

Bally

MIDWAY MFG. CO.

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



October 11, 1983

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

GAME: ASTRON BELT

SUBJECT: ASTRON BELT LASER DISC

1. The laser disc has been programmed on both sides.
2. When, if ever, the top side is damaged, the disc can be flipped over and played.

Andy Ducay
Technical Service Manager

AD/dd

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

GAME: ASTRON BELT

SUBJECT: LASER DISC & FILTER CLEANING

1. Make sure the disc is clean and free from dirt.
2. Recommended cleaning is about every two weeks using windex or soapy water. Make sure the disc is wiped clean.
3. Also, to prevent an overheating condition, the fan filter must be vacuumed every two weeks for proper air circulation.

Andy Ducay
Technical Service Manager

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October 17, 1983

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

GAME: ASTRON BELT

SUBJECT: SELF DIAGNOSTIC TEST

1. The diagnostic test can be advanced to the next test by pressing the start button for a reasonable period of time.
2. When you advance from the input test (switch test) to the next test the start button must be held in for a longer period.
3. After the last diagnostic test, the game will return to the attract mode automatically in approximately 30 seconds.

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October 17, 1983

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

GAME: ASTRON BELT

SUBJECT: LASER DISC

1. When the game is inoperative for a long period, remove the laser disc and store it in a vertical position.
2. Storing it in this manner will prevent a warping condition.

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October 19, 1983

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

GAME: ASTRON BELT

SUBJECT: BACK DOOR KEY

1. To prevent theft of the laser disc player, all back doors will be keyed with a special Illinois Lock, Key #350.

Andy Ducay
Technical Service Manager

AD/dd

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October 26, 1983

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

GAME: ASTRON BELT

SUBJECT: LASER DISC PLAYER SHIPPING SCREW

1. For proper operation of laser disc player, be sure to loosen the shipping screw five (5) or more turns.
2. Remove lens cap and store.
3. Always read and follow all label instructions.

Andy Ducay
Technical Service Manager

AD/dd

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October 27, 1983

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

GAME: ASTRON BELT

SUBJECT: IC-1 BAD IN SELF TEST

1. IC-1 (5473B) has been newly added to your game's EPROM PC Board.
2. This can cause a properly functioning game to give a false error message in the self test mode.
3. As long as your game is functioning properly, disregard this message.

Andy Ducay
Technical Service Manager

AD/dd

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November 1, 1983

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

GAME: ASTRON BELT

SUBJECT: BACK DOOR KEY (As of Serial No. #400)

1. To prevent theft of the laser disc player, all back doors will be keyed individually.
2. At a later date, all Bally Midway video games will be keyed with an individual back door key.

Andy Ducay
Technical Service Manager

AD/dd



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November 4, 1983

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

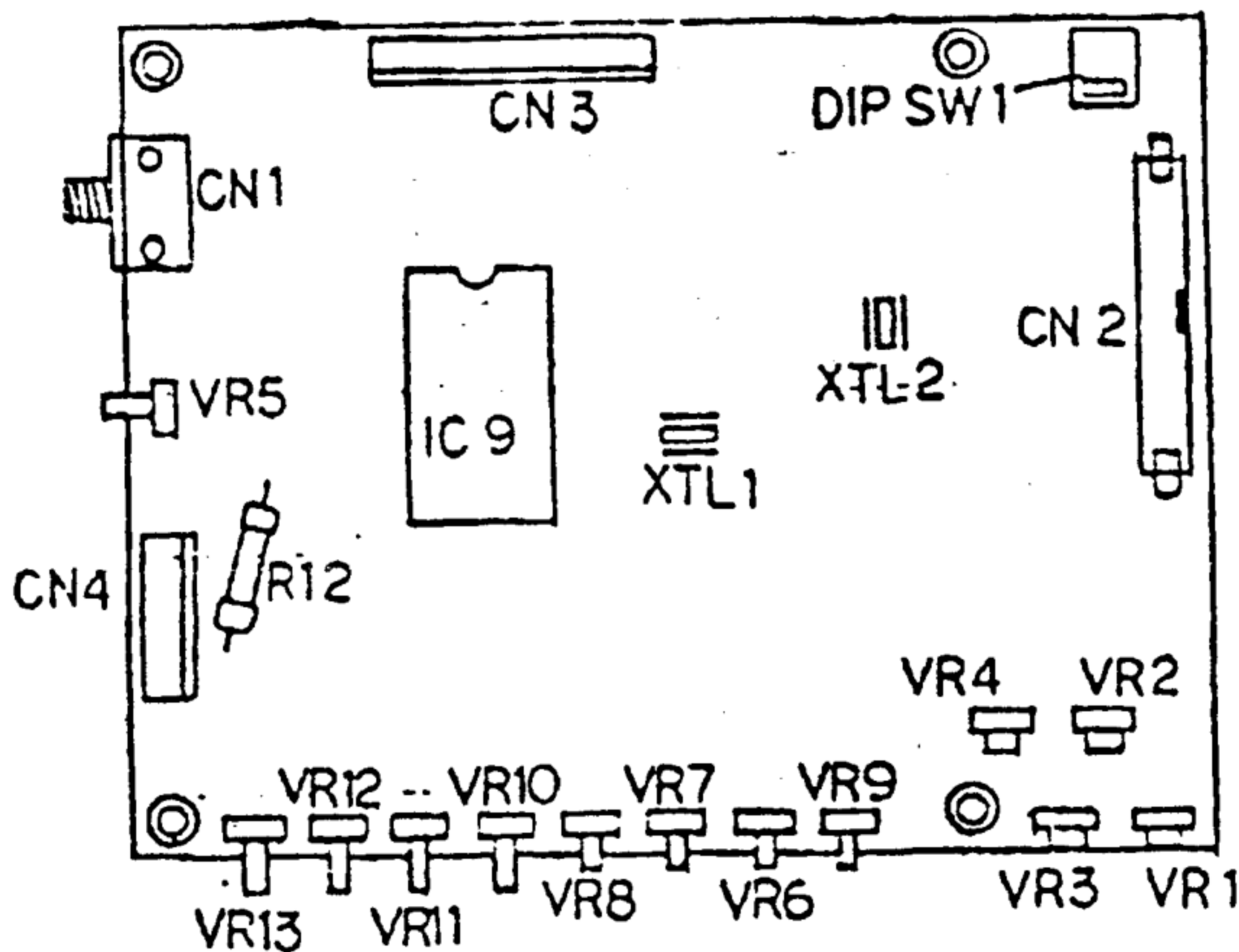
GAME: ASTRON BELT

SUBJECT: DEMODULATOR BOARD (Connectors & Adjustments)

CN (F - Type Conn.)	Chroma Signal Input from Video Disc Player
CN2 (26 P Conn.)	Logic Signal Input from Game Board
CN3 (10 P Conn.)	Power Supply 12-5-0V
CN4 (6 P Conn.)	TTL Signal Output to Color Monitor
Dip SW 1 (4 P)	Negative/Positive Switch of Sync Signal (Switch #4 must be ON)
VR1, VR2	Horizontal Sync/Blanking Timing Adjustment
VR3, VR4	Vertical Sync/Blanking Timing Adjustment
VR5	Black Level Adjustment (Laser video brightness)

INPUT LEVEL ADJUSTMENT OF LOGIC SIGNAL

VR6	Red Gain
VR7	Green Gain
VR8	Blue Gain
VR9	Output Level Adjustment of Logic Signal
VR10	Image Quality Adjustment (Resolution Control for Laser Video)
VR11	Hue Adjustment (Tint Control)
VR12	Color Level Adjustment
VR13	White Level Adjustment (Contrast Control)



Kevin Moeller
Field Service Technician

KM/dd



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November 4, 1983

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

GAME: ASTRON BELT

SUBJECT: DEMODULATOR BOARD - DIP SWITCH 1

1. The four bank of individual switches on Dip SW 1 are set up so Switch #1, 2, and 3 is in the OFF position. Switch #4 should be kept ON.
2. Dip SW 1 No. 4 determines whether to accept composite negative or positive going SYNC from the logic boards. Since the logic produces a negative going SYNC, the Dip Switch 1 No. 4 is left on.

Dip Switch 1 No. 4

ON - Negative SYNC
OFF - Positive SYNC

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Field Service Technician

KM/dd



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November 17, 1983

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

GAME: ASTRON BELT

SUBJECT: HITACHI AND PIONEER LASER DISC PLAYER

1. Due to a shortage of Hitachi VIP 9500 Laser Disc Players, the Astron Belt games will also use the Pioneer LD-V-1000 and LD-V-1001 Disc Players.
2. The Hitachi and Pioneer Laser Disc Players will not be interchangeable. (Game logic & video cable are different)
3. When ordering a game logic board, specify if it's for a Hitachi or Pioneer Disc Player with the following part number.

Hitachi Logic Board	Q834-05194-0200
Pioneer Logic Board	Q834-05194-0600

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Technical Service Manager

AD/dd



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November 18, 1983

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

GAME: ASTRON BELT

SUBJECT: PART NUMBERS (DISCREET)

Pioneer Logic	Q834-05194-0600
Hitachi Logic	Q834-05194-0200
Pioneer Disc Player	Q200-05023-0000
Hitachi Disc Player	Q200-05017-0100
Laser Disc	Q200-05019-0000
Z80 "B" CPU	66-125BX-XXKX
Demodulator Board	Q834-05175-0000
Power Amplifier Unit	AA30-00032-0000

Andy Ducay
Technical Service Manager

AD/dd