

ULTIMATE TENNIS

by *Art & Magic*



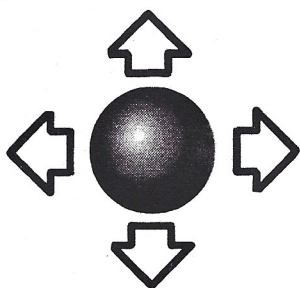
User's manual

Version 1.0

© Copyright 1993 Art and Magic SA.

Art & Magic S.A.
Voie de Liège, 2
B-4053 Embourg
Belgium

Game control



Use joystick for designating the direction of movement and shooting.

Normal shots



Advanced shots

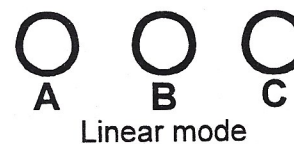
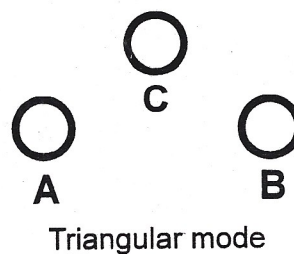


Services

Hold any button for auto-serve



Buttons configuration



Menu system operation

Use The MAIN MENU to select test and diagnostic options in ULTIMATE TENNIS.
 To activate the MAIN MENU, move the TEST dip-switch ON before turning the power on.
 Move any joystick up or down to cycle through the menu options.
 Press any button to select an option.

How to optimize earnings

Select the NUMBER OF BALLS dip-switches to have an adequate duration for one credit :

Number of lost balls	Average duration for one credit:
5	2'30"
6 (recommended)	3'
7	3'30"
8	4'

Always turn the GAME DIFFICULTY dip-switches to EASY when you install the game for the first time. Do not begin in NORMAL or HARD modes !

Look regularly at the statistics menu.

If the quantity of won balls in level 8 is great, change GAME DIFFICULTY to NORMAL.

If the quantity of won balls in level 12 is great, change GAME DIFFICULTY to HARD.

If the quantity of won balls in level 15 is great, change GAME DIFFICULTY to VERY HARD.

Dip-switches setting

A	1	Test mode ON/OFF*	B	1	} Game difficulty
	2	Free play ON/OFF*		2	
	3	} Left counter		3	Attract sound *ON/OFF
	4			} Lost balls for one credit	4
	5				5
	6				6
	7	} Right counter			7
	8			8	Buttons configuration ON = LINEAR, *OFF = TRIANGULAR

DIP SWITCH A			Switch 5	Switch 4	Switch 3
Left counter	1 coin	1 credit	OFF	OFF	OFF *
	1 coin	2 credits	OFF	OFF	ON
	1 coin	3 credits	OFF	ON	OFF
	1 coin	4 credits	OFF	ON	ON
	1 coin	5 credits	ON	OFF	OFF
	1 coin	6 credits	ON	OFF	ON
	2 coins	1 credit	ON	ON	OFF
	4 coins	1 credit	ON	ON	ON
Right counter			Switch 8	Switch 7	Switch 6
Right counter	1 coin	1 credit	OFF	OFF	OFF *
	2 coins	1 credit	OFF	OFF	ON
	3 coins	1 credit	OFF	ON	OFF
	4 coins	1 credit	OFF	ON	ON
	5 coins	1 credit	ON	OFF	OFF
	6 coins	1 credit	ON	OFF	ON
	1 coin	2 credits	ON	ON	OFF
	1 coin	4 credits	ON	ON	ON
DIP SWITCH B			Switch 2	Switch 1	
Game difficulty	Easy		OFF	OFF	
	Normal		OFF	ON *	
	Hard		ON	OFF	
	Very Hard		ON	ON	
Ball for one credit	1 credit	5 balls	Switch 5	Switch 4	
	1 credit	6 balls	OFF	OFF	
	1 credit	7 balls	OFF	ON *	
	1 credit	8 balls	ON	OFF	
			ON	ON	

* Factory setting

Jamma connector

	Component Side	Solder Side
Pin	Function	Function
1	Ground	Ground
2	Ground	Ground
3	+5 Volts DC	+5 Volts DC
4	+5Volts DC	+5 Volts DC
5		
6	+12 Volts DC	+12 Volts DC
7	Key	Key
8	Coin Counter 1	Coin Counter 2
9	(Coin Lock Out 1)	(Coin Lock Out 2)
10	Speaker (+)	Speaker (-)
11		
12	Video Red	Video Green
13	Video Blue	Video Sync
14	Video Ground	(Service Switch)
15	(Test Switch)	
16	P1 Coin	P2 Coin
17	P1 Start	P2 Start
18	P1 Up	P2 UP
19	P1 Down	P2 Down
20	P1 Left	P2 Left
21	P1 Right	P2 Right
22	P1 Push 1	P2 Push 1
23	P1 Push 2	P2 Push 2
24	P1 Push 3	P3 Push 3
25		
26		
27	Ground	Ground
28	Ground	Ground