



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



December 19, 1983

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: RCA VIDEO DISC PLAYER SHUT DOWN PROCEDURE

When removing the disc from the RCA Video Disc Player, the disc door must be closed. The following sequence will close the disc door and prevent dust contamination.

- 1) Turn main power off.
- 2) Disconnect J3 from the IPU Board. (This unleashes the player from the logic.)
- 3) Turn main power on.
- 4) Press "Reject" - Located on front label of player.
- 5) Insert disc cover when display reads "U L" - Indicating unload.
- 6) After disc has been removed, turn power switch off (located on front panel of player) and wait momentarily until door closes.
- 7) Turn main power off.
- 8) Replace J3 on IPU Board.

The player should NOT be allowed to sit idle with the door open for long periods of time.

Andy Ducay
Technical Service Manager

AD/dd



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



December 19, 1983

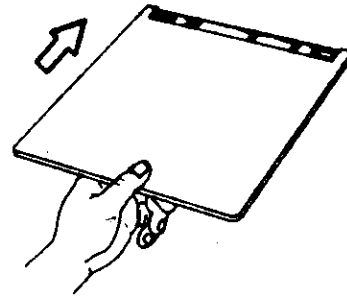
S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

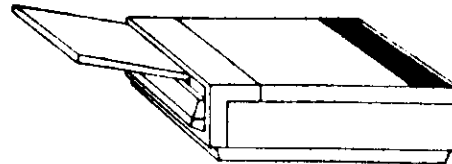
SUBJECT: RCA DISC PLAYER

TO OPERATE DISC PLAYER

- ① THE VIDEO DISC COMES IN A SLEEVE WHICH IS MOUNTED ON TOP OF THE PLAYER. LOOSEN TWO (2) WING NUTS TO REMOVE IT.
- ② Push Power Button to turn Player "On." The indicator will flash on the Player's Digital Display
- ③ Insert notched edge of disc sleeve into Player slot at a slight angle as illustrated. Push the disc sleeve forward until you feel the Player mechanism pull the disc sleeve into the slot. The Player automatically loads the disc and returns the empty sleeve.
- ④ Remove the sleeve from the Player to start disc play.
- ⑤ DO NOT DISCARD SLEEVE! DISC CANNOT BE REMOVED WITHOUT IT
- ⑥ TO REMOVE DISC, TURN POWER OFF. REMOVE JACK J3 ON I.P.U. CARD. TURN POWER ON. PRESS 'REJECT.' DISC WILL RETURN TO THE UNLOAD POSITION
- ⑦ To remove the disc from the Player refer to steps 3 and 4.



Always insert notched edge of sleeve into VideoDisc Player at a slight angle.



- ⑧ TO USE OPPOSITE SIDE OF DISC OR NEW DISC—REINSERT DISC AS IN STEPS 3 AND 4. TURN POWER OFF. PLUG IN J3. TURN POWER ON. GAME WILL OPERATE NORMALLY.
- ⑨ Don't attempt to open disc sleeve. Don't transport Player with disc inside.

Andy Ducay
Technical Service Manager

AD/dd

Bally

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



December 19, 1983

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL



SUBJECT: RCA DISC PLAYER - SHIPPING TABS

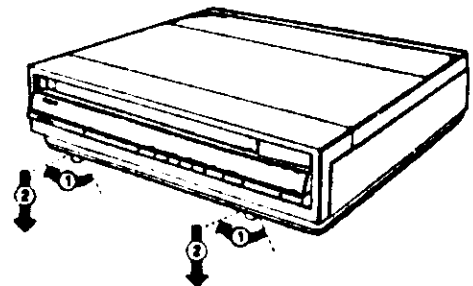
TO OPERATE DISC PLAYER

— REMOVE SHIPPING TABS FIRST —

CAUTION

Shipping Tabs must be removed from the VideoDisc Player before you operate the unit. Locate the Shipping Tabs by referring to the drawing below.

-  1 Rotate Tabs in the direction of the arrow until the rounded edge is facing toward the front of the Player.
-  2 Pull down on the Shipping Tabs and remove them from the Player.



SAVE THE SHIPPING TABS—THEY MUST BE REINSTALLED WHENEVER THE PLAYER IS TRANSPORTED.

Andy Ducay
Technical Service Manager

AD/dd

midway

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 454-9200



December 20, 1983

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: BREAK - IN PERIOD AND DISC CLEANING

BREAK - IN PERIOD

A certain amount of skipping may be noticed in the first hours of use. This is normal and will not effect the play of the game. As the game is played, this condition will subside.

DISC CLEANING INSTRUCTIONS

Your new CED VideoDisc and VideoDisc Player may require periodic cleaning. This is evident when excessive skipping is observed after the initial break-in period. The following instructions will help in minimizing this condition.

1. Unloading and reloading the disc into the videodisc player cleans both the disc and stylus in the player. In most cases this will correct the problem.
2. If the above does not correct the excessive skipping, you may flip the disc over. The same material has been encoded onto both sides of the videodisc.

Andy Ducay
Technical Service Manager

AD/dd

Bally

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



December 21, 1983

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: CREDIT AND SELF-TEST SWITCH

1. The red credit button and self-test switch will not be used presently.
2. The Rom Ram and switch test is not available.
3. The self-test switch must be in the UP position for proper coin credits.

Andy Ducay
Technical Service Manager

AD/dd



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



December 21, 1983

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: DIP SWITCHES (Switch No. 1 at B3)

N F L

O P T I O N S W I T C H S E T T I N G S

//////////SWITCH NO. 1 - AT B 3 - LOCATED ON SOUND I/O P.C. BOARD//////////

	SW#1	SW#2	SW#3	SW#4	SW#5	SW#6	SW#7	SW#8	SW#9	SW#10
** GAME PLAY:										
2 MINUTE GAME	ON	ON				NOT USED	NOT USED	NOT USED	NOT USED	
3 MINUTE GAME	OFF	ON								
4 MINUTE GAME	ON	OFF								
5 MINUTE GAME	OFF	OFF								
** 50¢ GAME			ON							
25¢ GAME			OFF							
** ATTRACTION SOUNDS OFF				ON						
ATTRACTION SOUNDS ON				OFF						
** DISPLAY (TIME) OFF					ON					
DISPLAY (TIME) ON					OFF					
** FREEZE VIDEO										ON
NORMAL OPERATION										OFF

//////////SWITCH NO. 3 - AT D 14 - LOCATED ON SOUND I/O P.C. BOARD IS NOT USED//////////

** FACTORY RECOMMENDED SETTINGS.	PART NO. M051-00A34-A007
----------------------------------	--------------------------

Andy Ducay
Technical Service Manager

AD/dd



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



January 5, 1984

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

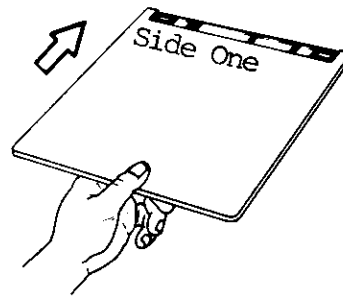
SUBJECT: RCA VIDEODISC PLAYER

RE: REVISED SERVICE BULLETIN DATED DECEMBER 19, 1983
CONCERNING RCA VIDEODISC PLAYER

TO OPERATE DISC PLAYER

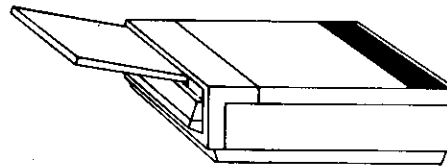
*** NOTE ***

- 1 THE VIDEO DISC COMES IN A SLEEVE WHICH IS MOUNTED ON TOP OF THE PLAYER. LOOSEN TWO (2) WING NUTS TO REMOVE IT.
- 2 Push Power Button to turn Player "On." The indicator will flash on the Player's Digital Display
- 3 Insert notched edge of disc sleeve into Player slot at a slight angle as illustrated. Push the disc sleeve forward until you feel the Player mechanism pull the disc sleeve into the slot. The Player automatically loads the disc and returns the empty sleeve.
- 4 Remove the sleeve from the Player to start disc play.
- 5 DO NOT DISCARD SLEEVE! DISC CANNOT BE REMOVED WITHOUT IT
- 6 TO REMOVE DISC, TURN POWER OFF REMOVE JACK J3 ON I.P.U. CARD. TURN POWER ON. PRESS 'REJECT' DISC WILL RETURN TO THE UNLOAD POSITION
- 7 To remove the disc from the Player refer to steps 3 and 4.



Insert Side One when game is new. See Service Bulletin dated January 6, 1984

Always insert notched edge of sleeve into VideoDisc Player at a slight angle.



- 8 TO USE OPPOSITE SIDE OF DISC OR NEW DISC—REINSERT DISC AS IN STEPS 3 AND 4. TURN POWER OFF PLUG IN J3, TURN POWER ON. GAME WILL OPERATE NORMALLY.
- 9 Don't attempt to open disc sleeve. Don't transport Player with disc inside.

Andy Ducay
Technical Service Manager

AD/dd



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



January 6, 1984

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: RCA VIDEODISC SKIPPING

1. Side one of your VideoDisc is completely played through several times at Bally Midway to remove excessive oil. (Factory break-in)
2. Always use side one of your VideoDisc when inserting into a VideoDisc player in a new game to minimize skipping.
3. When additional cleaning is needed, unloading and loading the VideoDisc several times into the player cleans both the disc and stylus.
4. When side one is defective, use side two and repeat steps one and three.
5. In the field, step one can be done by starting the game and removing connector J-3 on the IPU Board. The VideoDisc player will now play completely through. (No video will appear on screen.)

Andy Ducay
Technical Service Manager

AD/dd

Bally

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



January 16, 1984

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: VERTICAL ROLL CONDITION WHEN ADDING DISPLAY
MONITOR (Slave Monitor on Top of Game)

MODIFICATION

1. Check for proper wiring on monitor interface cable.
2. Change IPU Board IC's at location 11D, 12C and 12D from 14016 to 4066. (A080-91695-AA34)
3. If needed, adjust vertical rolling with vertical roll pot.

Andy Ducay
Technical Service Manager

AD/dd

Bally

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



January 17, 1984

S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL

SUBJECT: NFL PROGRAM UPDATE KIT

1. Due to further enhancements in the "NFL Football" program code, this update kit has been developed and will be offered to the operators at no cost. The operators should be notified to contact their distributors to receive the kit. It is easily installed and will correct the code errors found in the current edition. These corrections are listed on the following page.
2. All games shipped from the factory before January 15th will need the enhancement kit.
3. The kit will include six (6) PROMS and installation instructions.
4. Advise operators to follow the installation instructions. This is important!

Andy Ducay
Technical Service Manager

AD/dd

Usally

MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



N F L F O O T B A L L

- 1.) A highly accurate code for storing credits has been implemented thus eliminating the current "free credit" problem.
- 2.) A credit limit has been added, allowing no more than 20 credits to be stored.
- 3.) The service credit switch located inside the coin door is now functional. (Activating this switch will add credits without incrementing the coin counter.)
- 4.) Attractive "on screen" graphics have been added to direct players to their respective controls, ie. "You Are The Chargers On Offense."
- 5.) The "One Player" game mode has been enhanced to allow the player to play a greater variety of combinations. What this will mean to the player is a more challenging play action game. Although always starting the game on offense, he can now lose the ball to the opposing team. In addition, he will be playing either for the Raiders or the Chargers depending on a random selection at the start of a game.
- 6.) The "Two Player" game mode has been enhanced in respect to the variety of plays seen by both players. This change provides a random starting position for each player rather than the current fixed team placement. For example, the left side controls may start as the Chargers On Offense, the Chargers On Defense, the Raiders On Offense, or the Raiders On Defense. The same applies for the right side controls.
- 7.) During the manufacturing process of the disc, it is lubricated with a very fine oil. This is done to reduce wear and extend the overall life of the disc and stylus. During this process, a build-up of oil may form in some areas of the disc. As a result, you may occasionally witness the stylus skipping over the disc during play. As the game is played, this condition will subside. Due to changes #4 and #5, more of the disc is being used during normal play and these changes will shorten the break-in time considerably.
- 8.) The "Coin Toss" has been removed and replaced with a computer generated graphic display dictating who gets the ball. Since the disc will be searching during this screen, it will greatly reduce the search time once the game begins.



MIDWAY MFG. CO.

10601 W. Belmont Avenue
Franklin Park, Illinois 60131
Telephone (312) 451-9200



January 18, 1984

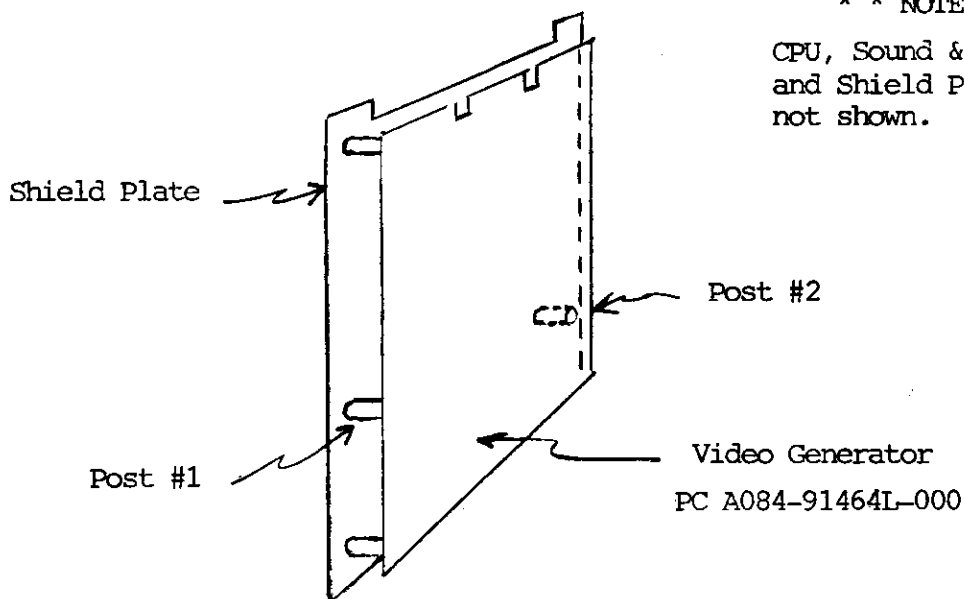
S E R V I C E B U L L E T I N

GAME: NFL FOOTBALL AND TAPPER (EARLIER GAMES)

SUBJECT: POSSIBLE LOGIC BOARD +5VDC SHORT CONDITION

1. Check for +5VDC short condition caused by the shield plate post (two) touching the +5VDC trace on the solder side of the Video Generator Board (A084-91464L-000).
2. Add an insulating washer between Post 1 and 2 on solder side of Video Generator Board. (See Figure #1 for locations.)

Figure #1



Andy Ducay
Technical Service Manager

AD/dd

NFL FOOTBALL UPDATE KIT

Due to further enhancements in the "NFL Football" program code, this update kit has been developed and will be offered to the operators at no cost. The operators should be notified to contact their distributors to receive the kit. It is easily installed and will correct the code errors found in the current edition. These corrections are listed below.

- 1.) A highly accurate code for storing credits has been implemented thus eliminating the current "free credit" problem.
- 2.) A credit limit has been added, allowing no more than 20 credits to be stored.
- 3.) The service credit switch located inside the coin door is now functional. (Activating this switch will add credits without incrementing the coin counter.)
- 4.) Attractive "on screen" graphics have been added to direct players to their respective controls, ie. "You Are The Chargers On Offense."
- 5.) The "One Player" game mode has been enhanced to allow the player to play a greater variety of combinations. What this will mean to the player is a more challenging play action game. Although always starting the game on offense, he can now lose the ball to the opposing team. In addition, he will be playing either for the Raiders or the Chargers depending on a random selection at the start of a game.
- 6.) The "Two Player" game mode has been enhanced in respect to the variety of plays seen by both players. This change provides a random starting position for each player rather than the current fixed team placement. For example, the left side controls may start as the Chargers On Offense, the Chargers On Defense, the Raiders On Offense, or the Raiders On Defense. The same applies for the right side controls.
- 7.) During the manufacturing process of the disc, it is lubricated with a very fine oil. This is done to reduce wear and extend the overall life of the disc and stylus. During this process, a build-up of oil may form in some areas of the disc. As a result, you may occasionally witness the stylus skipping over the disc during play. As the game is played, this condition will subside. Due to changes #4 and #5, more of the disc is being used during normal play and these changes will shorten the break-in time considerably.
- 8.) The "Coin Toss" has been removed and replaced with a computer generated graphic display dictating who gets the ball. Since the disc will be searching during this screen, it will greatly reduce the search time once the game begins.
- 9.) A modification has been made to increment the coin counter 4 times for each dollar bill accepted.

A T T E N T I O N

The E-Proms enclosed in this box are for updating your NFL Football games from the old program to the new program. Please follow the enclosed instructions carefully for ease of installation. Due to E-Prom timing problems DO NOT attempt to program your own.

A L S O P L E A S E N O T E

The sets of E-Proms you are now receiving contain 6 Proms. The sets of E-Proms in your game contain 5 Proms. You are being charged for 6 E-Proms and will be credited for 6 upon receipt of your sets of five. To insure full credit all E-Proms must be taken directly out of your NFL Football games and must be received in good condition. Any damaged Proms will be charged for accordingly.