emergency rush orders can usually be sent out the same day if the order is received by 11:00am PST. You can place a parts order between the hours of 8:30am and 5:30pm PST, Monday through Friday.

E-mu Customer Service Department: (408) 438-1921

Main PCB

Capacitors

Description	E-mu P/N	Quantity
10 μ F 25V Aluminum Radial	CA325	7
47 μ F 16V Aluminum Radial	CA326	3
2200pF 50V Ceramic	CC392	2
100pF 50V Ceramic	CC413	5
680pF 50V Ceramic	CC415	2
3900 pF 50V Ceramic	CC416	2
.01 μ F 50V Ceramic	CC417	39
.047 μ F 50V Ceramic	CC418	3
.1 μ F 50V Ceramic	CC419	24
22pF 50V Ceramic	CC421	6
1000pF 50V Ceramic	CC423	7
4.7pF 50V Ceramic	CC424	2
2.2 μ F 16V Tantalum	CT323	11

Capacitor Locations

Capacitor Location	E-mu Part Number	Capacitor Location	E-mu Part Number
C1-C4	CC423	C5	CC419
C6-C8	CC417	C9	CC419
C10	CC416	C11	CC415
C12	CC421	C13	CC417
C14	CC419	C15, C16,	CA325
C17	CC419	C18	CC416
C19	CC415	C20	CC421
C21	CC417	C22, CC23	CC419
C24, CC27	CC417	C25, 26	CC392
C28, C29	CC423	C30-C32	CC419
C33	CC416	C34	CA325
C35	CT323	C36, C38	CC413
C37, C39, C42	CC419	C40	CC424
C41	CC418	C43	CT323
C44, C45	CC413	C46	CA325
C47	CT323	C48	CC424
C49	CA326	C50, C52, C54, C56	CC417
C51, C53, C55	CC419	C57	CA326
C58	CC423	C59	CT323
C60-C62	CC419	C63, C64	CT323
C65, C69	CA325	C66-C68, C70	CC419
C71, C73	CC418	C72, C74-C76, C78	CT323
C77	CA326	C79-C80	CC517
C81	CC419	C82-C93	CC417
C94	CC419	C95-C97	CC417
C98, C99, C101, C102	CC421	C100, C103, C104, C106	CC417
C107	CA325	C108-C114	CC417

Integrated Circuits

Description	E-mu P/N	Quantity
G-chip Sound Engine (2.0)	IC402	1
H-chip Digital Filter (1.5)	IC413	1
SAA7360 16/18-bit ADC	II376	1
AD1860 18-bit Serial DAC	II379	4
82078 Floppy Disk Controller	II382	1
53080 SCSI Controller	II402	1
79L05 -5V 100mA Regulator	IL338	1
+5V 100mA Regulator	IL339	2
TL072 Dual Op Amp	IL354	3
Dual Audio Op Amp	IL361	1
93C46 64 x 16 EEPROM	IM400	1
68306 CPU	IM409	1
256K x 16 CMOS DRAM	IM415	1
1M x 8/9 70NS CMOS DRAM	IM420	2
Main LSB Software Prom (v2.12)	IP964	1
Main MSB Software Prom (v2.12)	IP965	1
74ACT138 3-8 Demux.	IT426	1
74HCT14 Invert Hex CMOS	IT440	1
74HC4052 Mux./Demux.	IT448	3
74HCT299 Shift Register	IT451	2
74HCT393 Ripple Counter	IT452	1
PC400 Opto Isolator	OE303	1

Integrated Circuit Locations

IC Location	E-mu Part Number
U1	OE303
U2, U4, U5	IL334
U3, U6, U8	IT448
U7	IL361
U8	IT448
U9	IP964
U10	IP965
U11	ZX316
U12-U15	II379

IC Location	E-mu Part Number
U16	II376
U17, U19	IT451
U18	IM415
U20	IP859
U21	IC413
U22	II402
U23	IM409
U24	IT452
U25	II382
U26	IT440
U27	IC402
U28	IM400
U29	IT426
VR1	IL338
VR2, VR3	IL339

Resistors

Description	E-mu P/N	Quantity
220/330 x 6 1/8W Net Terminator	RN347	3
1.33K Ω , 1/10W, 1%	RP389	10
2.37K Ω , 1/10W, 1%	RP390	4
2.67K Ω , 1/10W, 1%	RP391	4
10K Ω , 1/10W, 1%	RP392	34
100K Ω , 1/10W, 1%	RP393	3
22.1K Ω , 1/10W, 1%	RP399	2
150K Ω , 1/10W, 1%	RP413	2
47 Ω , 1/10W, 5%	RR409	37
150 Ω , 1/10W, 5%	RR410	25
270 Ω , 1/10W, 5%	RR411	30
1K Ω , 1/10W, 5%	RR412	25
27K Ω , 1/10W, 5%	RR413	5
100K Ω , 1/10W, 5%	RR414	8
330K Ω , 1/10W, 5%	RR417	2
0 Ω , 1/10W, 5%	RR420	2
3.9K Ω , 1/10W, 5%	RR431	2
4.7K Ω , 1/10W, 5%	RR432	3
4.7 Ω , 1/10W, 5%	RR439	3
4.3K Ω , 1/10W, 5%	RR442	2
13K Ω , 1/10W, 5%	RR445	1
22 Ω , 1/2W, 10%	RW307	2

Resistor Locations

Resistor Location	E-mu Part Number	Resistor Location	E-mu Part Number
RN1-RN3	RN347	R1, R2	RP392
R3, R5	RR411	R4, R6	RR410
R7	RP392	R8	RR411
R9, R10	RR410	R11, R12, R14	RR412
R13	RP392	R15	RP391
R16, R19	RP389	R17	RR410
R18	RP390	R19	RP389
R20, R21	RP392	R22	RR411
R23	RR412	R24	RW307

Resistor Location	E-mu Part Number	Resistor Location	E-mu Part Number
R26	RR413	R27,R28	RR411
R30	RR413	R31	RW307
R32	RR410	R33	RP392
R34	RP391	R35	RP389
R36, R37	RR412	R38	RP390
R39	RP389	R40, R41	RP392
R42	RR411	R43, R45	RR412
R44	RR410	R46, R49	RP390
R47, R48	RP413	R50, R51	RR412
R52	RR414	R53	RP393
R54	RP392	R55	RP391
R56	RR414	R57	RR442
R58, R59	RP389	R60, R62	RR410
R61	RP392	R63	RR411
R64	RR445	R65	RP389
R66	RP399	R67	RR417
R68	RP393	R69	RR432
R70, R71	RP392	R72	RP391
R73, R75	RP389	R74	RR411
R76	RR442	R77, R78	RR410
R79	RP399	R80	RR432
R81	RR417	R82	RP389
R83	RP393	R84	RR431
R85, R87	RR414	R86, R89, R92	RR412
R88	RP392	R93, R94, R96-R99, R101	RR410
R95	RR409	R100,	RR439
R101	RR410	R102, R103	RR439
R104	RR431	R105	RP392
R106, R107	RR420	R108-R111	RR412
R112	RP392	R113	RR410
R114-R126	RR409	F127	RP392
R128, R129, R131, R132	RR409	R133, R135	RR412
R134	RR410	R136, R138	RR409
R137	RR432	R139	RR413
R140	RR410	R141	RR413
R142	RR413	R143, R144	RR414

Resistor Location	E-mu Part Number	Resistor Location	E-mu Part Number
R145, R147-R149	RP392	R146	RR410
R150, R151	RR412	R152, R153	RR411
R154-R157	RR409	R158-R160	RP392
R161	RR412	R162	RR409
R163	RR411	R164	RP392
R165, R167	RR409	R166, R168, R169, R171, R173, R174	RR411
R170	RR409	R172	RR410
R175	RR409	R176	RR414
R177-R179	RR411	R180	RR412
R182	RR409	R183-R187	RP392
R188, R190	RR412	R189, R191	RP392
R192, R193	RR410	R194-R196, R198, R199	RR411
R197	RP392	R200, R202, R203, R206	RR409
R201, R204, R205, R207	RR411	R208, R209, R212	RR409
R210	RR414	R211	RP392

Other Components

Description	E-mu P/N	Quantity
SMD914 Switching Diode	DD316	8
Transient Suppressing Zener Diode	DD324	3
1.0A 40V RPK Diode	DD326	1
2N3906 PNP Transistor	QQ308	5
3904 NPN Transistor	QQ309	8
1A 60V Polyswitch Fuse	ZF309	1
750Ω @ 100MHz Ferrite Inductor	ZI306	1
65Ω @ 100MHz Inductor	ZI319	3
24MHz Parallel 18pF Crystal	ZX315	1
45.1584MHz Crystal Oscillator	ZX316	1
16MHz Parallel 18pF Crystal	ZX318	1

Other Component Locations

Component Location	E-mu Part Number
D1, D3, D6-D9, D11, D12	DD316
D2, D4, D5	DD324
D10	DD326
Q1, Q4, Q9-Q11	QQ308
Q2, Q3, Q5-Q8, Q12, Q13	QQ309
FS2	ZF309
L1, L3-L8	ZI319
L2	ZI306
Y1	ZX315
Y2	ZX318

Connectors

Description	E-mu P/N	Quantity
1/4" Phone Jack, Closed Ring	JA309	6
PROM Socket	JC349	2
CPU Socket	JC350	1
PLCC-44 Socket	JC357	1
.1LS 8-pin Socket	JC358	3
Triform 5-pin DIN Jack (MIDI)	JI327	1
30-pin SIMM Socket	JC362	1
5 pos. Right Angle Connector	JI327	1
4-pin Locking Power Header	JP380	1
Locking Power Header	JP398	1
20-pin Dual Row Ribbon Header	JR317	3
50-pin Dual Row Ribbon Header	JR327	2
1 x 2 Header	JR335	1
34-pin Dual Row Header	JR338	1
3-pin Locking Header	JR360	2

Connector Locations

Connector Location	E-mu Part Number
CN1	JI327
CN2	AB141
CN3, CN7	JR327
CN4	JP380
CN5, CN6	JR360
CN8, CN11, CN13	JR317
CN9	JR338
CN10	JC362
CN12	JP398
J1-J6	JA309
RN1-RN3	JC358
U9, U10	JC349
U20	JC357

*Front Panel***Capacitors**

Description	E-mu P/N	Quantity
.1 μ F 50V Ceramic Axial	CC363	1
470pF 50V Ceramic Axial	CC367	2

Capacitor Locations

Capacitor Location	E-mu Part Number
C1	CC363
C2-C3	CC367

Integrated Circuits

Description	E-mu P/N	Quantity
74HCT244 Octal Buffer	IT360	1
74HCT374 Octal Flip-flop	IT362	2

Integrated Circuit Locations

IC Location	E-mu Part Number
U1-U2	IT362
U3	IT360

Resistors

Description	E-mu P/N	Quantity
Volume Pot, 50K Ω Linear	RC327	1
10K Ω 1/4W 5%	RR309	10
270 Ω 1/4W 5%	RR347	12

Resistors

Description	E-mu P/N	Quantity
Volume Pot, 50K Ω Linear	RC327	1
10K Ω 1/4W 5%	RR309	10
270 Ω 1/4W 5%	RR347	12

Resistor Locations

Resistor Location	E-mu Part Number
R1	RC327
R2-R12	RR347
R13-R22	RR309
R23	RR347

Other Components

Description	E-mu P/N	Quantity
1N914 Sigal Diode	DD301	4
Red LED	LP320	9
Green LED	LP324	2
LCD 20 x 24 LED Backlit View	LP330	1
Rotary Encoder	SW335	1
Momentary SPST Switch Without Cap	SW340	31

Component Locations

Component Location	E-mu Part Number
D1-D9	LP320
D10, D12-D14	DD301
D11, D15	LP324

Connectors

Description	E-mu P/N	Quantity
1/4" Stereo Phone Jack	JA317	1
3-pin Locking Header	JR372	2

Connector Locations

Connector Location	E-mu Part Number
CN3, CN4	JR372
J1	JA317

Cables

Description	E-mu P/N	Quantity
Front Panel Cable	AC362	1
Internal Encoder Cable	AC369	1
Front Panel Interface Cable	AC370	1
0.1 x 16 IDC Cable	AC416	1

Miscellaneous

Description	E-mu P/N	Quantity
Black, Elliptical Switch Cap Preprinted "0"	AM105-00	1
Black, Elliptical Switch Cap Preprinted "1"	AM105-01	1
Black, Elliptical Switch Cap Preprinted "2"	AM105-02	1
Black, Elliptical Switch Cap Preprinted "3"	AM105-03	1
Black, Elliptical Switch Cap Preprinted "4"	AM105-04	1
Black, Elliptical Switch Cap Preprinted "5"	AM105-05	1
Black, Elliptical Switch Cap Preprinted "6"	AM105-06	1
Black, Elliptical Switch Cap Preprinted "7"	AM105-07	1
Black, Elliptical Switch Cap Preprinted "8"	AM105-08	1
Black, Elliptical Switch Cap Preprinted "9"	AM105-09	1
20 Character x 4 LCD	AP440	1
Volume Pot Mounting Bracket	EM459	1
Front Panel Mounting Plate	EM527	1
Arrow Switch Cap	EP417	4
Black, Elliptical Switch Cap	EP418	17
Front Panel Bezel	EP491	1
Volume Pot Nut	HN313	1
6-32 x 1/4 Self Tap Screw	HS393	1
#4 x 1/4 Phil. Plastiloc Screw	HS401	8

Description	E-mu P/N	Quantity
4-40 x 3/8 Phil. Plastiloc Screw	HS431	10
2-56 x 3/16 Phillips Screw	HS457	4
LED Standoff	HS458	11
3/16 Hex Aluminum Standoff	HS475	4
#4 Flat Nylon Washer	HW443	1

*SCSI Option***Capacitors**

Description	E-mu P/N	Quantity
10 μ F 25V Aluminum Radial	CA325	1
.1 μ F 50V Ceramic Axial	CC363	2

Capacitor Locations

Capacitor Location	E-mu Part Number
C1	CA325
C2, C3	CC363

Integrated Circuits

Description	E-mu P/N	Quantity
53C80 SCSI Controller	II390	1
SCSI PLD	IP792	1

Integrated Circuit Locations

IC Location	E-mu Part Number
U1	DP792
U2	II390

Resistors

Description	E-mu P/N	Quantity
22K Ω x 9 1/8W 2% SIP	RN323	1
SCSI Terminator	RN347	3
10K Ω 1/4W 5%	RR309	1

Resistor Locations

Resistor Location	E-mu Part Number
RN1-RN3	RN347
RN4	RN323
R1	RR309

Other Components

Description	E-mu P/N	Quantity
1N5819 Diode	DD326	1
NPN MPS5172 Transistor	QQ302	1
Polyswitch 1A 60V Fuse	ZF309	1

Other Component Locations

Component Location	E-mu Part Number
D1	DD326
FS1	ZF309
Q1	QQ302

Connectors

Description	E-mu P/N	Quantity
8-pin SIP Socket	JC358	3
50-pin SCSI Connector	J1332	1
50-pin Dual Row Header	JR327	2

Connector Locations

Connector Location	E-mu Part Number
CN1, CN3	JR327
CN2	J1332
RN1-RN3	JC358

Miscellaneous

Description	E-mu P/N	Quantity
SCSI Expansion Bracket	EM479	1
4-40 x 1/4 Phillips Screw	HS352	6
2 x 25 x 3 Ribbon Cable	AC384	1
SCSI Option Installation Instructions	FI461	1

S/PDIF Digital I/O Option

Capacitors

Description	E-mu P/N	Quantity
.1μF 50V Ceramic Axial	CC363	5
.01μF 50V Ceramic Axial	CC371	2
.047μF 50V Ceramic Axial	CC429	1

Capacitor Locations

Capacitor Location	E-mu Part Number
C1, C2, C4, C6, C10	CC363
C3, C7	CC371
C5	CC429

Integrated Circuits

Description	E-mu P/N	Quantity
Digital Audio Transmitter	II367	1
Digital Audio Receiver	II372	1
CS8402 AES/EBU Digital Audio Transmitter	II393	1
CS8411 AES/EBU Digital Audio Receiver	II394	1
S/PDIF TX PLD	IP797	1
S/PDIF μP PLD	IP798	1

Integrated Circuit Locations

IC Location	E-mu Part Number
U1	IP797
U2	II372
U3	II394
U4	II393
U5	II367
U6	IP798

Resistors

Description	E-mu P/N	Quantity
22K Ω x 9 1/8W 2% SIP	RN323	1
100 Ω 1/4W 5%	RR301	8
390 Ω 1/4W 5%	RR304	1
1K Ω 1/4W 5%	RR305	2
75 Ω 1/4W 5%	RR370	1

Resistor Locations

Resistor Location	E-mu Part Number
R1	RR305
R2-R6, R8, R9, R12	RR301
R7	RR304
R10	RR305
R11	RR370
RN1	RN323

Connectors

Description	E-mu P/N	Quantity
50-pin SCSI Connector	J1332	1
Dual RCA Jack	J1334	1
50-pin Dual Row Ribbon Header	JR327	1

Connector Locations

Connector Location	E-mu Part Number
CN1	JR327
CN2	J1334

Other Components

Description	E-mu P/N	Quantity
Bi-directional Zener Diode	DD324	2
1:1 AES Digital Audio Transformer	ZT320	1

Other Component Locations

Component Location	E-mu Part Number
D1, D2	DD324
T1	ZT320

Miscellaneous

Description	E-mu P/N	Quantity
S/PDIF Expansion Bracket	EM500	1
4-40 x 1/4 Phillips Screw	HS352	4
2 x 25 x 3 Ribbon Cable	AC384	1
S/PDIF Option Installation Instruction	FI465	1

*Final Assembly***Cables**

Description	E-mu P/N	Quantity
Headphone Cable	AC355	1
Main PCB Power Supply Cable	AC372	1
Floppy Drive Data Cable (2 x 17)	AC378	1
Volume Pot Cable	AC387	1
AC-Power Supply Cable Assy.	AC413	1
LCD Ribbon Cable (1 x 14)	AC416	1
Floppy Drive Power Cable	AC420	1

Miscellaneous

Description	E-mu P/N	Quantity
LCD Lens	AM103	1
Port Cover Plate	EM482	1
Power Supply Cover	EM489	1
Chassis Top	EM490	1
Chassis Bottom	EM491	1
Rack Flange "Ears" (Black)	EM492-02	2
Base Rack with SCSI	EM526	1
Power Button Extension	EP419	1
Power Button	EP422	1

Description	E-mu P/N	Quantity
Data Knob	HK334	1
Volume Knob	HK341	1
6-32 Nut	HN121	1
3/8-32 Nut	HN135	6
6/32 Nut	HN121	1
4-40 x 1/4 Phillips Screw	HS352	6
6-32 x 1/4 Phillips Screw	HS353	8
6-32 x 1/4 Self Tap Screw	HS393	4
4-40 x 3/8 Phillips Plastiloc Screw	HS431	2
M3 x 6mm Screw	HS463	4
8-32 x 3/8 Phillips Screw (Black)	HS454	4
6-32 x 1/4 Phillips Screw (Black)	HS474	7
3/16 Hex Aluminum Standoff	HS475	4
1m x 8/9 DRAM SIMM	IM420	2
3.5" High Density Floppy Drive	ZM355	1
3.5" 270Mb SyQuest Drive	ZM360	
Foot With Push Rivet	ZR346	4
15W 100-250VAC Power Supply	ZV311	1
44W/64W 90-264VAC Power Supply	ZV315	1
Standard Disk Set	AS607	1
ESI-32 Operations Manual	FI452	1
ESI-32 Sound Banks Booklet	FI459	1