MANUAL NO. 901-2167

TRACK & FIELD

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SERVICE MANUAL

TRACK AND FIELD

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USER INFORMATION - F.C.C.

WARNING

THIS EQUIPMENT GENERATES,USES,AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS.

IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF F.C.C. RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE THE USER AT HIS OWN EXPENSE WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

INTRODUCTION

"TRACK & FIELD IS A MICROPROCESSOR BASED COIN-OPERATED ELECTRONIC GAME, THAT MAKES EXTENSIVE USE OF DIGITAL INTEGRATED CIRCUITRY AND TELEVISION MONITOR CONCEPTS. THIS MANUAL IS DESIGNED FOR THE USE OF MAINTENANCE TECHNICIANS WHO POSSESS A GENERAL KNOWLEDGE OF SOLID-STATE CIRCUITRY AND VIDEO MONITOR THEORY. ANY INDIVIDUAL NOT KNOWLEDGEABLE IN THESE AREAS SHOULD NOT ATTEMPT REPAIR OF THE ELECTRONIC PORTIONS OF THE GAME.

IN ADDITION TO THIS MANUAL AND TRAINING IN ELECTRONICS, TROUBLE-SHOOTING AND REPAIR WILL BE FACILITATED BY ACCESS TO GENERAL-TYPE HANDTOOLS, A MULTIMETER, A 50 OR 100 MHZ OSCILLOSCOPE AND A LOGIC PROBE WOULD BE HELPFUL.
TECHNICAL ASSISTANCE IS AVAILABLE BY CALLING (305) 558-5200 OR OUR TOLL FREE LINE LISTED BELOW.
QUESTIONS OR COMMENTS CONCERNING "TRACK & FIELD" OR ANY OF OUR GAMES ARE WELCOME AND SHOULD BE DIRECTED TO:

CENTURI, INC.
CUSTOMER SERVICE DEPARTMENT
#800-327-7710 (OUTSIDE THE STATE OF FLA.)

NOTES

NEVER REPLACE ANY COMPONENT WITH ANYTHING OTHER THAN THE EXACT REPLACEMENT PART.
NEVER REMOVE CIRCUIT BOARD CONNECTIONS WHILE POWER IS ON.
DO NOT REPLACE A FUSE WITH ANYTHING OTHER THAN THE PROPER VALUE. A BLOWN FUSE INDICATES AN OVERLOAD CONDITION WITHIN THE GAME. REPLACING A FUSE WITH A HIGHER VALUE CAN CAUSE SEVERE DAMAGE TO INTERNAL COMPONENTS IF AN OVERLOAD OCCURS.
ALWAYS CONSULT THE SERVICE MANUAL BEFORE ATTEMPTING REPAIRS.

PLAY INSTRUCTIONS

* TAP "RUN" AND THE PLAYER WILL RUN.
* PUSH "JUMP/THROW" AND THE PLAYER WILL JUMP OR THROW.
* HOLD "JUMP/THROW" BUTTON DOWN TO INCREASE ANGLE OF JUMP OR THROW.
* IF YOU DO NOT QUALIFY IN AN EVENT THE GAME IS OVER.

EVENTS

I. 100M DASH:

KEEP TAPPING "RUN" TO INCREASE SPEED.
DISQUALIFICATION FOR 3 FALSE STARTS.

II&III. LONG JUMP & JAVELIN THROW:

KEEP TAPPING "RUN" TO INCREASE SPEED.
PUSH "JUMP/THROW" AT PROPER POSITION AND HOLD TO CONTROL ANGLE.

IV. 110M HURDLE:

TAP "RUN" TO INCREASE SPEED OF RUNNER.
PRESS "JUMP" TO CLEAR HURDLES.

V. HAMMER THROW:

PRESS "RUN" AND RELEASE.
PRESS "THROW" AT PROPER POSITION.
HOLD TO DETERMINE ANGLE OF THROW.

VI. HIGH JUMP:

PUSH "RUN" AND RELEASE.
HIT "JUMP" AT PROPER POSITION.
CHANGE ANGLE OF JUMP BY USING "JUMP" BUTTON AS OFTEN AS YOU LIKE.

OPTIONAL DIP SWITCH SETTINGS

1. Dip Switch No.1 (8P Dip Switch)

Credits

Coin	Plays	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
1	1	Off	Off	Off	Off	Off	Off	Off	Off
1	2	On	Off	Off	Off	On	Off	Off	Off
1	3	Off	On	Off	Off	Off	On	Off	Off
1	4	On	On	Off	Off	On	On	Off	Off
1	5	Off	Off	On	Off	Off	Off	On	Off
1	6	On	Off	On	Off	On	Off	On	Off
1	7	Off	On	On	Off	Off	On	On	Off
2	1	On	On	On	Off	On	On	On	Off
2	3	Off	Off	Off	On	Off	Off	Off	On
2	5	On	Off	Off	On	On	Off	Off	On
3	1	Off	On	Off	On	Off	On	Off	On
3	2	On	On	Off	On	On	On	Off	On
3	4	Off	Off	On	On	Off	Off	On	On
4	1	On	Off	On	On	On	Off	On	On
4	3	Off	On	On	On	Off	On	On	On
Free Play		On	On	On	On	On	On	On	On

2. Dip Switch No.2 (8P Dip Switch)

NUMBER OF EVENT ADVANCEMENT
(If disqualified in previous event)

NUMBER OF EVENTS	SW1	SW2
One	Off	Off
Two	On	Off
Three	Off	On
Four	On	On

GAME TYPE

STYLE	SW3	PLAYERS
Table	Off	1 thru 4 Players
Upright	On	1 thru 4 Players

2. Dip Switch No. 2 continues

SW4 NOT IN USE

RANKING

MEMORY AT POWER UP	SW5
Data entered remains	Off
Data entered erased	On

LEVEL OF DIFFICULTY

OPTIONS	SW6	SW7
Easy	Off	Off
Normal	On	Off
Hard	Off	On
Difficult	On	On

AUDIO ATTRACTION

MUSIC MODE	SW8
MUSIC ON	On
MUSIC OFF	Off

INSTALLATION

YOUR GAME WAS SHIPPED FROM THE FACTORY IN READY-TO-PLAY CONDITION.

A BRIEF INSPECTION IS SUGGESTED BEFORE THE MACHINE IS REMOVED FROM THE CARTON. IF THERE IS DAMAGE TO THE SHIPPING CARTON, CONTACT THE FREIGHT CARRIER FOR CLAIM PURPOSES. EXTERNAL DAMAGE COULD INDICATE POSSIBLE DAMAGE TO THE CABINET AND/OR ELECTRONICS COMPONENTS.

AFTER THE CARTON HAS BEEN SATISFACTORILY INSPECTED, REMOVE THE MACHINE FROM THE SHIPPING CARTON.

EXAMINE THE INTERIOR OF THE GAME FOR DISCONNECTED WIRES, CABLES OR HARNESSES. MAKE SURE THE ELECTRONIC DEVICES ARE SECURELY MOUNTED IN THEIR SOCKETS, ETC. RECORD THE GAME SERIAL NUMBER, SINCE IT WILL BE REQUIRED FOR REFERENCE AND SERVICING.

ELECTRICAL REQUIREMENTS

UNLESS OTHERWISE SPECIFIED, THIS GAME IS SET TO OPERATE AT 110 VOLTS A.C. (REFER TO 110/220 VAC CONVERSION INSTRUCTIONS).

POWER SUPPLY CHASSIS SCHEMATIC INFORMATION AND PARTS LIST ARE INCLUDED IN THIS MANUAL.

110/220 VAC CONVERSION INSTRUCTIONS

THIS GAME CONTAINS A HARNESS CONFIGURATION WHICH ALLOWS THE MACHINE TO BE OPERATED FROM EITHER A 110 VAC OR 220 VAC, 50 HZ OR 60 HZ POWER SOURCE. ALL GAMES SHIPPED FROM CENTURI, INC.,ARE IN THE 110 VAC CONFIGURATION. TO CHANGE TO THE 220 VAC CONFIGURATION FOLLOW THE PROCEDURE BELOW.

FIRST: UNPLUG THE MACHINE FROM THE WALL OUTLET TO COMPLETELY ELIMINATE SHOCK HAZARDS.

SECOND: REMOVE THE 110 VAC PLUG FROM THE AC POWER CORD AND REPLACE WITH A 220 VAC PLUG. ATTACH THE GREEN WIRE FROM THE AC CORD TO THE GREEN SCREW OF THE 220 VAC PLUG. ATTACH THE WHITE WIRE (NEUTRAL) AND THE BLACK WIRE (HOT) OF THE AC CORD TO THE 220 VAC PLUG.

THIRD: REMOVE THE SINGLE 3 AMP SLOW-BLOW FUSE FOUND IN THE A.C. DISTRIBUTION BRACKET, AND INSTALL TWO, 1.5 AMP SLOW-BLOW FUSES. NEXT, CUT THE #18 AWG, WHITE JUMPER WIRE AT BOTH ENDS OF THE FUSE HOLDER AND REPLACE THE COVER.

FOURTH: ON THE GAME POWER TRANSFORMER, LOCATE THE "ORANGE" JUMPER PLUG WHICH IS MARKED, 110 VAC. UNPLUG THE "ORANGE" JUMPER, AND PLUG IN THE "RED" JUMPER PLUG MARKED 220 VAC.

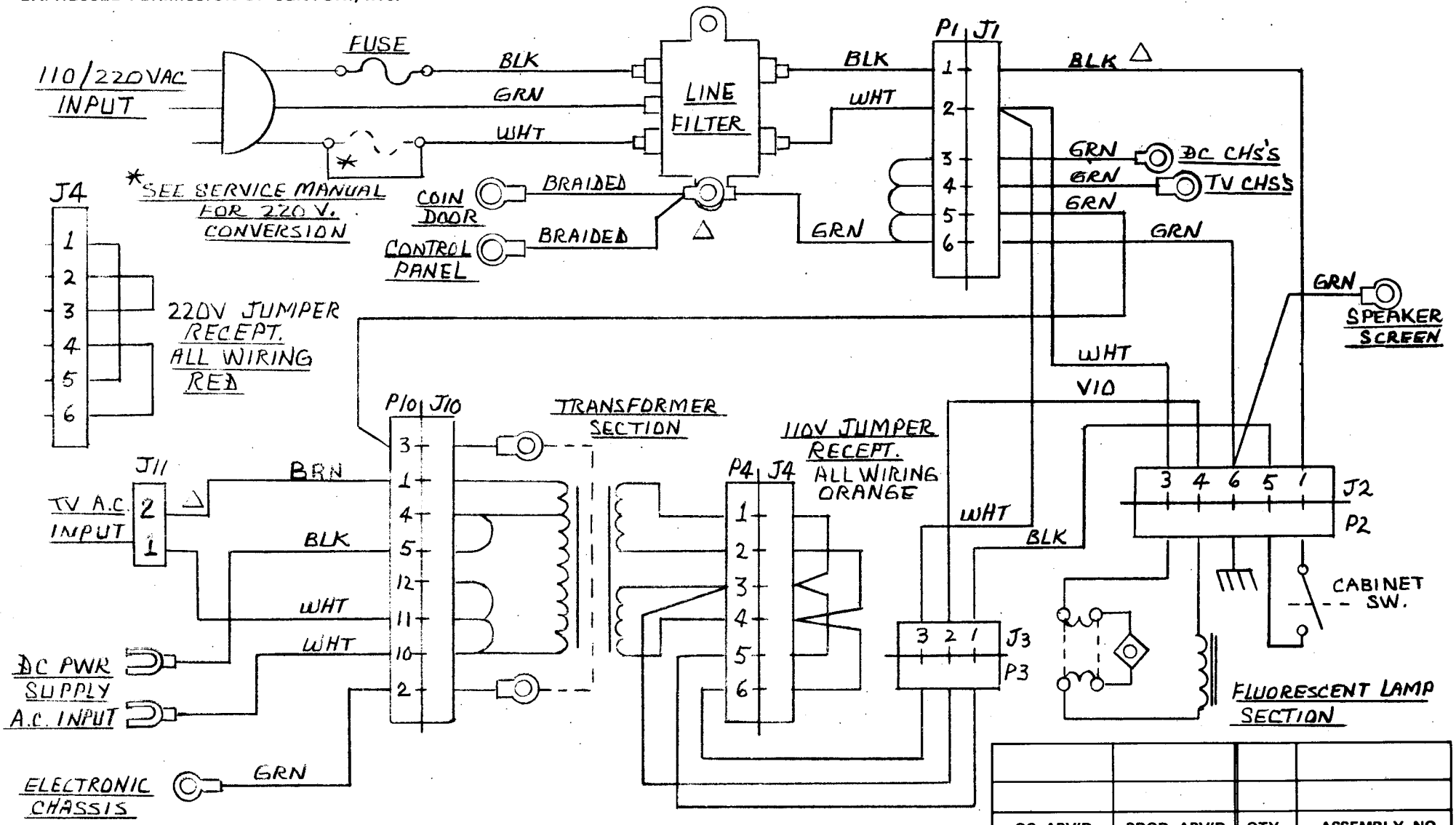
TO REVERT BACK TO 110 VAC, REPLACE THE COMPONENTS ORIGINALLY REMOVED FROM THE PROCEDURE STEPS ABOVE.

***NOTE: THE COMMON SIDE OF THE A.C. LINE MUST NOT BE FUSED IN THE 110 VAC CONFIGURATION, REPLACE THE #18 AWG. WHITE JUMPER WIRE.

(REFER ALSO TO THE 110/220 VAC POWER INTERCONNECT DIAGRAM)

THE MATERIAL CONTAINED HEREIN IS CONFIDENTIAL AND NO PART OF IT CAN BE REPRODUCED WITHOUT THE EXPRESSED PERMISSION OF CENTURI, INC.

FIGURE 1



QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO

REV. LET.	ECN NO.	REVISION	BY

TOLERANCES	
Unless Otherwise Specified	
FRACTIONS	± 1/32
DECIMALS 2 PL	± .015
DECIMALS 3 PL	± .005
HOLES	+ .003 / − .001
ANGLES	± 1/2°
SHT. MET BENDS	+ 2°

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NAME: 110/220 V. POWER INTERCONNECT DIAGRAM

MATL'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.
MA.		10-12-83	1/2	906-3129	A

AF 17899A

ROUTINE MAINTENANCE & SERVICE

BECAUSE OF THE SOLID STATE ELECTRONIC CIRCUITRY, THIS MACHINE SHOULD REQUIRE VERY LITTLE MAINTENANCE, AND ONLY OCCASSIONAL ADJUSTMENT. HOWEVER, IT IS NECESSARY TO TAKE STEPS TO INSURE THIS.

THE VOLUME CONTROL IS LOCATED ON THE PRINTED CIRCUIT BOARD AND CAN BE ACCESSED THROUGH THE REAR CABINET DOOR.

THE VIDEO MONITOR HAS BEEN PROPERLY ADJUSTED BEFORE SHIPPING. OCCASSIONALLY MINOR ADJUSTMENTS ARE NECESSARY. TECHNICAL INFORMATION, ALONG WITH SCHEMATICS, CAN BE FOUND IN THIS MANUAL. ADJUSTMENT CONTROLS FOR THE MONITOR ARE LOCATED ON THE REAR OF THE MONITOR.

"DO NOT MAKE ANY ADJUSTMENTS ON THIS MACHINE WHILE THE POWER IS ON!" THIS MACHINE SHOULD ONLY BE ADJUSTED BY A "QUALIFIED" TECHNICIAN.

FOR SERVICE INFORMATION, CONTACT:

CENTURI, INC.
CUSTOMER SERVICE DEPARTMENT
#800-327-7710 (OUTSIDE THE STATE OF FLORIDA)
#(305) 558-5200 (IN FLORIDA)

POWER SUPPLY

THE COMPUTER BOARD IN THIS GAME OPERATES MOST EFFICIENTLY AND RELIABLY WHEN THE POWER SUPPLY IS SET SO THE VOLTAGE ON THE BOARD IS 5.0 VOLTS, $\pm$ 0.1 VOLT. TO CHECK THIS, PLACE A METER ACROSS 5 VOLTS AND GROUND, AT THE EDGE CONNECTOR. IF NECESSARY, ADJUST THE SCREWDRIVER CONTROL ON THE POWER SUPPLY, SO THE METER READS BETWEEN 4.9 AND 5.1 VOLTS.

CABINET FRONT VIEW

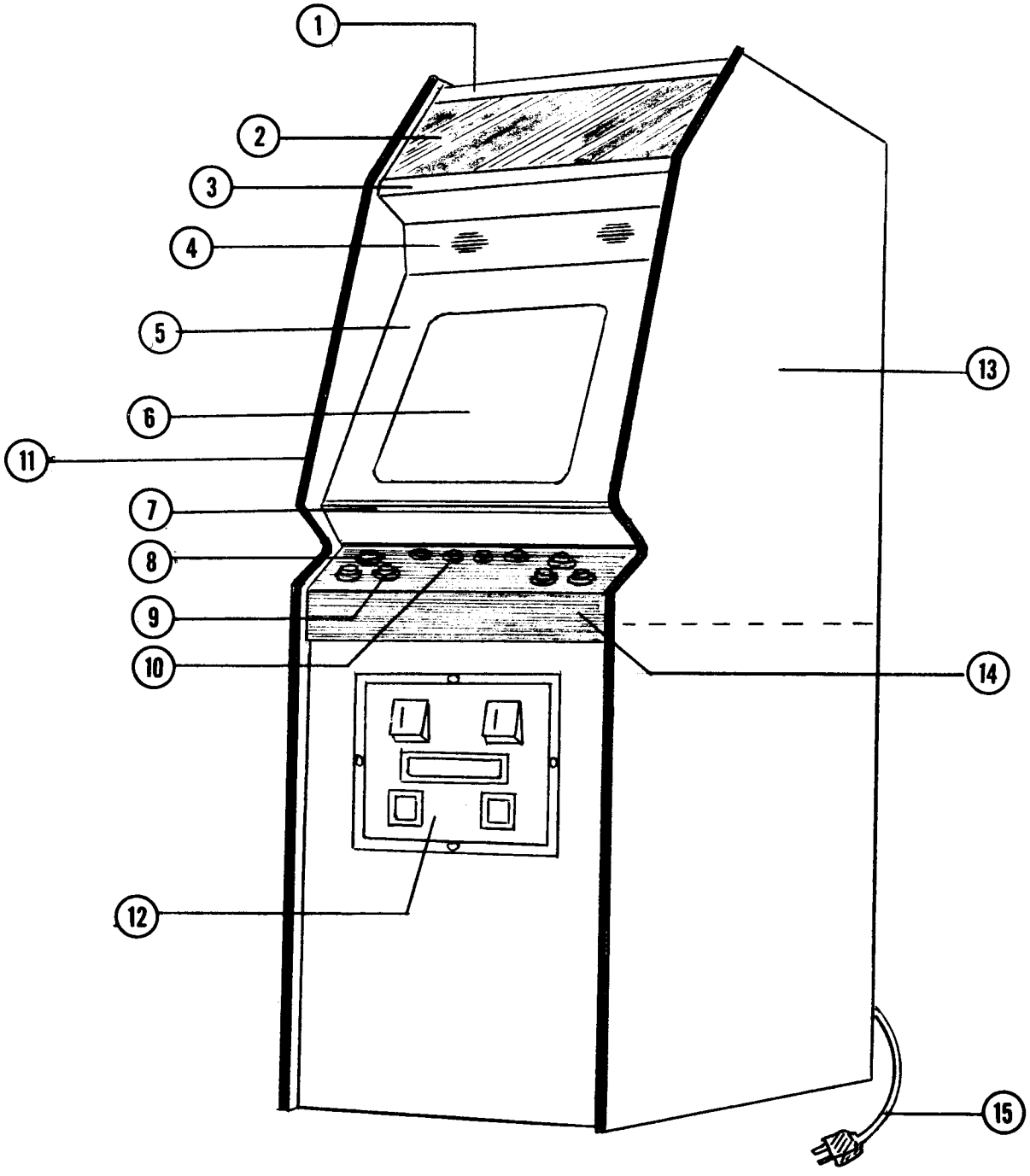

FIGURE-2

CABINET FRONT VIEW

PARTS LIST

ITEM	PART NUMBER	DESCRIPTION
1	302-2705	MARQUEE HOLDING BRACKET
2	802-3113	MARQUEE, TRACK & FIELD
3	302-2846	MARQUEE LOWER HOLDING BRACKET
4	403-1171	SPEAKER, 8 OHM, 6 WATT, 5¼ IN. RD.
5	804-3133	MONITOR BEZEL, TRACK & FIELD
6	605-0975	VIEWING GLASS
7	302-2844	FRONT GLASS HOLDING BRACKET
	302-2845	FRONT GLASS REAR HOLDING BRACKET (NOT SHOWN)
8	701-1170	WHITE PUSH BUTTON
9	701-1171	RED PUSH BUTTON
10	701-1181	DARK BLUE PUSH BUTTON
	409-1163	SWITCH W/HOLDER
	103-0951	PAL NUT
11	801-3093	LEFT SIDE DECAL, TRACK & FIELD
12	009-4697	COIN DOOR
13	801-3094	RIGHT SIDE DECAL, TRACK & FIELD
14	801-3095	CONTROL PANEL OVERLAY
15	402-1511	A.C. POWER CORD, 12FT.

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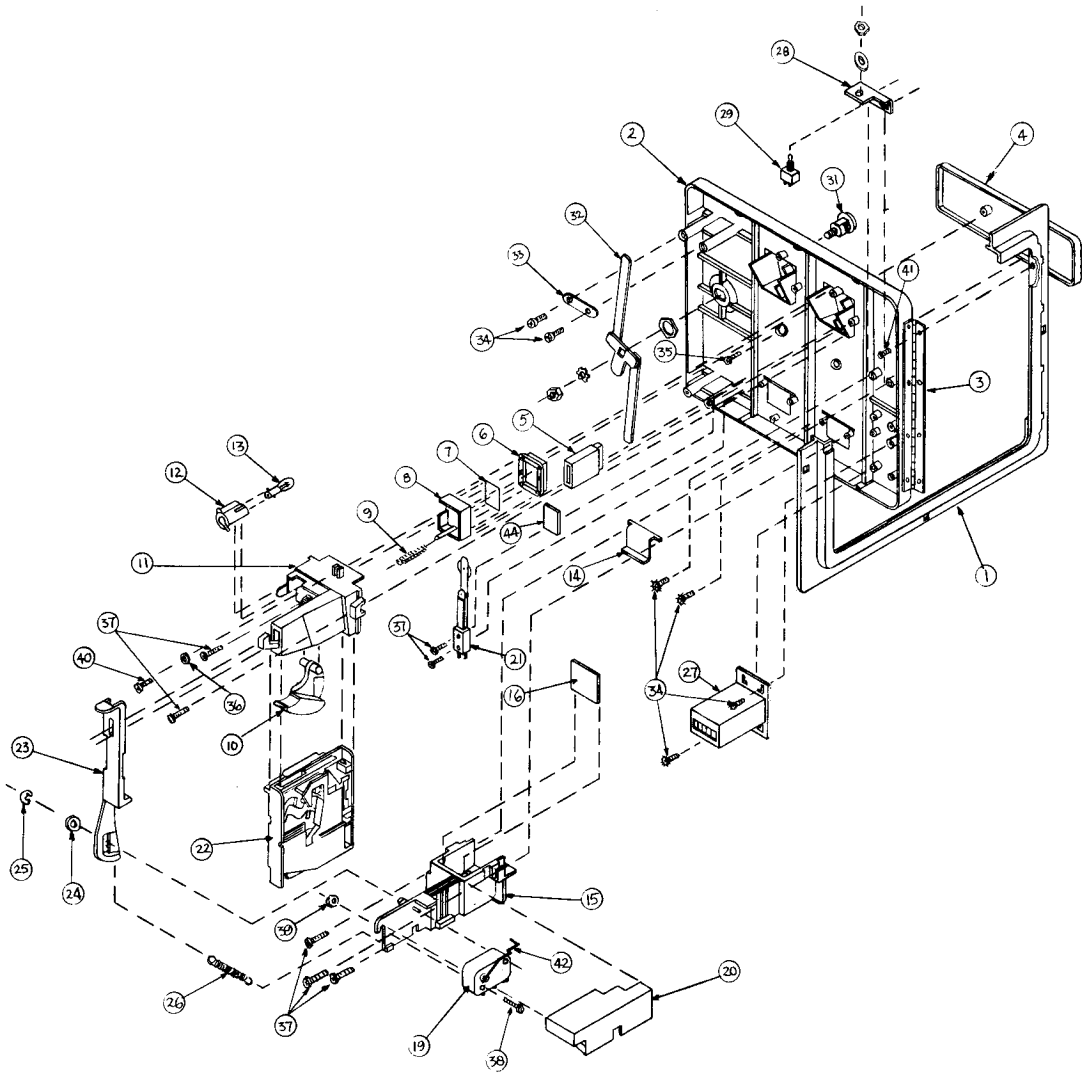

FIGURE 3

WICO P/N 15-8291-02

QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO

REV. LET.	ECN NO.	REVISION	BY

TOLERANCES
Unless Otherwise Specified

FRACTIONS	± 1/32
DECIMALS 2 PL	± .015
DECIMALS 3 PL	± .005
HOLES	+ .003 − .001
ANGLES	± 1/2°
SHT. MET BENDS	± 2°

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NAME: ST'D SINGLE COIN DOOR w/2 COIN ENTRY

MATL'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.
JB.		8-8-83	3/4	009-4697	

AF 1789SC

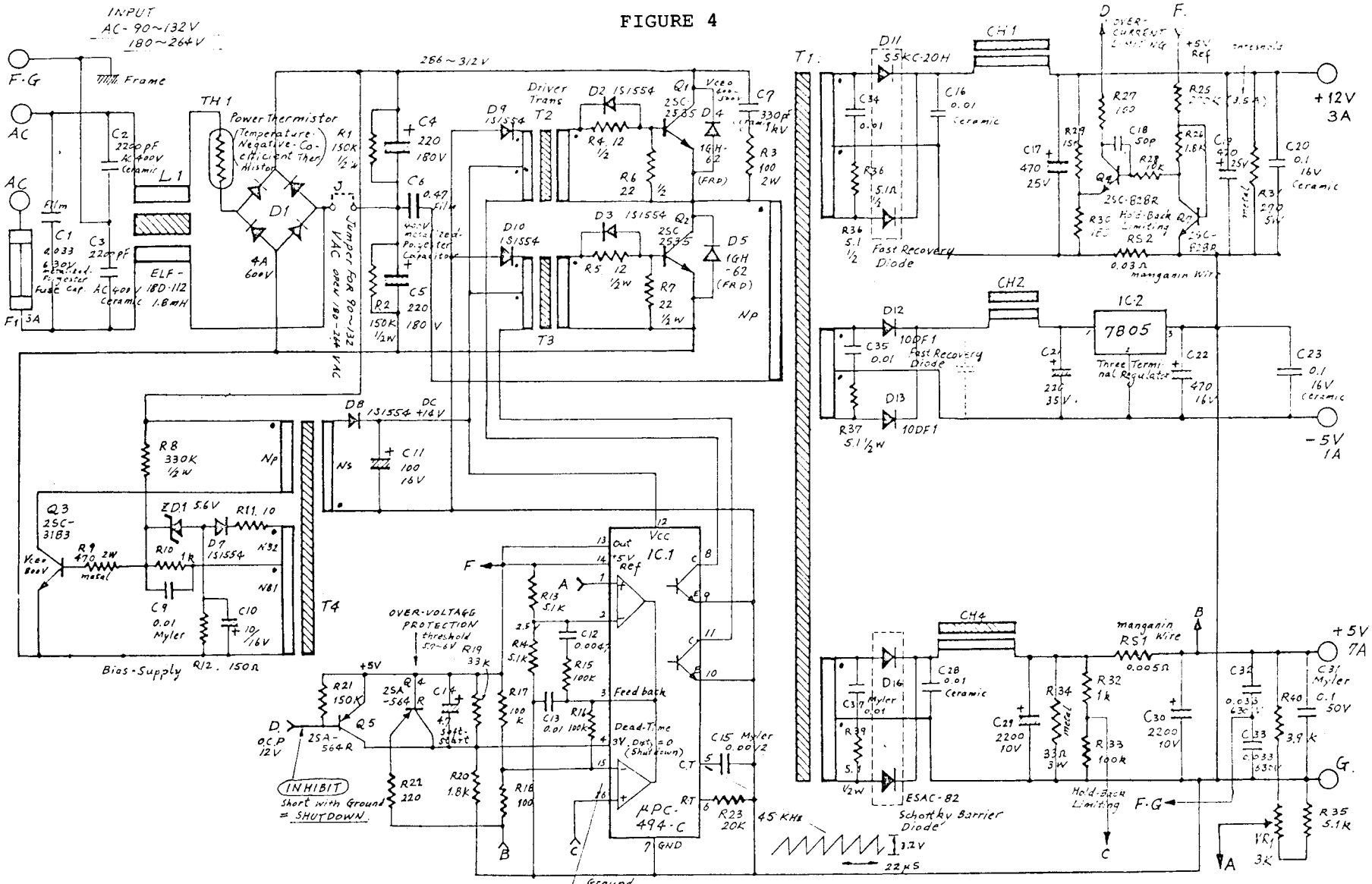
STANDARD COIN DOOR

WICO P/N 15-8281-01

PARTS LIST

ITEM NO.	Wico P/N	Description	Req'd
1	15-8039	Door Frame	1
2	15-8038	Door	1
3	30-9125	Hinge	1
4	15-8117	Nameplate, Centuri	1
5	15-8074	Coin Entry Plate	2
6	15-8072	Push Button, Cover	2
7	26-0583	Label, Push to reject, 25¢	2
8	15-8071	Push Button	2
9	30-7722	Compression Spring	2
10	15-8084	Reject Lever	2
11	15-8075	Coin Chute	2
12	15-9419	Lamp Holder Ass'y	2
13	21-0044	Miniature Lamp, 6V	2
14	15-8083	Coin Return Door	2
15	15-8081	Coin Box	2
16	15-8092	Guard	2
19	23-1347	Coin Switch	2
20	15-8043	Switch Cover	2
21	15-1255	Slam Switch	1
22	31-4015	Plastic Coin Acceptor, 25¢	2
23	15-8086	Coin Acceptor Retainer	2
24	30-1790	Washer,.255 ID x .625 OD x .037" Thick	2
25	30-0931	"E" Ring, ¼"	2
26	30-7372	Extension Spring	2
27	31-4550	Coin Counter, 6VDC, W/Brkt	1
28	15-8113	Bracket	1
29	23-1370	Service Switch	1
31	34-1855	Lock Ass'y, 5/8"	1
32	55-2905	Lock Cam Ass'y	1
33	55-2909	Lock Cam Plate	2
34	30-3001	M.S. Pan Hd, Phil.#6-32 x ¼"lg	9
35	30-0164	M.S. F/Hd, Phil.#6-32 x 3/8"lg	2
36	30-1921	Washer,.165 ID x .475 OD x .032" Thick	2
37	30-2826	M.S. Fil/Hd. Phil.#6-32 x 7/16"lg	12
38	30-2818	M.S. Rd/Hd. #4-40 x 7/8" lg	2
39	30-1213	Hex. Nut, #4-40	2
40	30-2778	M.S. Fil/Hd. Phil.#6-32 x ½"lg	2
41	30-2833	M.S.Pan/Hd. Phil. #6-32 x 3/16"lg	9
42	23-1348	Wire Form (Coin Switch)	2
43	97-0007	Door Cable Ass'y	1
44	26-3125	Double Sided Tape(3M) ½"x½"	1
45	15-8107	Key Hook	1

FIGURE 4



- CAPACITORS, NOT MENTIONED ARE ALL MYLER-FILM CAPACITORS
- REGISTORS, NOT MENTIONED ARE ALL CARBON RESISTOR 1/4 WATTS TYPES.

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TOLERANCES (Unless Otherwise Specified)
FRACTIONS ± 1/32
DECIMALS 2 PL ± .015
DECIMALS 3 PL ± .005
HOLES .003 / .001
ANGLES ± 1/2°
SHT. MET BENDS ± 3°

QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO.

centuri — HIALEAH, FLORIDA 33014

NAME POX-703-AE

MAT'L'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.

Power Supply PSR-703AE

PARTS LIST (414-2020)

Symbol	Description	Qty
D1	Bridge Stack, RB-40, 600V	1
D4,D5	Fast Recovery Diode, 1GH62	2
D2,D3,D7, D8,D9,D10	Switching Diode, 1S1554	6
D11	Fast Recovery Diode, S5KC20H	1
D12,D13	Fast Recovery Diode, 10DF1	2
D16	Schotky Barrier Diode, C8P030	1
ZD1	Zener Diode, 05Z, 5.6V, 500mw	1
Q1,Q2	Power Transistor, 2SC2553	2
Q3	Power Transistor, 2SC2831	1
Q4,Q5	Transistor, 2SA564R	2
Q6,Q7	Transistor, 2SC828R	2
IC 1	Switching Control, UPC494C	1
IC 2	Regulator IC, 7805 (1A)	1
T1	Power Transformer, SM2335	1
T2,T3	Driver Transformer, SM2215B	2
T4	Power Transformer (Sub) SM2376	1
CH1	Choke Transformer, SM2219	1
CH2	Choke Transformer, SM2376B	1
CH4	Choke Transformer, SM2366	1
L1	AC Line Filter, ELF-18D-112	1
TH1	Power Thermistor, TD18-010	1
C2,C3	Ceramic Capacitor, 2200pf, AC400V	2
C1	Capacitor, Metalized, 0.033mf, 600V	1
C6	" " , 0.47mf, 50V	1
C15	" , Mylar, 0.001mf, 50V	1
C9,C13,C34, C35,C37	" " , 0.01mf	5
C12	" " , 0.0047mf	1
C31	" " , 0.1mf	1
C18	Capacitor, Ceramic, 50pf, 50V	1
C7	" " , 330pf, 1kv	1
C16,C28	" " , 0.01mf, 16V	2
C20,C23	" " , 0.1mf, 16V	2
C14	Capacitor,Electrolytic, 4.7mf, 25V	1
C10	" " , 10mf, 16V	1
C11	" " , 100mf, 16V	1
C21	" " , 220 mf, 35V	1
C22	" " , 470mf, 16V	1
C17,C19	" " , 470mf, 25V	2
C29,C30	" " , 2200mf, 10V	2
C4, C5	" " , 220mf, 180V	2
R31	Resistor,Cement, 270 ohm, 5W	1
R34	" , Oxide Metal Film, 33 ohm, 3W	1
R9	" " " " , 470 ohm,2W	1
R3	" " " " , 100 ohm,2W	1

POWER SUPPLY PSR-703AE

PART LIST (414-2020)

Symbol	Description	Qty
R36,R37,R39	Resistor, Carbon, 5.1 ohm, 1/2 W	3
R4,R5	" " , 12 ohm, 1/2 W	2
R6,R7	" " , 22 ohm, 1/2 W	2
R1,R2	" " , 150K ohm, 1/2 W	2
R8	" " , 330K ohm, 1/2 W	1
R12	" " , 150 ohm, 1/4 W	1
R10	" " , 1K ohm, 1/4 W	1
R11	" " , 10 ohm, 1/4 W	1
R40	" " , 3.9K ohm, 1/4 W	1
R35	" " , 5.1K ohm, 1/4 W	1
R18,R27	" " , 100 ohm, 1/4 W	2
R30	" " , 180 ohm, 1/4 W	1
R22	" " , 220 ohm, 1/4 W	1
R32	" " , 1K ohm, 1/4 W	1
R26	" " , 1.8K ohm, 1/4 W	1
R12,R14	" " , 5.1K ohm, 1/4 W	2
R28	" " , 10K ohm, 1/4 W	1
R29	" " , 15K ohm, 1/4 W	1
R23	" " , 20K ohm, 1/4 W	1
R19	" " , 6.8K ohm, 1/4 W	1
R15,R16,R17,R33	" " , 100K ohm, 1/4 W	4
R21	" " , 150K ohm, 1/4 W	1
R25	" " , 270K ohm, 1/4 W	1
R20	" " , 390 ohm, 1/4 W	1
VR1	Semi-fixed resistor, GFD6-B 3K	1
RS1	Manganese Metal Wire, A-2145	1
RS2	Manganese Metal Wire, 1.0 Ø x 55m/m	1
F1	Fuse, 3 amp.	1
	Fuse Holder, F-207	1

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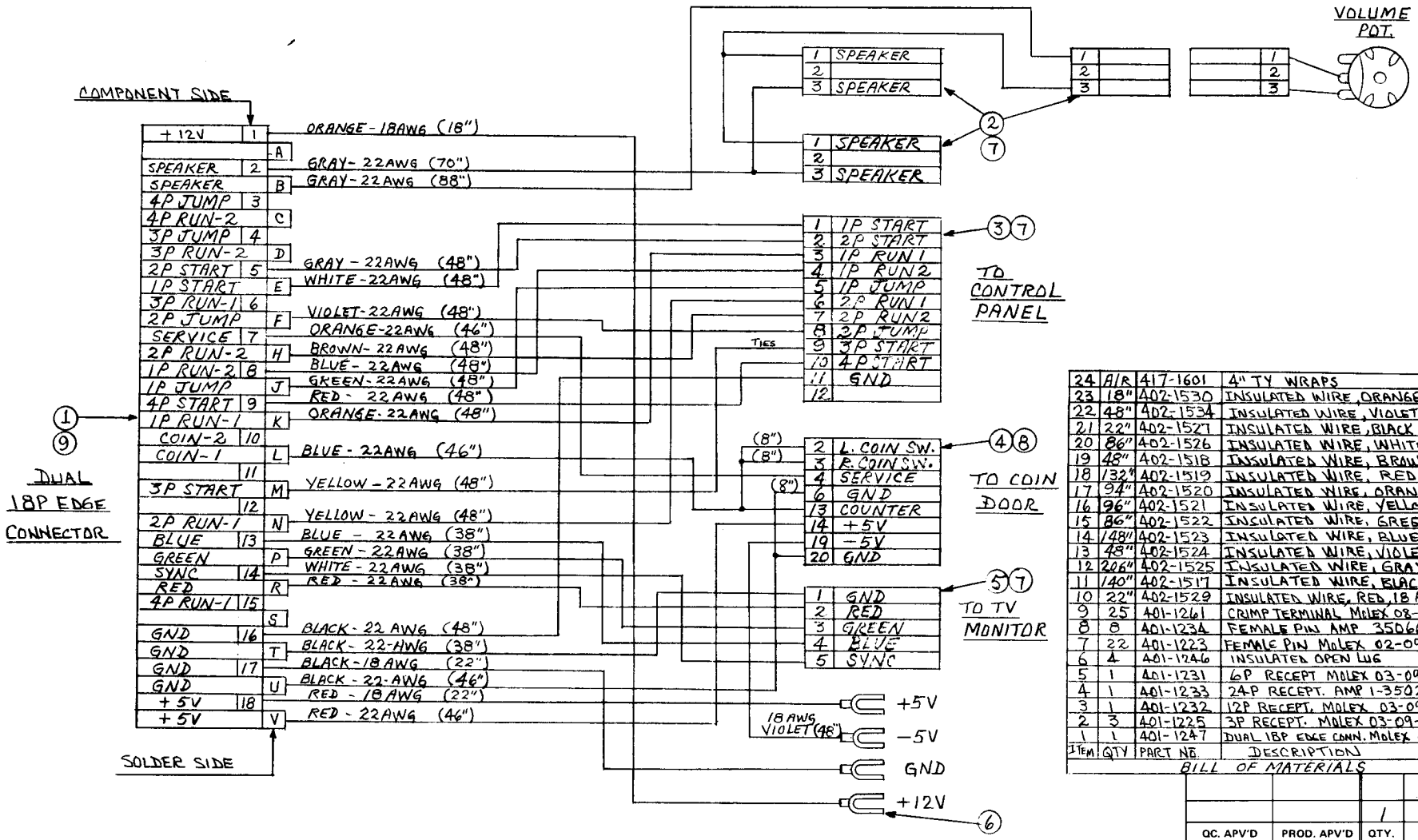


ITEM	QTY	PART NO.	DESCRIPTION
24	A/R	417-1601	4" TY WRAPS
23	18"	402-1530	INSULATED WIRE, ORANGE, 18 AWG
22	48"	402-1534	INSULATED WIRE, VIOLET, 18 AWG
21	22"	402-1527	INSULATED WIRE, BLACK, 18 AWG
20	86"	402-1526	INSULATED WIRE, WHITE, 22 AWG
19	48"	402-1518	INSULATED WIRE, BROWN, 22 AWG
18	132"	402-1519	INSULATED WIRE, RED, 22 AWG
17	94"	402-1520	INSULATED WIRE, ORANGE, 22 AWG
16	96"	402-1521	INSULATED WIRE, YELLOW, 22 AWG
15	86"	402-1522	INSULATED WIRE, GREEN, 22 AWG
14	148"	402-1523	INSULATED WIRE, BLUE, 22 AWG
13	48"	402-1524	INSULATED WIRE, VIOLET, 22 AWG
12	206"	402-1525	INSULATED WIRE, GRAY, 22 AWG
11	140"	402-1517	INSULATED WIRE, BLACK, 22 AWG
10	22"	402-1529	INSULATED WIRE, RED, 18 AWG
9	25	401-1261	CRIMP TERMINAL MOLEX 08-03-0303
8	8	401-1234	FEMALE PIN AMP 350665-1
7	22	401-1223	FEMALE PIN MOLEX 02-09-1116
6	4	401-1246	INSULATED OPEN LUG
5	1	401-1231	6P RECEPT MOLEX 03-09-1061
4	1	401-1233	24P RECEPT. AMP 1-350246-9
3	1	401-1232	12P RECEPT. MOLEX 03-09-1125
2	3	401-1225	3P RECEPT. MOLEX 03-09-1031
1	1	401-1247	DUAL 18P EDGE CONN. MOLEX 09-50-5185

BILL OF MATERIALS

REV. LET.	ECN NO.	REVISION	BY

TOLERANCES
Unless Otherwise Specified
FRACTIONS ± 1/32
DECIMALS 2 PL ± .015
DECIMALS 3 PL ± .005
HOLES + .003 − .001
ANGLES ± 1/2°
SHT. MET BENDS ± 2°

QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO
		1	

centuri inc HIALEAH, FLORIDA 33014

NAME: CPU HARNESS - TRACK & FIELD, U/R

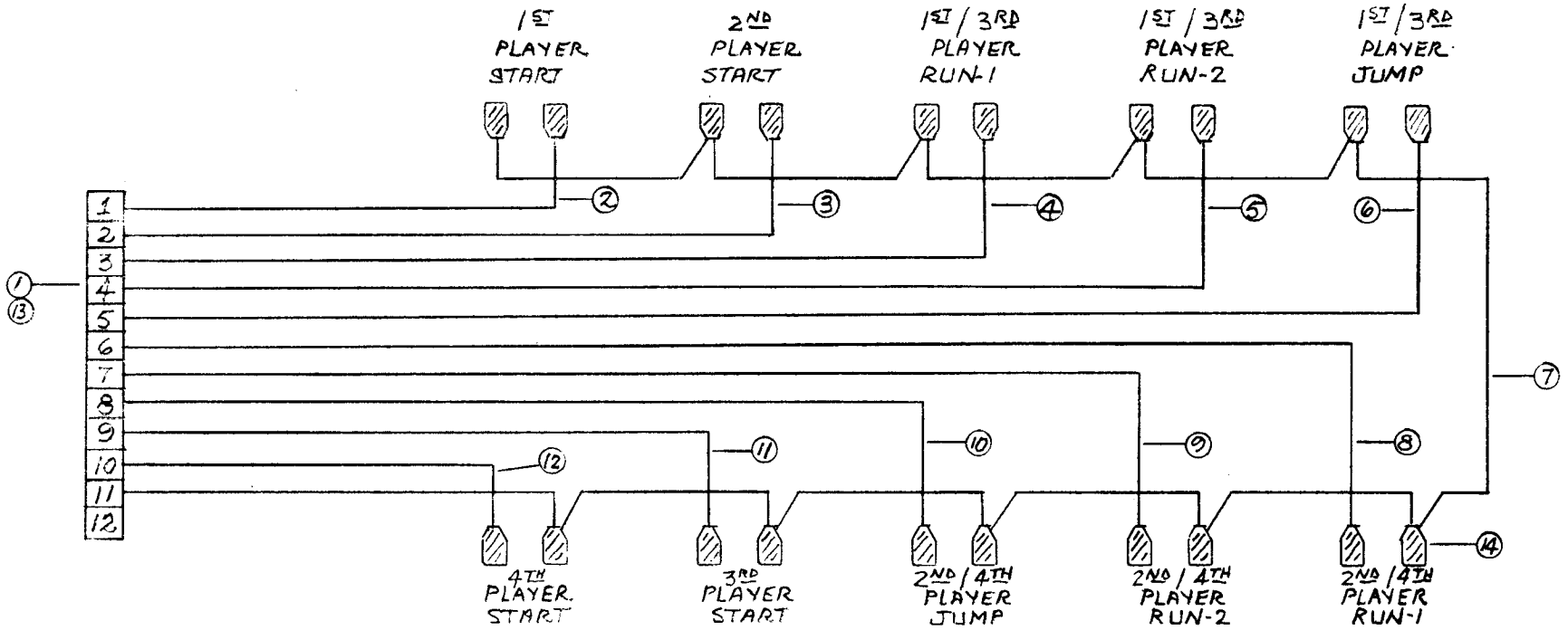
MATL'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.
MJ.		9-28-83	X	008-4913	

FIGURE 5

THE MATERIAL CONTAINED HEREIN IS CONFIDENTIAL AND NO PART OF IT CAN BE REPRODUCED WITHOUT THE EXPRESSED PERMISSION OF CENTURI, INC.

FIGURE 6



ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
8	18"	402-1521	INSULATED WIRE, YELLOW, 22AWG				
7	112"	402-1517	INSULATED WIRE, BLACK, 22AWG	15	A/R	417-1601	TY WRAPS 4"
6	27½"	402-1522	INSULATED WIRE, GREEN, 22AWG	14	20	401-1302	3/16" PUSH ON TERMINAL, ETC #995
5	25"	402-1523	INSULATED WIRE, BLUE, 22AWG	13	11	401-1222	MALE PIN, Molex, 02-09-2116
4	29"	402-1520	INSULATED WIRE, ORANGE, 22AWG	12	27"	402-1519	INSULATED WIRE, RED, 22AWG
3	23"	402-1525	INSULATED WIRE, GRAY, 22AWG	11	25"	402-1521	INSULATED WIRE, YELLOW, 22AWG
2	22"	402-1526	INSULATED WIRE, WHITE, 22AWG	10	15½"	402-1524	INSULATED WIRE, VIOLET, 22AWG
1	1	401-1230	12P Molex PLUG #03-09-2122	9	13"	402-1518	INSULATED WIRE, BROWN, 22AWG

BILL OF MATERIALS

QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO
		1	

REV. LET.	ECN NO.	REVISION	BY

TOLERANCES
Unless Otherwise Specified

FRACTIONS	±	1/32
DECIMALS 2 PL	±	.015
DECIMALS 3 PL	±	.005
HOLES	+	.003
	−	.001
ANGLES	±	1/2°
SHT. MET BENDS	±	2°

centuri inc. HIALEAH, FLORIDA 33014

NAME: CONTROL PANEL HARNESS- TRACK & FIELD, U/R

MATL'S.	HEAT TREAT.	FINISH

DWN.	APP'D.	DATE	SCALE	PART NO.	REV.
MS.		9-28-83	½	008-4914	

AF 17899A

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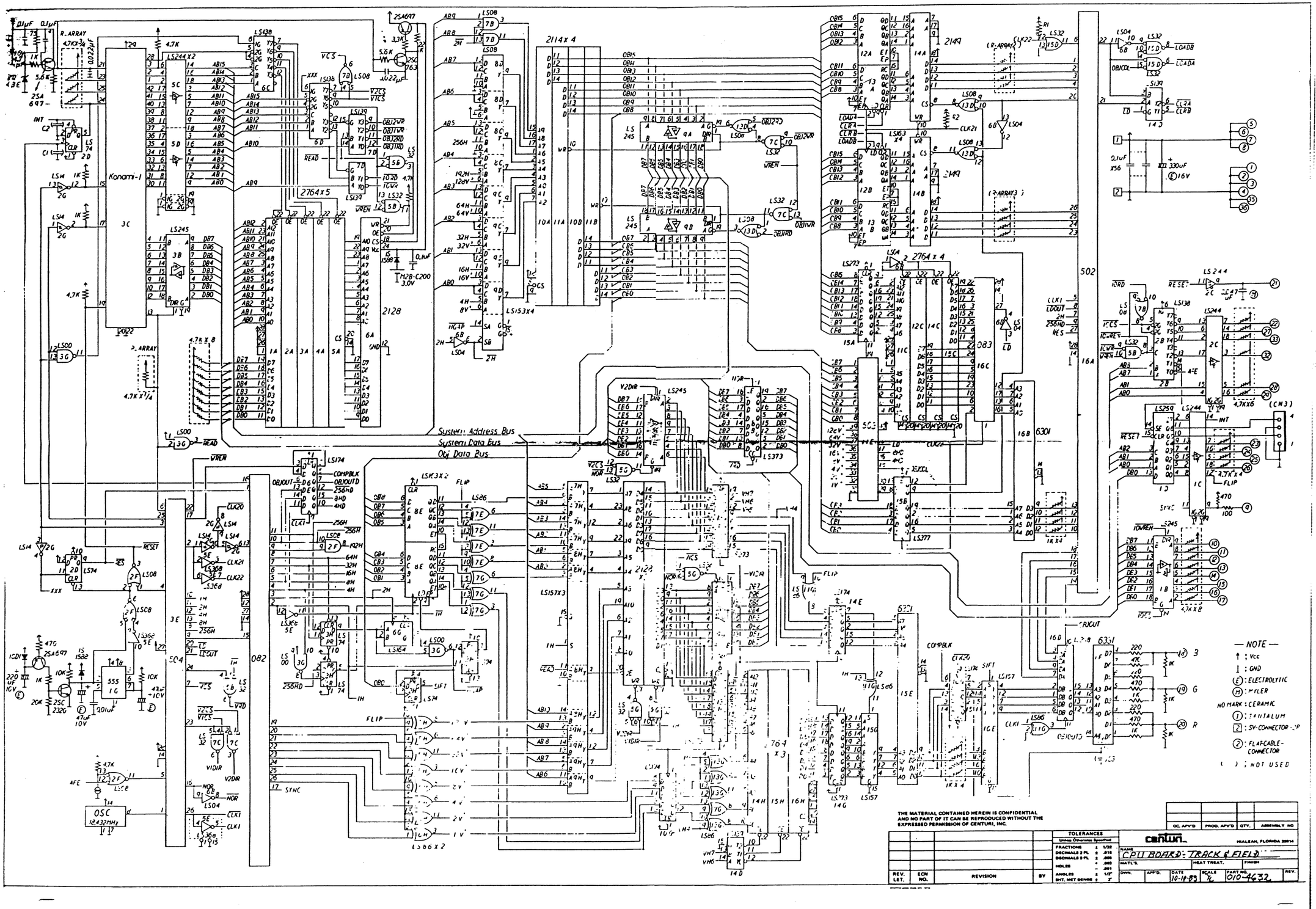
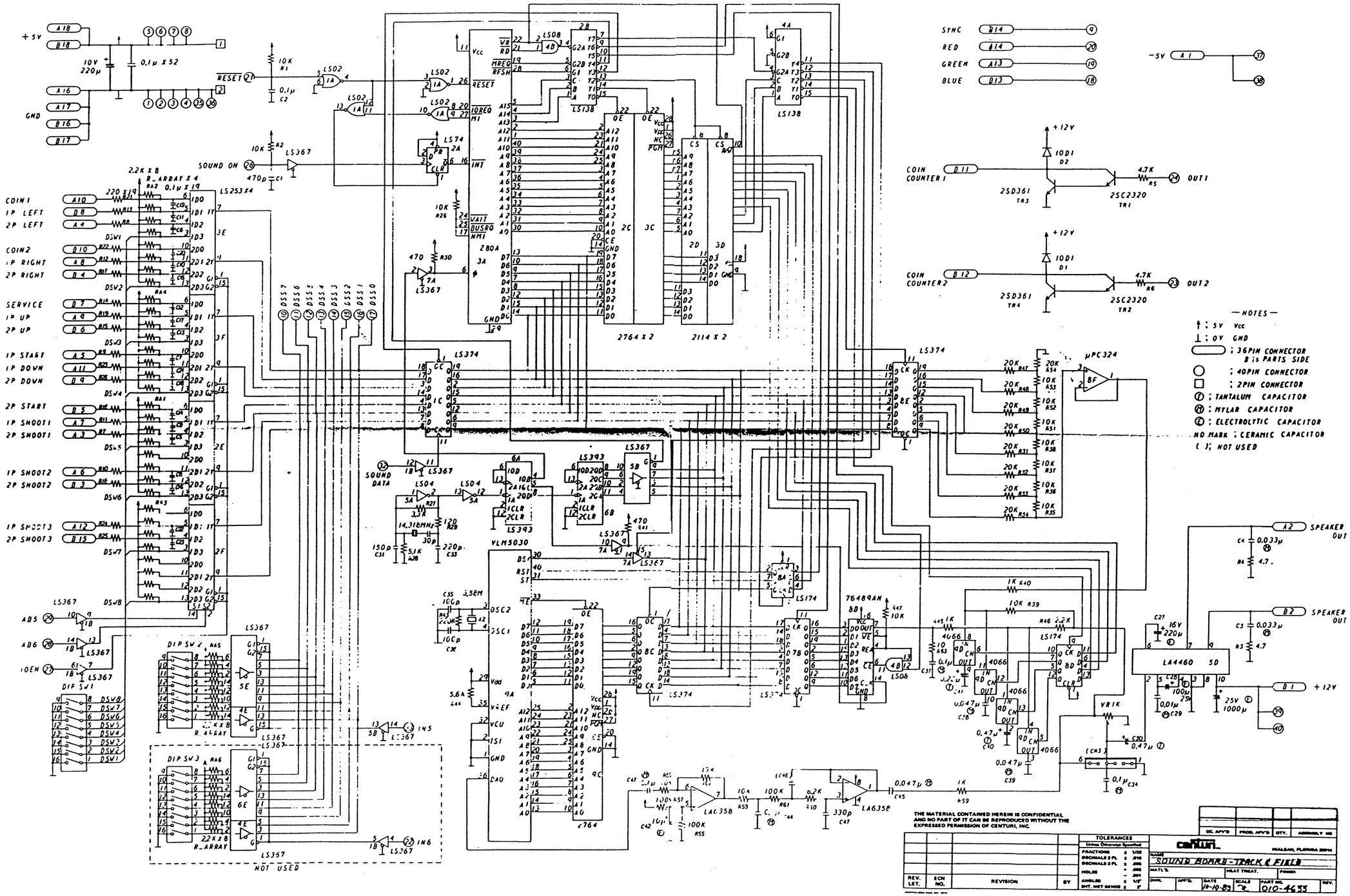

Konami-1
2114 x 4
2764 x 5
2764 x 4
2128
2149
2122
6331
6301
6321
System Address Bus
System Data Bus
Obj Data Bus
SYNC
OSC
12.432MHz
— NOTE —
↑ ; Vcc
⊥ ; GND
(E) : ELECTROLYTIC
(M) : MYLER
NO MARK : CERAMIC
(1) : TANTALUM
(2) : SV-CONNECTOR-SIP
(2) : FLAT-CABLE-CONNECTOR
( ) ; NOT USED
THE MATERIAL CONTAINED HEREIN IS CONFIDENTIAL AND NO PART OF IT CAN BE REPRODUCED WITHOUT THE EXPRESSED PERMISSION OF CENTURI, INC.
TOLERANCES
Unless Otherwise Specified
FRACTIONS ± 1/32
DECIMALS 2 PL ± .015
DECIMALS 3 PL ± .005
HOLES + .003 − .001
ANGLES ± 1/2°
SHT. MET GENGE ± 3°
REV. LET.
ECN NO.
REVISION
BY
QC. APV'D
PROD. APV'D
QTY.
ASSEMBLY NO.
centuri
HIALEAH, FLORIDA 33014
NAME
CPU BOARD: TRACK & FIELD
MATL'S
HEAT TREAT.
FINISH
DWN.
APP'D.
DATE 10-14-83
SCALE ¾
PART NO. 010-4632
REV.



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REV. LET.	ECN NO.	REVISION	BY

TOLERANCES (Unless Otherwise Specified)
FRACTIONS ± 1/32
DECIMALS 2 PL. ± .010
DECIMALS 3 PL. ± .005
HOLES ± .003
ANGLES ± 1/2°
DIST. BET. MEMBS ± 1°

centuri — MAILAND, FLORIDA 32751

QC. APV'D	PROD. APV'D	QTY.	ASSEMBLY NO.

NAME: SOUND BOARD - TRACK & FIELD
MAT'L | HEAT TREAT. | FINISH
DWN. | APP'D. | DATE 10-10-83 | SCALE | PART NO. 010-4635 | REV.