

GIMME A BREAK U.R. FIELD CONVERSION KIT SAC1 & SAC1A

Bally

SENTE™

10601 W Belmont Avenue
Franklin Park, Illinois 60131
U.S.A.

Phone: (312) 451-9200 Cable Address: MIDCO Telex No.: 72-1596

M051-00E03-A009

WARNING

THIS GAME MUST BE GROUNDED. FAILURE TO DO SO MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not 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 FCC 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.

ELECTRICAL BULLETIN: FOR ALL APPARATUS COVERED BY THE CANADIAN STANDARDS ASSOCIATION (CSA) STANDARD C22.2 NO. 1, WHICH EMPLOYS A SUPPLY CORD TERMINATED WITH A POLARIZED 2-PRONG ATTACHMENT PLUG.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR. UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

Bally™

Invites You To Use

**OUR TOLL FREE NUMBERS FOR
SERVICE INFORMATION CONCERNING THIS GAME, OR ANY
OTHER BALLY MIDWAY GAME YOU NOW HAVE ON LOCATION.**

**CALL US FOR PROMPT, COURTEOUS
ANSWERS TO YOUR PROBLEMS.**

VIDEO → Continental U.S. 1-800-323-7182

Bally™

10601 West Belmont Avenue Franklin Park, Illinois, 60131

phone (312) 451-9200

© COPYRIGHT MCMLXXXV BY BALLY MFG. CO.

ALL RIGHTS RESERVED

NO PART OF THIS PUBLICATION MAY BE REPRODUCED BY ANY MECHANICAL, PHOTOGRAPHIC, OR ELECTRONIC PROCESS, OR IN THE FORM OF A PHONOGRAPHIC RECORDING, NOR MAY IT BE TRANSMITTED, OR OTHERWISE COPIED FOR PUBLIC OR PRIVATE USE, WITHOUT PERMISSION FROM THE PUBLISHER. THIS MANUAL IS FOR SERVICE USE ONLY, AND NOT FOR GENERAL DISTRIBUTION. FOR PERMISSION REQUESTS, WRITE: BALLY MIDWAY MFG. CO., 10601 W. BELMONT AVE., FRANKLIN PARK, IL 60131

Printed in U.S.A.

WARNING

The parts contained in this field conversion kit must be installed without deviation from the instructions contained in this manual and kit. Failure to follow these instructions in every detail may result in the creation of illegal interference to radio and TV reception.

Bally Midway Mfg. Co. has verified that this field conversion kit, when installed in the game(s) specified in this manual, complies with the requirements in Part 15 of the FCC rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception, requiring the operator to take whatever steps are necessary to correct the interference.

BALLY MIDWAY Mfg. Co. will not be responsible for incomplete or improper conversions, or installation in a game for which this field conversion kit is not intended. If this field conversion kit is installed in a game that is not specified in this manual or in a previously converted game, the operator is required to take whatever steps are necessary to insure compliance with the requirements in Part 15, Subpart J, of the FCC Rules for a Class A computing device.

SPECIAL NOTE:

DO NOT DISCARD ANY OF THE PARTS YOU REMOVE
WHEN MAKING THE MODIFICATIONS EXPLAINED IN
THIS MANUAL.

THEY WILL BE RE-USED IN FUTURE CONVERSION KIT!

**GINME A BREAK U.R. KIT CONVERSION PROCEDURE
FOR SAC 1A OR SAC 1**

To Change Attract (Header) Art

1. Remove bolts holding in Attract Retainer located at top front of cabinet. Remove Attract Retainer.
2. Slide Attract Glass up and out of cabinet.
3. Remove old Attract Art and replace with new Attract Art.
4. Slide Attract Glass containing new art back into cabinet.
5. Replace and secure Attract Retainer.
6. Clean front of Attract Glass.

To Change Control Panel Insert Assembly (SAC 1A or SAC 1)

1. Power off SAC 1A (SAC 1) unit using switch on top of cabinet toward the back.
2. Unlock Coin Mech door and reach through to unlatch large front door from inside cabinet.
3. Unlatch two (2) clamps locating inside the cabinet at each end of Control Panel.
4. Disconnect the Control Panel Insert Assembly harness from the main harness of SAC 1A (SAC 1) unit.
5. **SAC 1A Unit:** Swing out Control Panel on its hinge.
SAC 1 Unit: Lift Control Panel up, slide to right and pull down to remove. Carefully pull Control Panel harness wiring out of opening at rear of Control Panel tray.
6. Remove bolts and nuts securing the old Control Panel Insert Assembly to the Control Panel. Remove old Insert Assembly.
7. Install new Control Panel Insert Assembly by reversing this procedure.
8. Power on SAC 1A (SAC 1) unit using switch at rear of cabinet.
9. Play game to check if all switches and controls are working properly.

To Change Game Cartridge

1. Power off SAC 1A (SAC 1) unit using switch on top of cabinet toward the back.
2. Unlock Coin Mech door and reach through to unlatch large front door from inside cabinet.
3. Find Game Cartridge On/Off Switch located at bottom front right of Electronic Chassis just inside large front door (this switch may be used to power unit on and off in place of switch at rear of cabinet).
4. Turn Game Cartridge On/Off Switch off to permit Game Cartridge to slide out of Electronic Chassis.
5. Slide old Game Cartridge out of chassis.
6. Slide new Game Cartridge between runners to plug into the Main PC Board. Be sure Game Cartridge is securely plugged in. ROMs on the Game Cartridge should be facing to the left as you look into the cabinet.
7. Turn Game Cartridge On/Off Switch back on (this also locks cartridge into place).
8. Check game option switch settings.
9. Close and latch large front door.
10. Close and lock Coin Mech door.
11. Power on SAC 1A (SAC 1) unit using switch at rear of cabinet.
12. Play game to test if unit is working properly.

BE SURE TO SAVE GAME CARTRIDGE, CONTROL PANEL INSERT, AND ATTRACT (HEADER FOR REUSE).

**LIST OF MAJOR PARTS
INCLUDED IN YOUR FIELD CONVERSION KIT
FOR GIMME A BREAK U.R.**

<u>PART NO.</u>	<u>DESCRIPTION</u>
A084-91798-AE03	PROGRAMMED CARTRIDGE: GIMME A BREAK
M051-00E03-A009	CONVERSION KIT INSTRUCTIONS
0E03-00900-0000	UNDERLAY - ATTRACT HEADER
AE03-00004-0000	CONTROL PANEL INSERT ASSEMBLY

**LIST OF MAJOR PARTS
INCLUDED IN YOUR FIELD CONVERSION KIT
FOR GIMME A BREAK U.R.**

<u>PART NO.</u>	<u>DESCRIPTION</u>
A084-91798-AE03	PROGRAMMED CARTRIDGE: GIMME A BREAK
M051-00E03-A009	CONVERSION KIT INSTRUCTIONS
0E03-00900-0000	UNDERLAY - ATTRACT HEADER
AE03-00004-0000	CONTROL PANEL INSERT ASSEMBLY

GIMME A BREAK - GAME REVIEW

Note: Refer to Diagnostics and Statistics section, item number (3) and (4) when first installing GIMME A BREAK on a SAC 1 or SAC 1A game frame.

THE GAME

One player - Straight Pool

The object is to sink as many balls as possible. The player starts with a switch-selectable number of shots. When all shots are used up, the game is over. A shot is used up when the player shoots and does not sink an object ball or if he scratches (pockets the cueball). When the player sinks a switch-selectable number of balls, an extra turn is awarded. Extra turns can also be won in the between round trick-shot.

Two player - Eight-Ball

The object is to be the first to sink all of the player's assigned balls (solids or stripes) and then the 8-Ball without scratching. Solids or stripes are assigned on the first shot sinking an object ball. The player making the shot is assigned the type of ball sunk in the largest number. The assignment is random in the case of an equal number of solids and stripes sunk. All shots are legal. Each player has a switch-selectable number of shots to complete the game. The winner of the game is then given a chance to try a trick-shot, which, if made, awards one more rack of 8-Ball and a full set of shots to complete it. If the shots are exhausted before a player wins, a winner is declared depending on who had the fewest number of his assigned object balls left, and no trick-shot attempt is awarded.

THE CONTROLS

The trackball: Is used to position the cueball at the beginning of a rack and after a scratch, to determine the initial direction and speed of the cueball, and to impart "English" to the cueball as soon as it starts rolling (the longer the cueball has been rolling the less the English affects the cueball).

The button: places the cueball after a scratch, cancels the demonstration of trick-shots, and cancels slow motion instant replays. The lighted button flashes when it is activated for player usage.

FEATURES

Trick-shots: The player gets to try a trick-shot after each rack. One of eight trick-shots is chosen at random and will not repeat in a given game until all eight trick-shots have been attempted. An unsuccessful trick-shot attempt leads to an automatic demonstration of a way it can be done. The demonstration can be stopped with the button.

Instant replays: If a player sinks three or more balls on any shot, a slow-motion instant replay of the shot is shown to the player. The button stops a replay to allow play to continue.

DIAGNOSTICS AND STATISTICS

A number of diagnostics and statistics are built into the GIMME A BREAK cartridge. They are accessed at any time by flipping the test switch (to the left of the cartridge on upright cabinets, just inside the coin door on cocktail cabinets). The test can be reset at anytime to return to normal game play mode.

1. A RAM, ROM and SOUND BOARD test are executed. If all is not reported "OK", contact your Bally Sente service center. Press the two-player start button to continue.
2. An Input/output test is executed next. The trackball should alter the readings for ANO-AN3 and the button should cause "SW33" to appear. (On a cocktail cabinet, player one's controls are AN4-7 and SW23; player two is ANO-3 and SW33.) The two rows of ones and zeros are the current setting of UIH and UIG option switches. See (3) and attached option switch guide. The button lamps and the cocktail monitor flip switch are cycled on and off during the test. Press the two-player start button to continue.
3. The current option settings are displayed next. The values displayed Instantaneously change when the switches at UIH and UIG of the SAC 1 computer board are changed. See attached option switch guide for a full list of option settings. Be sure that the cocktail/upright cabinet switch is in the correct position for the type of cabinet in which the cartridge is being installed. Pressing start 1 in this mode causes the high score table to be reset. Be sure to do this when first installing GIMME A BREAK. Press two-player start to continue.
4. Game time statistics are now displayed. Pressing the one player start button twice resets all the statistics. Be sure to do this when first installing GIMME A BREAK. Game time stats include number of plays, the average game time, the maximum game time and a distribution plot of game times. Adjust option settings for harder or easier to decrease or increase game times. 8-ball game times are recorded as follows: If one player per credit option is set, then each player's game time is recorded individually (i.e. two entries); If one or two players per credit is selected, one entry is made of the total (combined) game time of both players. Press two-player start to continue.
5. Game level stats are displayed next. Total plays, number of 8-ball plays, maximum level and a level distribution plot are displayed. The level is the number of racks played during a one-player game. 8-ball plays are not recorded in the level distribution plot. Press two-player start to continue.
6. Game score statistics are displayed next. Again, 8-ball games are not included in the scores distribution plot.

Flip test switch back to return to normal game operation.

GIMME A BREAK

OPTION SWITCH SETTINGS - DIP SWITCH "G1"

//////////////////////////////////// BONUS AT NUMBER OF BALLS SUNK //////////////////////////////////////

	<u>SW#1</u>	<u>SW#2</u>	<u>SW#3</u>	<u>SW#4</u>	<u>SW#5</u>	<u>SW#6</u>	<u>SW#7</u>	<u>SW#8</u>
AT 12 BALLS	OFF	OFF						
AT 10 BALLS	ON	OFF						
AT 8 BALLS	*OFF	ON						
AT 6 BALLS	ON	ON						

//////////////////////////////////// NUMBER OF INITIAL SHOTS //////////////////////////////////////

14 SHOTS	OFF	OFF
12 SHOTS	* ON	OFF
10 SHOTS	OFF	ON
8 SHOTS	ON	ON

//////////////////////////////////// PLAYERS PER CREDIT //////////////////////////////////////

1 OR 2 PLAYERS/CREDIT	OFF
1 PLAYER/CREDIT	*ON

//////////////////////////////////// UPRIGHT/COCKTAIL SELECT //////////////////////////////////////

UPRIGHT CABINET	*OFF
COCKTAIL CABINET	ON

//////////////////////////////////// HIGH SCORE MODE SELECT //////////////////////////////////////

KEEP 5 HIGH SCORES	*OFF
KEEP ALL HIGH SCORES	ON

//////////////////////////////////// ATTRACT SOUNDS //////////////////////////////////////

NO ATTRACT SOUNDS	OFF
ATTRACT SOUNDS	* ON

* INDICATED FACTORY RECOMMENDED SETTINGS	PART NO. M051-00E03-A007
--	--------------------------

GIMME A BREAK

OPTION SWITCH SETTINGS - DIP SWITCH "H1"

////////////////////////////////////// COINS PER CREDIT //

VARIOUS CREDIT OPTIONS

FREE PLAY
 1 COIN / 1 CREDIT
 1 COIN / 2 CREDITS
 2 COINS / 1 CREDIT

SW#1	SW#2	SW#3	SW#4	SW#5	SW#6	SW#7	SW#8
ON	ON						
*OFF	ON						
ON	OFF						
OFF	OFF						

////////////////////////////////////// COINS ADD BONUS COINS //

NO BONUS COINS
 2 COINS ADDS 1 BONUS COIN
 3 COINS ADDS 1 BONUS COIN
 4 COINS ADDS 1 BONUS COIN
 4 COINS ADDS 2 BONUS COINS
 5 COINS ADDS 1 BONUS COIN
 5 COINS ADDS 2 BONUS COINS
 5 COINS ADDS 3 BONUS COINS

*ON	ON	ON
OFF	ON	ON
ON	OFF	ON
OFF	OFF	ON
ON	ON	OFF
OFF	ON	OFF
ON	OFF	OFF
OFF	OFF	OFF

////////////////////////////////////// COIN MECH MULTIPLIER //

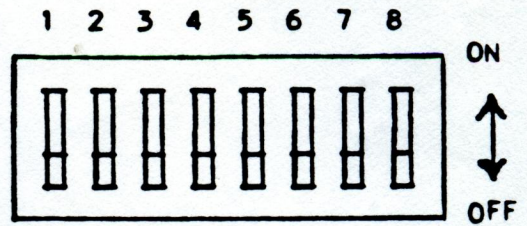
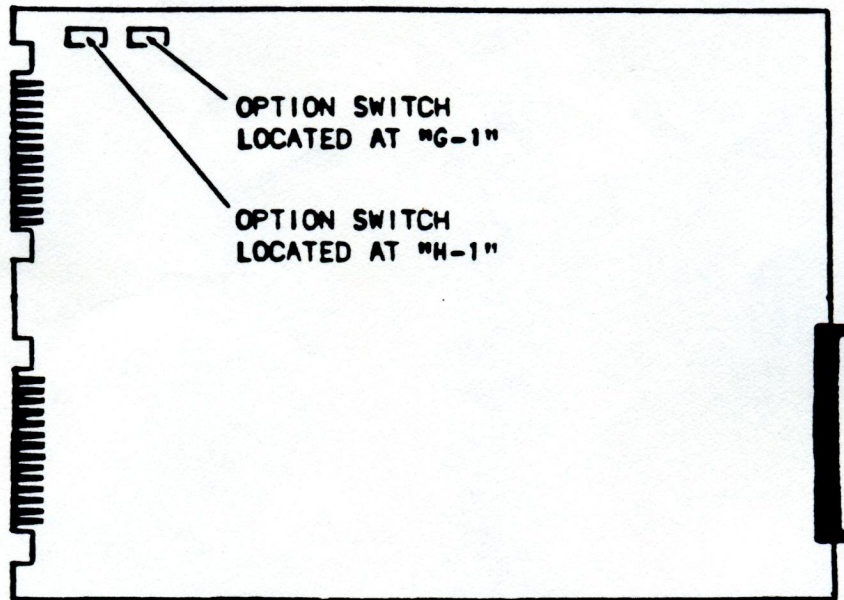
LEFT COIN MECH X 1
 LEFT COIN MECH X 2
 RIGHT COIN MECH X 1
 RIGHT COIN MECH X 4
 RIGHT COIN MECH X 5
 RIGHT COIN MECH X 6

* ON		
OFF		
* ON	ON	ON
OFF	ON	ON
ON	OFF	OFF
OFF	OFF	OFF

* INDICATED FACTORY RECOMMENDED SETTINGS

PART NO. M051-00E03-A007

C. P. U. BOARD REFERENCE DRAWING



GAME: GIMME A BREAK
SUBJECT: CONTROL PANEL WIRE SEQUENCE

P16 CONNECTOR
PIN NUMBERS

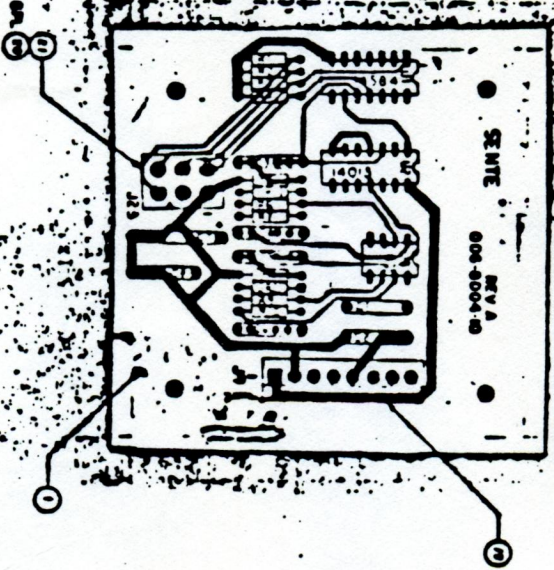
FUNCTION

2	Ground (Switches)
3	
4	
5	+12VDC Position Cueball Lamp
6	
7	1 Player Start (Straight Pool)
8	2 Player Start (Eight Ball)
9	
10	Position Cueball Switch
11	Player 1 LED
12	Player 2 LED

P20

1	+5VDC (Led's)
2	Ground (Trackball PC)
3	-12VDC
4	Trackball PC (AN0)
5	+12VDC
6	Trackball PC (AN1)
7	Trackball PC (AN2)
8	Trackball PC (AN3)
9	
10	
11	
12	
13	
14	Position Cueball Lamp
15	

NOTE - Wire colors are not shown because they may vary from panel to panel. Resistors to each LED are 150 ohms 1/4 watt.

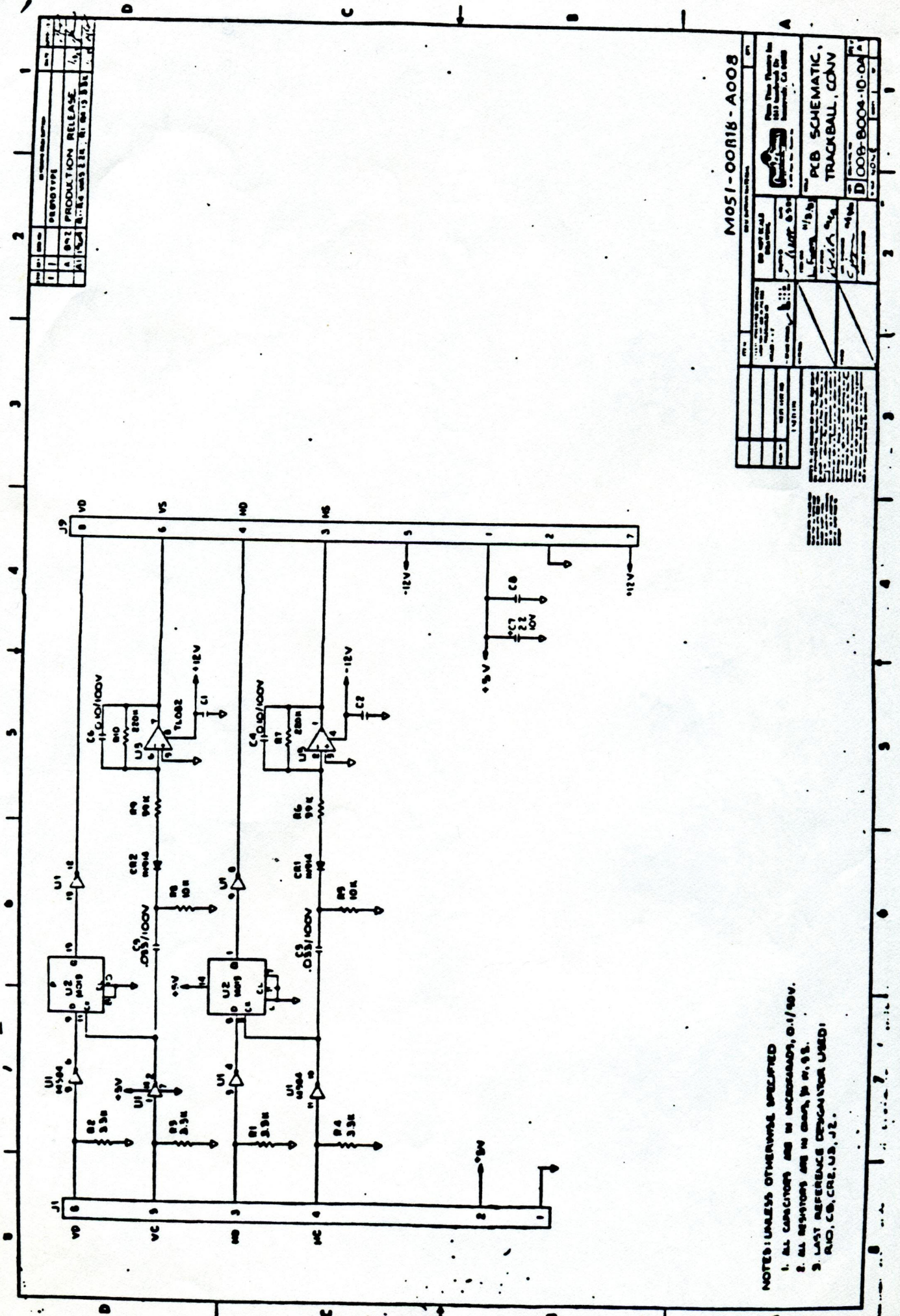


REV	DATE	DESCRIPTION	BY	CHKD
1		PROTOTYPE RELEASE		
2		PRODUCTION RELEASE		
3		REWORKED 19 534		

MOSI - OORIG - A007

REV	DATE	DESCRIPTION	BY	CHKD
1		PCB ASSEMBLY, TRACKBALL CONVERTER		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

REV	DATE	BY	DESCRIPTION
1			DESIGN
2			PRODUCTION RELEASE



M051-00R18-A008

PCB SCHEMATIC, TRACKBALL, CONV

009-8004-10-04

- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL CAPACITORS ARE IN MICROFARADS, 0.1/100V.
 2. ALL RESISTORS ARE IN OHMS, IN K, OR Ω.
 3. LAST REFERENCE DESIGNATOR USED: R10, C6, CR2, U3, J2.